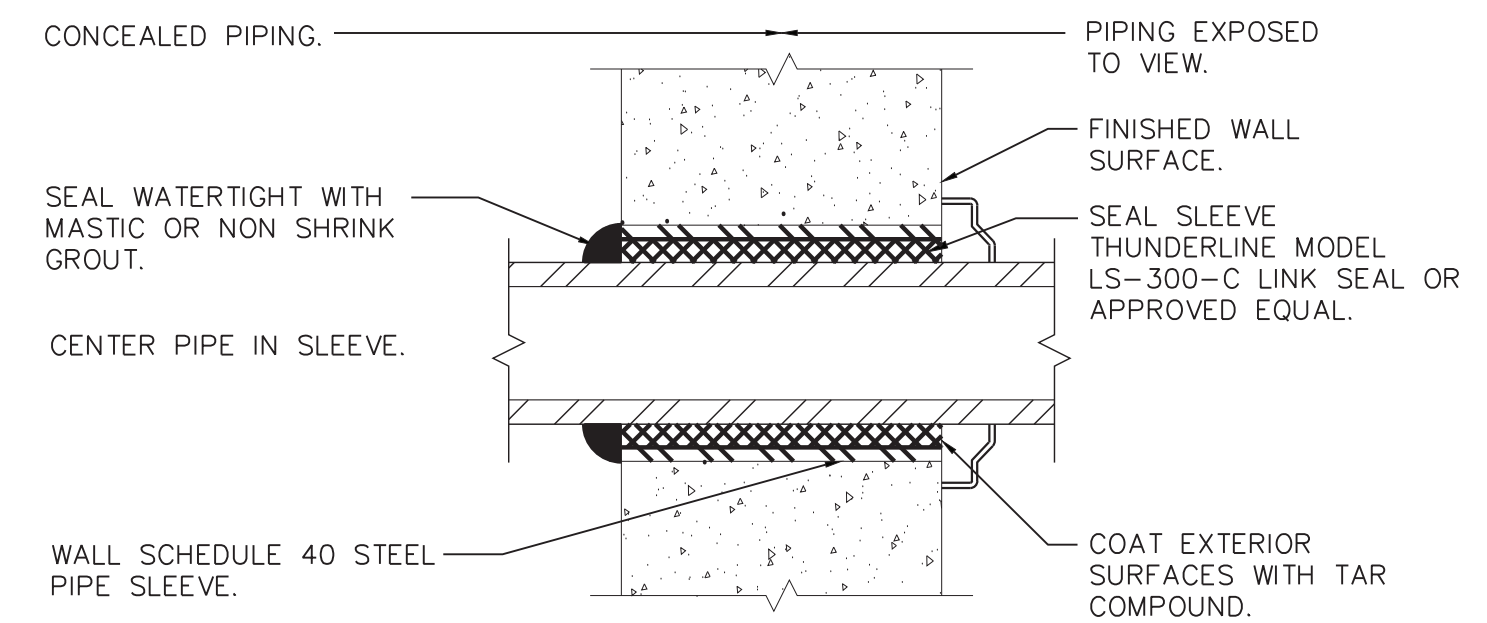


PIPE HANGER SCHEDULE					
PIPE DIA.	3/4"-2"	2 1/2"-3"	4"-5"	6"	8"-12"
HANGER DIA.	3/8"	1/2"	5/8"	3/4"	7/8"

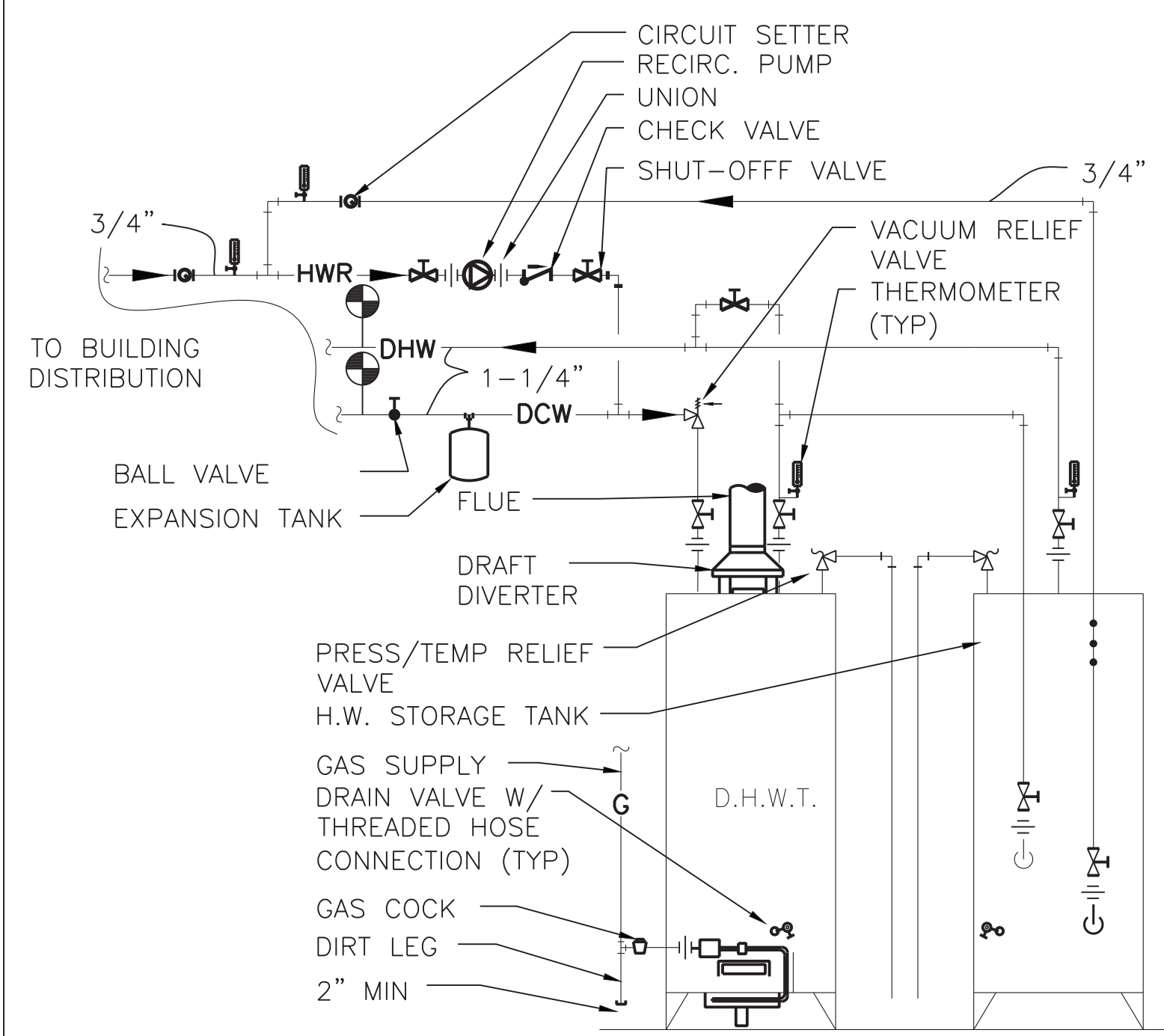
- NOTES:**
- CLEVIS HANGERS WITH WELDED INSULATION SHIELDS SIMILAR TO RAUCH FIG. 100SH ON ALL PIPES LARGER THAN 1".
 - FOR PIPES 1" OR SMALLER, A BAND HANGER WITH INSULATION SHIELD MAY BE USED SIMILAR TO RAUCH FIG. NO. 1ASH.
 - FOR NONINSULATED PIPE, INSULATION SHIELDS MAY BE OMITTED.
 - ALL PIPE HANGERS SHALL BE GALVANIZED STEEL OR FACTORY PAINTED BLACK WITH ENAMEL.
 - FOR NON FERROUS PIPING WITHOUT INSULATION, ALL HANGERS SHALL BE COPPER PLATED OR FURNISHED WITH A DI-ELECTRIC BETWEEN PIPE AND HANGERS.

1 PIPE HANGER DETAIL
P-1 SCALE: NONE



1 WALL PENETRATION DETAIL
P-1 SCALE: NONE

- NOTES:**
- PIPE SLEEVE FOR EXTERIOR WALL ABOVE OR BELOW GRADE.
 - FOR GAS SERVICE EXTEND SLEEVE 1" PAST INSIDE FACE OF WALL & 4" PAST OUTSIDE FACE OF WALL.



- NOTES:**
- PROVIDE ALL NEW PIPING & PIPING SPECIALTIES AS REQUIRED.

1 DOMESTIC H.W. & STORAGE TANK DETAIL
P-2 SCALE: NONE

GAS SERVICE INSTALLATION GENERAL NOTES

- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND PAYING FEE ASSOCIATED WITH THIS WORK.
- ALL GAS PIPING WORK SHALL BE PERFORMED BY WESTCHESTER COUNTY LICENSED MASTER PLUMBER, AUTHORIZED FOR CON-EDISON WORK.

TEST PRESSURE AND DURATION:
THE TEST PRESSURE AND DURATION SHALL BE AS FOLLOWS: (FOR NEW PIPING ONLY)
ISOLATE NEW PIPING SECTION AS REQUIRED.

MAXIMUM PRESSURE UTILIZATION	TEST PRESSURE	TEST DURATION
LESS THAN 125 PSIG	90 PSIG OR ONE AND A HALF TIMES THE MAXIMUM OPERATING PRESSURE OR WHICHEVER IS GREATER	2-INCHES AND SMALLER: 15 MINUTES > 2" - 30 MINUTES.
GREATER THAN 125 PSIG	90 PSIG OR ONE AND A HALF TIMES OPERATING PRESSURE, WHICHEVER IS GREATER	2-INCHES AND SMALLER: 2 HOURS

NOTE: THE ABOVE CHARTS DO NOT REPRESENT TEST PRESSURE FOR DISTRIBUTION PIPING AFTER THE METER, WHICH IS NOT UNDER OUR JURISDICTION BUT THAT OF THE GOVERNING AUTHORITIES/CODES.
(**** DO NOT INCLUDE PRESSURE REGULATOR IN PIPE PRESSURE TEST ****)

- CONNECTION BETWEEN THE NEW PIPING AND THE EXISTING PIPING SHALL BE TESTED WITH A NONCORROSIVE LEAK-DETECTING FLUID OR APPROVED LEAK DETECTING METHODS.
- EXISTING PIPING AFFECTED BY NEW INSTALLATION SHALL BE PRESSURE TESTED BY A TEST PRESSURE 1-1/2 TIMES THE PROPOSED MAXIMUM WORKING PRESSURE, BUT NOT LESS THAN 3 PSI, IRRESPECTIVE OF DESIGN PRESSURE.

- WELDING:**
- ALL WELDERS WORKING ON GAS SERVICE, METER, AND DISTRIBUTION PIPING MUST BE QUALIFIED IN ACCORDANCE WITH THE REQUIREMENTS OF LOCAL AUTHORITIES AND CONED PROCEDURES.
 - WELDERS ARE REQUIRED TO FOLLOW THE NEW YORK STATE FUEL AND GAS CODE FOR WELDING DISTRIBUTION PIPING.
 - LICENSED PLUMBING CONTRACTOR MUST SUBMIT A "WELDING AFFIDAVIT" SHOWING COMPLIANCE WITH THE LOCAL BUILDING CODES IN THE MUNICIPALITY WHERE WORK WAS PERFORMED:

EQUIPMENT NOTES

- DOMESTIC HOT WATER STORAGE TANK:** BASED ON AO SMITH MODEL T-200 STD OR APPROVED EQUAL 200 GALLON CAPACITY, 30"x72", WITH 2-1/2" THREADED CONNECTIONS. VERTICAL INSTALLATION USING 2-1/2" THREADED LEG SOCKETS.
- DOMESTIC HOT WATER CIRCULATOR PUMP:** BASED ON BELL & GOSSETT MODEL ECOCIRC XL 20-35, LEAD FREE BRONZE BODY PUMP OR APPROVED EQUAL. ELECTRICAL CHARACTERISTICS SHALL BE 115/1/60, 1/12 HP, HIGH EFFICIENT, WET ROTOR PUMP WITH ELECTRONICALLY COMMUTATED MOTOR (ECM).
- DOMESTIC HOT WATER EXPANSION TANK:** BASED ON BELL & GOSSETT MODEL HFT-60 DIAPHRAGM-TYPE EXPANSION TANK OR EQUAL. EXPANSION TANK SHALL BE CARBON STEEL SHELL AND HD BUTYL RUBBER DIAPHRAGM; 7.6 GAL TANK VOLUME, 2.5 GAL ACCEPTANCE. MAXIMUM DESIGN PRESSURE /TEMP: 100 PSI / 240F
- BACKFLOW PREVENTER:** BASED ON 3/4" WATTS MODEL LF9090T BONZE RPZ ASSEMBLY OR APPROVED EQUAL.
- WATER METER:** BASED ON 3/4" SENSUS MODEL SR II OR APPROVED EQUAL, TIE INTO BMS FOR EMERGENCY ALARM. PROVIDE CONNECTIONS TO BMS FOR STATUS/GPM READING.
- PRESSURE REDUCING VALVE (PRV):** BASED ON 3/4" WATTS MODEL-LF223 OR APPROVED EQUAL. ALL WETTED PARTS SHALL BE LEAD FREE BRASS.
- ANGLE SILLCOCK VALVE:** BASED ON NIBCO MODEL# 763-CL-LS OR APPROVED EQUAL.

PLUMBING PIPING MATERIAL

- WATER PIPING:** TYPE "K" COPPER AND WROUGHT COPPER FITTINGS, 95-5 LEADLESS SOLDER.
- WASTE AND VENT:** SERVICE WT. CAST IRON OR COPPER DWV WITH PUSH-ON RUBBER GASKETS OR NO-HUB PIPE WITH HUSKY HEAVY COUPLINGS FOR ABOVE GRADE PIPING.

GAS PIPING MATERIALS

SERVICE	SIZE (IN.)	MATERIAL	TYPE/WEIGHT	STANDARD
GAS	ALL	BLACK	ERW/SCH. 40 THREADED	ASTM A53

GAS PIPE FITTINGS

SERVICE	SIZE (IN.)	MATERIAL	TYPE/WEIGHT	STANDARD
GAS ABOVEGROUND AND PIPE CHASE	THRU 4	MALLEABLE IRON	SCREWED/150 PSI	ANSI B16.3

GAS VALVE SCHEDULE

MISCELLANEOUS SERVICE	MANUFACTURER
GAS VALVES/ PLUG VALVES	ROCKWELL CO./FLOWSERVE NORDSTROM #142

PROVIDE LUBRICANT AND WRENCH FOR EACH GAS VALVE

VALVE SCHEDULE

GATE VALVES	2-1/2" AND SMALLER	STOCKHAM B-105 THREADED, RISING STEM
BALL VALVES	3" AND SMALLER	STOCKHAM S-206-BRI-R-T WITH EXTENSION STEM FOR INSULATED PIPE
HOSE END DRAIN VALVES	1" AND SMALLER	WOODFORD COMPANY, MODEL #24P, POLISHED CHROME IN FINISHED AREAS

EXCEPT WHERE SPECIFICALLY STATED TO CONTRARY, ALTERNATE MANUFACTURERS FOR VALVES ARE AS FOLLOWS:

- CRANE COMPANY
- JENKINS BROTHERS
- NIBCO, INC.
- LUNKENHEIMER CO.
- HAMMOND VALVE CORP. (SERIES IB,IR)
- KENNEDY VALVE MFG. CO., INC.
- STOCKHAM VALVE AND FITTINGS

THE CONTRACTOR SHALL PROVIDE THE VALVES SPECIFIED, OR THE EQUIVALENT AS PRODUCED BY ONE OF THE ABOVE LISTED MANUFACTURERS.

SYMBOL & ABBREVIATIONS

SYMBOL	ABBREVIATION	DESCRIPTION
-	AFF	ABOVE FINISHED FLOOR
-	GPM	GALLONS PER MINUTE
-	HWS	HOT WATER SUPPLY
-	HWR	HOT WATER RETURN
-	CW	DOMESTIC WATER
-	PHWS/R	PRIMARY HOT WATER SUPPLY/RTEURN
-	SHWS/R	SECONDARY HOT WATER SUPPLY/RETURN
-	DCWS	DOMESTIC COLD WATER SUPPLY
-	DHWS	DOMESTIC HOT WATER SUPPLY
⌘	-	TRIPLE DUTY VALVE
⌘	-	FLOW CONTROL VALVE
⌘	-	2-WAY VALVE
⌘	-	GATE VALVE
⌘	-	GLOBE VALVE
⌘	-	OS&Y GATE VALVE
⌘	-	BUTTERFLY VALVE
⌘	-	STRAINER
⌘	-	CIRCUIT SETTER
⌘	-	MANUAL AIR VENT
⌘	-	AUTO AIR VENT
⌘	-	BALL VALVE
⌘	-	PRESSURE GAGE
⌘	-	THERMOMETER
⌘	-	CHECK VALVE
⌘	-	UNION
⌘	-	WATER METER
⌘	-	MOTORIZED DAMPER
⌘	-	POINT OF CONNECTION OR DISCONNECTION
⌘	-	FLOW DIRECTION
---	EX.	EXISTING TO REMAIN
---	NEW	NEW WORK
- - - - -	DEM.	EXISTING TO BE REMOVED
⌘	-	T&P RELIEF VALVE
⌘	-	VACUUM BREAKER

PLUMBING NOTES

- THE INFORMATION GIVEN ON THIS PLAN IS FOR BID PURPOSES ONLY. THE SUCCESSFUL CONTRACTOR SHALL MAKE HIS OWN FIELD MEASUREMENTS AND VERIFY ALL GIVEN INFORMATION BEFORE ORDERING MATERIALS.
- THE CONTRACTOR SHALL PROVIDE ALL PLUMBING EQUIPMENT, PIPING, VALVES, AND ACCESSORY ITEMS AS SPECIFIED AND AS REQUIRED FOR A COMPLETE INSTALLATION, INCLUDING HOT WATER AND COLD WATER ISOLATION VALVES FOR ALL EQUIPMENT.
- REMOVE ABANDONED PIPING BACK TO MAIN OR RISER AND CAP. CAPPING AND PLUGGING OF PIPING SHALL BE DONE USING THE SAME MATERIAL AS THE PIPING.
- EXACT LOCATIONS OF PIPING IN FLOORS, WALLS, CEILINGS, AND CHASES SHALL BE COORDINATED WITH THE EXISTING CONDITIONS IN THE FIELD. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING SIZE AND LOCATION OF ALL EXISTING PIPING IN FIELD.
- ALL WORK SHALL BE DONE IN COMPLIANCE WITH NFPA, THE N.Y. STATE AND THE LOCAL PLUMBING CODES.
- ALL PLUMBING WORK SHALL BE PERFORMED BY A PLUMBER LICENSED BY THE COUNTY OF WESTCHESTER. A COPY OF THE LICENSE SHALL BE SUBMITTED TO OWNER AND ALL FEES PAID.
- PROVIDE SUFFICIENT CLEVIS TYPE HANGERS, SUPPORTS, RODS, BRACES, ETC. TO PROPERLY SUPPORT PIPING. INSTALL HANGERS OVER INSULATION.
- ALL WORK SHALL BE PROPERLY TESTED, BALANCED, AND CLEANED. DISINFECT ALL WATER PIPING WITH HTL TABLETS FOR 24 HOURS, FLUSH AFTERWARDS.
- COORDINATE ROUTING OF PIPING WITH WORK OF OTHER TRADES. VERIFY ELEVATIONS OF NEW PIPING PRIOR TO INSTALLATION. NOTIFY ENGINEER IMMEDIATELY IF ANY POSSIBLE CONFLICTS WITH LIGHTS, DUCTWORK, ETC. COULD OCCUR.
- PROVIDE ALL PIPE OPENINGS THROUGH PARTITIONS WITH PIPE SLEEVES. FOR PIPES PENETRATING FIRE RATED PARTITIONS, THE SPACE BETWEEN THE PIPE AND THE SLEEVE SHALL BE SEALED WITH FIRE STOPPING MATERIAL.
- CONTRACTOR SHALL COORDINATE NEW FIXTURES LOCATIONS WITH DRAWINGS.
- ALL CORE DRILLING, SAW CUTTING AND PATCHING BY THIS CONTRACTOR. ALL PIPING SHALL BE NEW UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PRESSURE TEST ALL NEW PIPING AFTER THE METER ACCORDING TO THE CODES AND REGULATIONS UNDER THE JURISDICTION OF THE GOVERNING AUTHORITIES OR LOCAL MUNICIPALITY.

IN CHARGE OF JAI PUNNOOSE, P.E.
CHECKED BY _____
MADE BY VINCENT LEONE, P.E.

REVISION NUMBER	DATE	MADE BY	APP'D BY	REVISION

RECORD DRAWING CERTIFICATION

AS BUILT - CHANGES AS NOTED
 AS BUILT - NO CHANGES

CONTRACTOR		PROJECT COORDINATOR	
NAME _____	NAME _____	NAME _____	NAME _____
SIGNATURE _____	SIGNATURE _____	SIGNATURE _____	SIGNATURE _____
TITLE _____	TITLE _____	TITLE _____	TITLE _____
DATE _____	DATE _____	DATE _____	DATE _____

**WESTCHESTER COUNTY, NEW YORK
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING**

BOILER REPLACEMENT AND ASSOCIATED WORK
VERNON PLAZA FAMILY CENTER
17 SOUTH SECOND AVENUE, MOUNT VERNON, NEW YORK
DETAILS, SYMBOL LEGEND AND NOTES

CONTRACT NUMBER 21-514	SHEET NUMBER P-1
SHEET NO. 3 OF 9	
SCALE: AS SHOWN DATE: 06/04/21	
DPW FILE NO. 54-29-P-49	REV. NO. 0