

PLUMBING SYMBOLS		PLUMBING ABBREVIATIONS		PLUMBING GENERAL NOTES	
SYMBOL	DESCRIPTION	ABBREVIATION	DESCRIPTION		
	- CONDENSATE DRAIN PIPING	CA	- COMPRESSED AIR	1.	REFERENCE THE SPECIFICATIONS FOR MATERIAL AND EQUIPMENT INSTALLATION STANDARDS.
	- DOMESTIC COLD WATER PIPING	AFF	- ABOVE FINISH FLOOR	2.	THE PLUMBING INSTALLATION SHALL COMPLY WITH ALL STATE AND LOCAL CODES.
	- DOMESTIC HOT WATER PIPING	AW	- ACID WASTE	3.	UTILITIES AND SERVICES INDICATED ARE TAKEN FROM VARIOUS OLD AND NEW SURVEYS, AS-BUILT RECORDS AND FIELD INVESTIGATIONS. UNFORSEEN CONDITIONS PROBABLY EXIST AND NEW WORK MAY NOT BE FIELD LOCATED EXACTLY AS SHOWN ON DRAWINGS. COOPERATION WITH OTHER TRADES IN ROUTING AND BURIAL DEPTHS, AS DETERMINED DURING CONSTRUCTION, WILL BE NECESSARY.
	- DOMESTIC HOT WATER RETURN PIPING	AV	- ACID VENT	4.	FIELD VERIFY EXISTING INSTALLATIONS. MODIFY EXISTING PLUMBING SYSTEMS, WHICH ARE TO REMAIN ACTIVE, TO FACILITATE RECONNECTION AND EXTENSION OF THE NEW WORK.
	- SANITARY WASTE PIPING	CB	- CATCH BASIN	5.	NOTIFY OWNER AT LEAST 24 HOURS PRIOR TO INTERRUPTING EXISTING SERVICE. SCHEDULE DISCONNECTION AND TIE-INS TO MINIMIZE DISRUPTION OF SERVICES. SERVICES ARE NOT TO BE LEFT DISRUPTED DURING NON-NORMAL CONTRACTOR WORKING HOURS.
	- VENT PIPING	CFH	- CUBIC FEET PER HOUR	6.	PLANS ARE NOT COMPLETELY TO SCALE. PIPE ROUTING SHOWN IS SCHEMATIC AND IS NOT INTENDED TO INDICATE EXACT ROUTING. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL OFFSETS AND FITTINGS REQUIRED FOR PROPER INSTALLATION AND TO MAINTAIN CLEARANCES. VERIFY STRUCTURAL, MECHANICAL AND ELECTRICAL INSTALLATIONS AND OTHER POTENTIAL OBSTRUCTIONS AND ROUTE PIPING TO AVOID INTERFERENCES.
	- STORM DRAIN PIPING	CO	- CLEANOUT	7.	PROVIDE ALL OFFSETS AND FITTINGS AND MAKE CONNECTION TO SITE UTILITIES.
	- OVERFLOW STORM DRAIN PIPING	COW	- DOMESTIC COLD WATER	8.	CONCEAL PIPING ABOVE CEILINGS, WITHIN WALLS OR CHASES EXCEPT IN MECHANICAL ROOMS OR AS SPECIFICALLY NOTED.
	- FUEL GAS PIPING	DI	- DEIONIZED WATER	9.	PROVIDE ACCESS PANELS FOR ALL VALVES CONCEALED IN WALLS OR ABOVE NON-ACCESSIBLE CEILINGS.
	- HOSE BIBB OR WALL HYDRANT	DN	- DOWN	10.	SLEEVE AND/OR FIRESTOP ALL PENETRATIONS THROUGH RATED WALLS, CEILINGS, AND FLOORS WITH UL LISTED ASSEMBLIES. FIRESTOP ASSEMBLIES SHALL BE EQUAL TO OR EXCEED THE RATING OF THE WALL, CEILING OR FLOOR. SEE ARCHITECTURAL DRAWINGS FOR FINAL FINISHES.
	- CLEANOUT PLUG	DS	- DOWNSPOUT	11.	FLASH AND COUNTER-FLASH ROOF PENETRATIONS.
	- WALL CLEANOUT	DWG	- DRAWING	12.	WHEN BEAM SLEEVE PENETRATIONS ARE NECESSARY, COORDINATE PENETRATIONS WITH ALL TRADES, THE ARCHITECT AND THE STRUCTURAL ENGINEER.
	- FLOOR CLEANOUT / EXTERIOR CLEANOUT	EXIST	- EXISTING	13.	PROVIDE FOUNDATION PAD PENETRATION SLEEVES. ALLOW 1" MINIMUM CLEARANCE BETWEEN SLEEVE INSIDE SURFACE AND PIPE EXTERIOR.
	- FLOOR DRAIN	F	- DEGREE FAHRENHEIT	14.	SEE ARCHITECTURAL DRAWINGS FOR FIXTURE LOCATIONS AND MOUNTING HEIGHTS.
	- FLOOR SINK	FOO	- FLOOR CLEANOUT	15.	PROVIDE AUTOMATIC TRAP PRIMERS FOR FLOOR DRAIN TRAP SEALS.
	- DECK DRAIN	FD	- FLOOR DRAIN	16.	PROVIDE AN AIR GAP, WHEN REQUIRED BY CODE, SERVING INDIVIDUAL FIXTURES, DEVICES, APPLIANCES AND APPARATUS.
	- SHUT-OFF VALVE	FOF	- FUEL OIL FILL	17.	ALL EXPOSED PIPE AND FITTINGS IN FINISHED AREAS SHALL BE CHROME PLATED.
	- BALL VALVE	FOG	- FUEL OIL GAGE	18.	MOUNT HOSE BIBBS 24" ABOVE FINISHED GRADE.
	- CALIBRATED BALANCING VALVE	FOR	- FUEL OIL RETURN	19.	PROVIDE CLEANOUTS IN ACCORDANCE WITH ALL STATE AND LOCAL CODES. INSTALL CLEANOUT WITH COVER FLUSH TO FINISH SURFACE.
	- CHECK VALVE (SWING)	FOS	- FUEL OIL SUPPLY	20.	COORDINATE EXACT FLOOR DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS. SET FLOOR DRAINS BELOW FINISHED FLOOR TO ALLOW FOR FLOOR SLOPING TO THE DRAIN.
	- PRESSURE REDUCING VALVE	FOV	- FUEL OIL VENT	21.	COORDINATE PIPING WITH ALL ELECTRICAL EQUIPMENT (PANELS, TRANSFORMERS, ETC.) PRIOR TO ANY INSTALLATION. DO NOT ROUTE ANY PIPING OVER ANY ELECTRICAL PANELS UNDER ANY CIRCUMSTANCES. ANY PIPING RUN OVER PANELS SHALL BE RE-ROUTED AT NO ADDITIONAL COST.
	- SOLENOID OPERATING VALVE	FS	- FLOOR SINK	22.	ALL WALL MOUNTED LAVATORIES SHALL BE ATTACHED TO FLOOR MOUNTED CARRIER DESIGNED TO WITHSTAND A VERTICAL LOAD OF 250 POUNDS ON THE FRONT OF THE FIXTURE.
	- GAS COCK	FSEF	- FOODSERVICE EQUIPMENT NUMBER	23.	PROVIDE SANITARY WASTE, VENT, DOMESTIC WATER, ETC. ROUGH-IN AND MAKE FINAL CONNECTIONS (TO INCLUDE PROVIDING ALL NECESSARY RELATED STOPS, VALVES, TRAPS, ETC. AND MAKE READY FOR USE) TO ALL GOVERNMENT
	- GAS PRESSURE REGULATOR	G	- GAS		
	- DETAIL REFERENCE	GPH	- GALLONS PER HOUR		
	- PIPE TAG	GPM	- GALLONS PER MINUTE		
	- REVISION REFERENCE	GR	- KITCHEN WASTE (GREASE)		
		HB	- HOSE BIBB		
		HD	- HUB DRAIN		
		HW	- DOMESTIC HOT WATER		
		HWR	- DOMESTIC HOT WATER RECIRCULATING		
		IE	- INVERT ELEVATION		
		IW	- INDIRECT WASTE		
		KW	- KILOWATT		
		LES	- POUNDS		
		MH	- MANHOLE		
		NC	- NORMALLY CLOSED		
		NIC	- NOT IN CONTRACT		
		NO	- NORMALLY OPEN		
		NP	- NON-POTABLE WATER		
		NTS	- NOT TO SCALE		
		OD	- OUTSIDE DIAMETER		
		PRV	- PRESSURE REDUCING VALVE		
		PSI	- POUNDS PER SQUARE INCH		
		PVC	- POLYVINYL CHLORIDE PIPE		
		RD	- ROOF DRAIN		
		RBP	- REDUCED PRESSURE BACKFLOW PREVENTOR		
		SAN	- SANITARY		
		SD	- STORM DRAIN		
		SF	- SQUARE FEET		
		SH	- SHEET		
		ST	- STORM		
		STO	- OVERFLOW STORM DRAIN		
		SW	- SOFT COLD WATER		
		V	- VENT		
		VAC	- VACUUM		
		VC	- VACUUM CLEANING		
		VTR	- VENT THRU ROOF		
		WCO	- WALL CLEANOUT		
		WTR	- WATER		

NOTE: SOME SYMBOLS SHOWN ON THIS LEGEND MAY NOT PERTAIN TO THIS PROJECT

## PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

(EWH-1) ELECTRIC WATER HEATER, STORAGE TANK TYPE

## BASIS OF DESIGN

WATER HEATER: "A.O. SMITH", MODEL # DEN-30, 4.5 KW UPPER AND LOWER NON-SIMULTANEOUS OPERATION, 200 VOLT, 3 PHASE, 25 GPH RECOVERY AT 70 DEGREE F TEMPERATURE RISE. PROVIDE STRUCTURAL SHELF WITH INTERGRAL DRAIN PAN MOUNTED AT 6'-6" ABOVE FINISHED FLOOR. STRUCTURAL SHELF BASIS OF DESIGN: "HOLDRITE", MODEL # 50-SWHP-W.

**EXP-1** WATER HEATER THERMAL EXPANSION TANK

## BASIS OF DESIGN

EXPANSION TANK, "AMTROL", MODEL #ST-5

**WC-1** WATER CLOSET, FLOOR MOUNTED, MANUAL FLUSH VALVE, 1.6 GPF

## BASIS OF DESIGN

WATER CLOSET: "AMERICAN STANDARD", MODEL #3043001.02  
FLUSH VALVE: "SLOAN", MODEL # REGAL 111-1.6,  
SEAT: "AMERICAN STANDARD", MODEL # 5901.100SS

**LV-1** LAVATORY, WALL MOUNTED, MANUAL METERED FAUCET, 0.5 GPF

## BASIS OF DESIGN

LAVATORY: "AMERICAN STANDARD", MODEL #3055.01;  
FAUCET: "MOEN, MODEL #8894"

**UR-1** URINAL, WALL MOUNTED, MANUAL FLUSH VALVE

## BASIS OF DESIGN

URINAL: "AMERICAN STANDARD", WASHBROOK 6590.000  
FLUSH VALVE: "SLOAN", REGAL 186-0.125

**MS-1** MOP SINK, SERVICE FAUCET

## BASIS OF DESIGN

SINK: "STERN WILLIAMS", MODEL #SBC-1700  
FAUCET: "T&S BRASS", MODEL #B0658

**(EWC-1) ELECTRIC WATER COOLER**

## BASIS OF DESIGN

WATER COOLER: "ELKAY", MODEL #LVRCTL8SC

**FD-1** FLOOR DRAIN

BASIS OF DESIGN: "WATTS", MODEL #FD-100

WATER CLOSET HARDWARE:

**TOILET SEAT** - BEMIS No. 1655SS, EXTRA HEAVY SOLID PLASTIC WITH STAINLESS STEEL SELF SUSTAINING CHECK HINGE, OPEN FRONT WITHOUT COVER.

URINAL HARDWARE:

**FIXTURE CARRIER - WATTS No. CA-321, FULLY ADJUSTABLE URINAL CARRIER WITH HEAVY GAUGE STEEL OFFSET UPRIGHTS, ADJUSTED TO ACCESSIBLE HEIGHT**

LAVATORY HARDWARE:

**STRAINER/ TRAP** - McGURU MC 155A/B992, CHROME PLATED STRAINER, CAST GRID STRAINER WITH 1-1/4" TAILPIECE, PLATED 17 GAUGE 1-1/4" X 1-1/2" BRASS P-TRAP WITH CLEANOUT. (ADA DEPTH SINKS SHALL HAVE OFFSET TAILPIECES)  
**McGURU MC 155VC/B992.**  
**SUPPLIES** - McGURU MC 2165CC, 1/2" COMPRESSION X 3/8" COMPRESSION CHROME PLATED ANGLE SUPPLY STOPS WITH CHROME PLATED 12" FLEXIBLE RISERS AND ESCUTCHEONS.  
**INSULATION KIT** - EXPOSED SUPPLIES AND TRAPS ARE TO BE PROTECTED WITH INSULATION KITS SUPPLY TO PLUMBERX MC 4333.  
**FIXTURE CARRIER** - WATTS N.WCA-411, CONCEALED ARMS FLOOR MOUNTED CARRIER COATED STEEL UPRIGHTS WITH WELDED FEET, CAST IRON ADJUSTABLE HEADERS, STEEL SLEEVES, ALIGNMENT TRUSS AND FASTENERS.

**MOP SINK HARDWARE:** T-10-VB MOP SERVICE SINK FITTING WITH VACUUM BREAKER, ADJUSTABLE TOP BRACE, 3/4" HOSE THREAD ON SPOUT WITH BUCKET HOOK INLETS 8" ON CENTER, CHROME FINISH, BP SPLASH CATCHER PANELS OF 20 GA. TYPE 304 STAINLESS STEEL.

HOSE AND WALL HOOK - AMERICAN SPECIALTIES NO 1315-4, 36" SHELVES, UTILITY HOOK & MOP STRIP WITH DRYING ROD (3 HOOKS, 4 HOLDERS)

## ELECTRIC WATER COOLER / DRINKING FOUNTAIN HARDWARE

FIXTURE CARRIER - WATTS No. CA-431-1, FLOOR MOUNTED BI-LEVEL WATER COOLER CARRIER WITH HEAVY GAUGE STEEL UPRIGHTS WITH INTEGRAL WELDED FEET, UNIVERSAL STEEL HANGER SUPPORT PLATE, AND PLATED HARDWARE

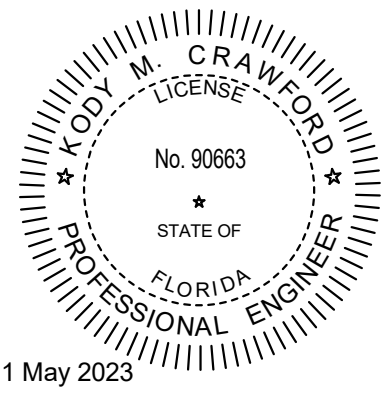
PLUMBING DRAWING INDEX	
SHEET	DESCRIPTION
P001	PLUMBING SYMBOLS, LEGEND, NOTES AND INDEX
P101	FLOOR PLAN - PLUMBING
P201	PLUMBING RISER DIAGRAMS
P401	PLUMBING DETAILS

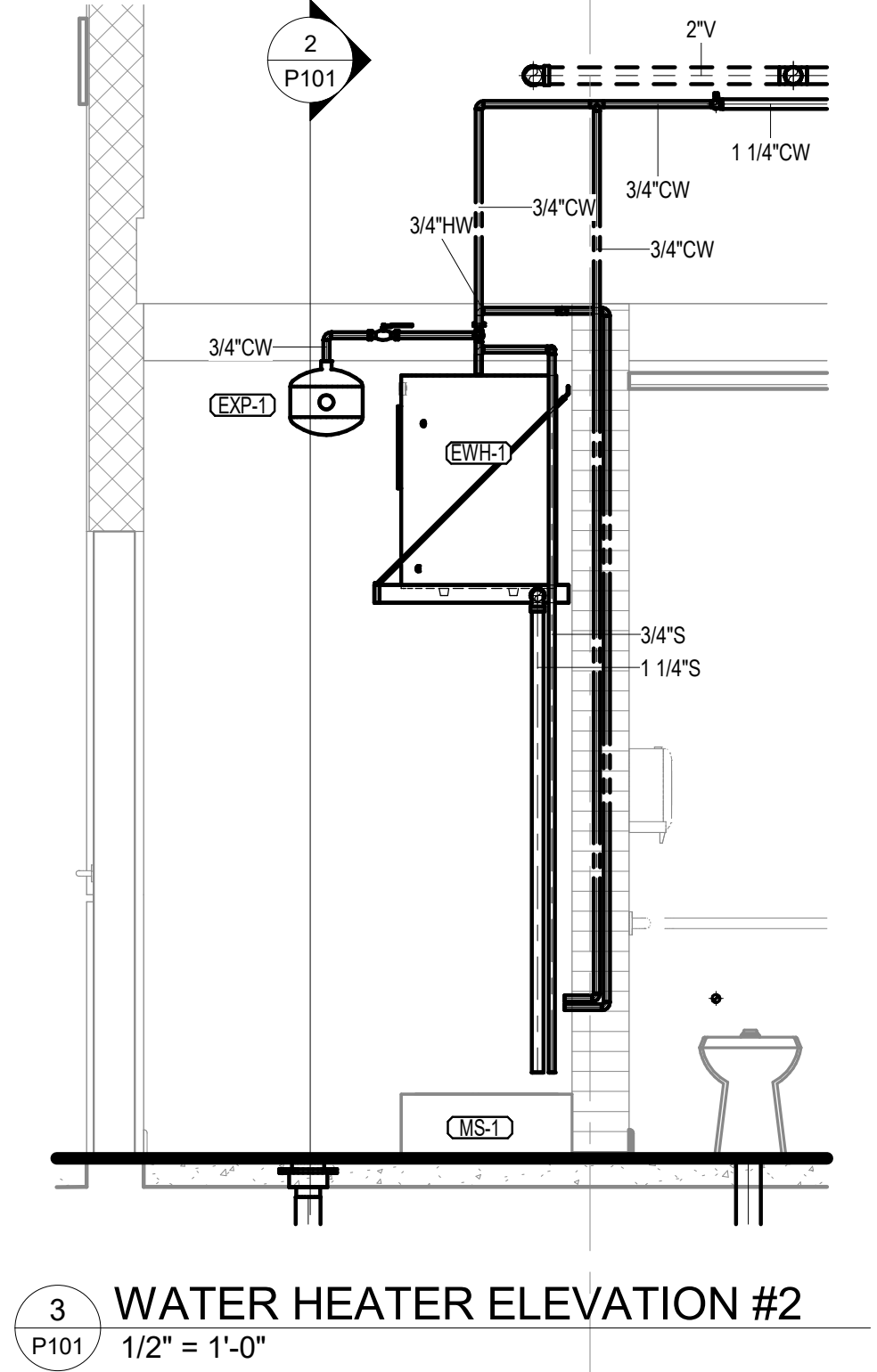
## **FIRE PROTECTION GENERAL NOTES:**

1. THIS PROJECT IS UNDER 49 SPRINKLER HEADS TO PROVIDE A COMPLETE SPRINKLER SYSTEM WITH COVERAGE OF THE ENTIRE BUILDING. PER THE 2020 FLORIDA BUILDING CODE, BUILDING, 7TH EDITION, SECTION # 106.3.1.2(2), ENGINEERING DESIGN DRAWINGS FROM THE ENGINEER ARE NOT REQUIRED FOR THE FIRE PROTECTION SCHEME OF WORK. 2020 FLORIDA BUILDING CODE, BUILDING, 7TH EDITION, SECTION # 106.3.1.2(2), STATES THAT PERSONNEL AS AUTHORIZED BY CHAPTER 633 FLORIDA STATUTES, MAY DESIGN A FIRE SPRINKLER SYSTEM OF 49 OR FEWER HEADS AND MAY DESIGN THE ALTERATION OF AN EXISTING FIRE SPRINKLER SYSTEM. IF THE ALTERATION OF AN EXISTING FIRE SPRINKLER SYSTEM IS REQUIRED, THE ALTERATION OF AN EXISTING FIRE SPRINKLER SYSTEM IF THE ALTERATION CONSISTS OF THE RELOCATIONS, ADDITION OR DELETION OF NOT MORE THAN 49 HEADS, NOTWITHSTANDING THE SIZE OF THE EXISTING FIRE SPRINKLER SYSTEM.
2. PER NFPA 13, THE SPRINKLER HEAD SPACING SHALL NOT EXCEED 225 SQ.FT. THE FIRE HAZARD FOR THE SPACE IS LIGHT HAZARD WITH A DENSITY OF 0.10 GRMS/SQ.FT. OVER 1500 SQ.FT.

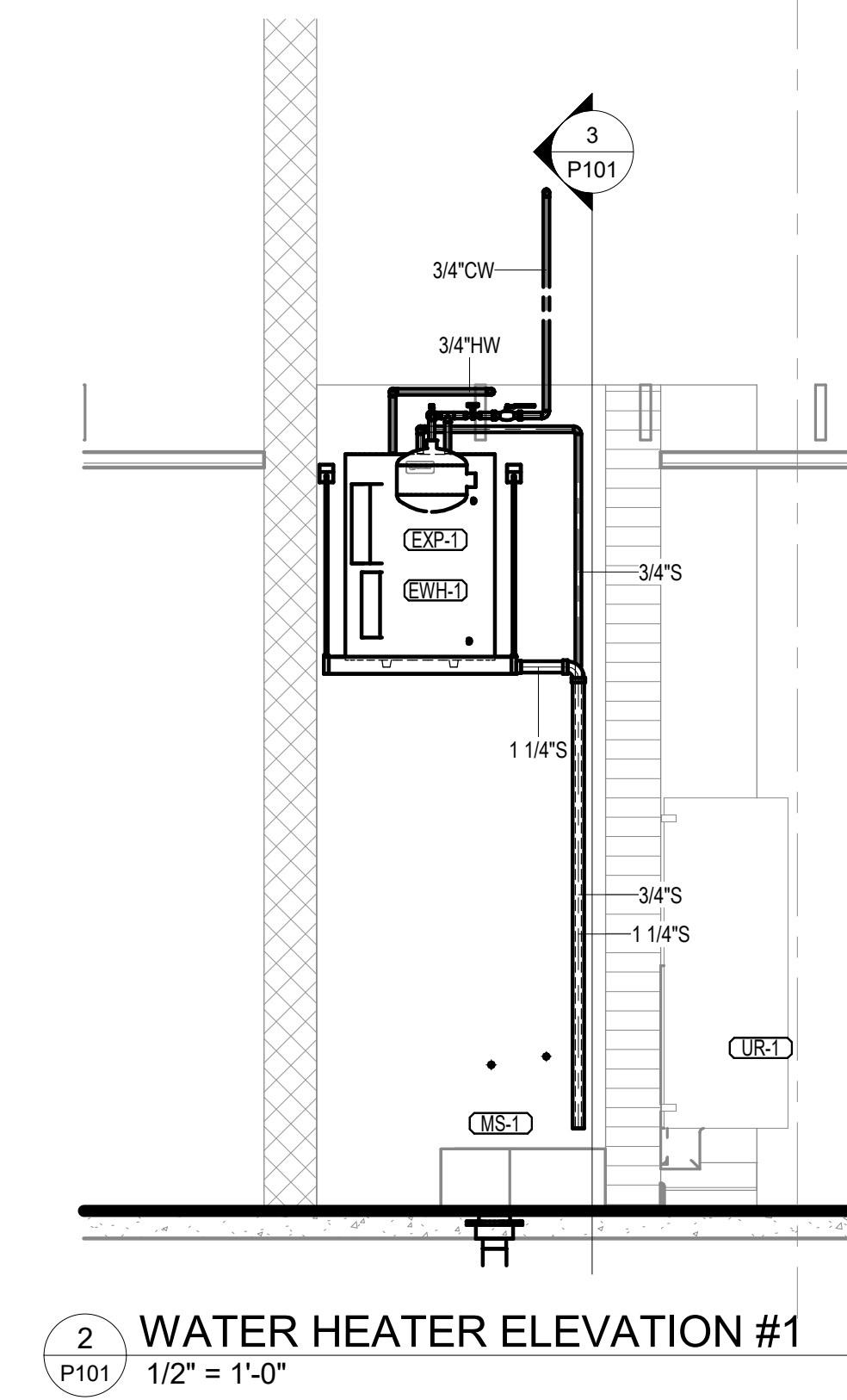
This item has been digitally signed and sealed by Kody Crawford, PE on the date adjacent to the seal.

Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

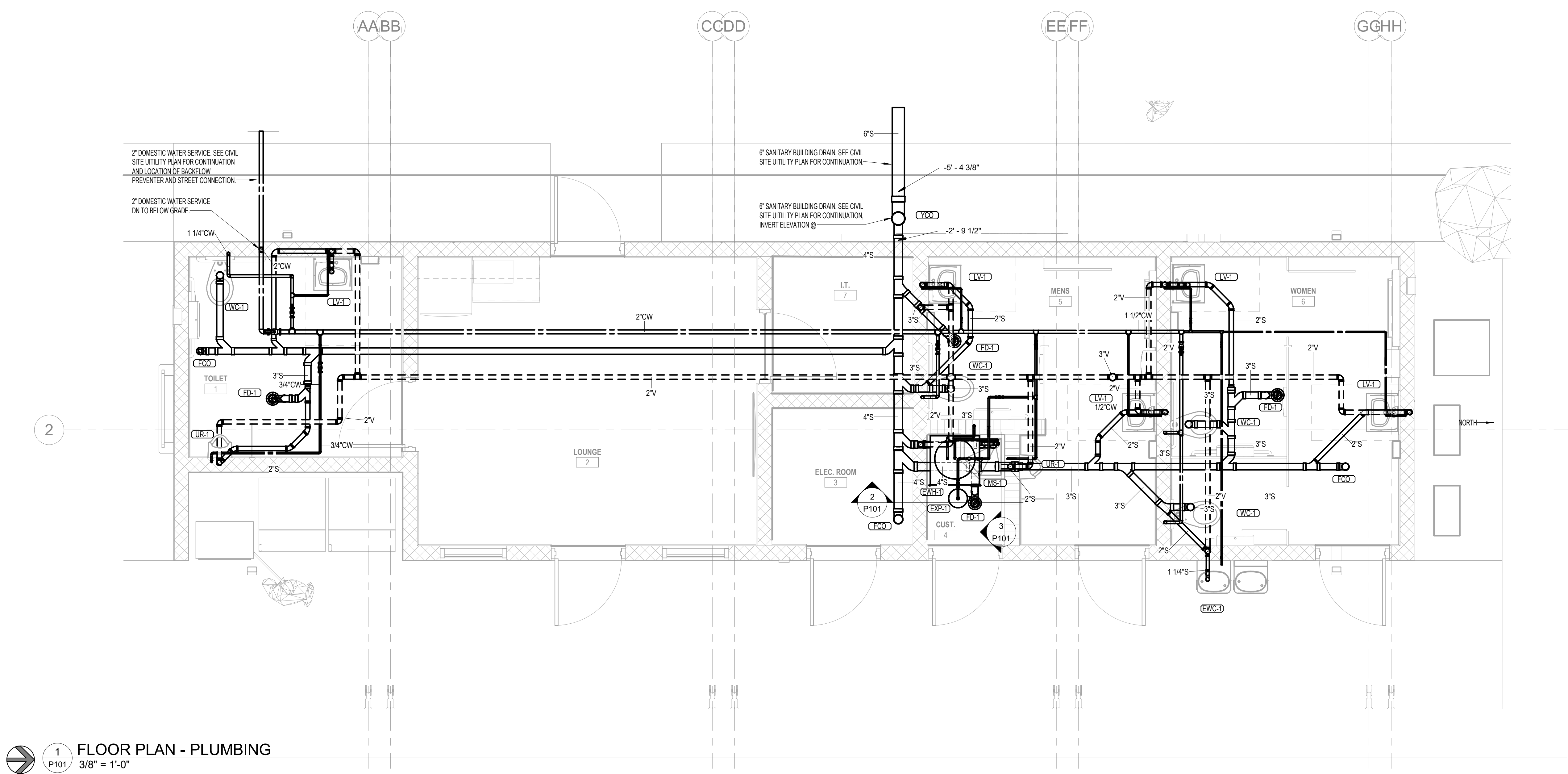




**3 WATER HEATER ELEVATION #2**  
P101 1/2" = 1'-0"

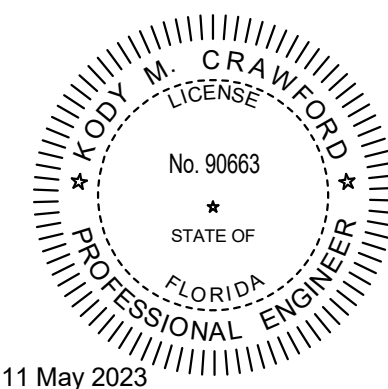


**2 WATER HEATER ELEVATION #1**  
P101 1/2" = 1'-0"



**1 FLOOR PLAN - PLUMBING**  
P101 3/8" = 1'-0"

This item has been  
digitally signed and sealed  
by Kody Crawford, PE  
on the date adjacent to  
the seal.  
Printed copies of this  
document are not  
considered signed and  
sealed and the signature  
must be verified on any  
electronic copies.



11 May 2023



100% Contract Documents

**LEHIGH ACRES PARK AND RIDE**

1121 VILLAGE LAKES BLVD., LEHIGH ACRES, FLORIDA

**PARKER / MUDGETT / SMITH ARCHITECTS, INC.**

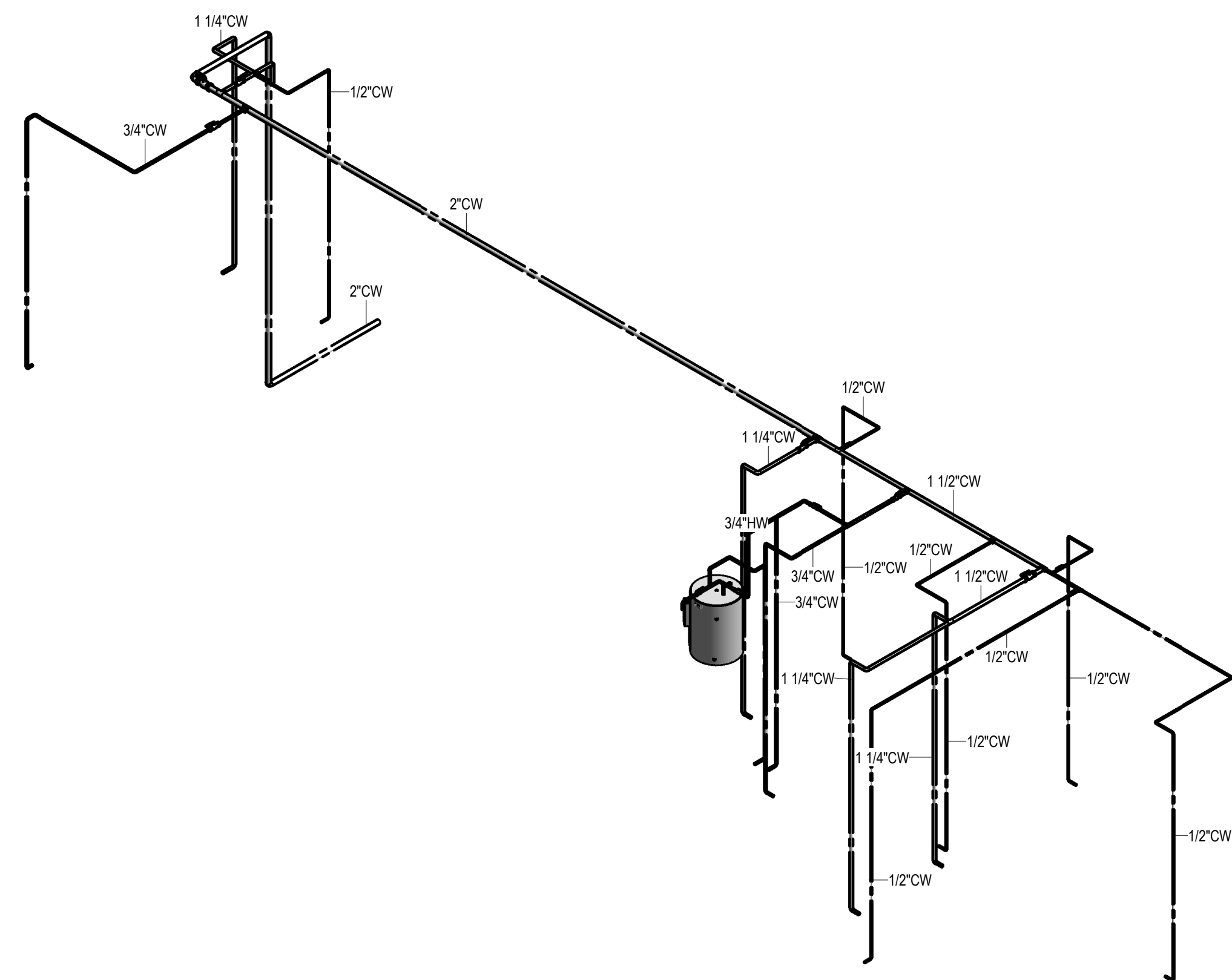
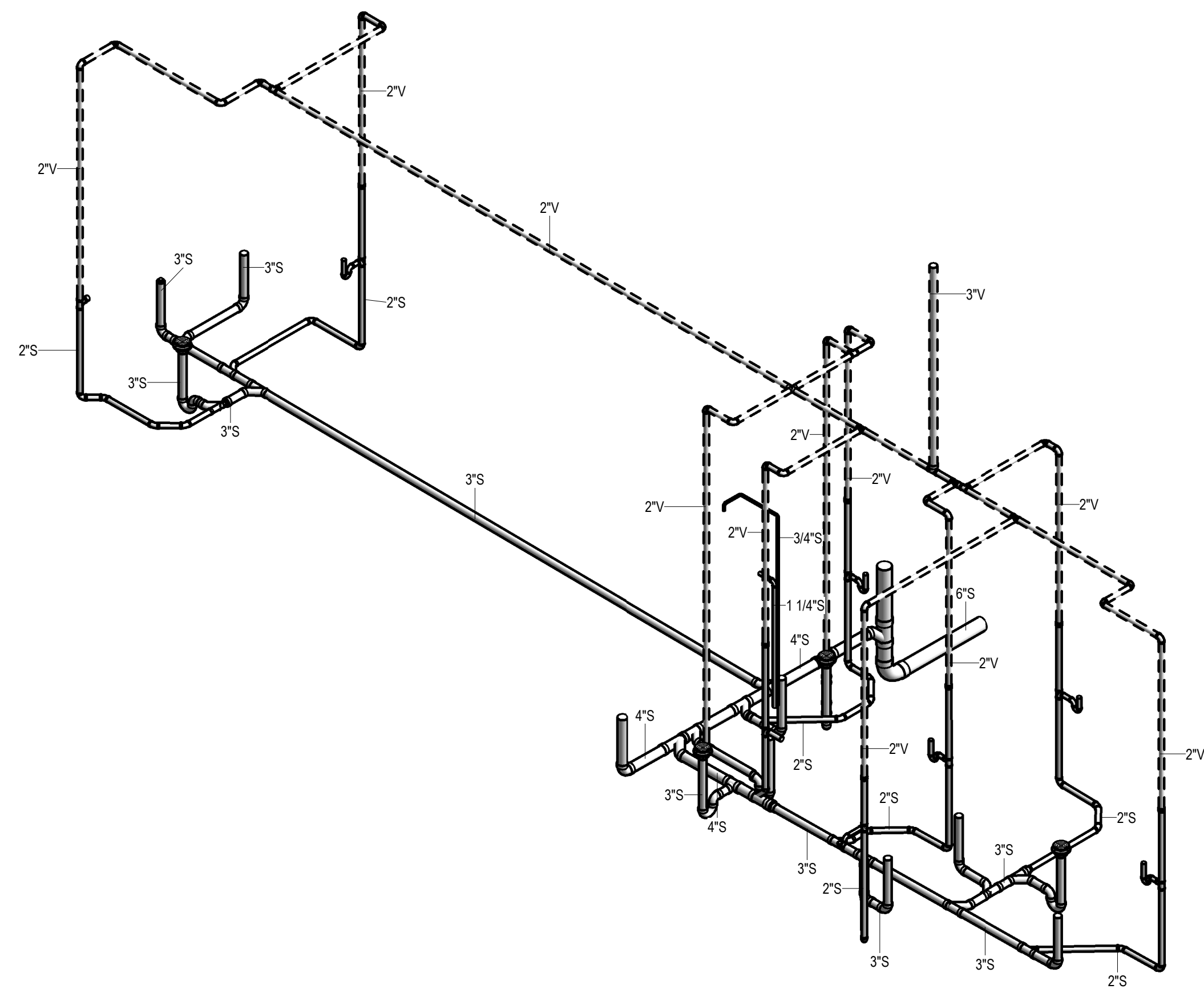
2136 MCGREGOR BLVD. FORT MYERS, FLORIDA 33901

(239) 332-1171

REVISIONS		
No.	Description	Date

04/14/2023

**P101**



This item has been digitally signed and sealed by Kody Crawford, PE on the date adjacent to the seal. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

The seal is circular with a double-lined border. The outer ring contains the text "KODY M. CRAWFORD" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The inner ring contains the word "LICENSE" at the top and "FLORIDA" at the bottom, separated by two stars. In the center, the text reads "No. 90663" and "STATE OF". Below the seal, the expiration date "1 May 2023" is printed.

**TLC** | **ENGINEERING  
SOLUTIONS**  
©Copyright 2019  
13099 S. Cleveland Avenue,  
Suite 500  
Fort Myers, FL 33907  
P 239.275.4240  
COA 15  
[www.tlc-engineers.com](http://www.tlc-engineers.com)  
TLC No.: 721030  
**THINK. LISTEN. CREATE.**

