

## F

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## D

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## B

## A

|        |                                                                   |
|--------|-------------------------------------------------------------------|
| A-P001 | PLUMBING - GENERAL NOTES, CODES & LEGENDS                         |
| A-P002 | PLUMBING - SCHEDULES                                              |
| A-P003 | PLUMBING - DETAILS                                                |
| A-P004 | PLUMBING - DETAILS                                                |
| A-P101 | PLUMBING - FLOOR PLAN - OVERALL PRESSURE PIPING PLAN              |
| A-P102 | PLUMBING - FLOOR PLAN - OVERALL GRAVITY PIPING PLAN               |
| A-P401 | PLUMBING - ENLARGED DOMESTIC WATER & DWV PLANS AND RISER DIAGRAMS |
| A-P402 | PLUMBING - ENLARGED DOMESTIC WATER & DWV PLANS AND RISER DIAGRAMS |
| A-P403 | PLUMBING - ENLARGED DOMESTIC WATER & DWV PLANS AND RISER DIAGRAMS |
| A-P501 | PLUMBING - RISER DIAGRAMS                                         |

| SYMBOL                                                                               | DESCRIPTION                                                                                                                                      |
|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p>PLUMBING RISER DESIGNATION:</p> <p>A = RISER IDENTIFYING SYSTEM TYPE</p> <p>1 = RISER IDENTIFYING SYSTEM NUMBER</p>                           |
|  | <p>SECTION SYMBOL:</p> <p>A = IDENTIFYING LETTER</p> <p>B = SHEET WHERE SECTION IS SHOWN</p> <p>SIM = SIMILAR<br/>(ONLY NOTED IF IT APPLIES)</p> |
|   | <p>TITLE SYMBOL ON SHEET WHERE SHOWN</p> <p>A = IDENTIFYING NUMBER/LETTER</p>                                                                    |
|   | <p>REVISION CLOUD AND<br/>REVISION NUMBER</p>                                                                                                    |
|   | <p>KEYED REFERENCE<br/>NOTE OR SHEET NOTE</p>                                                                                                    |
|   | <p>POINT OF CONNECTION</p>                                                                                                                       |

PLUMBING RISER DESIGNATION:

A = RISER IDENTIFYING SYSTEM TYPE  
1 = RISER IDENTIFYING SYSTEM NUMBER

SECTION SYMBOL:

A = IDENTIFYING LETTER  
B = SHEET WHERE SECTION IS SHOWN  
SIM = SIMILAR  
(ONLY NOTED IF IT APPLIES)

TITLE SYMBOL ON SHEET WHERE SHOWN  
A = IDENTIFYING NUMBER/LETTER

REFER TO THE PROJECT'S BOOK-TYPE SPECIFICATION FOR ADDITIONAL REQUIREMENTS, DEFINITIONS, MATERIAL SPECIFICATIONS, ETC. IN THE CASE OF CONFLICTING SPECIFICATIONS THE CONTRACTOR SHALL ASSUME THE MORE STRINGENT CRITERIA APPLIES.

2. ALL WORK SHALL BE PERFORMED BY A LICENSED CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETE SYSTEM SHALL BE FULLY AND PROPERLY OPERATIVE, AND IN COMPLIANCE WITH APPLICABLE ~~CODES, ORDINANCES,~~ AND GOVERNING AUTHORITIES, AND SUBJECT TO ACCEPTANCE BY OWNER/ENGINEER.

3. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TAXES REQUIRED TO INSTALL AND COMPLETE SYSTEMS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. CONTRACTOR SHALL PERFORM AND/OR PAY FOR ALL TESTS INDICATED AND/OR REQUIRED BY AUTHORITIES HAVING JURISDICTION FOR ALL SYSTEMS PROVIDED.

4. ALL REQUIRED INSURANCES SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR FOR THE PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE, AND OTHER INSURANCES REQUIRED BY THE OWNER, FOR THE DURATION OF THE WORK.

5. ALL MATERIALS SHALL BE NEW, FREE OF DEFECTS, AND SHALL BE LISTED AND BEAR THE LABEL OF UNDERWRITERS LABORATORIES INC. WHERE APPLICABLE. ALL MATERIALS AND WORKMANSHIP SHALL BE IN STRICT ACCORDANCE WITH ALL LOCAL CODES AND ORDINANCES. ALL REQUIREMENTS AND MATERIALS SHALL BE AS INDICATED IN THESE DRAWINGS AND SPECIFICATIONS.

6. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. CORRECTION OF ANY DEFECTS SHALL BE COMPLETED BY THE CONTRACTOR WITHOUT ADDITIONAL CHARGE, AND SHALL INCLUDE REPLACEMENT NO REPAIRS OF ANY OTHER TRADE WHICH MAY HAVE BEEN DAMAGED BY FAILURE OF PLUMBING TRADE WORK.

7. THE CONTRACTOR SHALL COMPLETELY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS. PRIOR TO COMMENCEMENT OF WORK, VERIFY MEASUREMENTS AT BUILDING SITE. NOTIFY ARCHITECT AND/OR ENGINEER OF ANY CHANGES REQUIRED DUE TO SUCH CONDITIONS BEFORE PROCEEDING WITH THE WORK. SUBMIT DISCREPANCIES, DIFFERENCES AND PROPOSED VARIATIONS TO CONTRACT DOCUMENTS FOR CONSIDERATION AND DECISION BEFORE PROCEEDING.

8. REFER TO CONTRACT DOCUMENTS CREATED BY SPECIALTY CONSULTANTS (SUCH AS LANDSCAPE, SITE, LIGHTING, CIVIL AND/OR INTERIOR DESIGN AS APPLICABLE) AND ASSOCIATED SHOP DRAWINGS TO CONFIRM REQUIREMENTS PRIOR TO ROUGH IN FOR QUANTITY, SIZES AND LOCATION OF REQUIRED SERVICES.

9. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FROM DRAWINGS, BUT FIT WORK TO ACTUAL CONDITIONS AND SPACE REQUIREMENTS.

10. CONTRACTOR SHALL INCLUDE IN THE IR BID ANY ITEM(S) SHOWN OR CALLED OUT ON THESE DRAWINGS. ANY ITEM NOT SHOWN OR CALLED OUT THAT IS REQUIRED TO COMPLETE WORK SHOWN. SHALL THERE BE A CONFLICT ON ANY ITEM FROM THESE DRAWINGS/SPECIFICATIONS, OR ANOTHER TRADES REFERENCE TO AN ITEM OF THIS DISCIPLINE, THE CONTRACTOR IS RESPONSIBLE TO GET CLARIFICATION IN WRITING SIGNED BY THE ENGINEER AND ARCHITECT PRIOR TO SUBMITTING BID AND INCLUDE SAME IN THE IR BID. IF A CONFLICT OR ITEM(S) NOT SHOWN THAT ARE REQUIRED TO COMPLETE WORK SHOWN IS FOUND AFTER BID HAS BEEN AWARDED, CONTRACTOR IS RESPONSIBLE FOR THE MORE EXPENSIVE OPTION AT NO ADDITIONAL CHARGE TO THE OWNER. THE ARCHITECT AND ENGINEER SHALL INTERPRET ALL CONFLICTS. THE CONTRACTOR BY BIDDING AGREES TO ABIDE BY THE ARCHITECTS AND ENGINEERS INTERPRETATION OF THE CONTRACT DOCUMENTS.

11. PHASING OF CONSTRUCTION SHALL BE DONE AS DIRECTED IN ARCHITECT'S CONSTRUCTION PHASING.

12. PROVIDE TEMPORARY POTABLE WATER SERVICE AS REQUIRED ON SITE FOR ALL TRADES.

13. OBTAIN FULL INFORMATION REGARDING PECULIARITIES AND LIMITATIONS OF SPACE AVAILABLE FOR INSTALLATION OF THE EQUIPMENT AND MATERIALS UNDER CONTRACT, AND PROVIDE READY ACCESSIBILITY TO DAMPERS, VALVES, AND OTHER APPARATUS, INCLUDING ANY PART OF SYSTEM REQUIRED TO BE REACHED FOR MAINTENANCE AND OPERATIONS.

14. ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION AND IN STRICT COMPLIANCE WITH ALL APPLICABLE CODES, STANDARDS AND AUTHORITY HAVING JURISDICTION.

15. SUBMIT SHOP DRAWINGS OF ALL PIPING LAYOUTS, MATERIALS, EQUIPMENT AND/OR PROPOSED INSTALLATIONS FOR PROCESSING PRIOR TO FABRICATION AND/OR ORDERING OF EQUIPMENT AND MATERIALS. ALL SHOP DRAWINGS AND/OR REQUESTS FOR ANY DEVIATIONS FROM THE CONTRACT DOCUMENTS SHALL BE ACCEPTED FOR REVIEW ONLY WHEN SUBMITTED THROUGH THE ARCHITECT. ALL SUBMITTALS SHALL BE MADE WITHIN 30 DAYS OF NOTICE TO PROCEED. CONTRACTOR ASSUMES ALL FINANCIAL RISKS FOR PROCEEDING WITHOUT SHOP DRAWINGS PROCESSED WITHOUT EXCEPTION ON ANY NON- SPECIFIED ITEM. SHOP DRAWINGS AND SUBMITTALS FOR EACH ITEM SHALL BE REVIEWED NO MORE THAN TWO TIMES UNLESS ACCOMPANIED BY PURCHASE ORDER FROM CONTRACTOR, PIPING LAYOUTS AND/OR SYSTEMS IF SUBMITTED AT VARIANCE TO THE CONTRACT DOCUMENTS SHALL INCLUDE REASON FOR PROPOSED CHANGE, CREDIT OFFERING TO OWNER AND C. O. PURCHASE ORDER TO ENGINEER TO REVIEW ALTERNATIVE DESIGN, FAILURE TO INCLUDE ANY OF THESE ITEMS WILL RESULT IN REJECTION. CIRCUMSTANCES NECESSITATING A REVISION TO THE PERMITTED DOCUMENTS NOT PROCESSED PRIOR TO INSTALLATION MAY NOT BE ACCEPTED AND WILL NOT BE REVIEWED UNLESS ACCOMPANIED BY A PURCHASE ORDER FROM THE CONTRACTOR.

16. CONTRACTOR SHALL SUBMIT PLAN SHOWING ALL HOLES TO BE CORED IN EXISTING STRUCTURE, DIMENSIONED ON 1/4" SCALE PLANS, TO ARCHITECT/ENGINEER FOR REVIEW. FOR ALL PIPING AND PENETRATIONS PRIOR TO START OF CONSTRUCTION.

17. NEW HVAC DUCTWORK SYSTEMS SHALL HAVE PRIORITY OVER PLUMBING SYSTEM. PLUMBING CONTRACTOR SHALL THOROUGHLY INVESTIGATE PROPOSED PLUMBING SYSTEM AND PROPOSED NEW WORK OF ALL TRADES, AND INCLUDE IN HIS BID THE COST OF RELOCATING AND REWORKING NEW PLUMBING WORK, AS REQUIRED BY HVAC DUCTWORK. SPACE PERMITTING HVAC DUCTWORK SHALL BE REROUTED AROUND PLUMBING PIPING. GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES.

18. PROVIDE AN ACCURATE LAYOUT, GRADES, AND ELEVATIONS. SET SLEEVES AND OPENINGS IN AMPLE TIME; TAKE PROPER PRECAUTIONS TO PROTECT ALL NEW WORK AND EQUIPMENT FROM DAMAGE.

19. THE CONTRACTOR SHALL VERIFY EXACT LOCATION, SIZE, AND COMPATIBILITY WITH ANY INTERFACE OR CONFLICT OF BUILDING SERVICES AND INCORPORATE SUCH ACCOMMODATIONS INTO THE CONTRACT. AN ALLOWANCE SHALL BE MADE IN THE CONTRACTOR'S BID TO ACCOMMODATE DIFFERENCES FROM THE ACTUAL LOCATION VERSUS THE LOCATION INDICATED FROM THE AVAILABLE INFORMATION.

20. WHERE SPECIFIC PRODUCTS, MANUFACTURERS AND/OR MODEL NUMBERS ARE LISTED TO ESTABLISH QUALITY STANDARDS AND/OR SPACE LIMITATIONS, SUBSTITUTIONS OF EQUIPMENT AND/OR MATERIALS TO EQUIVALENT CREDITS MAY BE CONSIDERED IF ACCEPTED IN WRITING VIA PROCESSED SHOP DRAWINGS BY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION. THIS CONTRACTOR WILL ABSORB ALL COORDINATION EFFORTS AND ALL IMPACTS IMPOSED ON OTHER TRADES.

21. EQUIPMENT, PIPING, ETC., SHALL BE LOCATED AS REQUIRED TO ACCOMMODATE BUILDING CONDITIONS INDICATED BY ALL TRADES.

22. EACH FIXTURE AND EQUIPMENT SUPPLY SHALL BE PROVIDED WITH A SUPPLY STOP OR SHUT-OFF VALVE AS APPLICABLE, AND A CALCULATED SHOCK ABSORBERS' WATER HAMMER ARRESTORS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

23. THE CONTRACTOR SHALL MAKE ALL NECESSARY CONNECTIONS TO ALL EQUIPMENT FURNISHED BY OTHER SUPPLIERS INCLUDING OWNER SUPPLIED EQUIPMENT IF ANY IS PROVIDED.

24. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIXTURE ROUGH-IN DIMENSIONS AND CORRECT FLOOR AND WALL PENETRATIONS.

25. PROVIDE ACCESS PANELS IN ALL WALLS AND CEILINGS FOR ALL VALVES, DAMPERS, CONTROL DEVICES, ETC. ACCESS PANELS SHALL BE MILCOR FLUSH TYPE.

26. CUT ALL VOLTAGES WITH ELECTRICAL CONTRACTOR BEFORE ORDERING ANY EQUIPMENT.

27. VERIFY ALL OPENINGS AND CHASES REQUIRED TO ACCOMMODATE THE WORK BY THIS CONTRACTOR. ALL WORK DONE UNDER THIS HEADING MUST CONFORM IN EVERY RESPECT TO ARCHITECTURAL AND STRUCTURAL REQUIREMENTS, AND FINISH AND QUALITY OF MATERIALS AND WORKMANSHIP REQUIRED OF APPLICABLE TRADES FOR THE PROJECT.

28. PROVIDE AND INSTALL FIRE AND SMOKE PENETRATION SEALS FOR OPENINGS IN FLOORS/SLABS, WALLS AND OTHER ELEMENTS OF CONSTRUCTION DEFINED ON ARCHITECTURAL DRAWINGS AS FIRE AND/OR SMOKE BARRIERS. FIRE/SMOKE SEALING SYSTEM SHALL HAVE THE SAME RATINGS AS THE BARRIER PENETRATED. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

29. VIBRATION ISOLATION: ALL EQUIPMENT AS PER MANUFACTURER RECOMMENDATIONS TO ELIMINATE ANY OBJECTIONABLE NOISE. SUBJECT TO REVIEW BY ENGINEER.

30. VERIFY ALL DIMENSIONS WITH STRUCTURE PRIOR TO ANY FABRICATION OR INSTALLATION.

31. ON ALL SCHEDULED EQUIPMENT WHOSE MODEL NUMBER IS INCONSISTENT WITH THE PERFORMANCE CHARACTERISTICS INDICATED, THE CONTRACTOR SHALL BASE HIS PRICE ON THE MORE EXPENSIVE SOLUTION. ANY SUCH DISCREPANCIES SUCH AS MANUFACTURER'S MODEL CHANGE SHALL BE RESOLVED PRIOR TO THE ORDERING OF ANY EQUIPMENT.

32. ALL EQUIPMENT SUPPORTS, PIPING SUPPORTS, AND ROOF PENETRATIONS SHALL BE FABRICATED AND/OR INSTALLED IN A MANNER ACCEPTABLE TO THE BUILDING STRUCTURAL ENGINEER AND ARCHITECT.

33. FOR ALL SLABS AND PARTICULARLY SLABS CONTAINING REINFORCING IN TENSION (POST TENSION), ASCERTAIN LOCATION OF REINFORCING COMPONENTS AND OBTAIN STRUCTURAL ENGINEERS APPROVAL FOR PENETRATION SIZE(S) AND LOCATION(S) PRIOR TO PROCEEDING WITH ANY WORK.

34. ALL POTABLE WATER SYSTEMS SHALL BE FLUSHED CLEAN, STERILIZED WITH AN APPROVED SOLUTION AND THOROUGHLY FLUSHED OF ALL RESIDUAL SOLUTION AFTER FINAL PRESSURE TEST AND WITH ALL TRIM AND CONNECTIONS INSTALLED.

35. CONTRACTOR SHALL OBTAIN APPROVED MANUFACTURER'S INSTALLATION DRAWINGS AND DIMENSIONED ROUGH-IN DRAWING AND/OR CATALOG CUTS OF ALL EQUIPMENT PRIOR TO PROCEEDING WITH ANY WORK.

36. CONTRACTOR SHALL PROVIDE ALL SYSTEMS INDICATED IN THESE SPECIFICATIONS ON THE DRAWINGS AND AS REQUIRED TO COMPLY WITH LOCAL CODES AND ORDINANCES AS APPLICABLE TO THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCES AND FOR PROVIDING A COMPLETE AND OPERATING INSTALLATION INCLUDING PROVIDING SERVICES AND CONNECTIONS TO ITEMS THAT MAY ONLY BE INDICATED ON AIR CONDITIONING, ELECTRICAL AND/OR ARCHITECTURAL CONTRACT DOCUMENTS.

37. SEE ARCHITECTURAL DRAWINGS AND SITE CONDITIONS FOR AREAS AND SYSTEMS PRIOR TO BID AND COMMENCEMENT OF WORK AND ORDERING OF MATERIALS. TO INCLUDE WHERE APPLICABLE ANY DEMOLITION AND PREPARATION WORK REQUIRED WITHIN THE SCOPE OF THIS PROJECT.

38. PROVIDE INTERFACE CONNECTIONS TO UTILITY SYSTEMS AS REQUIRED.

39. PROVIDE ALL FIXTURES AND EQUIPMENT WITH APPROVED PLUMBING FITTINGS. VISIBLE PARTS OF FIXTURE AND EQUIPMENT TRIM AND ACCESSORIES, INCLUDING SUPPLIES, P-TRAPS, WASTE ARMS AND ESCUTCHEONS SHALL BE HEAVILY CHROME PLATED.

40. PROVIDE WALL HUNG FIXTURES NOT SUPPLIED WITH FLOOR MOUNTED CARRIERS WITH MINIMUM 1/4" THICK STEEL WALL PLATE SECURED TO STUDS FOR WALL HANGER, AND INSTALLED WITH ADDITIONAL STRUCTURAL SUPPORTS AND BRACING SO THAT FIXTURE CAN WITHSTAND 300 POUND VERTICAL DOWNWARD FORCE AT FRONT EDGE OF FIXTURE WITHOUT DAMAGE TO INSTALLATION.

41. ALL TRAPS FOR FLOOR DRAINS, OPEN SIGHT DRAINS, HUB DRAINS, AND INDIRECT WASTES SHALL BE PROVIDED WITH AUTOMATIC TRAP SEAL PRIMING SYSTEMS. SEE SPECIFICATION FOR ACCEPTABLE PRIMING SYSTEMS.

42. FOR ALL PIPING AGAINST BLOCK WALLS - INSTALL FURRED SPACE AS REQUIRED TO ACCEPT PIPING, CUTTING OF BLOCK NOT PERMITTED, UNLESS PERMITTED BY ARCHITECT IN WRITING.

43. INSTALL CLEANOUTS AS SHOWN, AND AS REQUIRED BY APPLICABLE CODES AND GOVERNING AUTHORITIES.

44. PROVIDE THE REQUIRED CLEARANCES AND SPACE FOR ALL PLUMBING FIXTURES. PLUMBING CONTRACTOR SHALL VERIFY AND COORDINATE PRIOR TO THE START OF CONSTRUCTION.

45. ALL PLUMBING TRADE ITEMS SHALL BE INDIVIDUALLY AND RIGIDLY SUPPORTED FROM STRUCTURE ABOVE INDEPENDENT OF ALL OTHER TRADES (DO NOT HANG PLUMBING TRADE ITEMS FROM ANOTHER TRADE).

46. CONTRACTOR SHALL INSTALL SWAY BRACING ON ALL PIPING AS REQUIRED BY THE FLORIDA PLUMBING CODE SECTION 308.6. ON EACH VALVE, COORDINATE WITH OWNER'S IDENTIFICATION SYSTEM.

47. CONTRACTOR SHALL LOCATE ALL VALVES SO THAT THEY ARE COMPLETELY ACCESSIBLE AND INSTALL PERMANENT STAMPED BRASS VALVE TAGS.

48. ALL PLUMBING FLUSH VALVES, FIXTURES STOPS, VALVES, ETC., SHALL BE RIGIDLY SECURED (NO MOVEMENT WHEN OPERATED).

49. DIELECTRIC COUPLINGS SHALL BE INSTALLED BETWEEN ALL DISSIMILAR METALS IN PIPING AND EQUIPMENT CONNECTIONS.

50. TEMPERATURE OF HOT WATER TO REST ROOMS SHALL NOT EXCEED 110°F. PER FLORIDA ENERGY CODE. CONTRACTOR SHALL VERIFY TEMPERATURE OF HOT WATER SYSTEM WITH OWNER. IF TEMPERATURE EXCEED 110°F, INSTALL TEMPERING VALVES AS REQUIRED, SUBJECT TO REVIEW BY ENGINEER.

51. DO NOT INSTALL ANY PLUMBING PIPING OR SYSTEM COMPONENT IN THE SPACE ABOVE AN ELECTRICAL PANEL, TYPICAL THROUGHOUT JOB.

52. AIR CONDITIONING CONDENSATE TRAPS SHALL BE MADE UP OF UNIONS ON EACH SIDE OF TRAP, AND TRAP SHALL BE COMPLETELY REMOVABLE FOR CLEANING. CONTRACTOR SHALL DEMONSTRATE TRAP REMOVAL PRIOR TO FINAL ACCEPTANCE.

53. AS BUILT DRAWINGS:

A. CONTRACTOR SHALL FURNISH COMPLETE SET OF REPRODUCIBLE PLANS INCORPORATING ALL SUCH APPROVED CHANGES, DEVIATIONS, ETC. THAT OCCURRED DURING CONSTRUCTION. CONTRACTORS "AS-BUILT" DRAWINGS TO INCLUDE ALL MODIFICATIONS TO SHOP DRAWINGS, WIRING DIAGRAMS AS WELL AS PLANS.

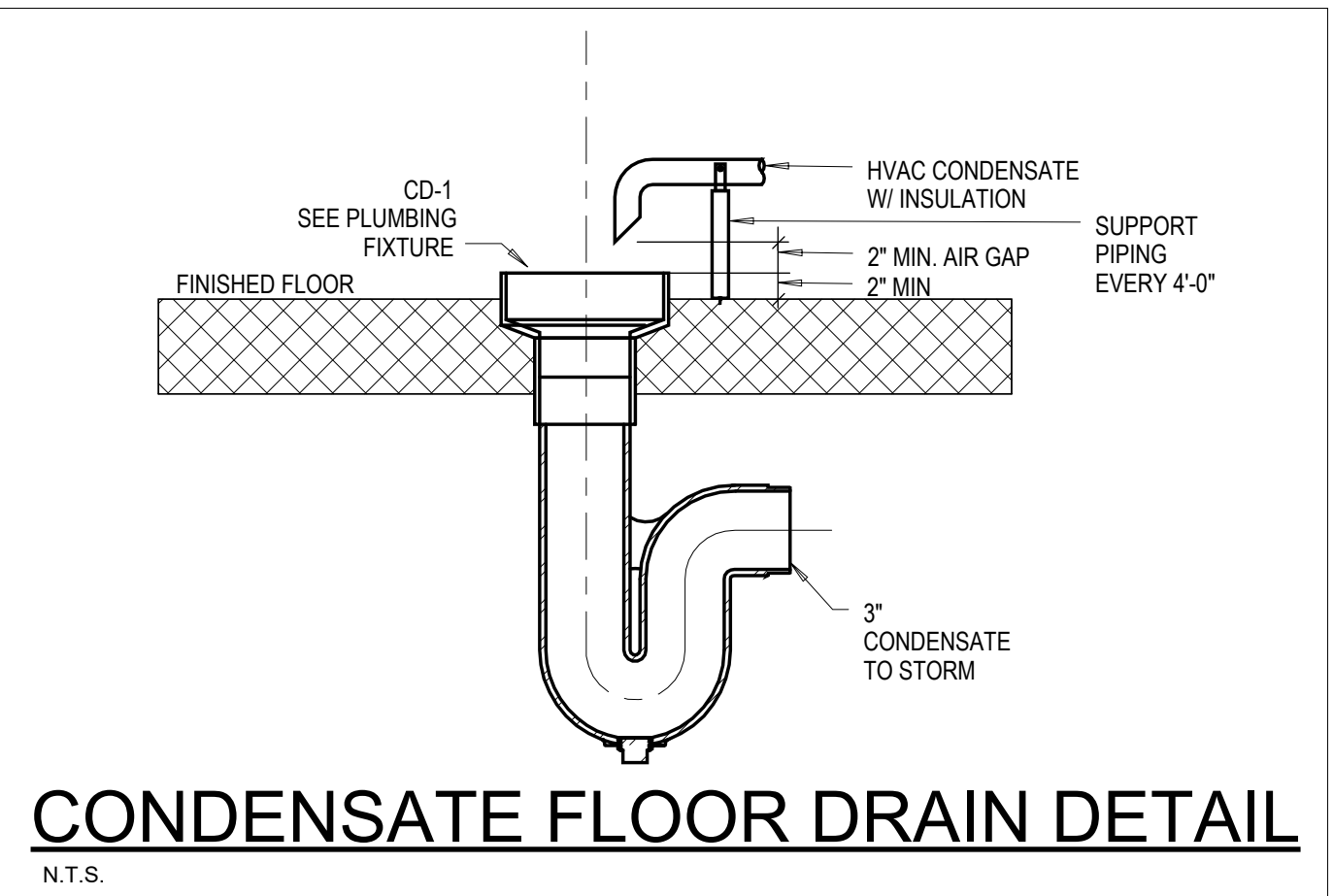
B. ALL "AS-BUILT" DRAWINGS SHALL INCLUDE ALL SCHEDULED MATERIALS, EQUIPMENT AND FULL DATA INDICATED ON CONTRACT DOCUMENTS REVISED TO REFLECT ALL SUBSTITUTED ITEMS.

C. IF ENGINEER CERTIFIED AS-BUILT DRAWINGS ARE NOT REQUIRED BY, SUBMITTED TO AND ACCEPTED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY, THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR CODE COMPLIANCE AND/OR CONTRACTOR COMPLIANCE WITH THE INTENT OF THE PERMITTED CONTRACT DOCUMENTS.



3-20-04-00  
HASE GOODWIN, PE  
PE # 94681  
SEAL

# A-P003

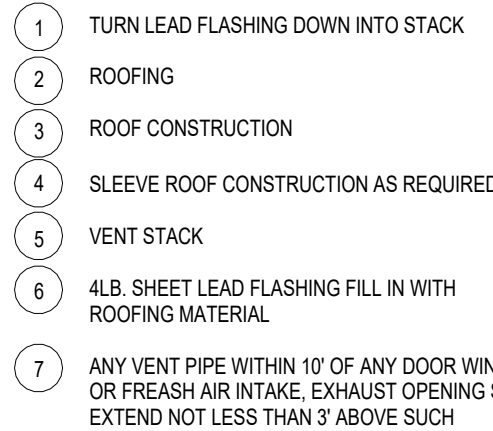


info@CEAengineers.com

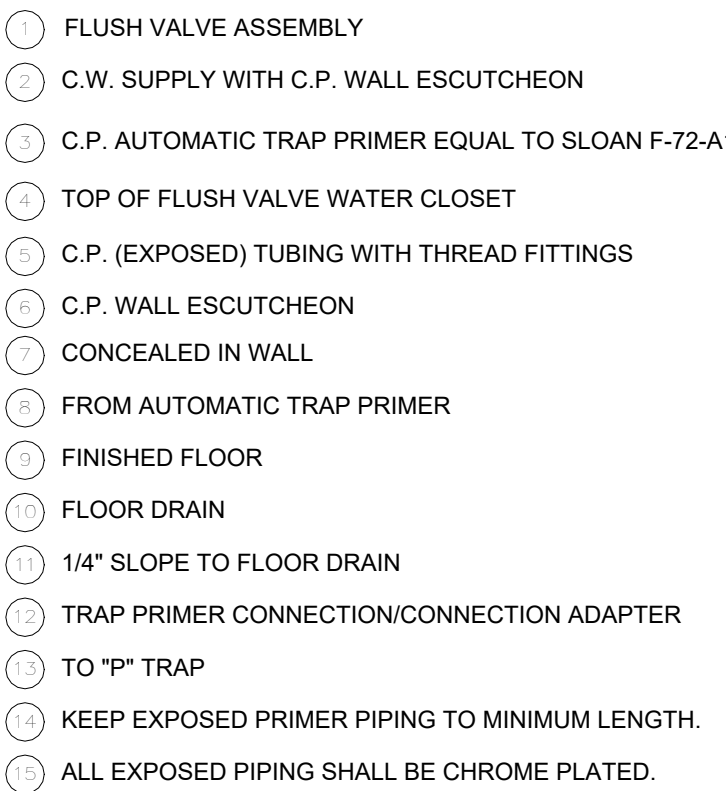
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THESE DRAWINGS ARE NOT VALID FOR ANY PURPOSE WHICH REQUIRES THE ORIGINAL SIGNATURE AND SEAL OF THE ENGINEER UNLESS THE ORIGINAL SIGNATURE AND SEAL ARE AFFIXED. DRAWINGS NOT SIGNED AND SEALED BY THE ENGINEER SHALL NOT BE SUBMITTED TO ANY AUTHORITY OR USED FOR ANY PURPOSE WHERE SIGNED AND SEALED DOCUMENTS ARE REQUIRED.

A-P004

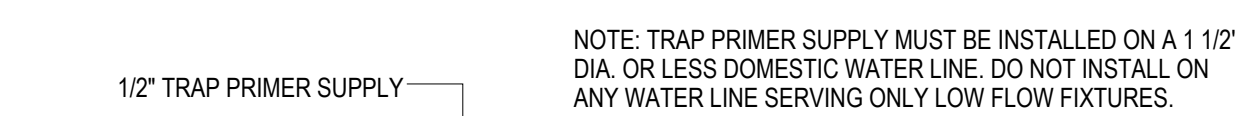


## N.T.S



THIS DETAIL APPLICABLE FOR RESEALING OF ALL TOILET ROOM FLOOR DRAINS FROM FLUSH VALVE WATER CLOSETS. ALL OTHER FLOOR DRAINS/SINKS UNLESS OTHERWISE INDICATED, ARE TO BE RESEALED BY MEANS OF A BRONZE BODY AUTOMATIC TRAP RESEAL PRIMER VALVE, CHROME PLATED WHEN EXPOSED, COMPLETE WITH REMOVABLE OPERATING PARTS, INTEGRAL VACUUM BREAKER, AND GASKETED ACCESS COVER. VALVE EQUAL TO JOSAM 88250 SERIES WITH FEMALE 1 P.S. UNION CONNECTIONS. VALVE INSTALLED IN THE C.W. SUPPLY LINE OF THE NEAREST SINK/ LAVATORY & SLOPED TO THE FLOOR DRAIN (SEE DETAIL).

N.T.S. (FLUSH VALVE AUTO TRAP PRIMER, FOR ALL FLOOR DRAINS EXCEPT AS NOTED)



N.T.S.



UL SYSTEM C-AJ-5069

F RATING - 2 HF  
T RATING - 0 HF

N.T.S.



UL SYSTEMS C-AJ-1149

F RATING = 2  
T RATING = 0

N.T.S.



UL SYSTEM W-L-1054

F RATING - 1 AND 2 H

1 RATING - 0 HR

N.T.S.

PENETRATIONS THROUGH RATED WALLS AND FLOORS SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASSES WHEN SUBJECTED TO THE REQUIREMENTS OF THE TEST STANDARD SPECIFIC FOR FIRE STOPS ASTM E-814/UL 1479. ONLY FIRESTOP SYSTEMS AND MATERIALS MANUFACTURED BY HILTI CONSTRUCTION CHEMICALS, INC. SHALL BE USED.



III. SYSTEM W.J. 504

F RATING - 1 AND 2 HR

T RATING - 0 AND 1 HR

N.T.S.





HASE GOODWIN, PE  
PE # 94681  
SEAL

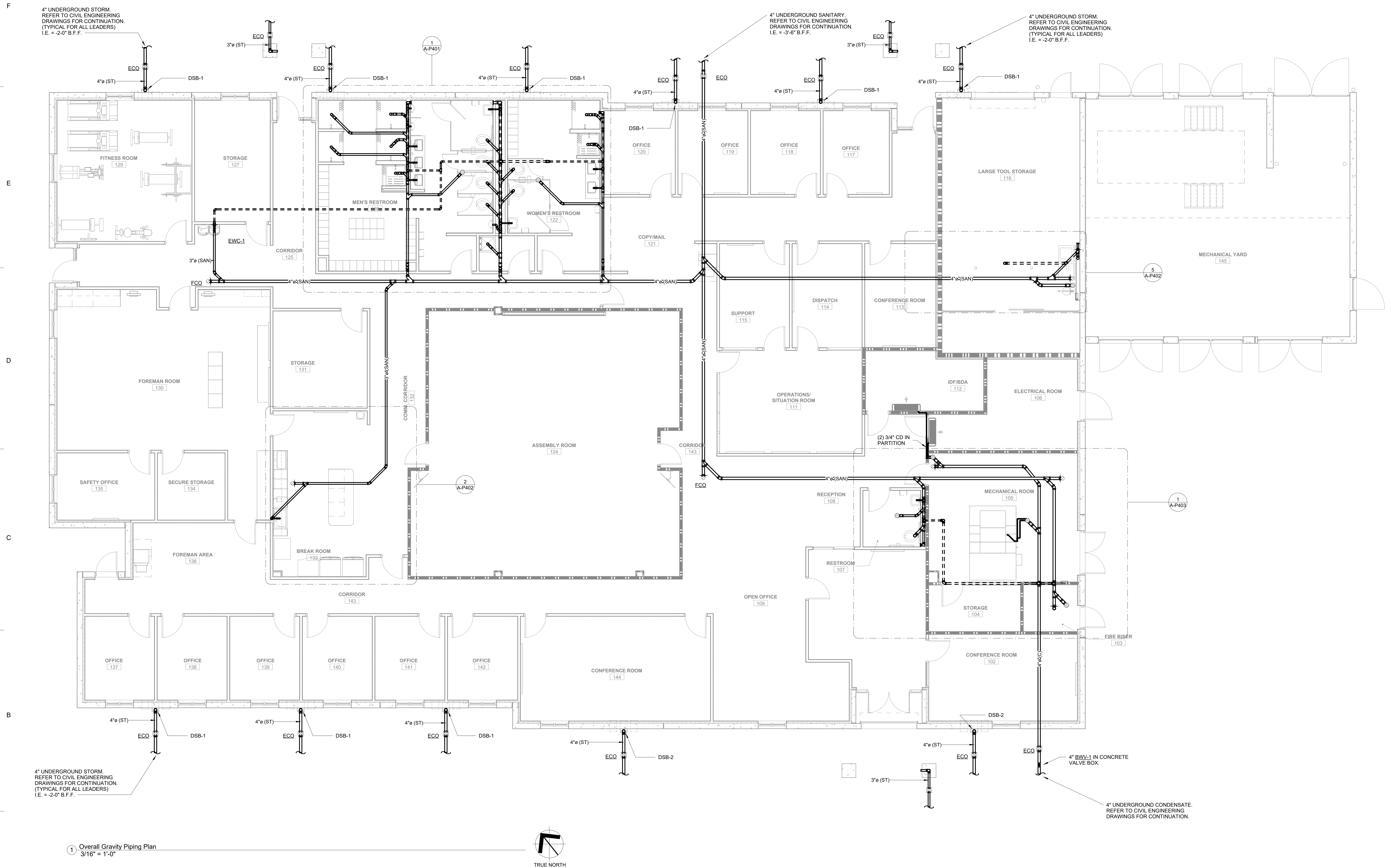
**CEa**  
**CARDINAL**  
ENGINEERING ASSOCIATES INC.  
ST. LUCIE OFFICE  
100 W. MERCANTILE PL. #206  
FORT ST. LUCIE, FL 34986  
OFFICE: (561) 746-6343  
  
LAUDERDALE OFFICE  
7700 NW 62ND ST., #110  
LAUDERDALE, FL 33309  
OFFICE: (561) 746-6343  
  
info@CEAengineers.com  
  
E# 784777 CA LIC. 31555  
EES DRAWINGS ARE NOT VALID FOR ANY  
OTHER PURPOSES THAN THE PROJECT  
SIGNATURE AND SEAL OF THE ENGINEER  
ARE REQUIRED. EES DRAWINGS ARE NOT  
VALID IF THE ENGINEER'S SEAL, NOT  
SUBMITTED TO ANY AUTHORITY OR  
FOR ANY PURPOSES OTHER THAN  
SUBMITTED DOCUMENTS ARE REQUIRED.

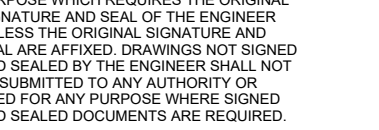
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PROJECT NAME  
COLUMBIA STORM  
PROCESSING & SERVICE  
CENTER - BLDG C -  
BAY FLEET GARAGE

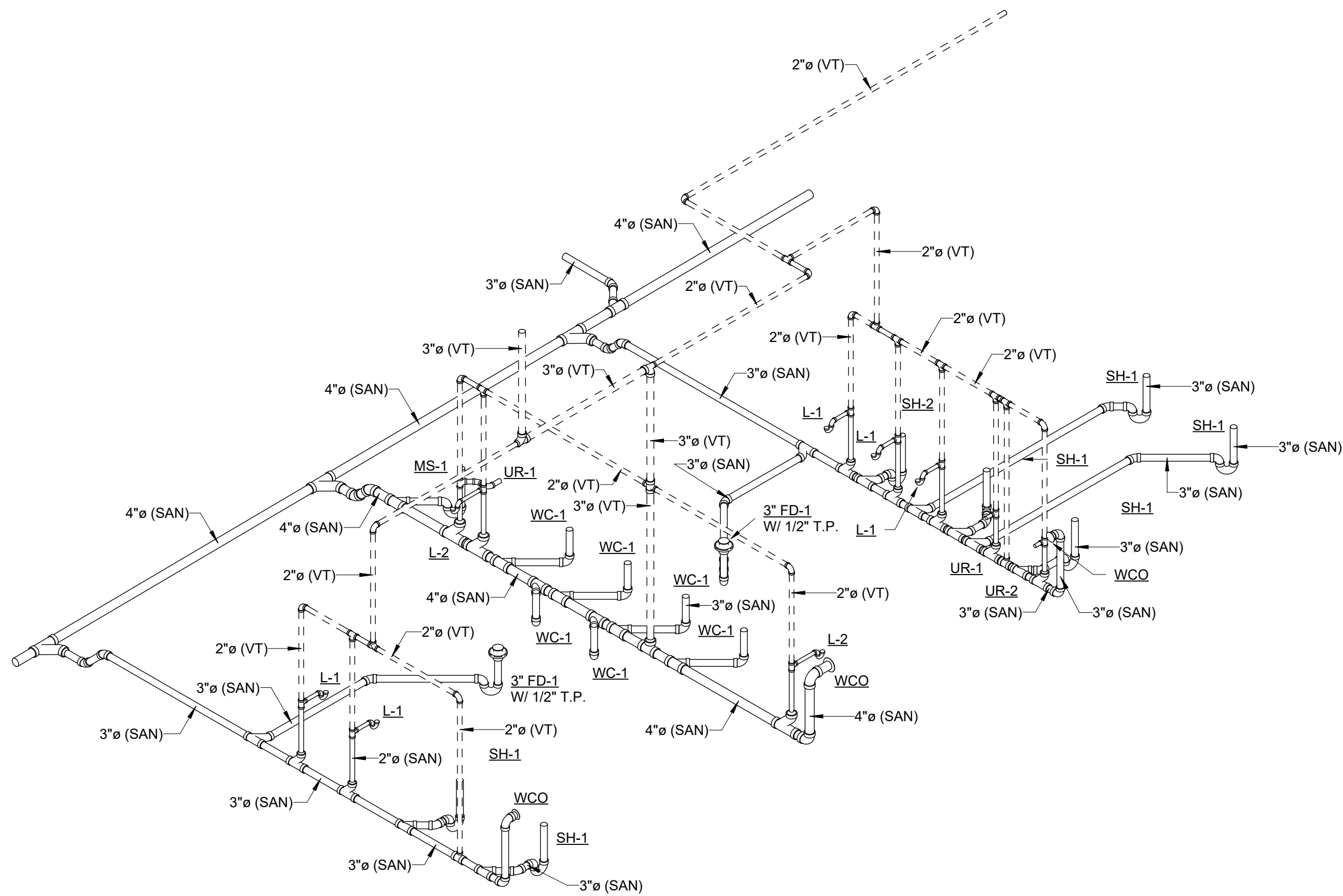
ET NUMBER

A-P102

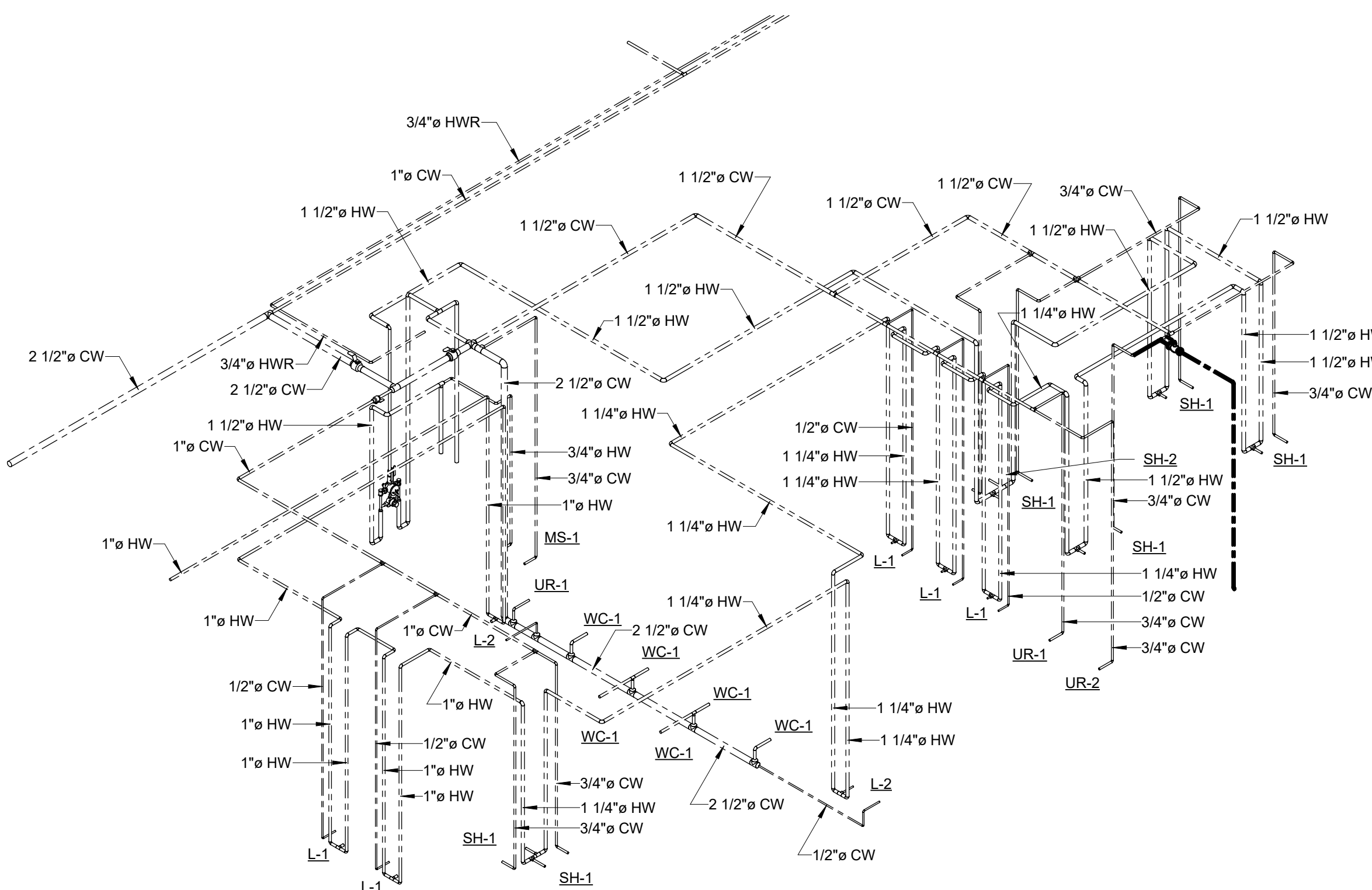




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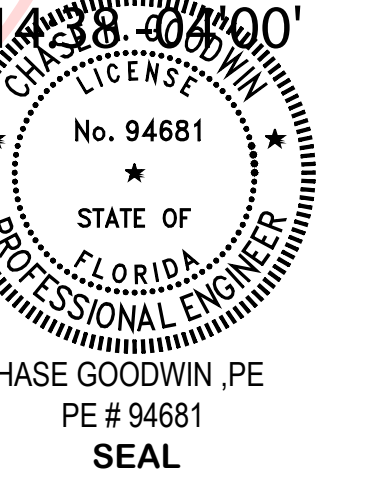
2 RESTROOM 122 & 126 DWV RISER DIAGRAM



4 RESTROOM 122 & 126 DOMESTIC WATER RISER DIAGRAM



Digitally signed  
by Chase H  
Goodwin  
Date: 2026.05.06



**Ea**  
**CARDINAL**  
ENGINEERING ASSOCIATES INC.  
ST. LUCIE OFFICE  
100 NW MERCANTILE PL #206  
PORT ST. LUCIE, FL 34986  
OFFICE: (561) 746-6343  
LAUDERDALE OFFICE  
100 NW 62ND ST., #B110  
LAUDERDALE, FL 33309  
OFFICE: (561) 746-6343

**E# 78477 CA LIC. 31555**  
 THESE DRAWINGS ARE NOT VALID FOR ANY  
 PURPOSE WHICH REQUIRES THE ORIGINAL  
 SIGNATURE AND SEAL OF THE ENGINEER.  
 UNLESS THE ORIGINAL SIGNATURE AND  
 SEAL ARE AFFIXED, DRAWINGS NOT SIGNED  
 OR SEALED BY THE ENGINEER SHALL NOT  
 BE SUBMITTED TO ANY AUTHORITY OR  
 USED FOR ANY PURPOSE WHERE SIGNED  
 OR SEALED DOCUMENTS ARE REQUIRED.

100% CONSTRUCTION DOCUMENTS

EXPIRATION DATE  
2/15/2026

## DISCUSSION

[illegible]

**PROJECT TEAM**

PRINCIPAL IN CHARGE  
**COTT RAYNOR**

PROJECT MANAGER  
**COTT RAYNOR**

DESIGN TEAM  
**CEA**

COLUMBIA STORM  
PROCESSING & SERVICE  
CENTER - BLDG C -  
BAY FLEET GARAGE

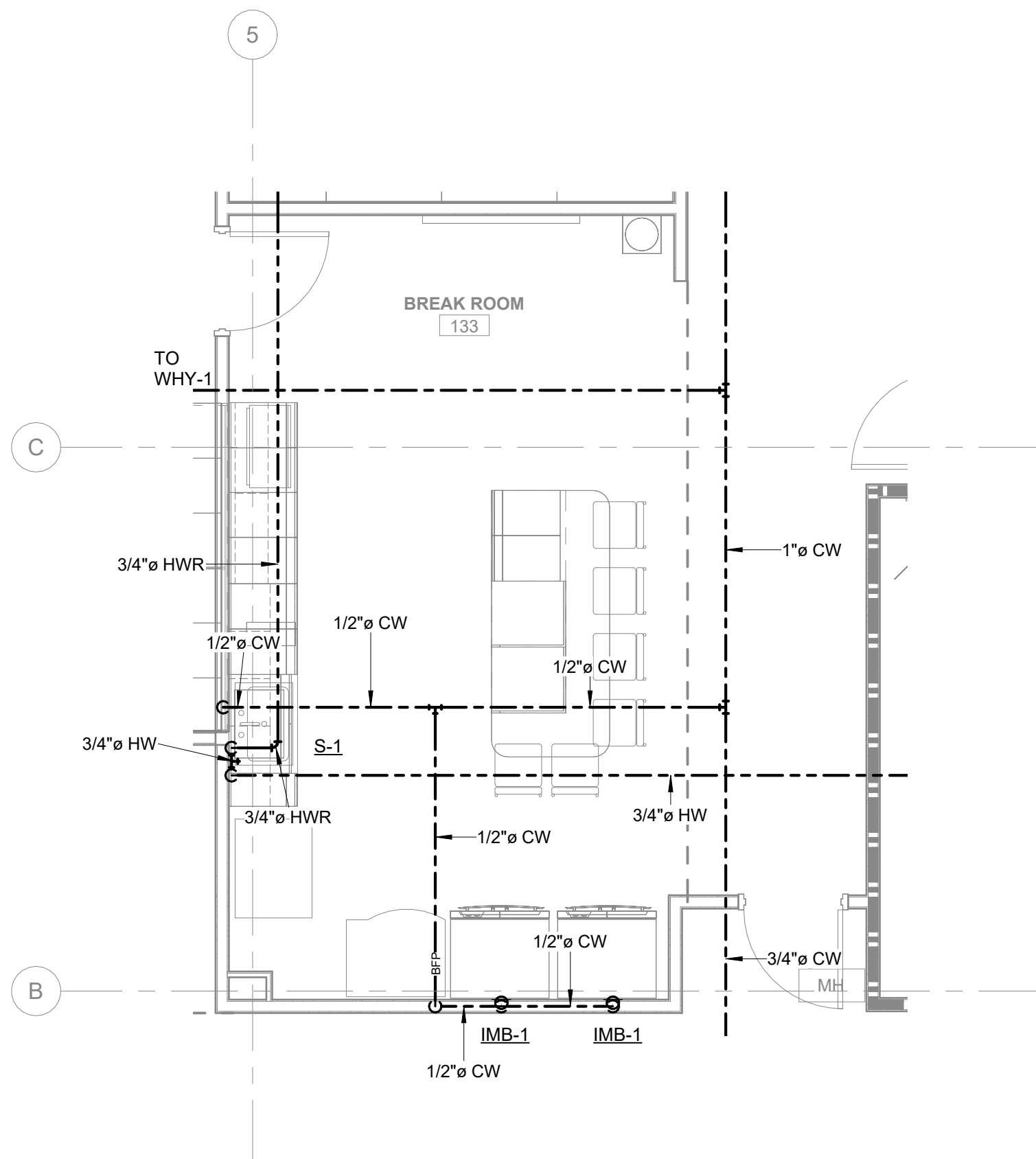
PROJECT NO. \_\_\_\_\_

14C632800

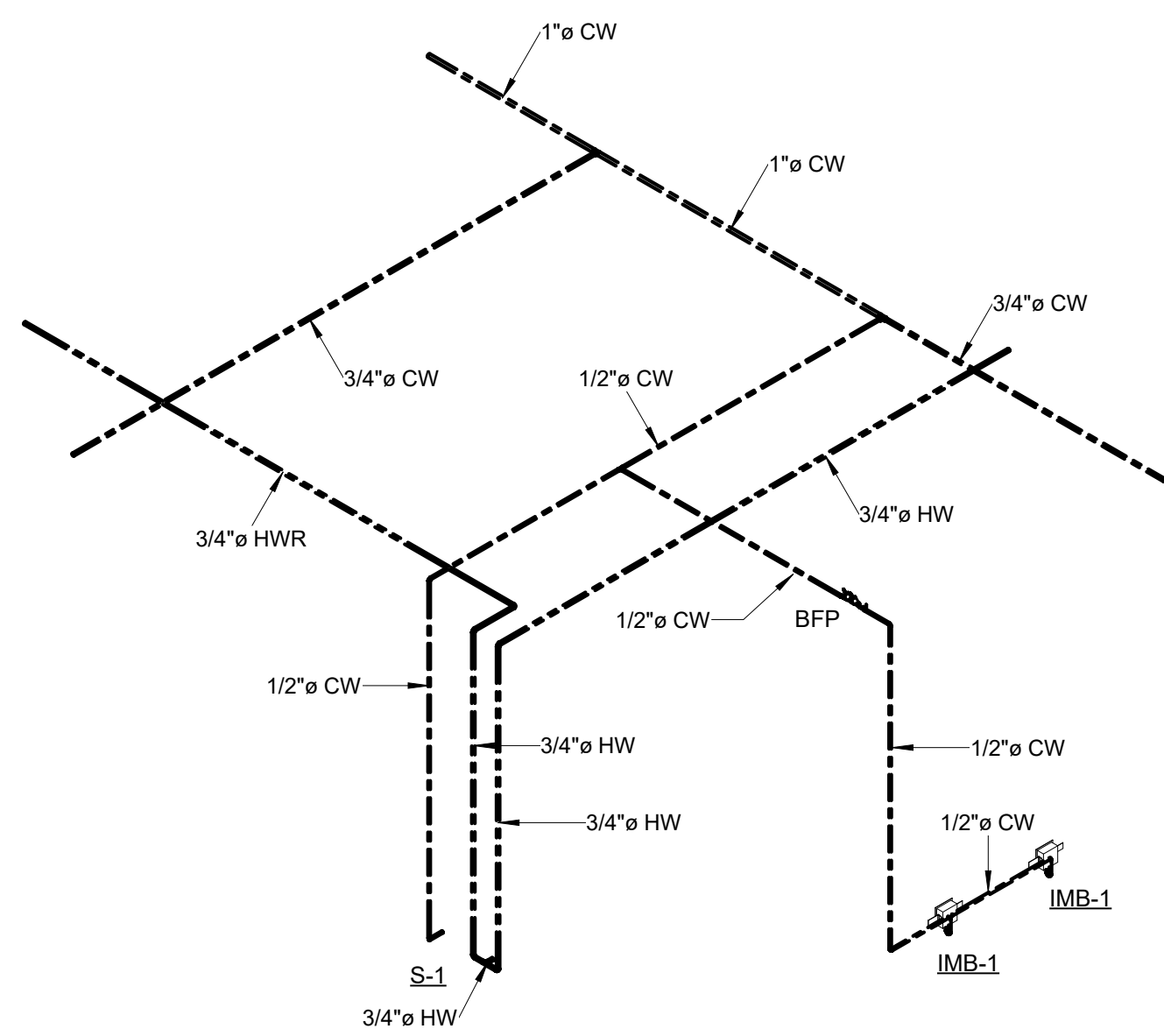
SHEET NAME  
PLUMBING ENLARGED  
DOMESTIC WATER & DWV  
PLANS AND RISER  
DIAGRAMS

ET NUMBER

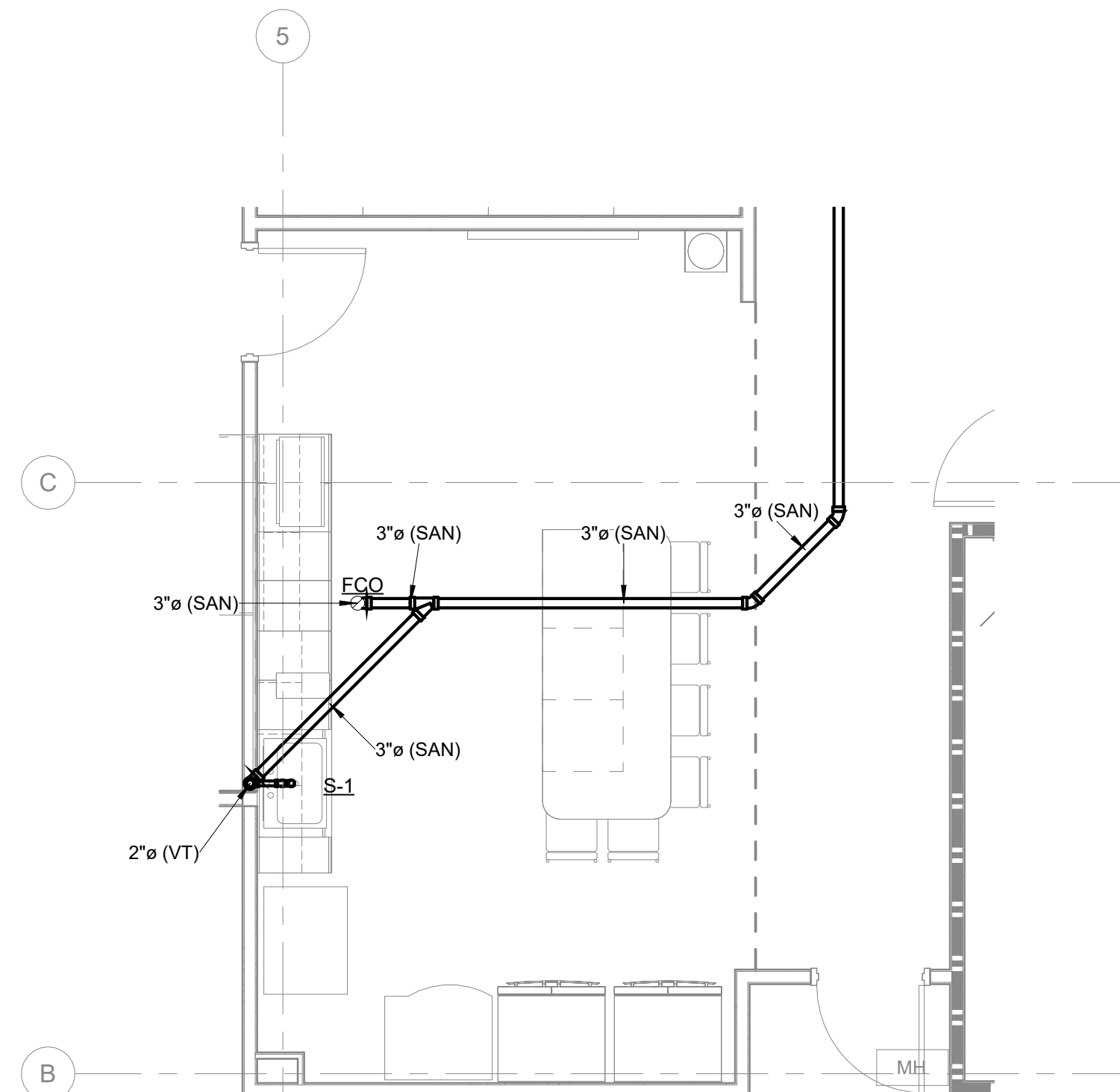
A-P402



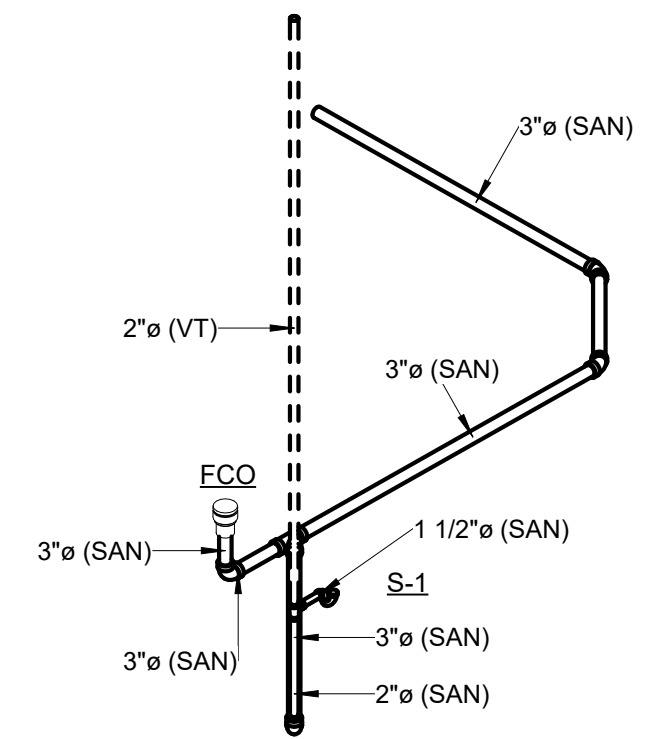
1 BREAK ROOM 133 DOMESTIC WATER ENLARGED PLAN  
1/4" = 1'-0"



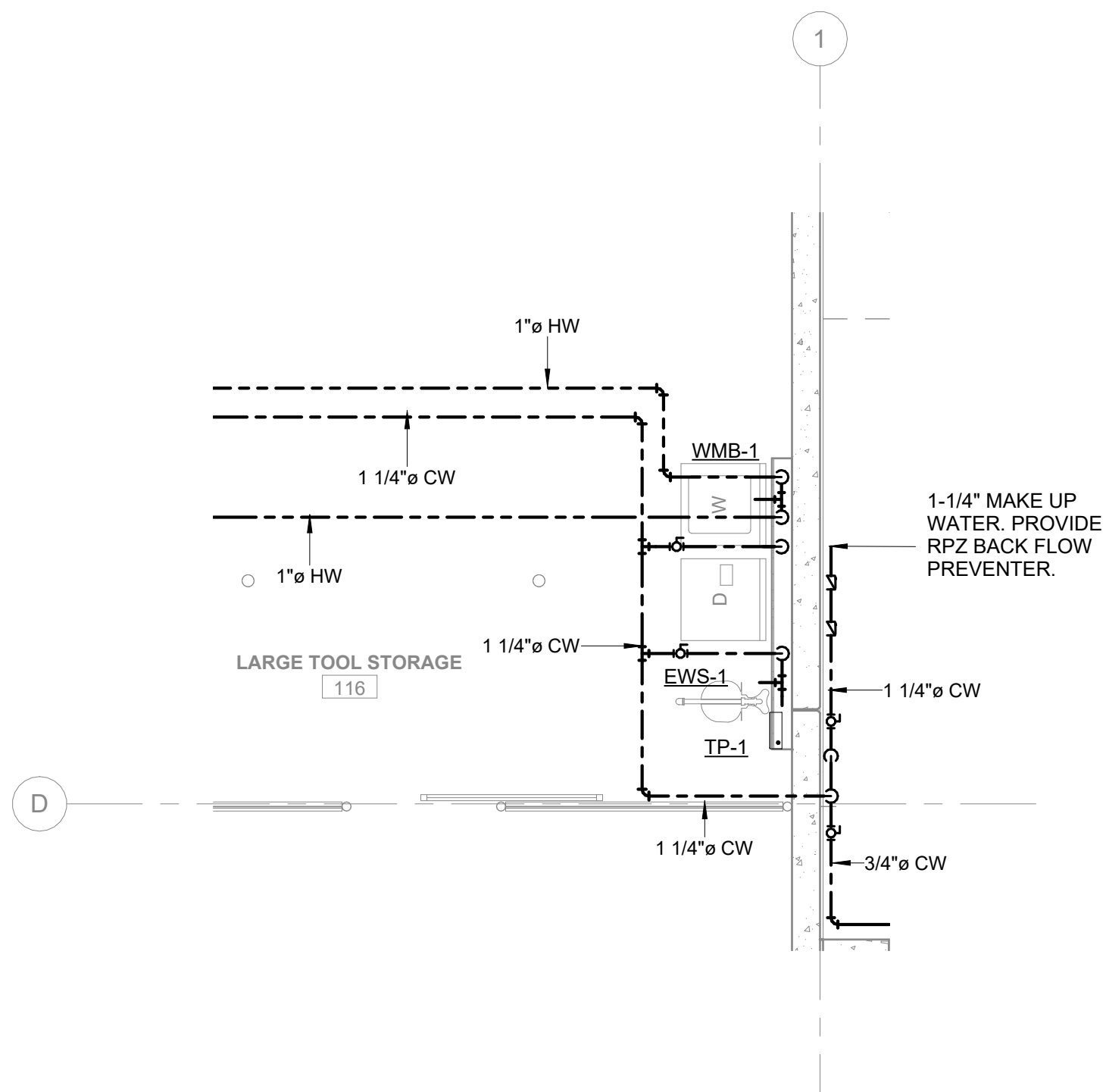
3 BREAK ROOM 133 DOMESTIC WATER RISER DIAGRAM



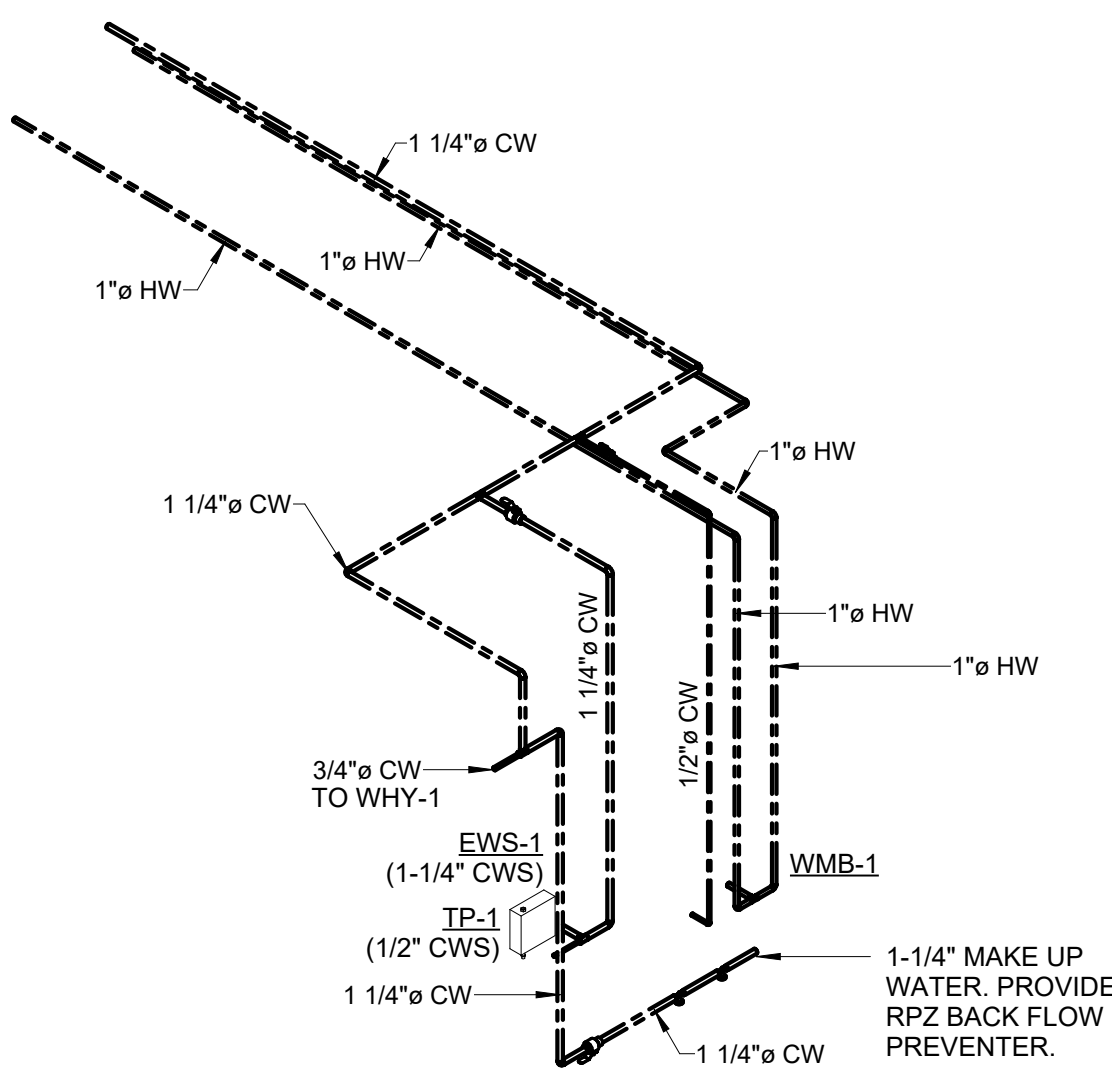
2 BREAK ROOM 133 DWV ENLARGED PLAN  
1/4" = 1'-0"



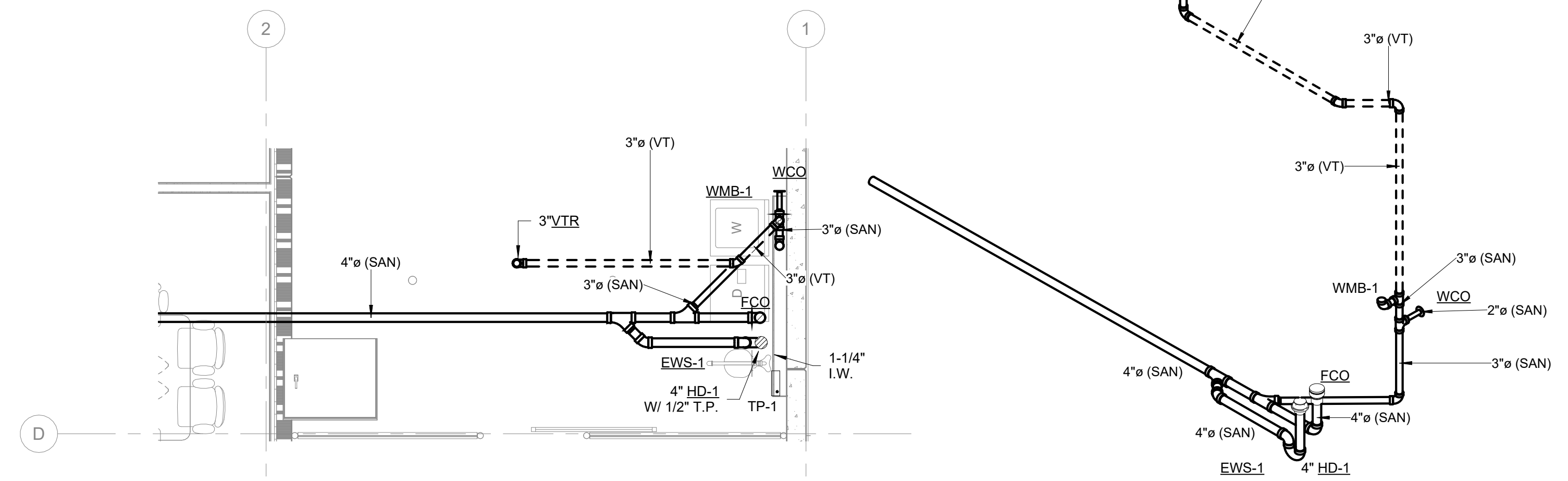
4 BREAK ROOM 133 DWV RISER DIAGRAM



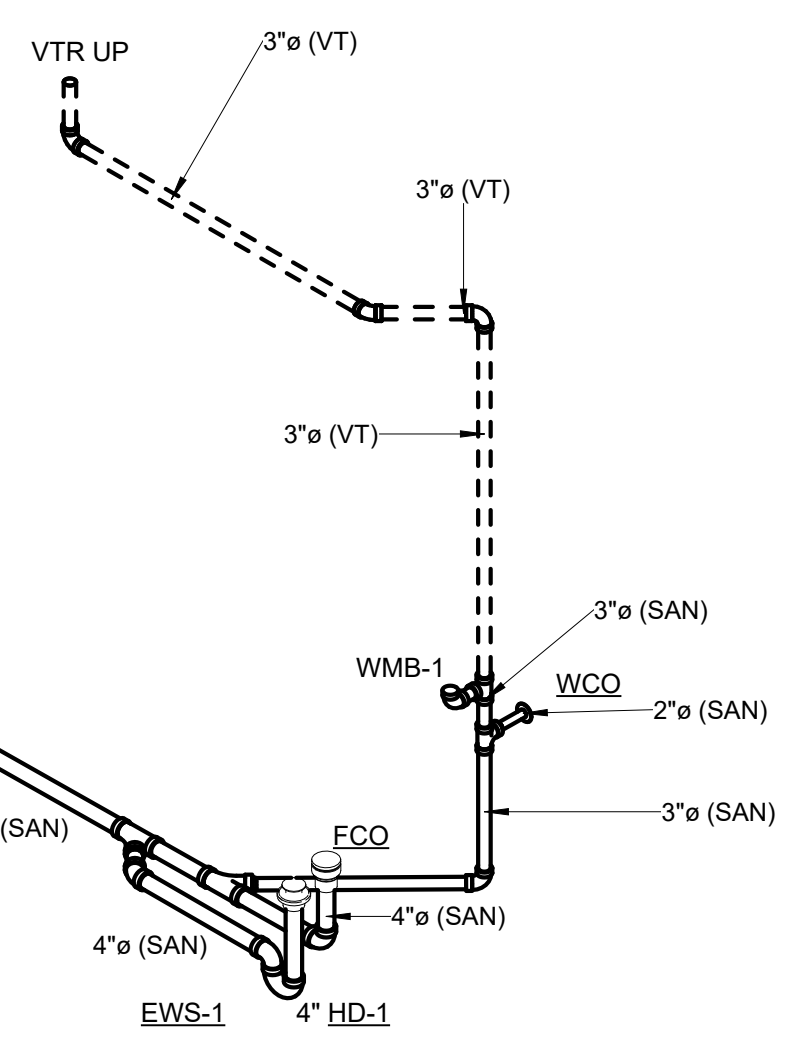
6 LARGE TOOL STORAGE DOMESTIC WATER ENLARGED PLAN  
1/4" = 1'-0"



7 LARGE TOOL STORAGE DOMESTIC WATER RISER DIAGRAM



5 LARGE TOOL STORAGE DWV ENLARGED PLAN  
1/4" = 1'-0"



## 8 LARGE TOOL STORAGE DWV RISER DIAGRAM



CHASE H. GOODWIN, PE  
PE # 94681  
SEAL

**CEa**  
**CARDINAL**  
ENGINEERING ASSOCIATES INC.  
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**E# 78477 CA LIC. 31555**  
 THESE DRAWINGS ARE NOT VALID FOR ANY  
 PURPOSE WHICH REQUIRES THE ORIGINAL  
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100% CONSTRUCTION DOCUMENTS

2/15/2026

| DISPOSITIONS |        |      |
|--------------|--------|------|
| NO.          | REASON | DATE |

[illegible]

**PROJECT TEAM**

PRINCIPAL IN CHARGE  
**COTT RAYNOR**

PROJECT MANAGER  
**COTT RAYNOR**

DESIGN TEAM  
**CEA**

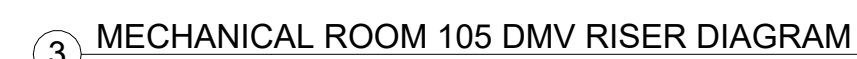
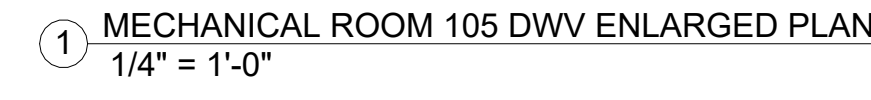
COLUMBIA STORM  
PROCESSING & SERVICE  
CENTER - BLDG C -  
BAY FLEET GARAGE

14C632800

SHEET NAME  
PLUMBING ENLARGED  
DOMESTIC WATER & DWV  
PLANS AND RISER  
DIAGRAMS

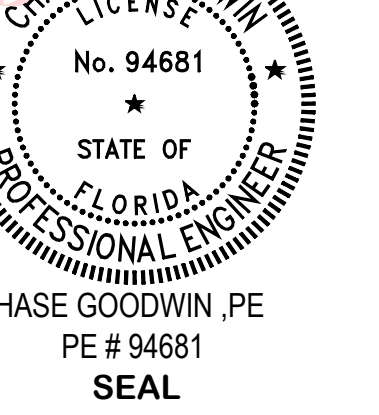
ET NUMBER

A-P403





7:15 361-0400'



2/15/2026

| DISPOSITIONS |        |      |
|--------------|--------|------|
| NO.          | REASON | DATE |

[illegible]

**PROJECT TEAM**

PRINCIPAL IN CHARGE  
**COTT RAYNOR**

PROJECT MANAGER  
**COTT RAYNOR**

---

DESIGN TEAM  
**CEA**

**PROJECT NAME**

**COLUMBIA STORM  
PROCESSING & SERVICE  
CENTER - BLDG C -  
BAY FLEET GARAGE**

ET TITLE

SHEET NAME

PLUMBING RISER

DIAGRAMS

ET NUMBER  
A-P501

