

GENERAL NOTES:

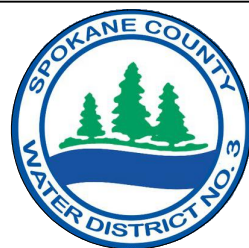
1. ALL CONSTRUCTION MATERIAL AND PRACTICES SHALL BE IN ACCORDANCE WITH SCWD #3 REQUIREMENTS AS APPROVED IN THE DISTRICT'S COMPREHENSIVE PLAN DATED LATEST ADDITION.
2. CONSTRUCTION SHALL BE COORDINATED WITH SCWD#3. A PRE-CONSTRUCTION MEETING WITH SCWD #3 REPRESENTATIVES SHALL BE HELD PRIOR TO STARTING CONSTRUCTION.
3. ALL REQUIRED WATER LINE SHUTDOWNS SHALL BE COORDINATED WITH SCWD#3. ALL CUSTOMERS AFFECTED BY THE SHUTDOWN SHALL BE NOTIFIED BY THE CONTRACTOR 24 HOURS IN ADVANCE.

MATERIALS:

1. WATER MAINS SHALL BE CLASS 250 AWWA C-151 DUCTILE IRON PIPE.
2. AT THE DISCRETION OF THE GENERAL MANAGER OR ENGINEER, AND BASED UPON EXISTING SOIL TYPE, POLYETHYLENE ENCASEMENT MAY BE REQUIRED AND SHALL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
3. PIPE RESTRAINT INCLUDES THE USE OF ROMAC "GRIP" RING ACCESSORY KITS ON ALL MJ FITTINGS AND "FIELD LOK" OR FAST GRIP" GASKETS ONLY IN ACCORDANCE WITH THE DUCTILE IRON PIPE RESTRAINT TABLE AND/OR PRECAST CONCRETE THRUST BLOCKS. PRIOR TO BURIAL, BELLS SHALL BE SPRAY PAINTED RED WHEN RESTRAINT GASKETS HAVE BEEN INSTALLED.
4. DUCTILE IRON PIPE SHALL HAVE THREE (3) CONTINUITY WEDGES INSTALLED PER EACH JOINT.
5. ALL PVC PIPE SHALL HAVE A #12 GAUGE INSULATED SINGLE STRAND COPPER TRACER WIRE. THE TRACER WIRE IS TO BE INSTALLED ON MAIN LINE GATE VALVES FROM VALVE TO VALVE AS PER SCWD #3 STANDARD GATE VALVE DETAIL. NOTE: DO NOT INSTALL TRACER WIRE ON HYDRANT VALVES.
6. ALL BACKFILL MATERIAL SHALL BE DRY AND NOT FROZEN.
7. PRE CAST CONCRETE THRUST BLOCKS MAY BE USED AS MANUFACTURED BY WHITE BLOCK OR APPROVED EQUAL. SIZE OF THRUST BLOCKS: SMALL 5" X 18" X 24" LARGE 6" X 24" X 36".

INSTALLATION:

1. THE CONTRACTOR IS RESPONSIBLE FOR DISINFECTING PER AWWA C-651, FLUSHING, BACTERIOLOGICAL TESTING, AND PRESSURE TESTING NEW WATER MAINS. WATER MAINS SHALL BE PRESSURE TESTED AT 180 PSI OR TWO TIMES THE WORKING LINE PRESSURE, WHICHEVER IS GREATER FOR 30 MINUTES AND WITNESSED BY SCWD #3 EMPLOYEE OR DISTRICT ENGINEER.
2. WATER & SEWER MAIN SEPARATION
 - A. HORIZONTAL SEPARATION BETWEEN A WATER MAIN AND A SEWER MAIN MUST BE A MINIMUM OF 10 FEET.
 - B. VERTICAL SEPARATION BETWEEN A WATER MAIN AND A SEWER MAIN MUST BE A MINIMUM OF 18 INCHES. IF VERTICAL SEPARATION IS NOT ATTAINABLE SEE NOTE C2.
 - C. PLEASE SEE SPECIFIC NOTES AS FOLLOWS:
 1. IF THE SEWER MAIN IS MADE OF THE SAME OR BETTER QUALITY MATERIAL AS THE WATER MAIN, THEN NO CASING IS REQUIRED.
 2. IF THE SEWER MAIN IS NOT MADE OF EQUAL OR BETTER MATERIALS, OR PROPER SEPARATION CANNOT BE MAINTAINED THEN IT MUST BE PLACED INSIDE A CASING TO BE APPROVED BY SCWD #3, AND EXTEND 10 FEET IN EACH DIRECTION WHERE THE SEWER MAIN CROSSES THE WATER MAIN.
 3. UNDER NO CIRCUMSTANCE SHALL WATER LINES CROSS UNDER SEWER OR STORM WITHOUT CASING AS PER ABOVE.
3. A MINIMUM OF 10' HORIZONTAL SEPARATION MUST BE MAINTAINED BETWEEN WATER SERVICES AND ELECTRICAL POWER TRANSFORMERS.
4. ELECTRICAL POWER & GAS LINES MUST BE A MINIMUM OF 5'-0" AWAY FROM FIRE HYDRANTS.
5. A MINIMUM DISTANCE OF 5'-0" MUST BE MAINTAINED FROM CHANGES IN FINAL GRADE ELEVATION TO ALL WATER SYSTEM APPURTENANCES (IE, MAINS, FIRE HYDRANTS, VALVE BOXES, WATER METERS, VAULTS ETC.)
6. ALL PROPERTY LINES AND RIGHTS-OF-WAY SHALL BE STAKED PRIOR TO MAIN INSTALLATION.
7. NO WATER METER BOXES/VAULTS SHALL BE LOCATED WITHIN DRAINAGE AREAS SUCH AS GRASSY 208 (SWALE AREAS) WHERE THEY MAY FILL WITH WATER.
8. FINAL LOCATION OF WATER METER SETTINGS SHALL BE DETERMINED BY SCWD #3.
9. AIR VACUUM RELIEF VALVE(S) SHALL BE INSTALLED AS DIRECTED BY SCWD #3 PER FIELD ELEVATION CONDITIONS. THESE LOCATIONS MAY OR NOT BE AS SHOWN ON THE APPROVED WATER SYSTEM PLAN.
10. ALL INDIVIDUAL WATER METER BOXES/VAULTS SHALL BE LOCATED WITHIN THE PUBLIC RIGHT OF WAY AND/OR UTILITY EASEMENT. TYPICALLY, NO WATER METER BOXES/VAULTS ARE TO BE LOCATED WITHIN DRIVEWAYS. PLACEMENT OF WATER METER BOXES/VAULTS ARE TO BE WITHIN LANDSCAPED AREAS, AND NOT IN SWALES.
11. COMPACTION BEHIND INSTALLED THRUST BLOCKS SHALL BE A MINIMUM OF 95% OR BETTER.



STANDARD DETAIL

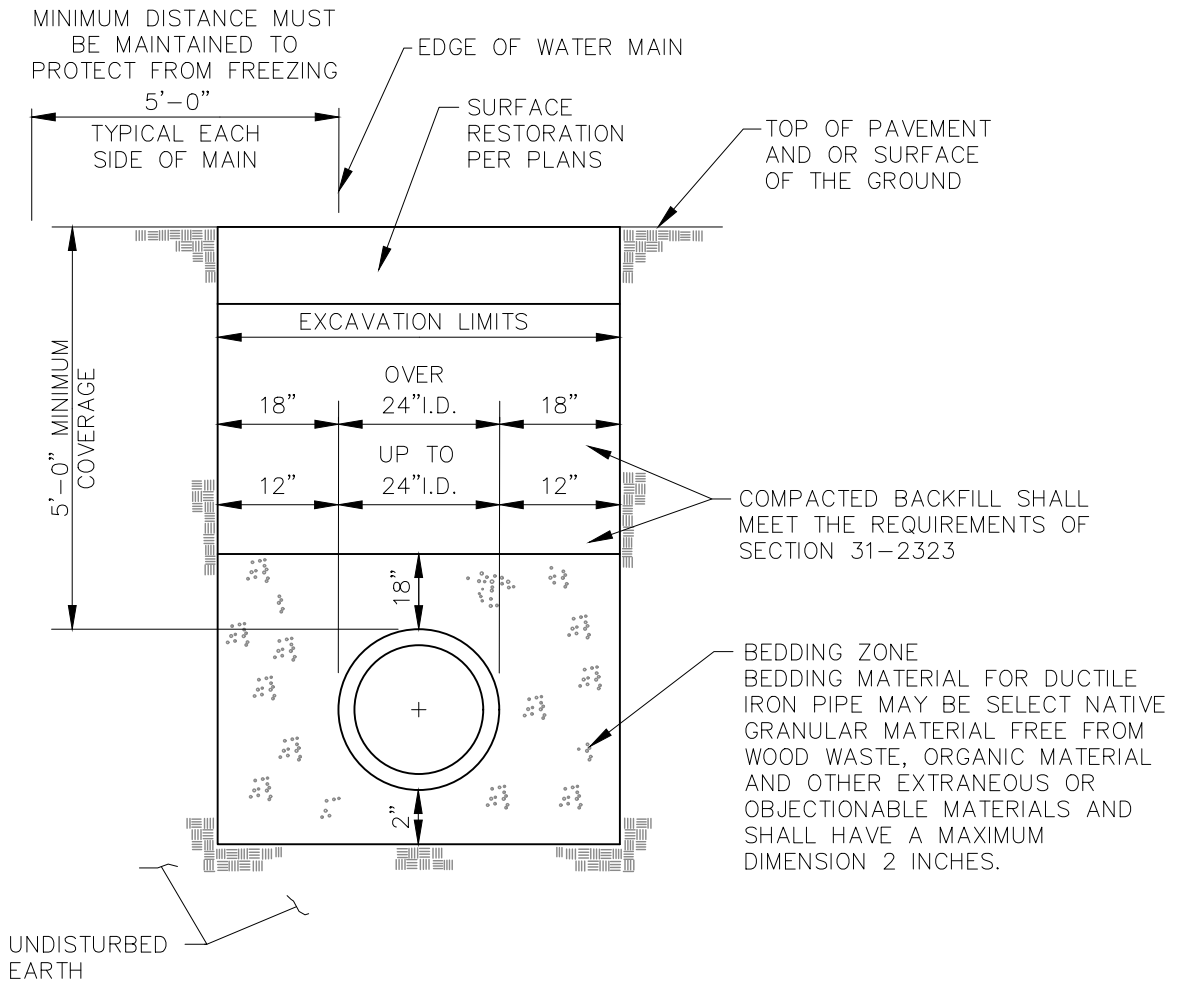
TYPICAL NOTES
FOR NEW WATERLINE PROJECTS

REVISION:

3

DETAIL:

W1



NOTES

1. ACTUAL SLOPE OF TRENCH SIDES TO BE DETERMINED BY CONTRACTOR TO FIT THE METHOD OF CONSTRUCTION AND ALL SAFETY REQUIREMENTS.
2. MECHANICAL TAMPING REQUIRED AS DIRECTED BY ENGINEER.

TYPICAL TRENCH SECTION

NO SCALE



STANDARD DETAIL

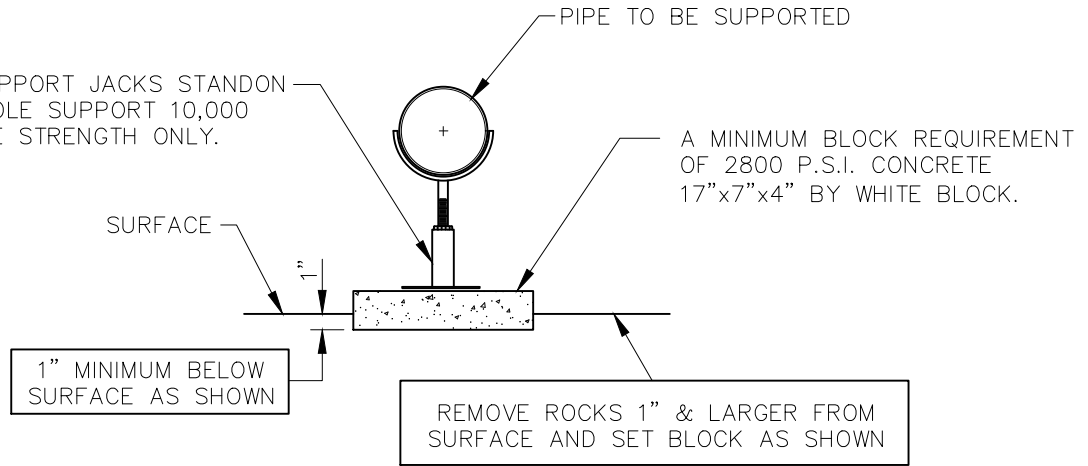
TRENCH SECTION

REVISION:

DETAIL:

W2

INSTALL PIPE SUPPORT JACKS STANDON MODEL S92 SADDLE SUPPORT 10,000 LB. COMPRESSIVE STRENGTH ONLY.



SUPPORT SIZE	PIPE O.D.	STRAP SIZE	THREAD STUD	BASE PLATE	EXTENSION PIPE REQ'D	MINIMUM DIST. TO FLOOR
2"	2.50"	3/8"x2"	1'x6"	4"x6"x1/4"	2" SCH. 40	7"
2 1/2"	3.00"	3/8"x2"	1'x6"	4"x6"x1/4"	2" SCH. 40	7"
3"	3.96"	3/8"x2"	1'x6"	4"x6"x1/4"	2" SCH. 40	7"
4"	4.80"	1/2"x2"	1'x6"	8"x8"x1/4"	2" SCH. 40	7"
6"	6.90"	1/2"x2"	1'x6"	8"x8"x1/4"	2" SCH. 40	7"
8"	9.05"	1/2"x2"	1'x6"	8"x8"x1/4"	2" SCH. 40	7"
10"	11.10"	1/2"x2"	1'x6"	8"x8"x1/4"	2" SCH. 40	7"
12"	13.20"	1/2"x2"	1'x6"	8"x8"x1/4"	2" SCH. 40	7"

PIPE SUPPORT DETAIL

NO SCALE



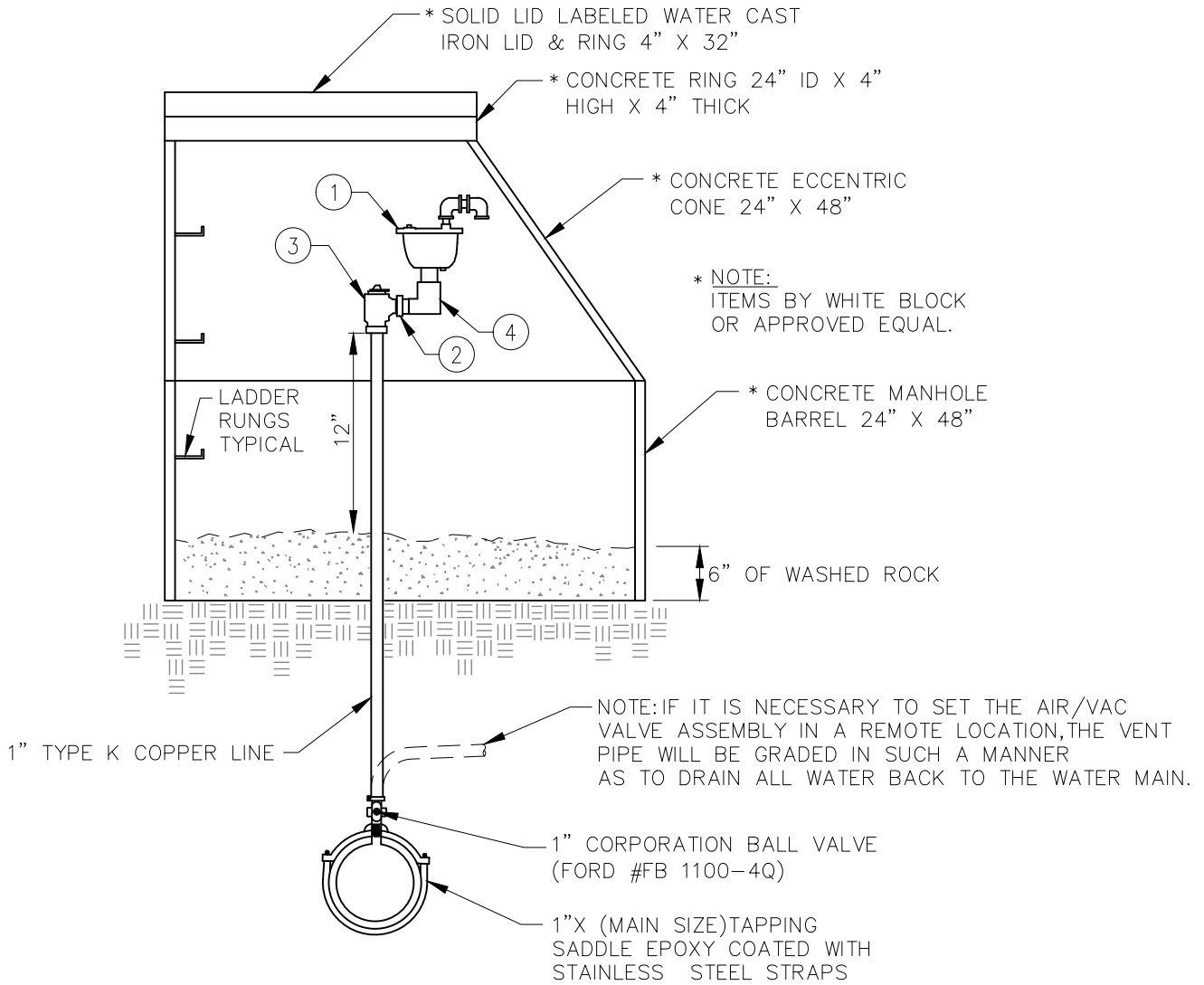
STANDARD DETAIL

PIPE SUPPORT

REVISION:

DETAIL:

W3



PARTS LIST	
ITEM	DESCRIPTION
①	1" COMBINATION WATER AIR RELEASE VALVE, BY A.R.I. D-040 WITH REINFORCED NYLON BODY AND BASE.
②	1" A24 FORD METER ADAPTOR.
③	1" ANGLE METER BALL VALVE FORD BA43-444WQ.
④	1" 90° STREET ELBOW BRASS.

AIR-VACUUM RELIEF ASSEMBLY DETAIL

NO SCALE



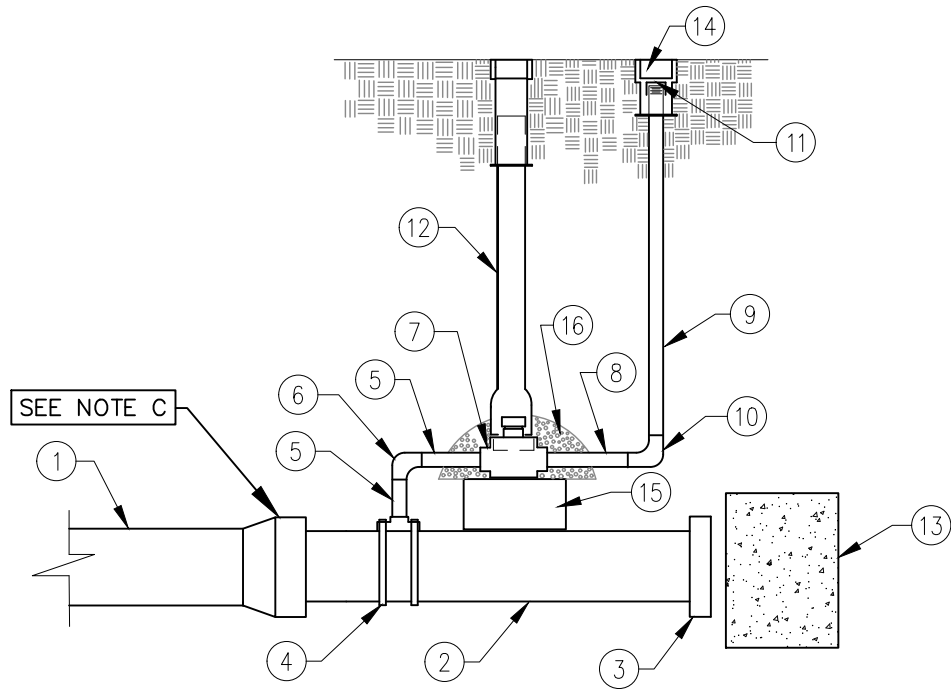
STANDARD DETAIL

AIR-VACUUM RELIEF ASSEMBLY

REVISION:

DETAIL:

W4



PARTS LIST

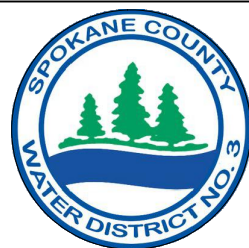
ITEM	DESCRIPTION	ITEM	DESCRIPTION
①	WATER MAIN NEW OR EXISTING (BELL END OF PIPE)	⑨	2" X 48" GALVANIZED NIPPLE
②	PIECE OF PIPE APPROX. 3' LONG (MAIN SIZE)	⑩	2" GALVANIZED 90° ELBOW
③	MJ LINE CAP (MAIN SIZE)	⑪	2" GALVANIZED CAP
④	TAPPING SADDLE WITH S.S. STRAPS (SIZE AS PER MAIN)	⑫	VALVE BOX: TYLER HEAVY DUTY DOMESTIC
⑤	BRASS NIPPLE 2" X 3"	⑬	THRUST BLOCK 6" X 24" X 36"
⑥	2" BRASS ELBOW 90°	⑭	VALVE BOX TOP SECTION: TYLER HEAVY DUTY DOMESTIC
⑦	2" FE X FE STOP & WASTE VALVE	⑮	SUPPORT MATERIAL
⑧	2" X 12" GALVANIZED NIPPLE	⑯	SIZE OF DRAIN ROCK IS 1.5, COVER WITH 4MIL POLY SHEETING

NOTES

- A. USE A THRUST BLOCK 6"x24"x36" ON WATER MAINS 4" THRU 10" DIAMETER WATER MAINS, 12" AND GREATER IN DIAMETER USE 2'x2'x6' ECOLOGY BLOCK BY CENTRAL PRE MIX OR APPROVED EQUAL.
- B. CONTRACTOR CONSULT WITH SCWD #3 FIELD SUPERVISOR BEFORE FLUSHER INSTALLATION BEGINS.
- C. DO NOT INSTALL FIELD "LOK" GASKET AT THIS JOINT, MUST BE REMOVABLE.

FLUSHER / BLOWOFF ASSEMBLY DETAIL

NO SCALE

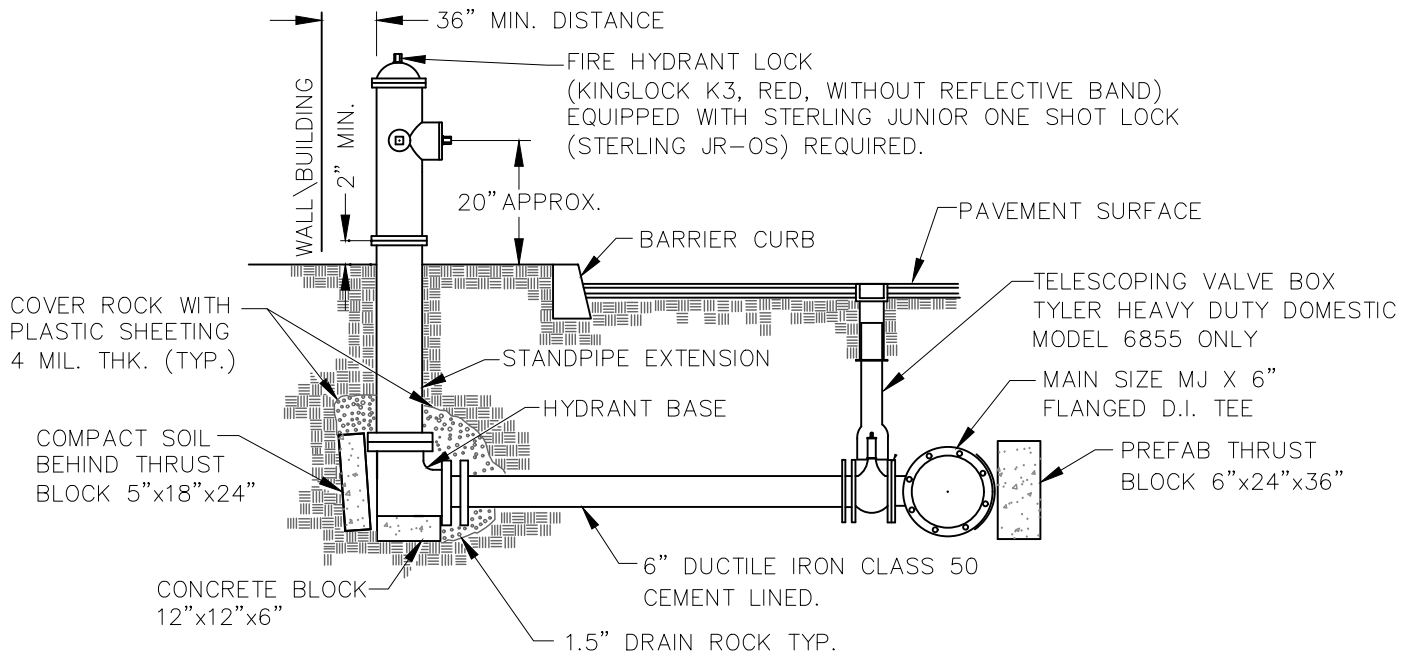


STANDARD DETAIL

FLUSHER / BLOWOFF ASSEMBLY

REVISION: 1 DETAIL:

W5



NOTES

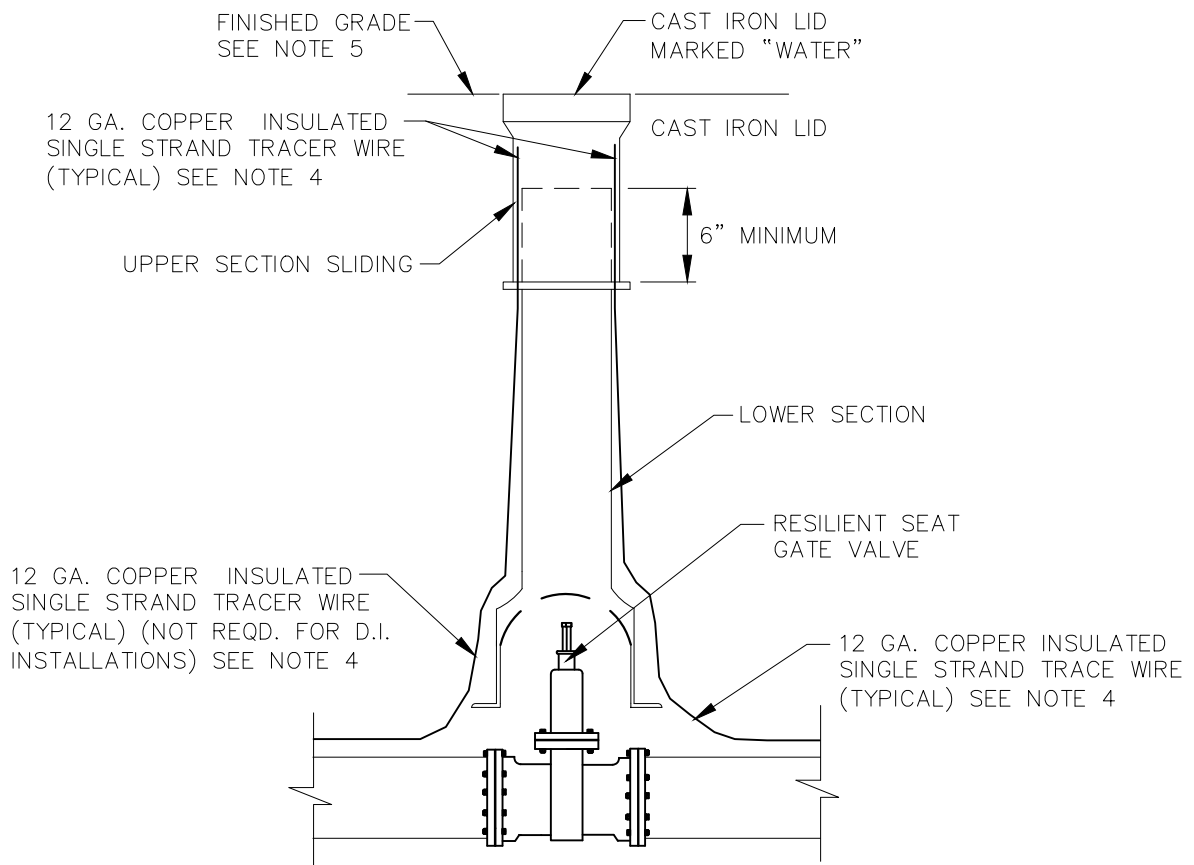
1. ALL FIRE HYDRANTS SHALL BE 6" COMPRESSION TYPE, BREAKAWAY SECTION AT GROUND LEVEL. 5 1/4" MAIN VALVE OPENING, TWO 2 1/2" HOSE NOZZLES, AND ONE 4 1/2" PUMPER NOZZLE, THREADS TO CONFORM TO NATIONAL STANDARD THREAD FIRE HOSE COUPLING, WITH 6" MJ CONNECTION AS MANUFACTURED BY M & H, MUELLER, OR AMERICAN DARLING.
2. THE CONCRETE BLOCK (SHOWN BELOW ON DETAIL) SHALL HAVE A 12" X 12" BASE AND A MINIMUM 3" THICKNESS.
3. ALL VALVES SHALL HAVE A RESILIENT SEAT NON-RISING STEM, 2" OPERATING NUT, (FL X MJ) AND SHALL MEET AWWA STANDARDS AT WORKING PRESSURE OF 150 LBS.
4. FIRE HYDRANTS ARE TO BE INSTALLED PER SPOKANE COUNTY WATER DISTRICT #3 REQUIREMENTS.
5. DISTANCES FROM MAIN TO HYDRANT IN EXCESS OF ONE LENGTH OF PIPE SHALL BE MADE UTILIZING FIELD LOCK GASKETS AND PIPE AS MANUFACTURED BY U.S. PIPE OR APPROVED EQUAL.
6. MJ ACCESSORIES FOR VALVE AND HYDRANT SHALL BE ROMAC GRIP RINGS.
7. MINIMUM 5 FEET BURY ON HYDRANT.
8. PRECAST THRUST BLOCKS NEED 95% COMPACTION BETWEEN THRUST BLOCK & UNDISTURBED EARTH.
9. FIRE HYDRANTS NOT PLACED WITHIN PUBLIC RIGHT OF WAY SHALL BE CONSIDERED PRIVATE AND MUST BE EQUIPPED WITH BACKFLOW PREVENTION.
10. PUBLIC FIRE HYDRANTS ARE TO BE PAINTED YELLOW (AS PER LOCAL FIRE DISTRICT SPECIFICATIONS). PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
11. THE ISOLATION VALVE FOR THE FIRE HYDRANT MUST BE A MINIMUM OF 4 FEET FROM THE FLANGE OF THE HYDRANT BASE.
12. CENTER LINE OF FIRE HYDRANT MUST BE A MINIMUM OF 2 FEET BEHIND THE CURB OR SIDEWALK.
13. FIRE HYDRANTS MUST BE BURIED TO MINIMUM BURY LINE AND GRADED OUT 10 HORIZONTAL FEET IN ALL DIRECTIONS OF THE BARREL, WHERE APPLICABLE.

6" FIRE HYDRANT DETAIL

NO SCALE



STANDARD DETAIL	
6" FIRE HYDRANT	
REVISION:	3
DETAIL:	H1



NOTES

1. TELESCOPING VALVE BOX AND LID SHALL BE TYLER HEAVY DUTY DOMESTIC MODEL 6855 ONLY.
2. VALVE SIZES AND ENDS AS SPECIFIED OR INDICATED ON PLAN AND OR DETAIL SHEETS.
3. PROVIDE EXTENSION PIECE WHERE REQUIRED FOR VALVE BOX.
4. TRACER WIRE IS TO BE INSTALLED SO IT IS OUTSIDE OF THE LOWER SECTIONS OF THE VALVE BOX, AND INSIDE THE UPPER SECTION AS SHOWN.
5. VALVES LOCATED OUTSIDE OF PAVEMENT AREAS SHALL BE ENCOMPASSED WITH A 2'x2'x4" CONCRETE PAD, SET TO FINISH GRADE. EVERY VALVE OUTSIDE OF TRAFFIC LANES SHALL BE EQUIPPED WITH A 4" BLUE CARSONITE FIBERGLASS POST WITH DECAL "WATER VALVE".

WATER MAIN GATE VALVE DETAIL

NO SCALE

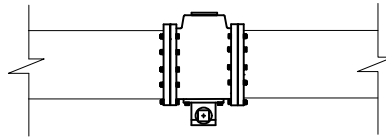


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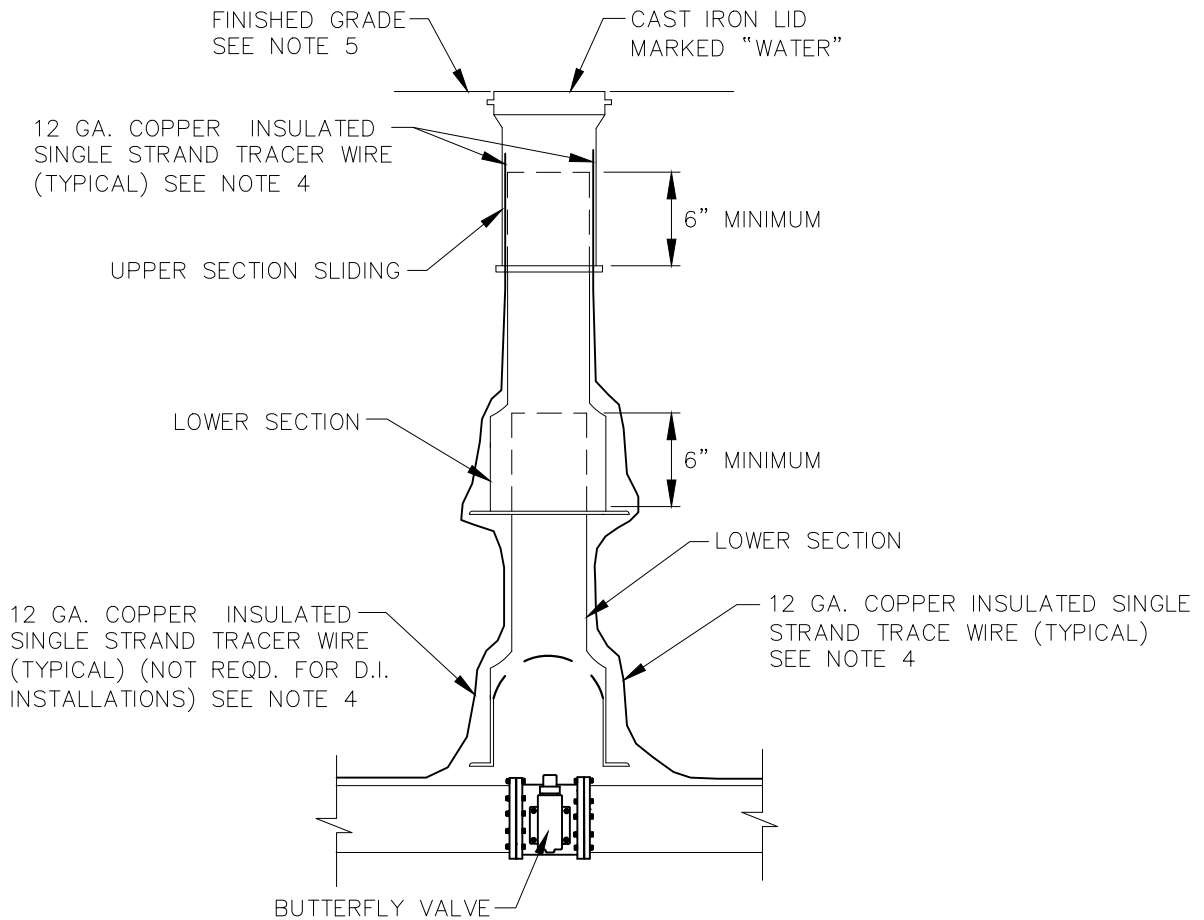
WATER MAIN GATE VALVE

REVISION: 1 DETAIL:

V1



PLAN



SECTION

NOTES

1. TELESCOPING VALVE BOX AND LID SHALL BE TYLER HEAVY DUTY DOMESTIC MODEL 6855 ONLY.
2. VALVE SIZES AND ENDS AS SPECIFIED OR INDICATED ON PLAN AND OR DETAIL SHEETS.
3. EACH BUTTERFLY VALVE REQUIRES TWO LOWER VALVE BOX SECTIONS AND ONE UPPER VALVE BOX SECTION.
4. TRACER WIRE IS TO BE INSTALLED SO IT IS OUTSIDE OF THE LOWER SECTIONS OF THE VALVE BOX, AND INSIDE THE UPPER SECTION AS SHOWN.
5. VALVES LOCATED OUTSIDE OF PAVEMENT AREAS SHALL BE ENCOMPASSED WITH A 2'x2'x4" CONCRETE PAD, SET TO FINISH GRADE. EVERY VALVE OUTSIDE OF TRAFFIC LANES SHALL BE EQUIPPED WITH A 4" BLUE CARSONITE FIBERGLASS POST WITH DECAL "WATER VALVE"

BUTTERFLY VALVE DETAIL

NO SCALE

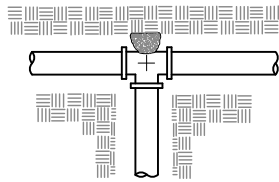


STANDARD DETAIL

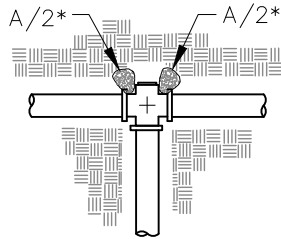
WATER MAIN BUTTERFLY VALVE

REVISION: 1 DETAIL:

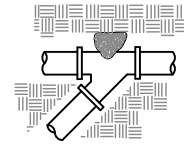
V2



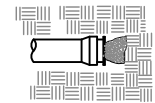
TEE



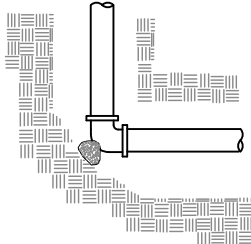
PLUGGED CROSS*



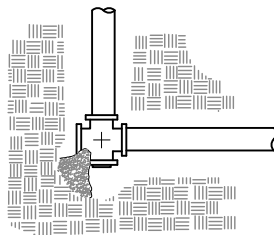
WYE



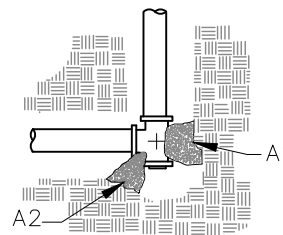
1/4" PLYWOOD
OVER FACE OF
BOLTS



BEND

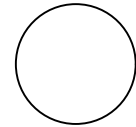


PLUGGED CROSS



PLUGGED TEE

* EACH AREA
(A/2) IS 1/2 OF
TABULATED
TOTAL AREA

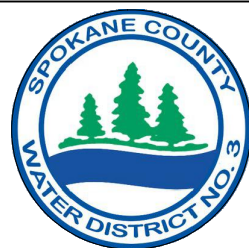


NOTES

1. KEEP CONCRETE CLEAR OF JOINT AND JOINT ACCESSORIES.
2. NO POUR IN PLACE BLOCKING, ONLY PRECAST.
3. REQUIRED VOLUMES OR BEARING AREAS AT FITTING SHALL BE AS INDICATED BELOW, ADJUSTED, IF NECESSARY, TO CONFORM TO THE TEST PRESSURE(S) AND ALLOWABLE BEARING STRESS(ES) STATED IN THE SPECIFICATIONS.
4. BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 150 PSIG AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS/SQ FT. TO COMPUTE BEARING AREAS FOR DIFFERENT TEST PRESSURES AND SOIL BEARING STRESSES, MULTIPLY TABLE VALUES BY THE FACTOR $(13.33)(P'/S'b)$, WHERE: P' =ACTUAL TEST PRESSURE, PSIG $S'b$ =ACTUAL SOIL BEARING PRESSURE, PSF.
5. THRUST BLOCKS FOR VERTICAL BENDS HAVING DOWNWARD RESULTANT THRUSTS SHALL BE THE SAME AS FOR HORIZONTAL BENDS.
6. BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
7. BEARING AREA OF THRUST BLOCK SHALL NOT BE LESS THAN 1.0 SQ FT.
8. VERTICAL BENDS THAT REQUIRE A THRUST BLOCK VOLUME EXCEEDING 5 CUBIC YARDS REQUIRE SPECIAL BLOCKING DETAILS. SEE PLANS FOR VOLUMES SHOWN TO LEFT OF SOLID LINE IN TABLE.
9. TEST PRESSURES ARE DESCRIBED IN THE NOTES.
10. CONSULT SOIL ENGINEER FOR ACTUAL SOIL BEARING PRESSURE.

BEARING AREA OF THRUST BLOCKS IN SQ. FT. (HORIZONTAL BENDS)							
FITTING SIZE	TEE, WYE, PLUG, OR CAP	90 BEND PLUGGED CROSS	TEE PLUGGED RUN		BEND ANGLE		
			A1	A2	45	22.5	11.25
4	1.0	1.4	1.9	1.4	1.0	-	-
6	2.1	3.0	4.3	3.0	1.6	1.0	-
8	3.8	5.3	7.6	5.4	2.9	1.5	1.0
10	5.9	8.4	11.8	8.4	4.6	2.4	1.2
12	8.5	12.0	17.0	12.0	6.6	3.4	1.7
14	11.5	16.3	23.0	16.3	8.9	4.6	2.3
16	15.0	21.3	30.0	21.3	11.6	6.0	3.0
18	19.0	27.0	38.0	27.0	14.6	7.6	3.8
24	34.0	48.0	68.0	48.0	26.2	13.6	6.8

THRUST BLOCK DETAIL



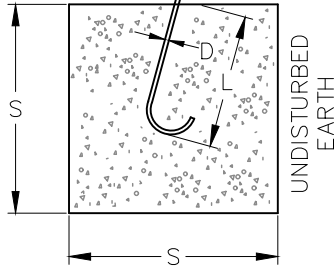
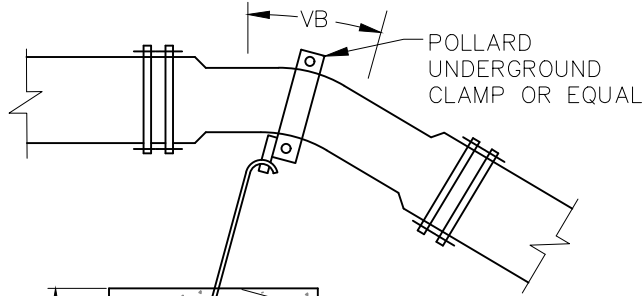
STANDARD DETAIL

THRUST BLOCK

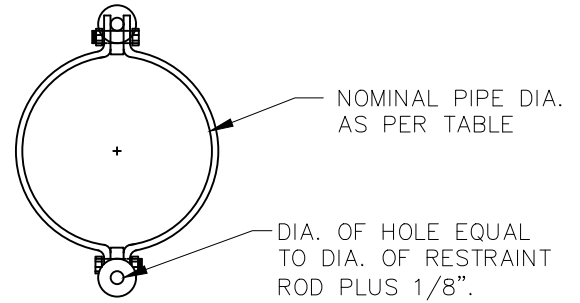
REVISION:

DETAIL:

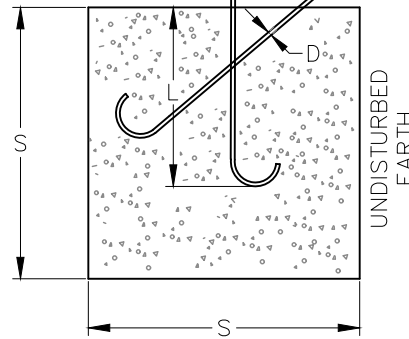
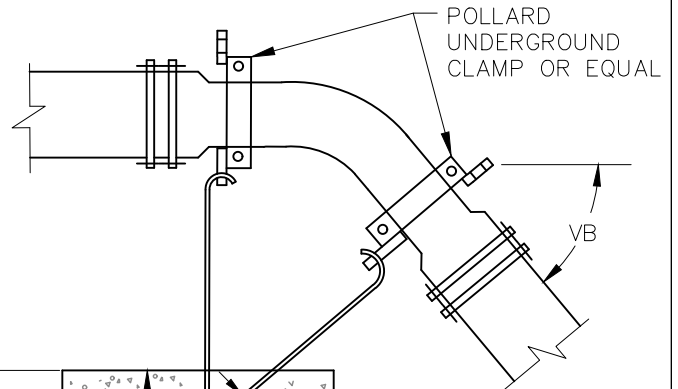
T1



TYPE "A" BLOCKING
FOR VERTICAL BENDS
OF 30° OR LESS



POLLARD UNDERGROUND CLAMP



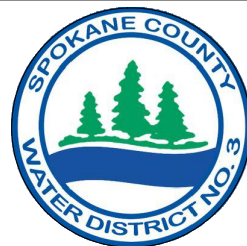
TYPE "B" BLOCKING
FOR 45° VERTICAL
BENDS

TYPE "A" BLOCKING FOR 11"-22"-30" VERTICAL BENDS				
DIA.	VB	S	d	L
6	11 1/4	2.2'	5/8"	2.0'
	22 1/2	2.9'		
	30	3.5'		
8	11 1/4	2.5'	5/8"	2.0'
	22 1/2	3.8'		
	30	4.1'		
12"	11 1/4	3.2'	5/8"	2.0'
	22 1/2	4.5'		
	30	5.1'		
16"	11 1/4	4.1'	7/8"	3.0'
	22 1/2	5.7'		
	30	6.5'		
20"	11 1/4	4.5'	7/8"	3.0'
	22 1/2	6.1'		
	30"	6.9'		
24"	11 1/4	5.0'	1"	3.5'
	22 1/2	8.8'		
	30	7.9'		

TYPE "B" BLOCKING FOR 45 DEGREE VERTICAL BENDS				
DIA.	VB	S	d	L
6"	45°	4.1'	5/8"	2.0'
8"		5.0'		
12"		6.1'	3/4"	2.5'
18"		7.8'	1 1/8"	4.0'
20"		8.2'	1 1/4"	
24"		9.4'	1 3/8"	4.5'

150 PSI - VERTICAL THRUST BLOCK DETAIL

NO SCALE



STANDARD DETAIL

VERTICAL THRUST BLOCK

REVISION:

DETAIL:

T2

FITTING TYPE	NUMBER OF 18-FT PIPE LENGTHS FULLY RESTRAINED x D.I. REQUIRED IN EACH DIRECTION:					
	6" DI MAIN	8" DI MAIN	10" DI MAIN	12" DI MAIN	18" DI MAIN	24" DI MAIN
DEAD END, TEE, CROSS, VALVE	3	4	5	6	8	10
90° BEND	2	2	2	3	4	4
45° BEND	1	1	1	1	2	2
22.5° BEND	1	1	1	1	1	1
11.25° BEND	1	1	1	1	1	1

NOTES:

DI STATIC PRESSURE = 50 PSI

DI TEST PRESSURE = 180 PSI (200 PSI USED FOR CALCS)

TABLE WAS DEVELOPED USING EBAA IRON RESTRAINT LENGTH CALCULATOR

(VERSION 5.0.2 WITH THE FOLLOWING ASSUMPTIONS:

SF = 2.5, SOIL TYPE = GM, TRENCH TYPE = 5, DEPTH = 5 FEET

TEE RESTRAINT LENGTH IS FOR BRANCH RESTRAINT LENGTH ONLY. CALCULATED LENGTHS DO NOT ACCOUNT FOR POLYETHYLENE ENCASEMENT, CONTACT DISTRICT IF ENCASEMENT IS REQUIRED.

DUCTILE IRON PIPE RESTRAINT TABLE

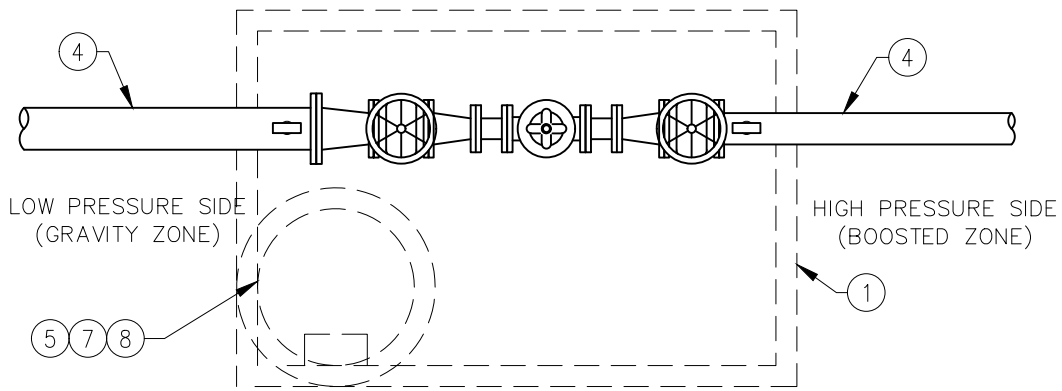


STANDARD DETAIL

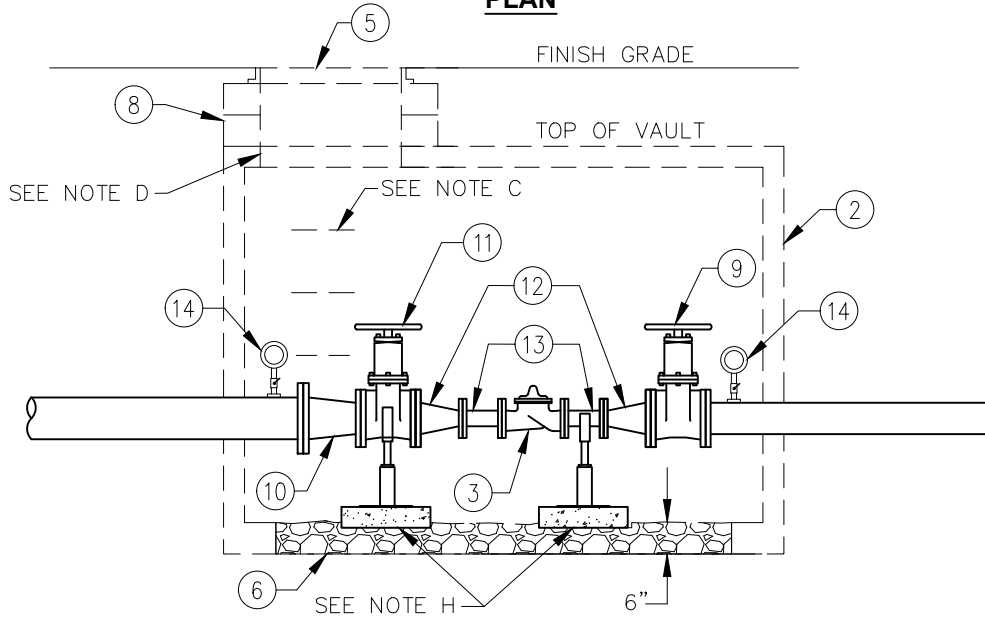
DUCTILE IRON PIPE RESTRAINT
TABLE

REVISION: 1 DETAIL:

T3



PLAN



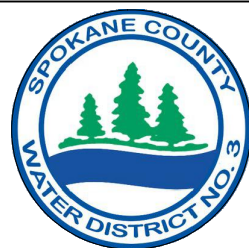
PROFILE

NOTES

- A. SEE V4B FOR PARTS LIST.
- B. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH SCWD #3.
- C. MINIMUM 12 INCHES CLEARANCE MUST BE MAINTAINED AROUND THE PRV AND THE INSIDE OF THE VAULT.
- D. LADDER RUNGS PER SCWD #3 STANDARDS 12" APART SO AS NOT TO INTERFERE WITH VAULT OPENING.
- E. CONTRACTOR TO ENSURE THAT ACCESS SHALL PROVIDE A CLEAR OPENING LARGE ENOUGH TO REMOVE THE LARGEST UNIT IN THE VAULT.
- F. A 6" MINIMUM CLEARANCE MUST BE MAINTAINED FROM THE INSIDE FACE OF THE VAULT TO ANY FITTING, ENTERING OR LEAVING THE VAULT.
- G. VAULTS LOCATED IN DRIVEWAYS OR PARKING AREAS MUST BE TRAFFIC RATED AND HAVE A MINIMUM LOAD RATING OF 16,000 P.S.I.
- H. VAULT AND VALVE INSTALLATION MUST BE INSPECTED BY SCWD #3 FIELD SUPERVISOR, AND PASS INSPECTION BEFORE SERVICE WILL BE TURNED ON.
- I. INSTALL PIPE SUPPORT JACKS ONE AT EACH END OF THE PRV TO PROPERLY SUPPORT IT AND ALLOW FOR INSTALLATION AND REMOVAL OF THE ASSEMBLY. (SEE PIPE SUPPORT DETAIL)

PRV VAULT DETAIL

NO SCALE



STANDARD DETAIL

PRV VAULT

REVISION: 1 DETAIL:

V3A

PRV VAULT - PARTS LIST

ITEM	DESCRIPTION
①	VAULT SIZED PER THE SELECTION SCHEDULE.
②	VAULT SIZED PER THE SELECTION SCHEDULE.
③	CLA-VAL PRESSURE REDUCING VALVE, MODEL 90G-01 BCSVYKC, TO BE SIZED APPROPRIATELY BASED ON APPLICATION.
④	CLASS 250 D.I. CEMENT LINED, FL X D.I. SPOOL. CONTRACTOR INSTALLED D.I. LINE WILL HAVE RESTRAINED JOINTS. MJ GRIP RING KIT AT GATE VALVE (ON MAIN) AND A FIELD LOCK GASKET AT EACH JOINT OF D.I. PIPE.
⑤	HEAVY DUTY RING 38" X 4" HIGH WITH LID (FOR ACCESS) CLEAR OPENING DIAMETER 30 INCHES. BY WILBERT VAULT OR APPROVED EQUAL.
⑥	1/2" TO 1" WASHED RIVER ROCK 6" IN DEPTH TYP.
⑦	30" DIAMETER ACCESS OPENING.
⑧	4" TO 12" (ALLOWABLE) RISER RINGS AS MANUFACTURED BY WILBERT VAULT.
⑨	FL x MJ RSGV WITH HAND WHEEL AND MJ ROMAC GRIP RING, TO BE SIZED APPROPRIATELY BASED ON APPLICATION.
⑩	MJ x FL REDUCER WITH MJ ROMAC GRIP RING, TO BE SIZED APPROPRIATELY BASED ON APPLICATION.
⑪	FL RSGV WITH HAND WHEEL, TO BE SIZED APPROPRIATELY BASED ON APPLICATION.
⑫	FL x FL REDUCER, TO BE SIZED APPROPRIATELY BASED ON APPLICATION.
⑬	FL D.I. SPOOL, TO BE SIZED APPROPRIATELY BASED ON APPLICATION.
⑭	PRESSURE GAUGES AND FITTINGS TO BE SIZED APPROPRIATELY BASED ON APPLICATION.

VAULT SELECTION SCHEDULE	
6" WALLED VAULTS W/OPEN BOTTOMS	
VAULT SIZE	PRV SIZE
6'Wx8'Lx6'-6"H	3", 4", 6"
6'Wx12'Lx6'-6"H	8", 10"

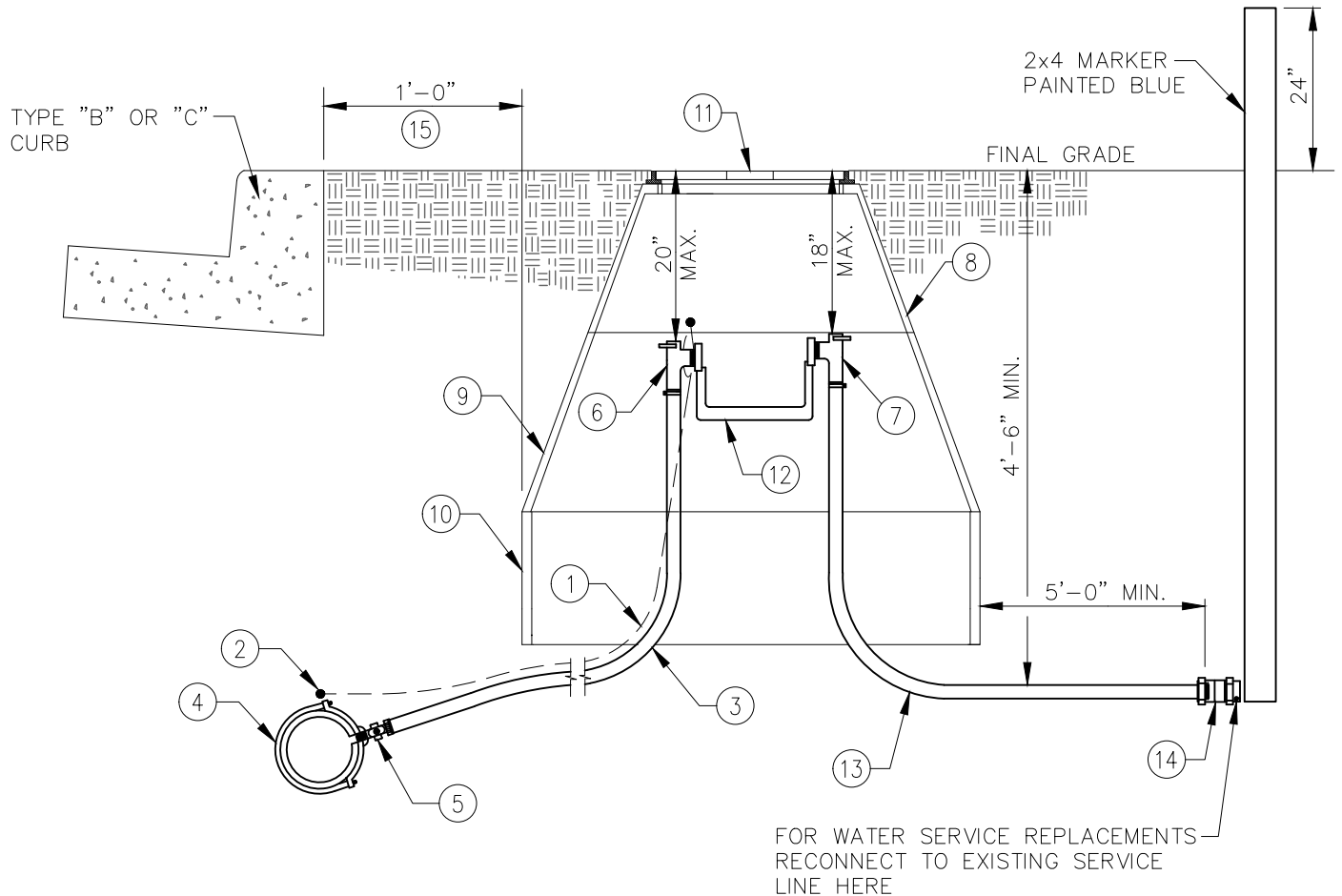


STANDARD DETAIL

**PRV VAULT
PARTS LIST**

REVISION: 1 DETAIL:

V3B

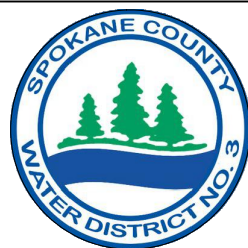


NOTES

1. SEE M1B FOR PARTS LIST.
2. FOR WATER SERVICE REPLACEMENTS, DISTRICT TO PROVIDE AND INSTALL METER. CONTRACTOR SHALL COORDINATE WORK WITH DISTRICT.
3. NO SPLICES ARE ALLOWED IN SERVICE LINES BETWEEN THE WATER MAIN AND THE WATER METER BOX/VAULT.
4. A 24" MINIMUM DISTANCE BETWEEN TAPS ON MAINS MUST BE MAINTAINED FOR PVC AND AC PIPE TAPS MUST BE OFFSET FROM EACH OTHER.
5. THE 1" TYPE "K" COPPER OUTLET PIPE MUST EXTEND A MINIMUM OF 4'-8" FROM THE OUTSIDE EDGE OF THE METER BOX AS SHOWN IN THE DETAIL.
6. A STAINLESS STEEL INSERT MUST BE INSERTED INTO THE END OF ANY POLYETHYLENE PIPE USED WHEN MAKING ANY CONNECTION WITH ANY FITTING COUPLING OR CORP/METER STOP.

1" WATER SERVICE DETAIL

NO SCALE



STANDARD DETAIL

1" WATER SERVICE

REVISION: 1 DETAIL:

M1A

1" WATER SERVICE - PARTS LIST

ITEM	DESCRIPTION
①	1" I.P.S. POLYETHYLENE PIPE – 200 PSI WITH 12GA. INSULATED TRACER WIRE THE TRACER WIRE MUST BE ATTACHED (WITH GROUND CLAMP AND PROTECTIVE COATING SCWD #3 APPROVED) AND OR WRAPPED AROUND THE 1" P.E. SERVICE LINE AT A MINIMUM OF 2' INTERVALS, IN ADDITION A DIRECT CONNECTION MUST BE MADE AT THE SERVICE SADDLE AND AT THE YOKE.
②	THE WATER SERVICE TRACER WIRE MUST ALSO BE PHYSICALLY CONNECTED TO THE WATER MAIN TRACER WIRE (IF PRESENT) WITH A GROUND CLAMP AND PROTECTIVE COATING APPROVED BY SCWD #3.
③	1" COPPER WATER SERVICE TUBING TYPE "K" ONLY, MAY BE SUBSTITUTED FOR 1" P.E. POLY 200 P.S.I. WITH 12 GA. INSULATED TRACER WIRE.
④	1" NYLON COATED SERVICE SADDLE WITH STAINLESS STEEL DOUBLE STRAPS ROMAC 202N.
⑤	1" FORD BALLCORP FB 1101-4 MIP X PE PJ.
⑥	1" BA96-444WQ PJ FORD ANGLE YOKE IPS P.E. P.J. (ANGLE METER STOP).
⑦	1" BA94-444WQ C.T.S. PJ FORD ANGLE YOKE VALVE.
⑧	UPPER METER CONE 19"x15" BY WHITE BLOCK COMPANY.
⑨	LOWER METER CONE 26.5"x11" BY WHITE BLOCK COMPANY.
⑩	RISER RING 32"x9" HIGH BY WHITE BLOCK COMPANY.
⑪	TRAFFIC RATED METER LID #2012 BY EAST JORDAN IRON WORKS.
⑫	Y504 YOKE (FORD).
⑬	1" COPPER TUBING (TYPE K) [OUTLET PIPE] NOTE: OUTLET PIPE MUST EXTEND A MINIMUM OF 5' BEYOND THE OUTSIDE EDGE OF THE CONCRETE RISER RING.
⑭	1-1" FORD CTS X APPROPRIATE SIZE & PIPING MATERIAL COMPRESSION FITTING.
⑮	RISER RING ⑩ SHALL BE PLACED 1'-0" FROM BACK OF CURB OR SIDEWALK.



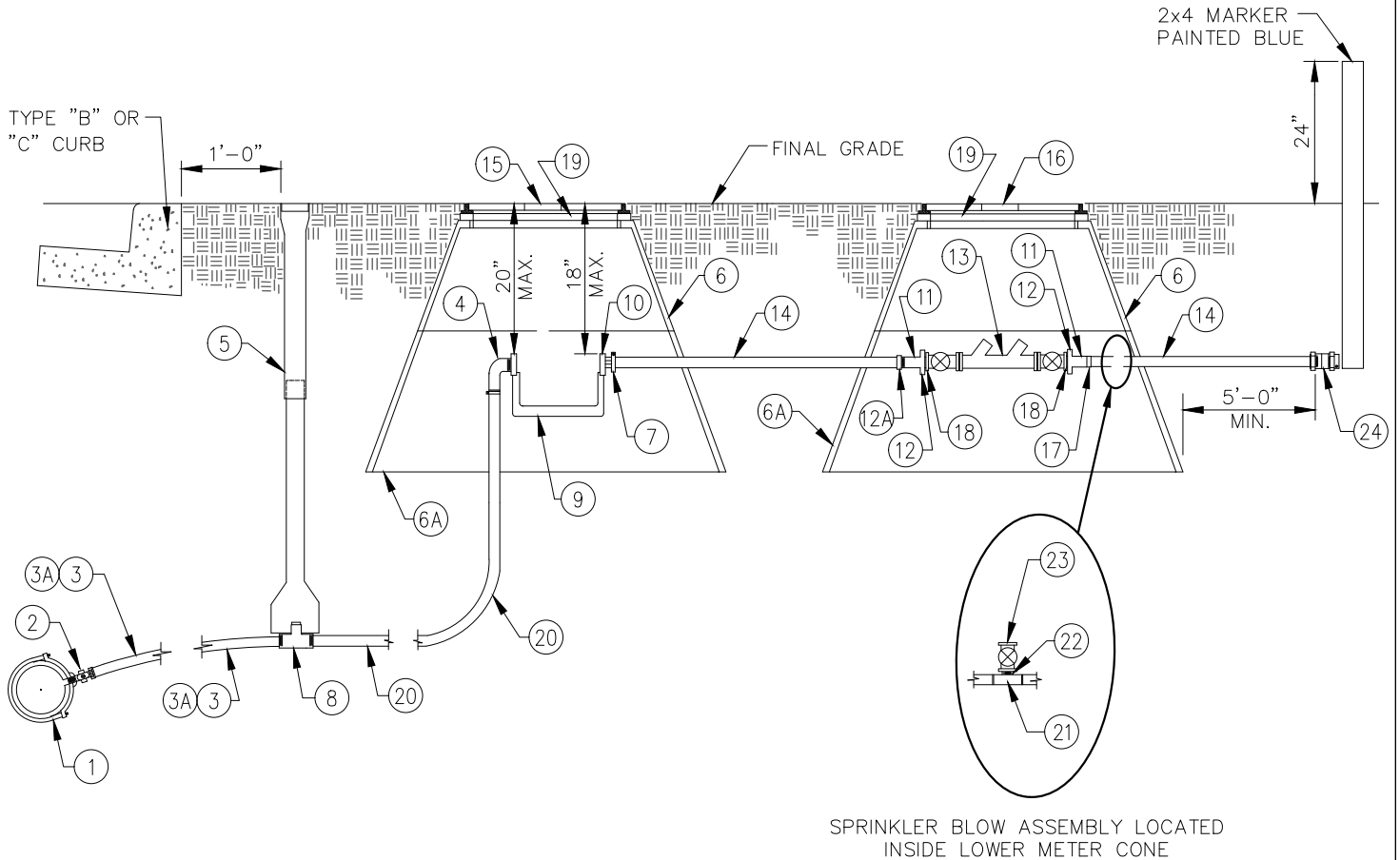
STANDARD DETAIL

1" WATER SERVICE
PARTS LIST

REVISION:

DETAIL:

M1B



NOTES

- A. SEE M2B FOR PARTS LIST.
- B. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE S.C.W.D. #3.
- C. NO SPLICES ARE ALLOWED IN SERVICE LINES BETWEEN THE WATER MAIN AND THE WATER METER BOX/VAULT.
- D. A 24" MINIMUM DISTANCE BETWEEN TAPS ON MAINS MUST BE MAINTAINED FOR PVC AND AC PIPE TAPS MUST BE OFFSET FROM EACH OTHER.
- E. THE BACKFLOW DEVICE ASSEMBLY SHALL INCLUDE BALL VALVES.
- F. A STAINLESS STEEL INSERT MUST BE INSERTED INTO THE END OF ANY POLYETHYLENE PIPE USED WHEN MAKING ANY CONNECTION WITH ANY FITTING COUPLING OR CORP/METER STOP.

1" IRRIGATION WATER SERVICE

NO SCALE



STANDARD DETAIL

1" IRRIGATION WATER SERVICE

REVISION: 1 DETAIL:

M2A

1" IRRIGATION WATER SERVICE WITH BACKFLOW PREVENTION PARTS LIST

ITEM	DESCRIPTION
①	1" x MAIN SIZE NYLON COATED SERVICE SADDLE WITH STAINLESS STEEL DOUBLE STRAPS.
②	1" FORD BALL CORP FB 1101-4 MIP x PE PJ
③	1" I.P.S. POLYETHYLENE-200 PSI WITH 12GA. INSULATED TRACER WIRE. THE TRACER WIRE MUST BE ATTACHED AND OR WRAPPED AROUND THE 1" P.E. SERVICE LINE AT A MINIMUM OF 2' INTERVALS, IN ADDITION A DIRECT CONNECTION MUST BE MADE AT THE SERVICE SADDLE AND AT THE YOKE.
③A	1" TYPE K COPPER WATER SERVICE TUBING MAY BE SUBSTITUTED FOR 200psi 1" P.E. PIPE WITH 12 GA. INSULATED TRACER WIRE.
④	1" ANGLE YOKE ADAPTOR L91-44 WITH A 1" MIP X CTS 1" C86-44Q FORD COUPLING
⑤	COMPLETE VALVE BOX (TYLER HEAVY DUTY DOMESTIC MODEL 6855 ONLY)
⑥	UPPER METER CONE 19" x 15" BY WHITE BLOCK OR APPROVED EQUAL.
⑥A	LOWER METER CONE 26.5' x 11" BY WHITE BLOCK OR APPROVED EQUAL.
⑦	1" MIP x CTS ADAPTOR C84-44 FORD
⑧	1" STOP & WASTE VALVE FORD B44-444 SW PJ X PJ FOR TYPE "K" (CTS) COPPER TUBE SIZE PIPE. IF 200 PSI POLYETHYLENE PIPE IS USED (IPS) FORD B11-444 ADAPTORS WILL BE ATTACHED TO THE STOP & WASTE VALVE
⑨	1" 504 FORD YOKE
⑩	1" STRAIGHT YOKE ADAPTOR C91-44 FORD
⑪	1" x 3" BRASS NIPPLE
⑫	STRAIGHT METER CPLG. A-24
⑫A	1" CTS x FIP ADAPTOR C14-44 FORD
⑬	BACKFLOW PREVENTION ASSEMBLY, FEBCO 850 OR APPROVED EQUAL
⑭	1" TYPE "K" COPPER
⑮	METER LID #3612Z, 3612E1, AND 3612A (WHITE BLOCK/EAST JORDAN IRON WORKS) LABELED WATER
⑯	METER LID #3612Z, 3612E1, AND 3612A (WHITE BLOCK/EAST JORDAN IRON WORKS)
⑰	1" MIP x CTS COUPLING
⑱	STRAIGHT METER ADAPTOR FORD C38-44-2
⑲	2.5" CONCRETE RISER RING
⑳	1" TYPE K COPPER TUBING ONLY
㉑	1" x 3/4" BRASS TEE.
㉒	3/4" CLOSE NIPPLE
㉓	RAINBIRD QUICK-COUPLING VALVE 3/4" RC
㉔	1-1" FORD CTS X APPROPRIATE SIZE & PIPING MATERIAL COMPRESSION FITTING.

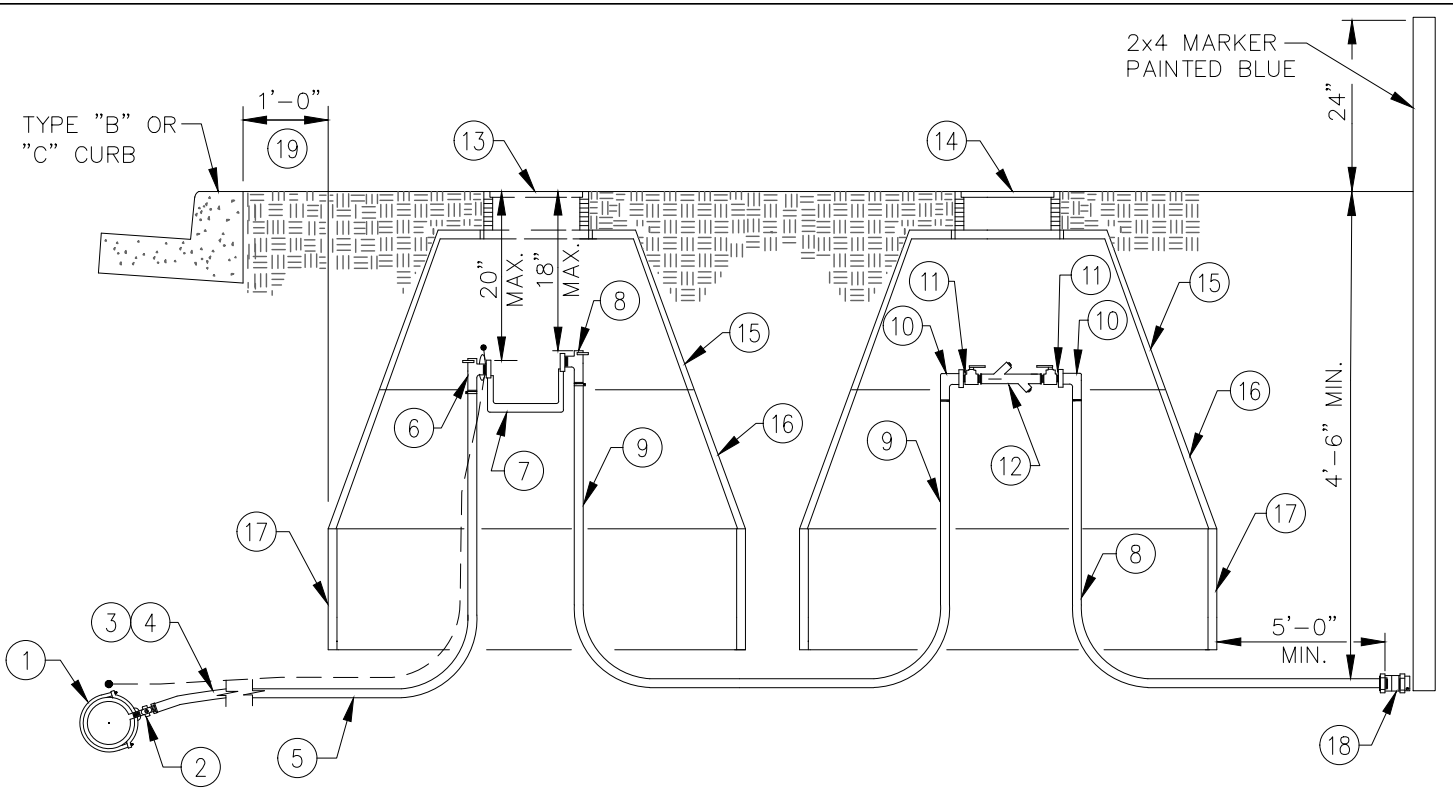


STANDARD DETAIL

**1" IRRIGATION WATER SERVICE
PARTS LIST**

REVISION: 2 DETAIL:

M2B

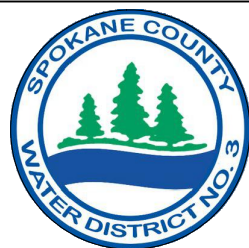


NOTES

- A. SEE M3B FOR PARTS LIST.
- B. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH S.C.W.D. #3.
- C. MIN. 6" SEPARATION BETWEEN FITTINGS AND INSIDE WALL OF VAULT.
- D. LADDER RUNGS PER SPOKANE COUNTY WATER DISTRICT #3 STANDARDS 1' APART.
- E. A STAINLESS STEEL INSERT MUST BE INSERTED INTO THE END OF ANY POLYETHYLENE PIPE USED WHEN MAKING ANY CONNECTION WITH ANY FITTING COUPLING OR CORP/METER STOP.
- F. THE BACKFLOW DEVICE ASSEMBLY SHALL INCLUDE BALL VALVES.
- G. NO SPLICES ARE ALLOWED IN SERVICE LINES BETWEEN THE WATER MAIN AND THE WATER METER BOX/VAULT.
- H. A 24" MINIMUM DISTANCE BETWEEN TAPS ON MAINS MUST BE MAINTAINED FOR PVC & AC PIPE. TAPS MUST BE OFFSET FROM EACH OTHER.
- I. FOR WATER SERVICE REPLACEMENTS, DISTRICT TO PROVIDE AND INSTALL METER. CONTRACTOR SHALL COORDINATE WORK WITH DISTRICT.

1" COMMERCIAL WATER SERVICE

NO SCALE



STANDARD DETAIL

1" COMMERCIAL WATER SERVICE

REVISION: 1 DETAIL:

M3A

1" COMMERCIAL WATER SERVICE - PARTS LIST

ITEM	DESCRIPTION
①	1" x MAIN SIZE NYLON COATED SERVICE SADDLE WITH STAINLESS STEEL DOUBLE STRAPS.
②	1" FORD BALL CORP FB 1101-4 MIP X PE PJ.
③	1" I.P.S. POLYETHYLENE-200 PSI WITH 12GA. INSULATED TRACER WIRE. THE TRACER WIRE MUST BE ATTACHED AND OR WRAPPED AROUND THE 1" P.E. SERVICE LINE AT A MINIMUM OF 2' INTERVALS, IN ADDITION A DIRECT CONNECTION MUST BE MADE AT THE SERVICE SADDLE AND AT THE YOKE.
④	1" TYPE K COPPER WATER SERVICE TUBING MAY BE SUBSTITUTED FOR 200psi 1" P.E. WITH TRACER WIRE.
⑤	1" P.E. PIPE
⑥	1" BA96-444WQ PJ FORD ANGLE YOKE IPS P.E. P.J. (ANGLE METER STOP)
⑦	Y 504 YOKE FORD
⑧	1" BA94-444WQ C.T.S. PJ FORD ANGLE YOKE
⑨	1" TYPE "K" COPPER (OUTLET PIPE) <u>NOTE:</u> OUTLET PIPE MUST EXTEND A MINIMUM OF 5' BEYOND THE OUTSIDE EDGE OF #16 THE 32"x 9" CONCRETE RISER RING.
⑩	1" ELBOW COUPLING L14-44-Q PJ X FIP FORD
⑪	1" x 3" BRASS NIPPLE
⑫	BACKFLOW PREVENTION ASSEMBLY, FEBCO 850 OR APPROVED EQUAL.
⑬	RING COVER & INSERT #3612Z, 3612E1, AND 3612A (WHITE BLOCK/EAST JORDAN IRON WORKS) LABELED WATER
⑭	RING COVER & INSERT #3612Z, 3612E1, AND 3612A (WHITE BLOCK/EAST JORDAN IRON WORKS) BLANK
⑮	UPPER METER CONE 19" x 15" BY WHITE BLOCK
⑯	LOWER METER CONE 26.5" x 11" BY WHITE BLOCK
⑰	RISER RING 32" x 9" HIGH BY WHITE BLOCK
⑱	1-2" FORD CTS X APPROPRIATE SIZE & PIPING MATERIAL COMPRESSION FITTING.
⑲	RISER RING ⑰ SHALL BE PLACED 1'-0" FROM BACK OF CURB OR SIDEWALK.

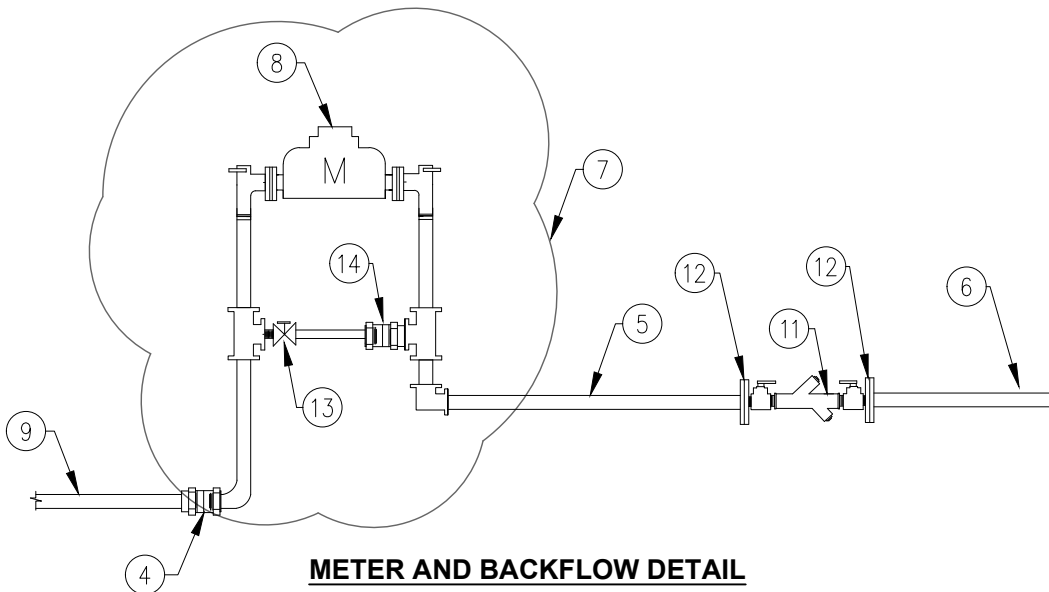


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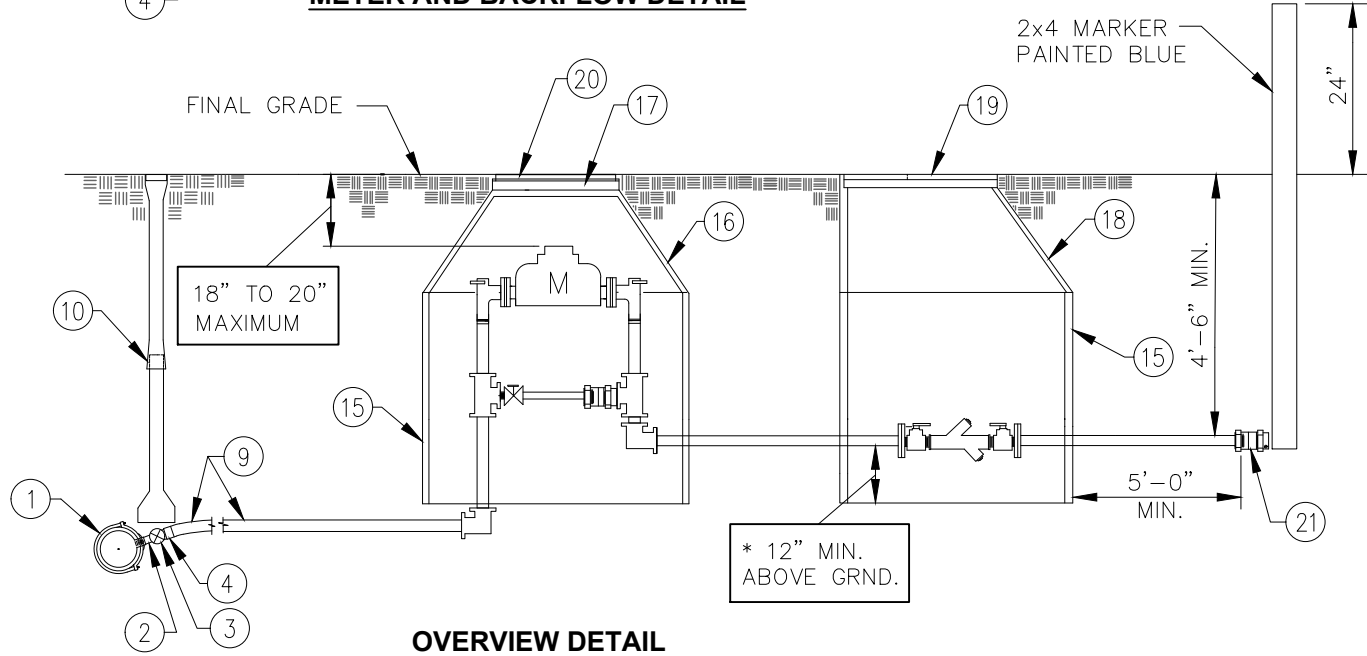
**1" COMMERCIAL WATER SERVICE
PARTS LIST**

REVISION: 1 DETAIL:

M3B



METER AND BACKFLOW DETAIL



OVERVIEW DETAIL

NOTES

- A. SEE M4B FOR PARTS LIST.
- B. THE MAXIMUM DISTANCE FROM THE BOTTOM OF THE METER LID TO THE TOP OF THE ANGLE METER STOP SHALL BE 20".
- C. THE BACKFLOW DEVICE ASSEMBLY SHALL INCLUDE BALL VALVES.
- D. NO SPLICES ARE ALLOWED IN SERVICE LINES BETWEEN THE WATER MAIN AND THE WATER METER BOX/VAULT.

2" COMMERCIAL WATER SERVICE

NO SCALE



STANDARD DETAIL	
2" COMMERCIAL WATER SERVICE	
REVISION:	1
DETAIL:	M4A

2" COMMERCIAL WATER SERVICE - PARTS LIST

ITEM	DESCRIPTION
①	2" x MAIN SIZE NYLON COATED SERVICE SADDLE WITH STAINLESS STEEL DOUBLE STRAPS BY ROMAC MODEL 202N.
①A	A STAINLESS STEEL INSERT MUST BE INSERTED INTO THE END OF ANY POLYETHYLENE PIPE USED WHEN MAKING ANY CONNECTION WITH ANY FITTING COUPLING OR CORP/METER STOP.
②	2" x 2.5" BRASS NIPPLE
③	2" R.S. GATE VALVE THREADED
④	2" MIP x 2" PE PACK JOINT
⑤	2" x 36" BRASS NIPPLE
⑥	2" x 24" BRASS NIPPLE
⑦	2" x 36" COPPER RESETTER
⑧	2" METER STRAIGHT READ (OVAL FLANGES)
⑨	2" IPS POLYETHENE PIPE 200 P.S.I.
⑩	VALVE BOX SET (TYLER HEAVY DUTY DOMESTIC ONLY)
⑪	2" WILKINS 950XLT BACKFLOW PREVENTION DEVICE, OR APPROVED EQUAL
⑫	2" MALE x THREADED OVAL METER FLANGE BOLTED TO A FEMALE X THREADED OVAL METER FLANGE WITH A GASKET BETWEEN THE TWO.
⑬	1" CURB STOP WITH LOCK WINGS
⑭	1" PACK JOINT
⑮	3'-0" HIGH x 48" DIAMETER MANHOLE BARREL
⑯	24" HIGH x 48" OPENING CONCENTRIC DRYWELL CONE
⑰	4" CONCRETE RISER RING 36" DIA. WITH 24" DIA. OPENING
⑱	24" HIGH 48" DIAMETER ECCENTRIC CONE
⑲	32" x 4" CAST IRON LID & RING
⑳	#3612Z, 3612E1, AND 3612A CAST IRON LID & RING (WHITE BLOCK/EAST JORDAN IRON WORKS)
㉑	1-2" FORD CTS X APPROPRIATE SIZE & PIPING MATERIAL COMPRESSION FITTING.

NOTE: ITEMS 15 THRU 19 ARE BY WHITE BLOCK.



STANDARD DETAIL

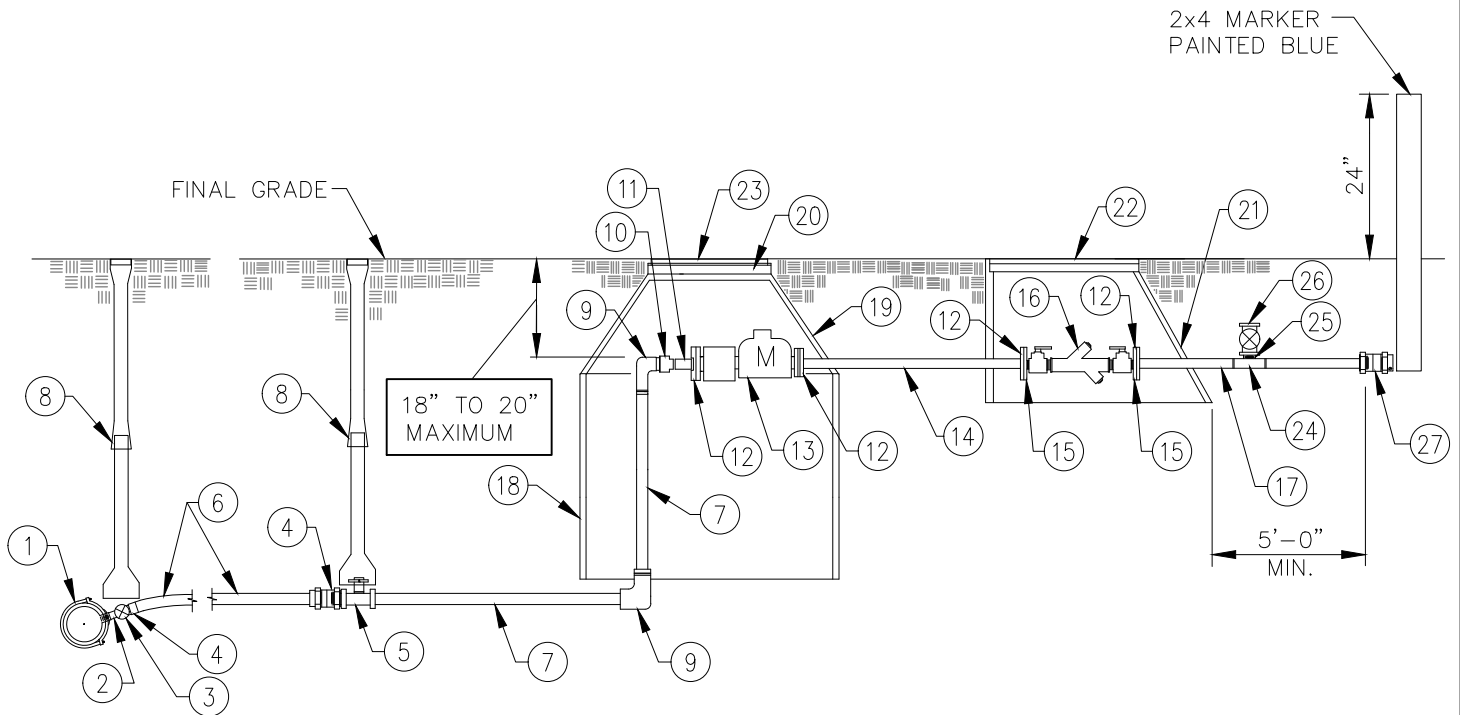
**2" COMMERCIAL WATER SERVICE
PARTS LIST**

REVISION:

2

DETAIL:

M4B



NOTES

- A. SEE M5B FOR PARTS LIST.
- B. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE S.C.W.D. #3.
- C. NO SPLICES ARE ALLOWED IN SERVICE LINES BETWEEN THE WATER MAIN AND THE WATER METER BOX/VAULT.
- D. FROM FINAL GRADE TO THE TOP OF THE ELBOW AT THE METER FLANGE THE DISTANCE SHALL BE 18" TO 20".
- E. THE BACKFLOW DEVICE ASSEMBLY SHALL INCLUDE BALL VALVES.
- F. A STAINLESS STEEL INSERT MUST BE INSERTED INTO THE END OF ANY POLYETHYLENE PIPE USED WHEN MAKING ANY CONNECTION WITH ANY FITTING COUPLING OR CORP/METER STOP.

1.5" COMMERCIAL IRRIGATION WATER SERVICE

NO SCALE



STANDARD DETAIL

1.5" COMMERCIAL IRRIGATION
WATER SERVICE

REVISION: 1 DETAIL:

M5A

1.5" COMMERCIAL IRRIGATION WATER SERVICE - PARTS LIST

ITEM	DESCRIPTION
①	2" x MAIN SIZE NYLON COATED SERVICE SADDLE WITH STAINLESS STEEL DOUBLE STRAP BY ROMAC MODEL 202N
②	2" x 2.5" BRASS NIPPLE
③	2" R.S. GATE VALVE THREADED
④	2" MIP x 2" PE PJ ADAPTOR C86-77 FORD
⑤	2" STOP & WASTE VALVE B11-777SW FE IP x FE IP FORD
⑥	2" IPS POLYETHYLENE PIPE 200 P.S.I.
⑦	2" x 36" BRASS NIPPLE
⑧	VALVE BOX SET (TYLER HEAVY DUTY DOMESTIC ONLY)
⑨	2" BRASS 90° ELBOW FE x FE
⑩	2" x 1.5" BRASS BUSHING
⑪	1.5" x 3" BRASS NIPPLE
⑫	1.5" FEMALE FIP x THREADED OVAL METER FLANGE IPS ROMAC
⑬	1.5" TURBINE METER W/STRAINER STRAIGHT READ
⑭	1.5" x 36" BRASS PIPE
⑮	1.5" MALE MIP x METER FLANGE OVAL FORD
⑯	1.5" WILKINS 950XLT BACKFLOW PREVENTION DEVICE
⑰	1.5" x 24" BRASS PIPE
⑱	3'-0" HIGH x 48" DIAMETER MANHOLE BARREL
⑲	24" HIGH x 24" OPENING CONCENTRIC DRYWELL CONE
⑳	4" CONCRETE RISER RING 36" DIA. WITH 24" DIA. OPENING
㉑	36" HIGH 24" DIA. TOP OPENING ECCENTRIC CONE
㉒	32" x 4" CAST IRON LID & RING
㉓	#3612Z, 3612E1, AND 3612A CAST IRON LID & RING (WHITE BLOCK/EAST JORDAN IRON WORKS)
㉔	2" x 3/4" BRASS TEE.
㉕	3/4" CLOSE NIPPLE
㉖	RAINBIRD QUICK-COUPLING VALVE 3/4" RC
㉗	1-1.5" FORD CTS X APPROPRIATE SIZE & PIPING MATERIAL COMPRESSION FITTING.

NOTE: ITEMS 18 THRU 21 ARE BY WHITE BLOCK.

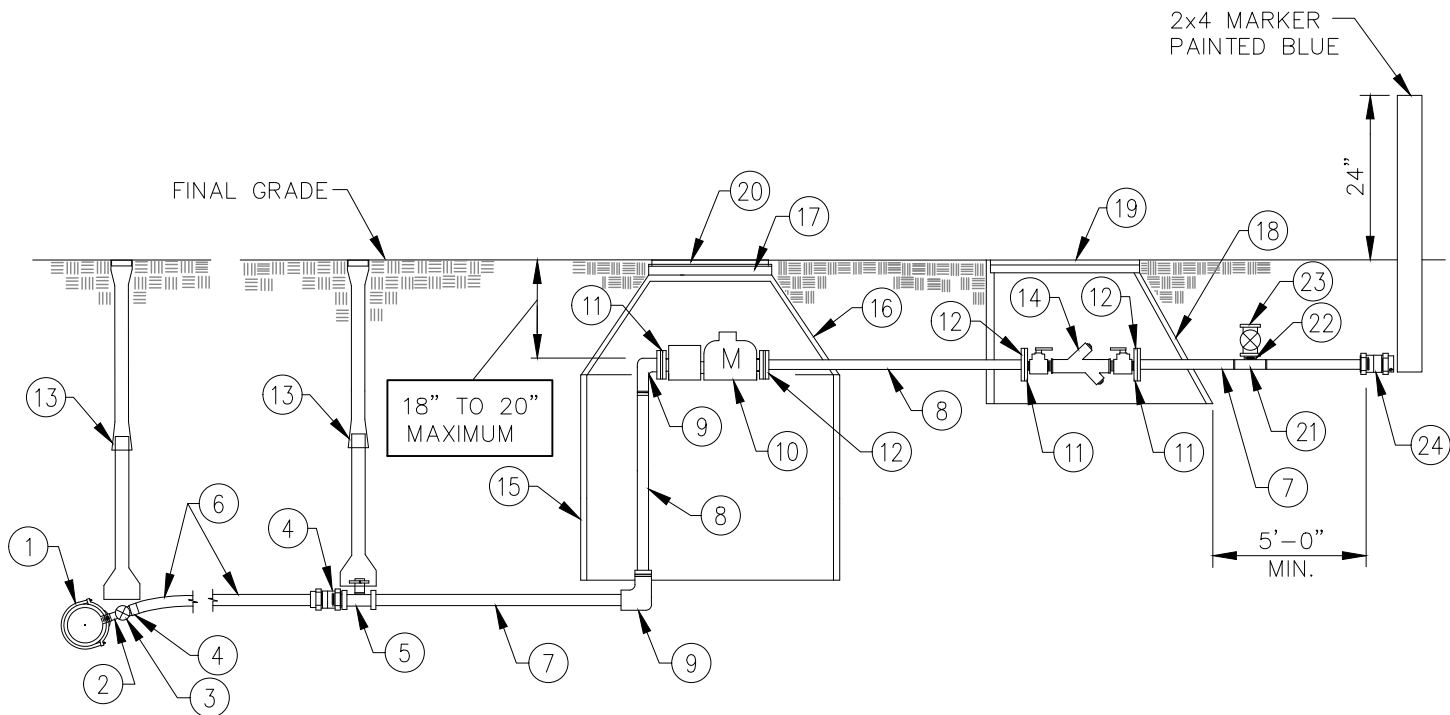


STANDARD DETAIL

**1.5" COMMERCIAL IRRIGATION
WATER SERVICE
PARTS LIST**

REVISION: 2 DETAIL:

M5B

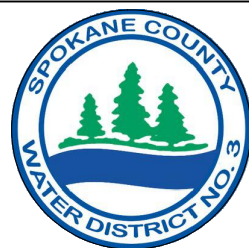


NOTES

- A. SEE M6B FOR PARTS LIST.
- B. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE S.C.W.D. #3.
- C. NO SPLICES ARE ALLOWED IN SERVICE LINES BETWEEN THE WATER MAIN AND THE WATER METER BOX/VAULT.
- D. FROM FINAL GRADE TO THE TOP OF THE ELBOW AT THE METER FLANGE THE DISTANCE SHALL BE 18" TO 20".
- E. THE BACKFLOW DEVICE ASSEMBLY SHALL INCLUDE BALL VALVES.
- F. A STAINLESS STEEL INSERT MUST BE INSERTED INTO THE END OF ANY POLYETHYLENE PIPE USED WHEN MAKING ANY CONNECTION WITH ANY FITTING COUPLING OR CORP/METER STOP.
- G. SPRINKLER BLOWOFF ASSEMBLY ITEMS 21 THRU 23.

2" COMMERCIAL IRRIGATION WATER SERVICE

NO SCALE



STANDARD DETAIL

2" COMMERCIAL IRRIGATION WATER SERVICE

REVISION: 1 DETAIL:

M6A

2" COMMERCIAL IRRIGATION WATER SERVICE - PARTS LIST

ITEM	DESCRIPTION
①	2" x MAIN SIZE NYLON COATED SERVICE SADDLE WITH STAINLESS STEEL DOUBLE STRAP BY ROMAC MODEL 202N
②	2" x 2.5" BRASS NIPPLE
③	2" R.S. GATE VALVE THREADED
④	2" MIP x 2" PE PJ ADAPTOR C86-77 FORD
⑤	2" STOP & WASTE VALVE B11-777SW FE IP x FE IP FORD
⑥	2" IPS POLYETHELYNE PIPE 200 P.S.I.
⑦	2" x 24" BRASS PIPE
⑧	2" x 36" BRASS PIPE
⑨	2" BRASS 90° ELBOW FE x FE
⑩	2" TURBINE METER W/STRAINER STRAIGHT READ
⑪	2" MALE MIP x METER FLANGE OVAL CF38-77 FORD
⑫	2" FEMALE FIP x THREADED OVAL METER FLANGE IPS ROMAC
⑬	VALVE BOX SET (TYLER HEAVY DUTY DOMESTIC ONLY)
⑭	2" WILKINS 950XLT BACKFLOW PREVENTION DEVICE
⑮	3'-0" HIGH x 48" DIAMETER MANHOLE BARREL
⑯	24" HIGH x 24" OPENING CONCENTRIC DRYWELL CONE
⑰	4" CONCRETE RISER RING 36" DIA. WITH 24" DIA. OPENING
⑱	36" HIGH 24" DIA. TOP OPENING ECCENTRIC CONE
⑲	32" x 4" CAST IRON LID & RING
⑳	#3612Z, 3612E1, AND 3612A CAST IRON LID & RING (WHITE BLOCK/EAST JORDAN IRON WORKS)
㉑	2" x 3/4" BRASS TEE.
㉒	3/4" CLOSE NIPPLE
㉓	RAINBIRD QUICK-COUPLING VALVE 3/4" RC
㉔	1-2" FORD CTS X APPROPRIATE SIZE & PIPING MATERIAL COMPRESSION FITTING.

NOTE: ITEMS 15 THRU 19 ARE BY WHITE BLOCK.

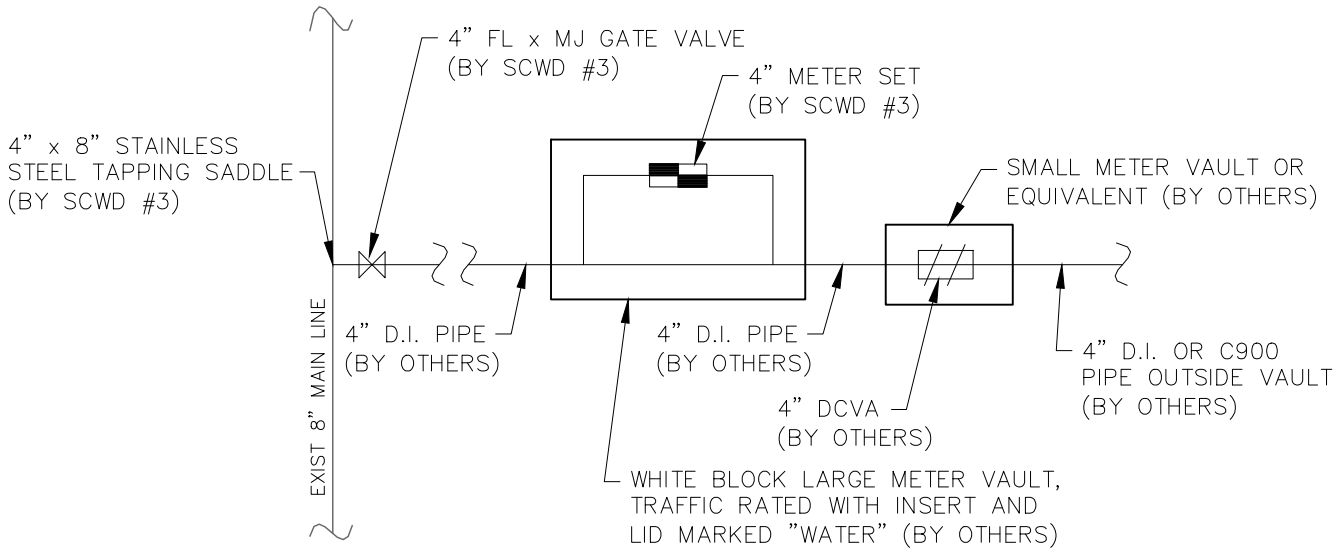


STANDARD DETAIL

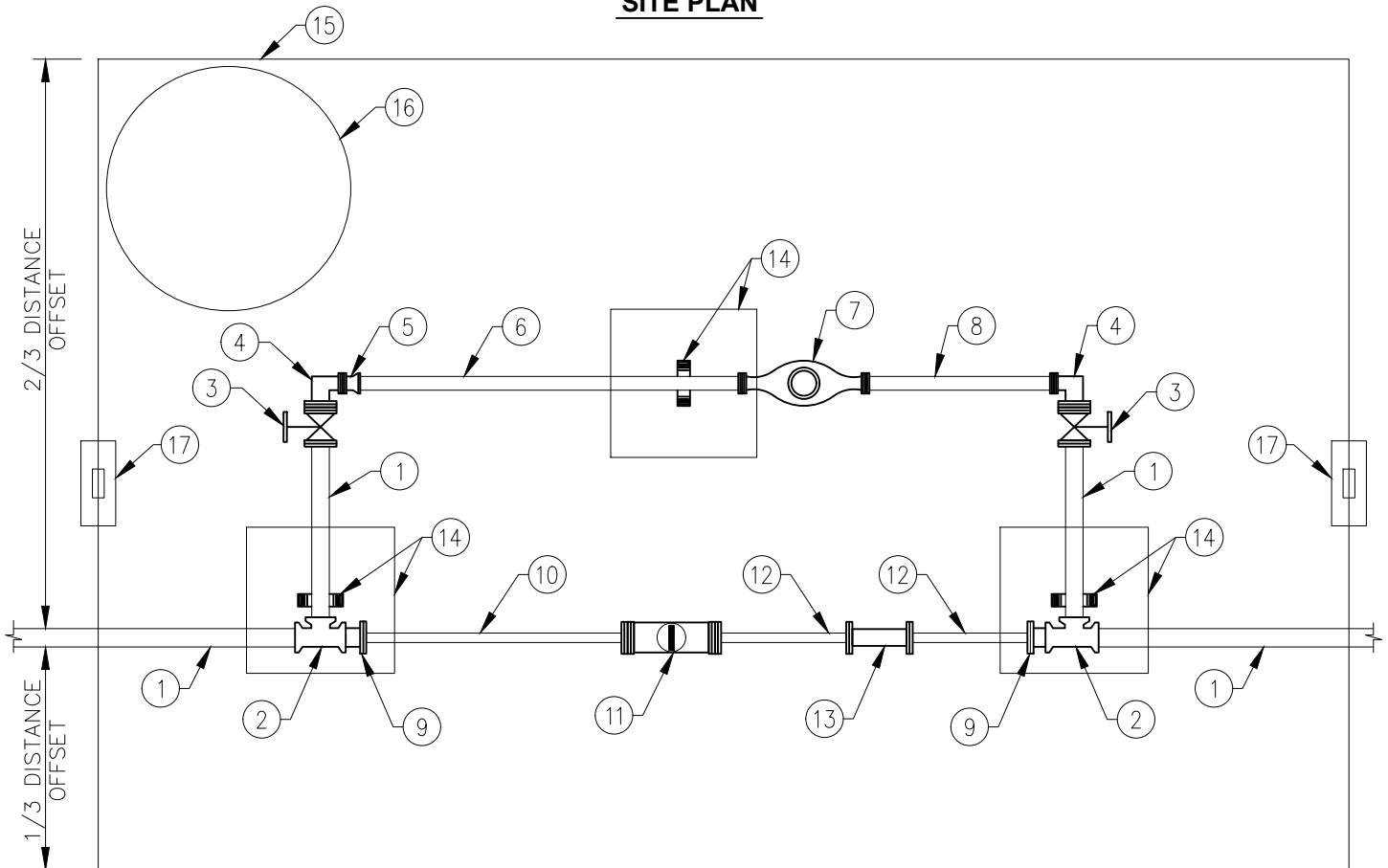
**2" COMMERCIAL IRRIGATION
WATER SERVICE
PARTS LIST**

REVISION: 2 DETAIL:

M6B



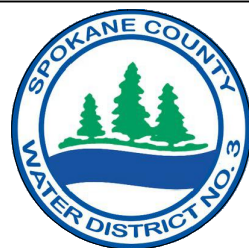
SITE PLAN



METER SETTER

4" COMMERCIAL WATER SERVICE

NO SCALE



STANDARD DETAIL

4" COMMERCIAL WATER SERVICE

REVISION:

DETAIL:

M7A

4" COMMERCIAL WATER SERVICE – PARTS LIST

ITEM	DESCRIPTION
①	4" DUCTILE IRON PIPE
②	4" MJ x MJ TEE
③	4" MJ x FL GATE VALVE
④	4" FL x 3" FL 90° ELBOW
⑤	3" FL x MJ ADAPTER
⑥	3" x 4'-0" FL x PE SPOOL
⑦	3" RADIO READ MAG METER
⑧	3" x 8" FL x FL SPOOL
⑨	4" MJ PLUG x 2" FIP
⑩	2" x 12" BRASS NIPPLE
⑪	2" FIP x FIP CURB STOP WITH LOCK WINGS
⑫	2" x 24" BRASS NIPPLE (CUT IN HALF)
⑬	2" PVC PJ x 2" PVC PJ COUPLING
⑭	4" PIPE STANDS
⑮	WHITE BLOCK LARGE METER VAULT TRAFFIC RATED WITH INSERT AND LID MARKED "WATER"
⑯	ACCESS OPENING WITH RING AND LID MARKED "WATER"
⑰	GROUT FACTORY HOLE SHUT OR SPECIAL ORDER PER SCWD #3 SPECIFICATIONS AND DETAILS



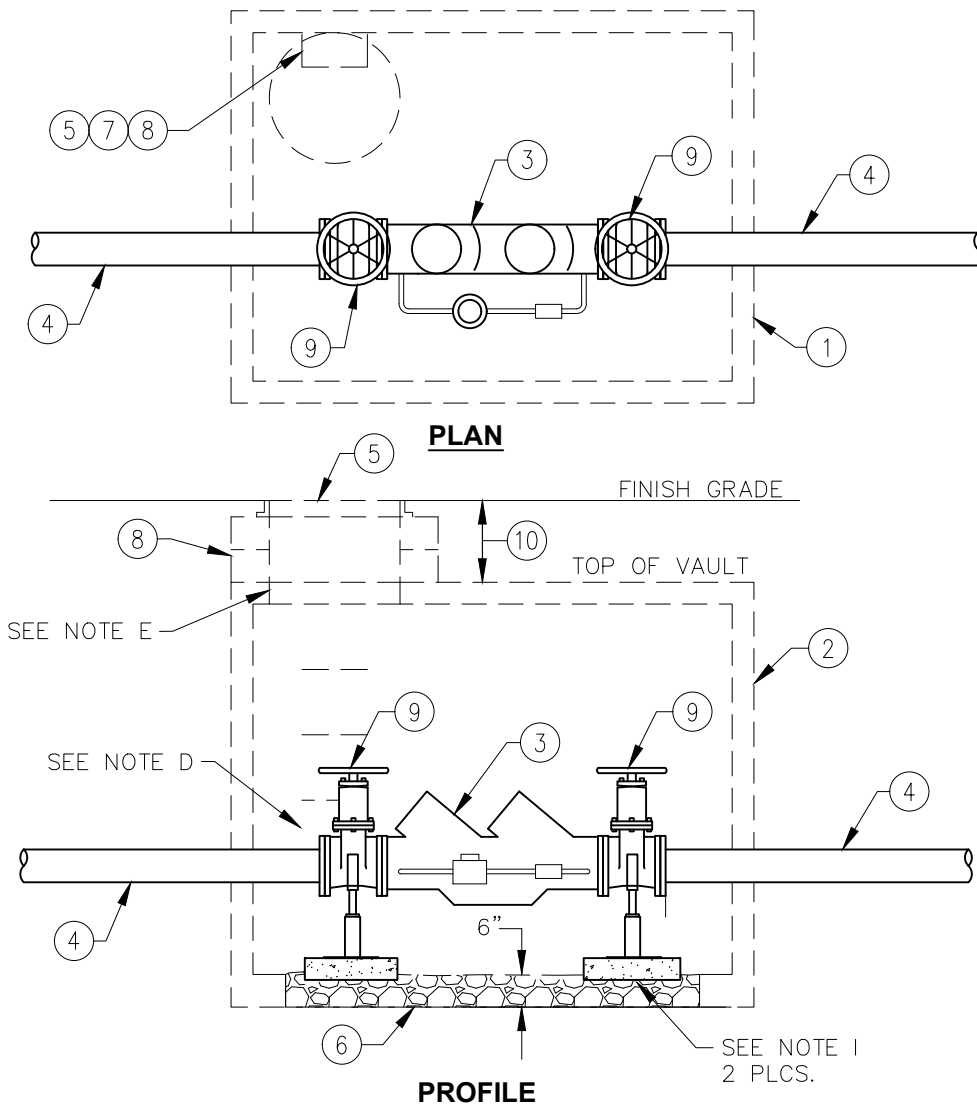
STANDARD DETAIL

4" COMMERCIAL WATER SERVICE
PARTS LIST

REVISION:

DETAIL:

M7B



NOTES

- A. SEE M8B FOR PARTS LIST AND PRIVATE FIRE LINE VAULT SCHEDULE.
- B. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH S.C.W.D. #3.
- C. MIN. 12" CLEARANCE MUST BE MAINTAINED AROUND THE BACKFLOW DEVICE AND THE INSIDE OF THE VAULT.
- D. LADDER RUNGS PER S.C.W.D. #3 STANDARDS 12" APART SO AS NOT TO INTERFERE WITH VAULT OPENING.
- E. CONTRACTOR TO ENSURE THAT ACCESS SHALL PROVIDE A CLEAR OPENING LARGE ENOUGH TO REMOVE THE LARGEST UNIT IN THE VAULT.
- F. A 6" MINIMUM CLEARANCE MUST BE MAINTAINED FROM THE INSIDE FACE OF THE VAULT TO ANY FITTING, ATTACHED TO THE FIRE LINE ENTERING OR LEAVING THE VAULT.
- G. VAULTS LOCATED IN DRIVEWAYS OR PARKING AREAS MUST BE TRAFFIC RATED AND HAVE A MINIMUM LOAD RATING OF 16,000 P.S.I.
- H. VAULT INSTALLATION AND BACKFLOW PREVENTION ASSEMBLY MUST BE INSPECTED BY S.C.W.D. #3 FIELD SUPERVISOR, AND PASS INSPECTION BEFORE SERVICE WILL BE TURNED ON.
- I. INSTALL PIPE SUPPORT JACKS ONE AT EACH END OF THE BACKFLOW PREVENTION DEVICE ASSEMBLY FOR SUPPORT AND TO ALLOW FOR INSTALLATION AND REMOVAL OF THE ASSEMBLY. (SEE PIPE SUPPORT DETAIL)
- J. VALVE BOX INSTALLATION FOR FIRE LINE GATE VALVE, (PROVIDED BY S.C.W.D. #3) INSTALLED BY OTHERS.

PRIVATE FIRE LINE VAULT

NO SCALE



STANDARD DETAIL

PRIVATE FIRE LINE VAULT

REVISION:

DETAIL:

M8A

PRIVATE FIRE LINE VAULT - PARTS LIST

ITEM	DESCRIPTION
①	VAULT SIZED PER THE SELECTION SCHEDULE.
②	VAULT SIZED PER THE SELECTION SCHEDULE.
③	DOUBLE CHECK DETECTOR VALVE ASSEMBLY (WASHINGTON STATE APPROVED)
④	CLASS 250 D.I. CEMENT LINED, FL x D.I. SPOOL FIRE LINE (INLET SIDE) DIAMETER OF FIRE LINE AS PER FIRE FLOW REQUIREMENTS. CONTRACTOR INSTALLED D.I. FIRE LINE WILL HAVE RESTRAINED JOINTS. MJ GRIP RING KIT AT GATE VALVE (ON MAIN) AND A FIELD LOCK GASKET AT EACH JOINT OF D.I. PIPE.
⑤	HEAVY DUTY RING 38" x 4" HIGH WITH LID (FOR ACCESS) CLEAR OPENING DIAMETER 30 INCHES. BY WILBERT VAULT OR APPROVED EQUAL.
⑥	1/2" TO 1" WASHED RIVER ROCK 6" IN DEPTH TYP.
⑦	30" DIAMETER ACCESS OPENING
⑧	4" TO 12" (ALLOWABLE) RISER RINGS AS MANUFACTURED BY WILBERT VAULT
⑨	FLANGE GATE VALVE (SIZE AS REQUIRED)
⑩	THE MAXIMUM DISTANCE FROM (EXTERIOR) TOP OF PRIVATE FIRE LINE VAULT, TO TOP OF ⑤ ACCESS LID IS 16".

PRIVATE FIRE LINE VAULT SELECTION SCHEDULE	
6" WALLED VAULTS W/OPEN BOTTOMS	
VAULT SIZE	PRIVATE FIRE LINE SIZE
6'W x 6'L x 6'-6"H	2.5", 3", 4"
6'W x 8'L x 6'-6"H	6"
6'W x 12'L x 6'-6"H	8", 10"
<p><u>NOTE:</u> THE MINIMUM VAULT SIZES LISTED ABOVE ARE FOR BACKFLOW PREVENTION DEVICES ONLY! ADDITIONAL FIRE LINE APPURTENANCES MAY REQUIRE A LARGER VAULT SIZE.</p>	



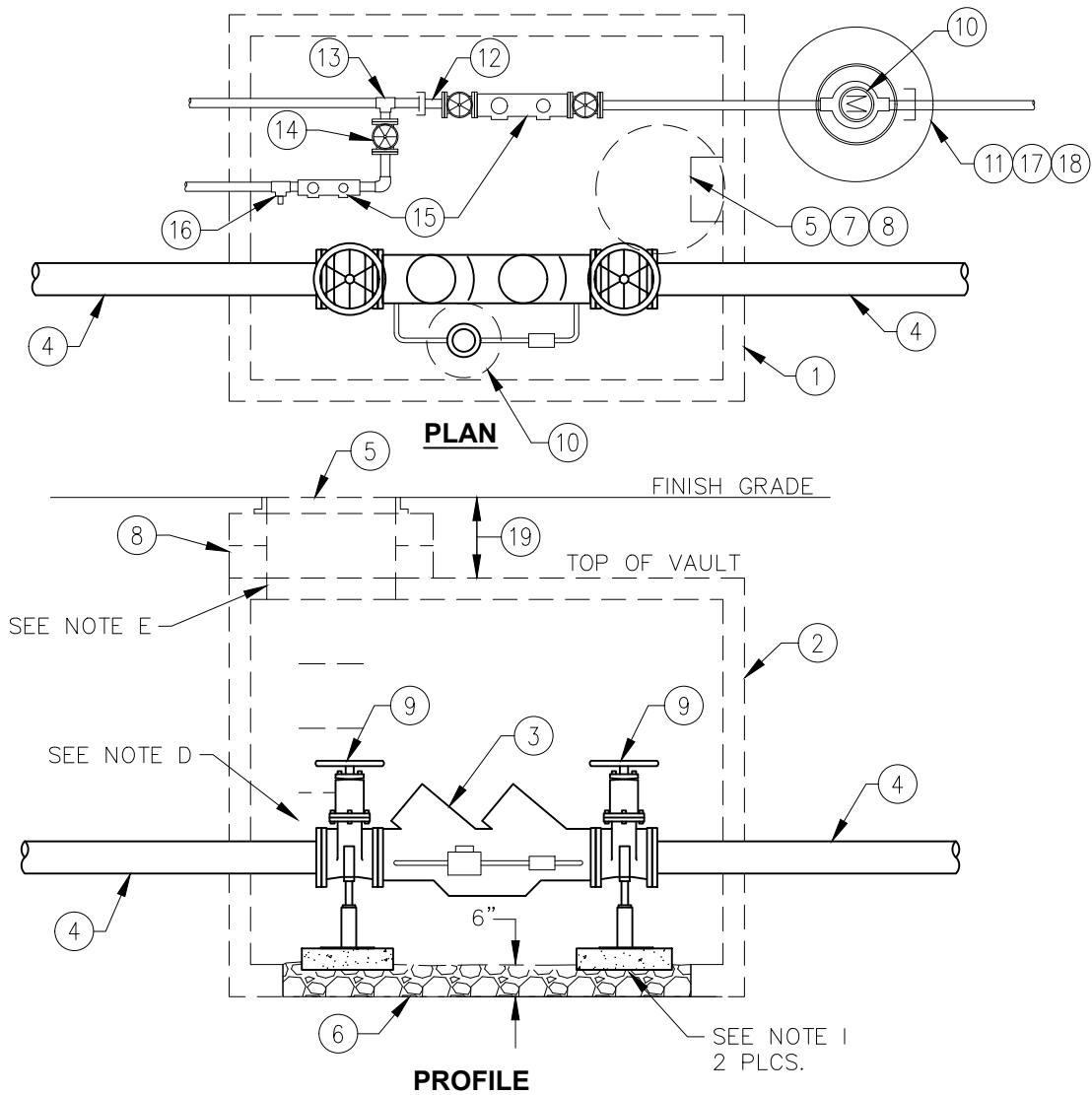
STANDARD DETAIL

**PRIVATE FIRE LINE VAULT
PARTS LIST**

REVISION:

DETAIL:

M8B



NOTES

- A. SEE M9B FOR PARTS LIST AND PRIVATE FIRE LINE VAULT SCHEDULE.
- B. INSTALLATION AND MATERIALS SHALL BE IN ACCORDANCE WITH S.C.W.D. #3.
- C. MIN. 12" CLEARANCE MUST BE MAINTAINED AROUND THE BACKFLOW DEVICE AND THE INSIDE OF THE VAULT.
- D. LADDER RUNGS PER S.C.W.D. #3 STANDARDS 12" APART SO AS NOT TO INTERFERE WITH VAULT OPENING.
- E. CONTRACTOR TO ENSURE THAT ACCESS SHALL PROVIDE A CLEAR OPENING LARGE ENOUGH TO REMOVE THE LARGEST UNIT IN THE VAULT.
- F. A 6" MINIMUM CLEARANCE MUST BE MAINTAINED FROM THE INSIDE FACE OF THE VAULT TO ANY FITTING, ATTACHED TO THE FIRE LINE ENTERING OR LEAVING THE VAULT.
- G. VAULTS LOCATED IN DRIVEWAYS OR PARKING AREAS MUST BE TRAFFIC RATED AND HAVE A MINIMUM LOAD RATING OF 16,000 P.S.I.
- H. VAULT INSTALLATION AND BACKFLOW PREVENTION ASSEMBLY MUST BE INSPECTED BY S.C.W.D. #3 FIELD SUPERVISOR, AND PASS INSPECTION BEFORE SERVICE WILL BE TURNED ON.
- I. INSTALL PIPE SUPPORT JACKS ONE AT EACH END OF THE BACKFLOW PREVENTION DEVICE ASSEMBLY, TO PROPERLY SUPPORT IT AND ALLOW FOR INSTALLATION AND REMOVAL OF THE ASSEMBLY.
(SEE PIPE SUPPORT DETAIL)
- J. VALVE BOX INSTALLATION FOR FIRE LINE GATE VALVE, (PROVIDED BY S.C.W.D. #3) INSTALLED BY OTHERS.

SHARED VAULT – PRIVATE FIRE LINE W/ DOMESTIC AND/OR IRRIGATION

NO SCALE



STANDARD DETAIL	
SHARED VAULT-PRIVATE FIRE LINE WITH DOMESTIC AND/OR IRRIGATION	
REVISION:	2
DETAIL:	M9A

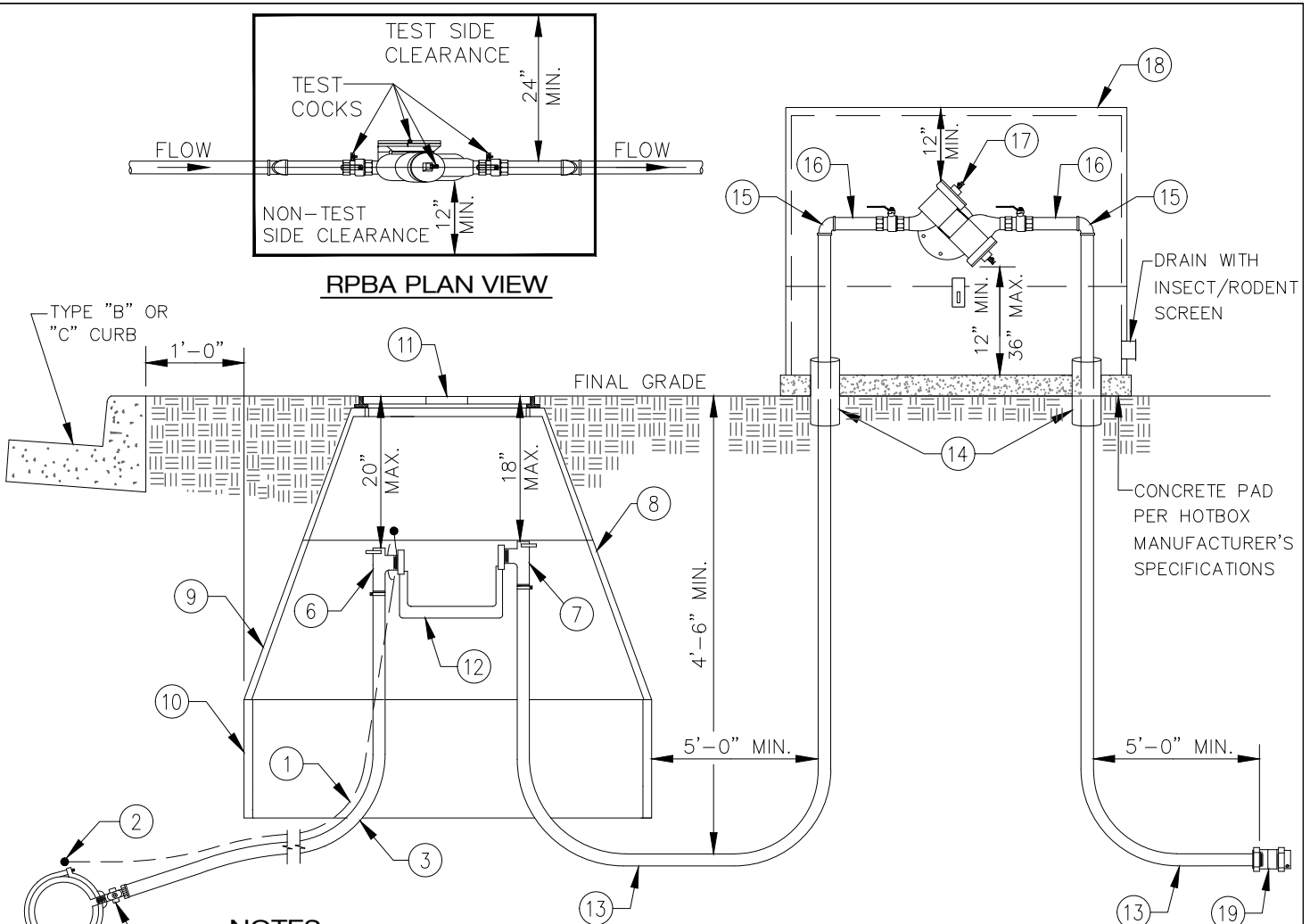
SHARED VAULT-PRIVATE FIRE LINE W/ DOMESTIC AND/OR IRRIGATION PARTS LIST

ITEM	DESCRIPTION
①	VAULT SIZED PER THE SELECTION SCHEDULE.
②	VAULT SIZED PER THE SELECTION SCHEDULE.
③	DOUBLE CHECK DETECTOR VALVE ASSEMBLY (WASHINGTON STATE APPROVED)
④	CLASS 250 D.I. CEMENT LINED, FL x D.I. SPOOL FIRE LINE (INLET SIDE) DIAMETER OF FIRE LINE AS PER FIRE FLOW REQUIREMENTS. CONTRACTOR INSTALLED D.I. FIRE LINE WILL HAVE RESTRAINED JOINTS. MJ GRIP RING KIT AT GATE VALVE (ON MAIN) AND A FIELD LOCK GASKET AT EACH JOINT OF D.I. PIPE.
⑤	HEAVY DUTY RING 38" x 4" HIGH WITH LID (FOR ACCESS) CLEAR OPENING DIAMETER 30 INCHES. BY WILBERT VAULT OR APPROVED EQUAL.
⑥	1/2" TO 1" WASHED RIVER ROCK 6" IN DEPTH TYP.
⑦	30" DIAMETER ACCESS OPENING
⑧	4" TO 12" (ALLOWABLE) RISER RINGS AS MANUFACTURED BY WILBERT VAULT
⑨	FLANGE GATE VALVE (SIZE AS REQUIRED)
⑩	RADIO READ WATER METER (PROVIDED BY SCWD 3)
⑪	WATER SERVICE (SIZE AS REQUIRED) INSTALLED BY SCWD #3, INCLUDING THE BACKFLOW PREVENTION DEVICE FOR THE DOMESTIC WATER INSTALLED IN THE PRIVATE FIRE LINE VAULT. (EXCAVATION, BACKFILL & PAVEMENT REPLACEMENT BY OTHERS)
⑫	CONNECTION SIZE & TYPE AS PER SCWD #3 REQUIREMENTS NOTE: FOR 2" DOMESTIC OR LESS ONLY
⑬	(SIZE AS REQUIRED) TEE & NIPPLE TO STOP & WASTE VALVE
⑭	(SIZE AS REQUIRED) STOP & WASTE VALVE
⑮	(SIZE AS REQUIRED) DOUBLE CHECK VALVE ASSEMBLY (WASHINGTON STATE APPROVED)
⑯	BLOWOFF CONNECTION FOR IRRIGATION - (SIZE AS REQUIRED) X 3/4" BRASS TEE - 3/4" CLOSE BRASS NIPPLE - RAINBIRD QUICK COUPLING VALVE MODEL 33 DRC
⑰	24" HIGH x 48" OPENING CONCENTRIC DRYWELL CONE
⑱	36" HIGH x 48" DIAMETER MANHOLE BARREL
⑲	THE MAXIMUM DISTANCE FROM (EXTERIOR) TOP OF PRIVATE FIRE LINE VAULT, TO TOP OF ⑤ ACCESS LID OR LID IS 16 INCHES.

PRIVATE FIRE LINE VAULT SELECTION SCHEDULE	
6" WALLED VAULTS W/OPEN BOTTOMS	
VAULT SIZE	PRIVATE FIRE LINE SIZE
6'W x 6'L x 6'-6"H	2.5", 3", 4"
6'W x 8'L x 6'-6"H	6"
6'W x 12'L x 6'-6"H	8", 10"
<small>NOTE: THE MINIMUM VAULT SIZES LISTED ABOVE ARE FOR BACKFLOW PREVENTION DEVICES ONLY! ADDITIONAL FIRE LINE APPURTENANCES MAY REQUIRE A LARGER VAULT SIZE.</small>	



STANDARD DETAIL	
SHARED VAULT - PRIVATE FIRE LINE WITH DOMESTIC AND/OR IRRIGATION PARTS LIST	
REVISION: 2	DETAIL: M9B



RPBA PLAN VIEW

NOTES

- A. SEE M10B FOR PARTS LIST.
- B. FOR WATER SERVICE REPLACEMENTS, DISTRICT TO PROVIDE AND INSTALL METER. CONTRACTOR SHALL COORDINATE WORK WITH DISTRICT.
- C. NO SPLICES ARE ALLOWED IN SERVICE LINES BETWEEN THE WATER MAIN AND THE WATER METER BOX/VAULT.
- D. A 24" MINIMUM DISTANCE BETWEEN TAPS ON MAINS MUST BE MAINTAINED FOR PVC AND AC PIPE TAPS MUST BE OFFSET FROM EACH OTHER.
- E. THE 1" TYPE "K" COPPER OUTLET PIPE MUST EXTEND A MINIMUM OF 4'-8" FROM THE OUTSIDE EDGE OF THE METER BOX AS SHOWN IN THE DETAIL.
- F. A STAINLESS STEEL INSERT MUST BE INSERTED INTO THE END OF ANY POLYETHYLENE PIPE USED WHEN MAKING ANY CONNECTION WITH ANY FITTING COUPLING OR CORP/METER STOP.
- G. BACKFLOW DEVICES, WHEN REQUIRED, SHALL BE INSTALLED ACCORDING TO THE DISTRICT'S BACKFLOW PREVENTION PROGRAM. A MINIMUM CLEARANCE OF THREE FEET SHALL BE REQUIRED FOR ACCESS AND MAINTENANCE OF THE APPLIANCE. ALL BACKFLOW DEVICES SHALL BE INSTALLED AFTER THE METERING DEVICES.
- H. ALL BACKFLOW DEVICES MUST BE STATE/USC APPROVED.

1" COMMERCIAL WATER SERVICE WITH RPBA

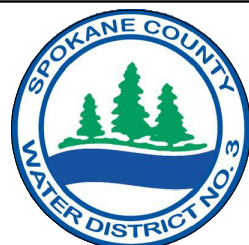
NO SCALE



STANDARD DETAIL	
1" COMMERCIAL WATER SERVICE WITH RPBA	
REVISION:	DETAIL: M10A

1" COMMERCIAL WATER SERVICE WITH RPBA – PARTS LIST

ITEM	DESCRIPTION
①	1" I.P.S. POLYETHYLENE PIPE – 200 PSI WITH 12GA. INSULATED TRACER WIRE THE TRACER WIRE MUST BE ATTACHED (WITH GROUND CLAMP AND PROTECTIVE COATING SCWD #3 APPROVED) AND OR WRAPPED AROUND THE 1" P.E. SERVICE LINE AT A MINIMUM OF 2' INTERVALS, IN ADDITION A DIRECT CONNECTION MUST BE MADE AT THE SERVICE SADDLE AND AT THE YOKE.
②	THE WATER SERVICE TRACER WIRE MUST ALSO BE PHYSICALLY CONNECTED TO THE WATER MAIN TRACER WIRE (IF PRESENT) WITH A GROUND CLAMP AND PROTECTIVE COATING APPROVED BY SCWD #3.
③	1" COPPER WATER SERVICE TUBING TYPE "K" ONLY, MAY BE SUBSTITUTED FOR 1" P.E. POLY 200 P.S.I. WITH 12 GA. INSULATED TRACER WIRE.
④	1" NYLON COATED SERVICE SADDLE WITH STAINLESS STEEL DOUBLE STRAPS ROMAC 202N.
⑤	1" FORD BALLCORP FB 1101-4 MIP x PE PJ.
⑥	1" BA96-444WQ PJ FORD ANGLE YOKE IPS P.E. P.J. (ANGLE METER STOP).
⑦	1" BA94-444WQ C.T.S. PJ FORD ANGLE YOKE VALVE.
⑧	UPPER METER CONE 19" x 15" BY WHITE BLOCK COMPANY.
⑨	LOWER METER CONE 26.5" x 11" BY WHITE BLOCK COMPANY.
⑩	RISER RING 32"x9" HIGH BY WHITE BLOCK COMPANY.
⑪	TRAFFIC RATED METER LID #2012 BY EAST JORDAN IRON WORKS.
⑫	Y504 YOKE (FORD).
⑬	1" COPPER TUBING (TYPE K) ONLY
⑭	SCHEDULE 80 PVC PIPE AS PROTECTIVE SLEEVE TO PROTECT COPPER
⑮	1" ELBOW COUPLING L14-44-Q PJ x FIP FORD
⑯	1" x 3" BRASS NIPPLE
⑰	1" STATE APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY
⑱	INSULATED FIBERGLASS ENCLOSURE, HOT BOX OR APPROVED EQUAL
⑲	1" FORD CTS x APPROPRIATE SIZE & PIPING MATERIAL COMPRESSION FITTING.



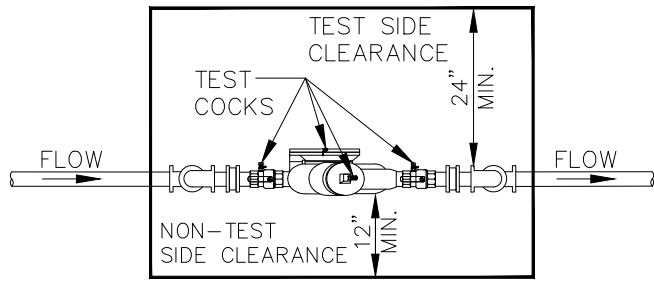
STANDARD DETAIL

1" COMMERCIAL WATER SERVICE
WITH RPBA – PARTS LIST

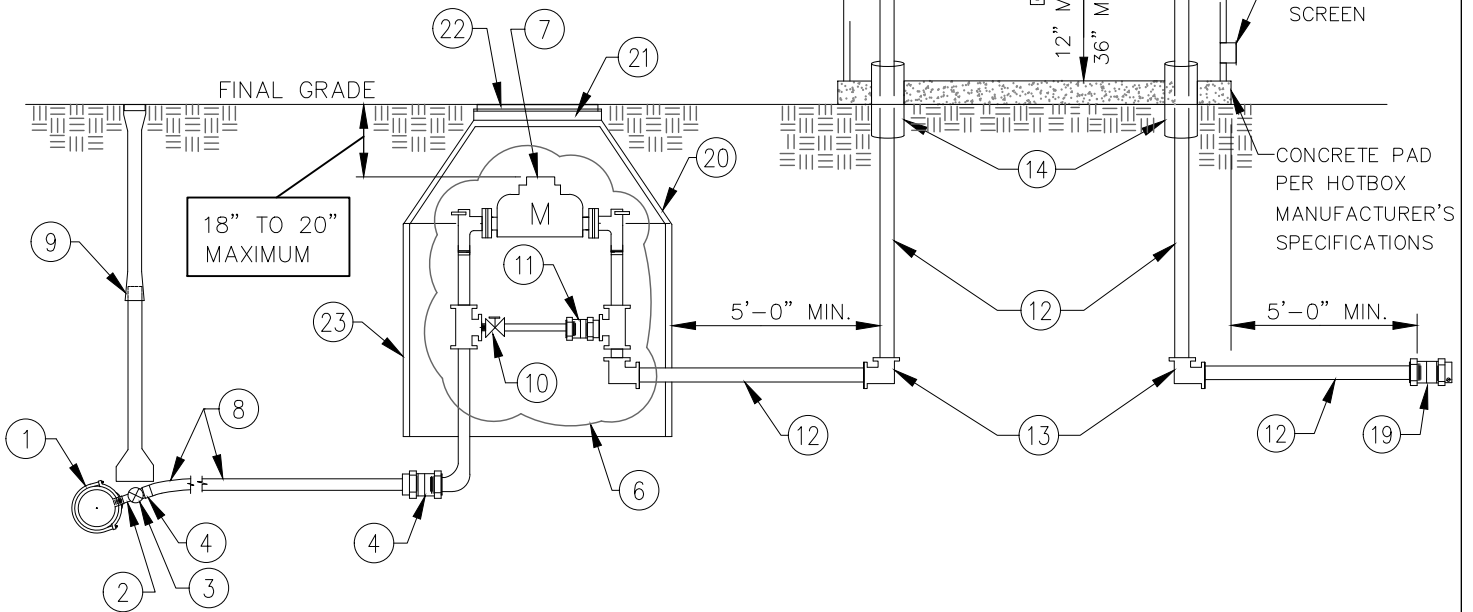
REVISION:

DETAIL:

M10B



RPBA PLAN VIEW

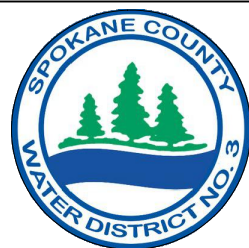


NOTES

- A. SEE M11B FOR PARTS LIST.
- B. THE MAXIMUM DISTANCE FROM THE BOTTOM OF THE METER LID TO THE TOP OF THE ANGLE METER STOP SHALL BE 20".
- C. THE BACKFLOW DEVICE ASSEMBLY SHALL INCLUDE BALL VALVES.
- D. NO SPLICES ARE ALLOWED IN SERVICE LINES BETWEEN THE WATER MAIN AND THE WATER METER BOX/VAULT.
- E. BACKFLOW DEVICES, WHEN REQUIRED, SHALL BE INSTALLED ACCORDING TO THE DISTRICT'S BACKFLOW PREVENTION PROGRAM. A MINIMUM CLEARANCE OF THREE FEET SHALL BE REQUIRED FOR ACCESS AND MAINTENANCE OF THE APPLIANCE. ALL BACKFLOW DEVICES SHALL BE INSTALLED AFTER THE METERING DEVICES.
- F. ALL BACKFLOW DEVICES MUST BE STATE/USC APPROVED.

2" COMMERCIAL WATER SERVICE WITH RPBA

NO SCALE



STANDARD DETAIL

2" COMMERCIAL WATER SERVICE WITH RPBA

REVISION:

DETAIL:

M11A

2" COMMERCIAL WATER SERVICE WITH RPBA - PARTS LIST

ITEM	DESCRIPTION
①	2" x MAIN SIZE NYLON COATED SERVICE SADDLE WITH STAINLESS STEEL DOUBLE STRAPS BY ROMAC MODEL 202N.
①A	A STAINLESS STEEL INSERT MUST BE INSERTED INTO THE END OF ANY POLYETHYLENE PIPE USED WHEN MAKING ANY CONNECTION WITH ANY FITTING COUPLING OR CORP/METER STOP.
②	2" x 2.5" BRASS NIPPLE
③	2" R.S. GATE VALVE THREADED
④	2" MIP x 2" PE PACK JOINT
⑤	2" x 36" BRASS NIPPLE
⑥	2" x 36" COPPER RESETTER
⑦	2" METER STRAIGHT READ (OVAL FLANGES)
⑧	2" IPS POLYETHENE PIPE 200 P.S.I.
⑨	VALVE BOX SET (TYLER ONLY)
⑩	1" CURB STOP WITH LOCK WINGS
⑪	1" PACK JOINT
⑫	2" BRASS OR 2" IPS POLY PIPING
⑬	2" BRASS 90° ELBOW OR FORD COMPRESSION FITTING x PIPING MATERIAL
⑭	SCHEDULE 80 PVC PIPE AS PROTECTIVE SLEEVE TO PROTECT COPPER
⑮	2" MALE x THREADED OVAL METER FLANGE BOLTED TO A FEMALE x THREADED OVAL METER FLANGE WITH A GASKET BETWEEN THE TWO.
⑯	2" x LENGTH NEEDED BRASS NIPPLE
⑰	2" STATE APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY
⑱	INSULATED FIBERGLASS ENCLOSURE, HOT BOX OR APPROVED EQUAL
⑲	2" FORD CTS x APPROPRIATE SIZE & PIPING MATERIAL COMPRESSION FITTING.
⑳	24" HIGH x 48" OPENING CONCENTRIC DRYWELL CONE
㉑	4" CONCRETE RISER RING 36" DIA. WITH 24" DIA. OPENING
㉒	#3612Z, 3612E1, AND 3612A CAST IRON LID & RING (WHITE BLOCK/EAST JORDAN IRON WORKS)
㉓	3'-0" HIGH x 48" DIAMETER MANHOLE BARREL

NOTE: ITEMS 20 THRU 23 ARE BY WHITE BLOCK.



STANDARD DETAIL

2" COMMERCIAL WATER SERVICE WITH RPBA - PARTS LIST

REVISION:

DETAIL:

M11B