

Robert Poole Building #056
Additions and Renovations
April 15, 2016

ADDENDUM NO. 1

This Addendum is issued pursuant to the Instructions to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Bid Documents, and previously issued Addenda.

The bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

The Bid Date remains unchanged by this Addendum.

The following items will become part of the Bid Documents for this project:

1. Pre-bid Conference Meeting Minutes dated April 13, 2016 attached, with list of attendees.
2. Change to specifications:
 - a. Add attached Specification Section 23 00 00 paragraph 1.3.P. Coordination Drawings and Procedures.
3. Change to drawings:
 - a. Revise Plumbing Drawings per attached JRS Architects Addendum #1 dated April 14, 2016.

END OF ADDENDUM NO. 1

Pre-Bid Conference Meeting Minutes for the
Additions & Renovations at Robert Poole Building #056
April 13, 2016 @ 4:00 PM

The following items were discussed:

1. John Speights made the introductions for the project team as follow:
Tom Henderson, Project Manager for the Maryland Stadium Authority
John Speights Senior Project Manager for CAM Construction
Chris Chesko, Estimator for CAM Construction and
Rick Gabell, On Site Project Manager for CAM Construction
2. John reviewed the overall project scope of work and schedule. The job start is scheduled for July 5, 2016 with completion April 30, 2018.
3. General Project Information (see attachment) sheets were distributed to all attendees. John and Chris reviewed the information in more detail.
4. The bid date and time cut-off date was stressed by John and Tom. NO BIDS WILL BE ACCEPTED AFTER THE STATED BID DATE AND TIME, which has been currently set for May 4, 2016 at 4:00PM. No bid extension is anticipated.
5. John stated that the bids would remained sealed if sent by mail and unopened if sent by email until a representative from the Maryland Stadium Authority was present to maintain the integrity of the bid.
6. The CAM Project Manual was reviewed by Chris. He reviewed the alternate pricing, unit pricing and bid forms. If any subcontractor is bidding more than one bid package, they will be required to submit a bid form for each package bid.
7. The project is NOT TAX EXEMPT.
8. Tom Henderson stated the project is a wage scale job with rates determined and distributed by DLLR. All wage scale reporting will and must be to the Maryland Stadium Authority.
9. Bidders with bid amounts over \$200,000 may be required to provide a Payment and Performance Bond. Bidders will identify their bonding capacity and cost of the bond with their bid submissions as part of the bid evaluation process.
10. Bid documents are available on the CAM Builds web page @ www.cambuilds.com, [Building Connected](#) and from CMC Reproductions. Chris also distributed CD's of the contract documents to those who were interested.

Pre-Bid Conference Meeting Minutes for the
Additions & Renovations at Robert Poole Building #056
April 13, 2016 @ 4:00 PM

11. Addenda will be distributed through the CAM's software "BuildingConnected". All bidders were encouraged to respond to the email invitation to indicate that they were bidding the project as a means to acquaint themselves with the software as this would be the conduit for the addenda and subsequent information regarding the bidding of the project.
12. Work force development guidelines were discussed as well as minority participation.
 - 12.1 All bidders are encouraged to hire through the City's MOED office. Background checks and fingerprinting will be required for all construction employees.
 - 12.2 Minority participation goals are 30% overall, 7% African-American and 4% Asian.
13. Tom Henderson stated that there were no Baltimore City Permits required as the plans were reviewed by the State Fire Marshall and Independent Code Review Agency. He also stated that all third party inspections would be performed by IBTS and all material testing and inspections would be under the auspices of the MSA. Only Baltimore City Health inspection will be required for the inspection of the kitchen and nurse's station.
14. John stated that allowances would be established to cover some uncertain conditions including providing select borrow fill, dumpsters to haul off school materials, how much material would be available on site for reuse, refurbishment of SEC.
15. John stated that the concrete walls and slabs of Building C and the slabs of Building B were to be crushed on site to RC6 gradation for reuse on site as fill. The exterior walls of Building B to be demolished are not to be recycled as they have been coated with an asbestos mastic. This debris will be handled as hazardous material.
16. John stated that he had contacted Baltimore City regarding onsite crushing operations and learned that no ordinance would prevent the operation but that the hours of operation of the crusher will be limited to 9AM to 3PM.
17. John stated that the building would be unoccupied during the work.
18. Staging and parking areas will be provided and identified although workers will not be guaranteed parking on site.
19. The group toured portions of the existing buildings to inspect existing conditions.

The next site visit is scheduled for April 19th at 4PM at which time bidders will be able to inspect the cupola.

The Following in attendance included:

CSP/MSA	Tom Henderson	MSA Project Management
JRS Architects	Tom Casey	Project Architect
Tito Construction	Walter Griffin	Drywall & Carpentry
Tito Construction	Jack Keating	Drywall & Carpentry

Pre-Bid Conference Meeting Minutes for the
Additions & Renovations at Robert Poole Building #056
April 13, 2016 @ 4:00 PM

Grounded Electric	Zach Rothfus	Electrical
Kogok Corporation	Justin Lipira	Sheet Metal
Sunryse Construction	David Walter	Glass & Glazing
Horton Mechanical	Mike Silver	Plumbing & HVAC
Plexus Group	Ben Mason	Electrical
Worcester Eisenbrandt, Inc.	Lucas Harmon	Masonry Restoration
JCM Controls Systems	Al Washington	HVAC/Mechanical
JCM Controls Systems	Dorian Marshall	HVAC/Mechanical
Dress Your Windows	Joane Marcinowski	Blinds and Shades
Allied Well Drilling	Adam Santry	Geothermal
Selective Wrecking	Jose Montoya	Demolition & Abatement
Chesapeake Geosystems	Chris Blandret	Geothermal
Enterprise Electric	Glenn Mitchell	Electric
Capitol Demolition	Adam Zelez	Demolition & Abatement
GLB Concrete	Gory Beck	Concrete
Miller Flooring	Steve Brown	Wood Floors
MBR Construction	Mark Myers	Electric
Dixie Construction	Chuck	Site Work
Malstrom Electric	Keith DiVenanzio	Electric
ATC Group Services	Karen Pecoraro	Hazmat Materials Testing
Steel Fab Enterprises	Carolyn Roberts	Steel
Fullick Conservation	Diane Fullick	Art Conservation
MD Solar Solutions	George Tabora	Solar & Geothermal
Chereco Co.	Bud Shimkus	Glass & Glazing
Baltimore Washington Restoration	Stanley Lang	Masonry Restoration
Interior Specialist	Jr Roloson	Demolition
Arya Civil LLC	Nandlal	General Contracting
Arya Civil LLC	Cristina Quirz	General Contracting
Emjay Engineering & Const	Dave DeFelice	Plumbing & Mechanical
Electric Works	Chip Grim	Electric
JCM Controls	Joshua Matt	Mechanical
Coastal Exteriors	Ted Wolf	Masonry Restoration
Potts & Callahan	Chris Collison	Demolition & Excavation
Potts & Callahan	Paul Collison	Demolition & Excavation
Berg Corporation	Matt Trendell	Demolition
Asbestos Specialists	Mike Cataneo	Demolition & Abatement
P&J Contracting	Sham Vij	Demolition & Earthwork
The Urban Group	Luis Tan	General Contracting
Retro Environmental	Paul Redding	Abaement
Ingram Construction	Anthony Ingram	General Contracting

The next site visit is scheduled for April 19th at 4PM at which time bidders will be able to inspect the cupola.

ADD:

Section 23 00 00 paragraph 1.3.P. Coordination Drawings and Procedures

BIM Coordination drawings and procedures for Mechanical, Plumbing, Fire Protection/Sprinkler and Electrical

1. A Building Information Modeling (BIM) model will be developed by the Design Team, Consultants and Subcontractors. The BIM model will include architectural, structural, mechanical, electrical and plumbing (MEP) systems and components integrated into virtual design and construction model shared by all project stakeholders.

2 Architectural and Structural

2.1 The Design Team, Consultants and Subcontractors will provide a BIM model designed in Revit 2016.

3 BIM Coordination

3.1 It is the responsibility of the mechanical contractor selected for the project to employ a BIM MEP Lead Coordinator subject to the approval of the Construction Manager.

3.2 The BIM MEP Lead Coordinator shall provide a specification for BIM quality control to establish the requirements for the accuracy of the BIM model for structural, architectural and MEP systems and elements. The sizes and dimensions for elements included in the BIM model shall be properly depicted including, but not limited to, structural elements, beam and column sizes and positions, wall thickness and room dimensions, piping, ductwork, conduit, equipment, bracing and supports. All BIM disciplines and systems shall acquire shared coordinates, grid lines, levels, and project north from the Architectural model.

4 BIM MEP Detailed Construction Model

4.1 The BIM MEP Lead Coordinator in conjunction with the mechanical, electrical, plumbing and fire protection design build consultants and subcontractors will produce a fully coordinated and detailed three-dimensional model that has resolved all spatial interferences and conflicts between building elements and systems. The BIM model will be developed with the participation of all MEP disciplines in a collaborative process.

4.2 In addition to the BIM model, the MEP consultants and subcontractors shall provide 2-D drawings sets for review and approval.

5 BIM MEP Scope

5.1 The schedule start of the BIM work will be determined during the initial planning phase meetings immediately after contract award and will be in conformance to the bid document schedules. This BIM development will include, but not be limited to, the placement, elevation and conflict resolution of:

5.2 HVAC piping, valves, hangers and seismic bracing.

5.3 HVAC dry side and wet side equipment.

5.4 Plumbing waste and vent, domestic water.

5.5 Electrical conduits greater than 1 inch, cable tray and all racked conduit systems, hangers and seismic bracing.

5.6 Lighting fixtures.

5.7 Electrical panels and distribution equipment.

5.8 Fire protection piping and seismic bracing.

5.9 Equipment Room Layout

6 Software Applications, Process and Infrastructure

6.1 The BIM model will be developed with true solid modeling, object oriented software such as Cad-Duct, Revit, Quickpen DuctDesigner and PipeDesigner, AutoSPRINK or other such software applications. The specific software used must be a true 3D object application compatible with NavisWorks clash detection software.

6.2 The NavisWorks software will be used extensively by all MEP consultants and subcontractors to both view the combined trades and to identify and track spatial conflicts between systems. File naming conventions will be established during the initial BIM planning meetings.

6.3 BIM MEP Lead Coordinator will have the lead responsibility to produce a timely updated and combined NavisWorks model. Clash detection meetings will be held to identify and resolve spatial interferences. These meetings will be facilitated by the BIM MEP Lead Coordinator who will also document to ensure all trade interferences are tracked and resolved.

6.4 There will be working meetings during which conflict resolution will be completed, to the extent possible, during the meeting. Each of the subcontractor's detailers will meet together to view the BIM model projected onto a common screen either in person or through a web meeting. All identified conflicts will be published using NavisWorks, and as changes are made during the meeting to resolve conflicts, on the individual detailer's computer, the revisions will be uploaded into NavisWorks to confirm conflict resolution. The working meeting approach described above is intended to maintain the BIM coordination schedule to achieve a coordinated BIM model at the conclusion of the scheduled coordination drawing phase.

7 BIM MEP Lead Coordinator will lead the BIM MEP coordination process in partnership with the Construction Manager, mechanical contractor, electrical contractor, plumbing contractor, and fire protection contractor. The BIM MEP Lead Coordinator will host and lead regular coordination meetings. All MEP trades must attend these meetings.

8 **BIM MEP Coordination Schedule:** The BIM MEP Lead Coordinator will prepare and maintain a pre-construction BIM coordination schedule with coordination submittal milestones that meet the overall construction schedule. The BIM MEP Lead Coordinator in conjunction with the Construction Manager will obtain input from all consultants and subcontractors participating in the BIM process to ensure that a realistic and mutually agreed upon pre-construction schedule is achieved. Coordination drawing development, coordination submittal drawing submission and review, fabrication duration, and delivery lead times will need to be included in a manner that supports the project construction schedule.

9 File Transfer and Collaboration: The BIM MEP Lead Coordinator will be required to establish an electronic workspace using an FTP site or other means, such as an onsite server, that will be established for the purpose of efficient and timely transfer of coordination files. The workspace will provide a location where the current CAD and BIM drawings, coordination BIM drawings, and fully coordinated submittal drawing files will reside. The MEP team members are to upload copies of their coordination files as often as necessary to maintain the coordination schedule. The BIM MEP Lead Coordinator will collaborate with all consultants and Subcontractors to develop a standardized file name structure for the project.

10 Resolution of Interferences: At the mandatory regular coordination meetings, the BIM MEP Lead Coordinator, using Navisworks software, will provide a means to electronically identify, track and publish for distribution interferences between all affected trades. The BIM MEP Lead Coordinator will utilize Navisworks coordination and spatial review conflict and clash detection software to provide “real time” solid object views of the structure, architectural and MEP components. Coordination interferences will be resolved in the coordination meetings using the clash detection feature of the Navisworks software.

11 Submittal and Coordination Sign-off Drawings: Once all conflicts have been resolved and the structural, architectural and MEP systems have been fully coordinated, each consultant and subcontractor is to provide fully annotated drawings of their respective systems in PDF format for submission to the Architect / Engineer of Record for review and approval. Upon final revision a copy of the fully coordinated coordination submittal drawings are to be signed by each participant and will become the official “Coordination Sign-off Drawings.” These drawings are to be stored by the General Contractor on the project site and will form the basis for resolution of any future field installation conflicts.

12 Qualifications of BIM Personnel: It is the responsibility of all Consultants and Contractors to have or obtain at their cost the trained personnel, hardware, and software needed to successfully complete the BIM 3D coordination phase of the project. Personnel participating in the design/coordination efforts of the project must be proficient in the use of all hardware and software required.

Additions & Renovations at Robert Poole Building #56
Maryland Stadium Authority
Baltimore City Public Schools
JRS Architects
April 14, 2016

ADDENDUM #1

This Addendum is issued pursuant to the Instructions to Bidders and Conditions of the Contract. This Addendum serves to clarify, revise, and supersede information in the Project Manual, Drawings, and previously issued Addenda. Portions of the Addendum affecting the Contract Documents will be incorporated into the Contract by enumeration of the Addendum in the Owner/Contractor Agreement.

The Bidder shall acknowledge receipt of this Addendum in the appropriate space on the Bid Form.

The date for receipt of bids is unchanged by this Addendum, at same time and location.

ATTACHMENTS

This Addendum includes the following attached Sheets:

P010 Site Plan – Plumbing, dated 4/14/16, reissued
P100 Underfloor Plan – Plumbing, dated 4/14/16, reissued
P111 New Work Basement & First Floor Plan A – Plumbing, dated 4/14/16, reissued
P113 New Work Basement Plan B – Plumbing, dated 4/14/16, reissued
P114 New Work First Floor Plan B – Plumbing, dated 4/14/16, reissued
P115 New Work First Floor Plan C – Plumbing, dated 4/14/16, reissued
P116 New Work Second Floor Plan B – Plumbing, dated 4/14/16, reissued
P117 New Work Second Floor Plan C – Plumbing, dated 4/14/16, reissued
P118 New Work Third Floor Plan B – Plumbing, dated 4/14/16, reissued
P119 New Work Third Floor Plan C – Plumbing, dated 4/14/16, reissued
P400 Enlarged Plans – Plumbing, dated 4/14/16, reissued
P401 Enlarged Plans – Plumbing, dated 4/14/16, reissued
P510 Sanitary and Vent – Area A & B – Plumbing, dated 4/14/16, reissued
P511 Sanitary and Vent – Area C – Plumbing, dated 4/14/16, reissued
P512 Sanitary and Vent – Enlarged Plans – Plumbing, dated 4/14/16, reissued
P520 Domestic Water – Area A & B – Plumbing, dated 4/14/16, reissued
P521 Domestic Water – Area C – Plumbing, dated 4/14/16, reissued
P522 Domestic Water – Enlarged Plans – Plumbing, dated 4/14/16, reissued
P530 Natural Gas – Area A & B – Plumbing, dated 4/14/16, reissued
P531 Natural Gas – Area C – Plumbing, dated 4/14/16, reissued
P600 Schedules - Plumbing, dated 4/14/16, reissued
P700 Details - Plumbing, dated 4/14/16, reissued

END OF ADDENDUM 1



NOTE:
CONTRACTOR SHALL CHECK &
VERIFY ALL DIMENSIONS &
EXISTING CONDITIONS AT SITE.

1. WHERE EXISTING PIPING IS INDICATED TO REMAIN AND BE REUSED, JET OR ROD OUT PIPING TO CLEAN AND ENSURE GOOD FLOW.

- 1) EXISTING 4" RAINWATER CONDUCTOR TO BE DISCONNECTED AND ABANDONED.
- 2) NEW 3" AREA DRAIN IN AREA WAY.
- 3) EXISTING 5" RAINWATER CONDUCTOR TO REMAIN.
- 4) EXISTING 5" BUILDING DRAIN TO REMAIN.
- 5) EXISTING 5" BUILDING DRAIN TO BE DISCONNECTED AND ABANDONED.
- 6) EXISTING 1 1/2" BUILDING DRAIN TO BE ABANDONED.
- 7) EXISTING 4" BUILDING DRAIN TO BE ABANDONED.
- 8) EXISTING 3" RAINWATER CONDUCTOR TO BE DISCONNECTED AND ABANDONED.
- 9) EXISTING GAS SERVICE LATERAL TO REMAIN.
- 10) EXISTING 6" RAINWATER CONDUCTOR TO REMAIN.
- 11) EXISTING 6" BUILDING DRAIN TO BE DISCONNECTED AND ABANDONED.
- 12) EXISTING 6" BUILDING DRAIN TO REMAIN.
- 13) EXISTING 4" BUILDING DRAIN TO REMAIN.
- 14) EXISTING 4" DOMESTIC WATER SERVICE TO REMAIN. CITY WATER PRESSURE AT MAXIMUM PROBABLE FLOW IS ESTIMATED TO 55 PSI.
- 15) REMOVE EXISTING 3" AREA WAY DRAIN AND CAP LATERAL IN CONJUNCTION WITH REMOVAL OF AREA WAY.
- 16) COORDINATE WITH AGE TO DISCONNECT/ABANDONED GAS SERVICE LATERAL TO MODULAR BUILDING IN CONJUNCTION WITH RENAMED BUILDING.
- 17) 3/4" COLD WATER BELOW GRADE FROM SCHOOL BUILDING BELOW FROST LINE. SEE CIVIL DRAWINGS FOR CONTINUATION. PROVIDE A POST HYDRANT FOR GREENHOUSE AND CONNECT TO COLD WATER.
- 18) EXISTING GAS SERVICE LATERAL. FIELD VERIFY EXACT LOCATION. COORDINATE WITH UTILITY COMPANY TO VERIFY THAT THIS LINE HAD BEEN ABANDONED AND IF NOT, TO DISCONNECT/ABANDON AS WORK OF THE PROJECT.
- 19) POST HYDRANT INSTALLED IN GREENHOUSE AND CONNECTED TO 3/4" COLD WATER. FIELD VERIFY LOCATION.
- 20) POST HYDRANT INSTALLED OUTSIDE NEXT TO GREENHOUSE AND CONNECTED TO COLD WATER. FIELD VERIFY LOCATION.
- 21) AREA DRAIN INSTALLED IN GREENHOUSE. CONNECT TO DRAIN LINE SHOWN ON CIVIL DRAWINGS. FIELD VERIFY LOCATION.
- 22) 4" FOUNDATION DRAIN TO SITE STORM WATER COLLECTION SYSTEM. SEE CIVIL DRAWINGS FOR COORDINATION.

2010 Clipper Park Rd.
Suite 101
Baltimore, MD 21211
410.235.7256

ASSOCIATE ARCHITECT
SCHRADER GROUP ARCHITECTURE LLC
 161 LEVERINGTON AVE, SUITE 105
 PHILADELPHIA, PA 19127

LANDSCAPE ARCHITECT
MAHAN RYKIEL ASSOCIATES
800 WYMAN PARK DR, SUITE 100
BALTIMORE, MD 21211

CIVIL ENGINEER
STV, INC.
7125 AMBASSADOR RD, SUITE 200
BALTIMORE, MD 21244

STRUCTURAL ENGINEER
ALBRECHT ENGINEERING
3500 BOSTON ST, SUITE 329
BALTIMORE, MD 21224

MEP ENGINEER
BRINJAC ENGINEERING
1800 N. CHARLES ST, SUITE 310
BALTIMORE, MD 21201

FOOD SERVICE
 NYIKOS ASSOCIATES
 18219A FLOWER HILL WAY
 GAITHERSBURG, MD 20879

AVIT CONSULTANT
EDUCATIONAL SYSTEMS PLANNING
49 OLD SOLOMONS ISLAND RD, SUITE 301
ANNAPOLIS, MD 21401

**Baltimore City Public Schools
Additions & Renovations at Robert Poole
Building #056**

1300 W 36TH ST., BALTIMORE, MD 21211

[illegible]

BID ISSUE

PROJECT No.: 152-01

DATE: 03/31/

SCALE: AS NOTED

DRAWING NAME

**SITE PLAN -
PLUMBING**

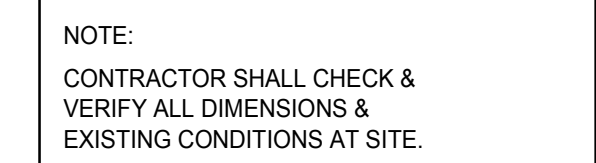
P 010

[illegible]


PROJECT No.: 152-01

SCALE: AS NOTED

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EXISTING CONDITIONS AT SITE.



1300 W 36TH ST., BALTIMORE, MD 21211

[illegible]

NEW WORK
BASEMENT &
FIRST FLOOR
PLAN A -
PLUMBING

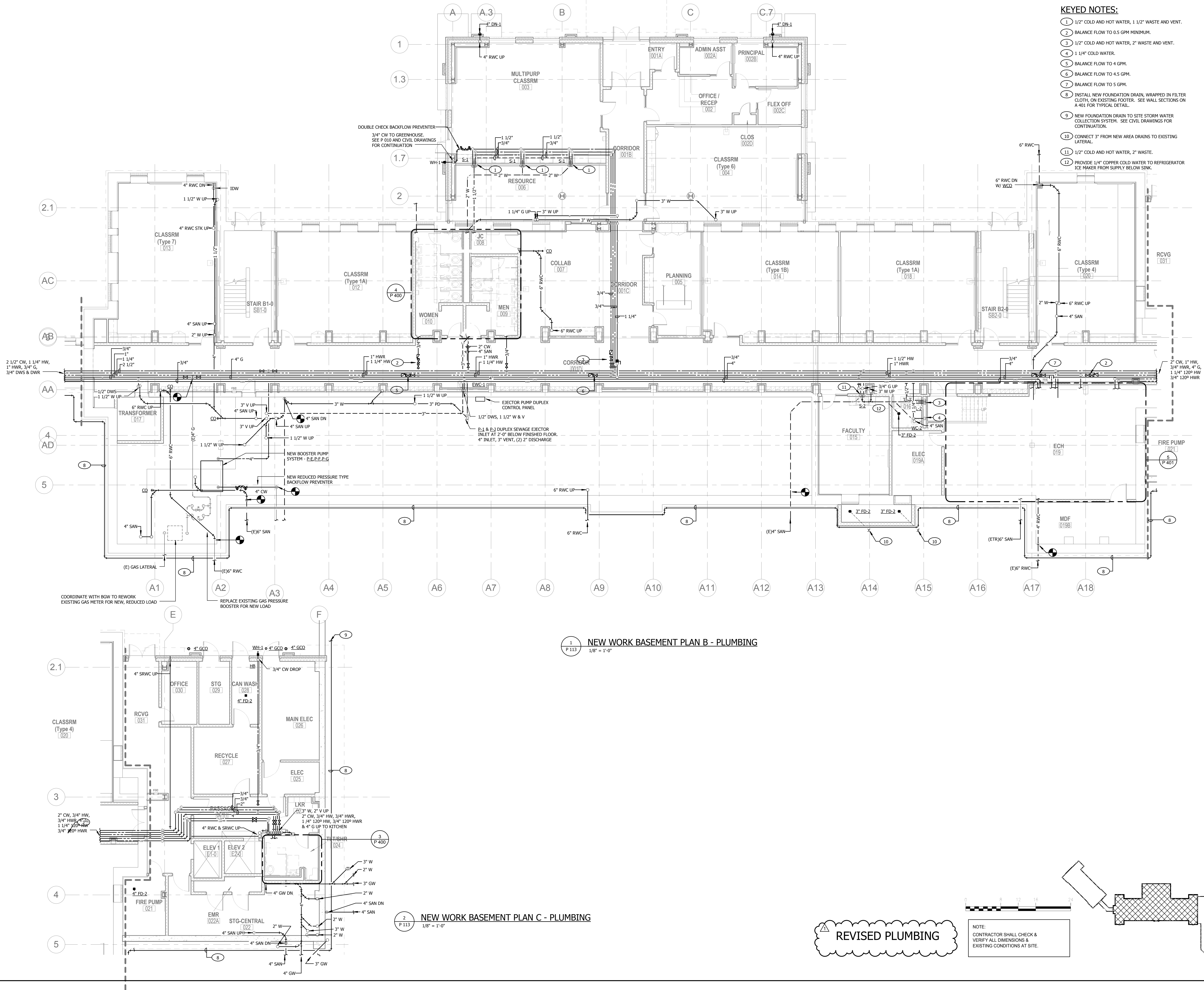
P 111



- 1 REPLACE EXISTING DOWN FLOOR SANITARY WITH NEW SANITARY PIPING. FIELD VERIFY EXACT ROUTE.
- 2 CONNECT NEW 4" SANITARY TO EXISTING 5" SANITARY. FIELD VERIFY EXACT LOCATION.
- 3 1/2" HOT WATER, 1 1/2" WASTE UP.
- 4 1/2" COLD WATER, 1 1/2" WASTE THROUGH CASEWORK FOR SINKS.
- 5 1/2" COLD WATER, 2" WASTE THROUGH CASEWORK FOR SINKS.
- 6 1/2" CORRUGATED STAINLESS STEEL GAS IN 3" PVC SLEEVE BELOW FLOOR TO INSTRUCTOR TABLE. SEE DETAIL 6/P 700.
- 7 1 1/2" GAS VENT UP FROM 3" PVC SLEEVE.
- 8 1 1/2" GAS VENT UP AND DOWN.
- 9 1/2" COLD AND HOT WATER BELOW FLOOR TO INSTRUCTOR TABLE.
- 10 1/2" COLD AND HOT WATER DOWN. 1/2" CORRUGATED STAINLESS STEEL GAS IN 3" PVC SLEEVE DOWN. SEE DETAIL 6/P 700.
- 11 1/2" COLD WATER, 1 1/2" WASTE AND VENT.
- 12 1/2" COLD WATER FROM BELOW FLOOR. 1/2" WASTE DOWN.
- 13 1/2" COLD WATER DOWN TO BELOW FLOOR TO ISLAND SINK.
- 14 1/2" COLD WATER, 1/1 2" WASTE DOWN.
- 15 1/2" COLD AND HOT WATER AND 1/2" GAS AND 1 1/2" WASTE CAPPED ABOVE CEILING USING 3" PVC SLEEVE.
- 16 SOLENOID VALVE IN GAS LINE FOR PLTW CR 124. CONNECT TO SHUTOFF SWITCH PROVIDED UNDER DIVISION 26.
- 17 1/2" COLD AND HOT WATER DROP, 1 1/2" WASTE AND VENT.
- 18 3" RAINWATER FROM AREA WAY TO SITE STORM WATER COLLECTION SYSTEM. SEE CIVIL DRAWINGS FOR CONTINUATION.
- 19 INSTALL NEW FOUNDATION DRAIN ON EXISTING FOOTER. SEE WALL SECTIONS ON A 401 FOR TYPICAL DETAIL.
- 20 NEW 4" FOUNDATION DRAIN TO SITE STORM WATER COLLECTION SYSTEM. SEE CIVIL DRAWINGS FOR CONTINUATION.
- 21 PROVIDE BOX RECESSED IN FLOOR FOR TERMINATION OF WATER, GAS, AND WASTE PIPING FOR FUTURE DEMONSTRATION TABLE. BOX SHALL BE CONCRETE. PROVIDE FLOOR BOX (CCFB) BY LEGRAND. TERMINATE AND CAP PIPING IN BOX. PROVIDE WITH TOP SUITABLE TO RECEIVE FLOOR COVERING.
- 22 1/2" DRINKING WATER, 1 1/2" WASTE AND VENT TO WATER COOLER.
- 23 3/4" COLD WATER AND 1/2" HOT WATER UP TO SHUT OFF BOX IN PLTW CR 124.
- 24 3/4" COLD AND 1/2" HOT WATER SHUT OFF VALVES IN BOX RECESSED IN WALL. SEE DETAIL 6/P 700.
- 25 FIXED AIR GAP ON RAINWATER STRAP FOR AIR CONDITIONING CONDENSATE. SEE DETAIL 10/P 100.
- 26 PROVIDE SOLENOID VALVE IN GAS LINE TO CLASSROOM FOR EMERGENCY SHUT OFF.

NOTE:
CONTRACTOR SHALL CHECK &
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KEYED NOTES:

- 1 1/2" COLD AND HOT WATER, 1 1/2" WASTE AND VENT.
- 2 BALANCE FLOW TO 0.5 GPM MINIMUM.
- 3 1/2" COLD AND HOT WATER, 2" WASTE AND VENT.
- 4 1 1/4" COLD WATER.
- 5 BALANCE FLOW TO 4 GPM.
- 6 BALANCE FLOW TO 4.5 GPM.
- 7 BALANCE FLOW TO 5 GPM.
- 8 INSTALL NEW FOUNDATION DRAIN, WRAPPED IN FILTER CLOTH, ON EXISTING FOOTER. SEE WALL SECTIONS ON A 401 FOR TYPICAL DETAIL.
- 9 NEW FOUNDATION DRAIN TO SITE STORM WATER COLLECTION SYSTEM. SEE CIVIL DRAWINGS FOR CONTINUATION.
- 10 CONNECT 3" FROM NEW AREA DRAINS TO EXISTING LATERAL.
- 11 1/2" COLD AND HOT WATER, 2" WASTE.
- 12 PROVIDE 1/4" COPPER COLD WATER TO REFRIGERATOR ICE MAKER FROM SUPPLY BELOW SINK.

1 NEW WORK BASEMENT PLAN B - PLUMBING
1/8" = 1'-0"

2 NEW WORK BASEMENT PLAN C - PLUMBING
1/8" = 1'-0"

REVISED PLUMBING

NOTE:
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LICENSE NO. 162M
EXPIRATION DATE: 12/31/2016

No.	DATE	DESCRIPTION
1	04/14/16	ADDENDUM #1

BID ISSUE

PROJECT No.: 152-01

DATE: 03/31/16

SCALE: AS NOTED

DRAWING NAME
NEW WORK
BASEMENT PLAN
B - PLUMBING

P 113

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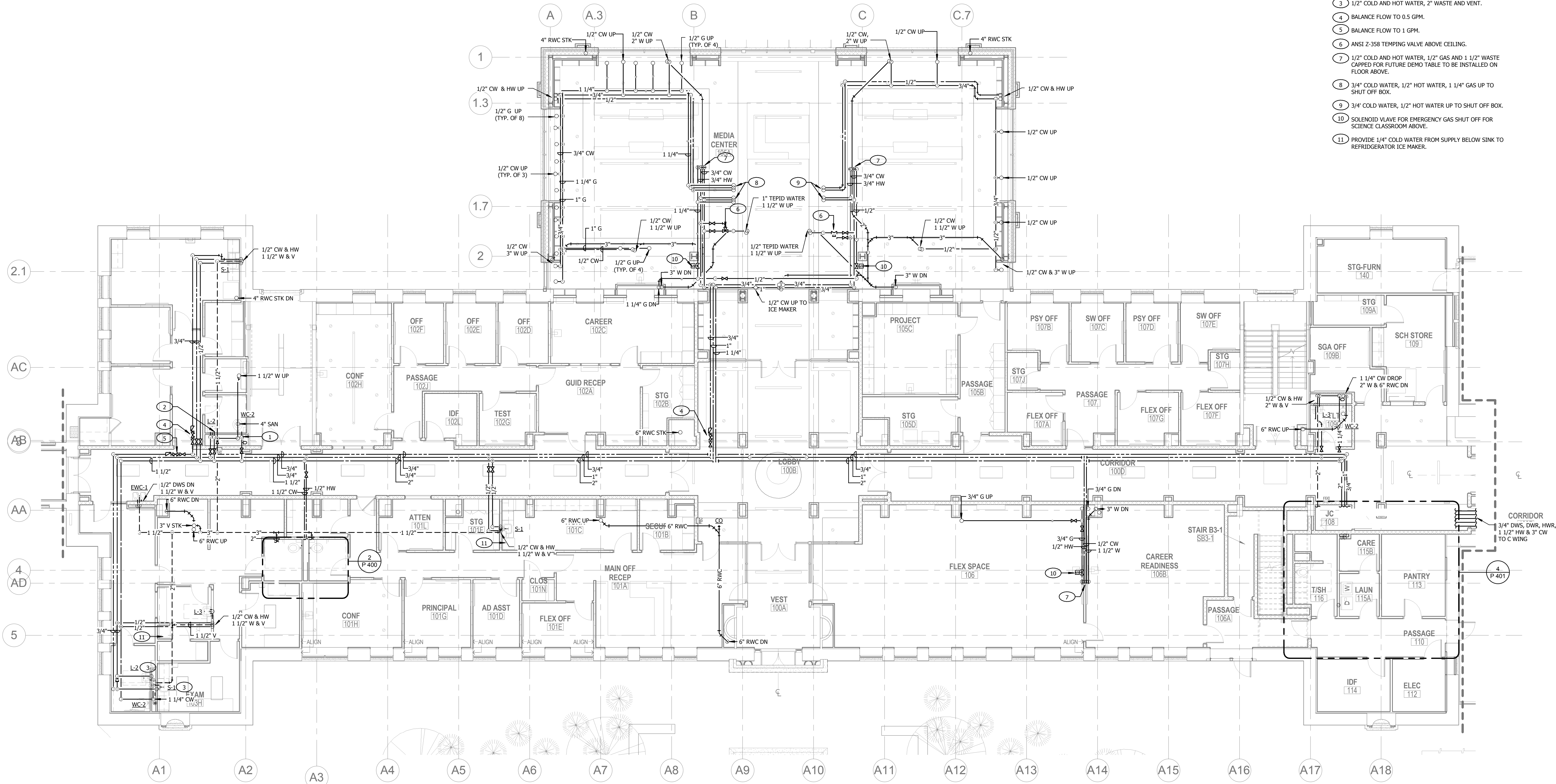
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1	04/14/16	ADDENDUM #1

BID ISSUE
PROJECT No.: 152-01
DATE: 03/31/16
SCALE: AS NOTED
DRAWING NAME
NEW WORK FIRST
FLOOR PLAN B -
PLUMBING
P 114

KEYED NOTES:

- 1 2" WASTE DOWN FROM SINK, 1 1/4" COLD WATER DROP TO WATER CLOSET.
- 2 1/2" COLD AND HOT WATER DROP, 2" WASTE THROUGH CHASE, 2" VENT RISE.
- 3 1/2" COLD AND HOT WATER, 2" WASTE AND VENT.
- 4 BALANCE FLOW TO 0.5 GPM.
- 5 BALANCE FLOW TO 1 GPM.
- 6 ANSI 2-358 TEMPIING VALVE ABOVE CEILING.
- 7 1/2" COLD AND HOT WATER, 1/2" GAS AND 1 1/2" WASTE CARRIED FOR FUTURE DEMO TABLE TO BE INSTALLED ON FLOOR ABOVE.
- 8 3/4" COLD WATER, 1/2" HOT WATER, 1 1/4" GAS UP TO SHUT OFF BOX.
- 9 3/4" COLD WATER, 1/2" HOT WATER UP TO SHUT OFF BOX.
- 10 SOLENOID VALVE FOR EMERGENCY GAS SHUT OFF FOR SCIENCE CLASSROOM ABOVE.
- 11 PROVIDE 1/4" COLD WATER FROM SUPPLY BELOW SINK TO REFRIGERATOR ICE MAKER.



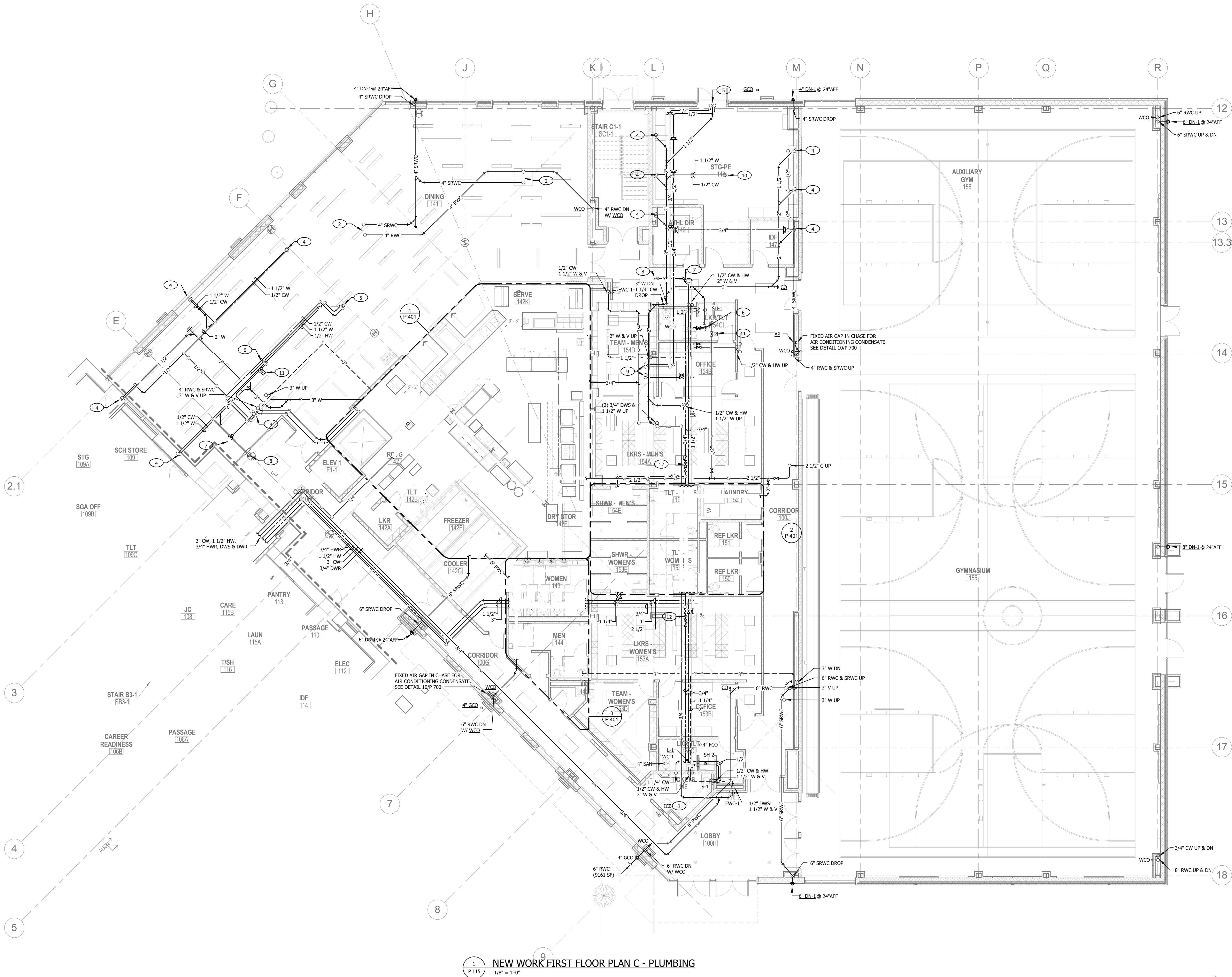
NEW WORK FIRST FLOOR PLAN B - PLUMBING
1/8" = 1'-0"

REVISED PLUMBING

NOTE:
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EXISTING CONDITIONS AT SITE.

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KEYED NOTES:

- 1 6" PRIMARY AND SECONDARY RAINWATER CONDUCTOR UP TO BD-1.
- 2 4" PRIMARY AND SECONDARY RAINWATER CONDUCTOR UP TO BD-1.
- 3 1/2" COLD WATER DROP TO ICE MAKER CONNECTION BOX. CONNECT REFRIGERATOR ICE MAKER VIA 5 FEET OF 1/4" COPPER TUBING.
- 4 1/2" COLD WATER AND 1 1/2" WASTE UP TO SCIENCE CLASSROOM SINK.
- 5 1/2" COLD AND HOT WATER AND 1 1/2" WASTE UP TO SCIENCE CLASSROOM SINK.
- 6 1/2" COLD AND HOT WATER AND GAS AND 1 1/2" WASTE CAPPED FOR FUTURE DEMO TABLE IN SCIENCE CLASSROOM ABOVE.
- 7 ANSI 2-358 TEMPERING VALVE ABOVE CEILING.
- 8 1/2" TEPID WATER AND 1 1/2" WASTE UP TO EYEWASH.
- 9 3/4" COLD WATER AND 1/2" HOT WATER UP TO SHUT OFF VALVE BOX.
- 10 1/2" COLD WATER AND 2" WASTE UP TO SCIENCE CLASSROOM SINK.
- 11 SOLENOID VALVE IN GAS LINE FOR EMERGENCY SHUT OFF TO SCIENCE CLASSROOM ABOVE.
- 12 BALANCE FLOW TO 0.5 GPM MINIMUM.

1 NEW WORK FIRST FLOOR PLAN C - PLUMBING
P 115
1/8" = 1'-0"

REVISED PLUMBING

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No.	DATE	DESCRIPTION
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BID ISSUE

PROJECT No.: 152-01
DATE: 03/31/16
SCALE: AS NOTED

DRAWING NAME
NEW WORK FIRST
FLOOR PLAN C -
PLUMBING

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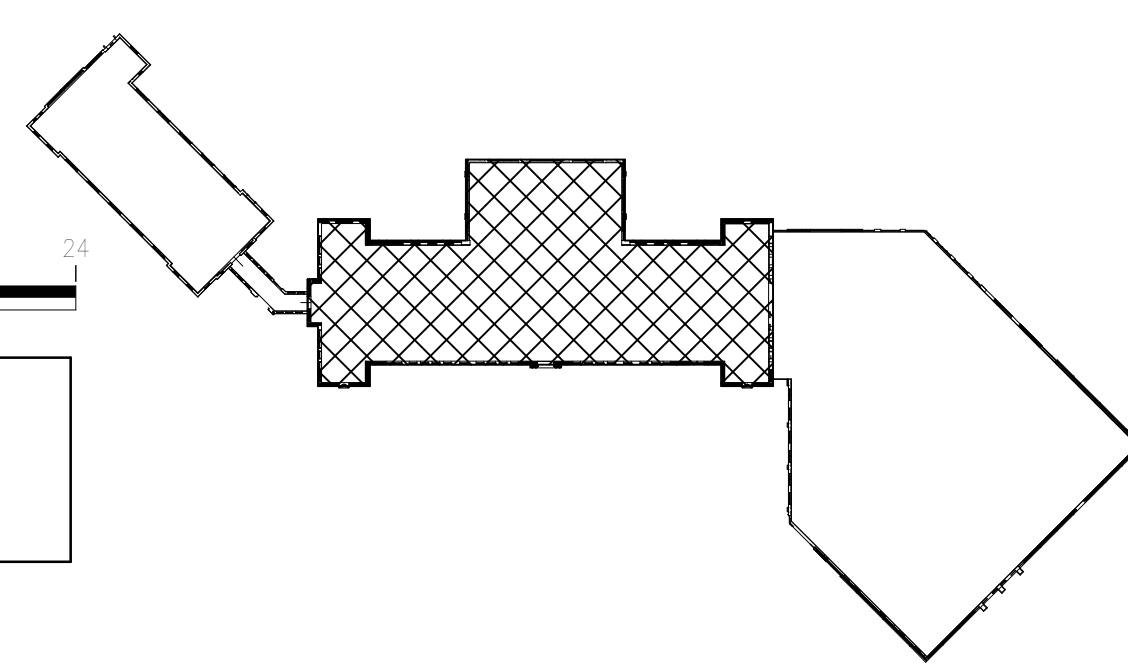
NEW WORK
SECOND FLOOR
PLAN B -
PLUMBING

P 116

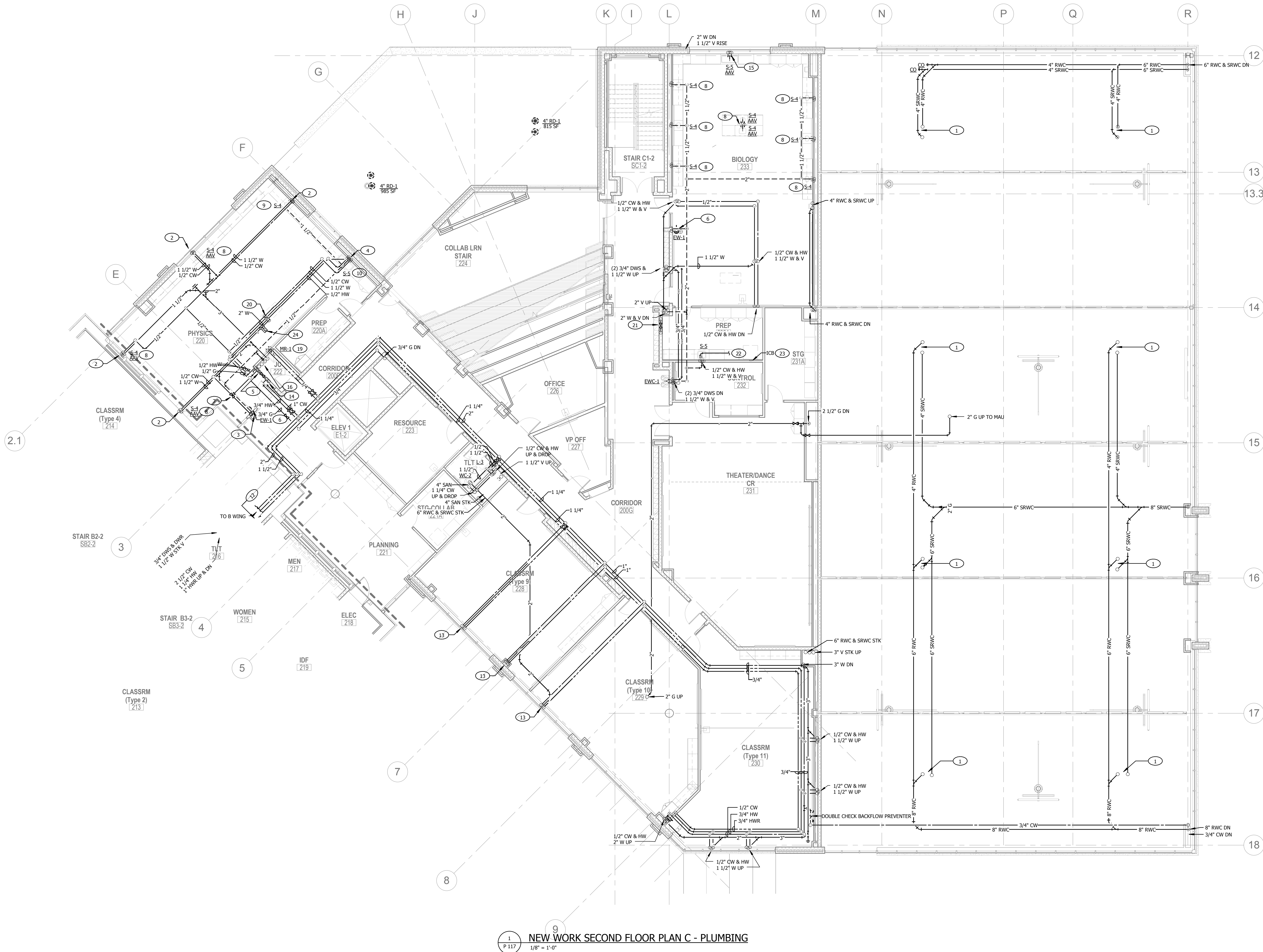


REVISÉ PLUMBING

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1 P 117
NEW WORK SECOND FLOOR PLAN C - PLUMBING
1/8" = 1'-0"

REVISED PLUMBING

NOTE:
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EXISTING CONDITIONS AT SITE.

KEYED NOTES:

- 1 4" PRIMARY AND SECONDARY RAINWATER CONDUCTOR UP TO BD-1.
- 2 1/2" COLD AND 1 1/2" WASTE UP TO SINKS IN PHYSICS 321.
- 3 1/2" TEPID WATER, 1 1/2" WASTE UP TO EYEWASH IN PHYSICS 321.
- 4 1/2" COLD AND HOT WATER, 1 1/2" WASTE UP TO SINK IN PHYSICS 321.
- 5 EMERGENCY SHUTOFF VALVES FOR 3/4" COLD WATER, AND 1/2" HOT WATER FOR PHYSICS 320.
- 6 1/2" TEPID WATER FROM BELOW, 1 1/2" WASTE AND VENT FOR EYEWASH.
- 7 ANSI Z-358 TEMPERING VALVES ABOVE CEILING FOR EYEWASH ABOVE.
- 8 1/2" COLD WATER AND 1 1/2" WASTE FROM BELOW TO SINK. AUTOMATIC AIR VENT BELOW SINK.
- 9 1/2" COLD AND HOT WATER FROM BELOW, 1 1/2" WASTE AND VENT.
- 10 1/2" COLD AND HOT WATER FROM BELOW, 1 1/2" WASTE AND VENT.
- 11 2" WASTE DOWN AND 1 1/2" VENT RISE.
- 12 1/2" COLD AND HOT WATER UP AND DROP TO MOP RECEPTOR.
- 13 1/2" COLD AND HOT WATER AND 1 1/2" WASTE UP.
- 14 3/4" COLD WATER AND 1/2" HOT WATER DROP TO SHUT OFF VALVE BOX AND RISE TO SHUT OFF VALVE BOX IN PHYSICS 321.
- 15 1/2" COLD AND HOT WATER FROM BELOW, 1 1/2" WASTE DOWN. AUTOMATIC AIR VENT BELOW SINK.
- 16 4" SECONDARY AND PRIMARY RAINWATER STACKS, 3" WASTE STACK AND 2" VENT STACK.
- 17 EMERGENCY SHUTOFF VALVES FOR 3/4" COLD WATER, 1/2" HOT WATER, AND 1/2" GAS FOR BIOLOGY 223.
- 18 3/4" COLD WATER, 1/2" HOT WATER AND 1/2" GAS DOWN FOR PHYSICS 220 SINKS. 3/4" COLD WATER, 1/2" HOT WATER, AND 1/2" GAS FROM SHUT OFF BOX IN PHYSICS 321.
- 19 1/2" COLD AND HOT WATER DROP TO MOP RECEPTOR AND UP TO MOP RECEPTOR ABOVE.
- 20 1/2" COLD AND HOT WATER, 1/2" GAS AND 1 1/2" WASTE CAPPED FOR FUTURE DEMO TABLE IN PHYSICS 321.
- 21 EMERGENCY SHUT OFF VALVES FOR 3/4" COLD WATER AND 1/2" HOT WATER FOR BIOLOGY 235.
- 22 UNDERCOUNTER DISHWASHER. CONNECT SUPPLY TO HOT WATER BELOW SINK WITH SHUT OFF VALVE. CONNECT DISHWASHER DRAIN TO DISHWASHER TAILPIECE AT SINK. ROUTE DRAIN LINE AS HIGH AS POSSIBLE THROUGH CASEWORK TO SINK.
- 23 1/2" COLD WATER FROM BELOW TO ICE MAKER CONNECTION BOX. CONNECT TO REFRIGERATOR ICE MAKER BOX WITH MINIMUM 5 FEET OF 1/4" COPPER TUBING.
- 24 SOLENOID VALVE IN GAS LINE FOR EMERGENCY SHUT OFF TO SCIENCE CLASSROOM ABOVE.

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1	04/14/16	ADDENDUM #1

BID ISSUE
PROJECT No.: 152-01
DATE: 03/31/16
SCALE: AS NOTED
DRAWING NAME
NEW WORK
SECOND FLOOR
PLAN C -
PLUMBING
P 117

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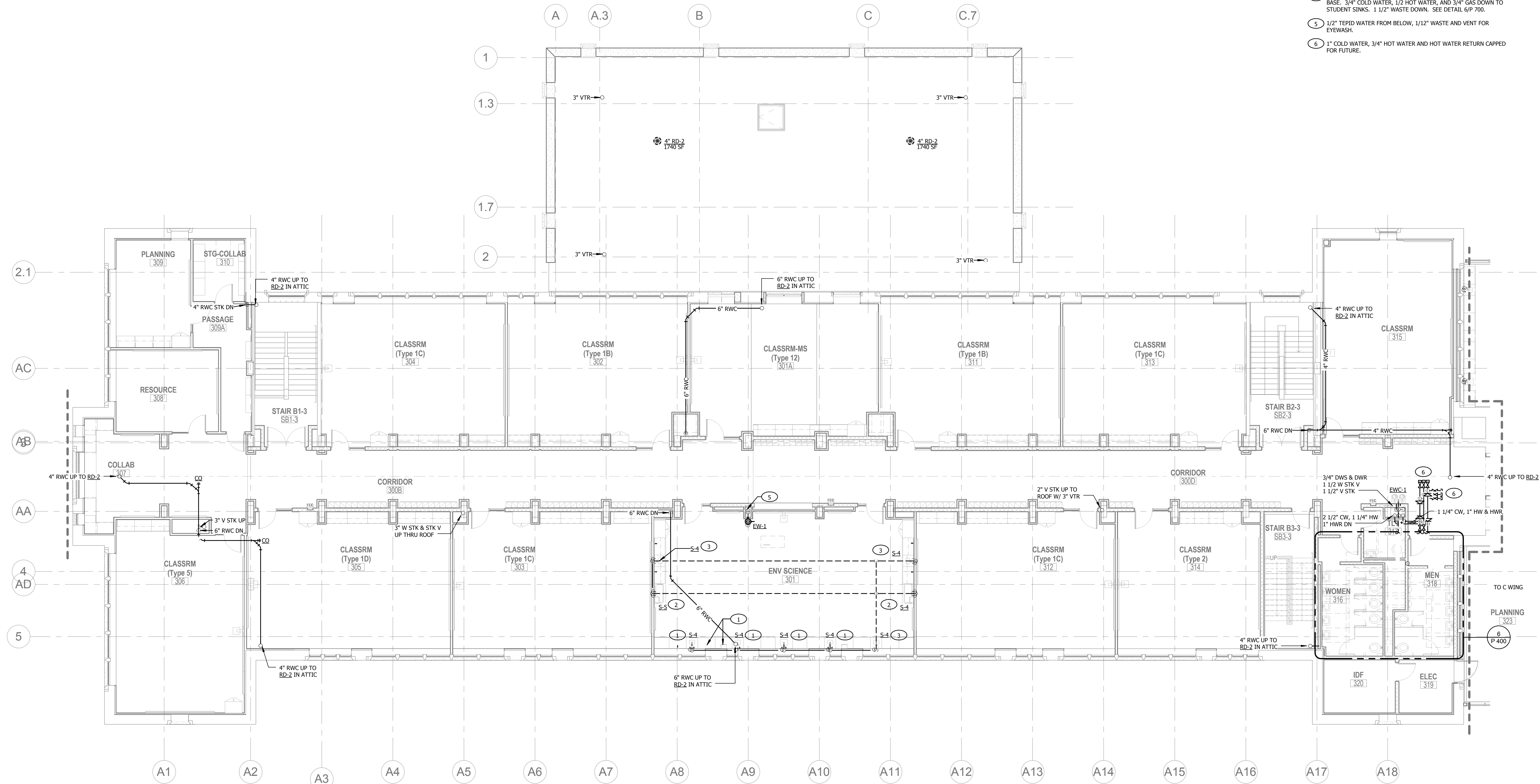
DATE: 03/31/16

SCALE: AS NOTED

DRAWING NAME
NEW WORK THIRD
FLOOR PLAN B -
PLUMBING

P 118

- ① 1/2" COLD WATER, 1 1/2" WASTE.
- ② 1/2" COLD AND HOT WATER, 1 1/2" WASTE AND VENT.
- ③ 1/2" COLD WATER, 1 1/2 WASTE AND VENT.
- ④ 3/4" COLD WATER, 1/2" HOT WATER, 3/4" GAS FROM BELOW INTO SINK BASE. 3/4" COLD WATER, 1/2 HOT WATER, AND 3/4" GAS DOWN TO STUDENT SINKS. 1 1/2" WASTE DOWN. SEE DETAIL 6/P 700.
- ⑤ 1/2" TEPID WATER FROM BELOW, 1 1/2" WASTE AND VENT FOR EYEWASH.
- ⑥ 1" COLD WATER, 3/4" HOT WATER AND HOT WATER RETURN CAPPED FOR FUTURE.



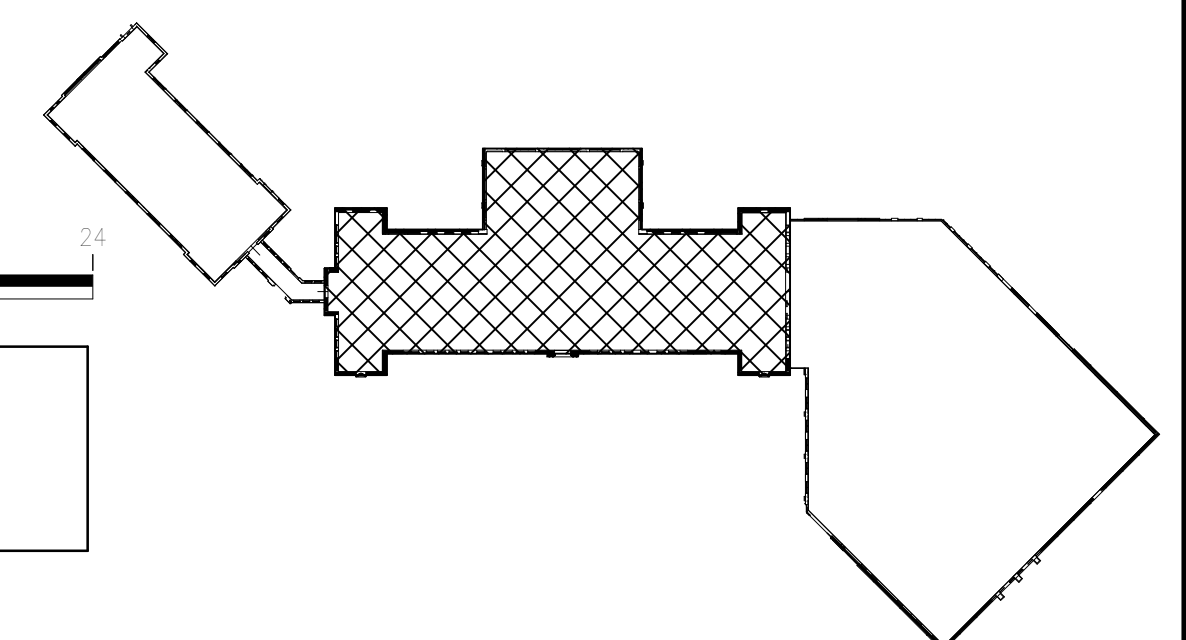
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P 118

NEW WORK THIRD FLOOR PLAN B - PLUMBING

1/8" = 1'-0"

REVISÉ PLUMBING

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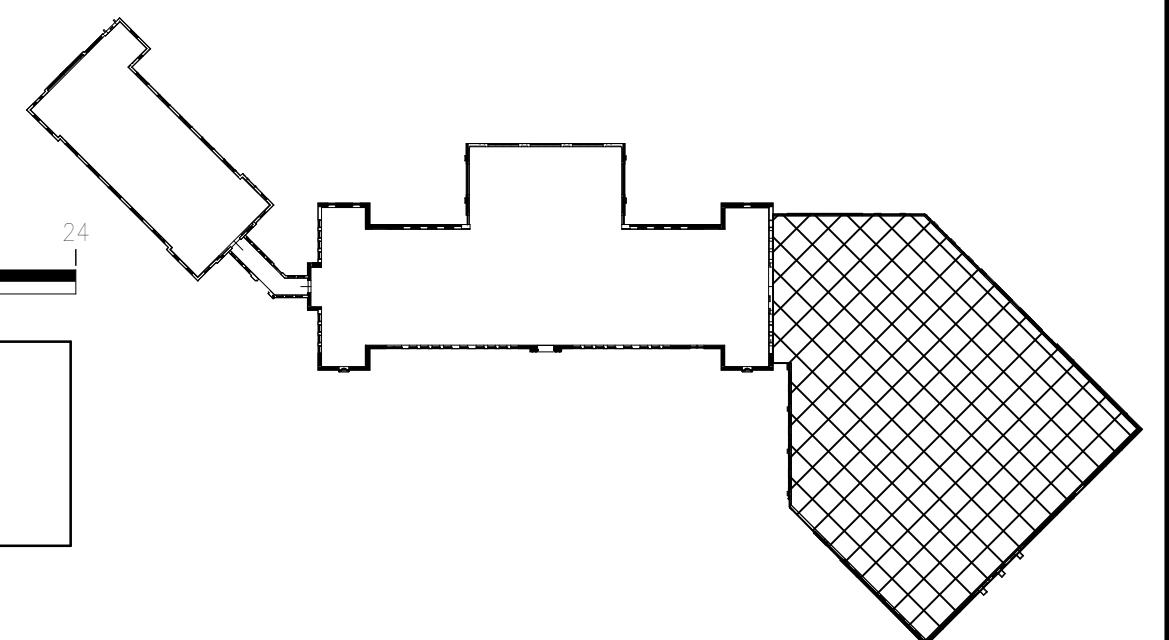
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NEW WORK THIRD
FLOOR PLAN C -
PLUMBING

P 119

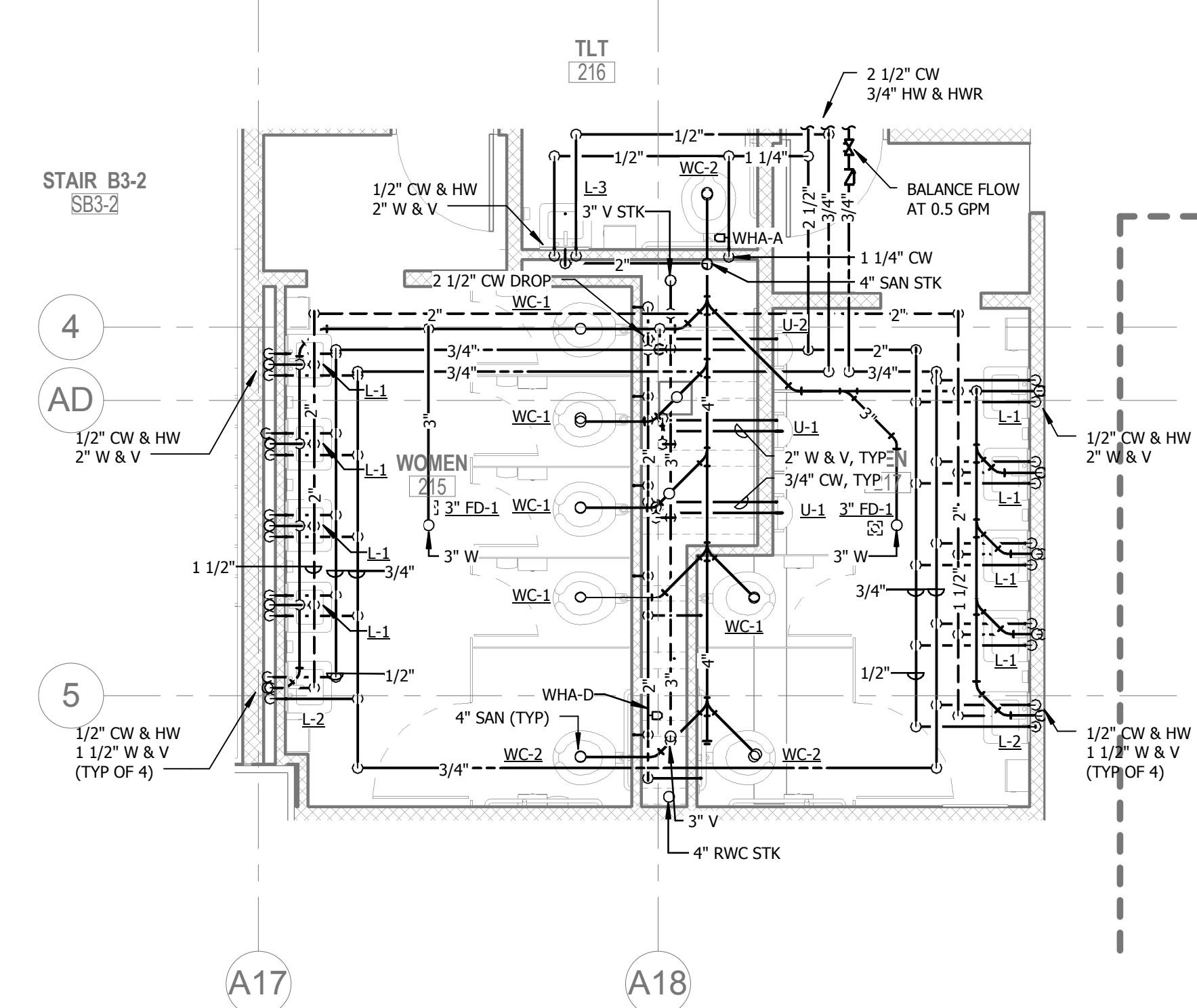
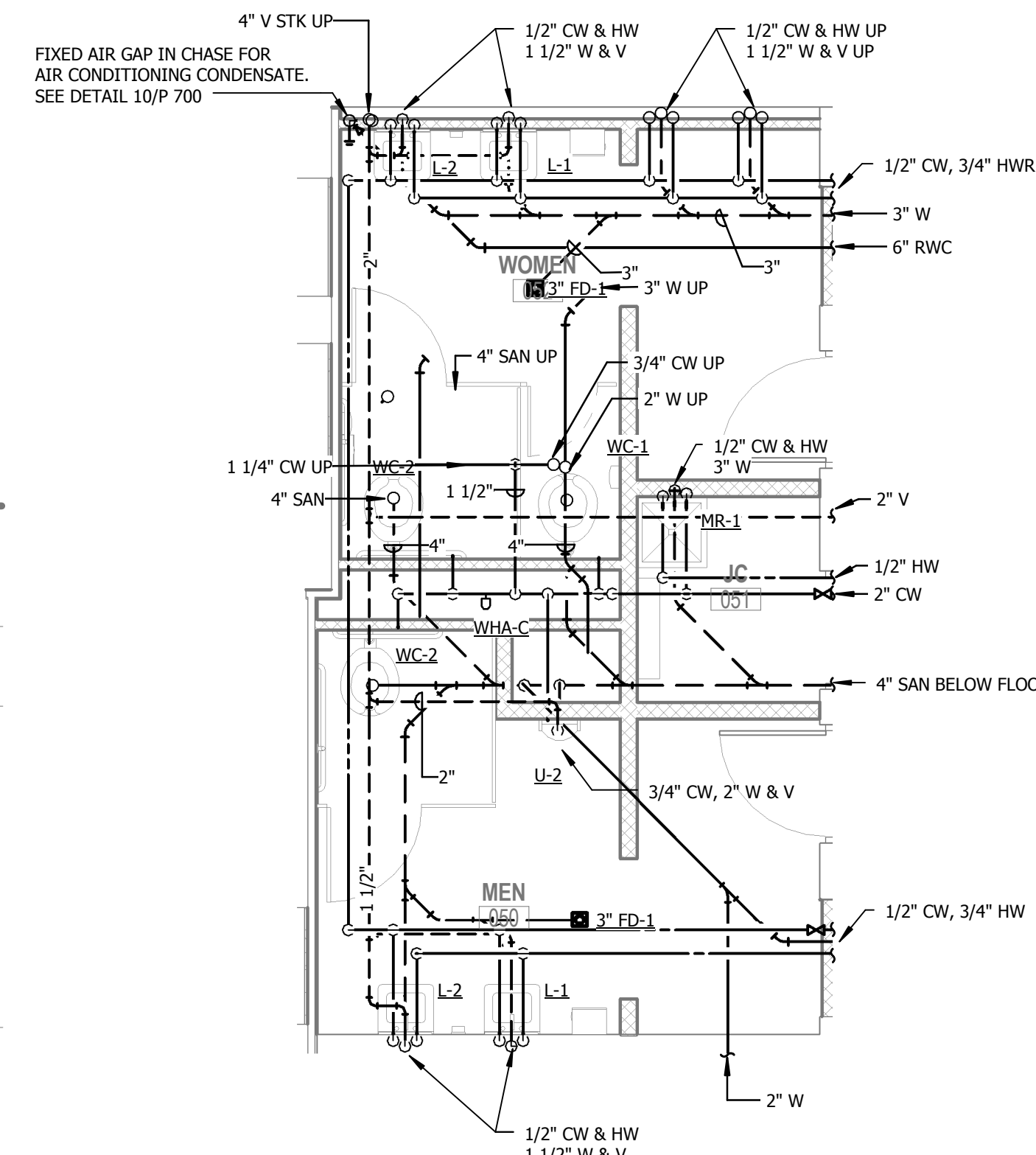
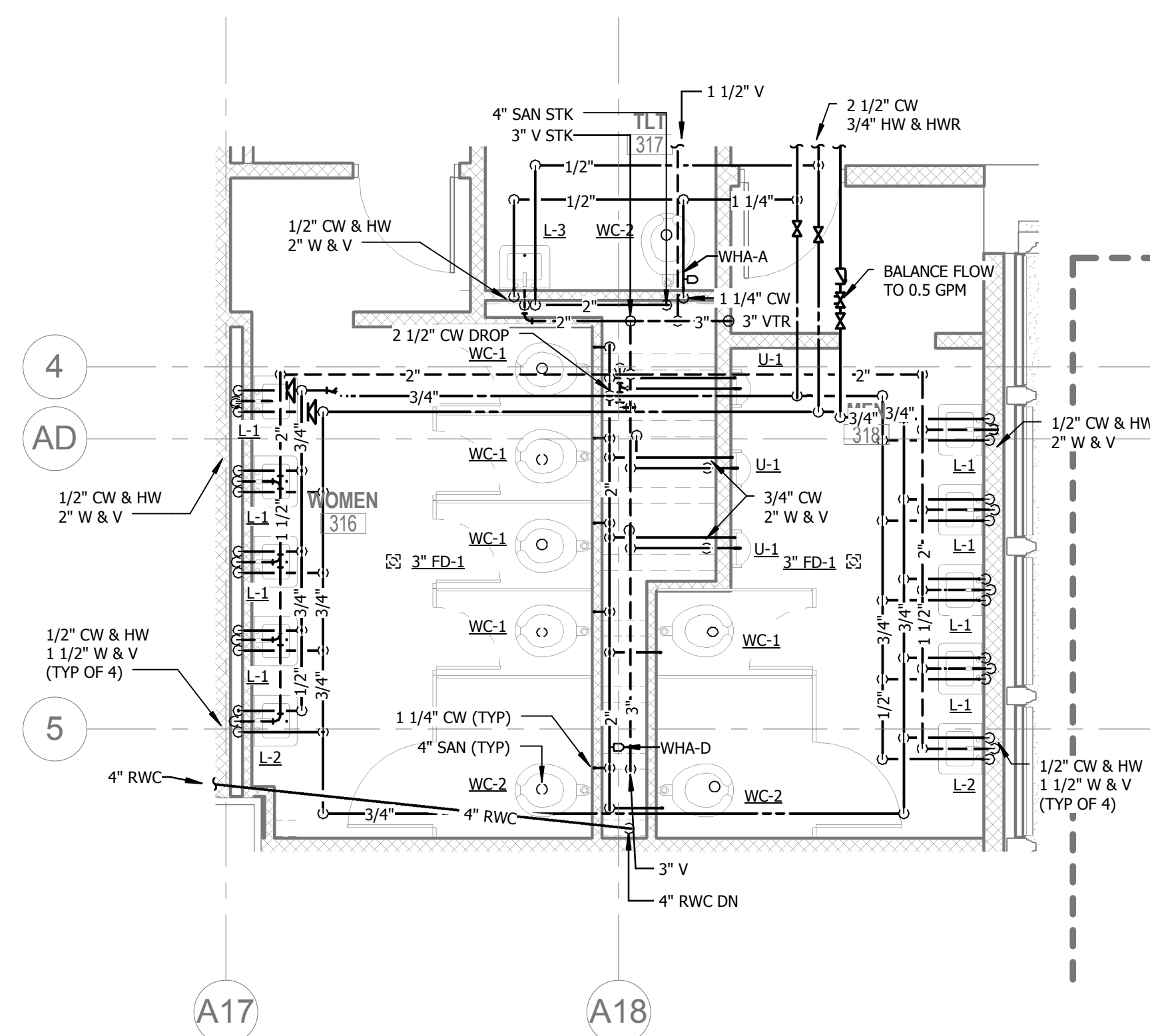
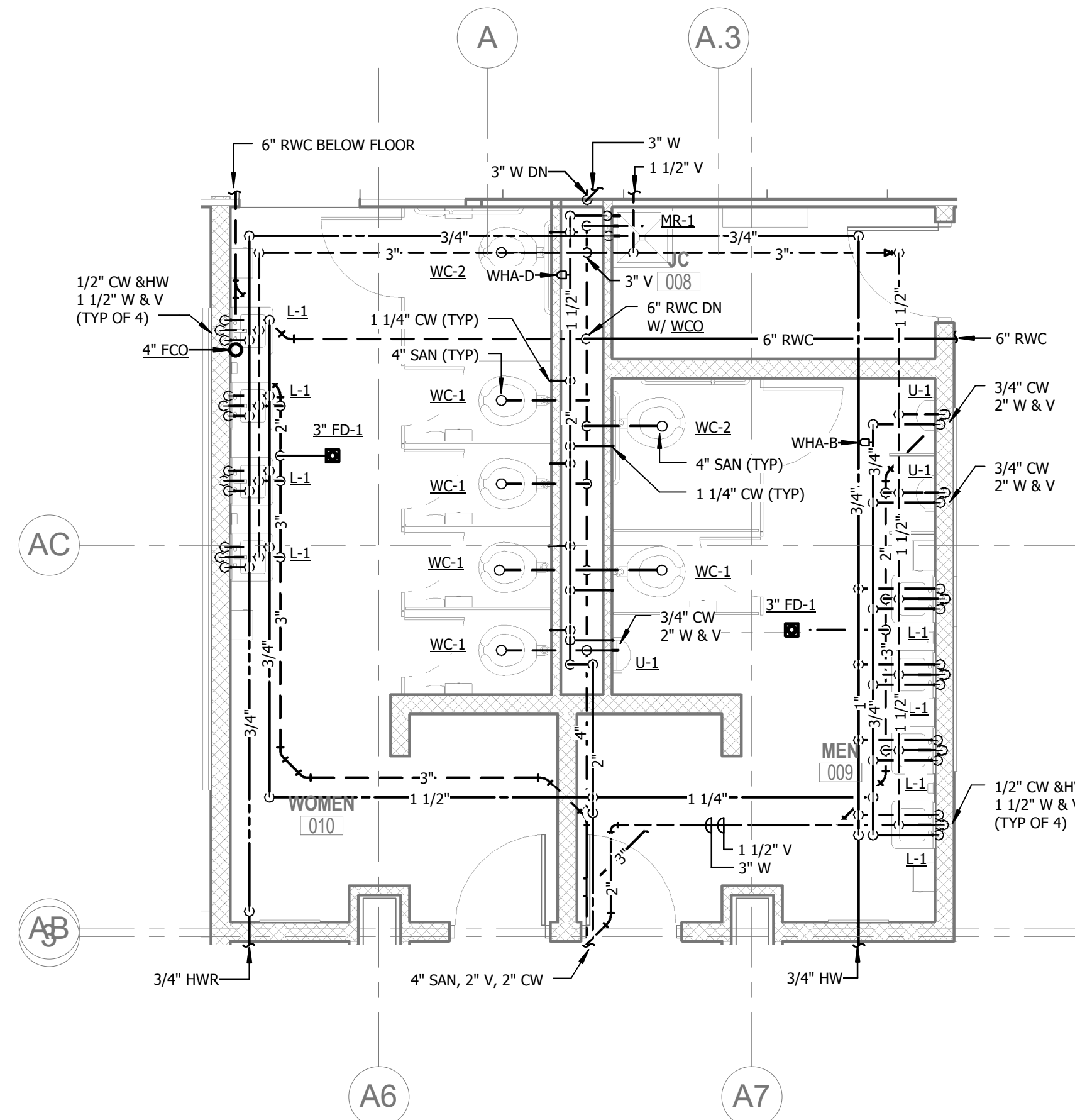
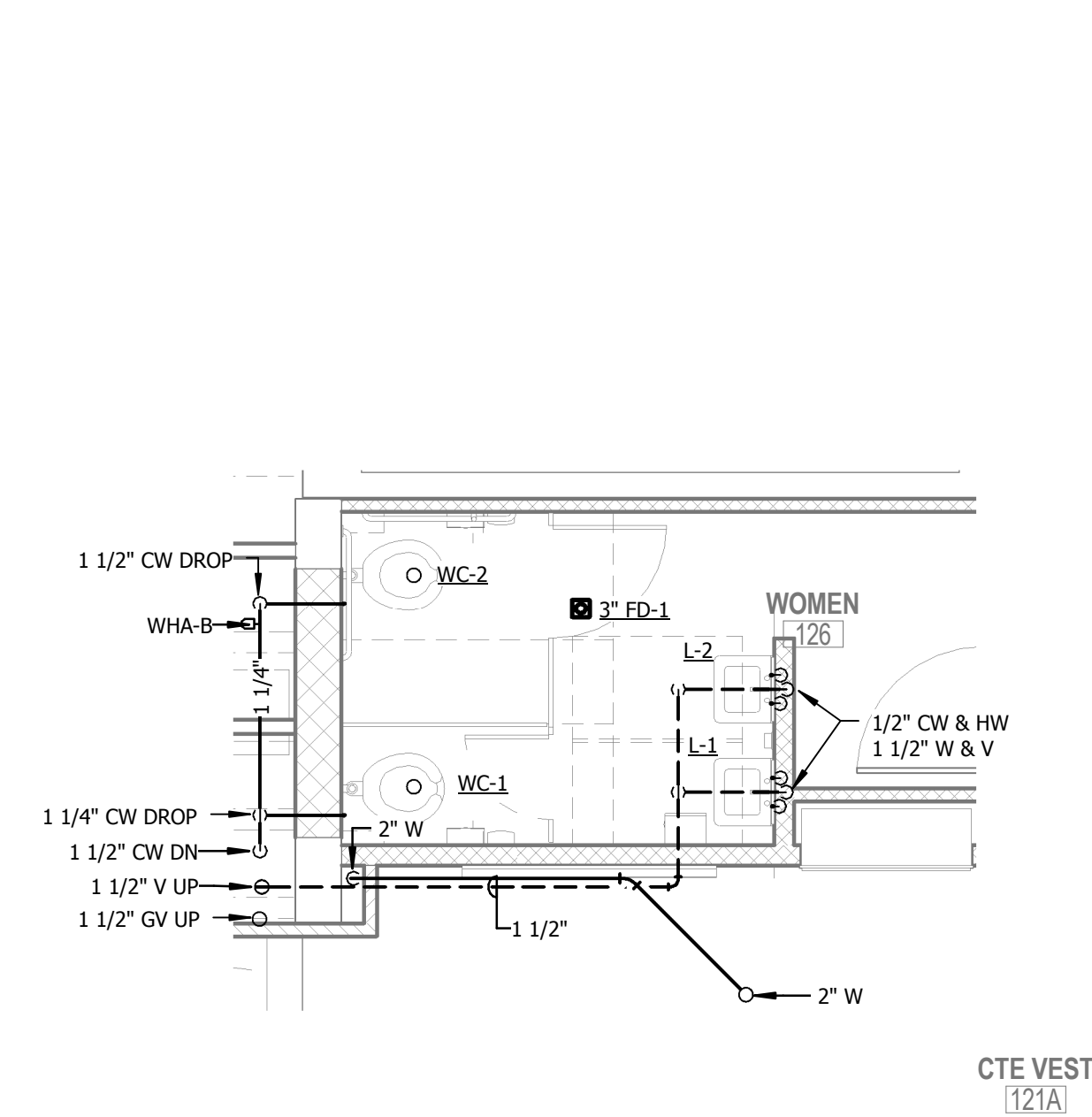
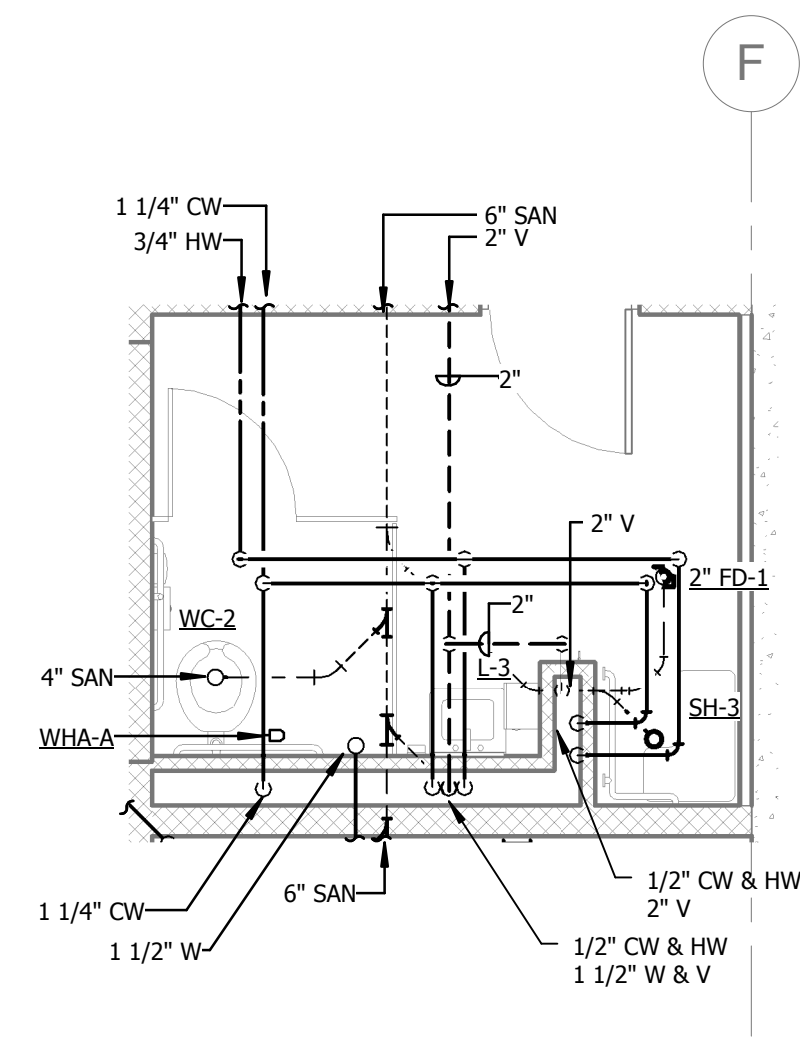
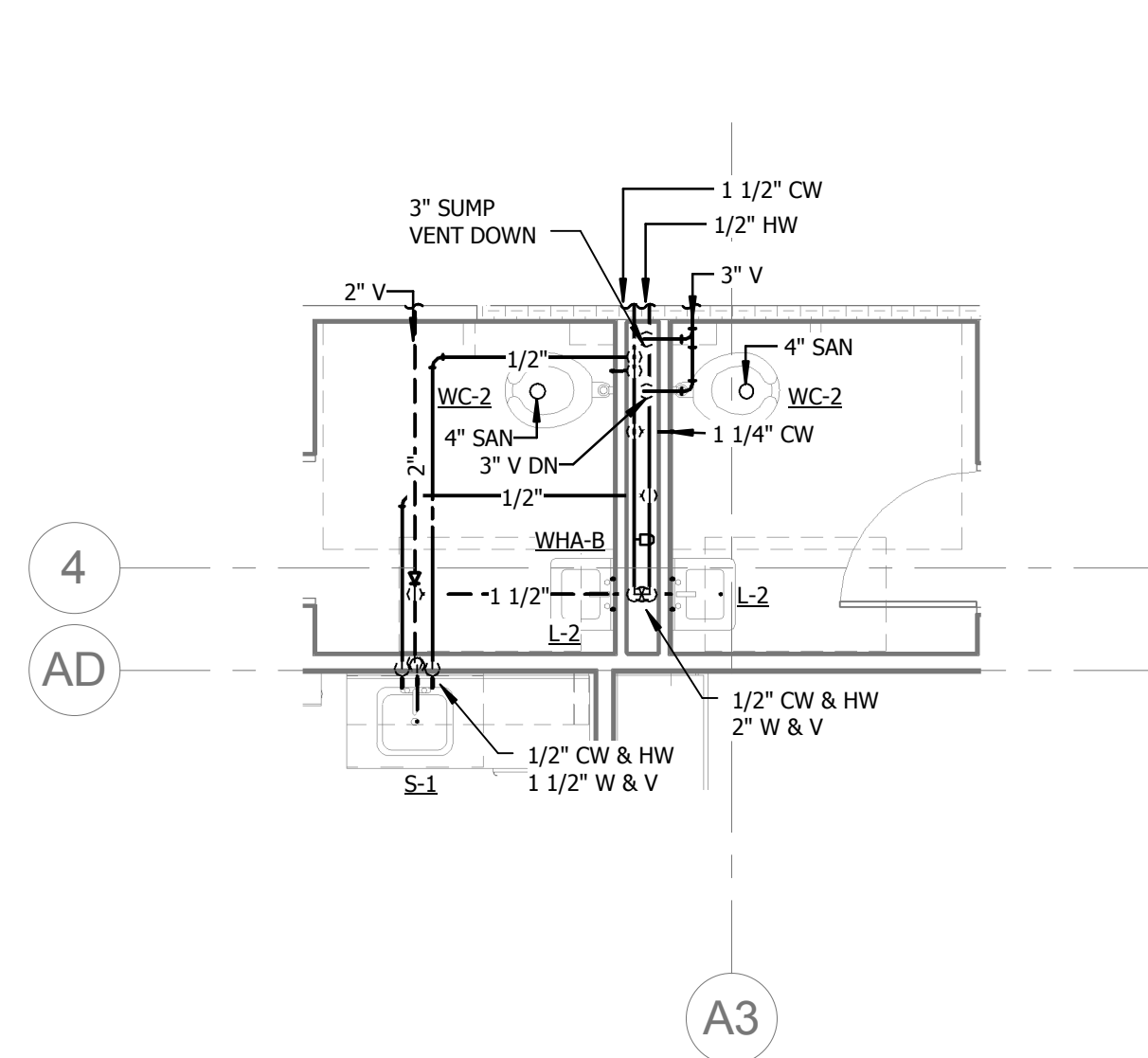
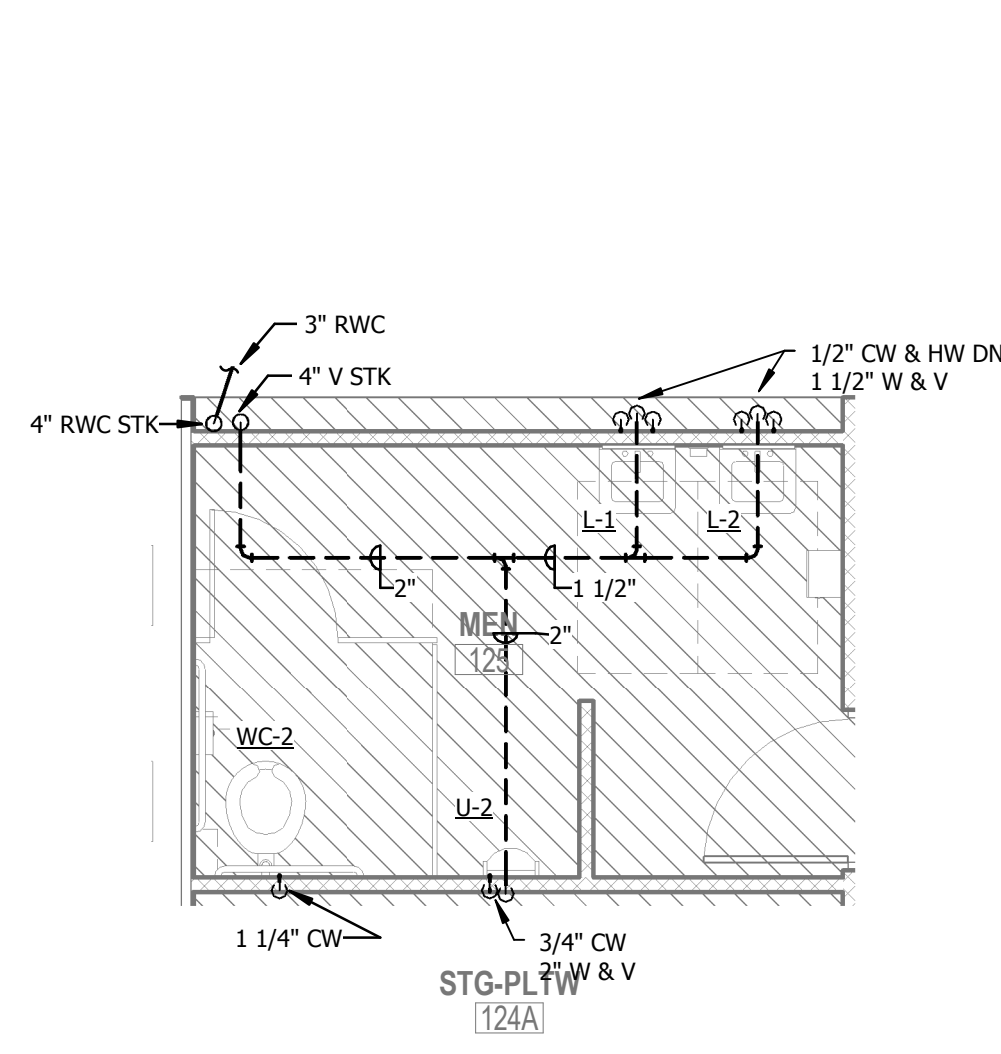


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1	04/14/16	ADDENDUM #1

BID ISSUE

PROJECT No.: 152-01

DATE: 03/31/16

SCALE: AS NOTED

DRAWING NAME

ENLARGED
PLANS -
PLUMBING

P 400

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BID ISSUE

PROJECT No.: 152-01

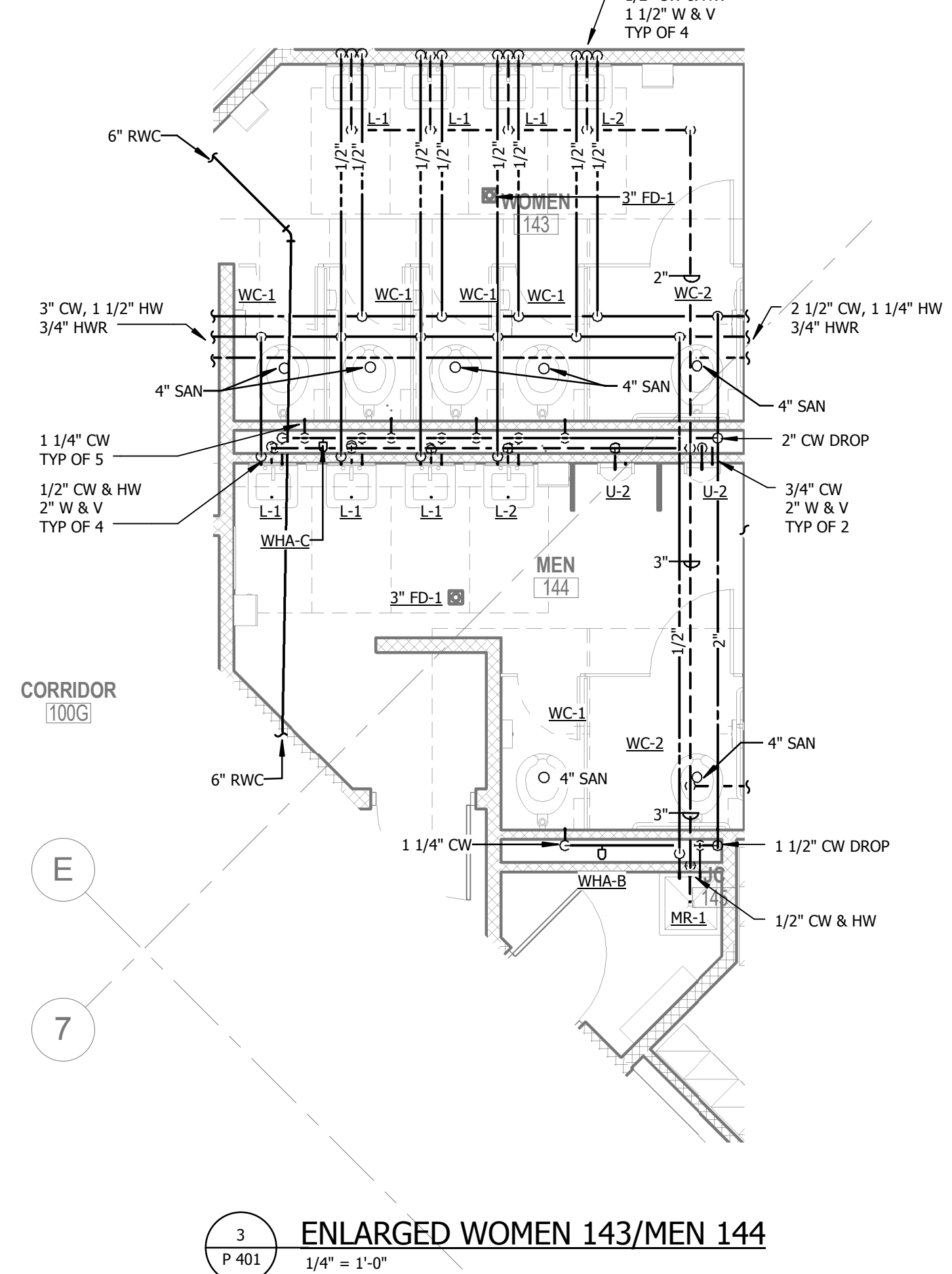
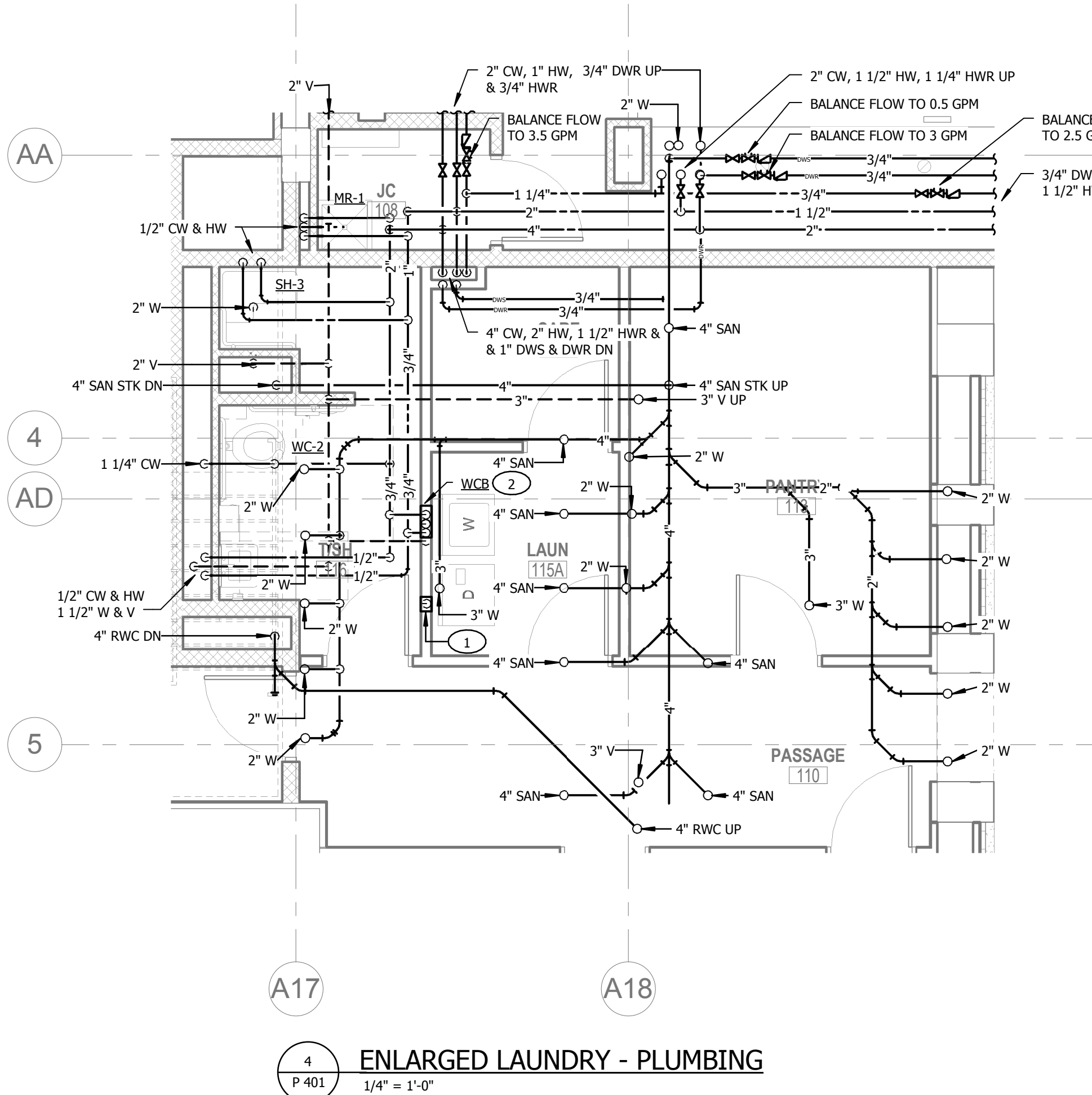
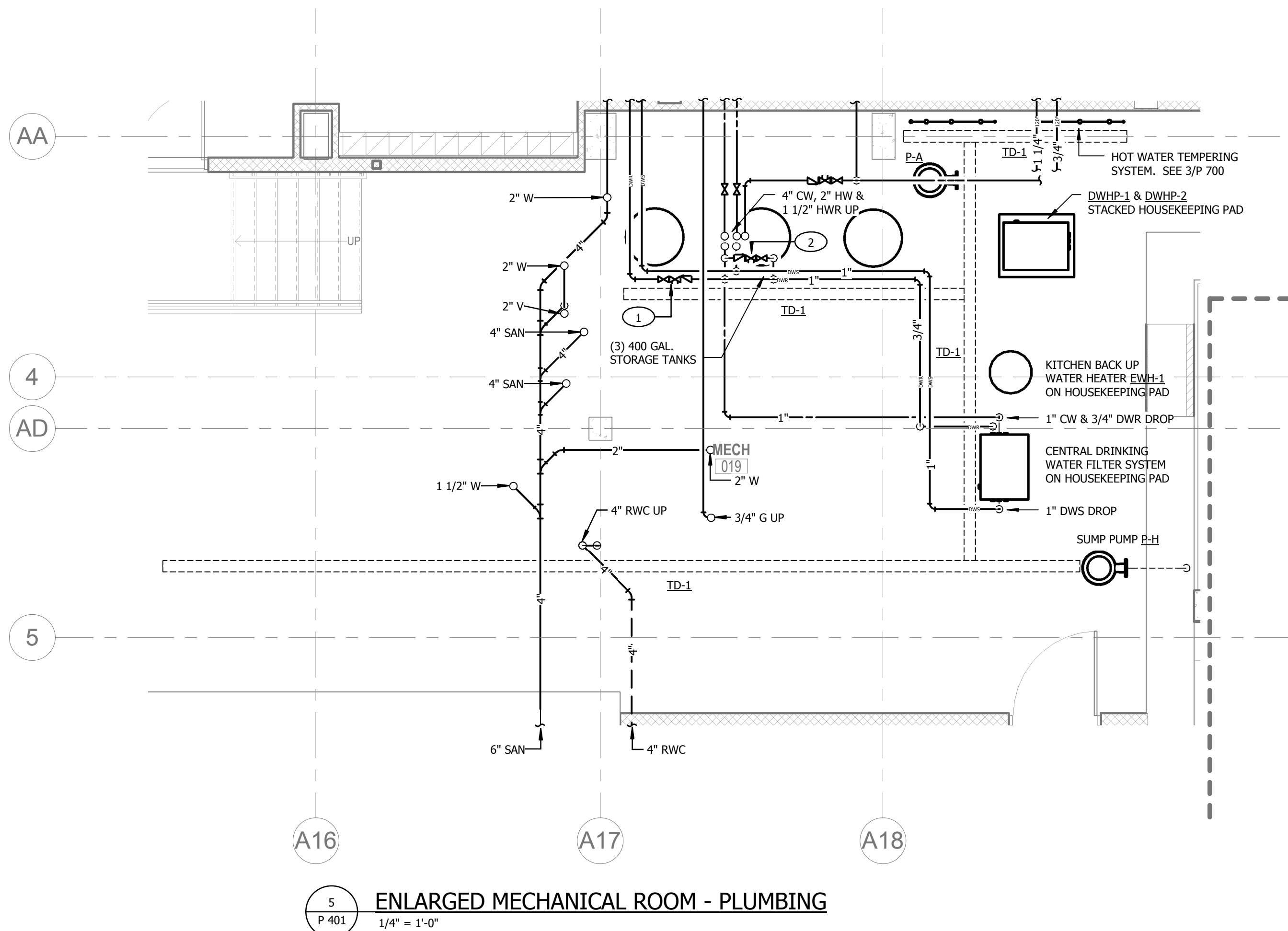
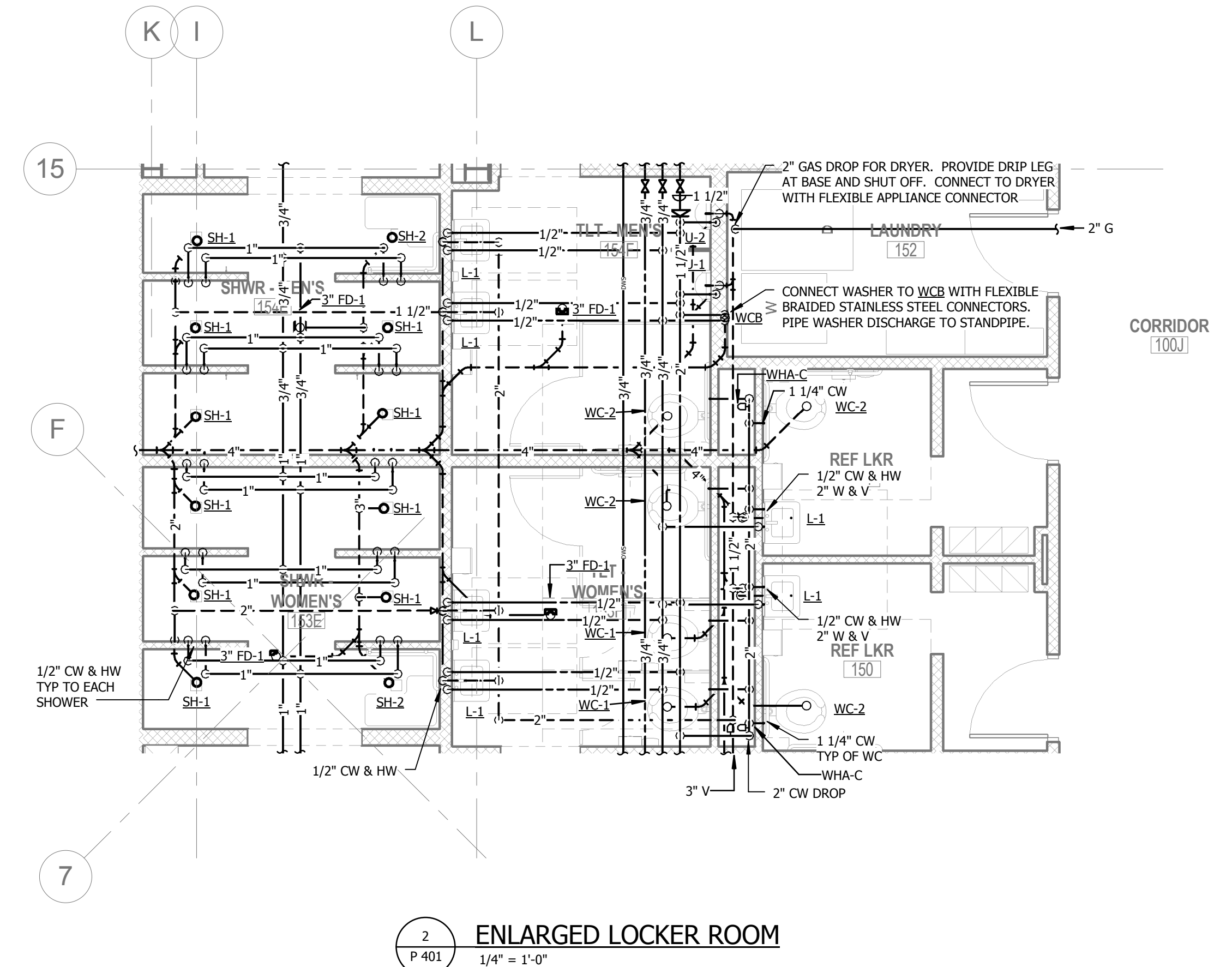
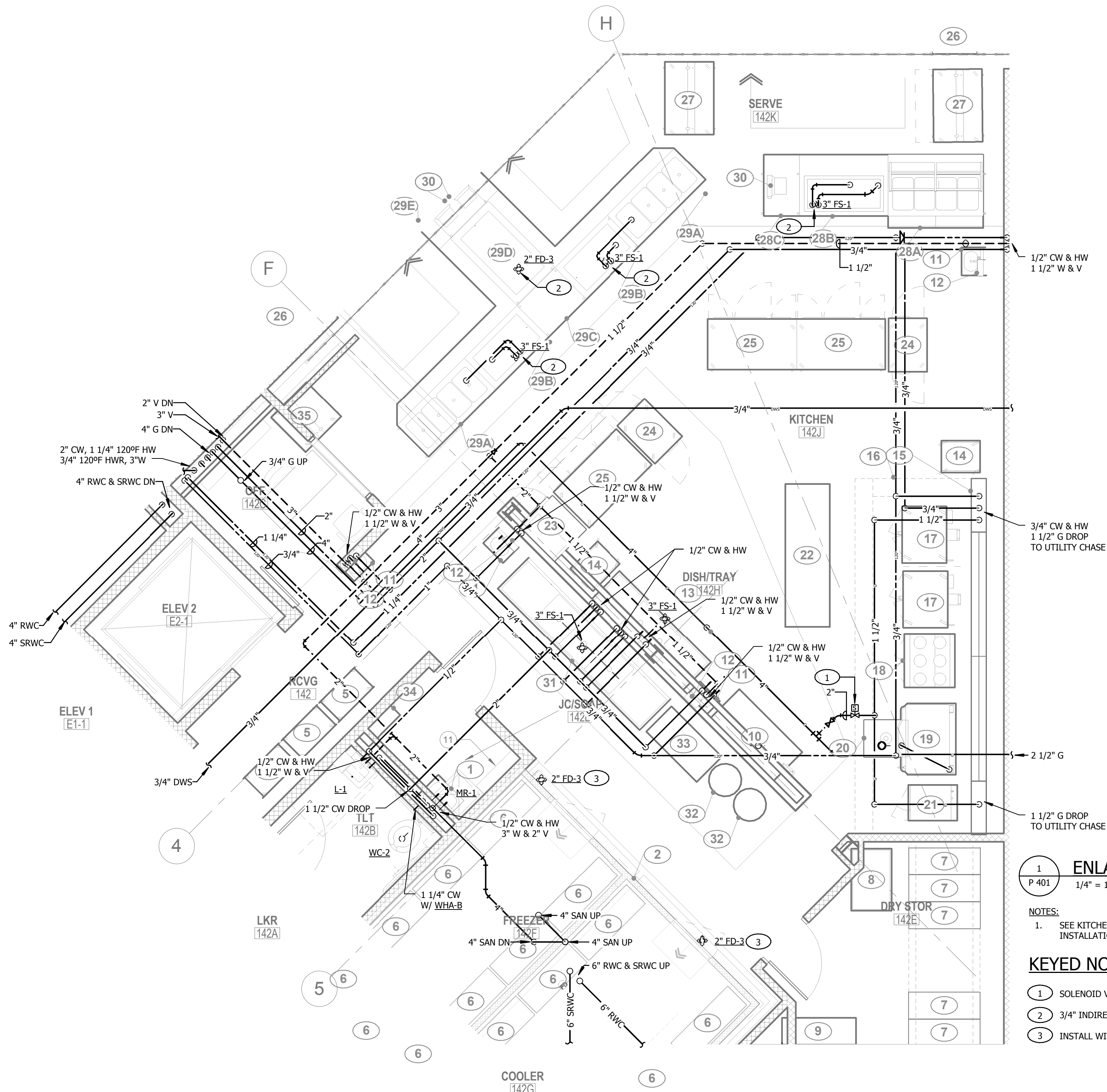
DATE: 03/31/16

SCALE: AS NOTED

DRAWING NAME

ENLARGED
PLANS -
PLUMBING

P 401



REVISED PLUMBING

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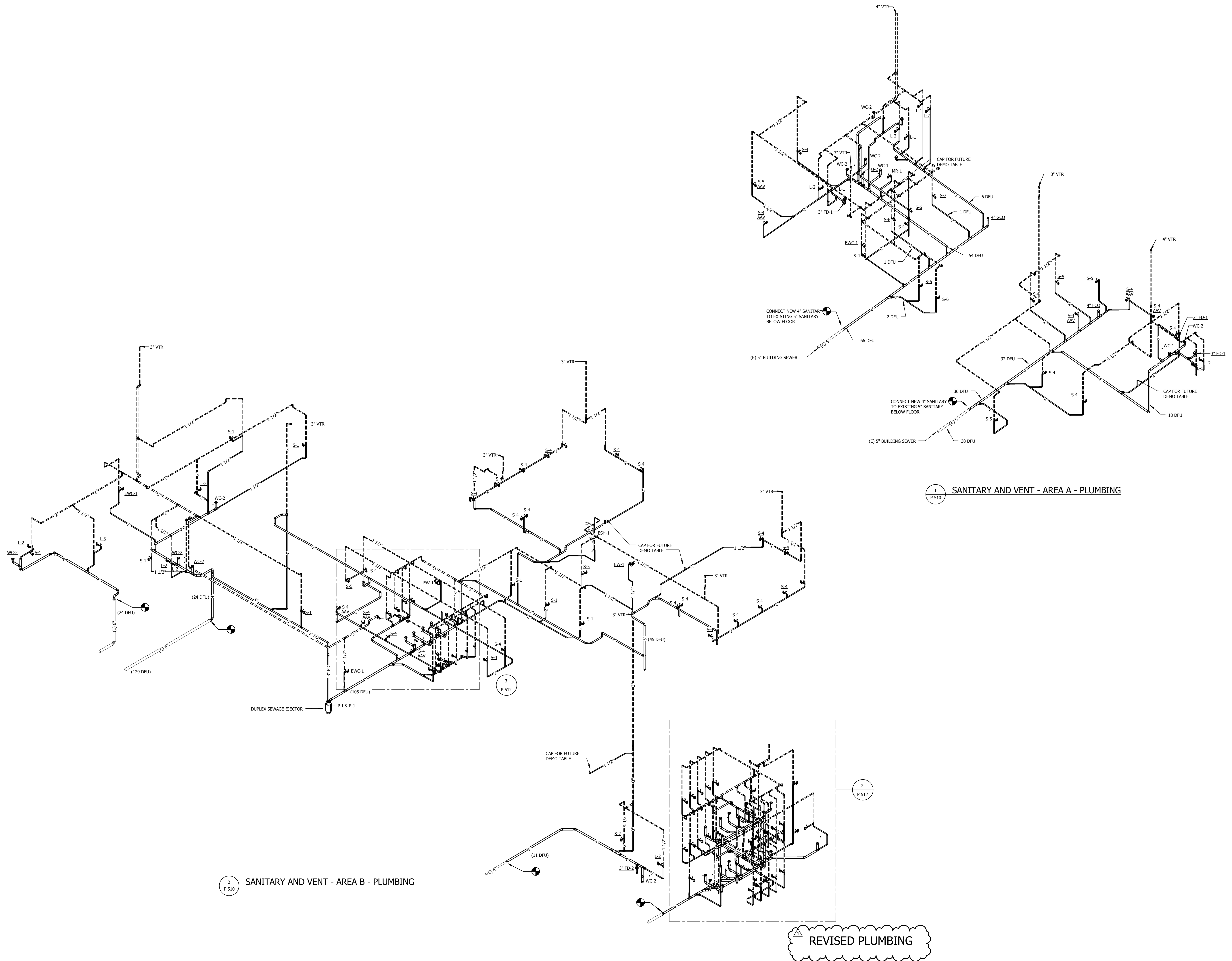
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PROJECT No.: 152-01

SCALE: AS NOTED

SANITARY AND
VENT - AREA A &
B - PLUMBING

P 510



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Additions & Renovations at Robert Poole Building #056

1300 W 36TH ST., BALTIMORE, MD 21211

HEREBY CERTIFY THAT THESE DOCUMENTS WERE
REPAIRED OR APPROVED BY ME, AND THAT I AM A DULY
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OF THE STATE OF MARYLAND.

CENSE NO.: 16294
EXPIRATION DATE: 12/31/2016

[illegible]

BID ISSUE

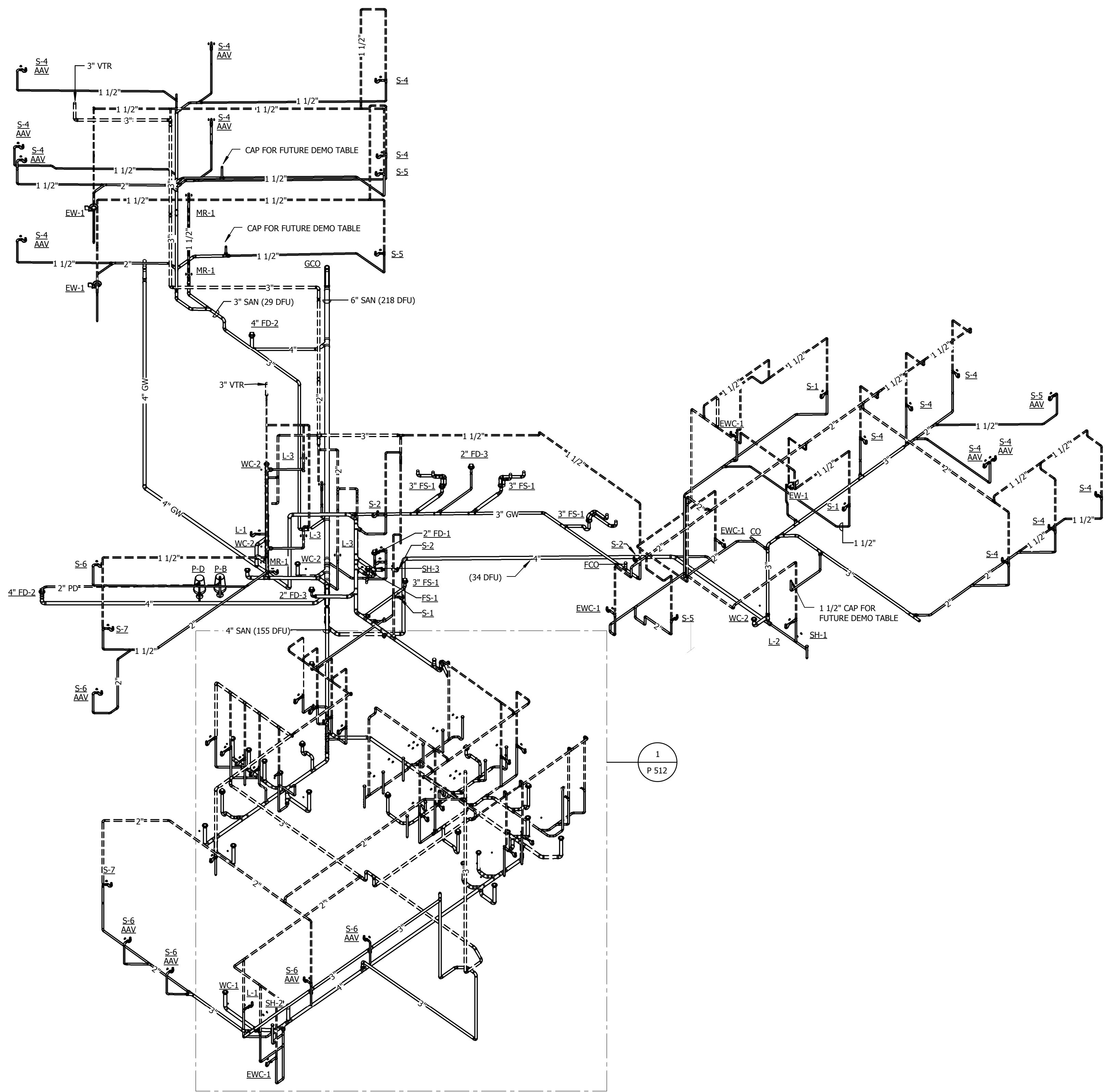
PROJECT No.: 152-01

TE: 03/31/16

SALE: AS NOTED

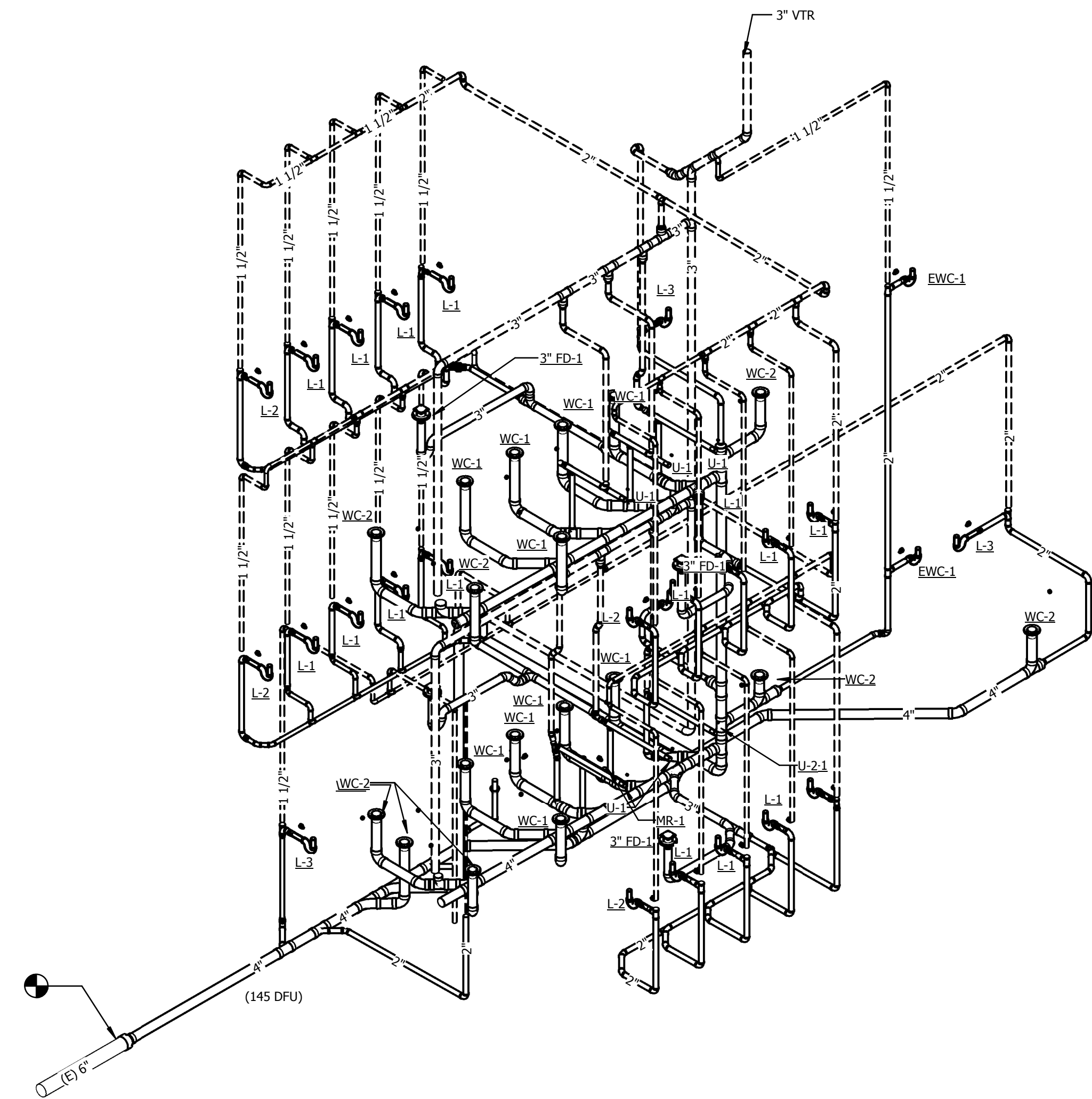
AWING NAME
SANITARY AND
VENT - AREA C -
PLUMBING

P 511

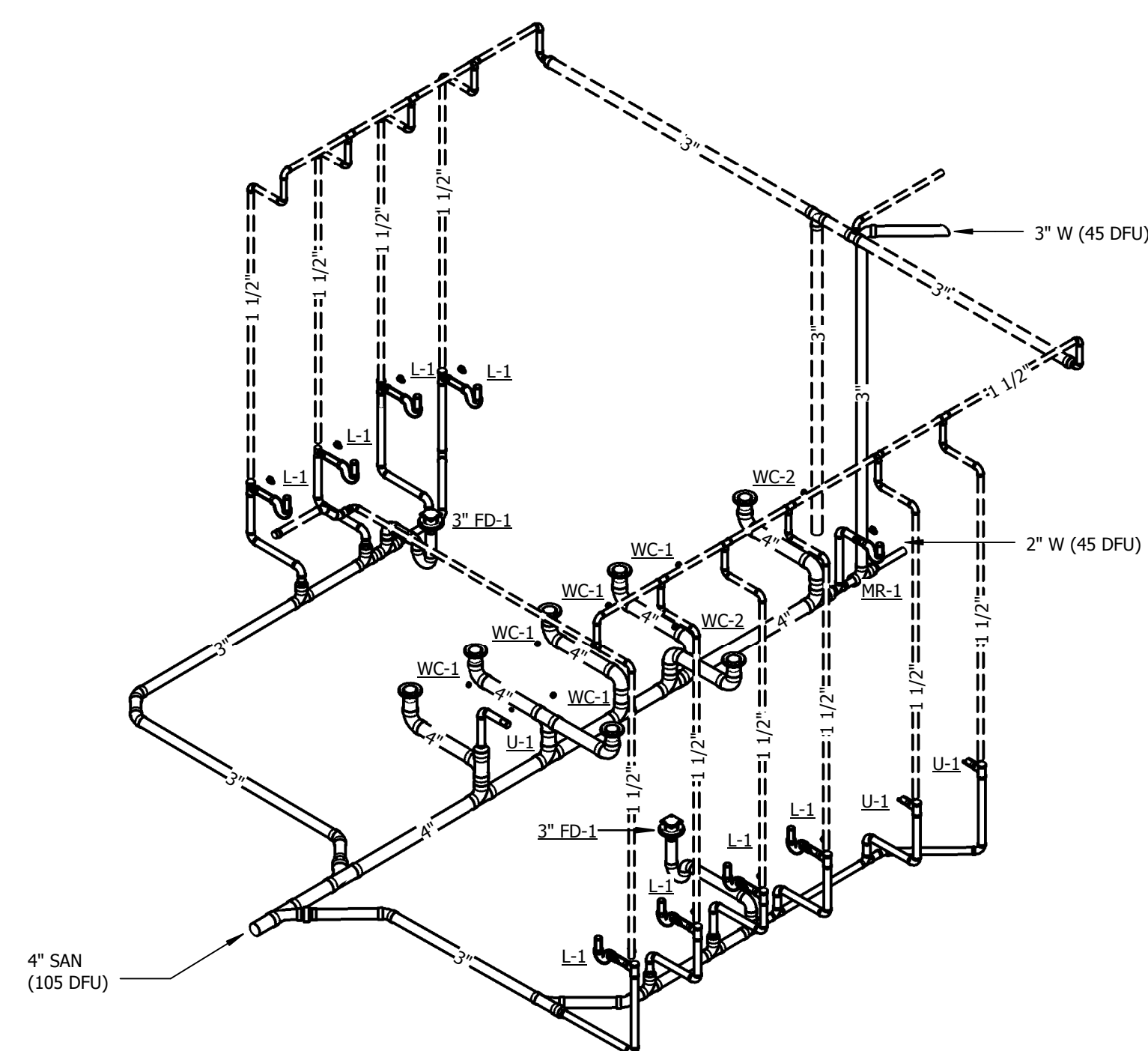


1 SANITARY AND VENT - AREA C - PLUMBING

REVISED PLUMBING

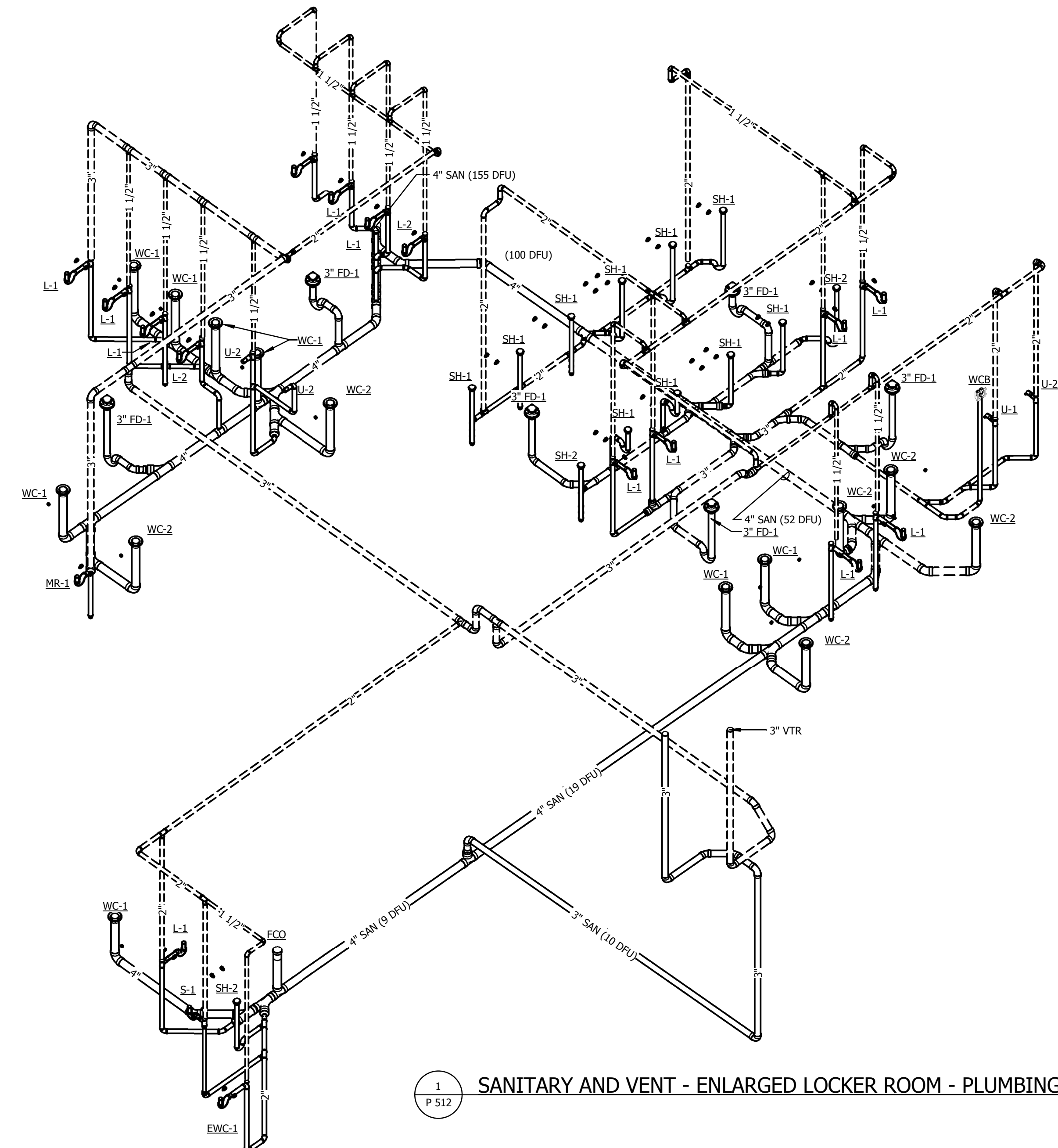


2 SANITARY AND VENT - ENLARGED RESTROOMS - PLUMBING
P 512



3
P 512

SANITARY AND VENT - RESTROOM 009/010 - AREA B - PLUMBING



1
P 512

SANITARY AND VENT - ENLARGED LOCKER ROOM - PLUMBING

REVISÉD PLUMBING

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BID ISSUE

PROJECT No.: 152-01

DATE: 03/31/16

SCALE:	AS NOTED
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**SANITARY AND
VENT - ENLARGED
PLANS -
PLUMBING**

1300 W 36TH ST., BALTIMORE, MD 21211

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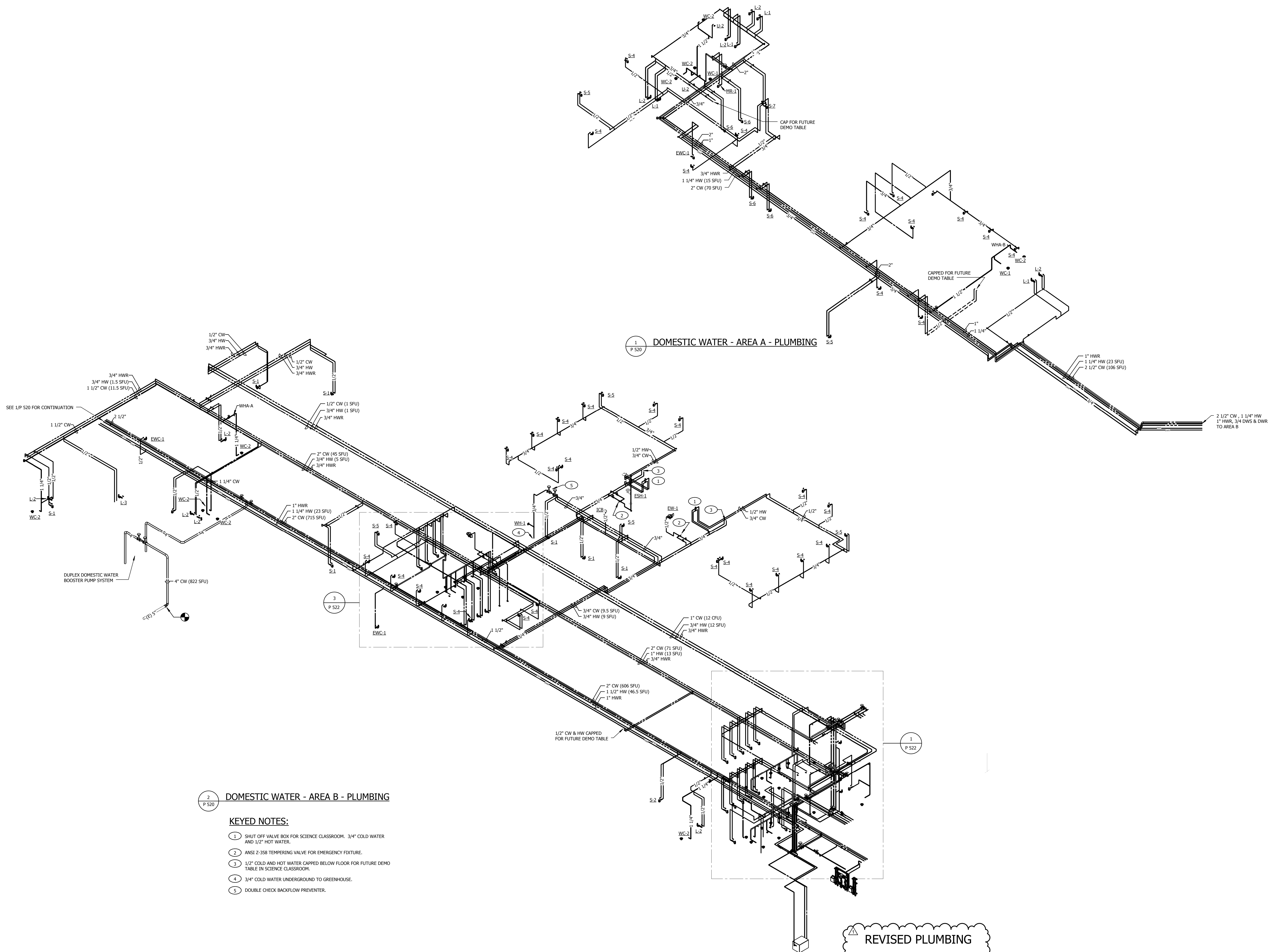
PROJECT No.: 152-01

DATE: 03/31/16

SCALE: AS NOTED

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P 520



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LICENSE NO.: 16294
EXPIRATION DATE: 12/14/2016

[illegible]

PROJECT No.: 152-01

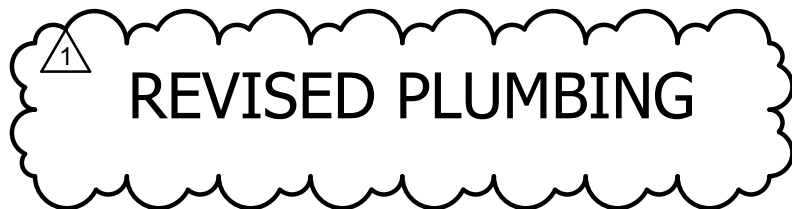
DATE: 03/31/16

SCALE: AS NOTED

DRAWING NAME

DOMESTIC
WATER - AREA C -
PLUMBING

P 521



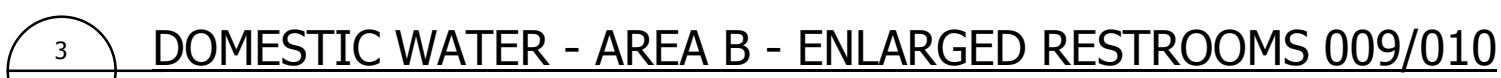
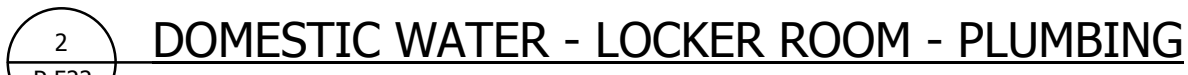
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DRAWING NAME

DOMESTIC
WATER -
ENLARGED
PLANS -
PLUMBING

P 522



REVISÉ PLUMBING

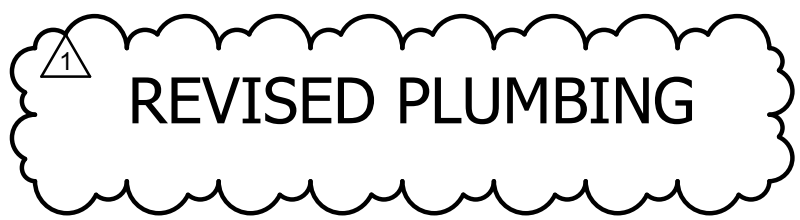
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PROJECT No.: 152-01

DATE: 03/31/16

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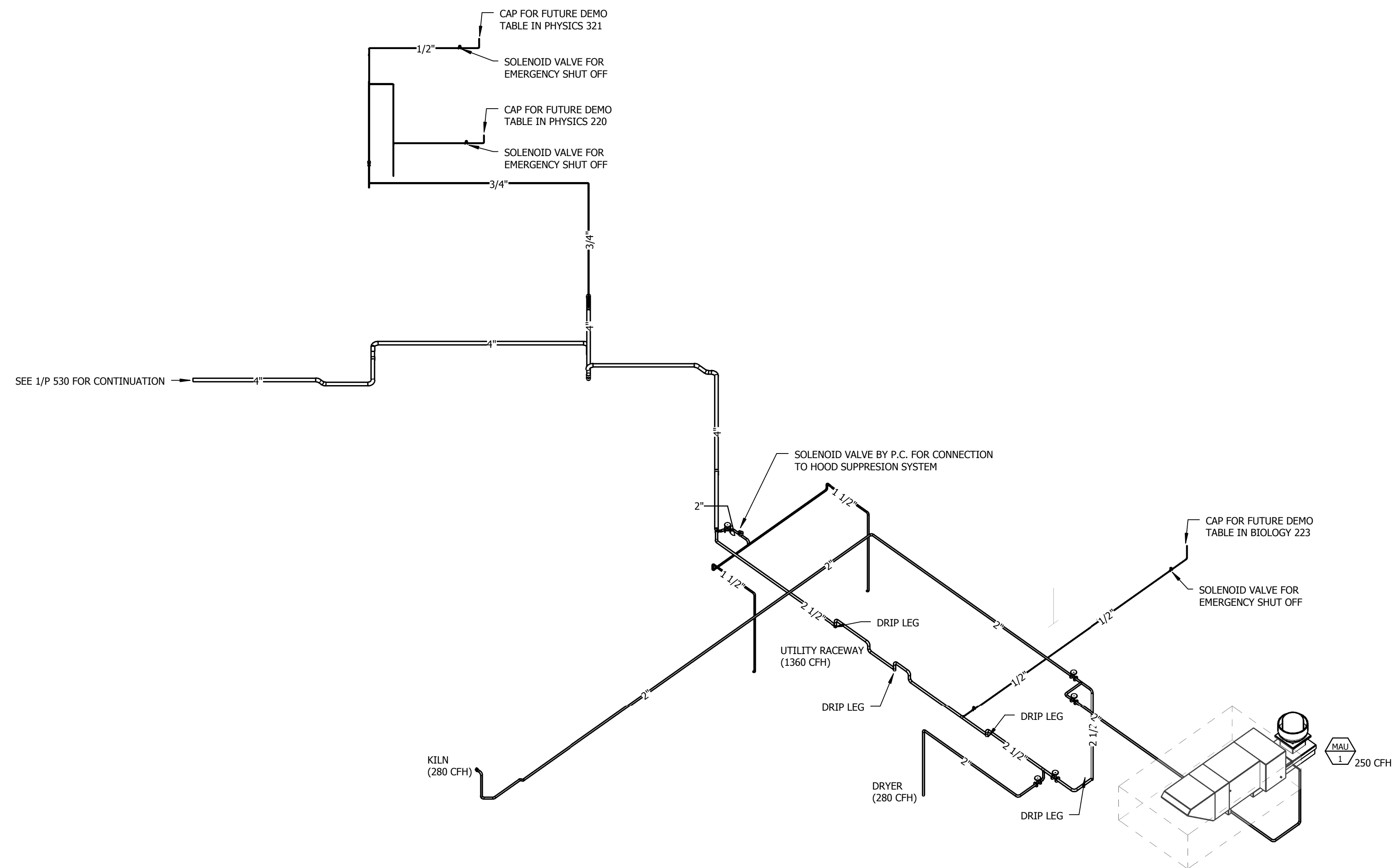


- 1 SOLENOID VALVE FOR EMERGENCY SHUT OFF.
- 2 CAP GAS BELOW FLOOR AT FUTURE DEMO TABLE LOCATION.
- 3 1/2" GAS TO TURRET ON LAB BENCH.

1. TOTAL CONNECTED LOAD: 2400 CFH. TOTAL, 20 CFH FOR AREA A AND 180 CFH FOR AREA B.
2. OUTLET PRESSURE AT 7" W.C.
3. PIPE SIZES BASED ON 0.5" W.C. PRESSURE DROP OVER DEVELOPED LENGTH OF 350 LF FOR AREA A.
4. SPECIFIC GRAVITY: 0.6.
5. PIPING:
 - A. MAINS: BLACKSTEEL
 - B. BRANCHLINES, RUNOUTS TO APPLIANCES: BLACKSTEEL OR CORRUGATED STAINLESS STEEL PIPE, (CSST)
 - C. BELOW GRADE: POLYETHYLENE.
6. GAS PIPE INSTALLATION SHALL COMPLY WITH THE INTERNATIONAL FUEL GAS CODE, CHAPTER 4 SECTION 404
7. GAS PIPING SHALL BE ELECTRICALLY BONDED IN ACCORDANCE WITH CHAPTER 3, SECTION 310.1 OF THE INTERNATIONAL FUEL GAS CODE.
8. BRANCH LINES AND RUNOUTS USING CSST PIPE SHALL BE SIZED AS FOLLOWS:.

SIZE (IN.)	MAX FLOW (MBH)
1/2	1/2
3/4	3/4
1	1
1 1/4	1 1/4
1 1/2	1 1/2
2	2

Baltimore City Public Schools
Additions & Renovations at Robert Poole
Building #056
1300 W 36TH ST., BALTIMORE, MD 21211



1. TOTAL CONNECTED LOAD: 1180 CFH FOR AREA C. 1380 CFH TOTAL.
2. OUTLET PRESSURE AT 7" W.C.
3. PIPE SIZES BASED ON 0.5" W.C PRESSURE DROP OVER DEVELOPED LENGTH OF 680 LF FOR AREA C.
4. SPECIFIC GRAVITY: 0.6.
5. PIPING:
 - A. MAINS: BLACKSTEEL
 - B. BRANCHLINES: POLYETHYLENE; BLACKSTEEL OR CORRUGATED STAINLESS STEEL PIPE. (CSST)
 - C. BELOW GRADE: POLYETHYLENE.
6. GAS PIPE INSTALLATION SHALL COMPLY WITH THE INTERNATIONAL FUEL GAS CODE, CHAPTER 4 SECTION 404
7. GAS PIPING SHALL BE ELECTRICALLY BONDED IN ACCORDANCE WITH CHAPTER 3, SECTION 310.1 OF THE INTERNATIONAL FUEL GAS CODE.
8. BRANCH LINES AND RUNOUTS USING CSST PIPE SHALL BE SIZED AS FOLLOWS:.

SIZE (IN.)	MAX FLOW (MBH)
1/2	1/2
3/4	3/4
1	1
1 1/4	1 1/4
1 1/2	1 1/2
2	2

REVISED PLUMBING

BID ISSUE

PROJECT No.: 152-01

DATE: 03/31/16

SCALE: AS NOTED

DRAWING NAME

NATURAL GAS -
AREA C -
PLUMBING

NOTES: PROVIDE EACH UNIT WITH THE FOLLOWING COMPONENTS:

- VENTED, DOUBLE WALL, STAINLESS STEEL, BRAZED PLATE CONDENSERS (POTABLE WATER).
- SINGLE WALL, STAINLESS STEEL, BRAZED PLATE EVAPORATORS (SOURCE WATER).
- ADJUSTABLE TXV, MOISTURE INDICATING SIGHT GLASS, LIQUID LINE FILTER DRIER.
- BRONZE HOT WATER CIRCULATING PUMP (POTABLE WATER).
- ELECTRONIC TEMPERATURE CONTROL VALVE TO REGULATE FLOW OF DOMESTIC WATER PER THE UNIT DISCHARGE TEMPERATURE.
- SOURCE WATER FLOW SWITCH AND FREEZE STAT.
- AUTOMATIC CONTROLS INCLUDING: HIGH AND LOW PRESSURE CUTOUTS, COMPRESSOR TIME DELAY RELAY, NORMAL RUN AND FAULT INDICATING LIGHTS, PHASE FAILURE RELAY.

SYMBOL	SERVICE	GPM	HEAD (FT.)	TYPE	ELECTRICAL CHARACTERISTICS				SUCTION	DISCHARGE	REMARKS	MANUFACTURER/MODEL NUMBER BASIS OF DESIGN
					HP	VOLTS	PHASE	SPEED				
P-A	BUILDING HOT WATER CIRCULATING	7	16.5	INLINE	1/6	120	1	1750	1 1/4"	1 1/4"	7 DAY TIME CLOCK AND AQUASTAT	BELL & GOSSETT SERIES PR
P-B	ELEVATOR SUMP PUMP	25	25	SUBMERSIBLE	1/2	120	1	1750	-	1 1/4"		WEIL SERIES 1400
P-C	KITCHEN RECIRCULATION PUMP	5	17	INLINE	1/6	120	1	1750	3/4"	3/4"	7 DAY TIME CLOCK AND AQUASTAT	BELL & GOSSETT SERIES PR
P-D	ELEVATOR SUMP PUMP	25	25		1/2	120	1	1750	-	1 1/4"		WEIL SERIES 1400
P-E	BOOSTER PUMP	70	25	END SUCTION	2	480	3	-	3"	3"	CITY WATER PRESSURE AT MAXIMUM PROBABLE FLOW IS ESTIMATED TO BE 55 PSI	PACKAGED VARIABLE SPEED, MULTIPLEX PUMP SYSTEM
P-F	BOOSTER PUMP	70	25	END SUCTION	2	480	3	-	3"	3"		
P-G	BOOSTER PUMP	70	25	END SUCTION	2	480	3	-	3"	3"		
P-H	SUMP PUMP	25	25	SUBMERSIBLE	1/2	120	1	1750	-	1 1/4"		WEIL SERIES 1400
P-I	DUPLEX SEWAGE EJECTOR	50	17	SUBMERSIBLE	1/2	120	1	1725	4"	2"	WITH NEMA CONTROL PANEL, DISCONNECT ALTERNATOR, ALARMS, LEVEL CONTROLS	ZOELLER PREPACKAGED DUPLEX EJECTOR SYSTEM WITH 36"X48" BASIN WITH RAIL SYSTEM, 280 SERIES PUMPS
P-J	DUPLEX SEWAGE EJECTOR	50	17	SUBMERSIBLE	1/2	120	1	1725	4"	2		

[illegible]

SYMBOL	DESCRIPTION	BODY	STRAINER	REMARKS
AD-1	AREA DRAIN	Z-1470		
CO	CLEAN OUT	Z-1470		
FCO	FLOOR CLEANOUT	Z-1400		
FD-1	FLOOR DRAIN	Z-415	5" DIA. BRONZE	
FD-2	FLOOR DRAIN	Z-550-I	9" DIA CAST IRON	WITH SEDIMENT BUCKET
FD-3	KITCHEN FLOOR DRAIN	Z-415	TYP. 1, 5" DIA. BRONZE	INSTALL WITH TOP OF RIM FLUSH WITH FINISHED FLOOR
FS-1	FLOOR SINK	Z-1751	9"X9"	
GCO	GRADE CLEANOUT	Z-1406		
WCO	WALL CLEANOUT	ZANB-1468		
RD-1	COMBINATION ROOF DRAIN	Z-163EA	15" POLY DOME	
RD-2	PRIMARY ROOF DRAIN	Z-100 EARC-W2	15" POLY DOME	
LD-1	LINEAR DRAIN	QUICK DRAIN USA PLD SERIES	PERFORATED STAINLESS STEEL	
TD-1	TRENCH DRAIN			FIELD VERIFY LENGTH OF EACH SECTION

NOTES:

1. UNLESS OTHERWISE NOTED, MODEL NUMBERS SHOWN ARE FOR ZURN INDUSTRIES PRODUCTS AS BASIS OF DESIGN
2. SEE PLANS FOR PIPE SIZES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR FLOOR FINISHES. PROVIDE CLEANOUT SUITABLE FOR FLOOR FINISH SHOWN PER SPECIFICATIONS.
4. PROVIDE FLOOR DRAINS WITH TRAP PROTECTION AS SPECIFIED.
5. PROVIDE BARRIER TYPE TRAP PROTECTION CONFORMING TO ASSE 1072 ON ALL FLOOR DRAIN TYPES.

FIXTURE	SYSTEM	CAPACITY	RECOVERY	ELECTRICAL			MANUFACTURER AND MODEL
		GALLONS	GPH/GPM @ ° F	V	Ø	KW	
EWH-1	KITCHEN BACK-UP WATER HEATER	50 GAL	149 GPH @ 100°F	480	3	43	BRADFORD WHITE 50A-36-3

EWC-1	B-LEVEL ELECTRIC WATER COOLER	B-LEVEL, BARRIER FREE, SURFACE MOUNTED WITH SIDE AND FRONT MOUNTED PUSH BARS, STAINLESS STEEL BASIN AND EXTERIOR PANELS AND FLEXIBLE HOODED BUBBLER, LEAD FREE WATER WAYS		FLOOR MOUNTED PLATE CARRIER		1/2"	-	1 1/2"	1 1/2"
ICB	ICE MAKER CONNECTION BOX	20 GAUGE STAINLESS STEEL BOX AND TRIM RING	1/4 TURN STOP	RECESSED	-	1/2"	-	-	-
L-1	LAVATORY STUDENT/PUBLIC	RECTANGULAR, ENAMEL CAST IRON, FRONT OVERFLOW WITH 8" FAUCET CENTERS, 20"x18 NOM	COMBINATION HOT AND COLD METERING, WIDESPREAD, SLOW CLOSING, 5" SPOUT AND VANDALPROOF	FLOOR MOUNTED PLATE CARRIER	0.35 GPM	1/2"	1/2"	1 1/2"	1 1/2"
L-2	ACCESSIBLE LAVATORY (STUDENT/PUBLIC)	ACCESSIBLE HEIGHT, RECTANGULAR, ENAMEL CAST IRON, FRONT OVERFLOW WITH 8" FAUCET CENTERS, 20"x18 NOM	COMBINATION HOT AND COLD METERING, WIDESPREAD, SLOW CLOSING, 5" SPOUT AND VANDALPROOF	FLOOR MOUNTED PLATE CARRIER	0.35 GPM	1/2"	1/2"	1 1/2"	1 1/2"
L-3	ACCESSIBLE LAVATORY (STAFF)	ACCESSIBLE HEIGHT, RECTANGULAR, ENAMEL CAST IRON, FRONT OVERFLOW WITH 8" FAUCET CENTERS, 20"x18 NOM	MANUAL FAUCET WITH WRISTBALE HANDLES, WIDESPREAD, 5" SPOUT	FLOOR MOUNTED PLATE CARRIER	0.35 GPM	1/2"	1/2"	1 1/2"	1 1/2"
MR-1	MOP RECEPTOR	MOLDED STONE ONE PIECE BASIN, 36"x24"	WALL MOUNTED, 8" CENTERS, CROSS HANDLES, VACUUM BREAKER, HOSE THREAD OUTLET, PAIL HOOK AND BRACE	FLOOR	2.5 GPM	1/2"	1/2"	2"	1 1/2"
S-1	SINGLE BOWL SINK	18 GAUGE STAINLESS STEEL, WITH UNDERCOATING WITH REAR CENTER DRAIN OUTLET	COMBINATION HOT AND COLD WITH 8" CENTERS, 120 DEGREE SWING, GOOSENECK SPOUT AND INDEXED LEVER HANDLES	SELF RIMMING COUNTER TYPE	0.5 GPM	1/2"	1/2"	1 1/2"	1 1/2"
S-2	DOUBLE BOWL SINK	18 GAUGE STAINLESS STEEL, WITH UNDERCOATING WITH REAR CENTER DRAIN OUTLET	DECK MOUNTED, COMBINATION HOT AND COLD WITH 8" CENTERS, 120 DEGREE SWING, GOOSENECK SPOUT AND INDEXED LEVER HANDLES	SELF RIMMING COUNTER TYPE	0.5 GPM	1/2"	1/2"	1 1/2"	1 1/2"
S-3	CLASSROOM SINK	18 GAUGE STAINLESS STEEL, WITH UNDERCOATING WITH REAR CENTER DRAIN OUTLET	DECK MOUNTED, COMBINATION HOT AND COLD WITH 8" CENTERS, 120 DEGREE SWING, GOOSENECK SPOUT AND INDEXED LEVER HANDLES	SELF RIMMING COUNTER TYPE	0.5 GPM	1/2"	1/2"	1 1/2"	1 1/2"
S-4	SCIENCE CLASSROOM SINK (STUDENT USE)	EPOXY RESIN SINK FURNISHED WITH SCIENCE CLASSROOM CASEWORK	DECK MOUNTED, COLD WATER ONLY WITH 8" CENTERS, RIGID GOOSENECK SPOUT WITH VACUUM BREAKER, INDEXED LEVER HANDLES AND VANDAL PROOF SERRATED NOZZLE CHICAGO FAUCET 928-369CP	UNDERMOUNT	0.5 GPM	1/2"	1/2"	1 1/2"	1 1/2"
S-5	SCIENCE CLASSROOM SINK (TEACHER USE)	EPOXY RESIN SINK FURNISHED WITH SCIENCE CLASSROOM CASEWORK	DECK MOUNTED, COMBINATION HOT AND COLD WITH 8" CENTERS, 120 DEGREE SWING, GOOSENECK SPOUT WITH VACUUM BREAKER, INDEXED LEVER HANDLES AND VANDAL PROOF SERRATED NOZZLE CHICAGO FAUCET 786-CR20UR6725	UNDERMOUNT	0.5 GPM	1/2"	1/2"	1 1/2"	1 1/2"
S-6	ART ROOM SINK	18 GAUGE STAINLESS STEEL, WITH UNDERCOATING WITH REAR CENTER DRAIN OUTLET	DECK MOUNTED, COMBINATION HOT AND COLD WITH 8" CENTERS, 120 DEGREE SWING, GOOSENECK SPOUT AND INDEXED LEVER HANDLES	SELF RIMMING COUNTER TYPE	0.5 GPM	1/2"	1/2"	1 1/2"	1 1/2"
S-7	CLEANUP SINK	14 GAUGE STAINLESS STEEL, WALL HUNG SINK WITH CENTER DRAIN OUTLET ELKAY EYMA4820C	WALL MOUNTED, COMBINATION HOT AND COLD WITH 8" CENTERS, 120 DEGREE SWING, 5 1/4" GOOSENECK SPOUT AND INDEXED LEVER HANDLES CHICAGO FAUCET 631-GN2AE35V8CP	SELF RIMMING COUNTER TYPE	0.5 GPM	1/2"	1/2"	1 1/2"	1 1/2"
SH-1	SHOWER	WALL MOUNTED SHOWER CONSTRUCTED OF 18-GAUGE TYPE 304 STAINLESS STEEL AND PROVIDED WITH A SHROUD EXTENDING TO THE CEILING AND A SOAP DISH	PRESSURE BALANCING SHOWER VALVE WITH LEVER AND CHECKSTOPS AND VANDAL PROOF , FIXED SHOWER HEAD	WALL MOUNTED	1.25 GPM	1/2"	1/2"	2"	1 1/2"
SH-2	ACCESSIBLE SHOWER	WALL MOUNTED SHOWER CONSTRUCTED OF 18-GAUGE TYPE 304 STAINLESS STEEL AND PROVIDED WITH A SHROUD EXTENDING TO THE CEILING AND A SOAP DISH	PRESSURE BALANCING SHOWER VALVE WITH HAND HELD SPRAYER AND STAINLESS STEEL HOSE.	WALL MOUNTED	1.25 GPM	1/2"	1/2"	2"	1 1/2"
SH-3	STAFF SHOWER	WALL MOUNTED SHOWER CONSTRUCTED OF 18-GAUGE TYPE 304 STAINLESS STEEL AND PROVIDED WITH A SHROUD EXTENDING TO THE CEILING AND A SOAP DISH	PRESSURE BALANCING SHOWER VALVE WITH LEVER AND CHECKSTOPS AND BALL JOINT ADJUSTABLE SHOWER HEAD	WALL MOUNTED	1.25 GPM	1/2"	1/2"	2"	1 1/2"
U-1	WALL HUNG URINAL	VITREOUS CHINA, WALL HUNG, TOP SPUD, WASHDOWN TYPE	MANUAL FLUSH VALVE	FLOOR MOUNTED PLATE TYPE FIXTURE CARRIER	0.125 GPF	3/4"	-	2"	1 1/2"
U-2	ACCESSIBLE WALL HUNG URINAL	ACCESSIBLE HEIGHT, VITREOUS CHINA, WALL HUNG, TOP SPUD, WASHDOWN TYPE	MANUAL FLUSH VALVE	FLOOR MOUNTED PLATE TYPE FIXTURE CARRIER	0.125 GPF	3/4"	-	2"	1 1/2"
WC-1	FLOOR MOUNTED WATER CLOSET	VITREOUS CHINA, FLOOR MOUNTED, ELONGATED BOWL, SIPHON JET	MANUAL DUAL FLUSH VALVE	FLOOR MOUNTED	1.6/1.1 GPF	1 1/4"	-	4"	2"
WC-2	ACCESSIBLE FLOOR MOUNTED WATER CLOSET	ACCESSIBLE HEIGHT,VITREOUS CHINA, FLOOR MOUNTED, ELONGATED BOWL, SIPHON JET	MANUAL DUAL FLUSH VALVE	FLOOR MOUNTED	1.6/1.1 GPF	1 1/4"	-	4"	2"
WCB	WASHING MACHINE CONNECTION BOX	20 GAUGE STAINLESS STEEL BOX AND TRIM RING	1/4 TURN STOPS	RECESSED	-	1/2"	1/2"	2"	1 1/2"
YH-1	YARD HYDRANT	ZURN Z-1396XL			-	3/4"	-	-	-

SYMBOL	DESCRIPTION	SINKS						REMARKS	
		DIRECT DRAIN SIZE (IN)	INDIRECT DRAIN SIZE (IN)	COLD WATER SIZE (IN)	HOT WATER SIZE (IN)	120°F HOT WATER SIZE (IN)	SIZE		HBTUH
1	JANITOR'S SINK (MR-1)	4		1/2	1/2				
2	EVAPORATOR COIL DRAIN		3/4						DISCHARGE TO FLOOR DRAIN WITH AIR GAP
11	HAND SINK	1 1/2		1/2	1/2				
13	PREPARATION TABLE WITH SINKS		2	1/2	1/2				DISCHARGE TO FLOOR DRAIN WITH AIR GAP
15	UTILITY RACEWAY			3/4	3/4		1 1/4"	1360	
20	FLOOR TROUGH	3							
21	CONVECTION STEAMER		1 1/2						PROVIDE PRESSURE REDUCING VALVE ON SUPPLY AS REQUIRED BY MANUFACTURER'S LITERATURE. DISCHARGE DRAIN TO FLOOR TROUGH
28A	HOT/COLD FOOD COUNTER, MOBILE		3/4						DISCHARGE TO FLOOR SINK WITH AIR BREAK
28B	COLD FOOD COUNTER		3/4						DISCHARGE TO FLOOR SINK WITH AIR BREAK
29A	HOT/COLD FOOD COUNTER, MOBILE		3/4						DISCHARGE DRAIN TO FLOOR SINK WITH AIR BREAK
29B	COLD FOOD COUNTER, MOBILE		3/4						DISCHARGE DRAIN TO FLOOR SINK WITH AIR BREAK
29D	COLD FOOD COUNTER		3/4						DISCHARGE TO FLOOR SINK WITH AIR BREAK
31	POT WASHING SINK	(2) 1 1/2	FS	(2) 1/2		(2) 1/2			AIR GAP AT FAUCET. PIPE DRAINS TO DISCHARGE TO FLOOR SINK WITH AIR GAP
NOTES:									
1	SEE KITCHEN DRAWINGS FOR PLUMBING CONTRACTOR RESPONSIBILITIES RELATED TO INSTALLATION OF KITCHEN EQUIPMENT.								

REVISÉ PLUMBING }

