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100% Construction Documents

12.03.2025

NO.	REASON	DATE

PRINCIPAL IN CHARGE  
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PROJECT MANAGER  
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Processing Facility Phase 2

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PLUMBING - GENERAL  
NOTES, CODES &  
LEGENDS

F-P001

## PLUMBING GENERAL NOTES

- 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.
- 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.
- CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS, FEES, INSPECTIONS AND TAXES REQUIRED TO INSTALL AND COMPLETE SYSTEMS INDICATED ON THE DRAWINGS AS SPECIFIED HEREIN. CONTRACTOR SHALL PERFORM AND/OR PAY FOR ALL TESTS INDICATED AND/OR REQUIRED BY AUTHORITIES HAVING JURISDICTION FOR ALL SYSTEMS PROVIDED.
- 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.
- 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.
- 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 AND REPAIRS OF ANY OTHER TRADE WHICH MAY HAVE BEEN DAMAGED BY FAILURE OF PLUMBING TRADE WORK.
- 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.
- 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.
- DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE FROM DRAWINGS, BUT FIT WORK TO ACTUAL CONDITIONS AND SPACE REQUIREMENTS.
- CONTRACTOR SHALL INCLUDE IN THEIR BID ANY ITEMS SHOWN OR CALLED OUT ON THESE DRAWINGS AND 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 SAID ITEM(S) IN THEIR 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 SOLUTION. THIS CONTRACTOR WILL ABSORB ALL COORDINATION EFFORTS AND ALL IMPACTS IMPOSED ON OTHER TRADES. THE CONTRACTOR BY BIDDING AGREES TO ABIDE BY THE ARCHITECTS AND ENGINEERS INTERPRETATION OF THE CONTRACT DOCUMENTS.
- PHASING OF CONSTRUCTION SHALL BE DONE AS DIRECTED IN ARCHITECT'S CONSTRUCTION PHASING.
- PROVIDE TEMPORARY POTABLE WATER SERVICE AS REQUIRED ON SITE FOR ALL TRADES.
- 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.
- 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.
- 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. D. 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.
- 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.
- 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 NEW, HVAC DUCTWORK SHALL BE REROUTED AROUND PLUMBING PIPING. GENERAL CONTRACTOR SHALL COORDINATE ALL TRADES.
- 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.
- 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.
- WHERE SPECIFIC PRODUCTS, MANUFACTURERS AND/OR MODEL NUMBERS ARE LISTED TO ESTABLISH QUALITY STANDARDS AND/OR SPACE LIMITATIONS, SUBSTITUTIONS OF EQUAL STATUS WITH APPROPRIATE 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.
- EQUIPMENT, PIPING, ETC., SHALL BE LOCATED AS REQUIRED TO ACCOMMODATE BUILDING CONDITIONS INDICATED BY ALL TRADES.
- 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.
- THE CONTRACTOR SHALL MAKE ALL NECESSARY CONNECTIONS TO ALL EQUIPMENT FURNISHED BY OTHER SUPPLIERS INCLUDING OWNER SUPPLIED EQUIPMENT IF ANY IS PROVIDED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FIXTURE ROUGH-IN DIMENSIONS AND CORRECT FLOOR AND WALL PENETRATIONS.
- PROVIDE ACCESS PANELS IN ALL WALLS AND CEILINGS FOR ALL VALVES, DAMPERS, CONTROL DEVICES, ETC. ACCESS PANELS SHALL BE MILCOR FLUSH TYPE.
- VERIFY ALL VOLTAGES WITH ELECTRICAL CONTRACTOR BEFORE ORDERING ANY EQUIPMENT.
- CUT 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.
- 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 RATING AS THE BARRIER PENETRATED. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- VIBRATION ISOLATION: ALL EQUIPMENT AS PER MANUFACTURER RECOMMENDATIONS TO ELIMINATE ANY OBJECTIONABLE NOISE, SUBJECT TO REVIEW BY ENGINEER.
- VERIFY ALL DIMENSIONS WITH STRUCTURE PRIOR TO ANY FABRICATION OR INSTALLATION.
- 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.
- 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.
- 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.
- 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.
- CONTRACTOR SHALL OBTAIN APPROVED MANUFACTURER'S INSTALLATION DRAWINGS AND DIMENSIONED ROUGH-IN LAYOUT AND/OR CATALOG CUTS OF ALL EQUIPMENT PRIOR TO PROCEEDING WITH ANY WORK.
- 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 COMPLETING WORK FOR INTENDED OCCUPANCY. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS FOR CONTRACTOR TO PROVIDE 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.
- 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.
- PROVIDE INTERFACE CONNECTIONS TO UTILITY SYSTEMS AS REQUIRED.
- 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.
- 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.
- 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.
- 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.
- INSTALL CLEANOUTS AS SHOWN, AND AS REQUIRED BY APPLICABLE CODES AND GOVERNING AUTHORITIES.
- PROVIDE THE REQUIRED CLEARANCES AND SPACE FOR ALL PLUMBING FIXTURES. PLUMBING CONTRACTOR SHALL VERIFY AND COORDINATE PRIOR TO THE START OF CONSTRUCTION.
- 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).
- 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.
- CONTRACTOR SHALL LOCATE ALL VALVES SO THAT THEY ARE COMPLETELY ACCESSIBLE AND INSTALL PERMANENT STAMPED BRASS VALVE TAGS.
- ALL PLUMBING FLUSH VALVES, FIXTURES STOPS, VALVES, ETC., SHALL BE RIGIDLY SECURED (NO MOVEMENT WHEN OPERATED).
- DILECTRIC COUPLINGS SHALL BE INSTALLED BETWEEN ALL DISSIMILAR METALS IN PIPING AND EQUIPMENT CONNECTIONS.
- 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.
- DO NOT INSTALL ANY PLUMBING PIPING OR SYSTEM COMPONENT IN THE SPACE ABOVE AN ELECTRICAL PANEL, TYPICAL THROUGHOUT JOB.
- 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.
- AS BUILT DRAWINGS:
  - CONTRACTOR SHALL FURNISH COMPLETE SET OF REPRODUCIBLE PLANS INCORPORATING ALL SUCH APPROVED CHANGES, DEVIATIONS, ETC. THAT OCCURRED DURING CONSTRUCTION. CONTRACTOR'S "AS-BUILT" DRAWINGS TO INCLUDE ALL MODIFICATIONS TO SHOP DRAWINGS, WIRING DIAGRAMS AS WELL AS PLANS.
  - ALL "AS-BUILT" DRAWINGS SHALL INCLUDE ALL SCHEDULED MATERIALS, EQUIPMENT AND FULL DATA INDICATED ON CONTRACT DOCUMENTS REVISED TO REFLECT ALL SUBSTITUTED ITEMS.
  - 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.

## PLUMBING ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AS	ABOVE SLAB	NA	NOT APPLICABLE
AD	ACCESS DOOR	NC	NORMALLY CLOSED
ADA	AMERICANS WITH DISABILITIES ACT	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	NO	NORMALLY OPEN
AFG	ABOVE FINISHED GRADE	NSF	NATIONAL SANITATION FOUNDATION
ALT	ALTERNATE	NTS	NOT TO SCALE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	OC	ON CENTER
AP	ACCESS PANEL	OD	OUTSIDE DIAMETER
ASTM	AMERICAN STANDARDS TESTING MATERIALS	ORWL	OVERFLOW RAIN WATER LEADER
AWWA	AMERICAN WATER WORKS ASSOCIATION	PCT	PERCENT
BAS	BUILDING AUTOMATION SYSTEM	PCW	PUMPED COLD WATER
BFP	BACKFLOW PREVENTER	PDI	PLUMBING DRAINAGE INSTITUTE
BF	BELOW FLOOR	PH	PHASE
BG	BELOW GRADE	PIW	PUMPED INDUSTRIAL WASTE
BHP	BREAK HORSEPOWER	PC	POINT OF CONNECTION
BOP	BOTTOM OF PIPE	PPP	PRECISION PLUMBING PRODUCTS
BS	BELOW SLAB	PRV	PRESSURE REDUCING VALVE
BTU	BRITISH THERMAL UNIT PER HOUR	PSAN	PUMPED SANITARY
CA	COMPRESSED AIR	PSI	POUNDS PER SQUARE INCH
CAP	CAPACITY	PW	PROCESS WATER
CD	CONDENSATE	RM	ROOM
CFH	CUBIC FEET PER HOUR	RPM	REVOLUTION PER MINUTE
CO	CLEANOUT	RWL	RAIN WATER LEADER
CONN	CONNECTION	S	SANITARY
CONT	CONTINUE	S U/G	SANITARY UNDERGROUND
CP	CIRCULATING PUMP	SH	SCHEDULE
CW	DOMESTIC COLD WATER	SEC	SECOND
DF	DRINKING FOUNTAIN	SH	SHOWER
DFU	DRAINAGE FIXTURE UNITS	SHT	SHEET
DIA	DIAMETER	SK	SINK
DN	DOWN	SL	SODA LINE
DWG	DRAWING	SP	STATIC PRESSURE
DW	DOMESTIC WATER	SPEC	SPECIFICATION
ECO	EXTERIOR CLEANOUT	SQ	SQUARE
EFF	EFFICIENCY	SS	STAINLESS STEEL
ELEC	ELECTRIC, ELECTRICAL	SSD	SUB SOIL DRAIN
ELEV	ELEVATION	ST	STORM
EQUIP	EQUIPMENT	STO	STORM OVERFLOW
EWC	ELECTRIC WATER COOLER	STD	STANDARD
EWVH	ELECTRIC WATER HEATER	STL	STEEL
EXIST	EXISTING	STM	STEAM
EXIST	EXISTING	STS	STORM SEWER
TDH	TOTAL DYNAMIC HEAD	TEMP	TEMPERATURE
TET	THERMAL EXPANSION TANK	TMV	THERMOSTATIC MIXING VALVE
TOP	TOP OF PIPE	TP	TRAP PRIMER
TOS	TOP OF SLAB	TYP	TYPICAL
UL	UNDERWRITER LABORATORY	UR	URINAL
U/G	UNDERGROUND	V	VENT
UNO	UNLESS NOTED OTHERWISE	V	VOLTS, VOLTAGE
UR	URINAL	VAC	VACUUM
V	VENT	VTR	VENT THROUGH ROOF
V	VOLTS, VOLTAGE	VW	VALVE IN VERTICAL
VAC	VACUUM	VLV	VALVE
VTR	VENT THROUGH ROOF	VOL	VOLUME
VW	VALVE IN VERTICAL	W	WATT (S)
VLV	VALVE	W	WITH
VOL	VOLUME	WC	WATER CLOSET
W	WATT (S)	WCO	WALL CLEANOUT
W	WITH	WHA	WATER HAMMER ARRESTOR
WC	WATER CLOSET	WHY	WALL HYDRANT
WCO	WALL CLEANOUT	WFU	WATER SUPPLY FIXTURE UNITS
WHA	WATER HAMMER ARRESTOR		
WHY	WALL HYDRANT		
WFU	WATER SUPPLY FIXTURE UNITS		
KW	KILOWATTS		
LAV	LAVATORY		
LF	LINEAR FEET		
MAX	MAXIMUM		
MBH	1000 BRITISH THERMAL UNITS PER HOUR		
MECH	MECHANICAL		
MEZZ	MEZZANINE		
MIN	MINIMUM		
MNTG	MOUNTING		
MS	MOP SINK		

## GENERAL LEGEND

SYMBOL	DESCRIPTION
	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
	REVISION CLOUD AND REVISION NUMBER
	KEYED REFERENCE NOTE OR SHEET NOTE
	POINT OF CONNECTION

NOT ALL SYMBOLS USED

## PLUMBING LEGEND

SYMBOL	DESCRIPTION
	COLD WATER PIPING
	110°F HOT WATER PIPING
	HOT WATER CIRCULATING PIPING
	SANITARY DRAINAGE PIPING
	STORM LEADER -PRIMARY
	VENT PIPING
	CONDENSATE PIPING
	BALL VALVE
	CIRCUIT SETTER VALVE
	CHECK VALVE
	PRESSURE REGULATING VALVE
	THERMOSTATIC MIXING VALVE
	BUTTERFLY VALVE
	COMBINATION BALANCING/SHUTOFF VALVE
	RELIEF VALVE
	FLOW MEASUREMENT STATION
	Y-TYPE STRAINER
	PLUG VALVE
	CLEANOUTS
	PIPE END CAP
	PIPE TURNING DOWN
	PIPE TURNING UP
	PIPE TURNING DOWN (TEE)
	PIPING
	TEE
	ROLL DOWN
	P-TRAP
	FLOW ARROW
	WALL HYDRANT
	THERMOMETER
	PRESSURE GAUGE
	CIRCULATING PUMP

## PLUMBING DRAWING LIST

F-P001	PLUMBING - GENERAL NOTES, CODES & LEGENDS
F-P002	PLUMBING - SCHEDULES
F-P003	PLUMBING - DETAILS
F-P004	PLUMBING - DETAILS
F-P100	PLUMBING - OVERALL PLAN
F-P201	PLUMBING - OVERALL FIRST FLOOR GRAVITY PIPING PLAN
F-P202	PLUMBING - OVERALL FIRST FLOOR DOMESTIC WATER PLAN
F-P301	PLUMBING - OVERALL ROOF PLAN
F-P401	PLUMBING - DOMESTIC WATER RISER DIAGRAM
F-P402	PLUMBING - GRAVITY PIPING RISER DIAGRAMS

## BUILDING CODES TO FOLLOW

- FLORIDA BUILDING CODE - 8TH EDITION 2023 (WITH CURRENT REVISIONS & AMENDMENTS).
- FLORIDA PLUMBING CODE - 8TH EDITION 2023 (WITH CURRENT REVISIONS & AMENDMENTS).
- FLORIDA ENERGY CONSERVATION CODE - 8TH EDITION 2023 (WITH CURRENT REVISIONS & AMENDMENTS).
- NFPA 101 - 2023 (FLORIDA FIRE PREVENTION CODE - 8TH EDITION WITH CURRENT REVISIONS).
- NFPA 90 - 2015.
- ASTM STANDARDS IN BUILDING CODES.
- U.L. BUILDING STANDARDS FIRE RESISTANCE DIRECTORY BUILDING MATERIALS DIRECTORY
- ALL APPLICABLE LOCAL CODES WITH LATEST REVISIONS.
- FLORIDA ACCESSIBILITY'S CODE FOR BUILDING CONSTRUCTION
- AMERICAN DISABILITIES ACT (CURRENT EDITION).

F

PLUMBING FIXTURE SCHEDULE										STORM PROCESSING
MARK	FIXTURE	MANUFACTURER	MODEL NO.	TYPE	MATERIAL	WASTE	VENT	CW	HW	REMARKS
WC-1	WATER CLOSET (ADA ACCESSIBLE)	KOHLER	ANGLESEY K-4352-0	FLUSH VALVE FLOOR MOUNTED	VITREOUS CHINA	3"	2"	1 1/2"	---	FLOOR MOUNTED AT ADA REQUIREMENTS. REAR OUTLET, 1.6 GALLONS PER FLUSHING CYCLE. VITREOUS CHINA BOWL, 1-1/2" TOP SPUD FLUSH VALVE. SLOAN ROYAL 111-1.6, EXPOSED, MANUAL, DIAPHRAGM TYPE, CHROME PLATED, HIGH BACK PRESSURE VACUUM BREAKER AND ADJUSTABLE TAILPIECE. SEAT: KOHLER MODEL STRONGHOLD K-4731-SC WHITE PLASTIC, ELONGATED SHAPE, OPEN FRONT, LESS COVER
WC-2	WATER CLOSET	KOHLER	ANGLESEY K-4352-0	FLUSH VALVE FLOOR MOUNTED	VITREOUS CHINA	3"	2"	1 1/2"	---	FLOOR MOUNTED, REAR OUTLET, COMFORT HEIGHT 1.6 GALLONS PER FLUSHING CYCLE. VITREOUS CHINA BOWL, 1-1/2" TOP SPUD FLUSH VALVE. SLOAN ROYAL 111-1.6, EXPOSED, MANUAL, DIAPHRAGM TYPE, CHROME PLATED, HIGH BACK PRESSURE VACUUM BREAKER AND ADJUSTABLE TAILPIECE. SEAT: KOHLER MODEL STRONGHOLD K-4731-SC WHITE PLASTIC, ELONGATED SHAPE, OPEN FRONT, LESS COVER
UR-1	URINAL	KOHLER	BRANHAM URINAL K-25039-T-0	FULL STALL WASHOUT	VITREOUS CHINA	2"	2"	3/4"	---	FULL STALL WASH-DOWN VITREOUS CHINA, HIGH EFFICIENCY URINAL, 3/4" TOP SPUD FLUSH VALVE. SLOAN -ROYAL 186-0.5, EXPOSED, MANUAL, DIAPHRAGM TYPE, CHROME PLATED, HIGH BACK PRESSURE VACUUM BREAKER AND ADJUSTABLE TAILPIECE.
UR-2	URINAL (ADA ACCESSIBLE)	KOHLER	BRANHAM URINAL K-25039-T-0	FULL STALL WASHOUT	VITREOUS CHINA	2"	2"	3/4"	---	FULL STALL WASH-DOWN VITREOUS CHINA, HIGH EFFICIENCY URINAL, 3/4" TOP SPUD FLUSH VALVE. SLOAN -ROYAL 186-0.5, EXPOSED, MANUAL, DIAPHRAGM TYPE, CHROME PLATED, HIGH BACK PRESSURE VACUUM BREAKER AND ADJUSTABLE TAILPIECE. INSTALL FIXTURE PER ADA MOUNTING REQUIREMENTS.
L-1	LAVATORY	KOHLER	GREENWICH K-2032	WALL HUNG	VITREOUS CHINA	1 1/2"	1 1/2"	1/2"	1/2"	ACCESSIBLE WALL HUNG 20"x18", VITREOUS CHINA, 4" CENTERS, DRILLED FOR CONCEALED CARRIER FAUCET. CHICAGO FAUCETS 526-317ABCP, DECK MOUNTED, MANUAL, 0.5 GPM, 4" CENTERS. PROVIDE MCGUIRE STRAINER/P-TRAP AND SUPPLIES 155A/892 AND 2165C. CARRIER: ZURN Z1231, DURACOATED STEEL UPRIGHTS WITH WELDED FEET, CAST IRON ADJUSTABLE HEADERS, CONCEAL ARMS AND MOUTING FASTENERS
L-2	LAVATORY -WALL HUNG (ADA ACCESSIBLE)	KOHLER	GREENWICH K-2032	WALL HUNG	VITREOUS CHINA	1 1/2"	1 1/2"	1/2"	1/2"	ACCESSIBLE WALL HUNG 20"x18", VITREOUS CHINA, 4" CENTERS, DRILLED FOR CONCEALED CARRIER FAUCET. CHICAGO FAUCETS 526-317ABCP, DECK MOUNTED, MANUAL, 0.5 GPM, 4" CENTERS. PROVIDE MCGUIRE STRAINER/P-TRAP AND SUPPLIES 155A/892 AND 2165C. CARRIER: ZURN Z1231, DURACOATED STEEL UPRIGHTS WITH WELDED FEET, CAST IRON ADJUSTABLE HEADERS, CONCEAL ARMS AND MOUTING FASTENERS
SH-1	SHOWER	SYMMONS / JOSAM	SEE REMARKS	---	---	3"	1 1/2"	1/2"	1/2"	SHOWER TRIM: SYMMONS DIA SHOWER SYSTEM MODEL 3595BTRM DRAIN: JOSAM 30003-5A-CP-VP, CONNECT 1/2" TRAP PRIMER TO AUTOMATIC TRAP PRIMER SYSTEM. SET HW LIMIT STOP TO 110°F. PROVIDE SHOWER HEAD WITH 2.0 GPM MAX FLOW. COORDINATE DRAIN LOCATION AND ORIENTATION OF VALVE WITH SHOWER UNIT REFER TO ARCHITECTURAL.
SH-2	SHOWER (ADA ACCESSIBLE)	SYMMONS / JOSAM	SEE REMARKS	---	---	3"	1 1/2"	1/2"	1/2"	SHOWER TRIM: SYMMONS DIA SHOWER SYSTEM MODEL 3595BTRM DRAIN: JOSAM 30003-5A-CP-VP, CONNECT 1/2" TRAP PRIMER TO AUTOMATIC TRAP PRIMER SYSTEM. SET HW LIMIT STOP TO 110°F. PROVIDE SHOWER HEAD WITH 2.0 GPM MAX FLOW. COORDINATE DRAIN LOCATION AND ORIENTATION OF VALVE WITH SHOWER UNIT REFER TO ARCHITECTURAL.
MS-1	MOP SINK	FIAT	MSB 2424	FLOOR MOUNTED	MOLDED STONE	3"	1 1/2"	3/4"	3/4"	FLOOR MOUNTED MOLDED STONE MOP SERVICE BASIN, WHITE, 10" HIGH WALLS WITH 1" WIDE SHOULDERS, COMBINATION DOME STRAINER AND STAINLESS STEEL LINT BASKET. FAUCET: FIAT MODEL NO. 830 AA WALL MOUNTED SERVICE FAUCET CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" THREADED HOSE SPOUT
EWC-1	ELECTRIC WATER COOLER - ADA ACCESSIBLE	ELKAY	LZSTL8WSLP	WALL MOUNTED	---	1 1/2"	1 1/2"	1/2"	---	UNIT SHALL INCLUDE AN ELECTRIC WATER COOLER WITH BOTTLE FILLING STATION, PROVIDE 8.0 GPH OF 50 °F OF WATER AT 90 °F AMBIENT AND 80 °F INLET WATER. LOWER UNITS SHALL HAVE PUSH-BAR ACTIVATION AND BOTTLE FILLING SHALL INCLUDE AN ELECTRONIC SENSOR FOR TOUCHLESS ACTIVATION AND 20 SECOND SHUT-OFF TIMER WITH 1.1 GPM FLOW RATE. PROVIDE MCGUIRE P-TRAP AND SUPPLIES 8902 AND 158LK.
WHY-1	WALL HYDRANT	ZURN	Z1320XL	WALL MOUNTED	---	---	---	3/4"	---	ENCASED, NON-FREEZE, ANTI-SIPHON, AUTOMATIC DRAINING WALL HYDRANT WITH INTEGRAL BACKFLOW PREVENTER, 3/4" HOSE THREAD OUTLET SPOUT, AND NICKEL BRONZE HOUSING.
SK-1	SINK	ELKAY	ELUHAD11165SPD	UNDER MOUNT	STAINLESS STEEL	2"	1-1/2"	1/2"	1/2"	UNDER-MOUNT SINK, 18-1/2" FRONT TO BACK X 14" WIDE X 5-3/8" DEEP, 18 GAUGE 304 STAINLESS STEEL, CENTER REAR DRAIN LOCATION, STRAINER WITH OFFSET DRAIN, 17 GAUGE P-TRAP WITH CLEANOUT PLUG, CHROME PLATED ANGLE SUPPLYS, CHROME PLATED ESCUTCHEONS, FAUCET: CHROME PLATED ELKAY AVADO PULL-DOWN SPRAY FAUCET MODEL LKAV3031 WITH SWING SPOUT WITH 1.75 GPM AERATOR.
IMB-1	ICE MAKER BOX WITH SHUT-OFF VALVE	OATEY	PART NO. 39121	---	---	---	---	---	---	HIGH IMPACT POLYSTYRENE, 2 SUPPORT BRACKETS, SNAP-ON FACEPLATE FRAME, ACCOMMODATES UP TO 1" DRYWALL, FIRE RATED WITH 1/4 TURN SHUT-OFF VALVE AND BUILT-IN HAMMER ARRESTOR.
TP-1,2,3,4	TRAP PRIMER	PRECISION PLUMB PRODUCTS	PT SERIES	---	---	---	---	1/2"	---	PRIME-TIME ELECTRONIC TRAP PRIMING ASSEMBLY, ATMOSPHERIC VACUUM BREAKER, 24 HOUR ADJUSTABLE TIME, 120V/1 PHASE/60HZ. PROVIDE OUTLETS PER FLOOR DRAINS SERVING ON DRAWINGS.
RHY-1	ROOF HYDRANT	WOODFORD	RHY2-1-MS	ROOF MOUNTED	CAST IRON	1/8"	---	1"	---	NON-FREEZE, ANTI-SIPHON, AUTOMATIC DRAINING ROOF HYDRANT WITH INTEGRAL BACKFLOW PREVENTER, 3/4" HOSE THREAD OUTLET SPOUT, AND NICKEL BRONZE HOUSING.

D

DRAINAGE SPECIALTIES AND CONNECTIONS SCHEDULE									
MARK	SPECIALTY	MANUFACTURER	MODEL NO.	TYPE	MATERIAL	STYLE	SIZE	DOMESTIC CW	REMARKS
FD-1	FLOOR DRAIN (FINISHED AREA)	ZURN	Z415B	NO HUB OR NED-LOCK	CAST IRON/ NICKEL BRONZE TOP	POLISHED ROUND TOP	PER DWGS.	1/2" TRAP PRIMER	COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE TYPE "B" NICKEL BRONZE STRAINER, 5 7/16" ROUND TOP, TAPPED FOR TRAP PRIMER CONNECTION, VANDAL PROOF.
FD-2	FLOOR DRAIN (MECHANICAL ROOM)	ZURN	Z-508-P-Y-VP	NO HUB OR NED-LOCK	CAST IRON/ NICKEL BRONZE TOP	POLISHED ROUND TOP	PER DWGS.	1/2" TRAP PRIMER	COATED CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTIBLE MEMBRANE CLAMP AND ADJUSTABLE TYPE NICKEL BRONZE STRAINER, 9" ROUND TOP, TAPPED FOR TRAP PRIMER CONNECTION, VANDAL PROOF.
DSB-1	DOWN SPOUT BOOT	MCKINLEY IRON WORKS	TYPE DS-4	NO HUB	ALUMINUM	---	PER DWGS.	---	3" x 4" HEAVY DUTY EXTRUDED ALUMINUM -COORDINATE OUTLET WITH ARCHITECTURAL DRAWINGS
DSB-2	DOWN SPOUT BOOT	MCKINLEY IRON WORKS	TYPE DS-4	NO HUB	ALUMINUM	---	PER DWGS.	---	6" x 6" HEAVY DUTY EXTRUDED ALUMINUM -COORDINATE OUTLET WITH ARCHITECTURAL DRAWINGS
CD-1	CONDENSATE DRAIN	GENERIC	---	PVC REDUCER	PVC	4"x3" REDUCER	PER DWGS.	---	4" X 3" PVC REDUCER. INSTALL 18-24" ABOVE FINISHED FLOOR.
TD-1	TRENCH DRAIN	DURATRENCH	DRAIN: DTPF4-MDSS082SA GRATE: 05M24SS	4" PRE-FABRICATED W/ MEDIUM DUTY SS FRAME	PRE-FABRICATED FIBER REINFORCED POLYMER W/ MEDIUM DUTY SS FRAME & SS GRATE	---	LIGHT DUTY SS GRATE	PER DWGS.	TRENCH DRAIN: PRE FABRICATED TRENCH DRAIN WITH MEDIUM DUTY STAINLESS STEEL FRAME, COORDINATE LENGTH WITH ARCHITECTURAL AND/OR STRUCTURAL DRAWINGS. COORDINATE DRAIN OUTLET LOCATIONS PRIOR TO ORDERING. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS TO ENSURE FINISHED TRENCH WATER TIGHT INTERIOR AND ALL GRATE SEGMENTS ARE COPLANER. GRATE: 5" WIDE, LIGHT DUTY STAINLESS STEEL MESH GRATE. T304 STAINLESS STEEL, ADA COMPLIANT & HEEL PROOF OPENINGS.

C

ELECTRIC WATER HEATER SCHEDULE								
MARK	CAPACITY	HEATING SOURCE	ELEMENTS	TOTAL KW	V/Ø/HZ	MANUFACTURER	MODEL NO.	REMARKS
EWH-1	175 GL	ELEC.	5	60.0 KW	③	480/3Ø	RAYPAK	E175A-ØØ-G
EWH-2	175 GL	ELEC.	5	60.0 KW	③	480/3Ø	RAYPAK	E175A-ØØ-G

REMARKS:  
 ① WITH ASME PRESSURE AND TEMPERATURE RELIEF VALVE.  
 ② WITH COMPLETE CONTROLS, ADJUSTABLE THERMOSTATS, HIGH TEMPERATURE CUTOFF PER ELEMENT, U.L. LISTED, THERMOSTATIC SEQUENCING CONTROL.  
 ③ (5) 18.0 KW ELEMENTS, SIMULTANEOUS.  
 ④ 32"Ø BY 65-1/2" HIGH.  
 ⑤ SET AT 140°F.

HOT WATER RECIRCULATING PUMP SCHEDULE									
TAG	MANUFACTURER	MODEL NO.	LOCATION	FLOW (GPM)	FT OF HEAD	ELECTRICAL			NOTES
						MOTOR (W)	VOLTS	PHASE HZ	
CP-1	TACO	00266-SF2	JANITOR / SUPPLIES	44	26	120	115	1 60	1,2

NOTES:  
 1. BALANCING VALVES SHALL BE PROVIDED FOR ALL CIRCULATING SYSTEMS.  
 2. PROVIDE TIMER AND AQUASTAT FOR PUMP.

EXPANSION TANK SCHEDULE								
TAG	TYPE	MANUFACTURER	MODEL	LOCATION	TOTAL VOLUME (GALLONS)	MAX ACCEPTANCE (GALLONS)	SYSTEM CONNECTION (INCH)	NOTES
ET-1	INLINE	WATTS	DETA 12	JANITOR / SUPPLIES	5	3.3	3/4"	---

CLEANOUT SCHEDULE				
CLEANOUT APPLICATION	TYPE	ZURN	JOSAM	J.R. SMITH
FINISH CONCRETE FLOOR (CAST IRON BODY, BRONZE PLUG, NICKEL BRONZE TOP)	ROUND SQUARE	ZN-1400-IC-BP ZN-1400-IC-BP-T	55000-2-X 55000-2-SQ-X	4228-C 4048-C
FINISH WALL (CAST IRON BODY, BRONZE PLUG, STAINLESS STEEL COVER)	ROUND	ZN-1446-BP	58910-19 & 58600 (COVER)	4532-S
EXPOSED PIPING (CAST IRON BODY, BRONZE PLUG)	HORIZONTAL VERTICAL	ZN-1440 ZN-1445	58900 58910	4420-C 4512-S
TILED AREA (CAST IRON BODY, BRONZE PLUG, NICKEL BRONZE TOP)	ROUND SQUARE	ZN-1400-IC-BP-X ZN-1400-IC-BP-T	5500-2-12-X 55000-2-12-SQ-X	4168-C 4168-C
CARPETED AREA (CAST IRON BODY, BRONZE PLUG, NICKEL BRONZE TOP)	ROUND	ZN-1400-IC-BP-CF	55000-2-13-X	4028C-Y
TERRAZZO AREA (CAST IRON BODY, BRONZE PLUG, NICKEL BRONZE TOP)	ROUND SQUARE	ZN-1400-IC-BP-Z ---	55000-2-13-X 55000-2-13-SQ-X	4188-C 4208-C

MIXING VALVE SCHEDULE					
TAG	LOCATION	MANUFACTURER/MODEL NO.	MIN GPM	MAX GPM	NOTES
TMV-1	JANITOR / SUPPLIES	LEONARD XL-150-LF-BDT	0.5	130	1, 2

NOTES:  
 1. SET OUTLET TEMPERATURE TO 110°F.  
 2. MIXING VALVE SHALL BE INSTALLED AND PIPED ACCORDING TO MANUFACTURER'S REQUIRED PIPING METHOD.  
 3. INSTALLATION SHALL INCLUDE HEAT TRAPS AND ISOLATION VALVES ON HOT AND COLD WATER INLETS.

WATER HAMMER ARRESTOR SCHEDULE		
ARRESTOR SIZE (WHA)	WATER SUPPLY FIXTURE UNITS	PDI STD WH 201
(A) 1/2"	1-11	PDI-A
(B) 3/4"	12-32	PDI-B
(C) 1"	33-60	PDI-C
(D) 1-1/4"	61-133	PDI-D
(E) 1-1/2"	114-154	PDI-E
(F) 2"	155-330	PDI-F

NOTE:  
 ALL ARRESTORS SHALL BE INSTALLED PER PDI (PLUMBING AND DRAINAGE INSTITUTE) STANDARD PDI-WH201 (2006) FOR SIZING AND PLACEMENT.

A

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PROJECT MANAGER  
**SCOTT RAYNOR**

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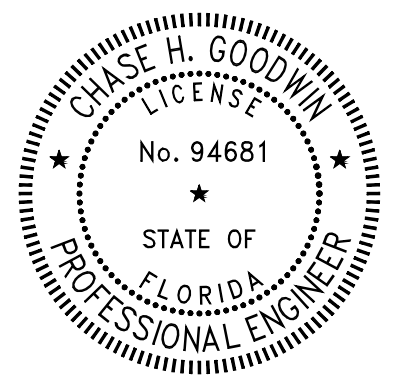
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PLUMBING - SCHEDULES

F-P002



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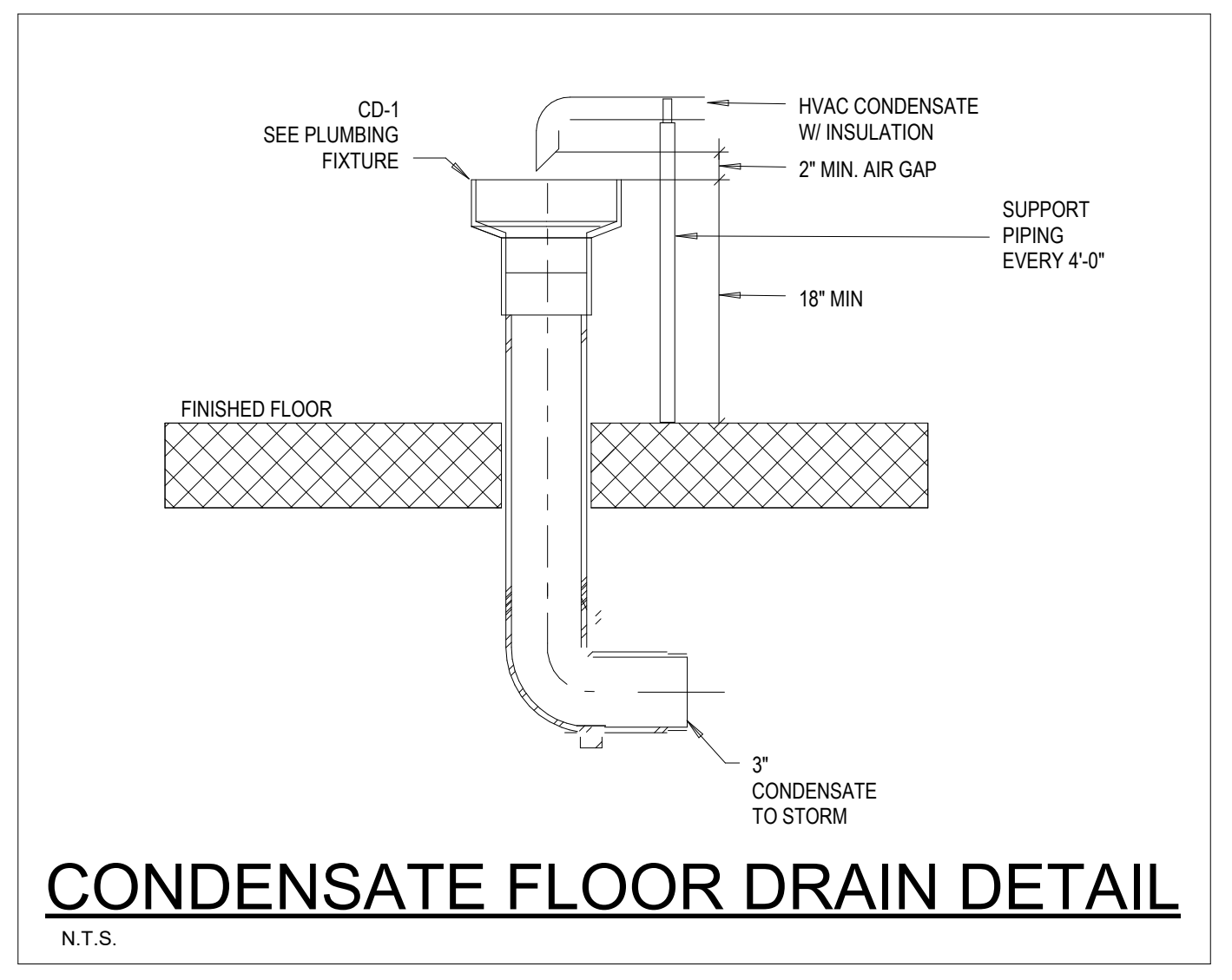
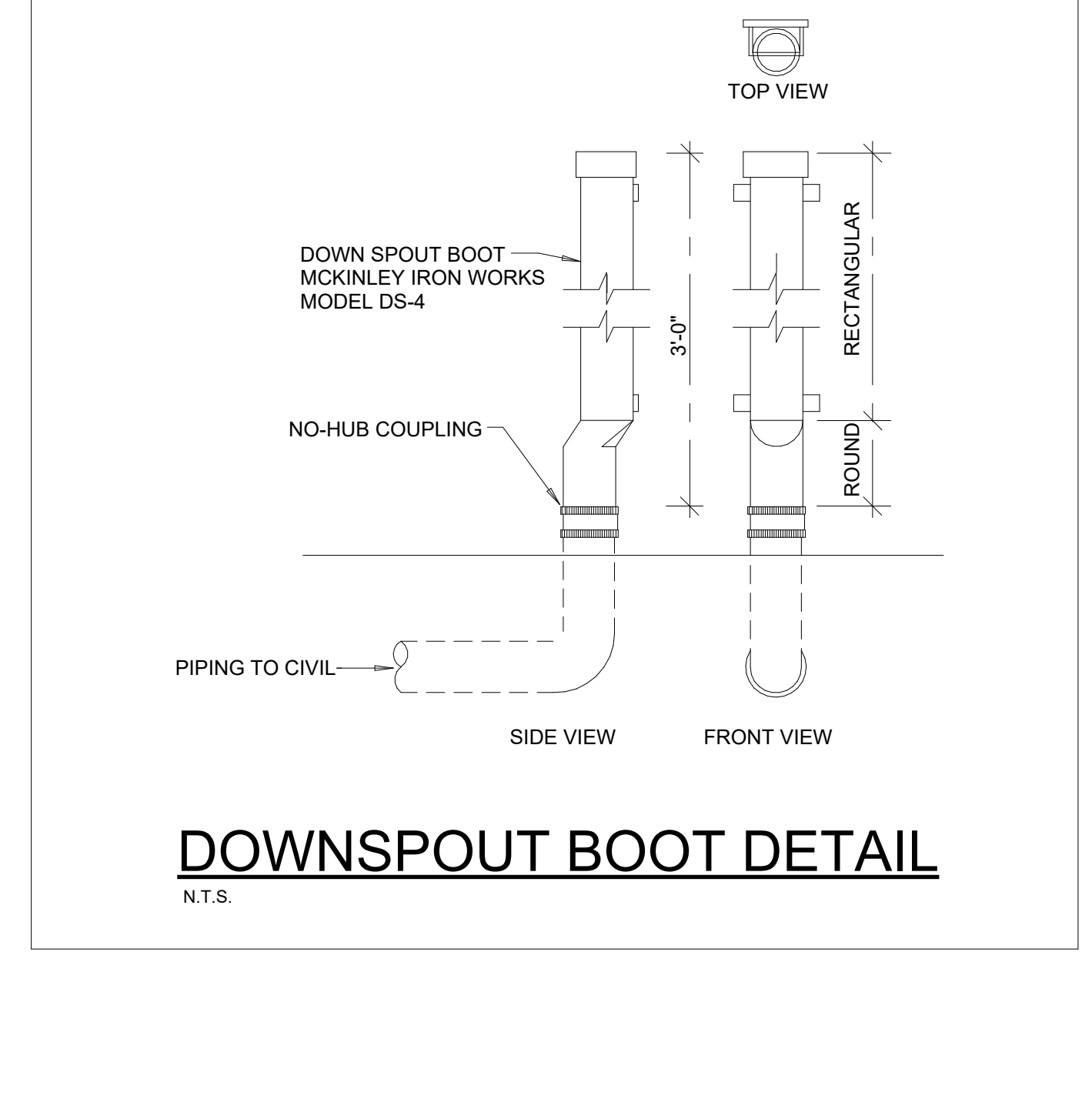
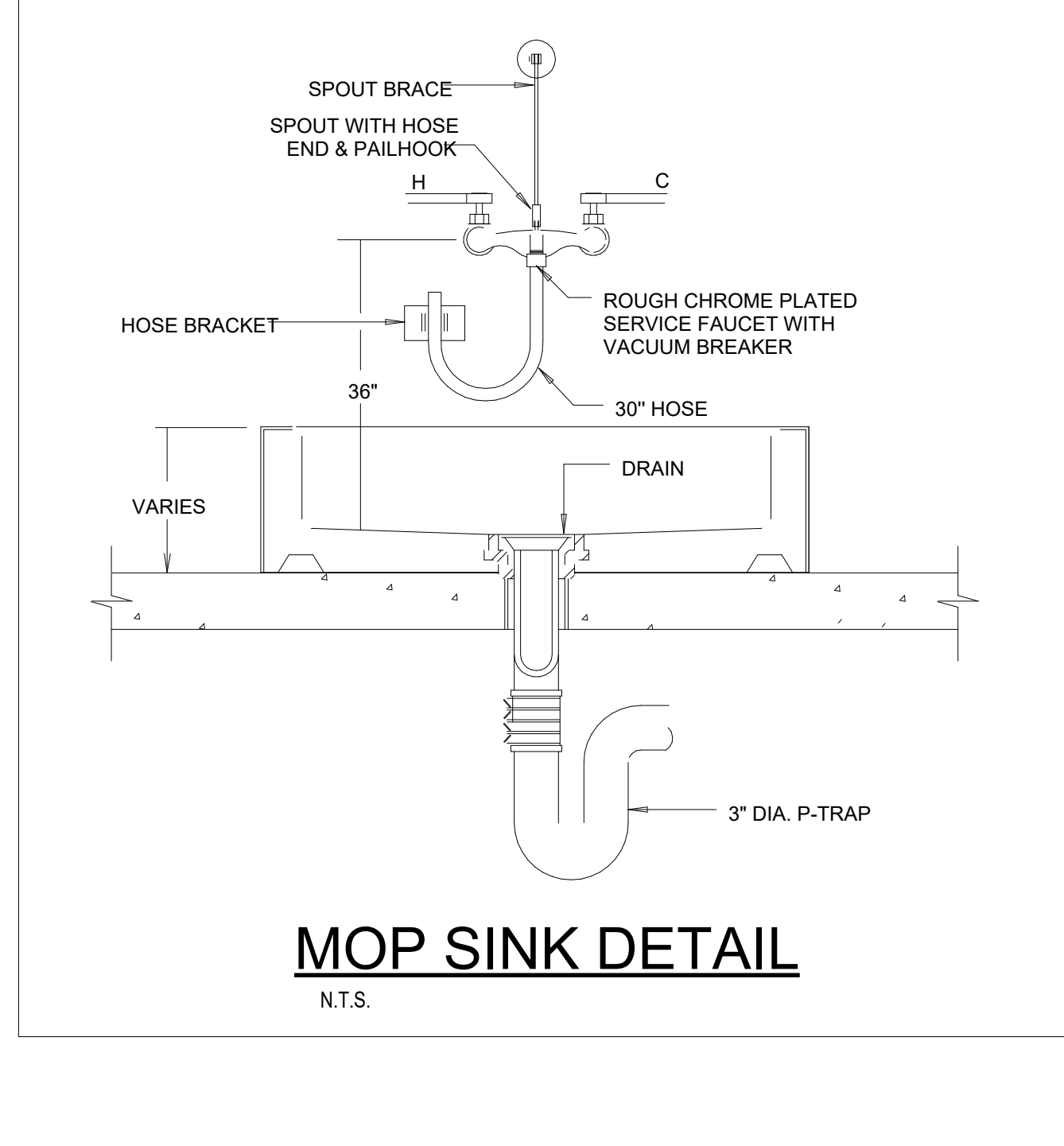
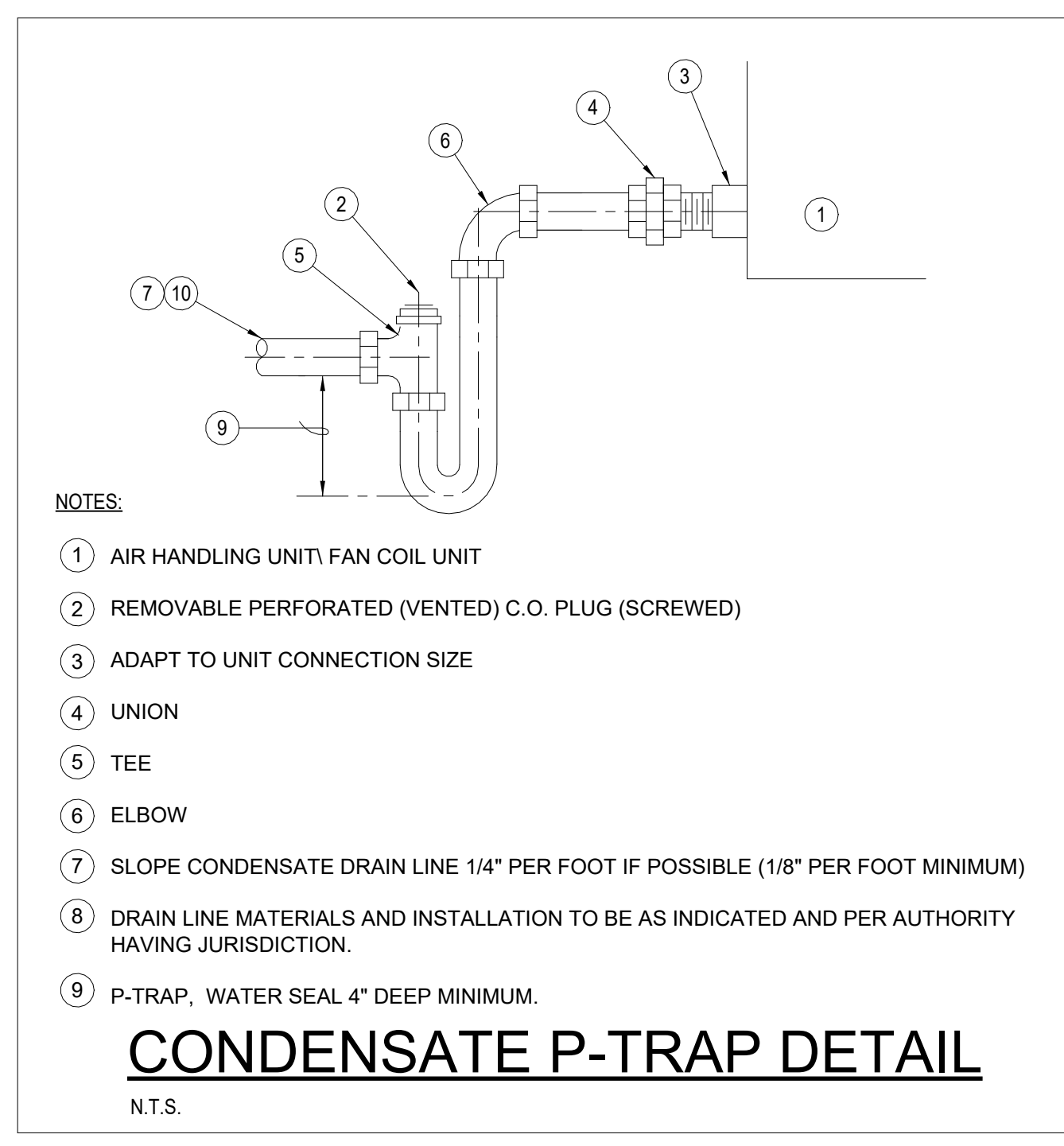
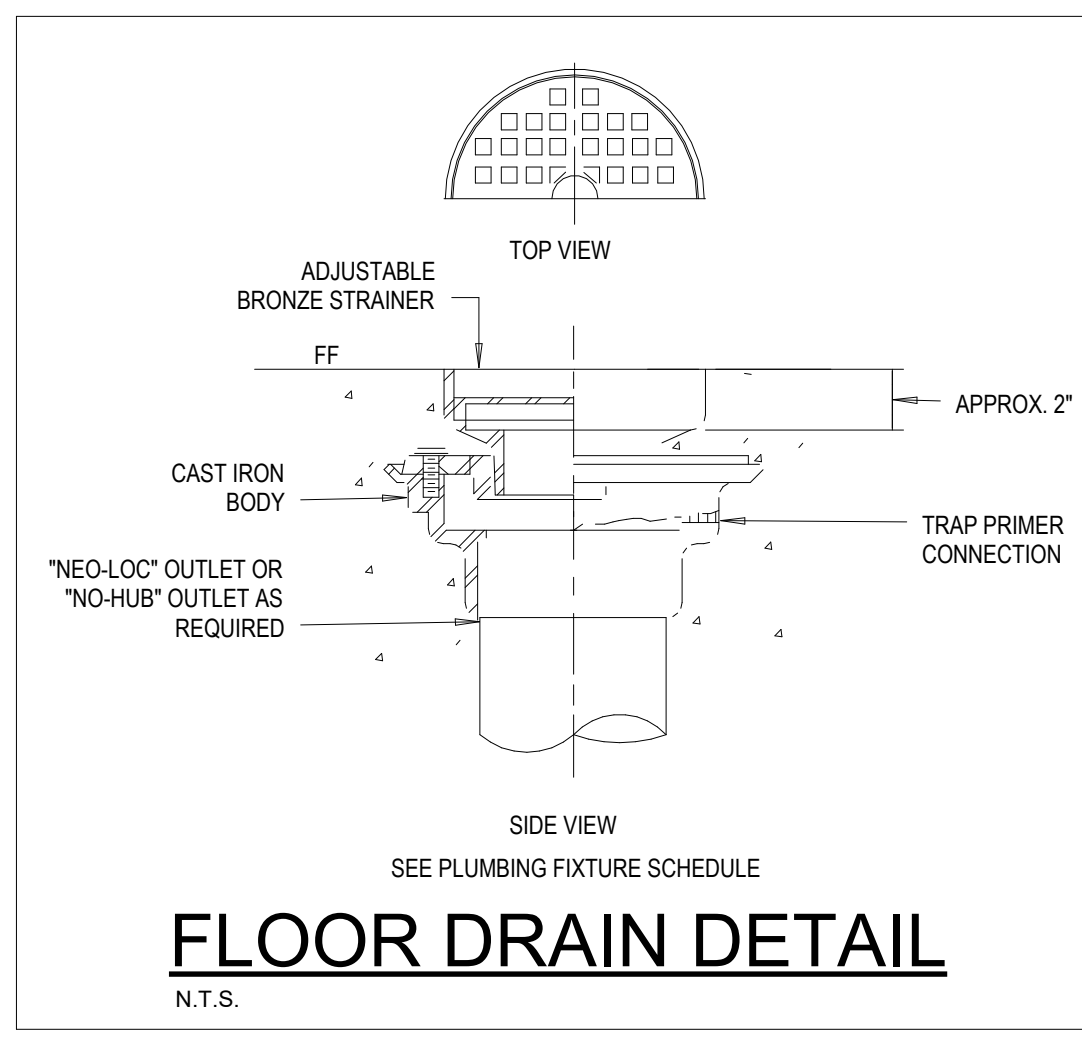
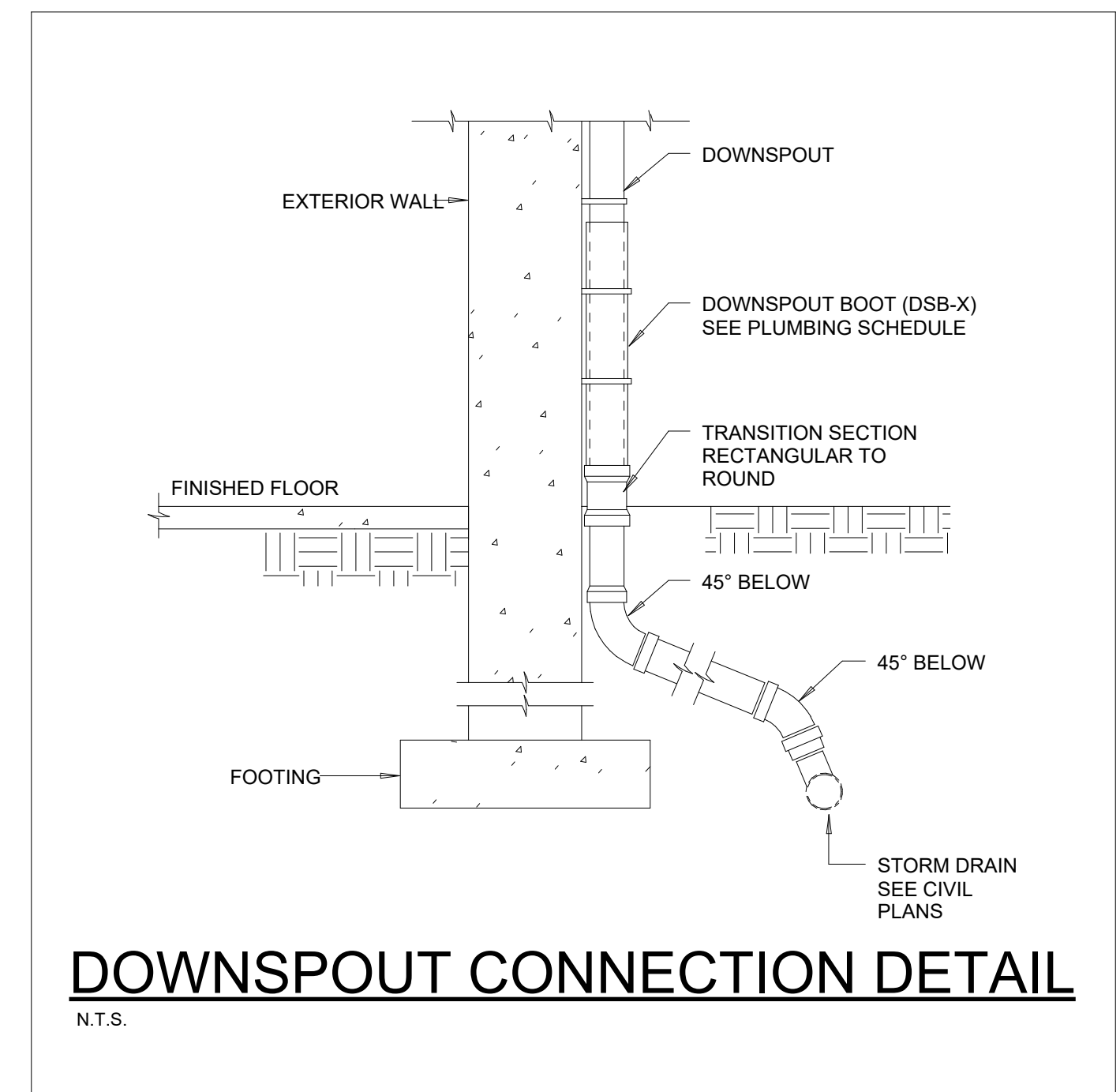
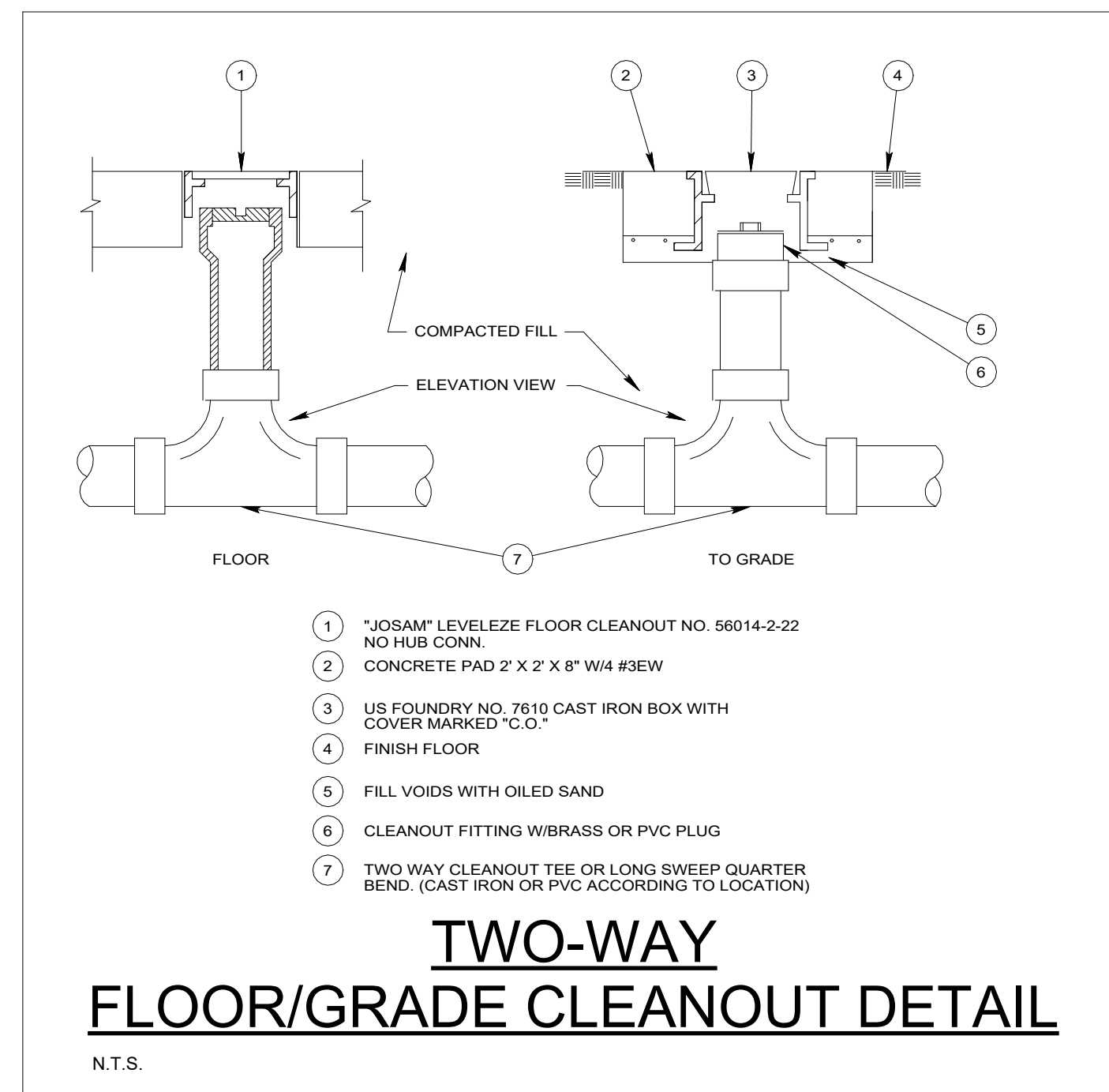
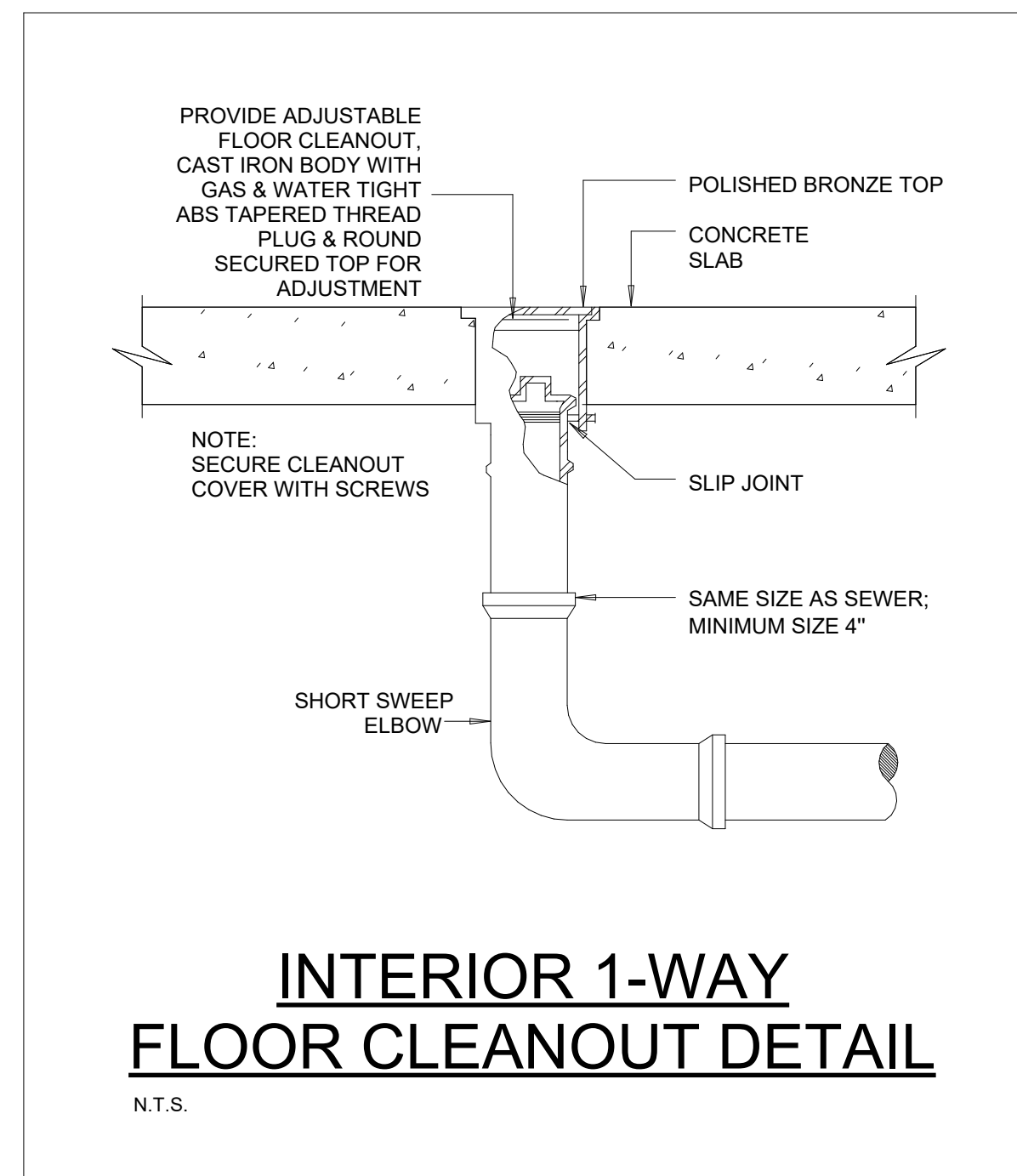
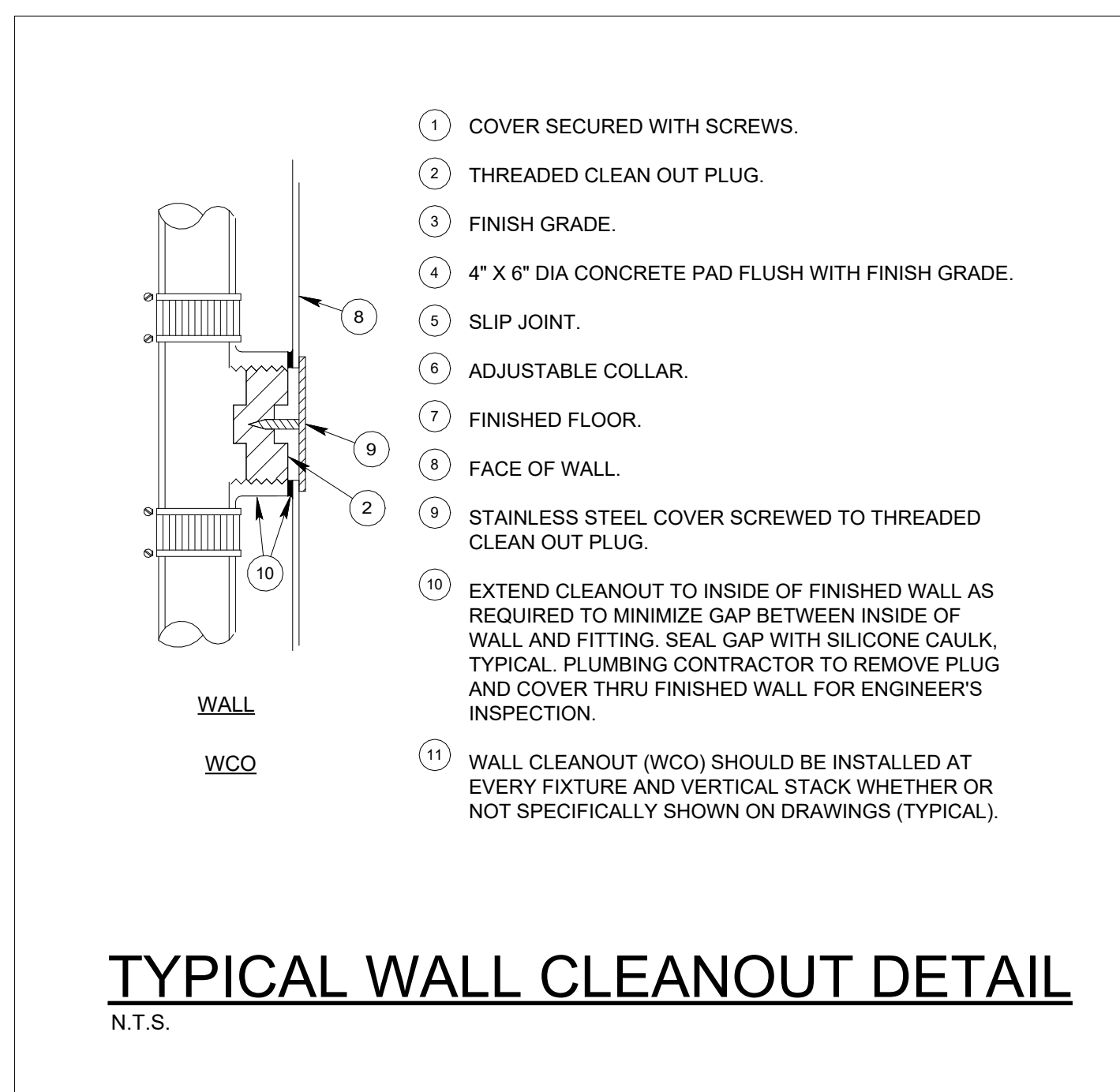
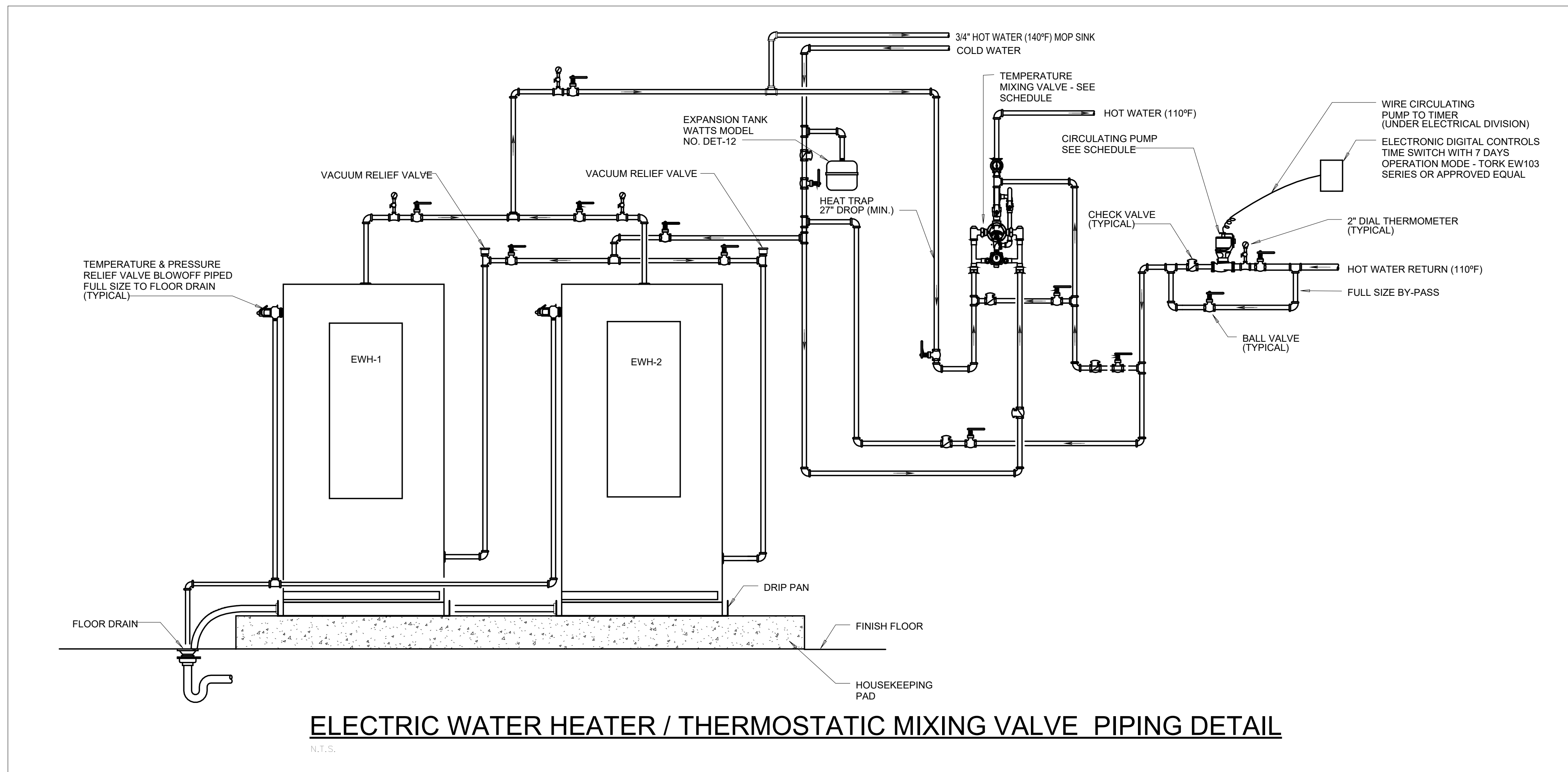
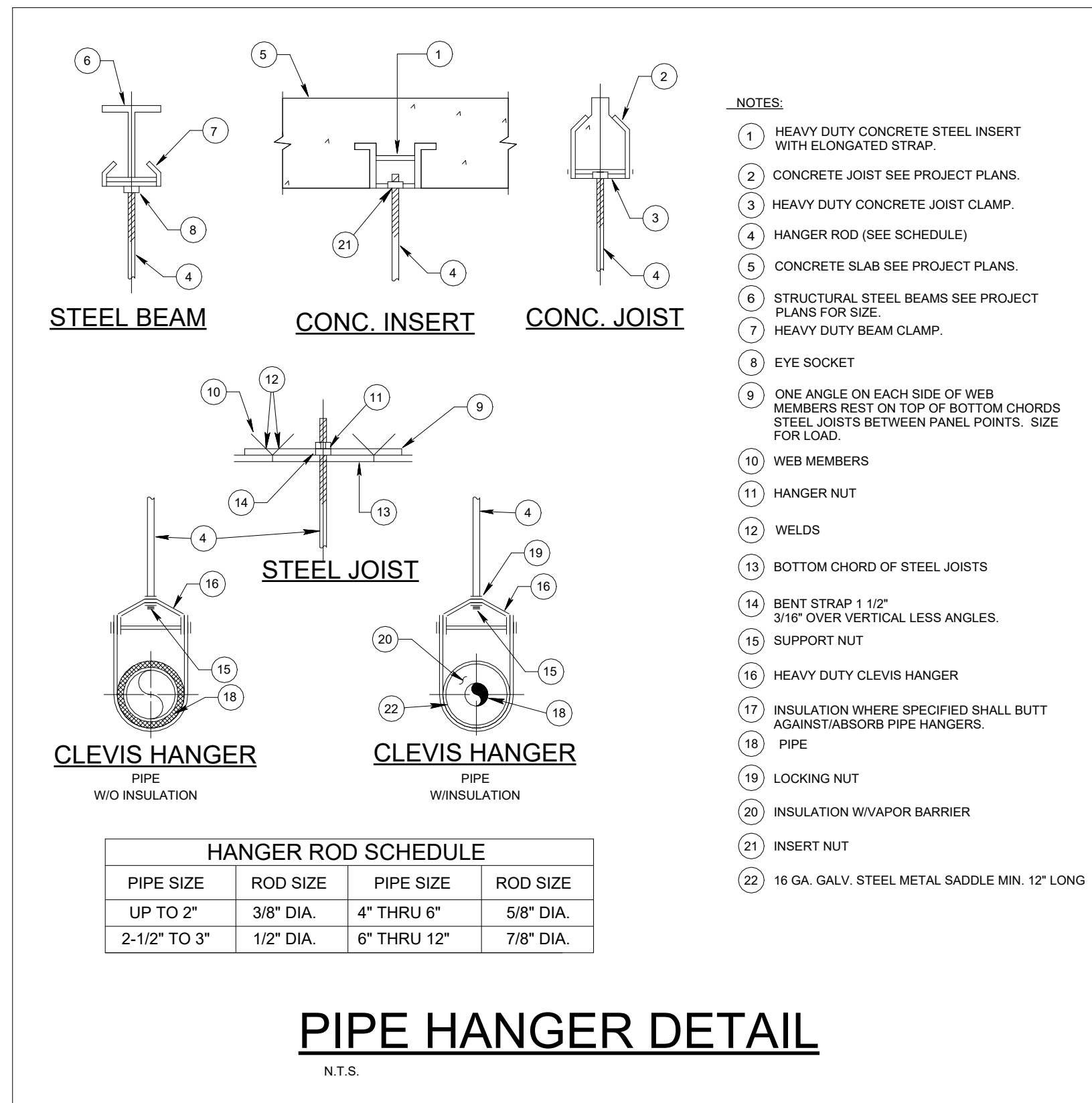
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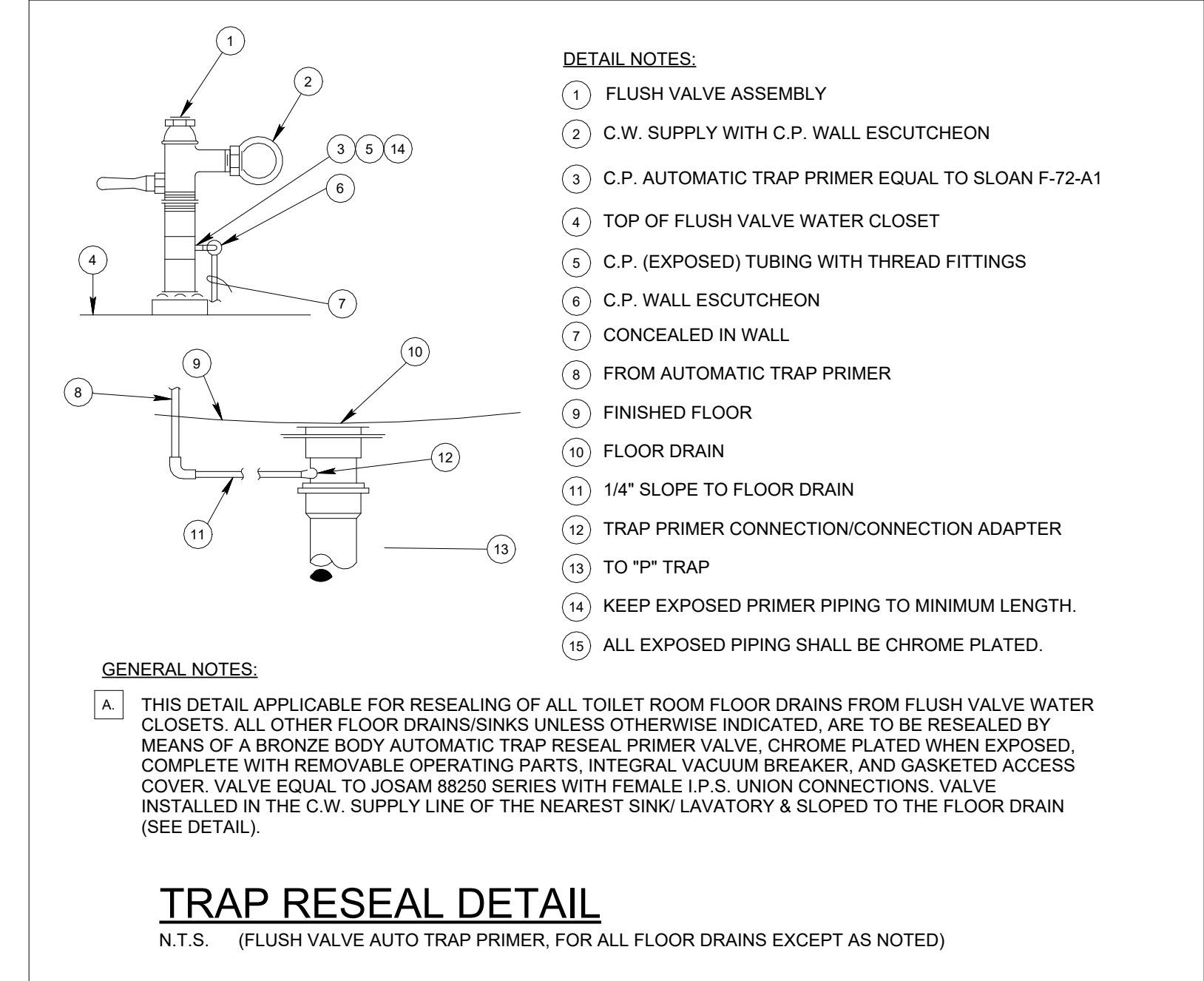
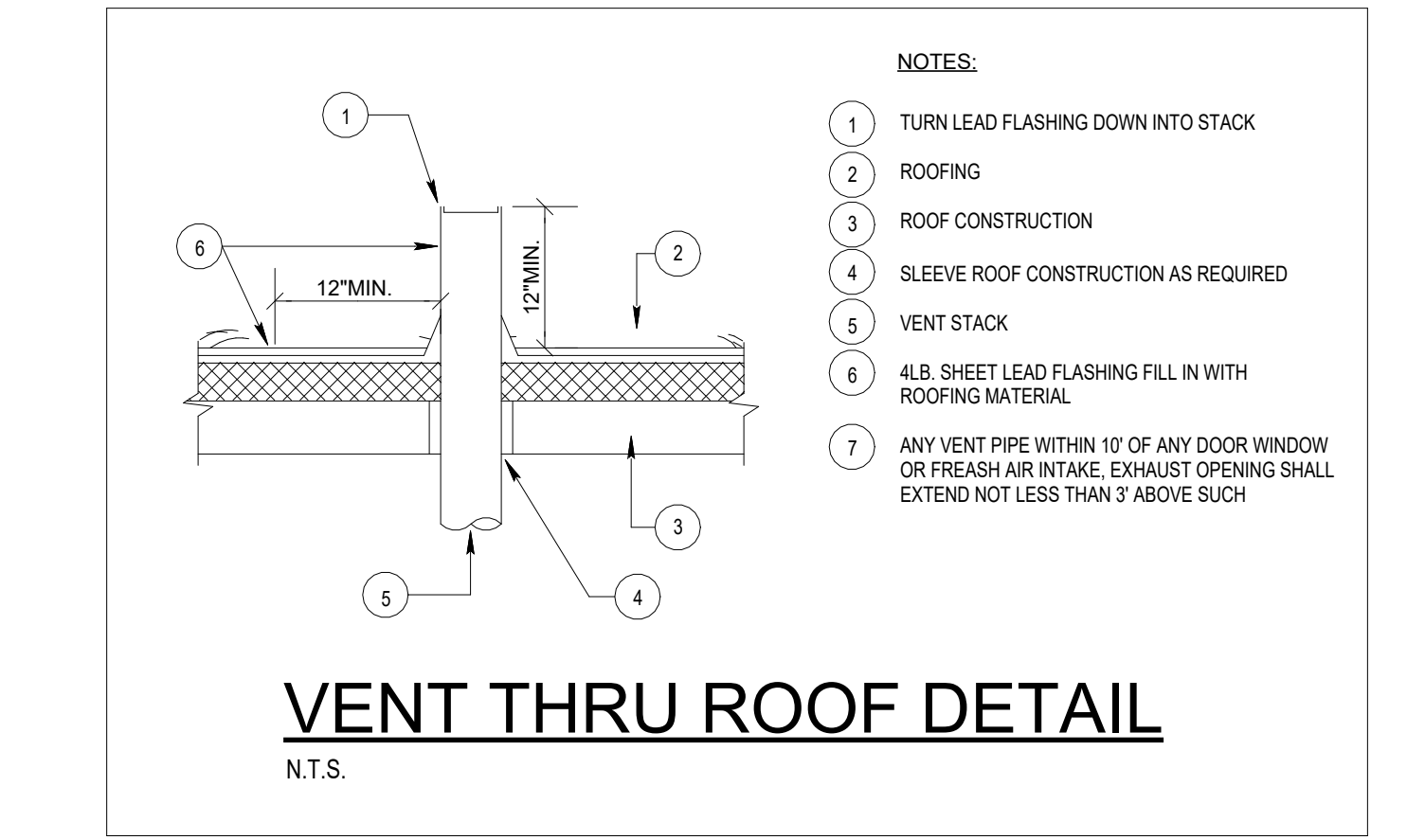
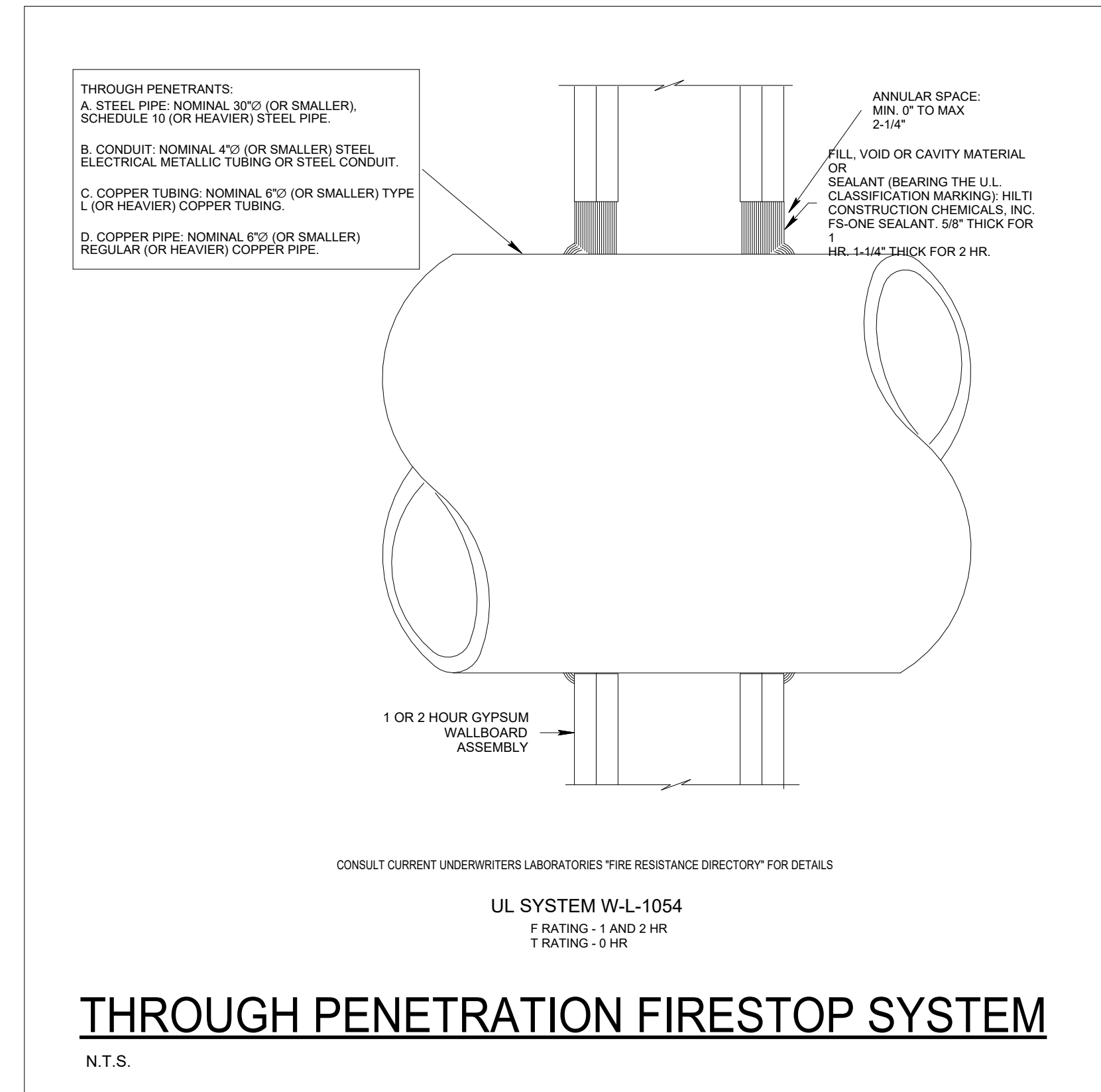
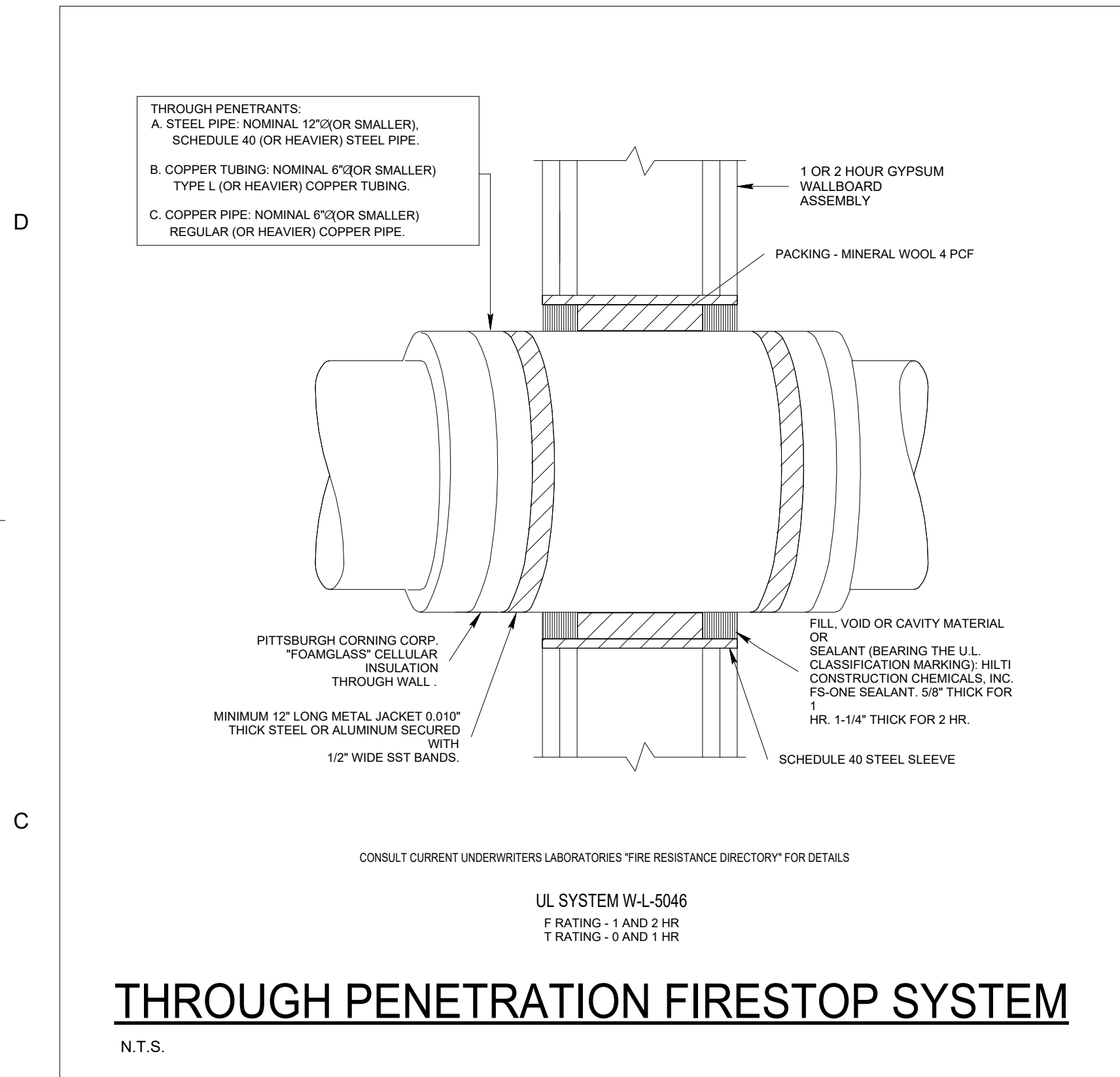
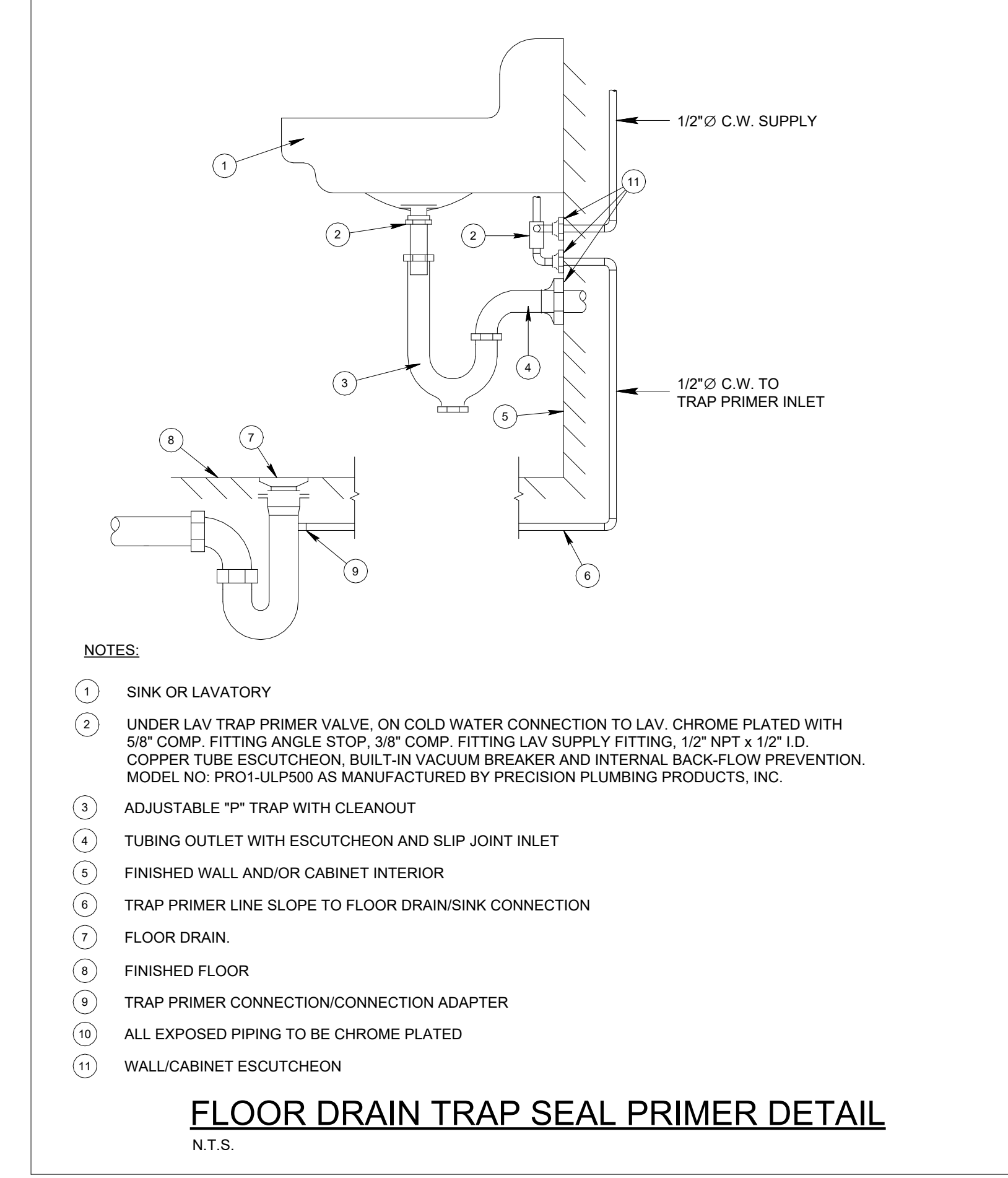
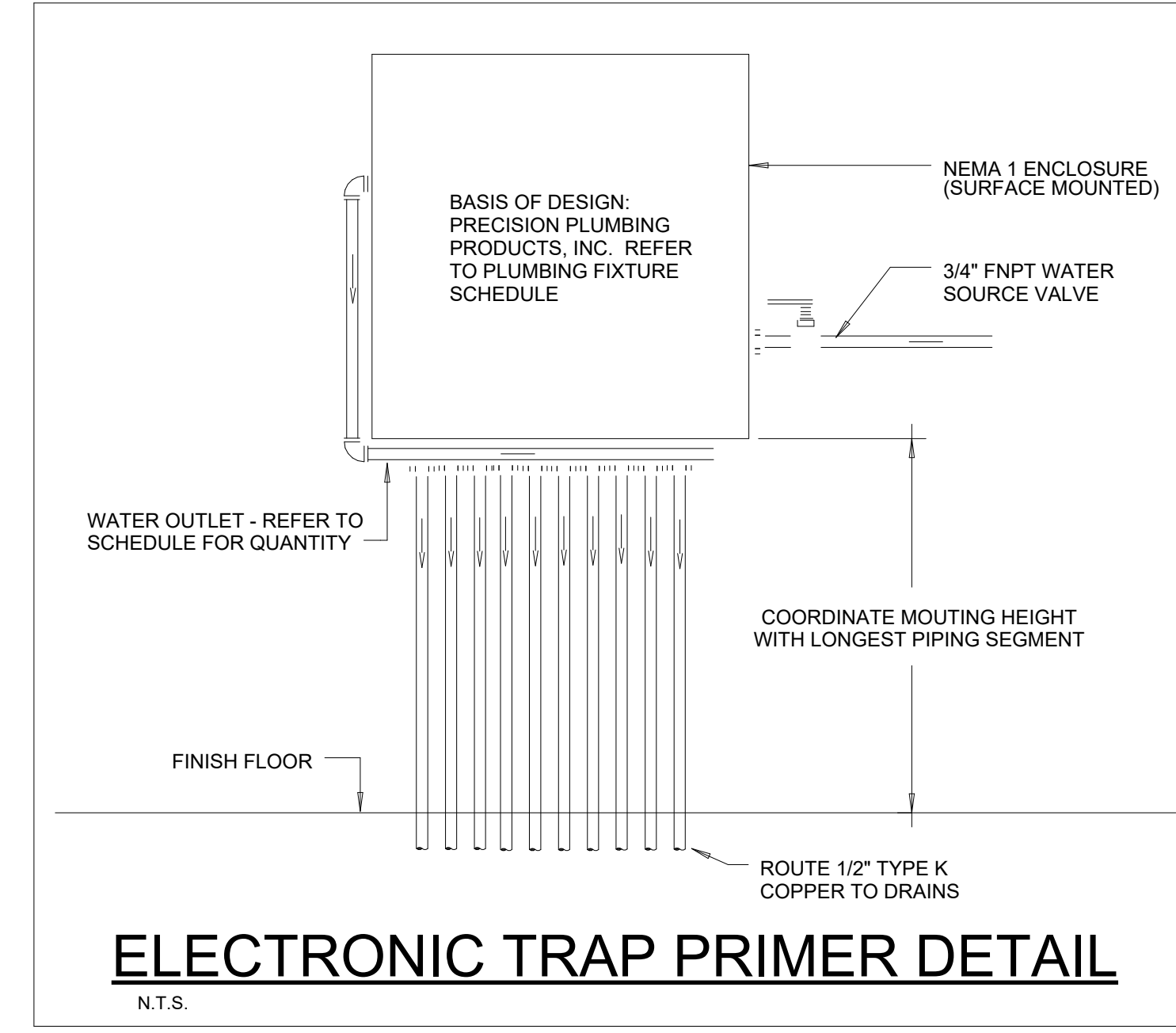
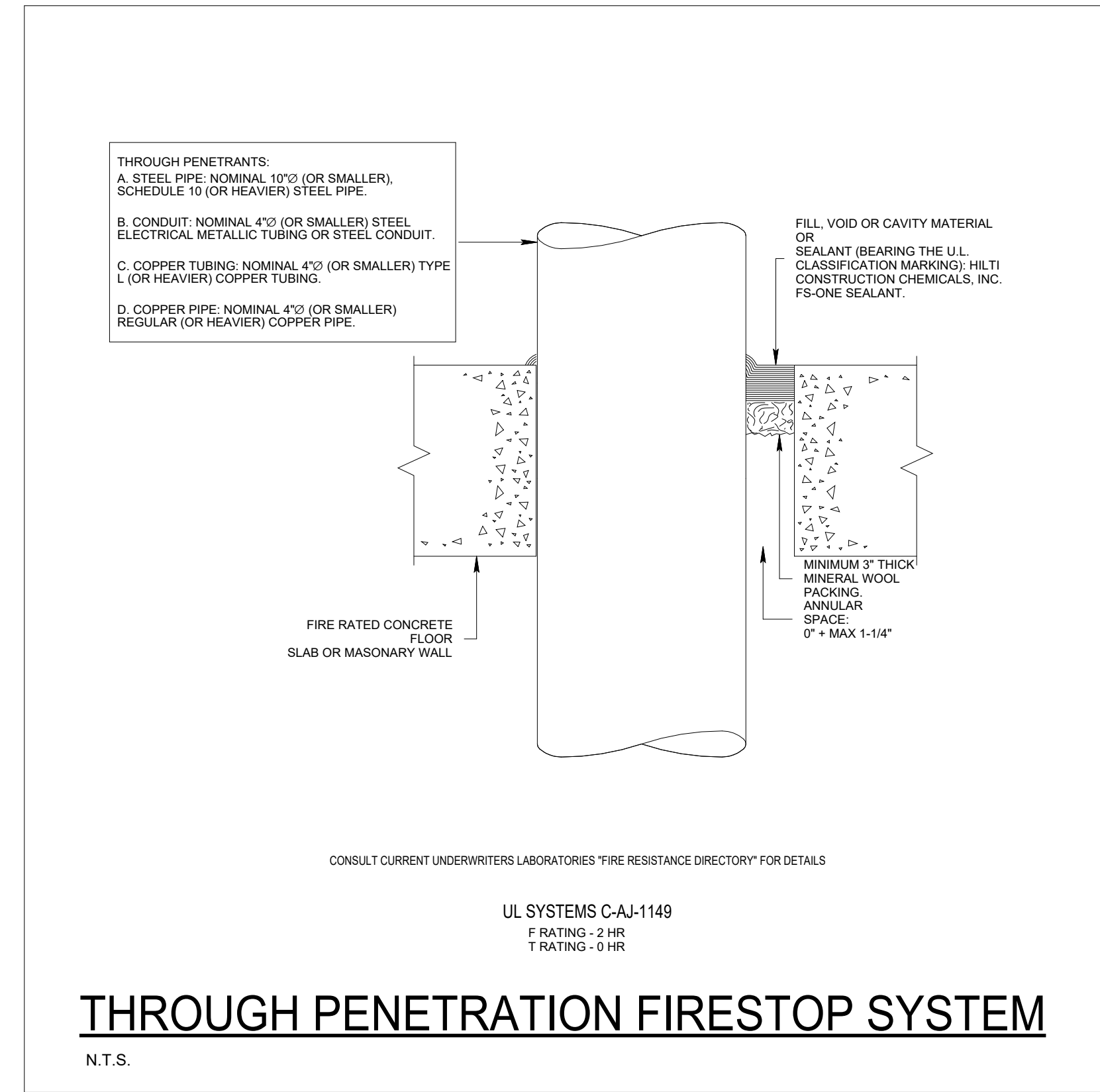
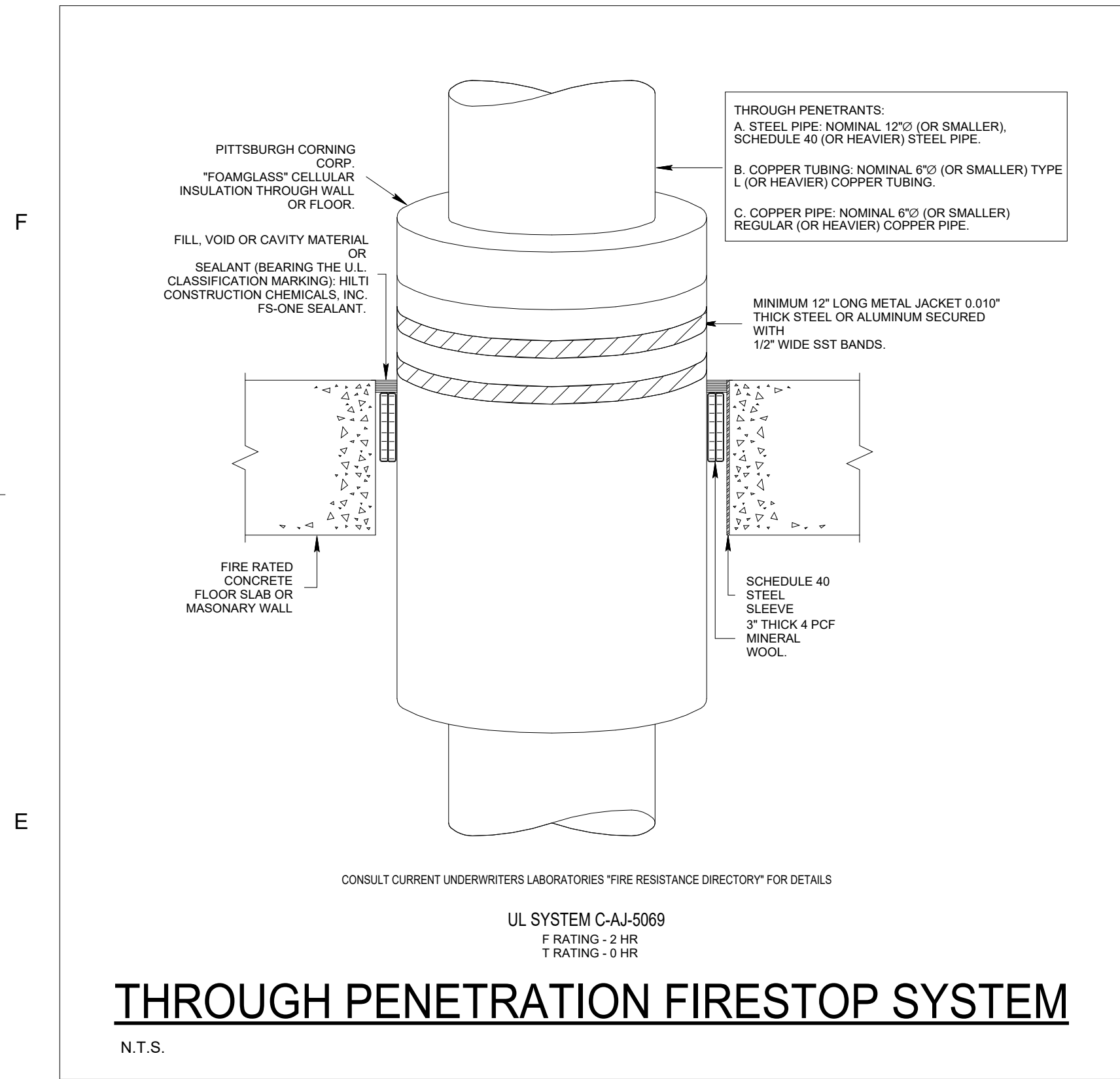
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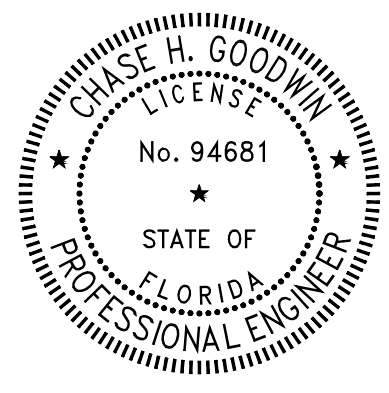
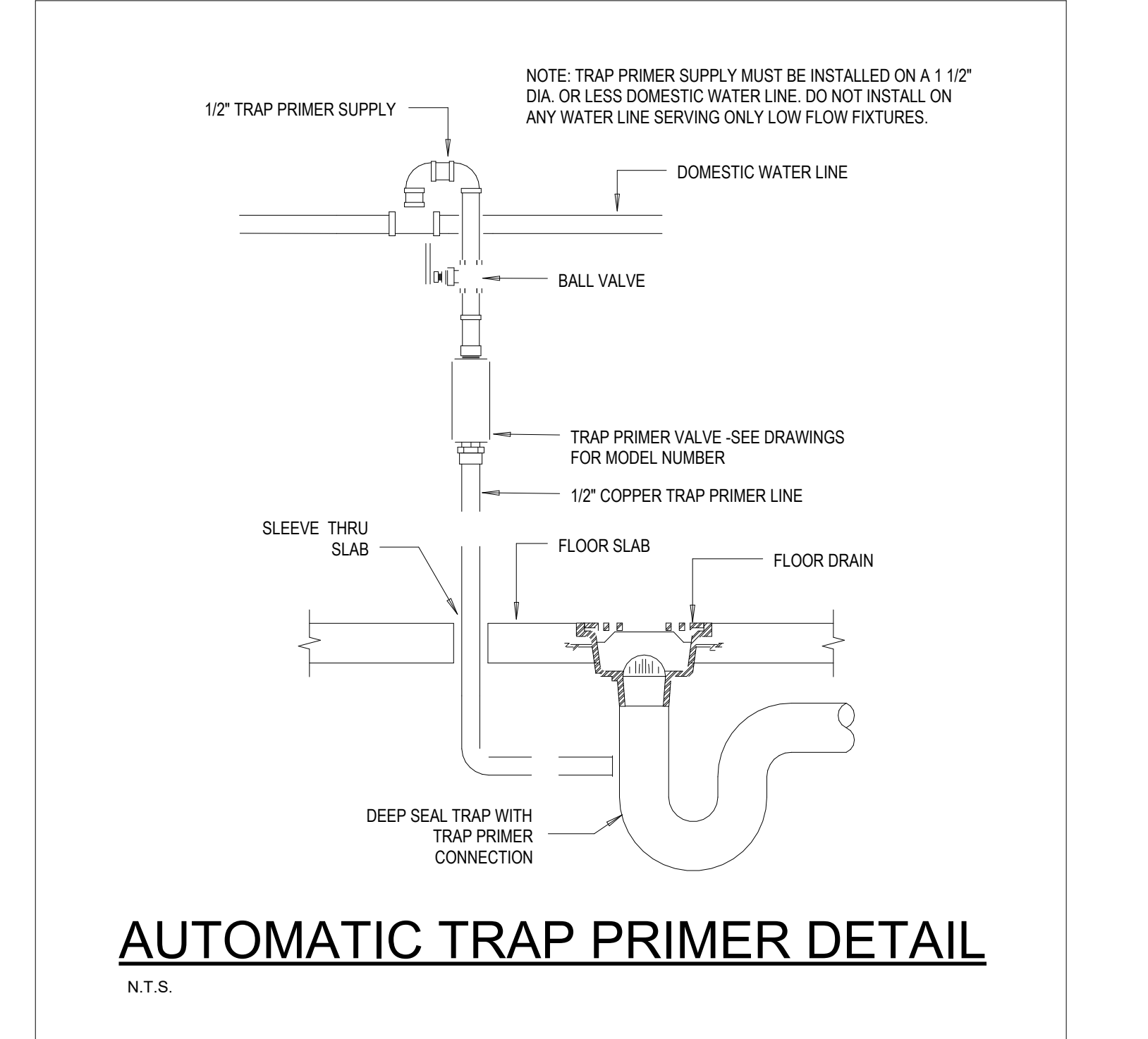
PLUMBING - DETAILS

F-P003





**FIRE STOPPING REQUIREMENT**  
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.



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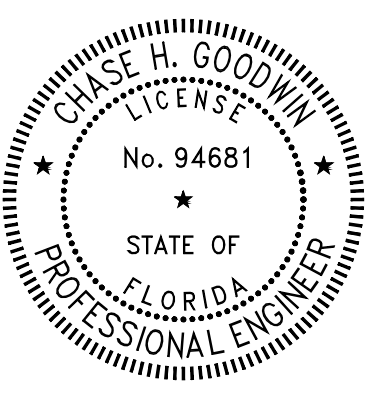
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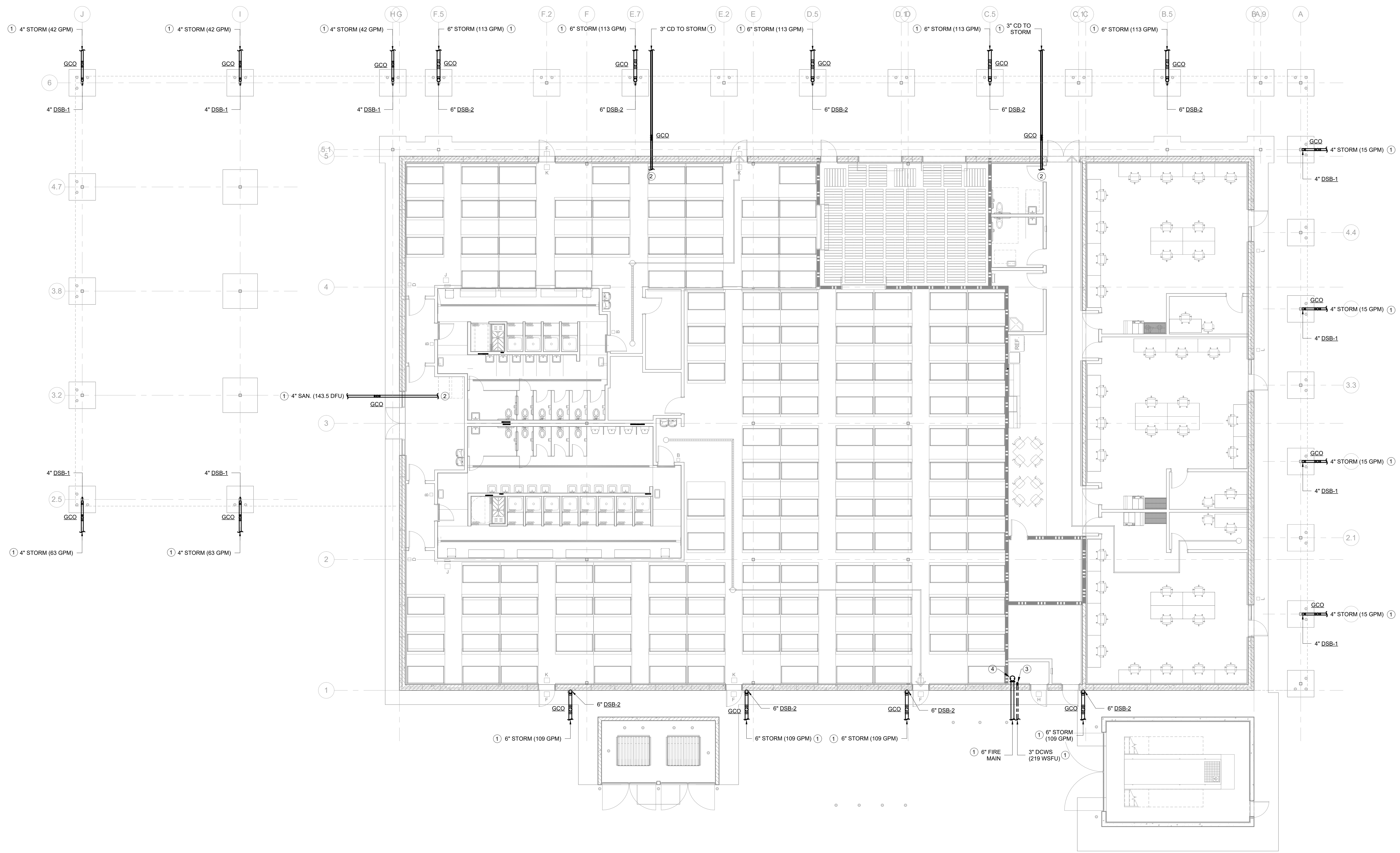
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PLUMBING - OVERALL  
PLAN

F  
E  
D  
C  
B  
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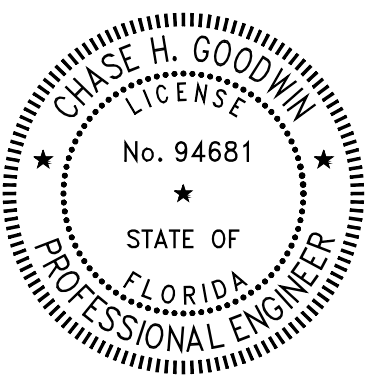


1 PLUMBING - OVERALL PLAN  
1/8" = 1'-0"

**KEYED NOTES** (X)

- 1 SEE CIVIL DRAWINGS FOR CONTINUATION.
- 2 SEE FIRST FLOOR SANITARY / STORM PLAN FOR CONTINUATION.
- 3 SEE FIRST FLOOR DOMESTIC WATER PLAN FOR CONTINUATION.
- 4 SEE FIRE PROTECTION DRAWINGS FOR CONTINUATION.

REFER TO MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION



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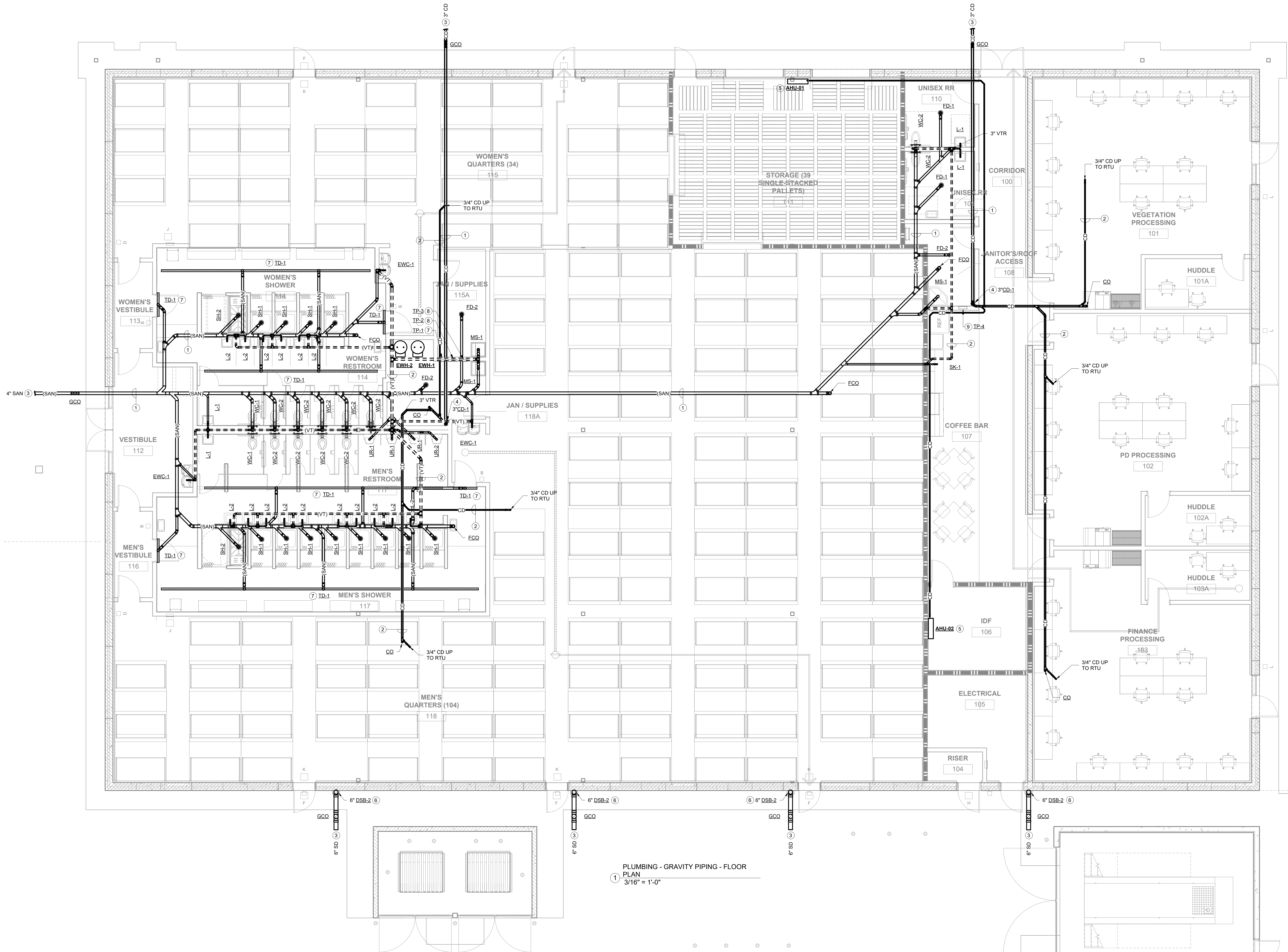
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PLUMBING - FIRST FLOOR -  
GRAVITY PIPING PLAN

F-P201



PLUMBING - GRAVITY PIPING - FLOOR  
PLAN  
3/16" = 1'-0"

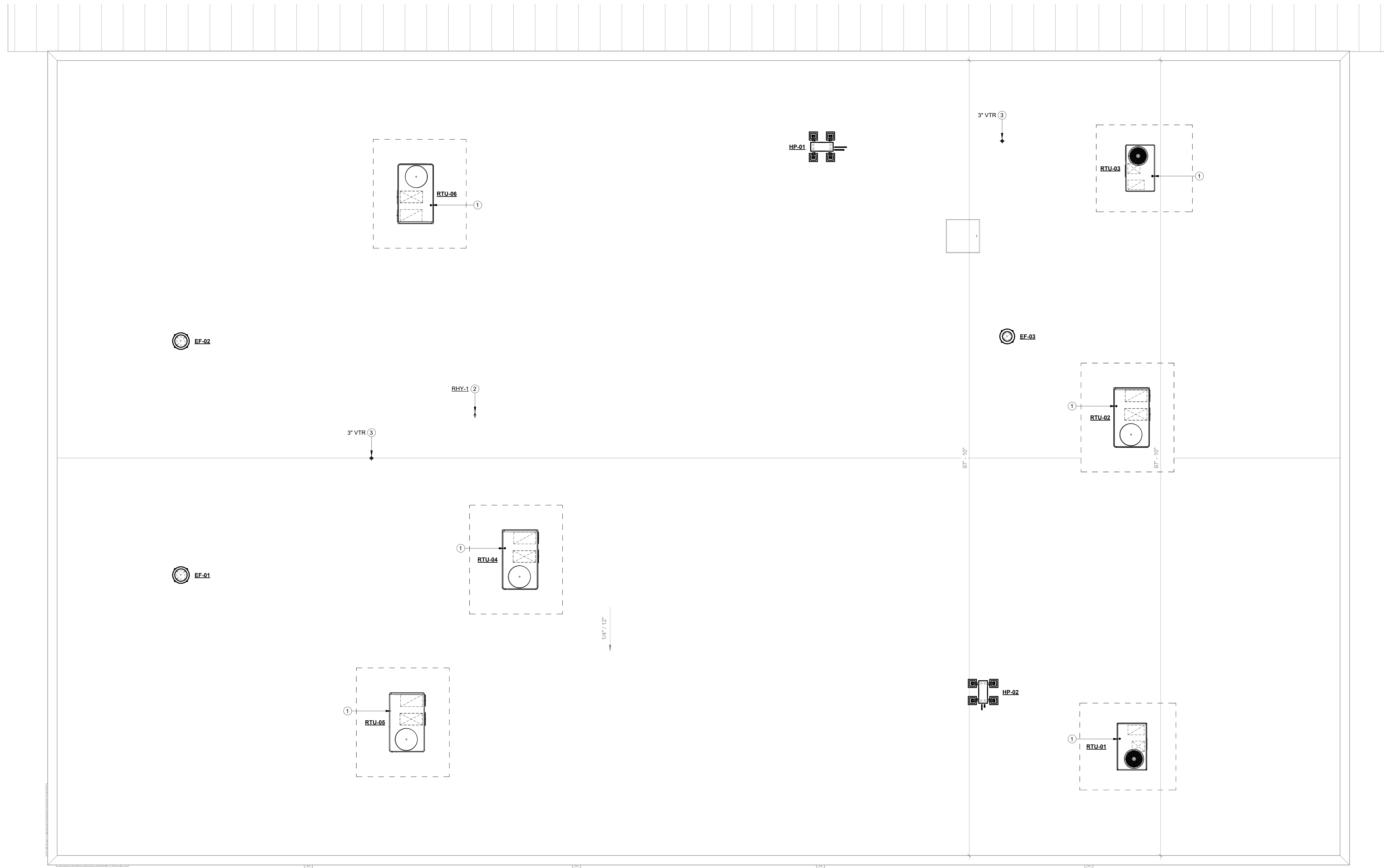
KEYED NOTES (X)

- |  |  |
|--|--|
| <p>① PIPING BELOW GRADE.<br/>② PIPING ABOVE CEILING.<br/>③ CONNECT TO CIVIL. SEE OVERALL PLUMBING PLAN.<br/>④ CONDENSATE PIPING SHALL INDIRECT WASTE IN TO HUB DRAIN. SEE CONDENSATE HUB DRAIN DETAIL.<br/>HUB DRAIN SHALL TERMINATE 18" FROM FLOOR LEVEL.<br/>⑤ WALL MOUNTED MINI SPLIT UNIT.</p> | <p>⑥ CONNECT DOWNSPOUT BOOT TO GUTTER SYSTEM. REFER TO ARCHITECTURAL DRAWINGS FOR GUTTER SIZING.<br/>⑦ FLOOR / TRENCH DRAIN TRAP PRIMER SHALL BE CONNECTED TO TP-1 AUTOMATIC TRAP PRIMER SYSTEM.<br/>⑧ SHOWER DRAIN TRAP PRIMERS SHALL BE CONNECTED TO TP-2 / TP-3 AUTOMATIC TRAP PRIMER SYSTEM.<br/>⑨ FLOOR DRAIN TRAP PRIMERS SHALL BE CONNECTED TO TP-4 AUTOMATIC TRAP PRIMER SYSTEM.</p> |
|--|--|

REFER TO MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION



F  
E  
D  
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B  
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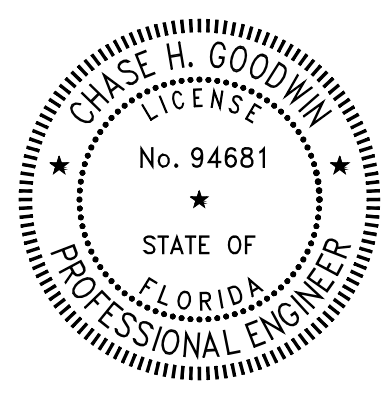


1 PLUMBING - ROOF PLAN  
3/16" = 1'-0"

**KEYED NOTES** (X)

- ① 1/2" CONDENSATE DRAIN DOWN THROUGH CURB. SEE LEVEL BELOW FOR CONTINUATION.
- ② ROOF HYDRANT PIPING DOWN TO CEILING LEVEL. SEE LEVEL BELOW FOR CONTINUATION.
- ③ CONTRACTOR SHALL MAINTAIN MINIMUM 10" CLEARANCE BETWEEN ALL VENT PIPING AND OUTSIDE AIR INTAKES
- ④ GENERAL NOTE: SEE ARCHITECTURAL PLANS FOR ALL GUTTER SIZING.

REFER TO MECHANICAL & ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION



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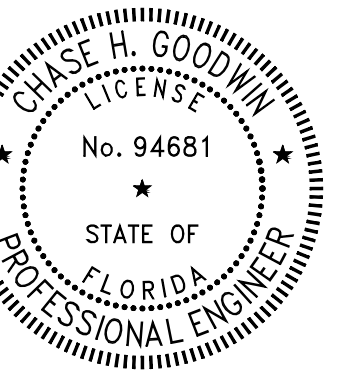
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PLUMBING - ROOF -  
OVERALL PLAN

F-P301



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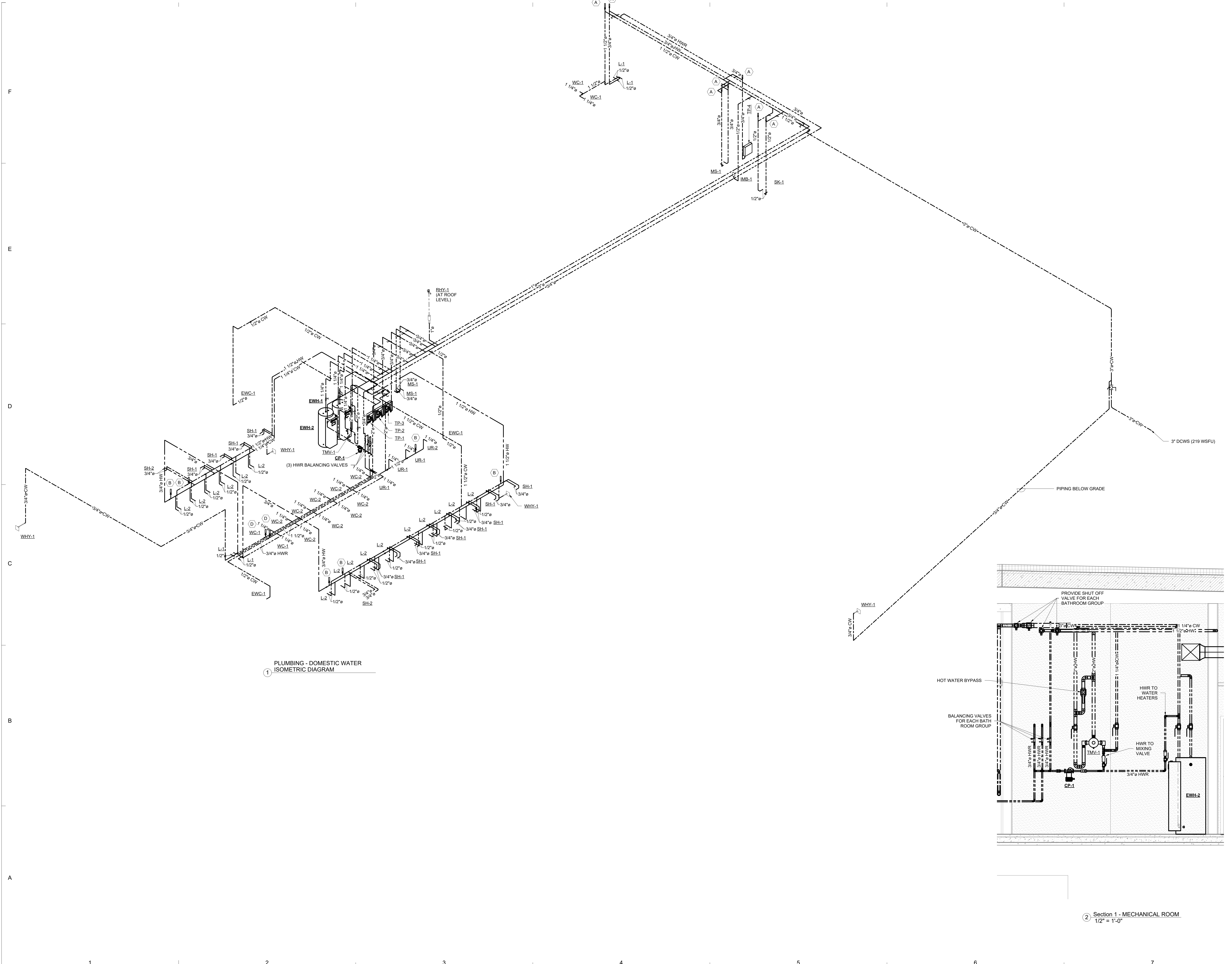
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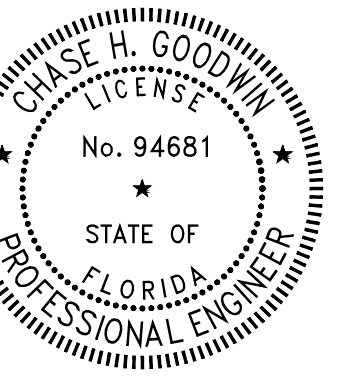
PLUMBING - DOMESTIC  
WATER ISOMETRIC

F-P401



1 PLUMBING - DOMESTIC WATER ISOMETRIC DIAGRAM

2 Section 1 - MECHANICAL ROOM 1/2" = 1'-0"



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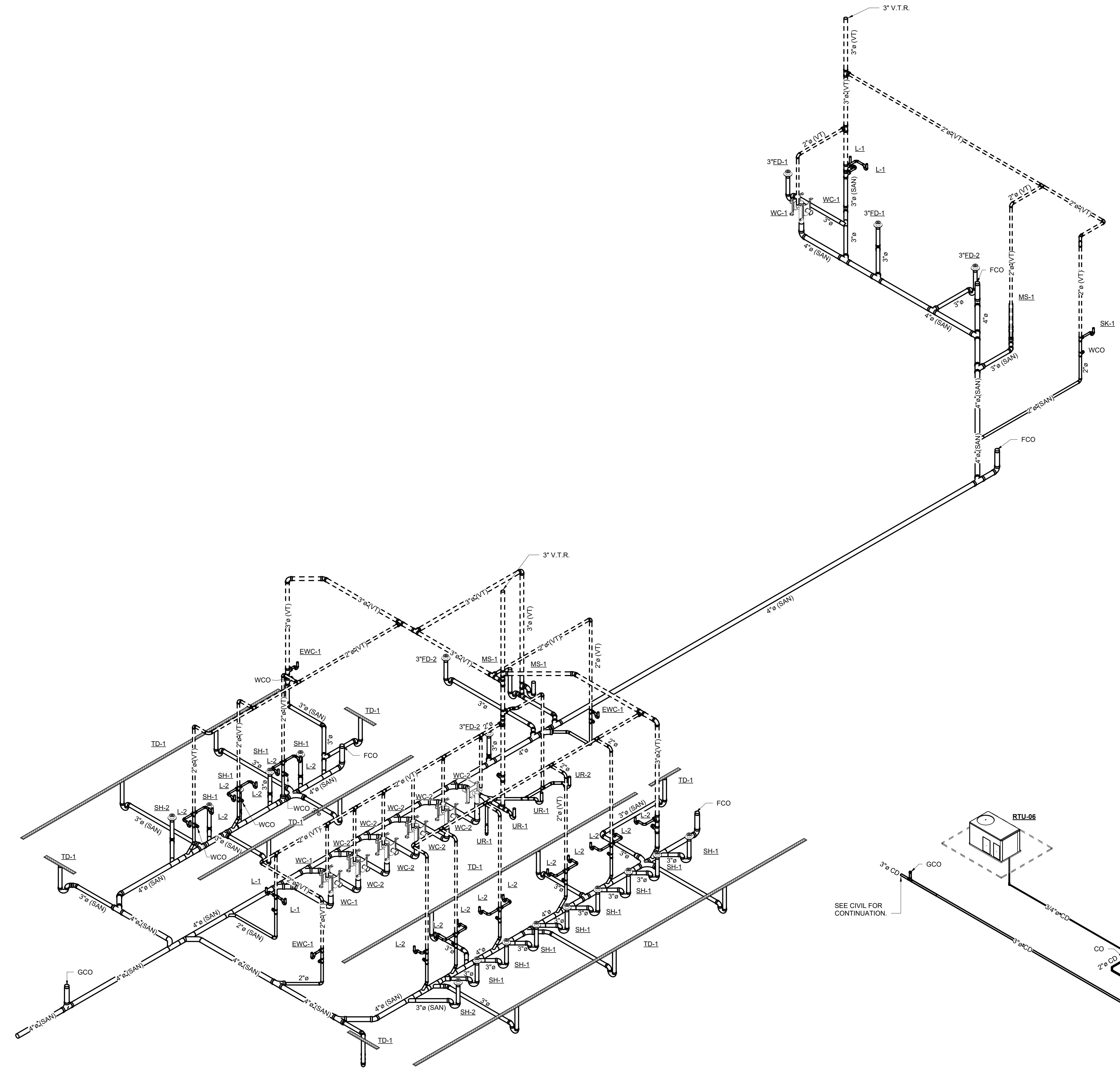
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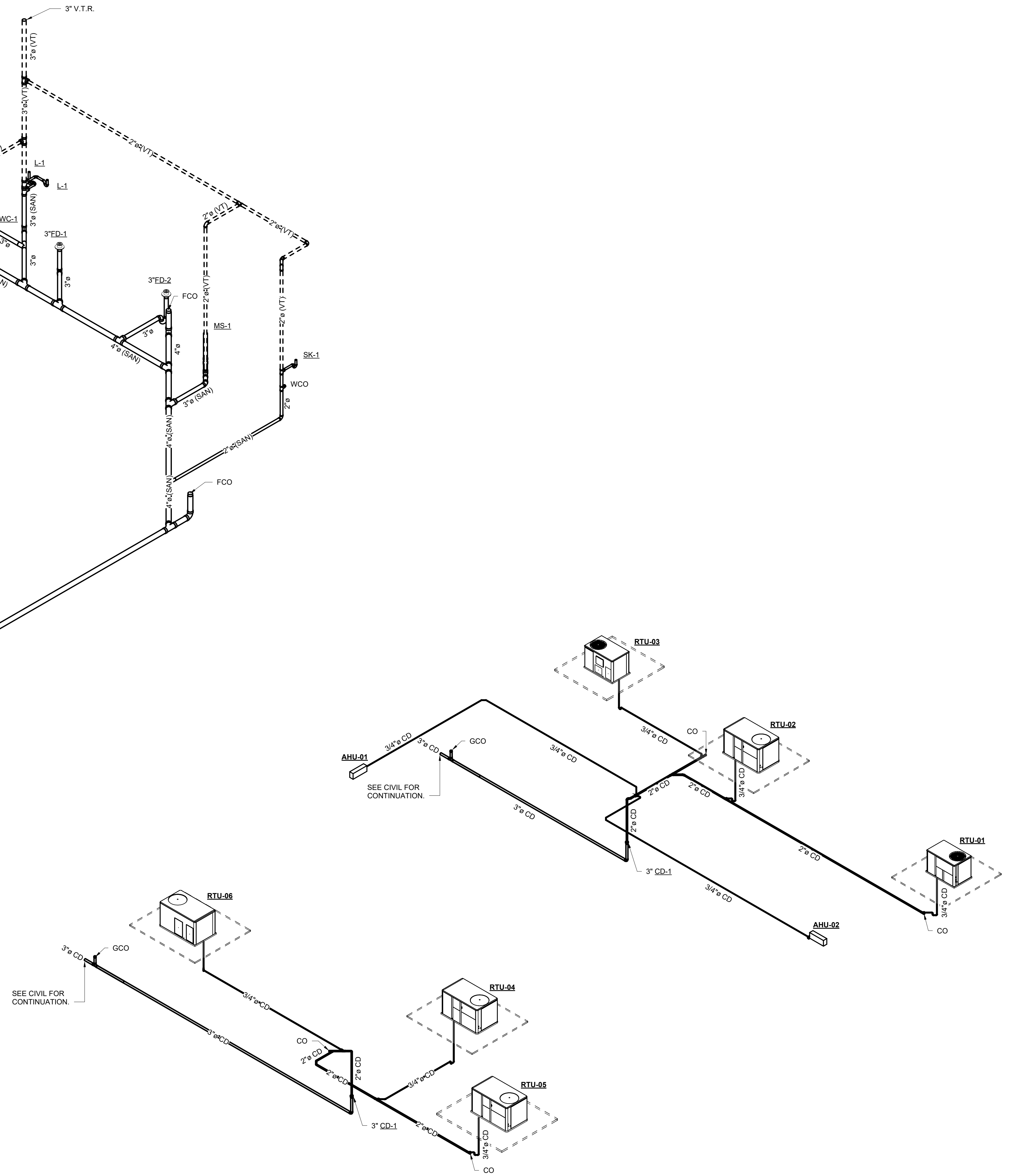
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PLUMBING - GRAVITY  
PIPING RISER DIAGRAMS

F  
E  
D  
C  
B  
A



1 PLUMBING - SANITARY ISOMETRIC  
RISER DIAGRAM



2 PLUMBING - CONDENSATE ISOMETRIC  
RISER DIAGRAM