SYMBOLS LIST

LEGEND

SYMBOL	DESCRIPTION
	PIPING UP
	PIPING DOWN
	REDUCER
	CLEANOUT
	CLEANOUT DECKPLATE
	CAPPED PIPE
	METER
	FLOOR DRAIN
	AQUASTAT
	FROST FREE HOSE BIBB
	PUMP
	STRAINER
	UNION
	THERMOSTATIC MIXING VALVE
	BALANCING VALVE (BV)
	GLOBE VALVE (GLV)
	CHECK VALVE
	GAS COCK
	BALL VALVE (BV)
	GATE VALVE (GV)
	COLD WATER (CW)
	HOT WATER (HW)
	HOT WATER RETURN (HWR)
	WASTE PIPING (W,S,OW)
	BELOW SLAB WASTE PIPING
	VENT PIPING (V)
G	GAS PIPING (G)
	PIPING / EQUIPMENT TO BE REMOVED
	POINT OF CONNECTION
	POINT OF DISCONNECTION

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CLG	CEILING
CO	CLEAN OUT
CODP	CLEAN OUT DECK PLATE
COWP	CLEAN OUT WALL PLATE
CW	COLD WATER
(D)	DEMOLISH
DEG. F	° FAHRENHEIT
DIA	DIAMETER
DN	DOWN
(E)	EXISTING
EA	EACH
FAI	FRESH AIR INTAKE
FD	FLOOR DRAIN
G	GAS
'GC'	GENERAL CONSTRUCTION CONTRACTOR
GPM	GALLONS PER MINUTE
GPH	GALLONS PER HOUR
'H'	HVAC CONTRACTOR
HP	HORSEPOWER
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
IN.	INCHES
IN. W.C. (W.G.)	INCHES WATER COLUMN (WATER GAUGE)
KW	KILOWATTS
LBS	POUNDS
M	METER
MAX	MAXIMUM
MIN	MINIMUM
NTS	NOT TO SCALE
OD	OUTER DIAMETER
(P)	PROPOSED
'P'	PLUMBING CONTRACTOR
PD	PRESSURE DROP
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
RPZ	REDUCED PRESSURE ZONE
SAN / S	SANITARY
ST	STORM DRAIN
TEMP	TEMPERATURE
TYP	TYPICAL
TWS	TEMPERED WATER SUPPLY
TWR	TEMPERED WATER RETURN
V	VENT
VTR	VENT THROUGH ROOF
W	WASTE

APPLICABLE CODES

- 2020 NEW YORK STATE RESIDENTIAL CODE (NYSRC) 1ST PRINTING (INCLUDES PLUMBING, MECHANICAL, FUEL GAS, AND ENERGY CONSERVATION)
- 2020 NEW YORK STATE BUILDING CODE (NYSBC) 1ST PRINTING
- 2020 NEW YORK STATE FIRE CODE (NYSFC) 1ST PRINTING
- 2020 NEW YORK STATE PLUMBING CODE (NYSPC) 1ST PRINTING
- 2020 NEW YORK STATE FUEL GAS CODE (NYSFGC) 1ST PRINTING
- 2020 NEW YORK STATE MECHANICAL CODE (NYSMC) 1ST PRINTING
- 2020 NEW YORK STATE ENERGY CONSERVATION CODE (NYSECC) 1ST PRINTING

GENERAL PLUMBING NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
2. THE CONTRACTOR, BY PRESENTING THEIR BID FOR THE WORK, REPRESENTS THAT HE/SHE HAS INSPECTED THE SITE AND IS COMPLETELY FAMILIAR WITH THE SCOPE OF WORK AND ALL FIELD CONDITIONS RELATED TO, AND AFFECTING THE WORK AND ITS PERFORMANCE. EXCEPTIONS AFFECTING THE WORK AND ITS PERFORMANCE, OR CONFLICTS BETWEEN FIELD CONDITIONS, SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO THE SUBMISSION OF BIDS.
3. PERFORM ALL WORK IN ACCORDANCE WITH THE 2020 NEW YORK STATE PLUMBING (NYSPC), FIRE (NYSFC), MECHANICAL (NYSMC), ENERGY CONSERVATION CONSTRUCTION (NYSECC), AND FUEL GAS (NYSFGC) CODE AND THE REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION.
4. COMPLY WITH THE NATIONAL ELECTRIC CODE AND THE REQUIREMENTS OF DIVISION 26 FOR ALL ELECTRICAL INSTALLATIONS.
5. APPLY FOR AND SECURE ALL REQUIRED PERMITS AND INSPECTIONS AND PAY ALL COSTS FOR THE SAME.
6. FIRE STOP ALL OPENINGS IN FIRE RATED CONSTRUCTION FOR PIPING, CONDUIT, ETC.
7. DO NOT SCALE DRAWINGS. DRAWINGS FOR PLUMBING WORK ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE SPECIFICATIONS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE.
8. COORDINATE CONTRACT DOCUMENTS PROJECT REQUIREMENTS, WORK OF OTHERS, AND EQUIPMENT AND MATERIALS PURCHASED WITH FIELD DIMENSIONS, MANUFACTURERS REQUIREMENTS FOR INSTALLATION, OPERATION, AND MAINTENANCE, CONTRACTORS INTENDED MEANS AND METHODS OF INSTALLATION AND CONTRACTORS FABRICATED ITEMS TO ENSURE A PROPER "FIT" AND INSTALLATION. BRING ANY CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER DURING THE SUBMITTAL PHASE FOR RESOLUTION PRIOR TO PURCHASING ANY EQUIPMENT.
9. MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITIONS AT ALL POINTS. WHERE HEADROOM AND SPACE CONDITIONS APPEAR INADEQUATE, NOTIFY THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH INSTALLATION. MAINTAIN A MINIMUM OF 6'-8" CLEARANCE FROM FINISHED FLOOR TO UNDERSIDE OF PIPES, CONDUITS, SUSPENDED EQUIPMENT, ETC., THROUGHOUT ACCESS ROUTES IN MECHANICAL ROOMS.
10. FIELD VERIFY AND COORDINATE ALL PIPING DIMENSIONS BEFORE FABRICATION. MAKE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICT WITH WORK OF OTHER TRADES OR FOR PROPER EXECUTION OF THE WORK. OBTAIN THE APPROVAL OF THE ARCHITECT/ENGINEER FOR MODIFICATIONS.
11. PROVIDE PRODUCTS OF ONE MANUFACTURER WHERE TWO OR MORE ITEMS OF THE SAME TYPE OF MATERIAL OR EQUIPMENT IS REQUIRED.
12. INSTALL ALL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS. REFER TO DETAILS FOR ADDITIONAL PIPING AND EQUIPMENT INSTALLATION REQUIREMENTS.
13. LOCATE ALL TEMPERATURE, PRESSURE, AND FLOW MEASURING DEVICES IN ACCESSIBLE LOCATIONS WITH STRAIGHT SECTION OF PIPE UP- AND DOWNSTREAM AS RECOMMENDED BY THE MANUFACTURER TO ENSURE MANUFACTURER CERTIFIED ACCURACY.
14. COORDINATE ALL EQUIPMENT CONNECTIONS WITH MANUFACTURER'S CERTIFIED DRAWINGS. COORDINATE AND PROVIDE ALL PIPING TRANSITIONS REQUIRED FOR FINAL CONNECTIONS TO EQUIPMENT.
15. COORDINATE LOCATIONS AND SIZES OF ALL FLOOR, WALL, AND ROOF OPENINGS WITH ALL OTHER TRADES. COORDINATE ALL PIPING AND EQUIPMENT SUPPORTED FROM STRUCTURE WITH GENERAL CONSTRUCTION WORK.
16. COMPLETE ALL PRESSURE TESTS BEFORE ANY PLUMBING EQUIPMENT, OR PIPING INSULATION IS APPLIED.
17. MAKE ALL ATTACHMENTS TO JOISTS, TRUSSES, OR JOIST GIRDERS AT PANEL POINTS. PROVIDE BEAM CLAMPS MEETING MSS STANDARDS. THE USE OF C-CLAMPS IS NOT PERMITTED.
18. PROVIDE CONCRETE PADS A MINIMUM OF 4 INCHES HIGH FOR ALL FLOOR MOUNTED EQUIPMENT. EXTEND PAD 4 INCHES BEYOND THE EQUIPMENT ON ALL SIDES.
19. INSTALL PIPING, AND CONDUIT CONCEALED IN AREAS HAVING HUNG CEILINGS AND/OR FURRED SPACES UNLESS OTHERWISE INDICATED ON THE DRAWINGS.
20. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL ACCESSIBLE FIXTURES. MOUNT ALL SUCH FIXTURES IN ACCORDANCE WITH THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
21. PROVIDE ACCESS DOORS IN WALLS, PARTITIONS, AND CEILINGS AS REQUIRED TO MAKE VALVES, WATER HAMMER ARRESTERS, ETC. READILY ACCESSIBLE.
22. ARRANGE FOR, COORDINATE, AND MAKE CONNECTION TO ALL SERVICES PROVIDED BY OTHERS. CONFORM TO ALL REQUIREMENTS APPLICABLE TO CONNECTIONS IMPOSED BY UTILITY COMPANIES AND AUTHORITIES HAVING JURISDICTION.
23. INSTALL FIXTURES AND EQUIPMENT WITH VALVES, UNIONS, ETC. TO ALLOW FOR EASE OF SERVICE AND/OR REMOVAL.
24. CORE DRILL ALL PENETRATIONS THROUGH CONCRETE FLOORS, WALLS, AND FOOTINGS.
25. INSTALL LINK SEAL TYPE PROTECTION FOR WATER RESISTANT SEALS AT ALL SLAB AND BELOW GROUND WALL FOOTING PENETRATIONS.
26. FURNISH AND INSTALL WATER PRESSURE REDUCING VALVE AND PRESSURE RELIEF VALVE IN ACCORDANCE WITH THE NEW YORK STATE PLUMBING CODE ON ALL INCOMING DOMESTIC WATER SYSTEMS IN EXCESS OF 80 P.S.I.G.
27. COVER ALL COPPER PIPING BELOW SLAB WITH "ARMAFLEX" TYPE INSULATION.
28. SLOPE ALL VENT PIPING TO DRAIN BACK TO THE DRAINAGE SYSTEM.
29. FLUSH AND DISINFECT ALL DOMESTIC POTABLE WATER PIPING AND TEST THE WATER IN ACCORDANCE WITH THE INTERNATIONAL PLUMBING CODE. PROVIDE CERTIFICATE OF PERFORMANCE AND LABORATORY TEST REPORT TO LOCAL AUTHORITIES HAVING JURISDICTION AND OBTAIN THEIR APPROVAL.
30. PROVIDE WATER HAMMER ARRESTORS AT ALL QUICK CLOSING FIXTURE VALVE LOCATIONS.
31. ALL PIPING, VALVES AND FITTINGS USED FOR POTABLE WATER SHALL BE NSF 61/372 COMPLIANT AND BE TESTED FOR LOW LEAD.
32. ANY PENETRATIONS THROUGH AIR BARRIER SHALL BE SEALED AS PER 2020 NYSECC RESIDENTIAL AND COMMERCIAL PROVISIONS.
33. ALL PIPING IN PLENUM SPACES SHALL BE CAST IRON FOR SANITARY, STORM, VENT SYSTEMS, AND COPPER PIPING FOR DOMESTIC SYSTEMS, AND STEEL PIPING FOR GAS SYSTEMS. NO PLASTIC PIPING ALLOWED.

PLUMBING FIXTURES

FIXTURE NO.	DESCRIPTION	MINIMUM CONNECTION SIZES (IN)							
		COLD WATER		HOT WATER		TEMPERED WATER	DRAIN		V
		SIZE	FU	SIZE	FU	SIZE	SIZE	DFU	
EW-1	EMERGENCY EYEWASH STATION - BRADLEY S19-210B	-	-	-	-	3/4	1-1/4	-	-
MS-1	MOP SINK - BASIN - MUSTEE MODEL 28CF (INCLUDES 24" PULL-OUT SPOUT AND LEVER HANDLES FAUCET	3/4	2.25	3/4	2.25	-	3	2	2
FD-1	FLOOR DRAIN - ZURN MODEL ZN415BZ-P	-	-	-	-	-	3	2	1 1/2
HB-1	INTERIOR HOSE BIBB - ACORN MODEL 8121	3/4	-	-	-	-	-	-	-
HB-2	FROST FREE WALL HYDRANT - JOSAM 71000 SERIES	3/4	-	-	-	-	-	-	-

NOTES:

1. CHROME PLATE ALL DRAIN PIPE, FITTINGS, P-TRAPS AND SUPPLY LINES THAT ARE EXPOSED, LOCATED WITHIN VANITIES OR ACCESSIBLE CABINETS OR BEHIND WATER CLOSETS
2. MINIMUM CONNECTION SIZES INDICATED ARE EQUIPMENT CONNECTION SIZES OR CODE MINIMUM SIZES, SEE PLANS AND DIAGRAMS FOR ACTUAL SIZES REQUIRED

MIXING VALVE

EQUIPMENT NO.	LOCATION	BASIS OF DESIGN INFORMATION						REMARKS
		MAXIMUM PRESSURE RANGE	MINIMUM FLOW	MAXIMUM FLOW	MANUFACTUER	MODEL	NOMINAL DIMENSIONS (W X H)	
MV-1	EYEWASH	125 PSI	1.5 GPM	60 GPM	BRADLEY	S19-2000EFX	3 1/2" X 7 5/8"	PROVIDE UNDER EYEWASH W/ CONNECTIONS TO CW & HW.

OIL/WATER SEPARATOR

EQUIPMENT NO.	LOCATION	BASIS OF DESIGN INFORMATION						REMARKS
		FLUID	FLOW (GPM)	INLET AND OUTLET SIZE	MANUFACTUER	MODEL	NOMINAL DIMENSIONS (L X W X H)	
OWS-1	GARAGE	OIL	100	3"	ZURN	Z1188	42-3/4" X 33-5/8" X 27"	PROVIDE COLLAR EXTENSION AS REQUIRED FOR COVER TO BE FLUSH WITH FINISHED FLOOR.

EXPANSION TANKS [ASME CERTIFIED]

EQUIPMENT NO.	LOCATION	SYSTEM SERVED	PERFORMANCE/CONSTRUCTION REQUIREMENTS			EQUIPMENT SPECIFICATIONS				
			SYSTEM DATA							
			ESTIMATED VOLUME (GAL.)	MAX. OPERATING PRESS. RANGE (PSIG)	MAX. OPERATING TEMP. RANGE (DEG. F)	MNF	MODEL NO.	DIMENSION DIA. x H	WATER CONNECTION	OPERATING WEIGHT (LBS.)
ET-1	GARAGE	MOP SINK & EYEWASH	2	150	200	AMTROL	ST-5C	8" X 13"	3/4"	21

PUMP SCHEDULE

PUMP NO.	LOCATION	TYPE	SERVICE	GPM (EA)	TDH (FT)	MOTOR DATA					REMARKS
						RPM	HP (EA)	PHASE	CYCLE	VOLTS	
SP-1	GARAGE	SIMPLEX	SANITARY WASTE	70	13	1725	0.4	1	60	115 V	LITTLE GIANT MODEL #WCR-9SP. PROVIDE COLLAR EXTENSION AS REQUIRED FOR COVER TO BE FLUSH WITH FINISHED FLOOR.

PLUMBING NOTES

1. ALL FAUCETS, FITTINGS, AND VALVES MUST COMPLY WITH NSF 61 AND ANSI / NSF 372 FOR LOW LEAD PERCENTAGE
2. CONTRACTOR SHALL BE RESPONSIBLE TO DEMONSTRATE COMPLIANCE WITH THE NYS DEPARTMENT OF HEALTH LEAD IN WATER REGULATION (10 NYCRR 67-4).
3. AT THE CONCLUSION OF NEW PLUMBING WORK, THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE SERVICES OF A THIRD PARTY NYS LICENSED ENVIRONMENTAL TESTING LABORATORY TO PROVIDE LEAD TESTING AT ALL NEW LAVATORIES, SINKS, DRINKING FOUNTAINS AND ALL OTHER FIXTURES WHERE WATER MAY BE CONSUMED FOR DRINKING. TWO COPIES OF THE REPORT MUST BE SUBMITTED, ONE COPY TO THE ENGINEER AND THE OTHER ONE TO THE OWNER.

ELECTRIC WATER HEATER [ASME]

EQUIPMENT NO.	LOCATION	SYSTEM SERVED	EQUIPMENT SPECIFICATIONS								MINIMUM PERFORMANCE OF WATER HEATING (TABLE C404.2)					REMARKS
			ELECTRIC POWER	WATER CONNECTION	MNF	MODEL NO.	NOMINAL DIMENSION (DIA X HEIGHT)	CAPACITY (GAL)	NOMINAL OPERATING WEIGHT (LBS.)	VOLTS / PHASE	EQUIPMENT TYPE	SIZE CATEGORY	SUBCATEGORY	PERFORMANCE REQUIRED	ENERGY FACTOR	
WH-1	GARAGE	MOP SINK & EYEWASH	2 KW	3/4	AO SMITH	DEL-15	18" X 26"	15	185	208/1	WATER HEATER, ELECTRIC	< 12 KW	RESISTANCE	0.97-0.0013V EFFICIENCY	97 PERCENT	

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CONSULTANTS:

MARK	DATE	DESCRIPTION
1	11/18/2021	FINAL BID DOCUMENT

STATE OF NEW YORK · JONATHAN RICHARD MILATORE · 096440-1 · LICENSED PROFESSIONAL ENGINEER

"ALTERATION OF THIS DOCUMENT EXCEPT BY A LICENSED PROFESSIONAL IS ILLEGAL"

DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
JRM	PMA	JRM	

PROJECT No.:	DATE:	SCALE:
IRSD1903	NOV 2021	AS SHOWN

CLIENT

Irvington Union Free School District

Facilities Storage Building at Irvington Campus

Irvington Campus
40 N. Broadway
Irvington, NY 10533

SED Number:66-04-02-02-2-022-001

CONTRACT

STATUS

FINAL BID DOCUMENT

SHEET TITLE

PLUMBING GENERAL NOTES, LEGENDS, AND SCHEDULES

DRAWING No.

P0.0

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