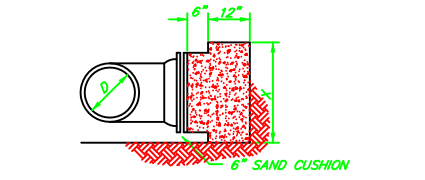
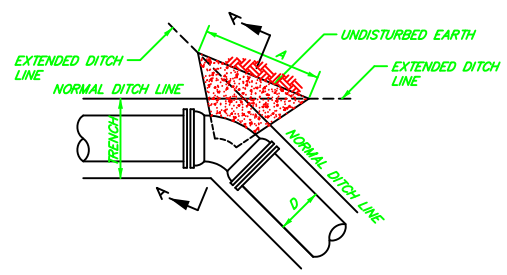
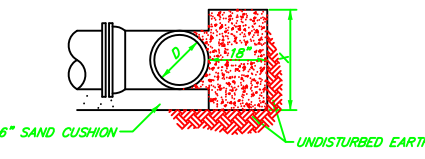


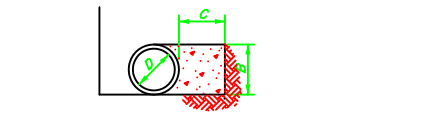
SECTION B-B
90 DEG. BENDS



SECTION D-D



SECTION C-C



SECTION A-A

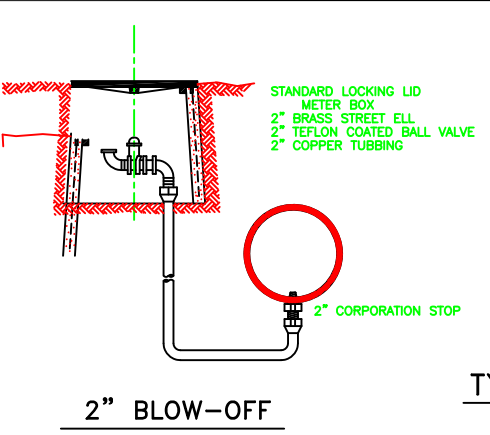
TEES & PLUGS

CASING SIZE TABLE

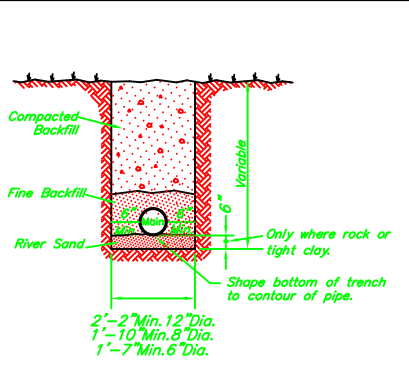
NOMINAL INSIDE PIPE DIA.	CASING SIZE INSIDE DIA.	NOMINAL INSIDE PIPE DIA.	CASING SIZE INSIDE DIA.
4"	8" TO 10"	12"	18" TO 20"
6"	10" TO 12"	15"	20" TO 22"
8"	14" TO 16"	18"	24" TO 26"
10"	16" TO 18"	24"	31" TO 33"

DUCTILE IRON PIPE RESTRAIN LENGTH (FT.)

Pipe Size	Horizontal Bend				Vertical Bend				Tee	Plug	Reducer				
	11.25'	22.5'	40'	90'	11.25'	22.5'	40'	90'			x6"	x8"	x12"	x18"	x24"
6"	20	20	20	20	20	20	20	20	20	40	N	20	40	60	80
8"	20	20	20	20	20	20	20	20	20	40	N	20	40	60	80
12"	20	20	20	40	20	20	20	20	20	40	40	40	N	40	60
18"	20	20	20	40	20	20	20	20	40	60	60	60	40	N	40
24"	20	20	20	60	20	20	20	20	60	80	80	80	60	40	N



2" BLOW-OFF

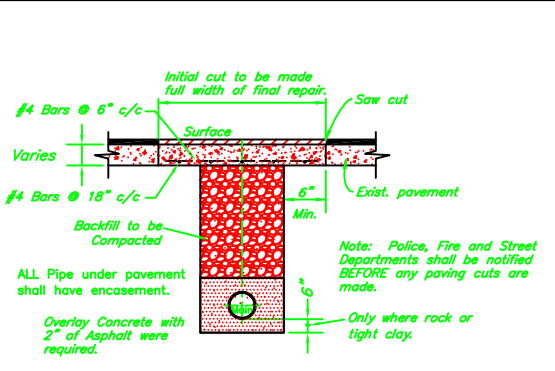


TYPICAL TRENCH SECTION

ALL PVC Pipe shall have a minimum sand encasement of Six inches on top, sides, and bottom. This sand encasement shall meet Okla. Department of Transportation Specs. 703.04 (b). The minimum D and W dimensions for various pipe sizes are as shown below.

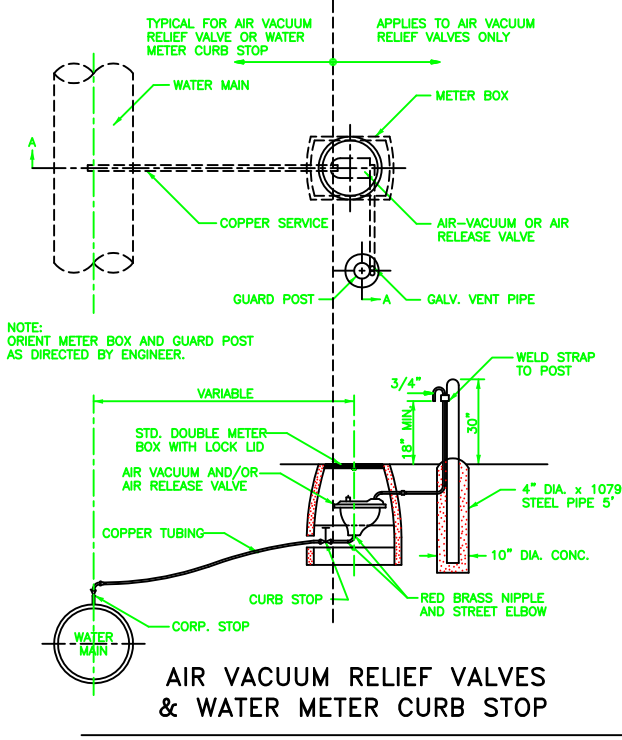
- 6" = 21"
- 8" = 24"
- 10" = 26"
- 12" = 29"

SAND BEDDING DETAIL FOR PVC PIPE

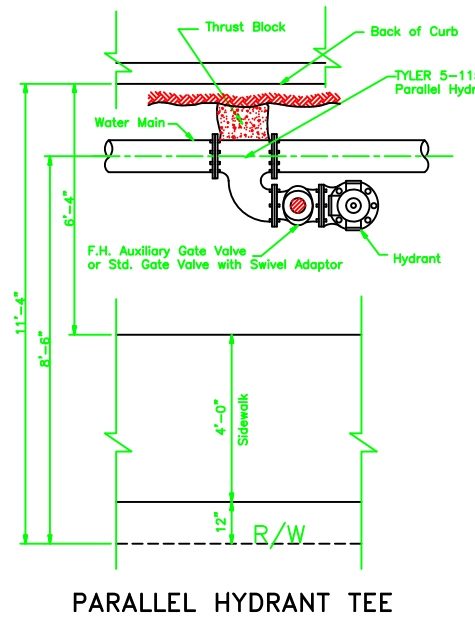


STREET CROSSING

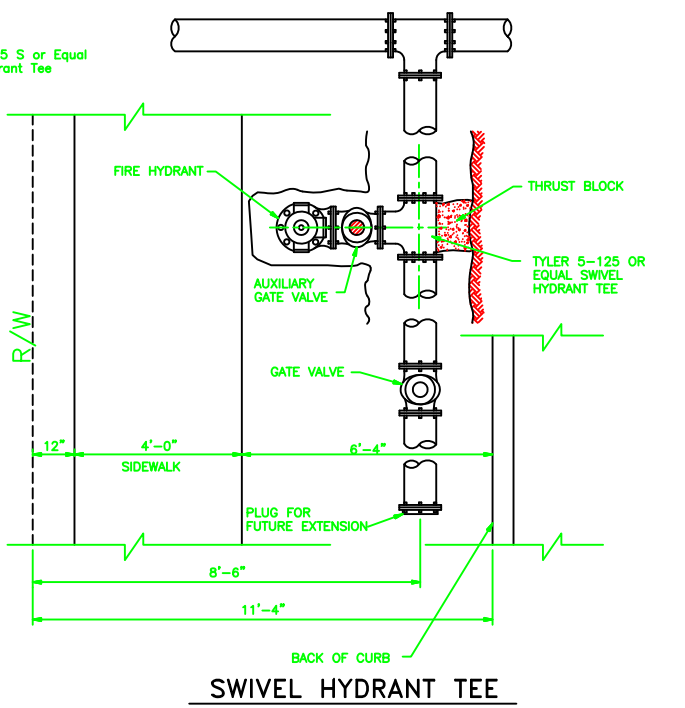
Under pavement is defined to include all P.C. or A.C. surfacing under mainline traffic and major street returns. A minimum pipe gauge of 16 may be used. The Bedding material quantity is to be increased to go to the top of the trench and if no A.C. covering, then the full repair is to be P.C. (3500 P.S.I.)



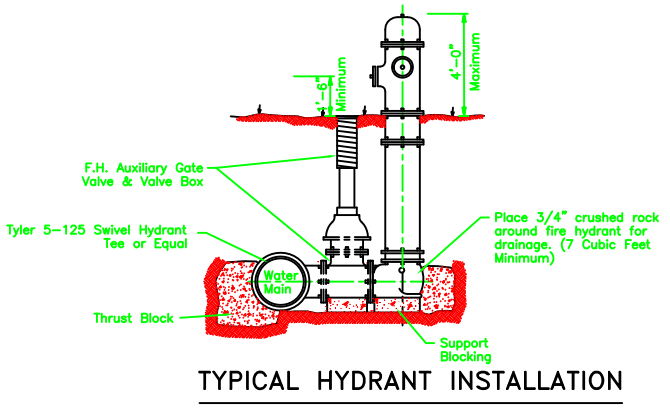
AIR VACUUM RELIEF VALVES & WATER METER CURB STOP



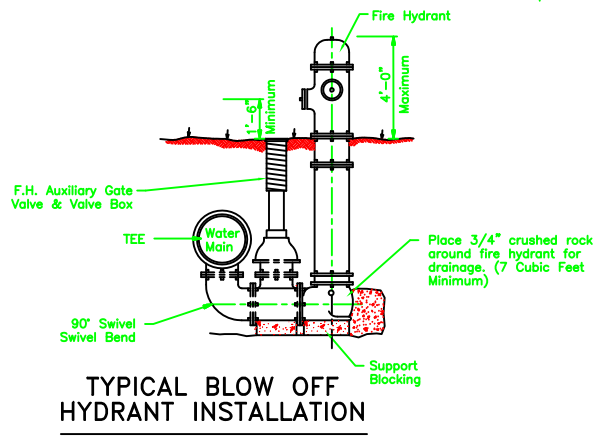
PARALLEL HYDRANT TEE



SWIVEL HYDRANT TEE



TYPICAL HYDRANT INSTALLATION



TYPICAL BLOW OFF HYDRANT INSTALLATION

INSTALL MECHANICAL RESTRAINT IN LIEU OF CONCRETE BLOCKING.
ALL HORIZONTAL THRUST AND SUPPORT BLOCKING SHALL BE PRE CAST.

MIDWEST CITY ENGINEERING DEPARTMENT			
DATE: April 24, 2017	DRAWN: D.C.B.	STANDARD WATER LINE DETAILS	
CHECKED: D.D.D.	APPROVED:		
SCALE: NO SCALE			
ENGR: P.M.	PROJECT NO.		