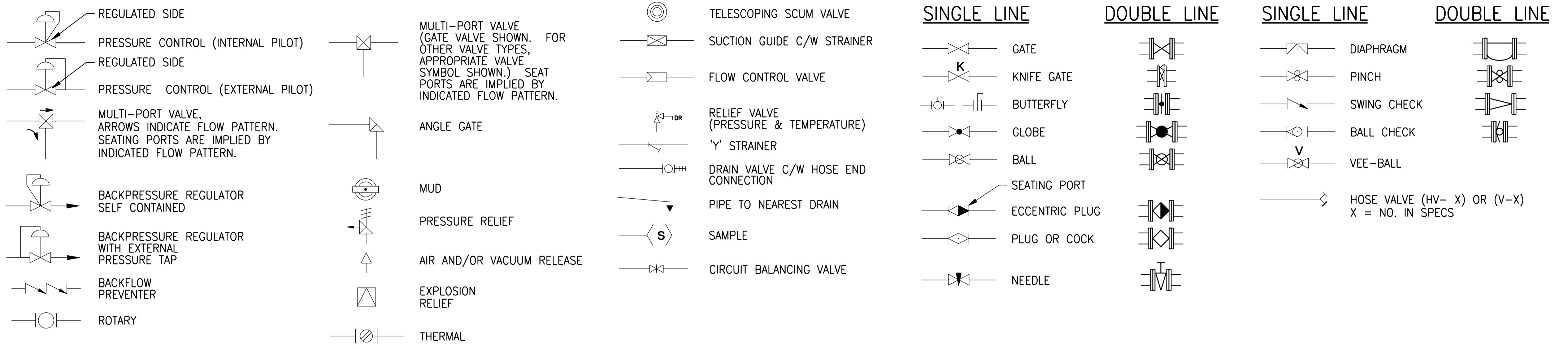


### MECHANICAL LEGEND AND NOTES

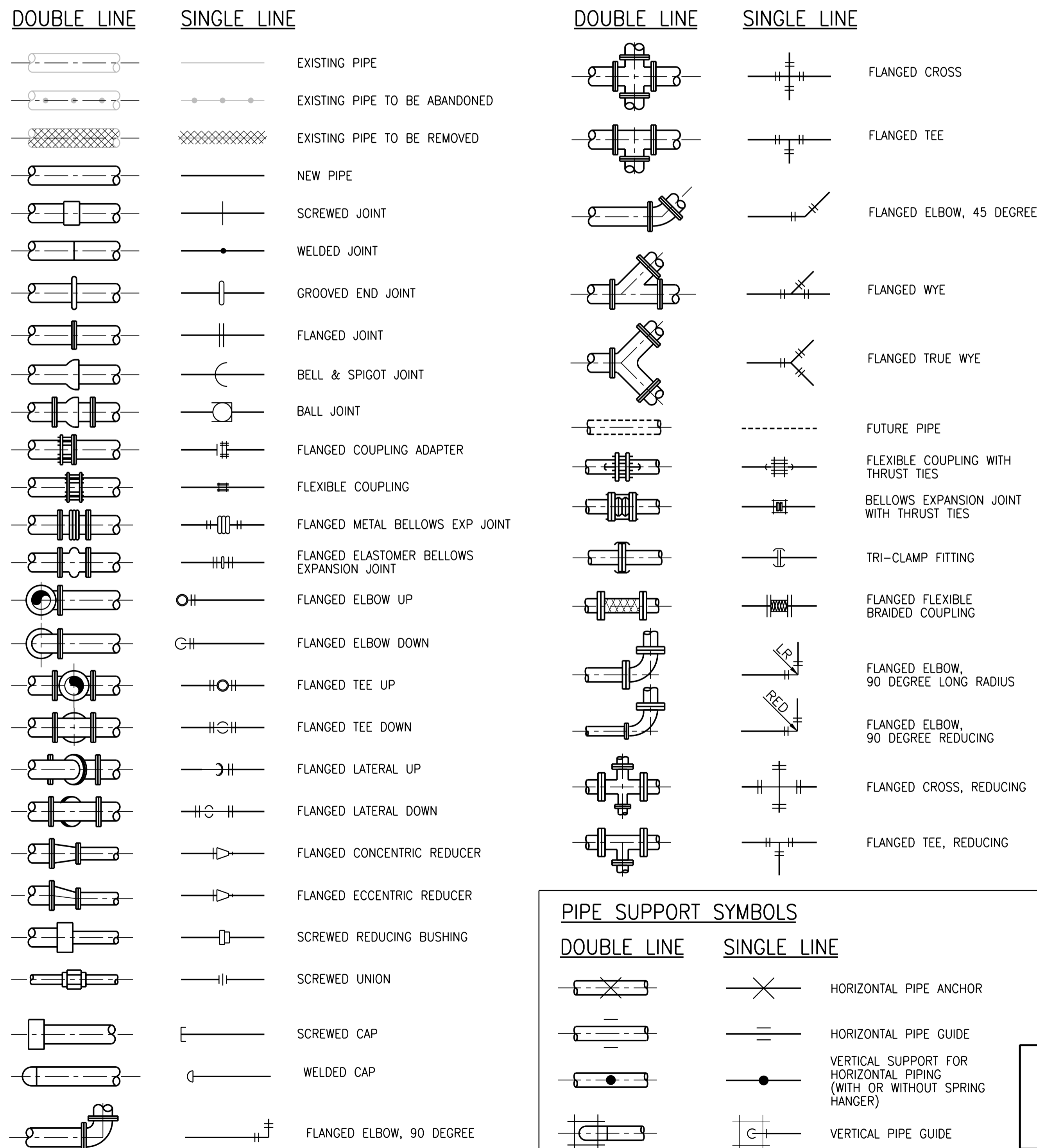
#### GENERIC PIPING NOTES

- LAY PIPE TO UNIFORM GRADE BETWEEN INDICATED ELEVATION POINTS.
- SIZE OF FITTINGS SHOWN ON DRAWINGS SHALL CORRESPOND TO ADJACENT STRAIGHT RUN OF PIPE, UNLESS OTHERWISE INDICATED. TYPE OF JOINT AND FITTING MATERIAL SHALL BE THE SAME AS SHOWN FOR ADJACENT STRAIGHT RUN OF PIPE.
- LOCATION AND NUMBER OF PIPE HANGERS AND PIPE SUPPORTS SHOWN IS ONLY APPROXIMATE. CONTRACTOR SHALL DESIGN SUPPORTS AS SPECIFIED.
- ALL JOINTS SHALL BE WATERTIGHT. WALL PIPES SHALL BE USED WHEREVER PIPING PASSES FROM A STRUCTURE TO BACKFILL.
- ALL FLEXIBLE CONNECTORS AND COUPLING ADAPTERS SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED, UNLESS OTHERWISE NOTED. THRUST PROTECTION SHALL BE ADEQUATE FOR TEST PRESSURES SPECIFIED.
- SYMBOLS, LEGENDS, AND PIPE USE IDENTIFICATIONS SHOWN SHALL BE FOLLOWED THROUGHOUT THE DRAWINGS, WHEREVER APPLICABLE. NOT ALL OF THE VARIOUS PIPING COMPONENTS ARE NECESSARILY USED IN THE PROJECT.
- ALL BURIED PIPING SPECIFIED TO BE PRESSURE TESTED, EXCEPT FLANGED, WELDED, OR SCREWED PIPING, SHALL BE PROVIDED WITH THRUST PROTECTION AS SPECIFIED, UNLESS OTHERWISE NOTED.
- NUMBER AND LOCATION OF UNIONS SHOWN ON DRAWINGS IS ONLY APPROXIMATE. PROVIDE ALL UNIONS NECESSARY TO FACILITATE CONVENIENT REMOVAL OF VALVES AND MECHANICAL EQUIPMENT.
- WHERE A GROOVED END COUPLING IS SHOWN, IT SHALL BE THE RIGID JOINT TYPE, UNLESS OTHERWISE SPECIFIED. WHERE A FLANGED COUPLING ADAPTER IS SHOWN, A STANDARD FLANGE SHALL BE JOINED TO THE COUPLING ADAPTER.

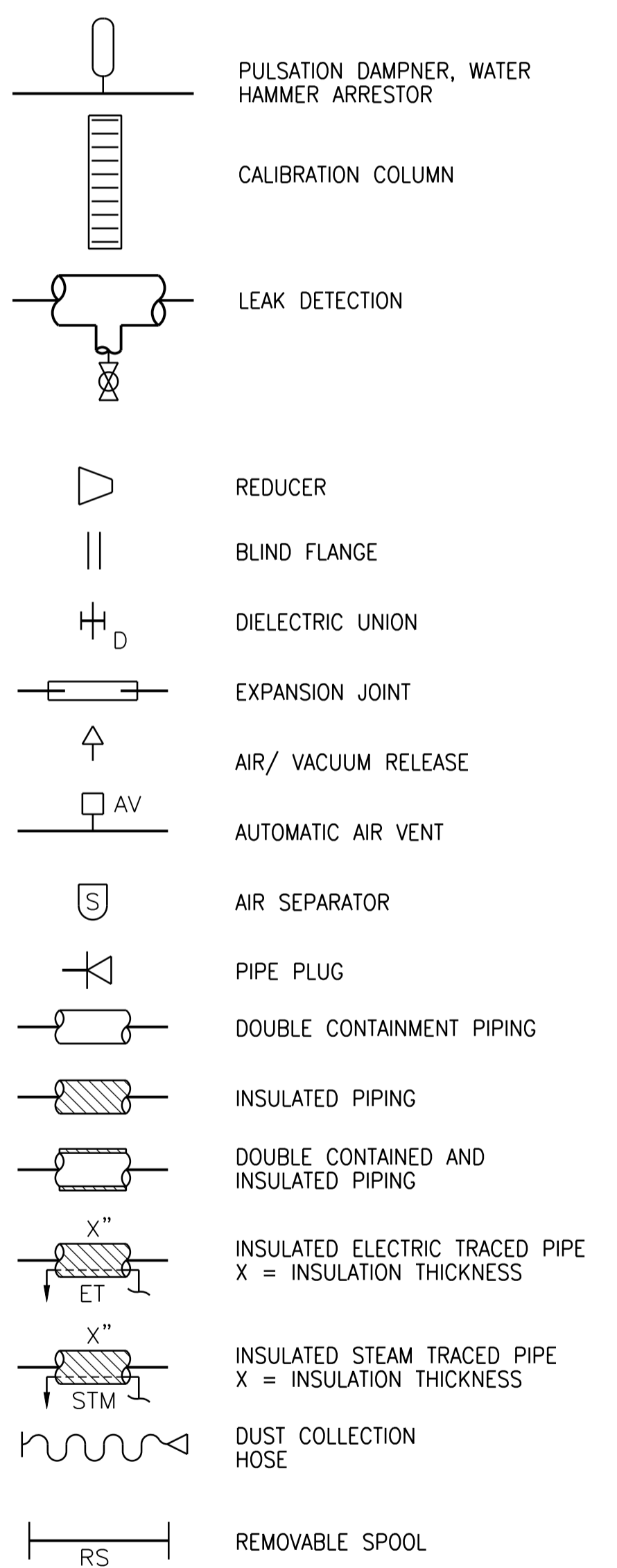
#### VALVE SYMBOLS



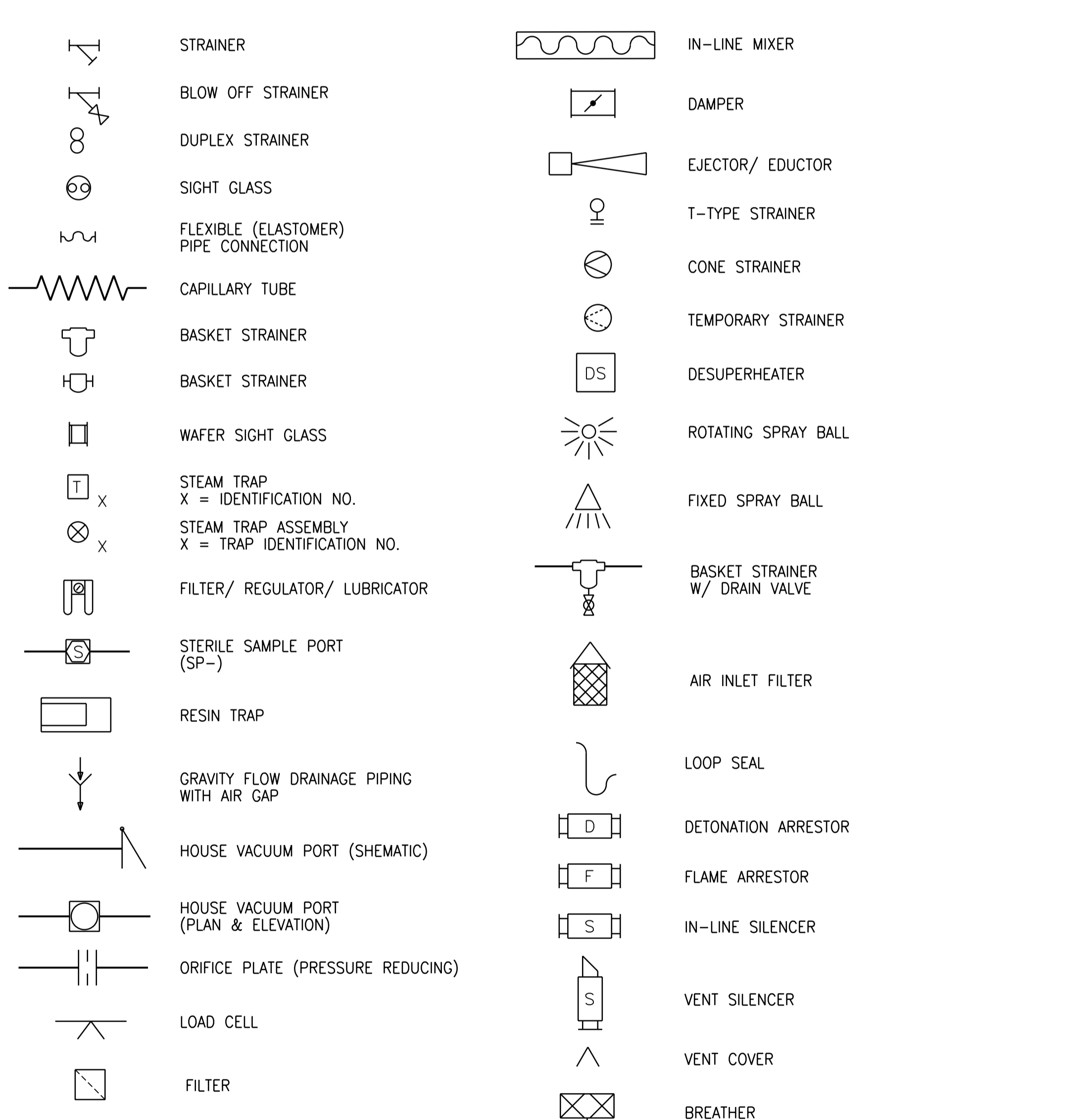
#### PIPE AND FITTING SYMBOLS



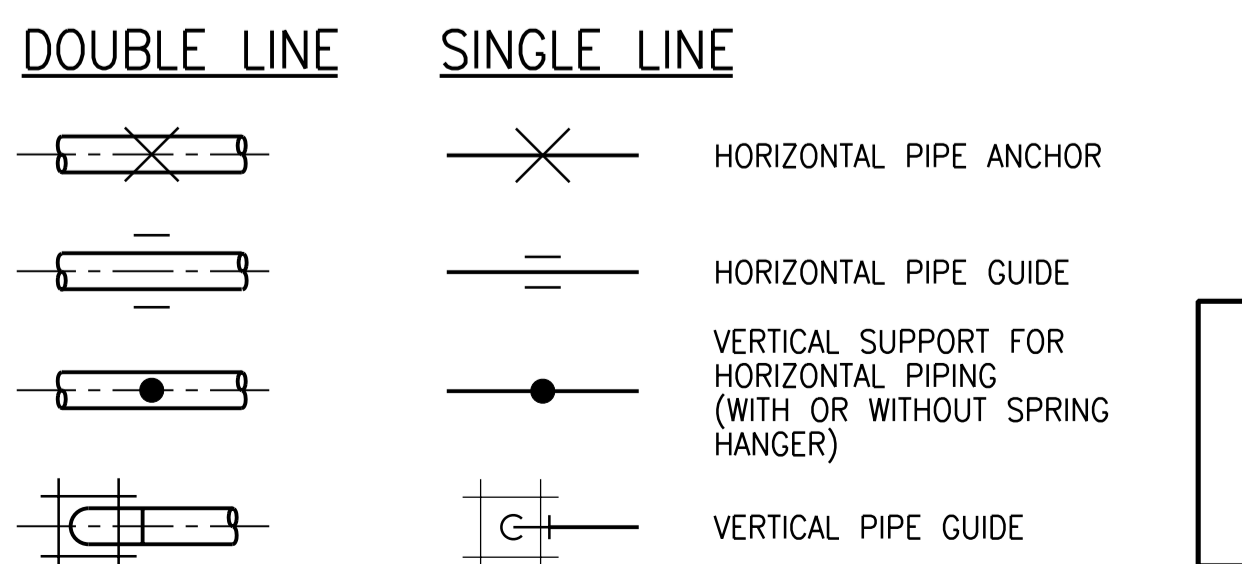
#### PIPING SYMBOLS



#### IN LINE DEVICE SYMBOLS



#### PIPE SUPPORT SYMBOLS



**APEGM**  
Certificate of Authorization  
CH2M HILL Canada Ltd.  
No. 1441

NO.	REVISIONS	DATE	DESIGN	CHECK
02	ISSUED FOR CONSTRUCTION	10/2015	B.C.	J.C.
01	ISSUED FOR 60% PRELIMINARY REVIEW	09/2015	B.C.	J.C.
00	ISSUED FOR TENDER	08/2015	B.C.	J.C.

**CH2MHILL.**  
SNC-LAVALIN  
DESIGNED BY: F. ABSI  
CHECKED BY: J. CHENG  
DRAWN BY: B. COOPER  
APPROVED BY: F. ABSI  
SCALE: NTS  
ISSUED FOR CONSTRUCTION BY: T. TURZAK  
DATE: 2015/08/13  
DATE: 2015/10/02  
CONSULTANT NO.: 474248

ENGINEER'S SEAL  
PROVINCE OF MANITOBA  
F. J. ABSI  
Member 36875  
REGISTERED PROFESSIONAL ENGINEER

THE CITY OF WINNIPEG  
Winnipeg WATER AND WASTE DEPARTMENT  
SOUTH END WATER POLLUTION CONTROL CENTRE  
SEWPCC UPGRADING/EXPANSION PROJECT  
PROCESS  
LEGEND AND GENERAL NOTES  
CITY DRAWING NUMBER: 1-0102-PDTL-A001  
SHEET: 02  
REV: 02  
SIZE: A1