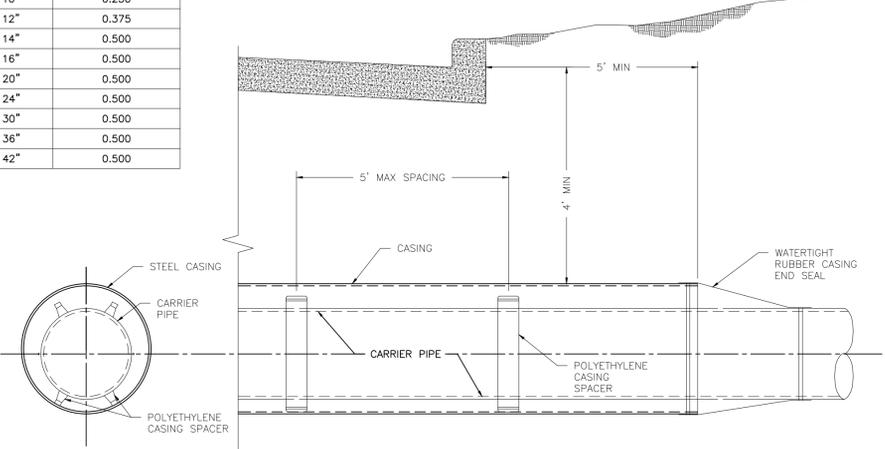
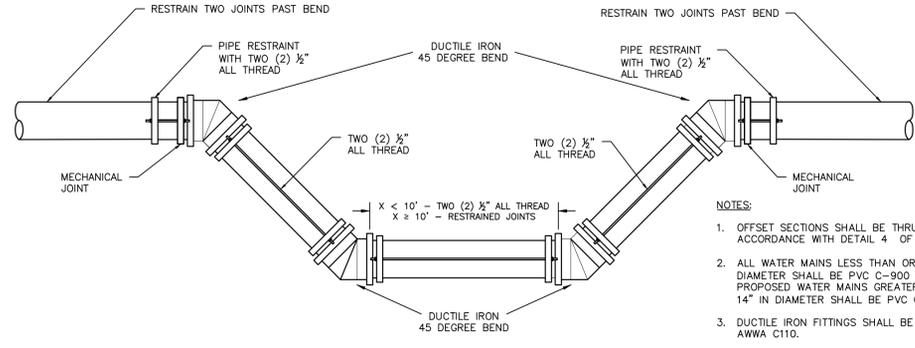


CARRIER PIPE	NOMINAL CASING	MIN. WALL THICKNESS (IN.)
6"	10"	0.250
8"	12"	0.375
10"	14"	0.500
12"	16"	0.500
16"	20"	0.500
18"	24"	0.500
20"	30"	0.500
24"	36"	0.500
30"	42"	0.500

- NOTES:
- CASING SIZE AND THICKNESS SHALL CONFORM TO THE MINIMUM REQUIREMENTS AS SHOWN ON SCHEDULE OF CASING, OTHER PERMITS AS REQUIRED.
  - LENGTH OF ENCASEMENT SHALL BE AS SHOWN ON THE PLAN AND PROFILE DRAWING. ENCASEMENT TO EXTEND MINIMUM OF 5' FROM EDGE OF PAVEMENT.
  - CASING MATERIAL SHALL BE STEEL OR HDPE DR 11 FOR THROUGHFARES CLASSIFIED AS COLLECTORS AND GREATER.

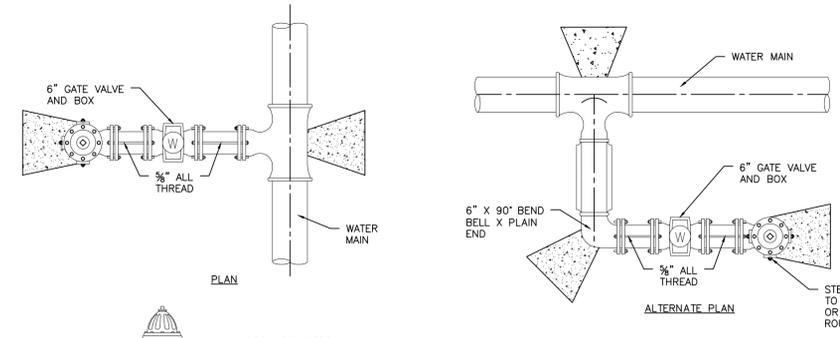


2 ENCASEMENT DETAIL  
NOT TO SCALE



3 OFFSET ASSEMBLY DETAIL  
NOT TO SCALE

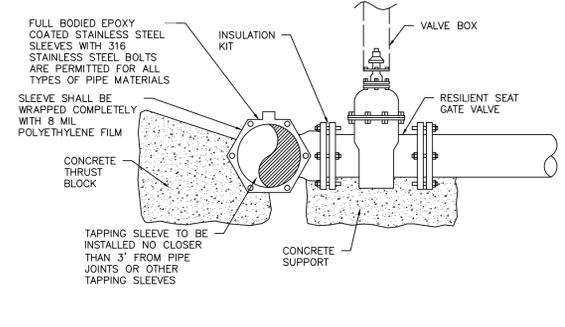
- NOTES:
- OFFSET SECTIONS SHALL BE THRUST-BLOCKED IN ACCORDANCE WITH DETAIL 4 OF THIS SHEET.
  - ALL WATER MAINS LESS THAN OR EQUAL TO 12" IN DIAMETER SHALL BE PVC C-900 (DR-18). ALL PROPOSED WATER MAINS GREATER THAN OR EQUAL TO 14" IN DIAMETER SHALL BE PVC C-905 (DR-18).
  - DUCTILE IRON FITTINGS SHALL BE FULL BODY PER AWWA C110.
  - CITY ENGINEER MUST APPROVE INSTANCES OF WATER MAIN OFFSET ABOVE OBSTRUCTION.



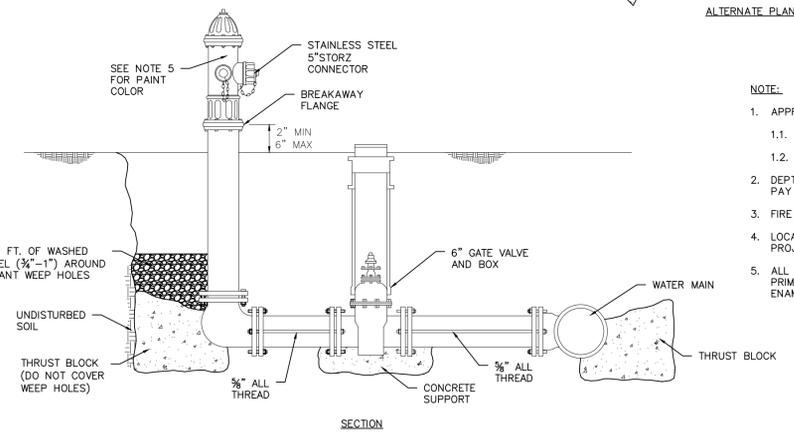
4 THRUST BLOCK DETAIL  
NOT TO SCALE

- NOTES:
- CONCRETE SHALL BE 2,000 PSI MIN.
  - CONCRETE FOR THRUST BLOCKING SHALL BE KEPT FAIRLY DRY, THUS MAKING THE CONCRETE WEDGE SHAPE MORE EASILY FORMED WITH THE WIDEST PART (BLOCKING AREA) AGAINST UNDISTURBED SOIL.
  - NO CONCRETE SHALL COVER ANY BOLTS OR GLANDS.
  - ALL FITTING AND ACCESSORIES TO BE WRAPPED WITH 10 MIL POLYETHYLENE PRIOR TO POURING BLOCKING.
  - VOLUME OF THRUST BLOCKING SHALL BE AS SHOWN ON THE THRUST BLOCKING SCHEDULE.

PIPE SIZE	90° BEND		45° BEND		22 1/2° BEND				11 1/4° BEND				TEE				PLUG	
	A	B	A	B	A	B	A	B	A	B	A	B	C	D	A	B		
4"	8"	12"	8"	8"	6"	6"	6"	6"	6"	6"	8"	9"	10"	16"				
6"	10"	12"	8"	10"	8"	8"	8"	8"	8"	10"	10"	12"	12"	18"				
8"	15"	13"	10"	10"	8"	8"	8"	8"	8"	10"	10"	12"	12"	24"				
10"	16"	14"	10"	12"	6"	10"	6"	10"	11"	14"	14"	14"	25"					
12"	20"	16"	12"	14"	8"	12"	8"	12"	14"	16"	16"	16"	30"					
14"	22"	18"	14"	16"	10"	14"	10"	14"	16"	18"	18"	18"	34"					
16"	26"	20"	16"	18"	12"	16"	12"	16"	18"	20"	20"	20"	36"					
20"	36"	26"	24"	18"	18"	13"	12"	9"	19"	18"	24"	48"						
24"	48"	33"	30"	21"	18"	18"	15"	11"	21"	21"	28"	56"						

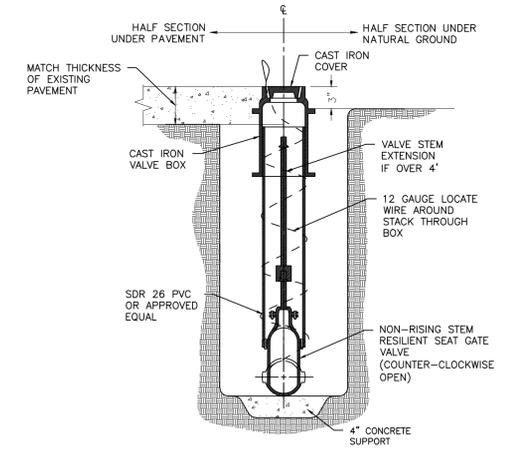


5 TAPPING SLEEVE & VALVE  
NOT TO SCALE



6 FIRE HYDRANT ASSEMBLY DETAIL  
NOT TO SCALE

- NOTE:
- APPROVED FIRE HYDRANT MODELS:
    - MUELLER A423 SUPER CENTURION 250
    - AMERICAN DARLING B-84-B-5
  - DEPTH MAY VARY, BUT THERE WILL BE NO ADDITIONAL PAY FOR ADDED DEPTH.
  - FIRE HYDRANT TO FACE STREET OR FIRE ACCESS
  - LOCATE FIRE HYDRANTS 3 FEET BEHIND CURB OR PROJECTED FUTURE CURB.
  - ALL FIRE HYDRANTS EXTERIORS SHALL BE FACTORY PRIMED AND PAINTED RED USING A HIGH GRADE ENAMEL.

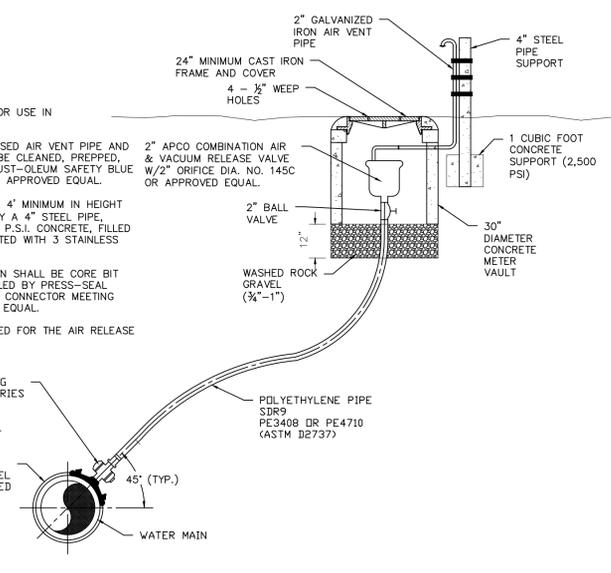


7 VALVE BOX DETAIL  
NOT TO SCALE

- NOTES:
- AIR RELEASE VALVE VAULT FOR USE IN NON-PAVEMENT AREAS.
  - EXTERIOR SURFACES OF EXPOSED AIR VENT PIPE AND STEEL SUPPORT PIPE SHALL BE CLEANED, FREPPED, PRIMED AND PAINTED WITH RUST-OLEUM SAFETY BLUE ACRYLIC #5225402 PAINT, OR APPROVED EQUAL.
  - THE AIR VENT PIPE SHALL BE 4" MINIMUM IN HEIGHT AND SHALL BE SUPPORTED BY A 4" STEEL PIPE, WHICH IS TO BE SET IN 2500 P.S.I. CONCRETE, FILLED WITH CONCRETE AND SUPPORTED WITH 3 STAINLESS STEEL CLAMPS.
  - CONCRETE VAULT PENETRATION SHALL BE CORE BIT DRILLED. VOID SHALL BE FILLED BY PRESS-SEAL GASKET CORP. PSX RESILIENT CONNECTOR MEETING A.S.T.M. C923, OR APPROVED EQUAL.
  - PIPE SUPPORT TO BE PROVIDED FOR THE AIR RELEASE VALVE.

CORPORATION STD W/TAPPING SADDLE: MUELLER BRANZE SERIES 13400 ROCKWELL 315 (EPDXY COATED), FBRD 101 (EPDXY COATED) OR APPROVED EQUAL.

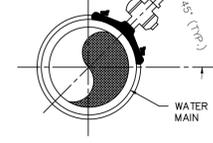
ROMAC 101N 1/2" STAINLESS STEEL BAND (OR APPROVED EQUAL)



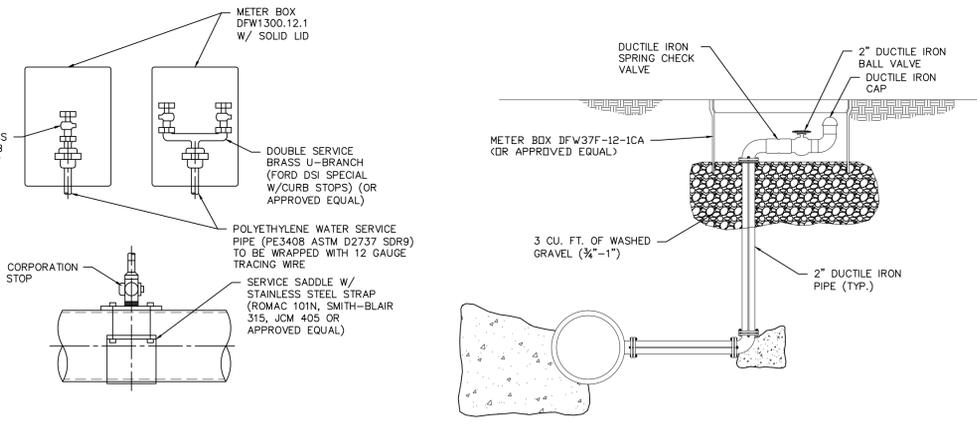
8 AIR RELEASE VALVE DETAIL  
NOT TO SCALE

- NOTES:
- NO SPLICES IN POLYETHYLENE TUBING WILL BE ALLOWED FOR NEW SERVICE CONNECTIONS.
  - WATER SERVICES SHALL NOT CROSS PROPERTY LINES OR ENCRANCH INTO ADJACENT PROPERTIES WITHOUT APPROVAL OF THE CITY ENGINEER.
  - SERVICE SADDLE SHALL BE WRAPPED COMPLETELY WITH 8 MIL POLYETHYLENE FILM.
  - TOP OF METER BOXES SHALL BE INSTALLED 1" ABOVE FINAL GROUND LEVEL.
  - METER BOX SHALL NOT BE INSTALLED WITHIN SIDEWALK, DRIVEWAY OR VEHICULAR TRAVEL AREA.
  - 12 GAUGE TRACING WIRE SHALL WRAP POLYETHYLENE SERVICE PIPING.

POLYETHYLENE WATER SERVICE PIPE (PE3408 ASTM D2737 SDR9) TO BE WRAPPED WITH 12 GAUGE TRACING WIRE



9 WATER SERVICE CONNECTION DETAIL  
NOT TO SCALE



10 STANDARD BLOW OFF VALVE ASSEMBLY  
NOT TO SCALE

NO.	DATE	REVISION



CITY OF TOMBALL

WATER CONSTRUCTION DETAILS

APPROVED BY CITY OF TOMBALL ENGINEERING DEPARTMENT

*Wesley Stolt*  
CITY ENGINEER

EFFECTIVE APRIL 9, 2021