

**STANDARD FIRE HYDRANT DETAIL**

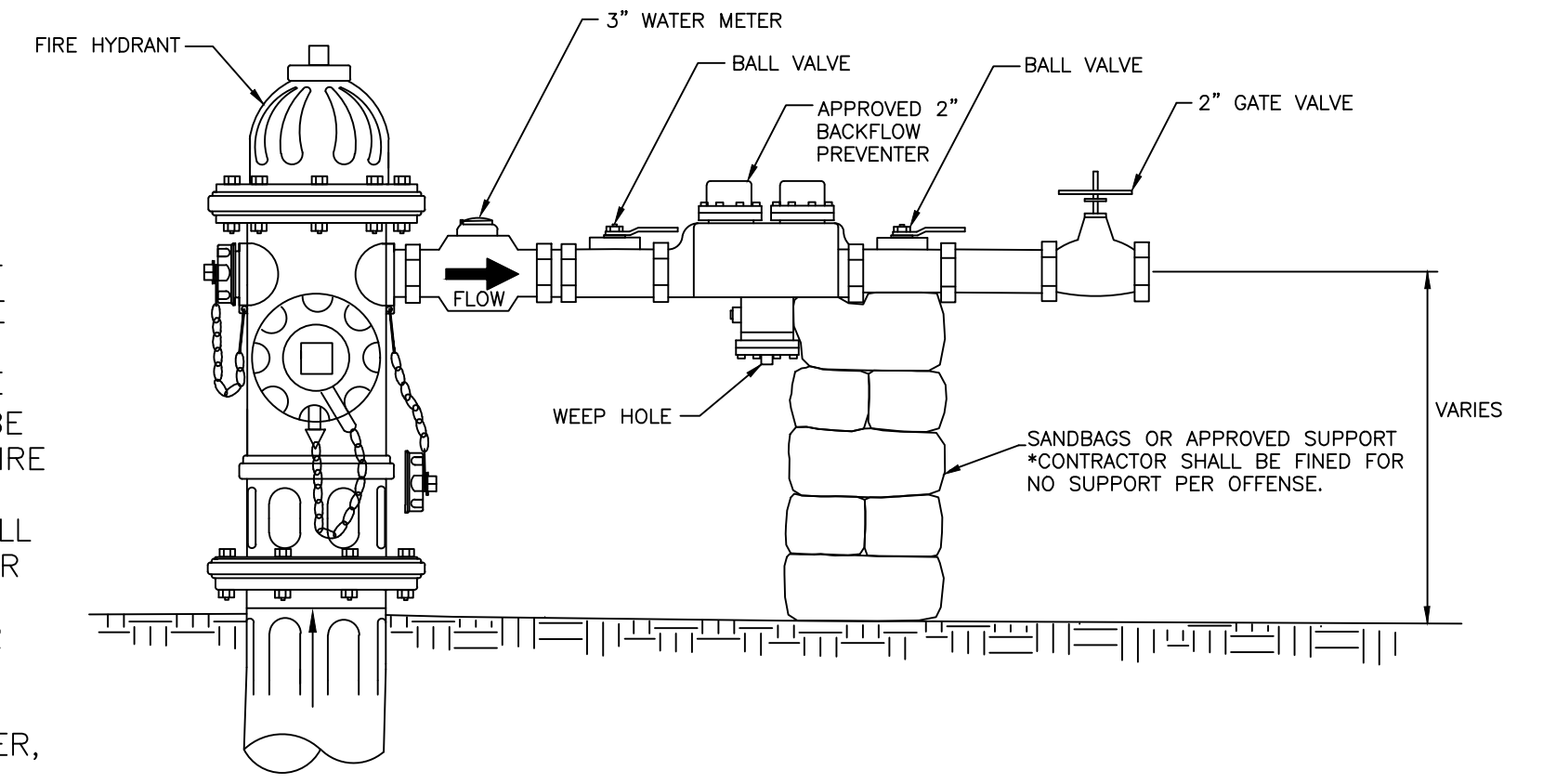
N.T.S.

**FIRE HYDRANT NOTES:**

1. FIRE HYDRANT SHALL BE CLOW OR MUELLER.
2. CENTER OF F.H. BARREL SHALL BE NOT LESS THAN 2.5' OR MORE THAN 3.5' FROM BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE APPROVED BY THE ENGINEERING DEPARTMENT.
3. ON PRIVATE CONTRACTS, THE DEVELOPER'S ENGINEER WILL STAKE F.H. HORIZONTAL LOCATION AND FLANGE ELEVATION.
4. FIRE HYDRANTS SHALL BE INSTALLED PRIMED ONLY, PAINTED AFTER INSTALLATION.
5. FIRE HYDRANTS TO BE PAINTED BY BUILDER - SHERWIN WILLIAMS POLANE SILVER, PART #: F635L5 OR EQUIVALENT.
6. HYDRANT LEADS OR FIRE LINES IN EXCESS OF 200' REQUIRE DOUBLE-CHECK ASSEMBLY AT MAIN.
7. ALL HYDRANT EXTENSIONS SHALL HAVE BREAKAWAY FLANGE AND STEM COUPLING.
8. BLOCKING OF FIRE HYDRANT SHALL BE REQUIRED FOR EXTENSIONS ACROSS STREETS FROM MAINS OF LEADS LONGER THAN ONE JOINT OF PIPE. LAST JOINT OF PIPE CONNECTING TO HYDRANT MUST BE A FULL JOINT.
9. LOWER BARREL ON FIRE HYDRANT SHALL NOT EXCEED 7'-0". IF NECESSARY, RETAINED BENDS MAY BE USED TO ACHIEVE GRADE NEEDED WITHOUT EXCEEDING 7'-0" LOWER BARREL HEIGHT. ALL PIPING TO BE DUCTILE IRON.
10. PIPE WITH RETAINER GLANDS WILL ONLY BE PERMITTED FOR LEADS THAT EXCEED 36".
11. FIRE HYDRANTS SHALL NOT BE INSTALLED IN EXISTING OR PROPOSED SIDEWALKS.
12. FIRE HYDRANT SHALL BE LOCATED OUTSIDE OF CURB RETURNS AND A MINIMUM OF 4' FROM DRIVEWAYS APPROACH RADIUS.
13. HYDRANT VALVE SHALL FOLLOW GATE VALVE DETAIL.
14. ALL PIPING SHALL BE DUCTILE IRON WITH ALL BURIED VALVE, PIPE, AND FITTINGS TO BE POLY-WRAPPED.
15. HYDRANTS LOCATED IN PARKWAY MUST HAVE SPLASH PADS EXTENDED TO CURB.

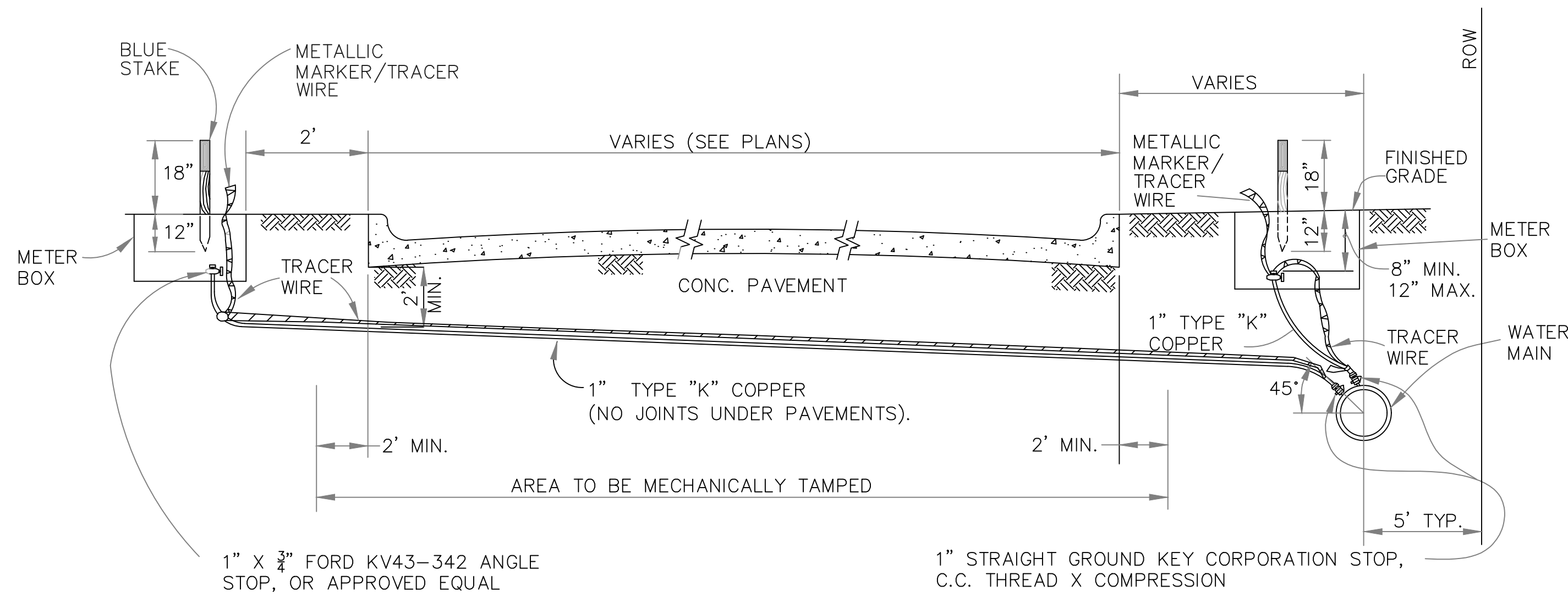
**NOTES:**

1. USE OF HYDRANT REQUIRES VALID WATER FIRE HYDRANT METER AGREEMENT. CONTACT WATER UTILITIES CUSTOMER SERVICE OFFICE FOR APPLICATION.
2. METER AND REDUCED BACKFLOW PRESSURE ZONE (RPZ) BACKFLOW ASSEMBLY SHALL BE FULLY SUPPORTED WHEN CONNECTED TO FIRE HYDRANT.
3. METER AND RPZ BACKFLOW ASSEMBLY SHALL BE APPROVED BY CITY OF CLEBURNE WATER UTILITIES. METER MUST BE OBTAINED FROM CITY OF CLEBURNE WATER UTILITIES. METER SHALL BE TESTED ANNUALLY BY CITY OF CLEBURNE WATER UTILITIES.
4. PRIOR TO ANY USE OF FIRE HYDRANT WATER, THE RPZ MUST BE TESTED BY A CITY-REGISTERED BACKFLOW PREVENTION ASSEMBLY TESTER (BPAT), AND A CURRENT AND PASSING TEST AND MAINTENANCE REPORT (TMR) FOR THE RPZ MUST BE SENT TO UTILITY BILLING AT (817) 645-0919. BACKFLOW ASSEMBLY SHALL BE TESTED ANNUALLY AND EACH TIME THE ASSEMBLY IS MOVED TO A DIFFERENT FIRE HYDRANT SITE. COPY OF TEST SHALL BE SENT TO CITY OF CLEBURNE WATER UTILITIES WATER RESOURCE SERVICES BEFORE USAGE WILL BE ALLOWED.
5. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO FIRE HYDRANT DURING USE.
6. SANDBAGS OR APPROVED SUPPORT SHALL NOT OBSTRUCT WEEP HOLE.



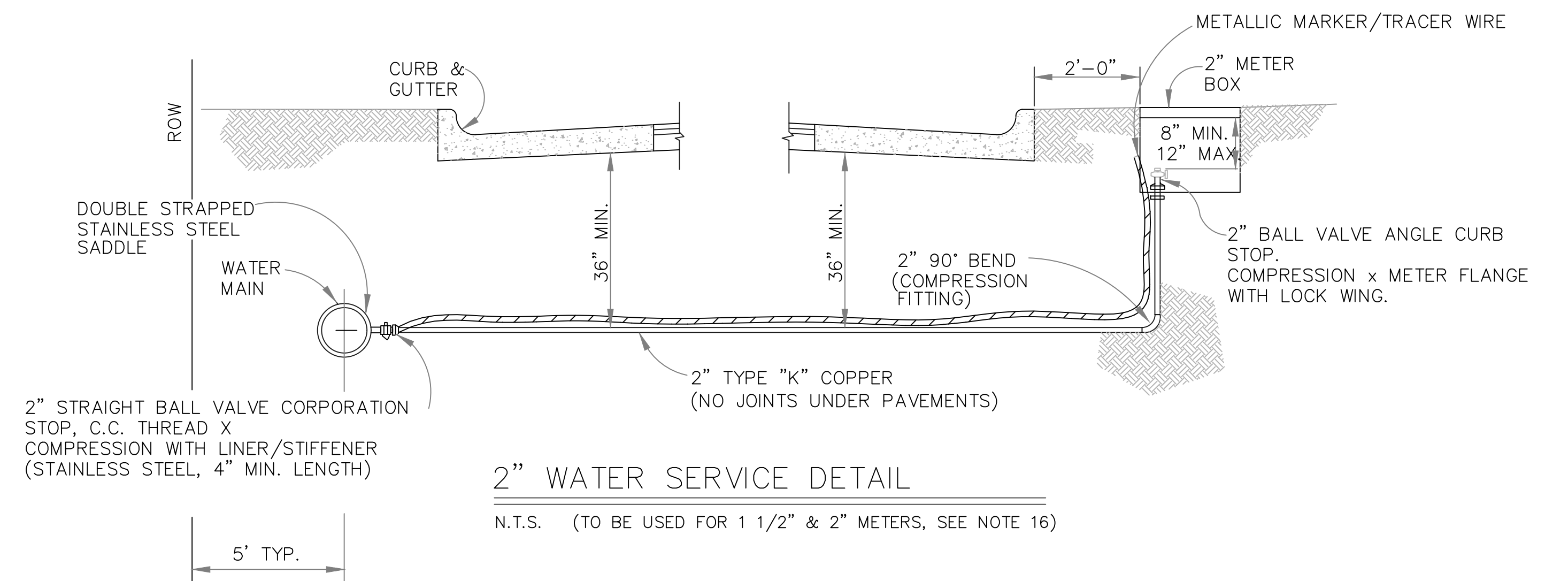
**CONSTRUCTION WATER METER DETAIL**

N.T.S.



**1" WATER SERVICE DETAIL**

N.T.S. (TO BE USED FOR 3/4" & 1" METER, TO BE REDUCED AT METER)



**2" WATER SERVICE DETAIL**

N.T.S. (TO BE USED FOR 1 1/2" & 2" METERS, SEE NOTE 16)

**WATER SERVICE NOTES:**

1. TRACER WIRE IS REQUIRED ALONG CITY SIDE SERVICE CONNECTION FROM MAIN TO METER
2. TRACER WIRE IS REQUIRED ALONG ENTIRE LENGTH OF MAIN
3. METER BOX MUST BE BEDDED WITH AT LEAST 4" CRUSHED STONE OR PEA GRAVEL



DETAIL NAME / PROJECT NO.

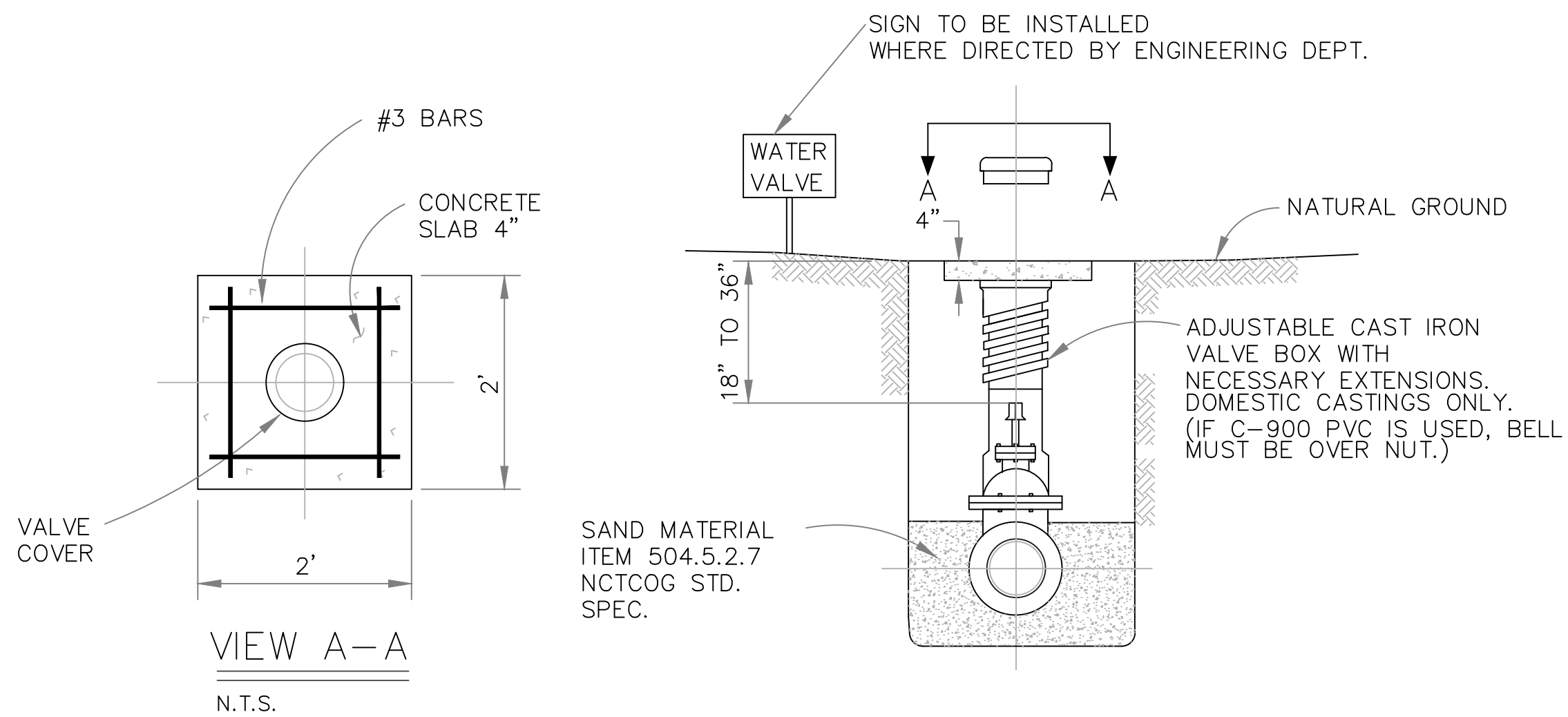
**WATER DETAILS**

ENGINEERING SERVICES DEPARTMENT

FILE:

W-1

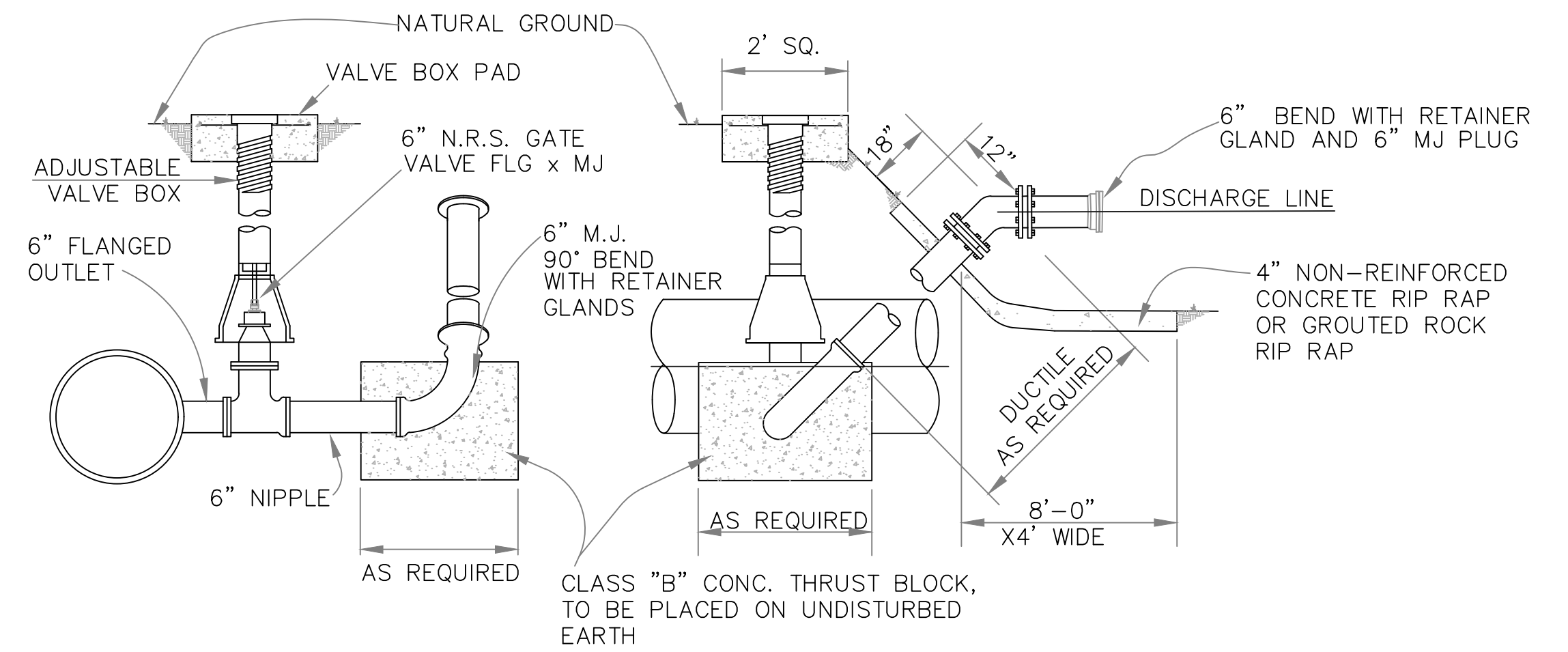
SCALE:  
NOT TO SCALE  
DATE:  
2020 VERSION



TYPICAL VALVE SETTING AND BOX  
4" TO 12" GATE VALVE  
N.T.S.

NOTES: WATER VALVE

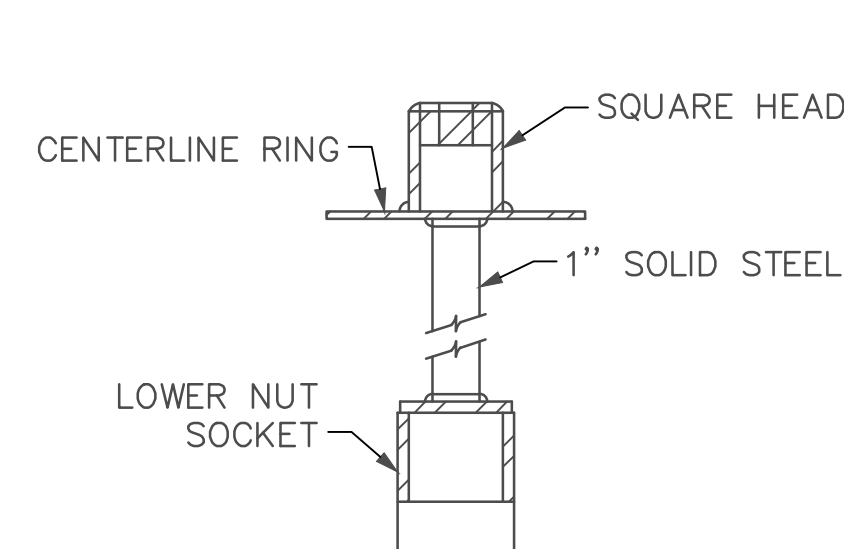
1. ALL VALVES TO BE RESILIENT SEAT GATE VALVES WITH NON-RISING STEMS, COUNTER-CLOCKWISE OPENING.
2. VALVE STEM EXTENSIONS WITH ROCK GUARDS AND LOCK CLIPS SHALL BE INSTALLED WHERE NECESSARY TO PLACE OPERATING NUT NOT MORE THAN 36" BELOW FINISHED GRADE.
3. VALVES SHALL BE CLOW VALVES (OR APPROVED EQUAL) WITH STAINLESS STEEL HARDWARE (NUTS AND BOLTS). FLANGED WHERE APPLICABLE. MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH NCTCOG ITEM 502.6
4. ALL VALVES SHALL BE INSTALLED WITH 2'X2' CONCRETE PAD WITH VALVE COVERS IN CENTER OF PAD. THE CONCRETE PAD SHALL MATCH PAVEMENT THICKNESS WITHIN PAVEMENT, OR BE 4" THICK OUTSIDE PAVED AREAS. PADS SHALL BE REINFORCED WITH FOUR NO. 3 REBARS AROUND CONCRETE PADS.
5. VALVES SHALL BE INSTALLED IN CENTER OF LANES AND OUTSIDE NORMAL TIRE PATH OF LANE WHEN IN PAVED ROADWAYS.



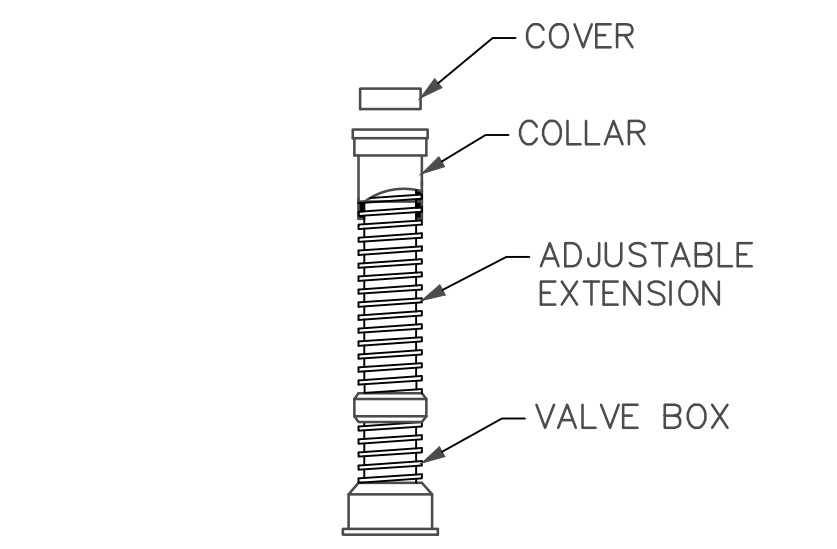
BLOW OFF VALVE DETAIL  
N.T.S.

NOTES:

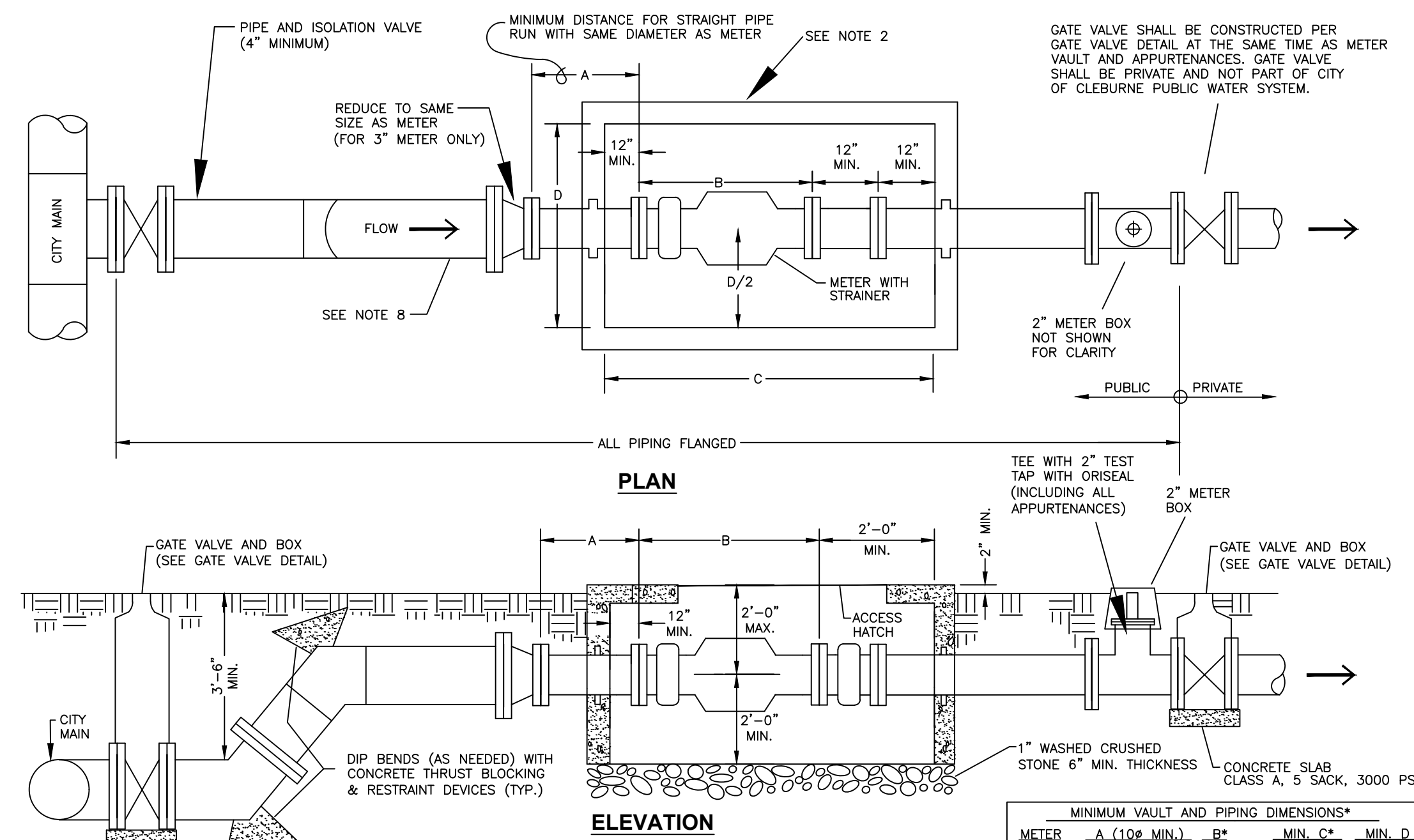
1. MUST BE DISCHARGED INTO STORM SEWER, BRIDGE OR CULVERT.
2. USE APPROPRIATE BEND TO MAKE DISCHARGE END HORIZONTAL.
3. ALL FITTINGS SHALL BE RETAINED & DISCHARGE END SHALL BE CLOSED W/MJ PLUG.



VALVE EXTENSION  
N.T.S.



N.T.S.



- NOTES:
1. PIPING & BENDS IN METER VAULT SHALL BE FLANGED DUCTILE IRON, CLASS 350. OTHER PIPING & FITTINGS SHALL BE RESTRAINED MJ OR FLANGED DUCTILE IRON.
  2. METER VAULT SHALL NOT BE INSTALLED IN EXISTING OR PROPOSED SIDEWALKS, DRIVEWAYS, PAVEMENTS OR ANY TRAFFIC AREAS.
  3. ACCESS HATCH FOR METER VAULT SHALL BE 3'-6" X 3'-6" AS MANUFACTURED BY BILCO OR APPROVED EQUAL. HATCH SHALL BE LOCATED FOR EASE OF ENTRY AND ACCESS TO METER.
  4. TOP OF VAULT SHALL BE 2" ABOVE GROUND WITH DRAINAGE SLOPING DOWN AWAY FROM VAULT.
  5. METER BYPASSES ARE ONLY ALLOWED ON ONE-WAY FEEDS.
  6. A 4" SERVICE IS REQUIRED FOR 3" AND 4" METERS. SERVICES FOR METERS GREATER THAN 4" SHALL MATCH THE METER SIZE.

METER	A (10% MIN.)	B*	MIN. C*	MIN. D
3"	30" (MIN.)	23"	4'-11"	4'-0"
4"	40" (MIN.)	28"	5'-4"	4'-0"
6"	60" (MIN.)	45 1/4"	6'-9"	4'-0"
8"	80" (MIN.)	52"	7'-4"	4'-6"
10"	100" (MIN.)	67 1/4"	8'-7"	4'-6"

\*SEE NOTE 2. METER LENGTH (B) MAY CHANGE ANNUALLY AND WILL AFFECT MIN. VAULT LENGTHS (C). DIMENSIONS SHOWN ARE FOR DOMESTIC METERS ONLY. IRRIGATION METERS HAVE SHORTER DIMENSIONS.

METER VAULT DETAIL  
N.T.S.



WATER DETAILS