TOWN OF BELLINGHAM

OFFICE OF THE DIRECTOR DEPARTMENT PUBLIC WORKS 26 BLACKSTONE STREET BELLINGHAM, MA 02019 (508)-966-5813 FAX (508)-966-5814

BELLINGHAM DEPARTMENT OF PUBLIC WORK WATERWORKS SPECIFICATIONS

August 2019

HYDRANTS:

- 5 'OR 5 1/2 'BURIED OPEN LEFT
- MUELLER SUPER CENTURION 41/2" Valve Opening
- KENNEDY GUARDIAN K-81A 41/2" Valve Opening
- DARLING B-84-B 51/4" Valve Opening

VALVES:

- NON RISING STEM **OPEN LEFT**, AWWA APPROVED
- MUELLER KENNEDY DARLING EPOXY COATED
- MUELLER RESILIENT SEAT EPOXY COATED

MAIN PIPE:

- DUCTILE IRON CEMENT LINED PRESSURE CLASS 350 OR CLASS 52
 - POLYETHYLENE PIPE WRAP IS REQUIRED IF INSTALLED BELOW TYPICAL HIGH WATER TABLE.

HOUSE SERVICE:

- P. E. TUBING 200 PSI UHMW
- CORPORATION MUELLER MC DONALD RED HED CC x COMPRESSION
- CURB SHUT OFF MUELLER MC DONALD RED HED FLARE X COMPRESSION, without bleeders.
- 5' 51/2' CURB BOX WITH 30" ROD WITH 2 HOLE COVER. PLUG TYPE COVERS NOT PERMITTED

WATER SERVICE METER:

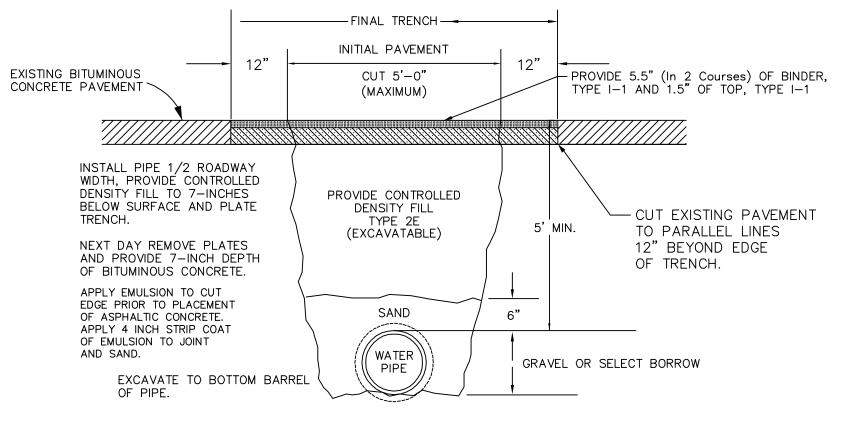
- Typical residential / commercial domestic use
 - INVENSYS iPERL <u>5/8 x 3/4" GALLON REGISTER with MXU (RADIO READ) W/</u> TOUCH PAD.
- Commercial / Industrial
 - Sensus Omni meter (Size per specific application approval) <u>GALLON REGISTER with MXU (RADIO READ) W/ TOUCH PAD.</u>
- ALL METERS ARE THE PROPERTY OF THE PROPERTY OWNER

METER FITTINGS:

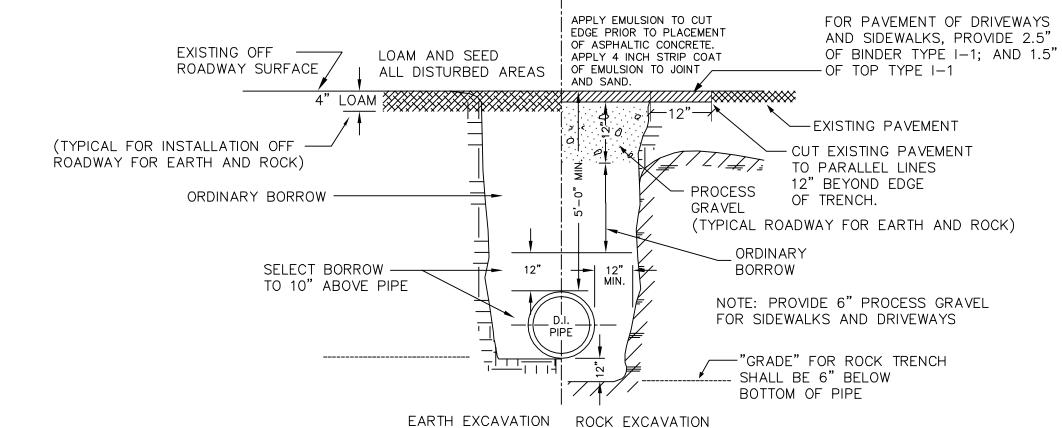
- WATTS or APOLLO BALL VALVE TEFLON COATED
- STRAIGHT METER COUPLING MUELLER, MACDONALD, or RED HED
- BENDS COMPRESSION X MALE THREAD



- 1. ALL NEW WATER MAINS FROM 6" THRU 12" DIAMETER SHALL BE DUCTILE IRON PRESSURE CLASS 350 PIPE.
- 2. TEFLON TAPE SHALL BE REQUIRED FOR ALL DIRECT TAPS
- 3. NO DIRECT TAPS GREATER THAN 1" SHALL BE ALLOWED ON 6" THRU 12" DIAM. PIPE
- 4. ANY BRANCH OR SERVICES LARGER THAN 1" MUST BE ACCOMPLISHED BY INSTALLATION OF APPROPRIATE DUCTILE IRON FITTING



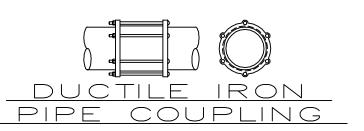
<u>typical trench resurfacing</u> in state highway & on main roads



ALL PIPES INSTALLED UNDER BROOKS, CULVERTS OR WITHIN 6" OF ANY STRUCTURES (CB, MH, PITS, VAULTS) MUST BE <u>DUCTILE IRON.</u>

NOT TO SCALE

<u>TYPICAL TRENCH SECTION</u>
FOR DUCTILE IRON WATER MAINS



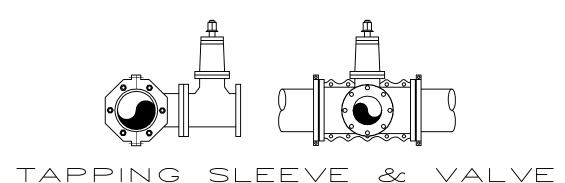
STYLE 501 & RC 501

BY ROMAC INDUSTRIES OR EQUIVALENT
TO BE USED FOR PIPE REPAIRS,
"CUT-INS", COUPLING DIFFERENT
TYPES OF PIPE, & CORRECTING
MISSALIGNED PIPE
(DI to C-900; DI to AC; C-900 to AC)

WATER MAIN

SEPTIC SEWER PIPE

SEWER ALWAYS BELOW

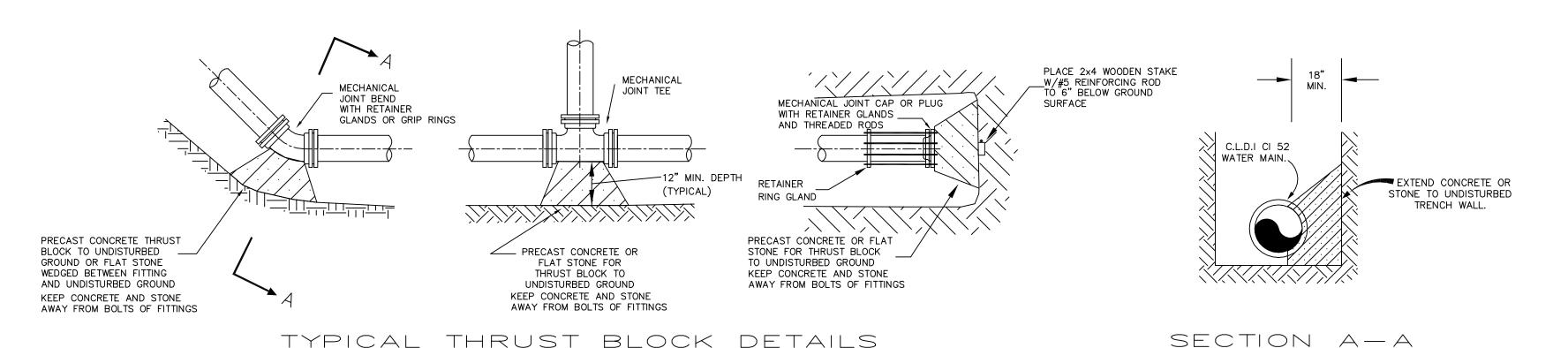


MJ TAPPING SLEEVE WITH MUELLER T-2360 (OR EQUIVALENT)

RESILIENT WEDGE TAPPING VALVE - MJ x FL ENDS

OPEN LEFT

ALL MAIN LINE VALVES — (OPEN LEFT, NON RISING STEM)
SIZES 3" TO 12" — (GATE VALVES)
SIZES GREATER THAN 12" — (BUTTERFLY VALVES)
MUELLER — KENNEDY — DARLING — EPOXY COATED
MUELLER RESILIENT SEAT EPOXY COATED, AWWA APPROVED





WATER MAIN

10'

SEWER MAIN

WATER PIPE

SEPTIC SEWER PIPE

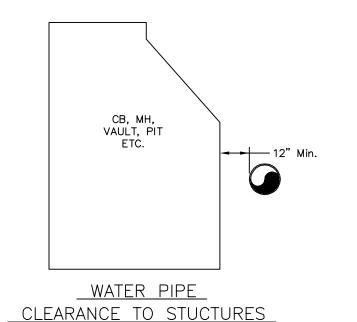
F EXISTING CONDITIONS REQUIRE PIPES TO BE CLOSER THAN 18", ENCASE SEWER 10' EACH SIDE OF CROSSING OR USE D.I. FOR SEWER

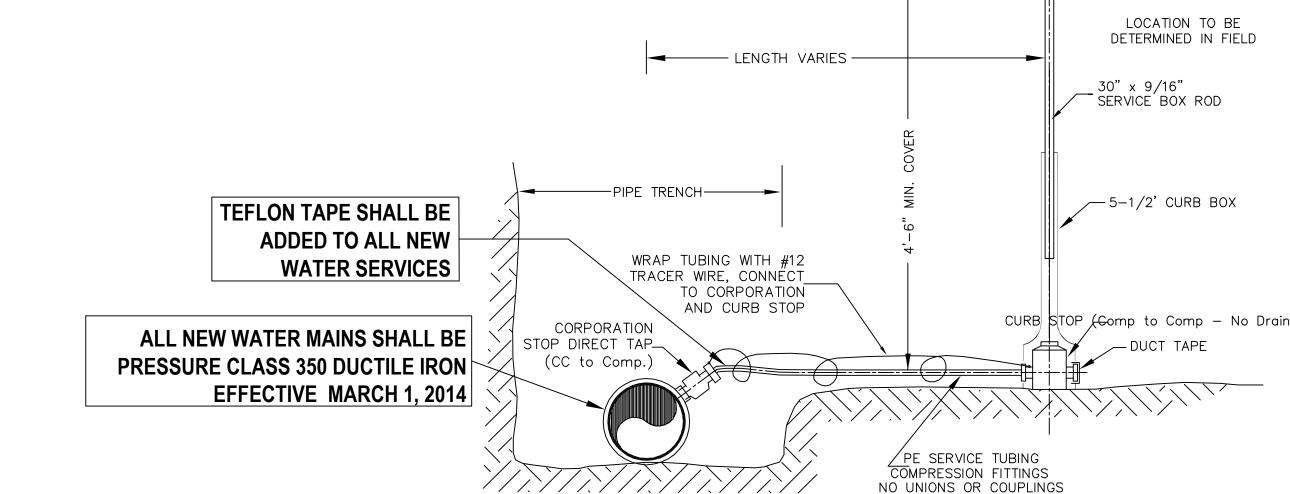
F EXISTING CONDITIONS REQUIRE THAT WATER CROSS WATER PIPE MUST BE A FULL LENGTH OF DUCTIL SPACED EQUALLY FROM THE POIN

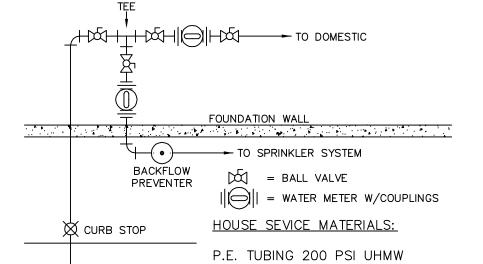
IF EXISTING CONDITIONS REQUIRE THAT WATER CROSS UNDER SEWER, REGARDLESS OF DEPTH, WATER PIPE MUST BE A FULL LENGTH OF DUCTILE IRON, CLASS 52 WITH THE JOINTS SPACED EQUALLY FROM THE POINT OF PIPE CROSSING

IF CROSSING IS WITHIN 18" MINIMUM, BOTH MAINS MUST BE ENCASED IN CONCRETE (DEP STANDARD)

(DEP STANDA <u>Water / Sewer</u> crossings







WATER MAIN

P.E. TUBING 200 PSI UHMW

CORPORATION — MULLER — MC DONALD — RED HED — CC x Compression

CURB SHUT—OFF — MULLER — MC DONALD — RED HED — Compression X Compression (No Drains)

5' CURB SHUT BOX WITH 30" ROD WITH 2 HOLE COVER

5' CURB SHUT BOX WITH 30" ROD WITH 2 HOLE COVER
ALL UNIONS OR FITTING SHALL BE Compression X Compression. UNIONS MUST BE AVOIDED ON NEW SERVICE LINES
WATER SERVICE METER:

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SENSUS - 5/8 X 3/4 SRII

SENSUS - 5/8 X 3/4 SRII ECR/DM GALLONS with MXU Transmitter METERS SHALL BECOME THE PROPOERTY OF THE TOWN OF BELLINGHAM.

METER FITTINGS:

WATTS BALL VALVE — TEFLON COATED STRAIGHT METER COUPLING — MULLER — MC DONALD — RED HED BENDS — Compression x MALE THREAD

WATER SERVICE CONNECTION

WITH
SECOND METER
(LAWN SPRINKLER SYSTEMS)

	MUELLER CENTURION, 4-1/2 v.o. DARLING B-84-B, 5-1/2 v.o. KENEDY GUARDIAN, 4-1/2 v.o.	
HYDRANT RISERS TO BE INSTALLED WHERE NECESSARY	(Open Left)	K-81A TOP FLANGE VALVE BOX
	GROUND LEVEL	GROUND LEVEL
-	VARIES -	5 1/4" GATE BOX W/Flange
PLACE CRUSHED STONE TO 6" ABOVE HYDRANT BASE	PRECAST CONCRETE THRUST BLOCK So So So So So So So So So S	HYDRANT BRANCH 6" D.I. PIPE TO BE LAID 6" ANCHORING VALVE CONCRETE THRUST BLOCK BLOCK
UNDISTURBED GROUND	MJ W\ RETAINER GLANDS	FLAT (LEVEL) MJ ANCHORING TEE UNDISTURBED GROUND
CRUSHED STONE NOTE: CONTRACTOR SHALL TAKE PRECAUTION DURING PLACEMENT OF CONCRETE TO INSURE HYDRAN BLEED SYSYTEM IS NOT OBSTRUC		

TYPICAL HYDRANT INSTALLATION

CORPORATION
STOP DIRECT TAP
(CC to Comp.)

PE SERVICE TUBING
COMPRESSION FITTINGS
NO UNIONS OR COUPLINGS
BETWEEN MAIN & CURB STOP
INSTALLED IN SAND ENVELOPE

SEE SPEC. SHEET

TWO-HOLE

SERVICE BOX COVER

SCALE: NONE

DATE DRAWN: NOVEMBER, 2000

DRAWN BY: GPF

FILE NO.: DET-A

Ó,

U'

Wa ROAL

DWG. NO.