

NOTES:

- 1- PAVEMENT SECTION FOR NEWLY CONSTRUCTED ROADS SHALL BE PER APPROVED ROADWAY CONSTRUCTION PLANS.
- 2- DENSITY TEST REQUIREMENTS FOR WORK WITHIN SUMMIT COUNTY RIGHT OF WAY: ONE TEST PER 150 LINEAR FEET OF TRENCH WITH A MINIMUM OF TWO TESTS PER ROAD CROSSING. TEST RESULTS MUST BE SUBMITTED TO SUMMIT COUNTY ENGINEERS OFFICE WITHIN 24 HOURS, AND IN NO CASE MAY THE TRENCH BE PAVED PRIOR TO APPROVAL FROM SUMMIT COUNTY ENGINEER.
- 3- BLUE TRACER WIRE IS TO BE RAN INTO THE METER BOX OF EACH SERVICE LATERAL AND SHALL BE RAN TO EACH FIRE HYDRANT.
- 4- OPEN ENDS OF PIPE SHALL BE COVERED DURING THE INSTALLATION PROCESS.
- 5- THE DISTRICT, AT ITS SOLE DISCRETION, MAY REQUIRE BURY DEPTHS OTHER THAN WHAT IS IDENTIFIED ABOVE. BURY DEPTHS ARE A FUNCTION OF ELEVATION, LOCATION, WATER DEMAND, AND PROXIMITY TO OTHER UTILITIES.

TYPICAL CULINARY WATER MAIN/LATERAL TRENCH DETAIL
NTS

CAD
DESIGNER
DATE REV 01/2024
PROJECT NO.



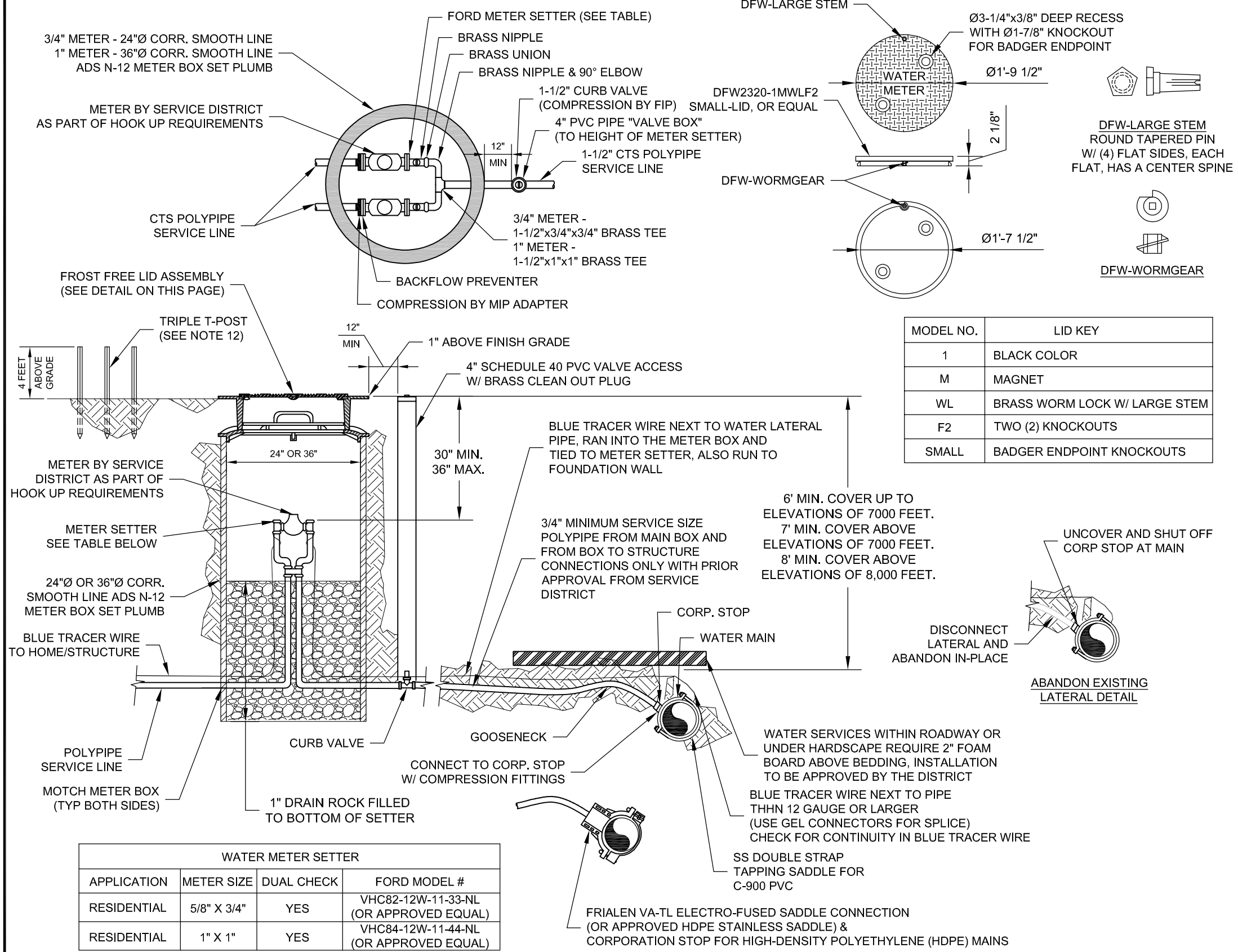
MOUNTAIN REGIONAL WATER
SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
MAIN/LATERAL TRENCH
SUMMIT COUNTY, UT

DRAWING NO.
1

DUAL METER APPLICATION

DFW2320-1MWLF2 SMALL-LID



NOTES:

- 1- METER BOX SHALL BE SET PLUMB.
- 2- THREADS ON SERVICE CLAMP SHALL MATCH THREADS ON CORPORATION STOP.
- 3- METER IS TO BE INSTALLED IN AN APPROVED LANDSCAPED AREA; NOT IN SIDEWALK, ASPHALT OR DRIVEWAY, UNLESS FIRST APPROVED BY THE DISTRICT.
- 4- NO SWEAT FITTINGS OR SILVER SOLDERED FITTINGS ARE ALLOWED. NO SPLICES ARE ALLOWED BETWEEN MAIN LINE AND METER SETTER.
- 5- COMPRESSION TYPE CONNECTIONS TO BE USED UNLESS OTHERWISE APPROVED BY THE DISTRICT.
- 6- BY-PASS DEVICES SHALL NOT BE USED ON RESIDENTIAL SERVICES AND PROTECT METER DURING CONSTRUCTION.
- 7- TAPS TO EXISTING MAIN LINES SHALL BE PERFORMED BY CONTRACTOR AND WITNESSED BY THE DISTRICT.
- 8- BLUE TRACER WIRE SHALL BE RAN INTO EVERY METER BOX AND TIED TO METER SETTER. ALL SPLICES OF TRACER WIRE SHALL BE CONNECTED WITH A GREASE FILLED CONNECTOR.
- 9- ALL CONNECTIONS SHALL HAVE THERMAL EXPANSION CONTROL AS OUTLINED IN 1997 INTERNATIONAL PLUMBING CODE SECTION 607.3.
- 10- METER OR LATERAL SHALL NOT BE LOCATED WITHIN PAVEMENT OR HARDCAPED AREAS.
- 11- ANY REQUESTS FOR A METER LARGER THAN 1" MUST BE ACCOMPANIED BY A PROPOSAL SUBMITTED TO THE DISTRICT. PROPOSAL MUST INCLUDE PROPOSED BACKFLOW PREVENTION.
- 12- TRIPLE T-POST SHALL BE FURNISHED TO MARK TERMINUS OF SERVICE AND PROTECT METER DURING CONSTRUCTION.
- 13- ALL DRIVEWAY CROSSINGS REQUIRE A SCH 80 PVC PIPE SLEEVE THAT SHALL EXTEND 3 FEET BEYOND THE EDGE OF DRIVEWAY AND FOAM BOARD.
- 14- 6'x6' CONCRETE BLANKETS MAY BE REQUIRED IN METER PIT.

MODEL NO.	LID KEY
1	BLACK COLOR
M	MAGNET
WL	BRASS WORM LOCK W/ LARGE STEM
F2	TWO (2) KNOCKOUTS
SMALL	BADGER ENDPOINT KNOCKOUTS

RELOCATED METERS:

EXIST, LID, BOX, METER AND SETTER TO BE RELOCATED TO LOCATIONS SHOWN ON PLANS. CONNECTION TO THE SUPPLY MAIN, CORP. STOP, AND SERVICE PIPING FROM THE MAIN TO THE METER, AND FROM THE METER TO THE OWNERS PIPING TO BE PROVIDED BY THE CONTRACTOR MAKING SERVICE COMPLETE AND OPERATIONAL. AT THE OPTION OF THE SERVICE DISTRICT NEW COMPONENTS OF THE LID, BOX, METER OR SETTER MAY BE PROVIDED IN WHICH THE NEW COMPONENTS SHALL BE USED AS PART OF THE RELOCATION CONNECTION.

NEW METERS:

NEW METERS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE PLANS. THE LID, BOX AND SETTER WILL BE PROVIDED BY THE CONTRACTOR. CONNECTION TO THE SUPPLY MAIN, CORP. STOP, AND SERVICE PIPING FROM THE METER ONTO THE OWNERS PROPERTY SHALL BE PROVIDED BY THE CONTRACTOR.

WATER METER SETTER			
APPLICATION	METER SIZE	DUAL CHECK	FORD MODEL #
RESIDENTIAL	5/8" X 3/4"	YES	VHC82-12W-11-33-NL (OR APPROVED EQUAL)
RESIDENTIAL	1" X 1"	YES	VHC84-12W-11-44-NL (OR APPROVED EQUAL)

TYPICAL 3/4" AND 1" SERVICE DETAIL
NTS

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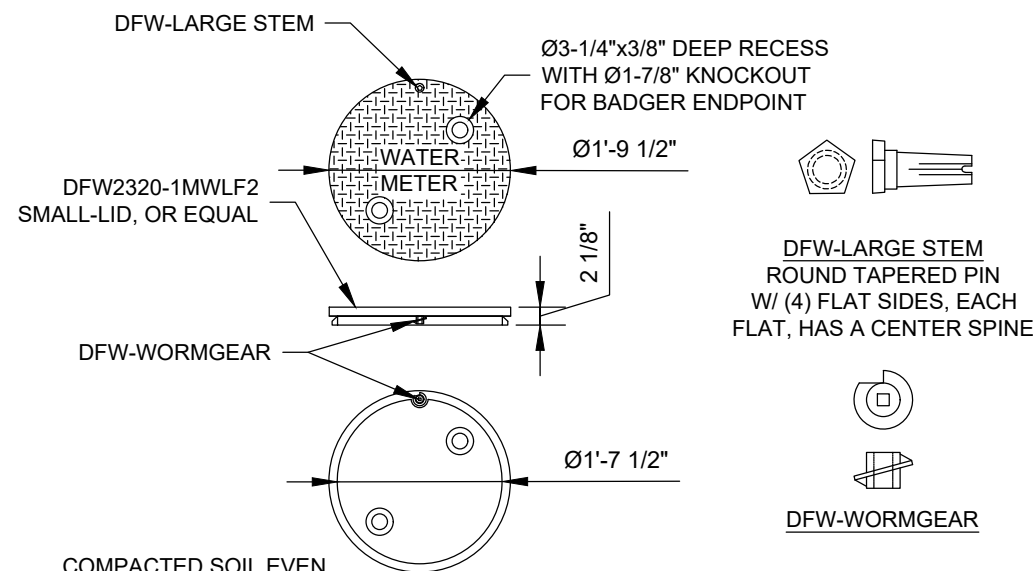
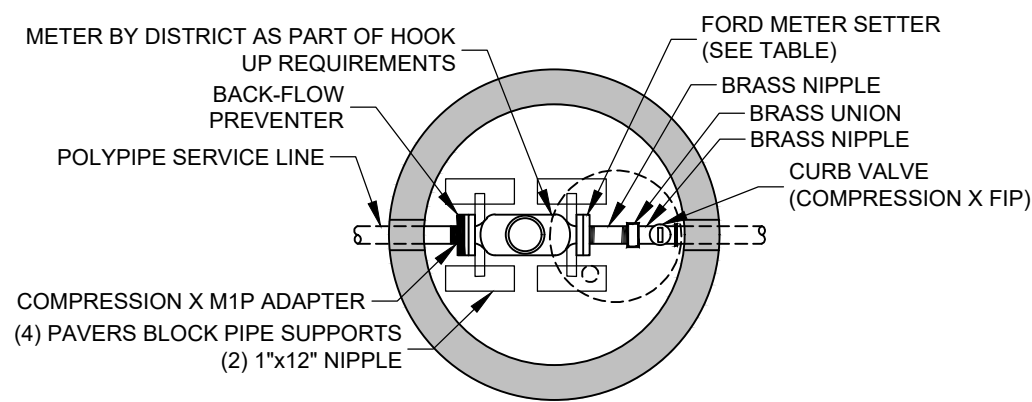


MOUNTAIN REGIONAL WATER
SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
TYP. 3/4" AND 1" SERVICE
SUMMIT COUNTY, UT

DRAWING NO.
2

DFW2320-1MWLF2 SMALL-LID

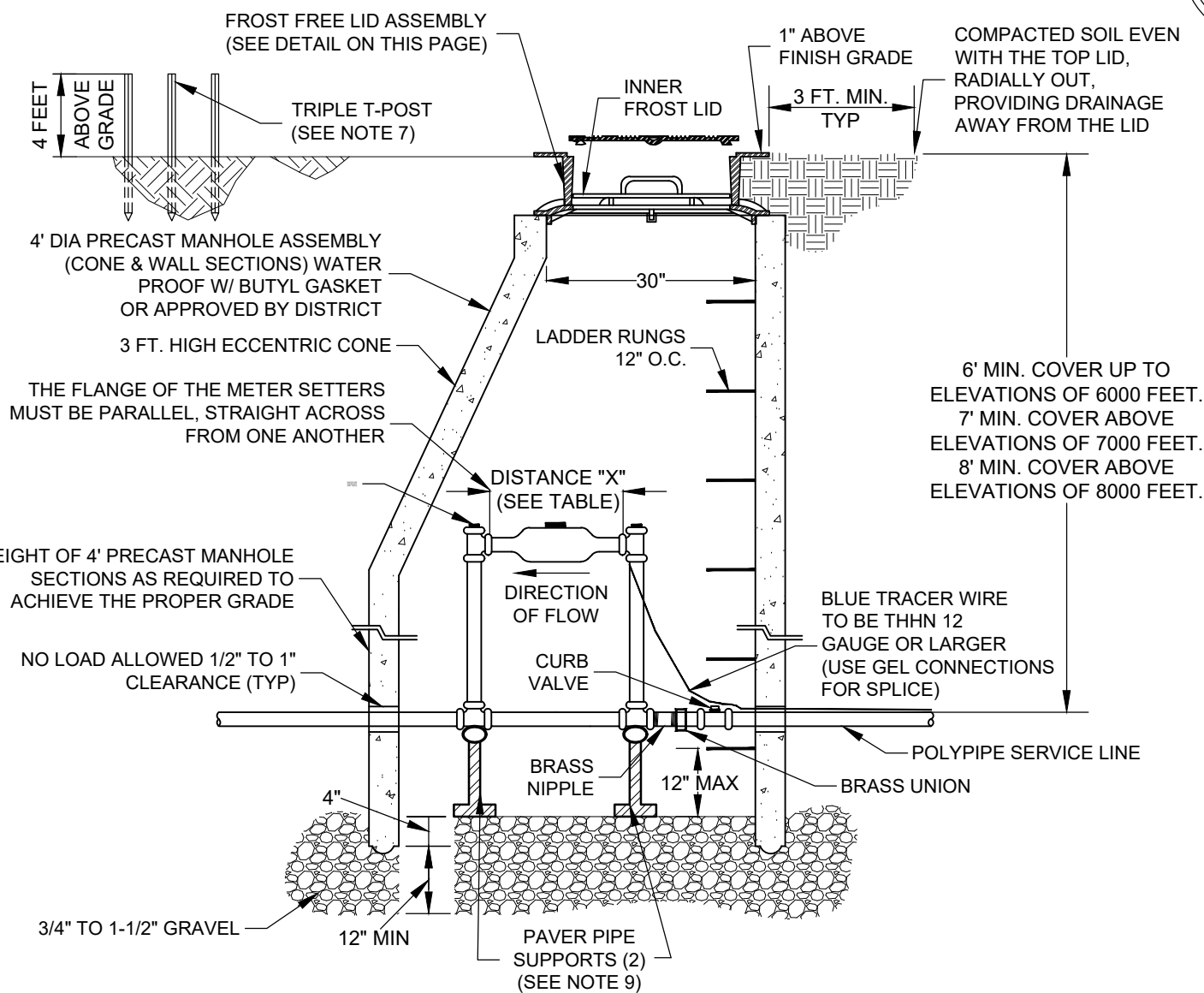


NOTES:

- 1- NO SWEAT-FITTINGS OR SILVER SOLDERED FITTINGS ALLOWED.
- 2- BY-PASS DEVICES SHALL NOT BE ALLOWED.
- 3- TAPS TO EXISTING MAIN LINES SHALL BE PERFORMED BY CONTRACTOR AND WITNESSED BY THE DISTRICT.
- 4- BLUE TRACER WIRE SHALL BE RAN INTO FROM THE METER BOX TO THE METER AND FROM THE METER TO THE FOUNDATION WALL. TRACER WIRE SHALL BE CONNECTED WITH A GREASE FILLED CONNECTOR.
- 5- ANY REQUESTS FOR A METER LARGER THAN 1" MUST BE ACCOMPANIED BY A PROPOSAL SUBMITTED TO THE DISTRICT. PROPOSAL MUST INCLUDE PROPOSED BACK-FLOW PREVENTION.
- 6- METER OR LATERAL SHALL NOT BE LOCATED WITHIN PAVEMENT OR HARDSCAPED AREAS.
- 7- TRIPLE T-POST SHALL BE FURNISHED TO MARK TERMINUS OF SERVICE AND PROTECT METER DURING CONSTRUCTION.
- 8- 6'x6' CONCRETE BLANKETS MAY BE REQUIRED IN METER PIT.
- 9- (2) PAVER WITH 18-INCH BY 3/4-INCH RIGID CONDUIT.

MODEL NO.	LID KEY
1	BLACK COLOR
M	MAGNET
WL	BRASS WORM LOCK W/ LARGE STEM
F2	TWO (2) KNOCKOUTS
SMALL	BADGER ENDPOINT KNOCKOUTS

WATER METER SETTER		
METER SIZE	METER SETTER FORD MODEL #	DISTANCE "X"
1 1/2"	VHH76-18-11-66-NL	13-1/8" ± 1/8"
	VHH76-18-11-66-NL	
	VBHH76-21-11-66-NL	
2"	VHH77-21-11-77-NL	17-1/8" ± 1/8"
	VHH77-18-11-77-NL	
	VBHH77-21-11-77-NL	



NOTE: FORD® 1-1/2" AND 2" COPPERSETTERS WITH A VALVE ON THE OUTLET ARE STANDARD WITH A BY-PASS. THE BY-PASS FEATURE CAN BE REMOVED BY OMITTING THE "B" FROM THE MIDDLE OF THE CATALOG NUMBER.

EXAMPLE:
 VHH76-21B-11-66-NL (BY-PASS)
 VHH76-21-11-66-NL (NO BY-PASS)

MRW REQUIRES SETTERS **WITHOUT** A BY-PASS

1-1/2" AND 2" METER AND VAULT
 NTS

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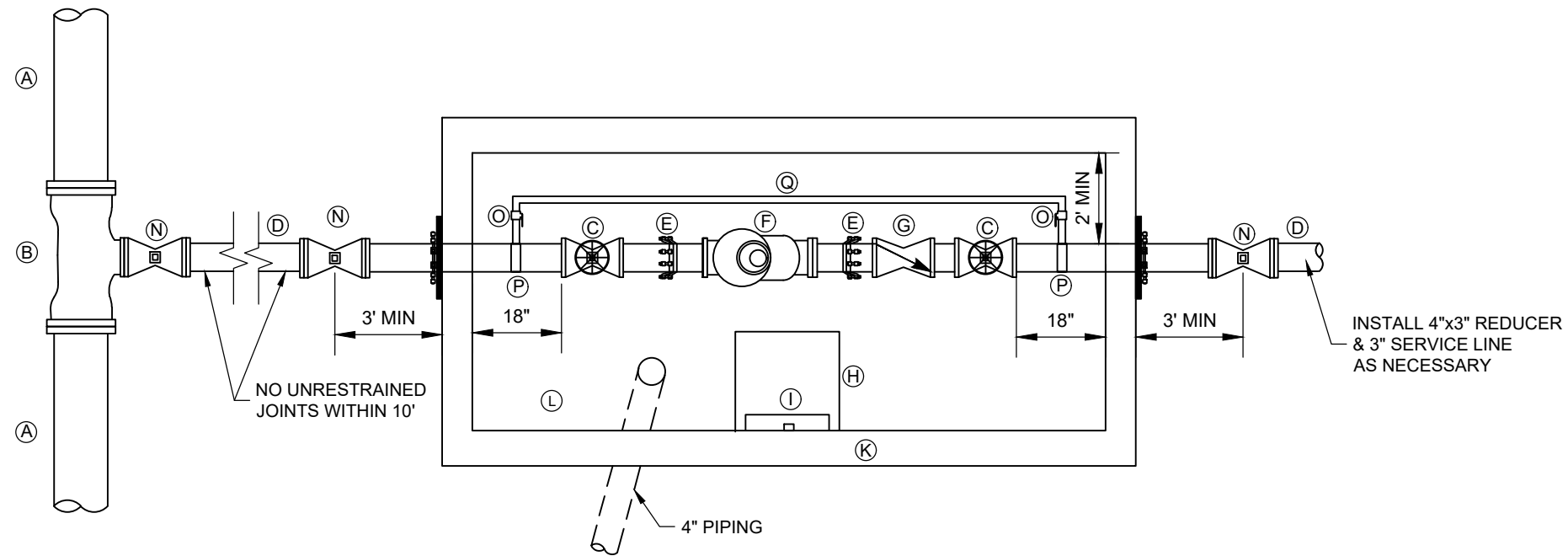


MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
 OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

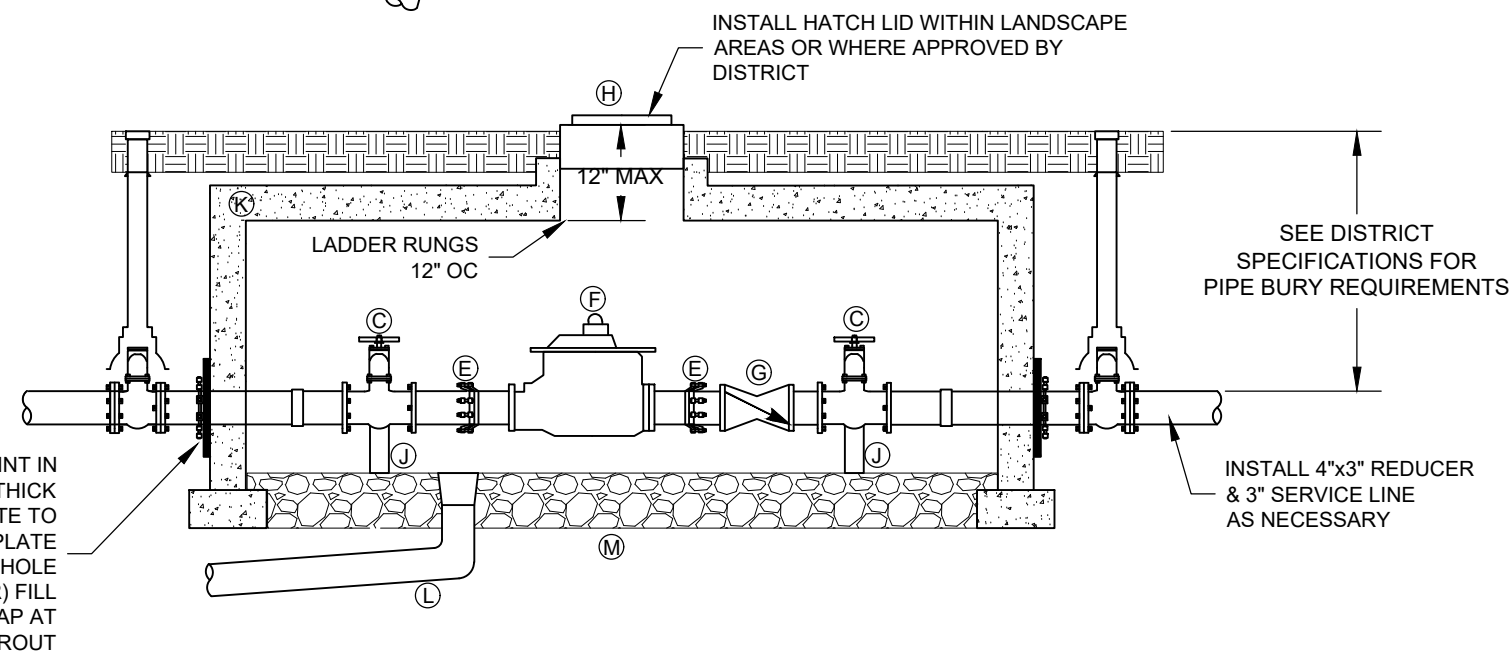
STANDARD DETAIL
 1-1/2" AND 2" METER
 SUMMIT COUNTY, UT

DRAWING NO.

3



- (A) WATER MAINLINE SIZE VARIES
- (B) TEE (MAINLINE SIZE X3" OR 4")
- (C) 3" OR 4" GATE VALVE WITH WHEEL
- (D) 3" OR 4" SERVICE LINE
- (E) FLANGE x M.J. ADAPTER
- (F) 3" OR 4" METER BY THE DISTRICT
- (G) 3" OR 4" CHECK VALVE
- (H) HATCH OR APPROVED LID (DIRECTLY ABOVE LADDER)
- (I) LADDER RUNG WITH LADDER UP
- (J) PIPE SUPPORTS
- (K) CONCRETE BOX APPROX. 5'x9'
- (L) 4" PVC DRAINLINE TO DAYLIGHT OR SUMP PUMP (POWER)
- (M) GRAVEL FLOOR INSIDE METER BOX
- (N) 3" OR 4" GATE VALVE W/ VALVE BOX & NUT
- (O) 1.5" LOCKABLE CURB STOP
- (P) 3" OR 4"x1.5" SADDLE
- (Q) 1.5" BYPASS LINE THREADED BRASS OR GALVANIZED STEEL PIPE



INSTALL MEGALUG RESTRAINT IN PROPER DIRECTION. INSTALL 1" THICK STEEL PLATE. EDGE OF PLATE TO OVERLAP CORE HOLE 6" MIN. PLATE OPENING TO MATCH PIPE OD. CORE HOLE IN VAULT WALL (MINIMIZE DIAMETER) FILL GAP WITH LINK SEAL & GROUT GAP AT EDGE OF WALL WITH NON-SHRINK GROUT

TYPICAL 3" AND 4" SERVICE DETAIL
NTS

NOTES:

- 1- CELLULAR SERVICE REQUIRED. ADDITIONAL MODIFICATIONS MAY BE NECESSARY TO ENSURE CELLULAR SERVICE.

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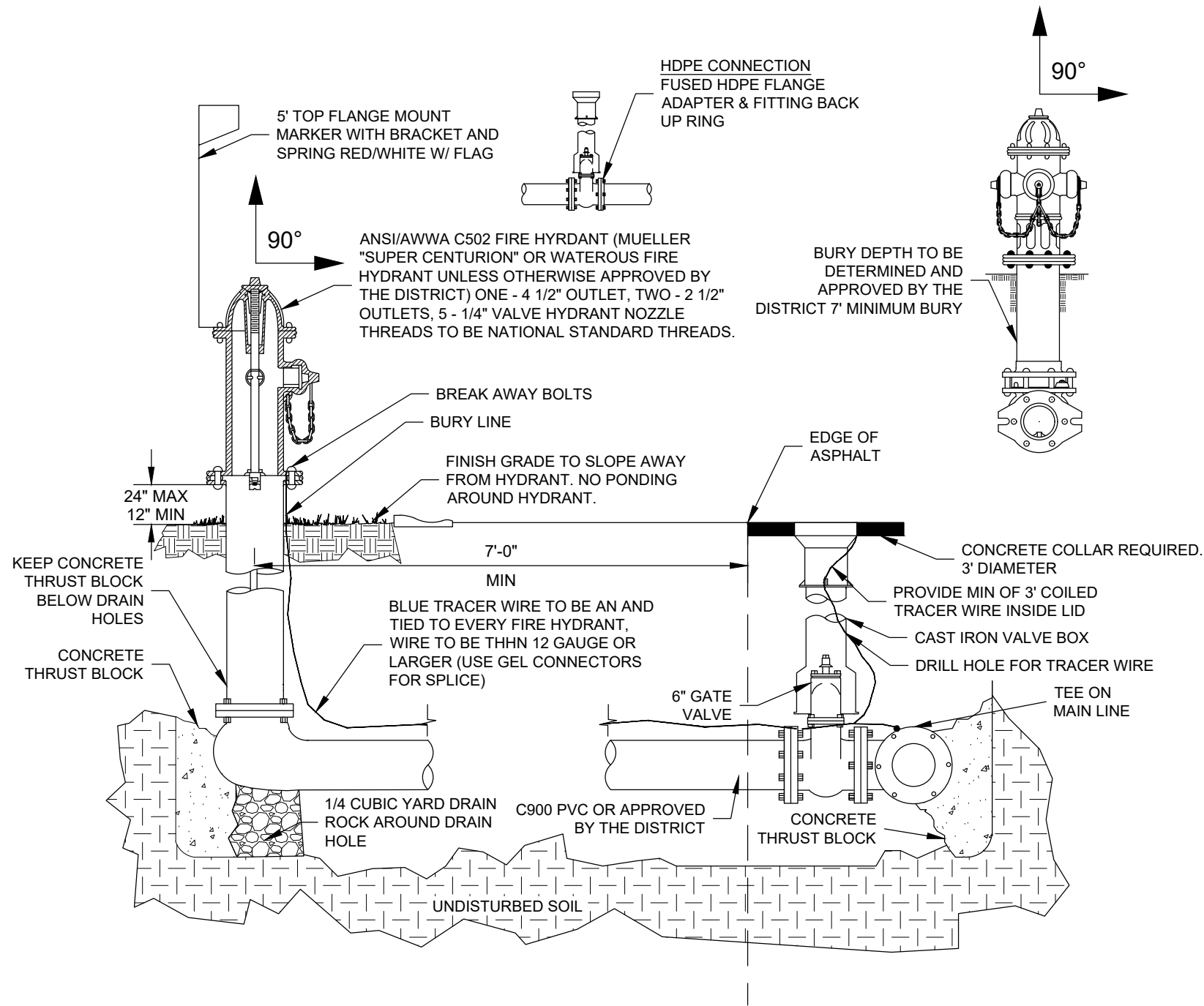


MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
3" AND 4" SERVICE
SUMMIT COUNTY, UT

DRAWING NO.

4



NOTES:

- 1- LOCATION OF HYDRANT AND TEE ON WATER MAINLINE SHALL BE DETERMINED BY THE DISTRICT.
- 2- HYDRANT SHALL STAND PLUMB WITH PUMPER NOZZLE FACING THE STREET.
- 3- VALVE TO BE PLACED IN ASPHALT WITH CONCRETE RING.
- 4- BLUE TRACER WIRE TO BE ATTACHED TO HYDRANT VALVE.
- 5- HYDRANT AND FITTINGS TO BE POLY WRAPPED.
- 6- ALL BOLTS SHALL BE FREE OF CONCRETE AND FULLY ACCESSIBLE.
- 7- DO NOT COVER BARREL DRAIN W/ DIRT OR CONCRETE, USE GRAVEL.
- 8- IN ROADWAY: 3-FOOT MINIMUM REQUIRED BETWEEN EDGE OF ASPHALT AND CONCRETE COLLAR ON AXILLARY VALVE.

FIRE HYDRANT DETAIL
NTS

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DATE	01/2024
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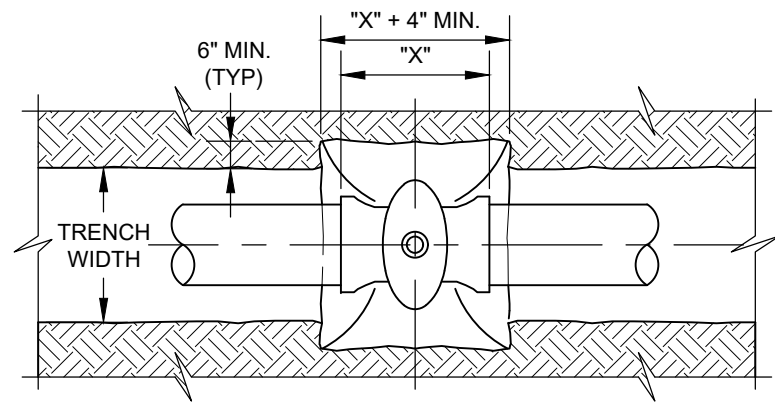


MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

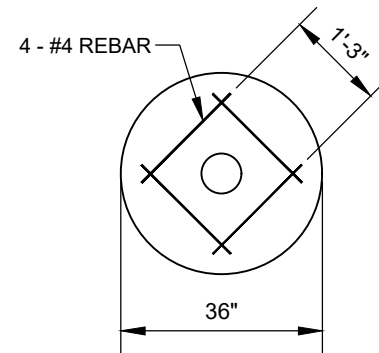
STANDARD DETAIL
FIRE HYDRANT
SUMMIT COUNTY, UT

DRAWING NO.

5



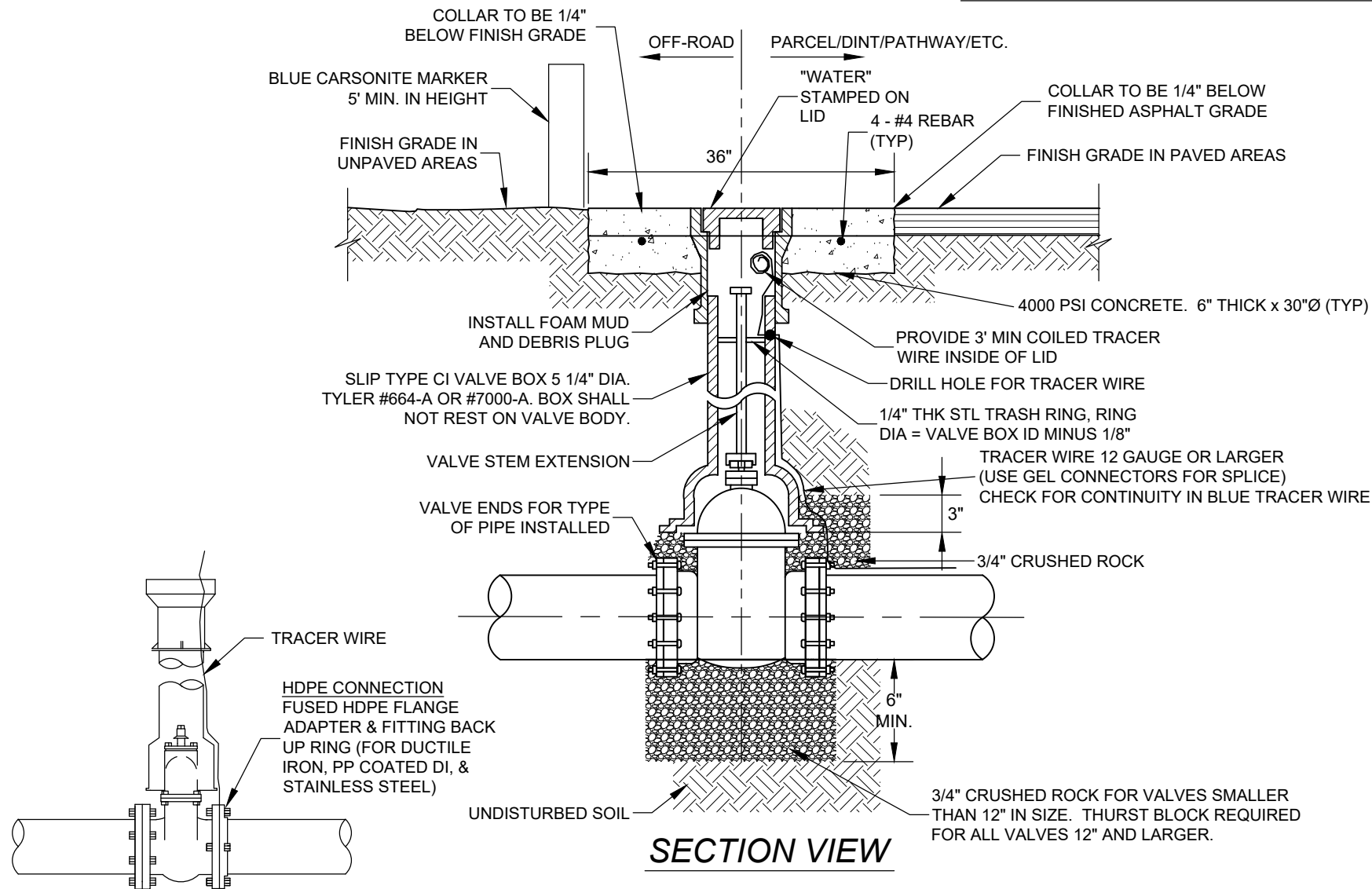
VALVE PLAN VIEW



CONCRETE COLLAR PLAN VIEW

NOTES:

- 1- ALL BURIED VALVES SHALL BE PROVIDED W/EXTENSION STEM OPERATOR W/2" SQ AWWA NUT WITHIN 4' OF VALVE BOX COVER.
- 2- CLEAN VALVE BOX OF ALL DEBRIS & SOIL.
- 3- VALVE BOX TO BE SET PLUMB AND CENTERED ABOVE VALVE NUT.
- 4- ALL VALVES SHALL BE FURNISHED WITH RESTRAINT COLLARS.
- 5- VALVE SPACING NOT TO EXCEED 800' WITHOUT PRIOR APPROVAL BY THE DISTRICT.



TYPICAL VALVE WITH BOX AND VALVE BOX COLLAR DETAIL

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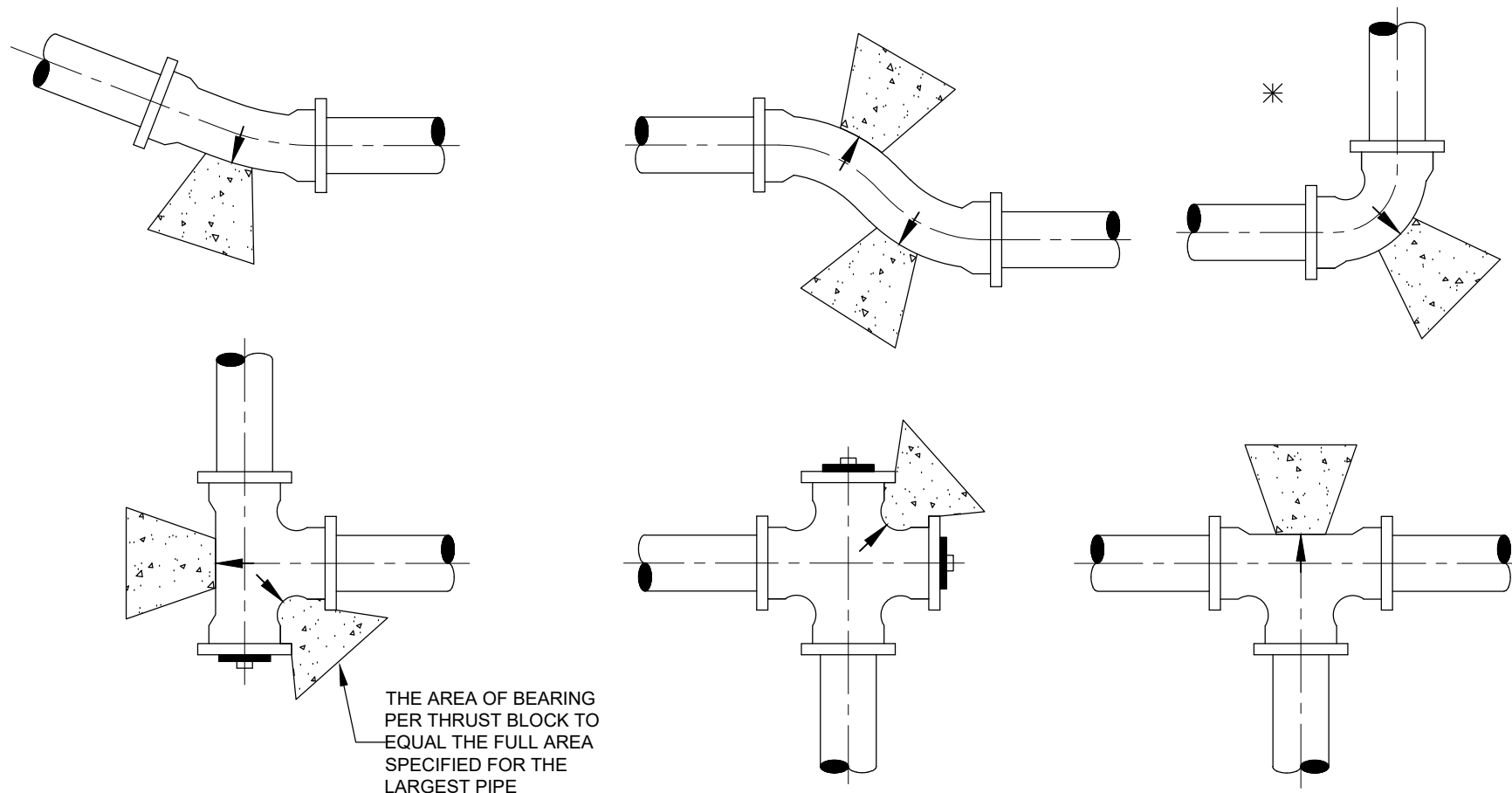


MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
VALVE BOX & COLLAR
SUMMIT COUNTY, UT

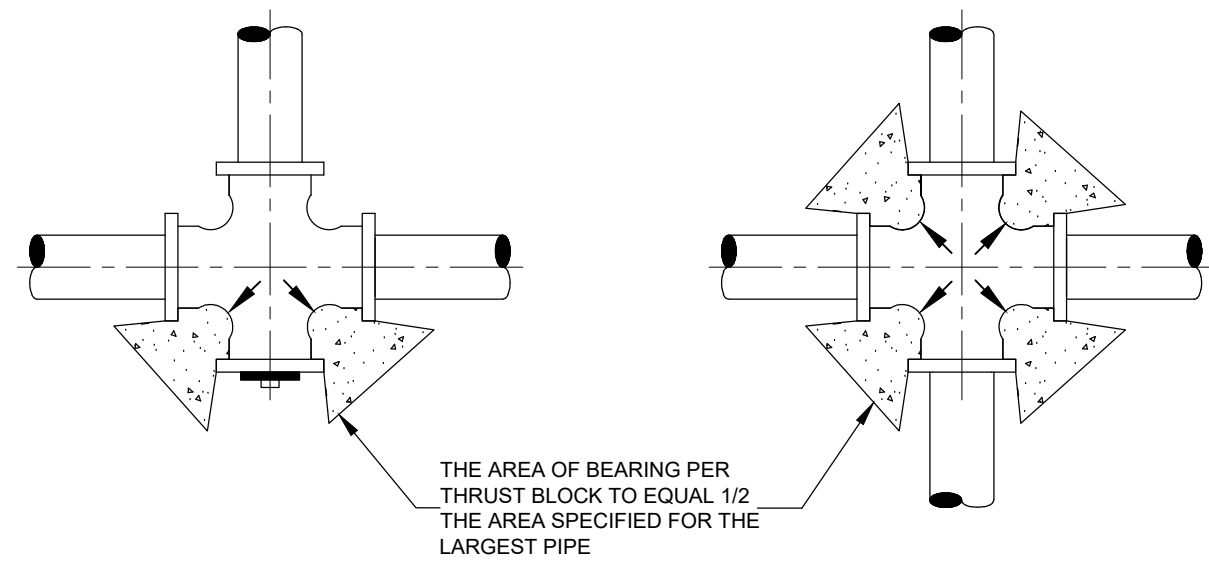
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6



NOTES:

- 1- SECURE AN INSPECTION OF PREPARATION PRIOR TO POURING THRUST BLOCK.
- 2- SECURE AN INSPECTION PRIOR TO BACKFILLING. ALL WORK MUST BE INSPECTED PRIOR TO BACKFILLING.
- 3- THRUST BLOCKS MUST BE POURED AGAINST UNDISTURBED SOIL OR APPROVED COMPACTED BACKFILL.
- 4- ALL PIPE JOINTS MUST BE LEFT ACCESSIBLE. ALL FITTINGS ADJACENT TO THRUST BLOCKS SHALL BE WRAPPED WITH 8 MIL. THICK POLYETHYLENE SHEET AND TAPE WRAP.
- 5- CONCRETE MUST BE ALLOWED TO CURE FOR 5 DAYS PRIOR TO PRESSURIZING WATER LINES.
- 6- CONCRETE MUST HAVE A MINIMUM OF 3000 P.S.I. COMPRESSIVE STRENGTH IN 28 DAYS.
- 7- THRUST BLOCKS MUST BE POURED AS CLOSE AS POSSIBLE TO THE CONFIGURATION SHOWN.
- 8- BEARING AREAS FOR HORIZONTAL BEND THRUST BLOCKS ARE BASED ON TEST PRESSURE OF 200 P.S.I. AND AN ALLOWABLE SOIL BEARING STRESS OF 2000 LBS./SQ.FT. COMPUTATIONS OF BEARING AREAS SHALL BE REQUIRED FOR DIFFERENT TEST PRESSURES AND SOIL BEARING PRESSURES.
- 9- BEARING AREAS, VOLUMES, AND SPECIAL BLOCKING DETAILS SHOWN ON PLANS TAKE PRECEDENCE OVER THIS STANDARD.
- 10- BEARING AREAS FOR PIPE SIZES OR CONFIGURATIONS NOT SHOWN REQUIRE A SPECIAL DESIGN.
- 11- * NO 90°BENDS ALLOWED UNLESS APPROVED BY THE DISTRICT.



MINIMUM BEARING AREA IN SQ.FT.					
PIPE SIZE	TEES, VAL DEAD END	*90 BEND	45 BEND	22.5 BEND	11.25 BEND
4"	2	3	2	2	2
6"	4	5.5	3	2	2
8"	6.5	9.5	5	3	2
10"	10	14	8	5	3
12"	14	20	11	6	3
14"	19	26.5	14.5	7.5	4
16"	24	34	18.5	9.5	6

DIRECT BEARING HORIZONTAL THRUST BLOCKS DETAIL
NTS

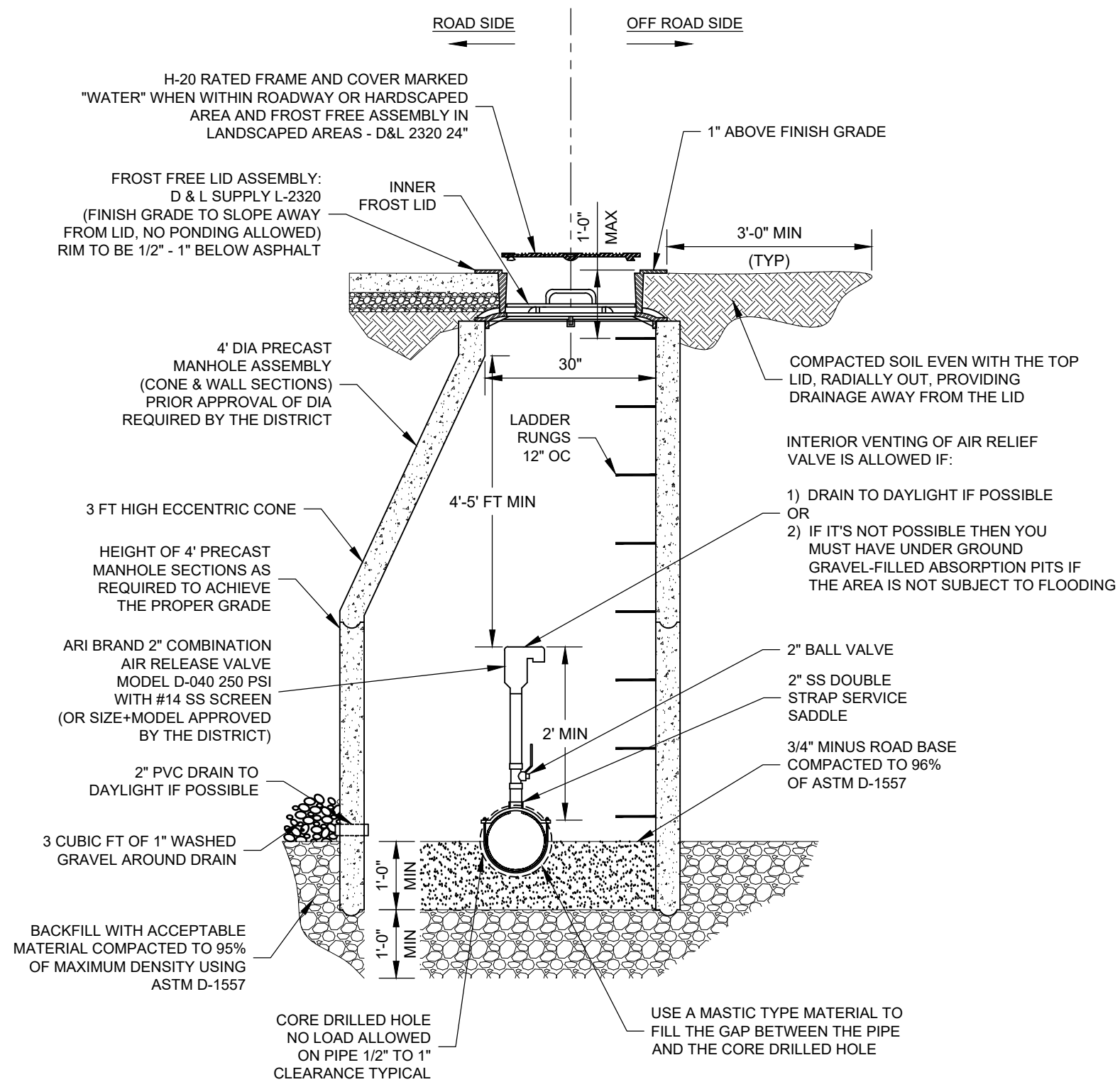
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MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
HORIZONTAL THRUST BLOCK
SUMMIT COUNTY, UT

DRAWING NO.
7



NOTES:

- 1- CONTRACTOR SHALL PROVIDE THE DISTRICT A 6'x6' CONCRETE BLANKET, FOR EACH AIR RELEASE STATION INSTALLED.
- 2- VENTING PER UTAH ADMIN CODE R309-550-6.
- 3- IN AREAS OF HIGH GROUND WATER AND PRONE TO FLOOD, VENT SHALL EXTEND TO A MIN OF 12" ABOVE GRADE PER UTAH ADMIN CODE R309-550-6.

TYPICAL COMBINATION AIR RELEASE VALVE DETAIL

NTS

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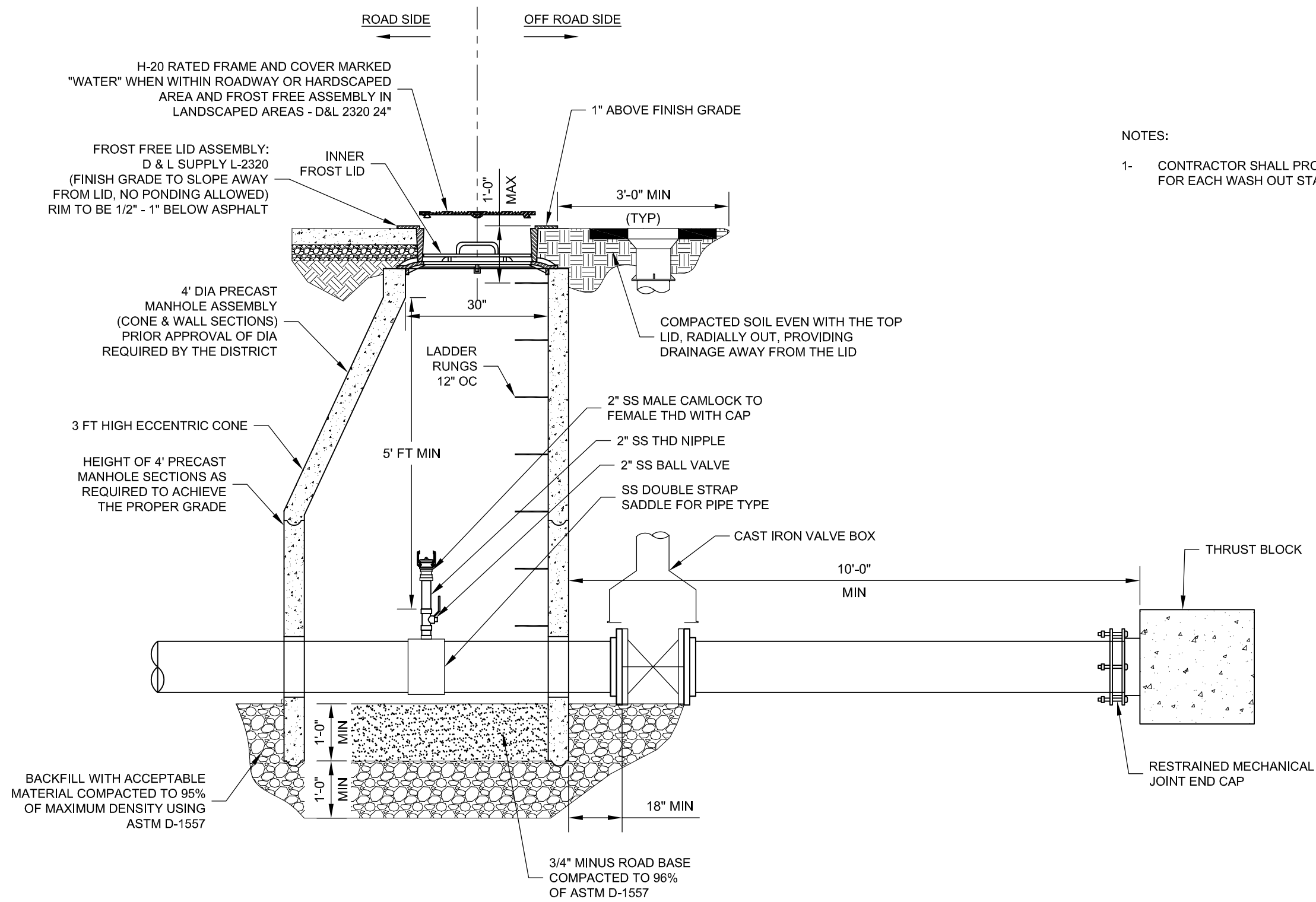


MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
TYP. COMB. AIR RELEASE VALVE
SUMMIT COUNTY, UT

DRAWING NO.

8



- NOTES:
- 1- CONTRACTOR SHALL PROVIDE THE DISTRICT A 6'x6' CONCRETE BLANKET, FOR EACH WASH OUT STATION INSTALLED.

2" WASHOUT VALVE DETAIL
NTS

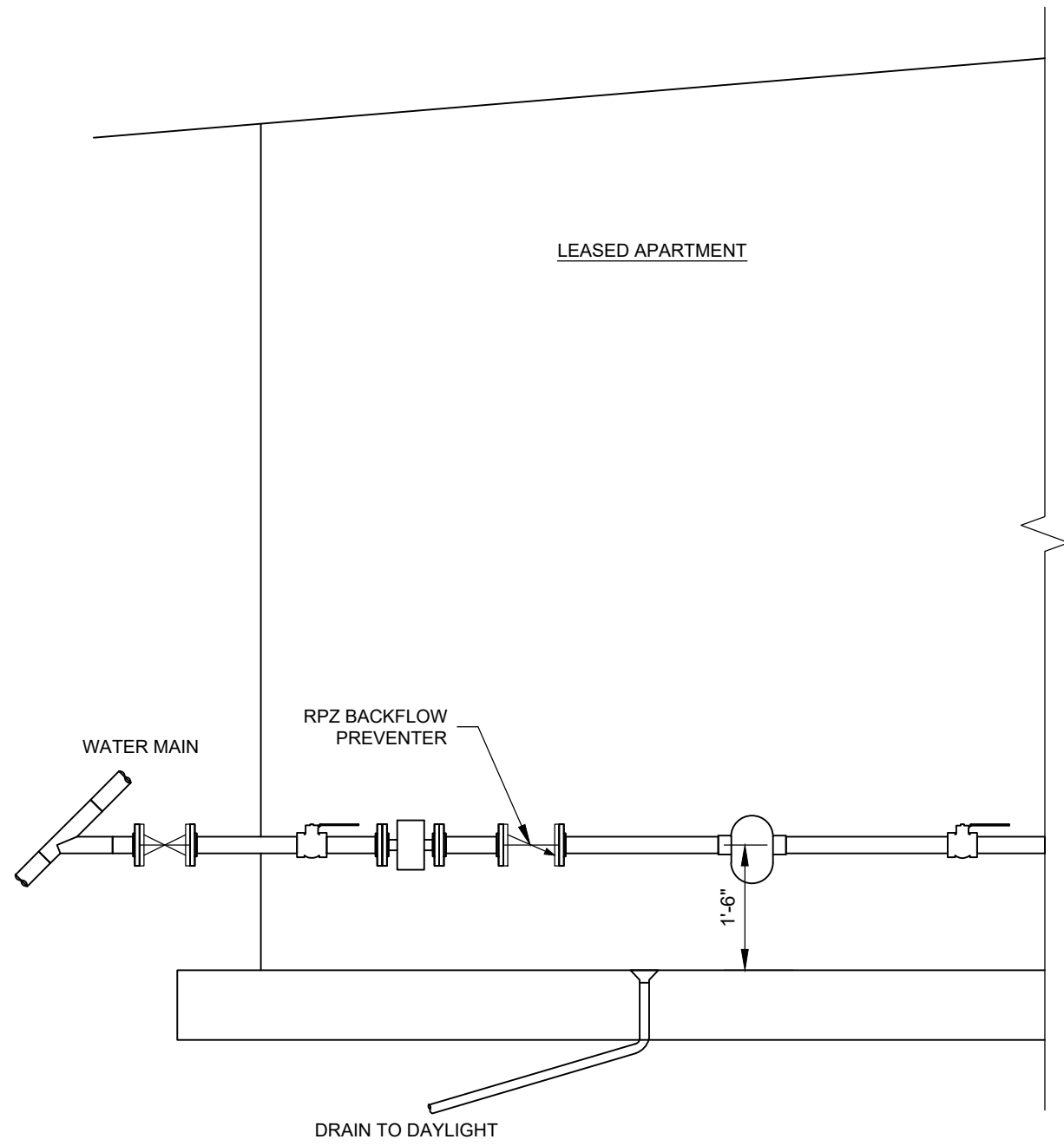
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MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
2" WASHOUT VALVE
SUMMIT COUNTY, UT

DRAWING NO.
9



LEGEND

SYMBOL	DESCRIPTION
	GATE VALVE SHUT OFF W/ NUT
	BALL VALVE
	FLOW METER
	REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER
	PRESSURE REDUCING VALVE

NOTES:

- 1- METERS INSTALLED FOR CONDOS, STRAIGHT PIPE IN APARTMENTS.
- 2- INTERIOR APPURTENANCES COLLOCATED IN A TEMPERATURE CONTROLLED SPACE.
- 3- MASTER METER INSTALLED IN APARTMENT COMPLEXES SHALL BE BADGER E-SERIES (DISTRICT PROVIDED) OR APPROVED BY THE DISTRICT.
- 4- METER SIZE CALCULATIONS ARE TO BE SUPPLIED TO AND APPROVED BY THE DISTRICT.
- 5- ALL CONNECTIONS TO METERS SHALL BE SWIVEL-TYPE AND APPROVED BY THE DISTRICT.
- 6- CELLULAR SERVICE REQUIRED. ADDITIONAL MODIFICATIONS MAY BE NECESSARY TO ENSURE CELLULAR SERVICE

LEASE APARTMENT WATER SERVICE DESIGN DETAIL
NTS

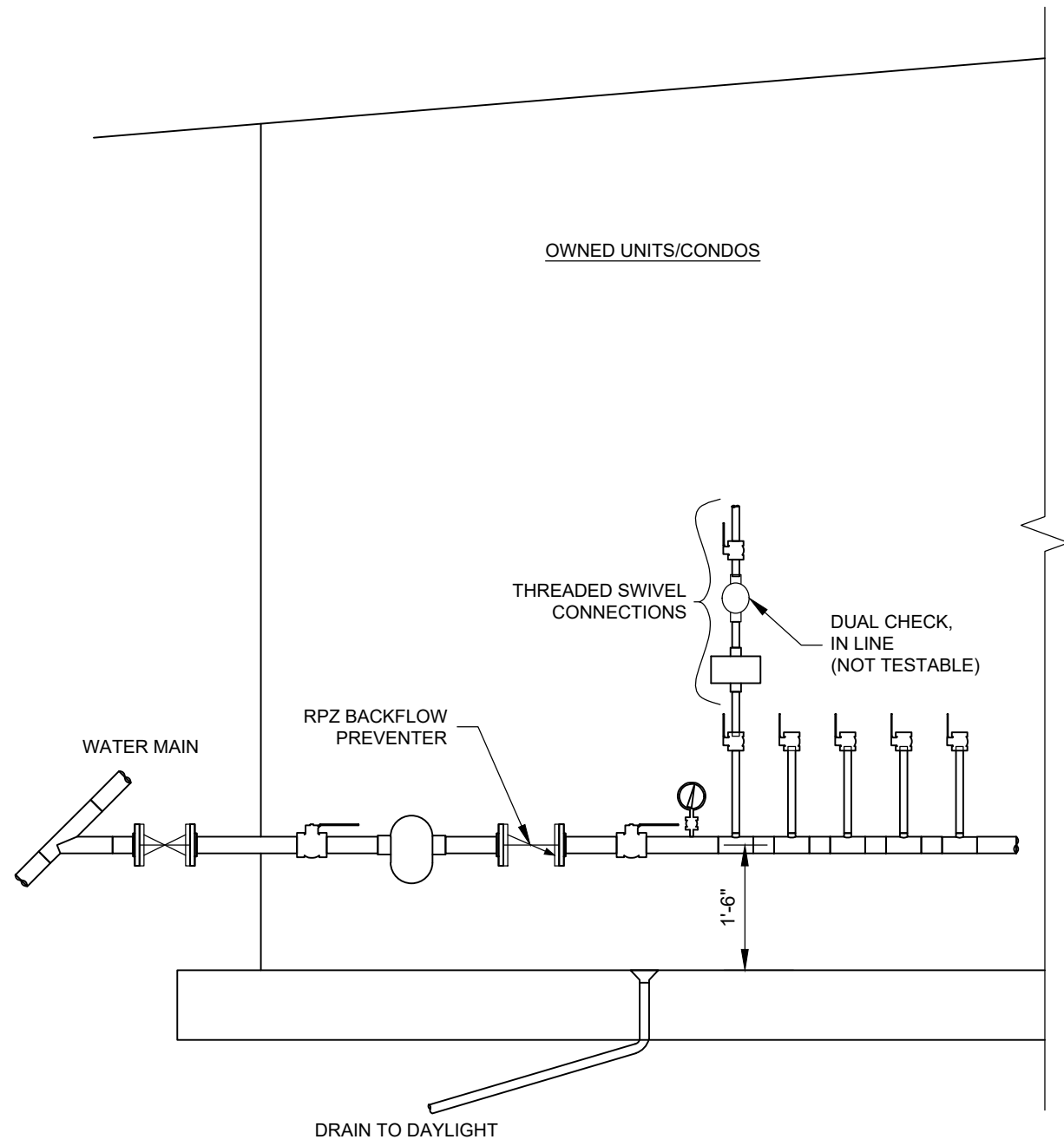
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MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
LEASED APARTMENT
SUMMIT COUNTY, UT

DRAWING NO.
10



LEGEND

SYMBOL	DESCRIPTION
	GATE VALVE SHUT OFF W/ NUT
	BALL VALVE
	FLOW METER
	REDUCED PRESSURE ZONE (RPZ) BACKFLOW PREVENTER
	PRESSURE REDUCING VALVE
	PRESSURE INDICATOR
	IN LINE DUAL CHECK VALVE

NOTES:

- 1- METERS INSTALLED FOR CONDOS, STRAIGHT PIPE IN APARTMENTS.
- 2- INTERIOR APPURTENANCES COLLOCATED IN A TEMPERATURE CONTROLLED SPACE.
- 3- MASTER METER INSTALLED IN APARTMENT COMPLEXES SHALL BE BADGER E-SERIES (DISTRICT PROVIDED) OR APPROVED BY THE DISTRICT.
- 4- METER SIZE CALCULATIONS ARE TO BE SUPPLIED TO AND APPROVED BY THE DISTRICT.
- 5- ALL CONNECTIONS TO METERS SHALL BE SWIVEL-TYPE AND APPROVED BY THE DISTRICT.
- 6- CELLULAR SERVICE REQUIRED. ADDITIONAL MODIFICATIONS MAY BE NECESSARY TO ENSURE CELLULAR SERVICE

OWNED UNITS/CONDOS WATER SERVICE DESIGN DETAIL
NTS

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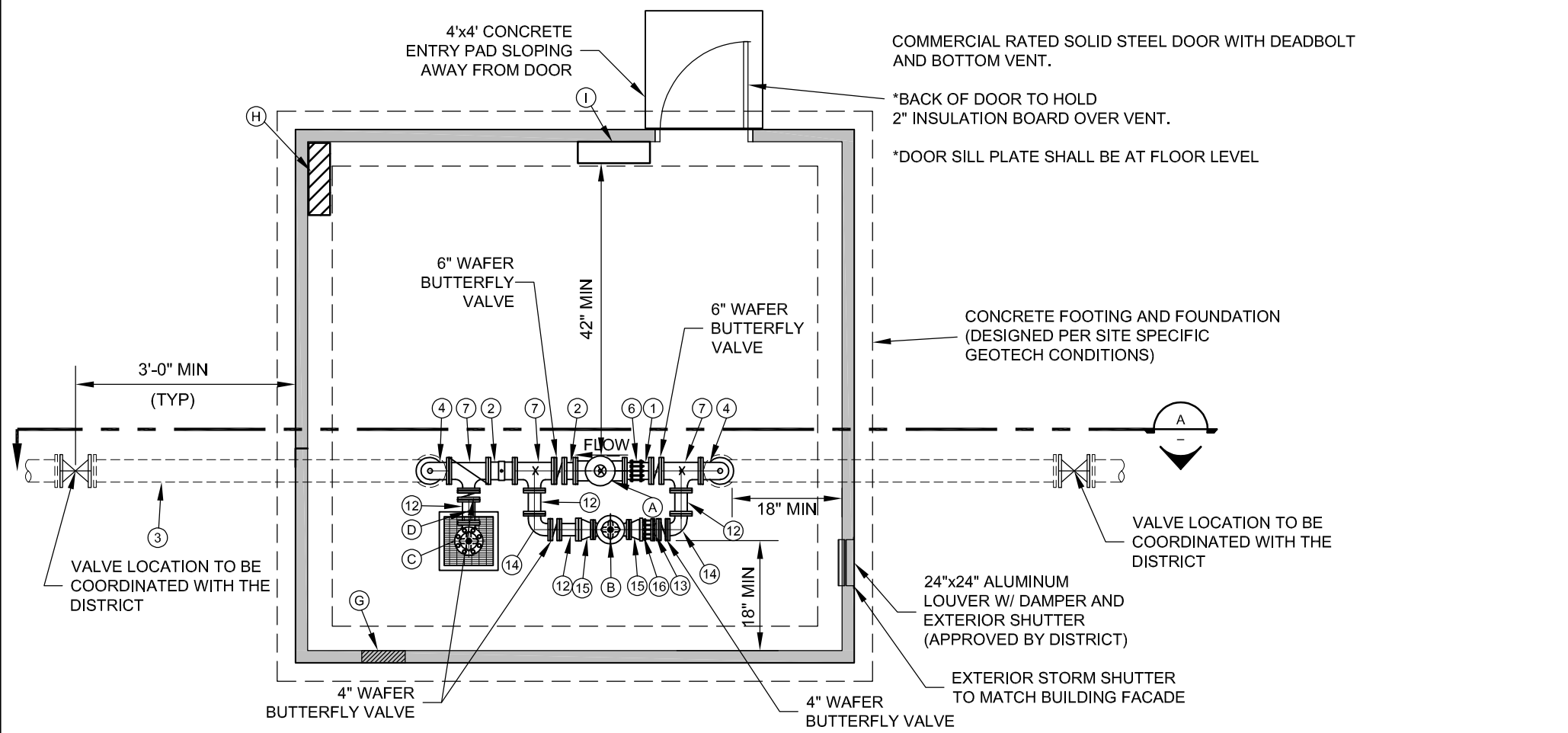


MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
OWNED UNITS/CONDOS
SUMMIT COUNTY, UT

DRAWING NO.

11

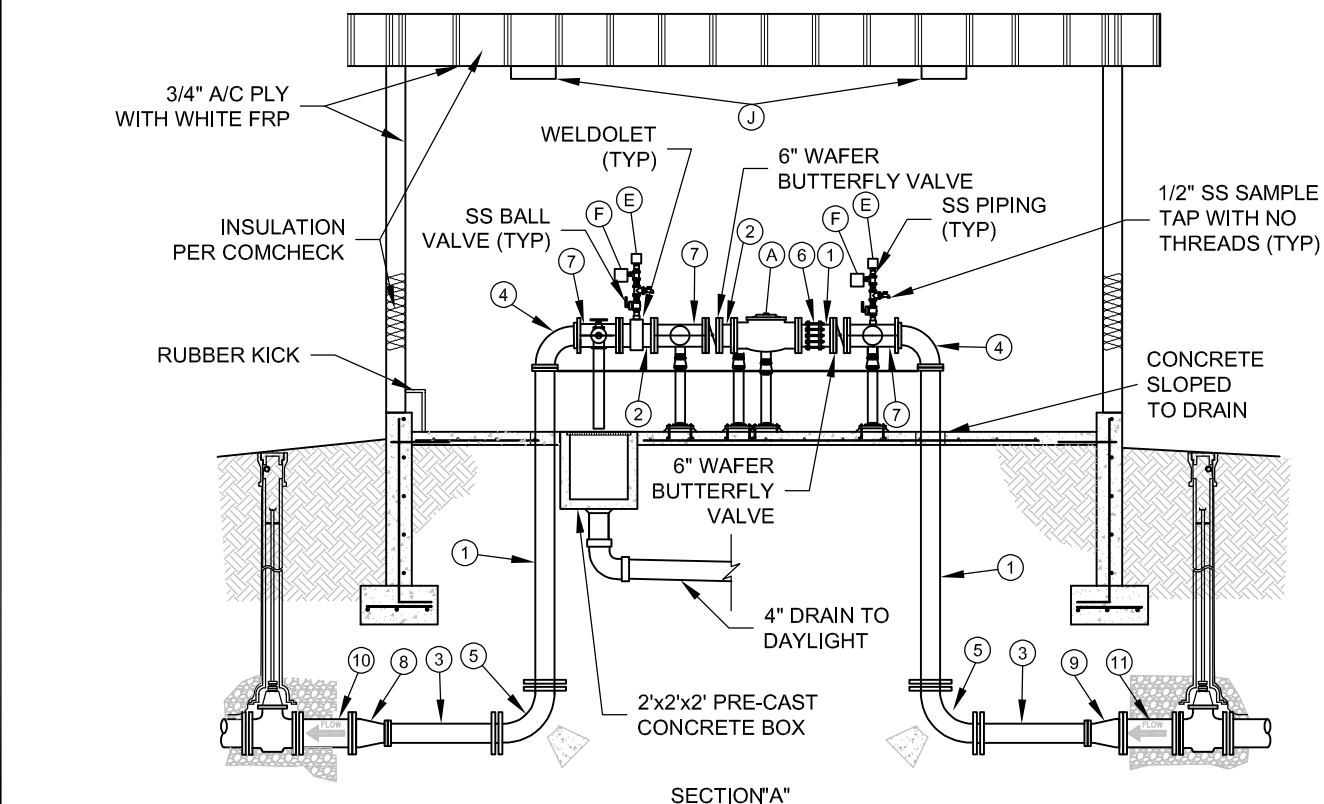


ELECTRICAL NOTES:

- 1- PRV BUILDING SHALL HAVE A MINIMUM OF TWO ELECTRICAL OUTLETS.
- 2- ELECTRICAL SERVICE PANEL SHALL BE 100 AMP MIN.
- 3- ALL ELECTRICAL WIRING SHALL BE ROUTED WITHIN WALL CAVITY WHERE POSSIBLE.
- 4- AT LEAST TWO (2) ELECTRICAL OUTLETS REQUIRED.
- 5- EXTERIOR LIGHTING REQUIRED:
 ONE EXTERIOR LIGHT FIXTURE FOR DOORWAY CONTROLLED BY A SWITCH. FULLY-SHIELDED AND DOWN-LIT MEANING THE LIGHT BULB MAY NOT EXTEND BELOW THE LOWEST HORIZONTAL PLANE OF THE SHIELDING ELEMENT. MAXIMUM COLOR TEMPERATURE NOT TO EXCEED (3000) KELVIN MAXIMUM LIGHT OUTPUT NOT TO EXCEED THE FOLLOWING LIMITS DEPENDING ON THE HEIGHT OF THE STRUCTURE AS LISTED BELOW:
 6 FEET - 1,000 LUMENS
 8 FEET - 1,600 LUMENS
 10 FEET - 2,000 LUMENS
 12 FEET OR ABOVE - 2,500 LUMENS

GENERAL NOTES:

- 1- BUILDING SHALL MEET ALL REQUIREMENTS FOR SUMMIT COUNTY BUILDING PERMIT INCLUDING COMCHECK REQUIREMENTS.
- 2- MINIMUM BUILDING DIMENSIONS ARE BASED OFF 6" MAIN 4" BYPASS SETUP. FINAL DIMENSIONS AND LAYOUT SHALL BE APPROVED BY THE DISTRICT.
- 3- BUILDING EXTERIOR PER LOCAL ARCHITECTURAL REQUIREMENTS. STRUCTURAL OR BUILDING TO BE DESIGNED BY OTHERS. (PLAN AND DESIGN TO BE APPROVED BY THE DISTRICT)
- 4- ALL PIPING SHALL BE PAINTED SAFETY BLUE (EPOXY).
- 5- PARKING PAD SHALL BE 10' WIDE TO ROADWAY.



PIPE SCHEDULE				
NO.	DESCRIPTION	SIZE	JOINT	MATERIAL
1	SPOOL	6"	FLGxPE	DIP
2	SPOOL	6"	FLG	DIP
3	SPOOL	6"	PE	DIP
4	90° BEND	6"	FLG	DIP
5	90° BEND	6"	RJMJ	DIP
6	RESTRAINED FLANGE ADAPTER	6"	FLG	DIP
7	REDUCING TEE	6"x4"	FLG	DIP
8	CONCENTRIC REDUCER	8"x6"	RJMJ	DIP
9	CONCENTRIC REDUCER	10"x6"	RJMJ	DIP
10	SPOOL	8"	PE	DIP
11	SPOOL	10"	PE	DIP
12	SPOOL	4"	FLG	DIP
13	SPOOL	4"	FLGxPE	DIP
14	90° BEND	4"	FLG	DIP
15	CONCENTRIC REDUCER	4"x2"	FLG	DIP
16	RESTRAINED FLANGE ADAPTER	4"	FLG	DIP

MECHANICAL SCHEDULE		
NO.	DESCRIPTION	SIZE JOINT
A	CLA-VAL 90-01 W/ STRAINER OR SINGER 6" 106-PR-AC PRESSURE REDUCING VALVE (HIGH FLOW) OR APPROVED EQUAL, ANTI CAVITY BASKETS PER MANUFACTURER REQUIREMENT	6" FLG
B	CLA-VAL 90-01 W/ STRAINER OR SINGER 2" 106-PR-AC PRESSURE REDUCING VALVE (LOW FLOW) (PER ENGINEERED DESIGN APPROVED BY THE DISTRICT) OR APPROVED EQUAL	2" FLG
C	CAL-VAL 50-01 (ANGLE) OR SINGER 4" 106-RPS PRESSURE RELIEF VALVE (ANGLE) OR APPROVED EQUAL	4" FLG
D	MAGNETROL TD1 THERMAL DISPERSION FLOW SWITCH (1/2" WELDOLET ON SPOOL PIECE)	1/2" NPT
E	ARI D-040 COMBINATION	3/4" NPT
F	KELE PSS2-1000 PRESSURE TRANSMITTER W/ENCL AND 2" PRESSURE GAUGE	1/8" NPT

ELECTRICAL SCHEDULE	
NO.	DESCRIPTION
G	CEILING MOUNT ELECTRICAL HEATING UNIT ²⁰⁸ / ₂₄₀ VAC
H	ELECTRICAL PANEL
I	SCADA SYSTEM (ENCLOSURE APPROVED & INSTALLED BY DISTRICT) (PURCHASED BY DEVELOPER) - FLOW SWITCH TO THE BLOW-OFF VALVE - TEMPERATURE READING FOR THE BUILDING
J	CEILING MOUNT LED FIXTURE (2)

PRV STATION DETAIL
NTS

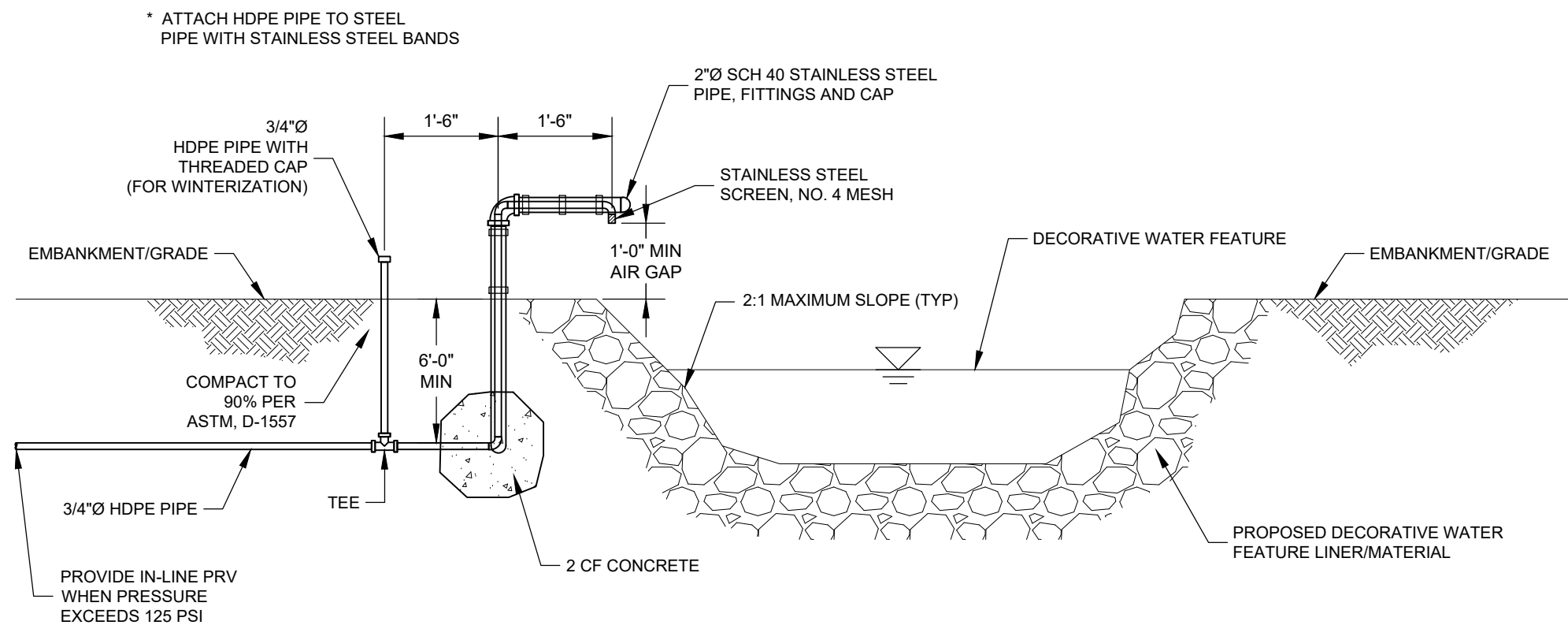
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MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
PRV STATION
SUMMIT COUNTY, UT

DRAWING NO.
12



NOTES:

- 1- IMPROVEMENTS SHALL BE IN ACCORDANCE WITH UTAH DIVISION OF DRINKING WATER REQUIREMENTS.
- 2- ALL PIPE AND FITTINGS SHALL BE NSF 61 COMPLIANT.
- 3- FLOW RATE FROM AIR GAP STRUCTURE NOT TO EXCEED 20 GPM AND TO BE APPROVED BY DISTRICT. MODIFICATIONS MAY BE REQUIRED TO PREVENT EXCEEDING MAXIMUM FLOW RATE.

WATER FEATURE AIR GAP DETAIL
NTS

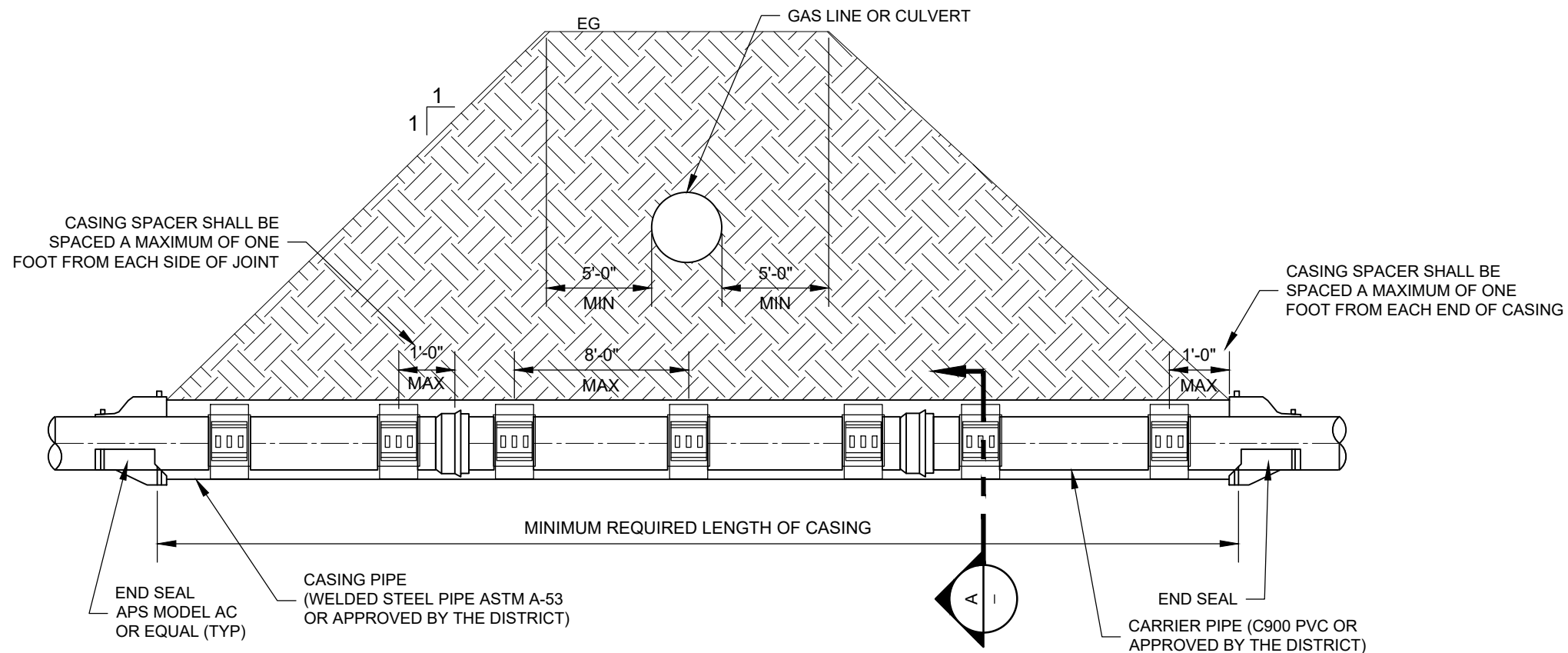
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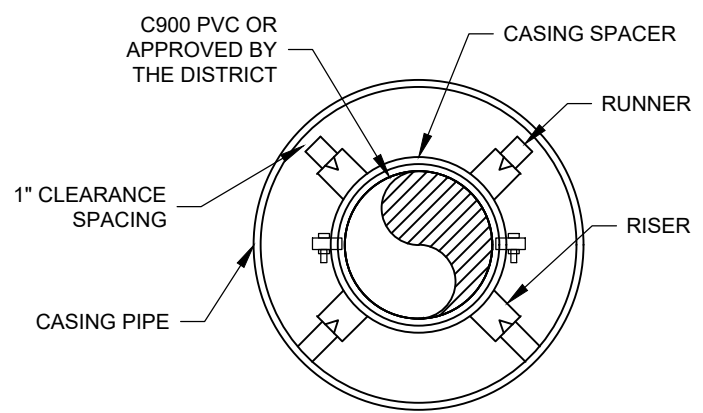
MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
WATER FEATURE AIR GAP
SUMMIT COUNTY, UT

DRAWING NO.
13



PLAN



SECTION "A"

PIPE ENCASEMENT DETAIL

NTS

NOTES:

- 1- CASING SPACERS AND END SEALS SHALL BE APPROVED BY THE DISTRICT PRIOR TO INSTALL.
- 2- QUANTITY OF RUNNERS SHALL BE IN ACCORDANCE WITH CARRIER PIPE SIZE AS FOLLOWS:
 TO 14" DIAMETER - 4 RUNNERS
 16" TO 36" DIAMETER - 6 RUNNERS
 38" TO 48" DIAMETER - 8 RUNNERS
- 3- ALL ENCASEMENT PIPE SHALL BE NEW AND HAVE A MINIMUM WALL THICKNESS OF 0.25 INCHES. CASING INSIDE DIAMETER SHALL BE AT LEAST 2" LARGER THAN OUTSIDE DIAMETER OF CASING SPACER.
- 4- WIDTH OF SPACERS SHALL BE IN ACCORDANCE WITH CARRIER PIPE SIZE AS FOLLOWS:
 TO 14" DIAMETER - 8" WIDTH
 16" AND LARGER DIAMETER - 12" WIDTH
- 5- WATER LINES SHALL BE "CENTERED" IN CASING.
- 6- ALL WATERLINES SHALL BE MECHANICALLY RESTRAINED THROUGHOUT THE CASING, AND WITHIN 20' OF EACH END.

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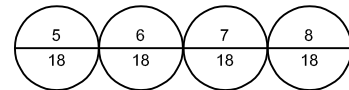
MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
 OF SUMMIT COUNTY, UTAH P.O. BOX 982320, PARK CITY, UT 84098

STANDARD DETAIL
 PIPE ENCASEMENT
 SUMMIT COUNTY, UT

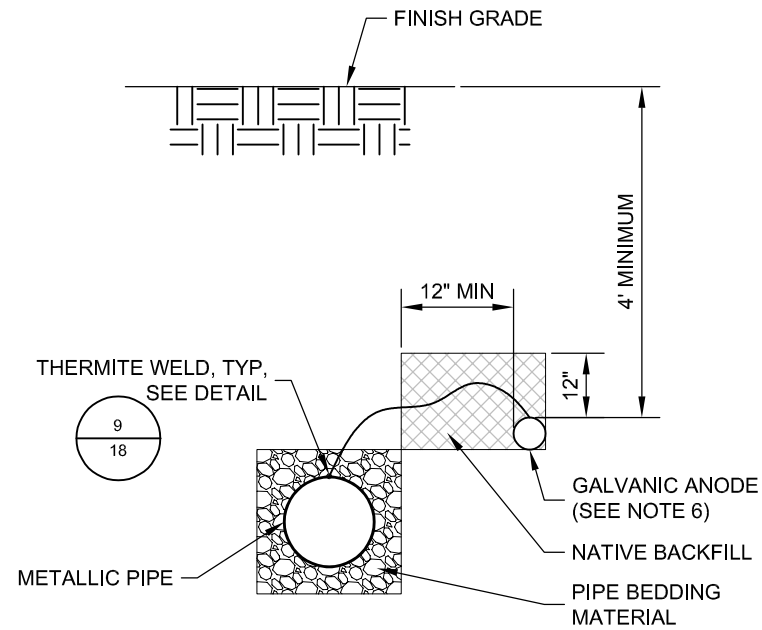
DRAWING NO.
14

NOTES:

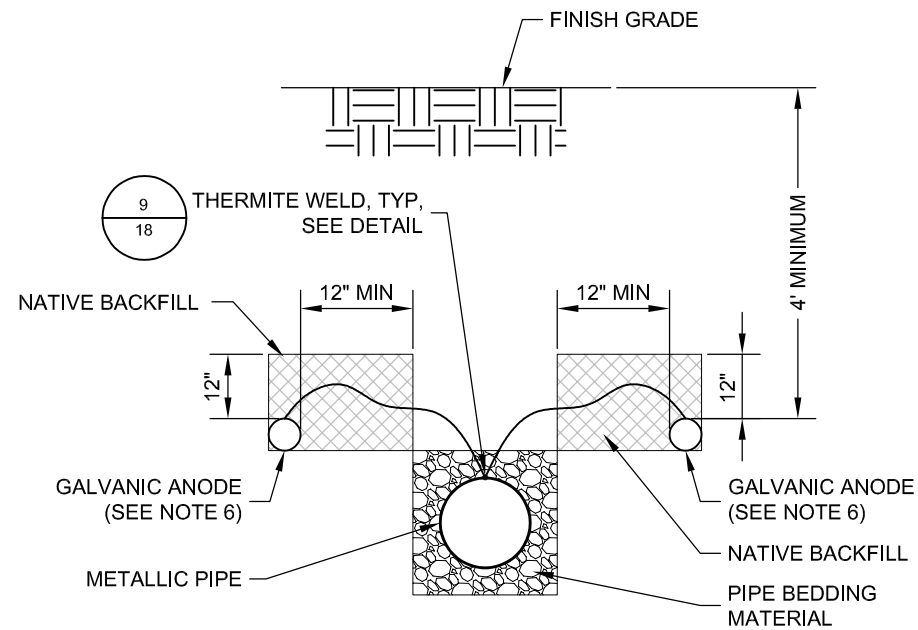
- CATHODIC PROTECTION DESIGN IS BASED ON BURIED METALLIC PIPE AND APPURTENANCES BEING INSTALLED WITH A DIELECTRIC COATING.
- SUPPLY METALLIC FITTINGS, VALVES, AND VALVE BOXES WITH FUSION BONDED EPOXY COATING, UNLESS SPECIFICALLY SPECIFIED OTHERWISE. APPLY DIELECTRIC COATING (WAX TAPE OR EPOXY) TO ALL METALLIC FITTINGS, VALVES, AND VALVE BOXES, UNLESS SPECIFICALLY SPECIFIED OTHERWISE. POLYETHYLENE ENCASEMENT IS NOT AN ACCEPTABLE COATING ALTERNATIVE.
- THE SPECIFIED GALVANIC ANODE MATERIAL (I.E. HIGH POTENTIAL MAGNESIUM OR ZINC) IS BASED ON SOIL RESISTIVITY DATA FOR THE SPECIFIC INSTALLATION LOCATION. IN GENERAL, ZINC ANODES SHALL BE INSTALLED WHERE SOIL RESISTIVITY IS 1,500 OHM-CM OR LESS.
- GALVANIC ANODES SHALL BE THE MATERIAL AND WEIGHT AS SPECIFIED.
- GALVANIC ANODES SHALL BE SUPPLIED PREPACKAGED IN A CLOTH BAG AT 2.5 TIMES BARE WEIGHT IN 75% GYPSUM, 20% BENTONITE, AND 5% SODIUM SULFATE BACKFILL WITH MANUFACTURER'S STANDARD 10-FOOT LONG, NO.8 AWG LEAD WIRE.
- INSTALL GALVANIC ANODES IN PIPE TRENCH APPROXIMATELY 2 FEET FROM THE FITTING WHERE POSSIBLE, BUT NOT CLOSER THAN 12-INCHES FROM THE METALLIC FITTING.
- WHERE REQUIRED, LOCATE MULTIPLE ANODES AT EQUAL SPACING ALONG PIPE FITTING ASSEMBLY AND ON OPPOSITE SIDES OF PIPE WHERE MORE THAN FOUR ANODES ARE REQUIRED.
- WHERE MULTIPLE ANODES ARE INSTALLED, MAINTAIN 5' CENTER TO CENTER SEPARATION.
- ADDITIONAL ANODES ARE REQUIRED ON METALLIC PIPE ASSEMBLIES THAT EXCEED THE MAXIMUM COMBINED LENGTH LISTED IN THE SCHEDULE FOR ALL FITTINGS, VALVES, PIPE SPOOLS, AND OTHER METALLIC APPURTENANCES IN THE ASSEMBLY. EXCLUDING THRUST RESTRAINT, ADD ONE ANODE FOR EACH EXTRA PIPE LENGTH AND ONE ANODE FOR FRACTIONAL EXTRA PIPE LENGTH TO THE LISTED QUANTITY OF ANODES.
- PIPE ASSEMBLIES FOR BLOW-OFFS, AIR RELEASE, AND FIRE HYDRANTS ARE BASED ON STANDARD CONSTRUCTION DETAILS AND INCLUDES ONE RESTRAINED MAINLINE TEE FITTING AND ALL OFFSET PIPE, FITTINGS, AND RISERS AS SHOWN ON THE APPLICABLE CONSTRUCTION DETAILS, ADDITIONAL ANODES ARE REQUIRED FOR-1) OFFSET PIPE LENGTH IN EXCESS OF THE MAXIMUM COMBINED LENGTH FOR THE OFFSET PIPE DIAMETER, AND 2) ADDITIONAL ANODES REQUIRED FOR EXTRA MAINLINE PIPE FITTINGS.
- INSTALL BONDS ON ALL ADJACENT FITTING JOINTS WHERE MULTIPLE METALLIC FITTINGS ARE INSTALLED TOGETHER WITH JOINT BONDS AS SHOWN IN DETAILS.



- BOND WIRES SHALL BE STRANDED COPPER WIRE WITH HMWPE OR THHN INSULATION, USE NO.2 AWG WIRE FOR BONDING PIPE OR FITTING JOINTS, USE NO.12 AWG WIRE FOR BONDING FOLLOWER RINGS AND RESTRAINED JOINT RINGS TO FITTING AS SHOWN.
- TWO BOND WIRES REQUIRED FOR JOINT BONDING.
- COAT ALL THERMITE WELDS, PIPE, AND EXPOSED COPPER WIRE WITH AQUATA-POXY, SCOTCHKOTE 206P THERMOPLASTIC PATCH MELT STICK COATING, WAX TAPE, DENSO PROTAL 7125/7300, OR COATING SYSTEM AS SPECIFIED.



1 SINGLE ANODE PLACEMENT
NTS



NOTES:

- WHERE MULTIPLE ANODES ARE INSTALLED, MAINTAIN 5' CENTER TO CENTER SEPARATION.
- COAT CONNECTION AND ANY EXPOSED METAL WITH WAX TAPE OR EPOXY.

2 MULTIPLE ANODE PLACEMENT
NTS

TABLE 1A-SCHEDULE OF ZINC ANODE QUANTITIES AND BARE WEIGHT FOR TYPICAL METALLIC ASSEMBLIES

PIPE AND FITTINGS DESCRIPTION	MAX. COMBINED LENGTH	NO. OF ANODES AND WEIGHT FOR UP TO 24" PIPELINE DIAMETER	REFERENCE DETAIL
BEND	5'	1-30 LB	A
CROSS	5'	1-30 LB	B
TEE	5'	1-30 LB	C
MJ SOLID DEVICE	2'	1-30 LB	D
RESTRAINED JOINT	5'	1-30 LB	E
TAPPING SLEEVE AND VALVE	10'	3-30 LB	F
SERVICE SADDLE	2'	1-30 LB	G
FIRE HYDRANT	14'	3-30 LB	H
EXTRA PIPE LENGTH:			
1-30 LB ANODE FOR		15 FEET	
EXTRA FITTING LENGTH:			
2-30 LB ANODES FOR		14 FEET	

TABLE 1A-SCHEDULE OF HIGH-POTENTIAL MAGNESIUM ANODE QUANTITIES AND BARE WEIGHT FOR TYPICAL METALLIC ASSEMBLIES

PIPE AND FITTINGS DESCRIPTION	MAX. COMBINED LENGTH	NO. OF ANODES AND WEIGHT FOR UP TO 24" PIPELINE DIAMETER	REFERENCE DETAIL
BEND	5'	1-32 LB	A
CROSS	5'	1-32 LB	B
TEE	5'	1-32 LB	C
MJ SOLID DEVICE	2'	1-32 LB	D
RESTRAINED JOINT	5'	1-32 LB	E
TAPPING SLEEVE AND VALVE	10'	3-32 LB	F
SERVICE SADDLE	2'	1-32 LB	G
FIRE HYDRANT	14'	3-32 LB	H
EXTRA PIPE LENGTH:			
1-32 LB ANODE FOR		15 FEET	
EXTRA FITTING LENGTH:			
2-32 LB ANODES FOR		14 FEET	

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STANDARD DETAIL
ANODE PROTECTION DETAILS
SUMMIT COUNTY, UT

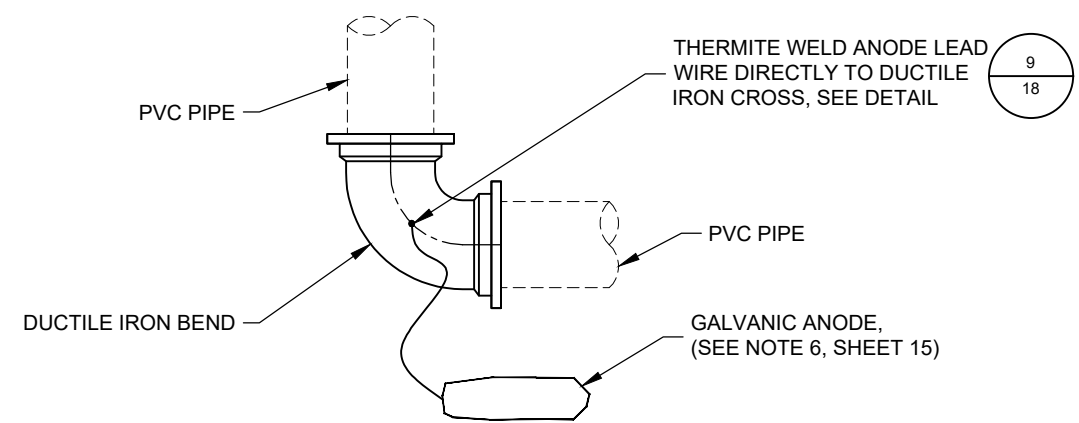
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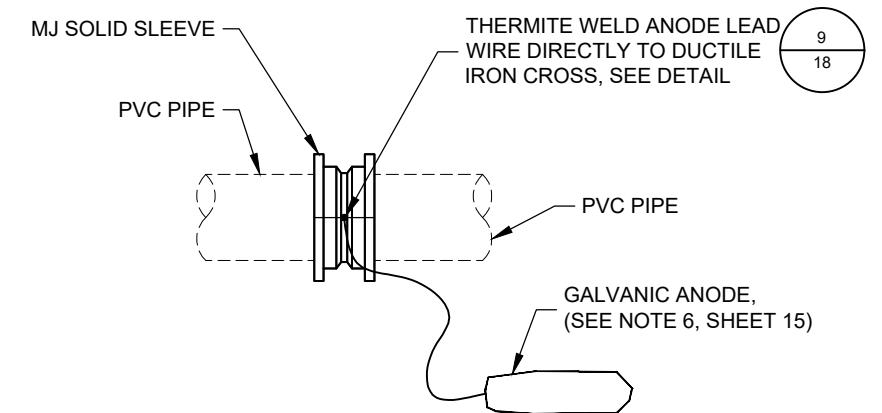
NOTES:

1. JOINT BONDING NOT SHOWN FOR CLARITY. SEE SHEET 17 FOR BONDING DETAILS.
2. FOLLOWER RINGS TO BE ELECTRICALLY BONDED TO METALLIC PIPE OR FITTING AS SHOWN ON DETAIL

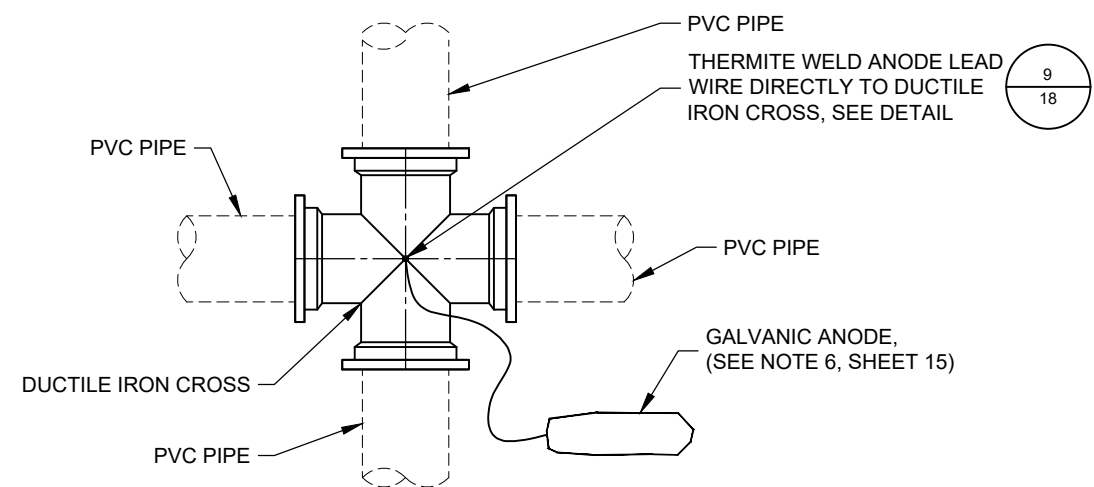
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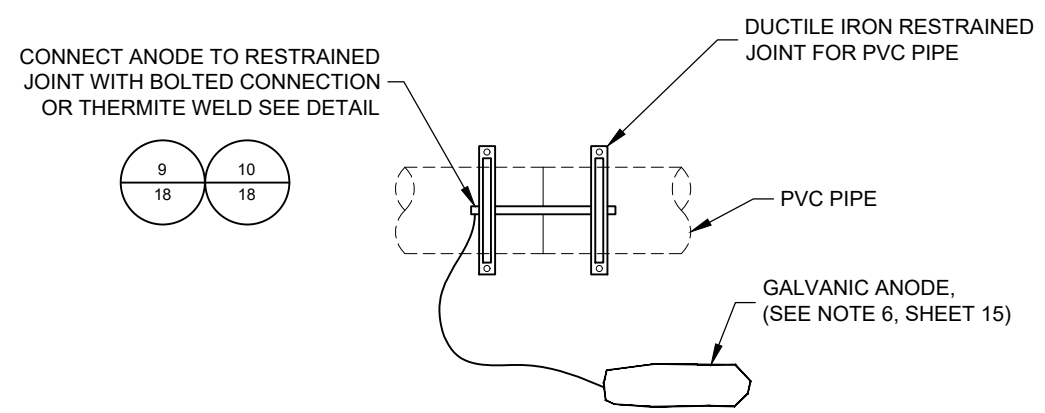
DETAIL A - ANODE PROTECTION FOR BENDS



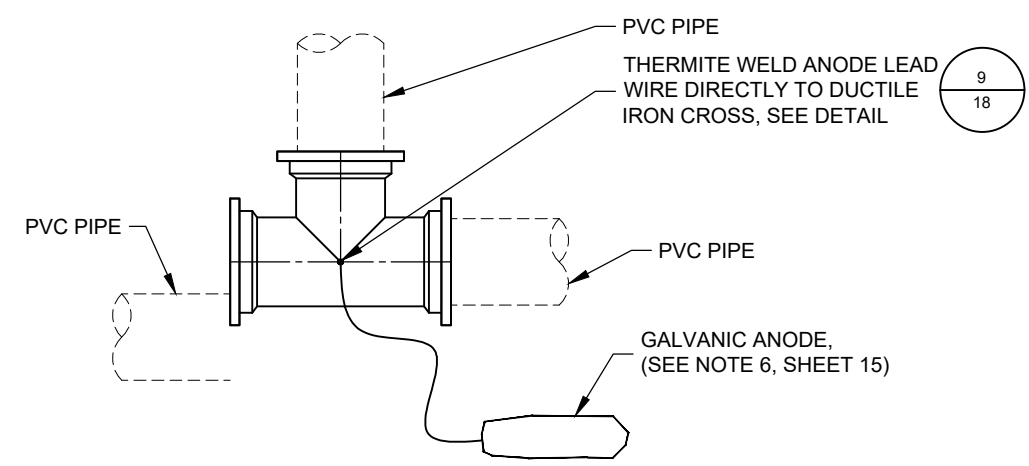
DETAIL D - ANODE PROTECTION FOR MJ SOLID SLEEVE



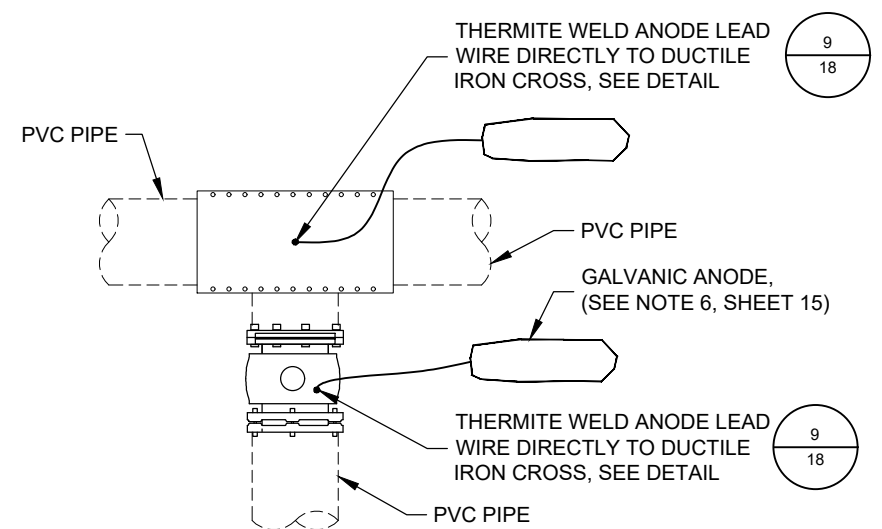
DETAIL B - ANODE PROTECTION FOR CROSS



DETAIL E - ANODE PROTECTION FOR RESTRAINED JOINT



DETAIL C - ANODE PROTECTION FOR TEE



DETAIL F - ANODE PROTECTION FOR TAPPING SLEEVE AND VALVE

3 METALLIC PIPE APPURTENANCE AND FITTING CATHODIC PROTECTION
NTS

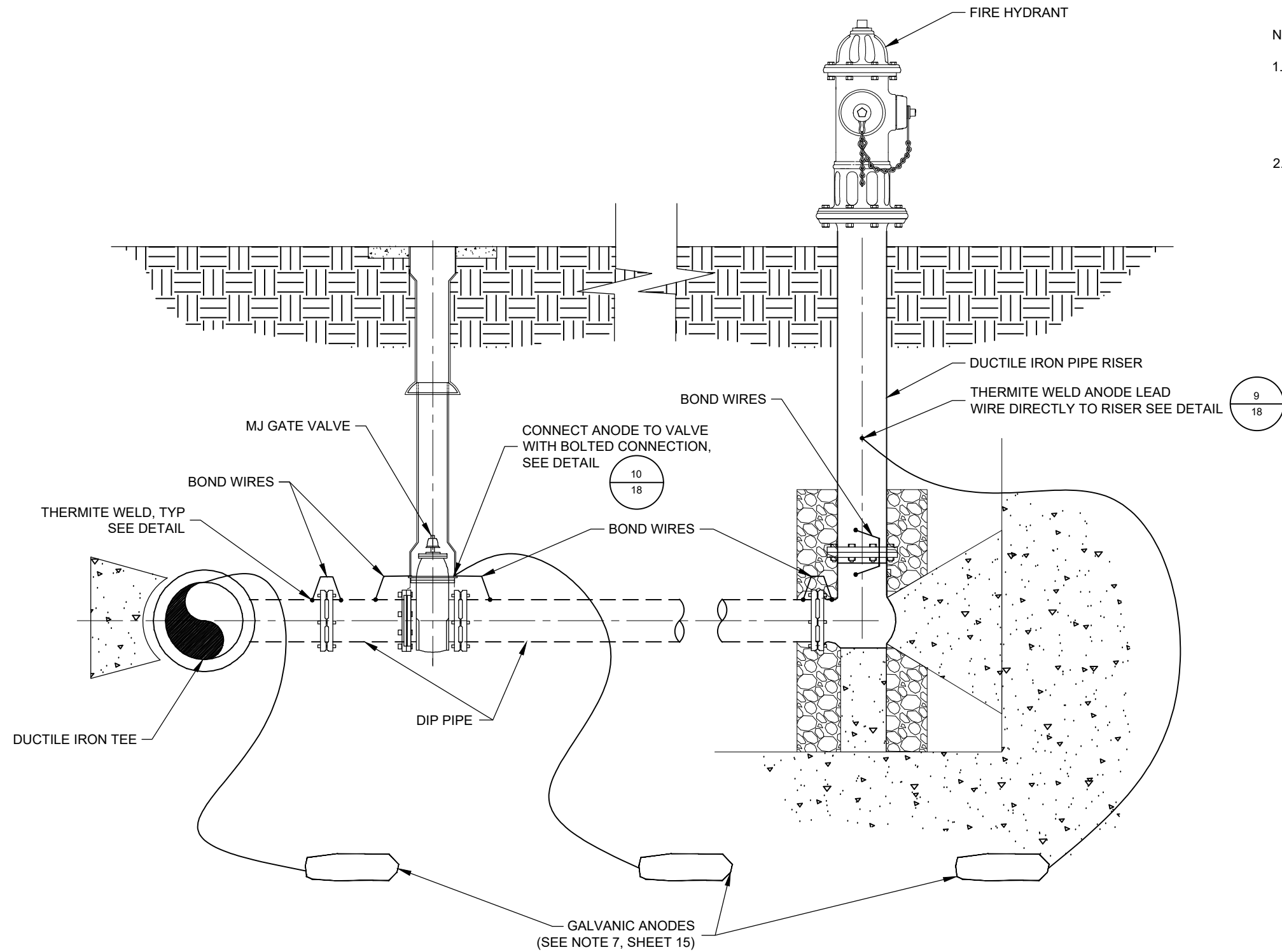
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NOTES:

1. SUPPLY METALLIC FITTINGS, VALVES, AND VALVE BOXES WITH FUSION BONDED EPOXY COATING, UNLESS SPECIFICALLY SPECIFIED OTHERWISE. APPLY DIELECTRIC COATING (WAX TAPE OR EPOXY) TO ALL METALLIC FITTINGS, VALVES, AND VALVE BOXES, UNLESS SPECIFIED OTHERWISE. POLYETHYLENE ENCASMENT IS NOT AN ACCEPTABLE COATING ALTERNATIVE.
2. THERMITE WELD ANODE LEAD WIRE DIRECTLY TO DUCTILE IRON FIRE HYDRANT RISER.

ANODE PROTECTION FOR FIRE HYDRANT DETAIL

4 METALLIC PIPE APPURTENANCE AND FITTING CATHODIC PROTECTION
NTS

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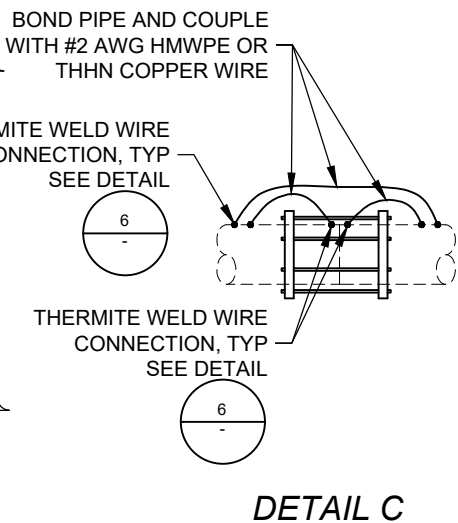
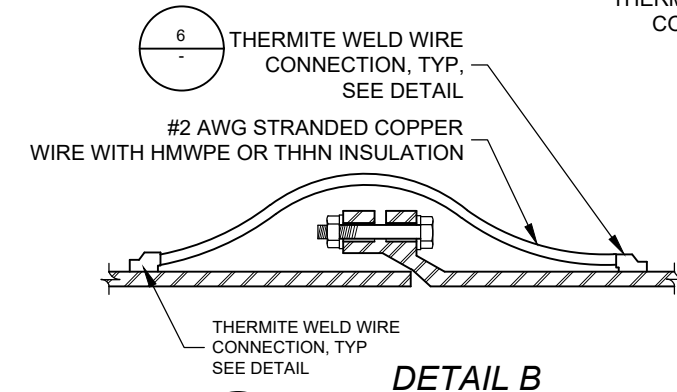
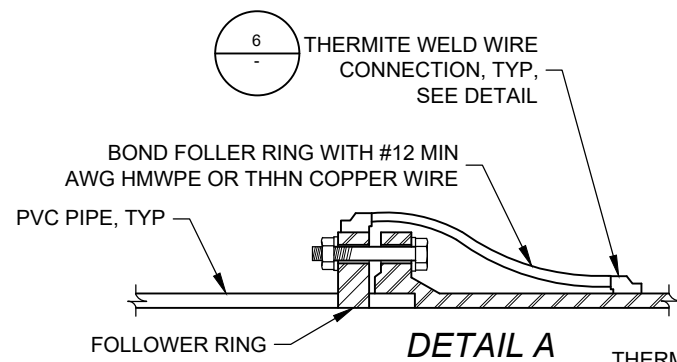


MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
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STANDARD DETAIL
ANODE PROTECTION DETAILS
SUMMIT COUNTY, UT

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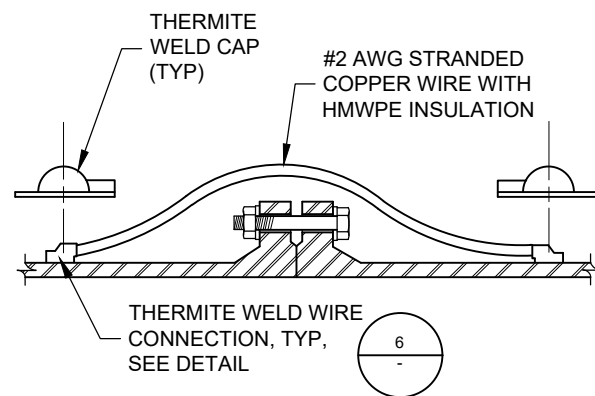
17



NOTES:

1. INSTALL NUMBER OF BOND WIRES SPECIFIED PER JOINT FOR PIPE DIAMETER AND MATERIAL.
2. COAT ALL THERMITE WELDS, PIPE, AND EXPOSED COPPER WIRE WITH AQUATA-POXY, SCOTCHKOTE 206P THERMOPLASTIC PATCH MELT STICK COATING, WAX TAPE, DENSO PROTAL 7125/7300 OR COATING SYSTEM AS SPECIFIED.

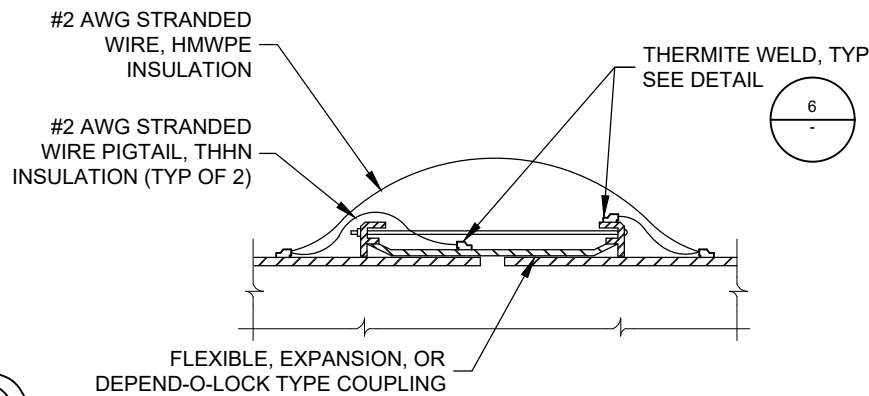
5 MECHANICAL JOINT BOND
NTS



NOTES:

1. INSTALL NUMBER OF BOND WIRES SPECIFIED PER JOINT FOR PIPE DIAMETER AND MATERIAL.
2. COAT ALL THERMITE WELDS, PIPE, AND EXPOSED COPPER WIRE WITH AQUATA-POXY, SCOTCHKOTE 206P THERMOPLASTIC PATCH MELT STICK COATING SYSTEM, WAX TAPE, DENSO PROTAL 7125/7300, OR COATING SYSTEM AS SPECIFIED.

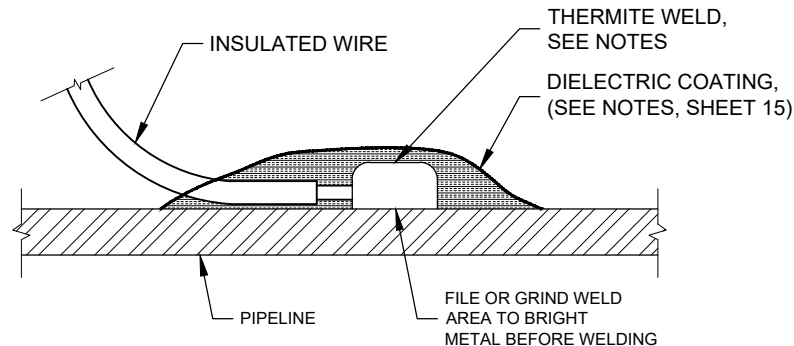
8 FLANGED JOINT BOND
NTS



NOTES:

1. INSTALL NUMBER OF BOND WIRES SPECIFIED PER JOINT FOR PIPE DIAMETER AND MATERIAL.
2. COAT ALL THERMITE WELDS, PIPE, AND EXPOSED COPPER WIRE WITH AQUATA-POXY, SCOTCHKOTE 206P THERMOPLASTIC PATCH MELT STICK COATING, WAX TAPE, DENSO PROTAL 7125/7300 OR COATING SYSTEM AS SPECIFIED.

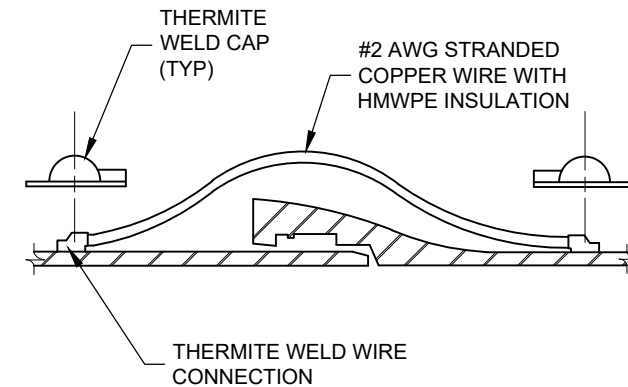
6 FLEXIBLE JOINT BOND
NTS



NOTES:

1. COPPER SLEEVE REQUIRED FOR #2 AWG JOINT BONDS OR FOR #12 AWG OR SMALLER TEST WIRES.
2. WELDER AND CARTRIDGE SIZE VARIES ACCORDING TO PIPE SIZE AND PIPE MATERIAL, CONSULT WELDER MANUFACTURER FOR RECOMMENDED WELDER AND CARTRIDGE.
3. COAT COMPLETED CONNECTIONS AS SHOWN AND SPECIFIED
4. PIPELINE COATING NOT SHOWN FOR CLARITY.

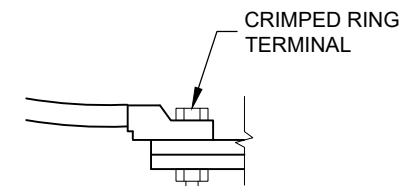
9 STEEL AND DUCTILE IRON PIPE WIRE CONNECTION
NTS



NOTES:

1. PUSH ON DUCTILE IRON BOND SHOWN, SIMILAR FOR DUCTILE MECHANICAL AND RESTRAINED JOINTS, AND STEEL CARNEGIE JOINTS.
2. INSTALL NUMBER OF BOND WIRES SPECIFIED PER JOINT FOR PIPE DIAMETER AND MATERIAL.
3. COAT ALL THERMITE WELDS, PIPE, AND EXPOSED COPPER WIRE WITH AQUATA-POXY, SCOTCHKOTE 206P THERMOPLASTIC PATCH MELT STICK COATING, WAX TAPE, DENSO PROTAL 7125/7300 , OR COATING SYSTEM AS SPECIFIED.

7 DUCTILE IRON JOINT BOND
NTS



FIRE HYDRANT DETAIL
NTS

NOTES:

1. CLEAN VALVE TO BRIGHT METAL AT POINT OF BOLTED CONNECTION.
2. ENSURE BOLT AND WIRE CRIMP ARE FREE OF DIRT AND SCALE TO CREATE PROPER METAL TO METAL CONTACT FOR BONDING.
3. AFTER CONNECTIONS ARE MADE, COAT EXPOSED METAL WITH 206P THERMOPLASTIC PATCH MELT STICK COATING, WAX TAPE, DENSO PROTAL 7125/7300, OR COATING SYSTEM AS SPECIFIED.
4. CRIMPED RING TERMINAL ON BOLTED CONNECTION DEPENDENT ON SIZE OF WIRE.

10 BOLTED CONNECTION
NTS

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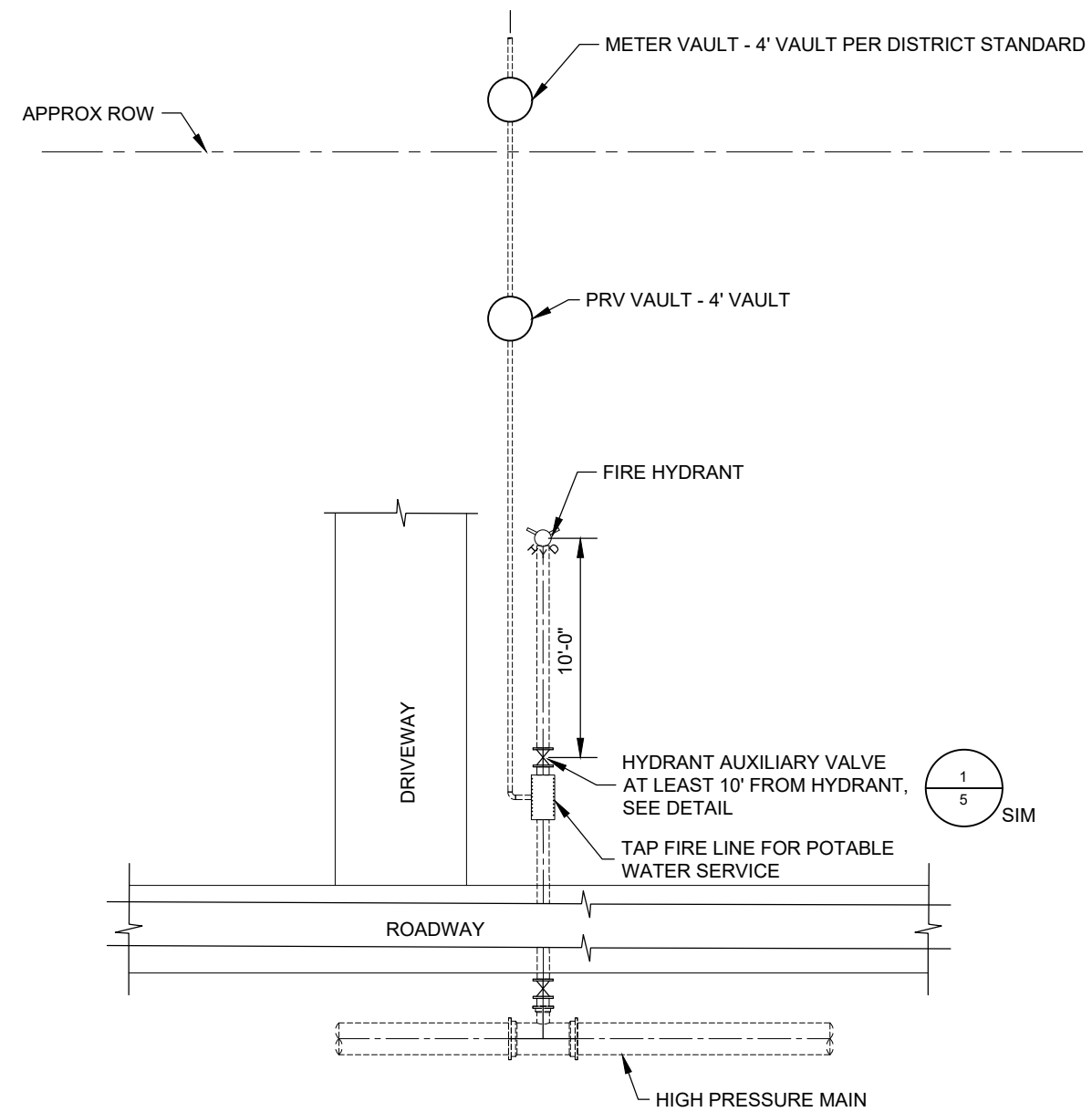


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HOT TAP MAIN WITH HIGH PRESSURE DUCTILE IRON TAP SLEEVE
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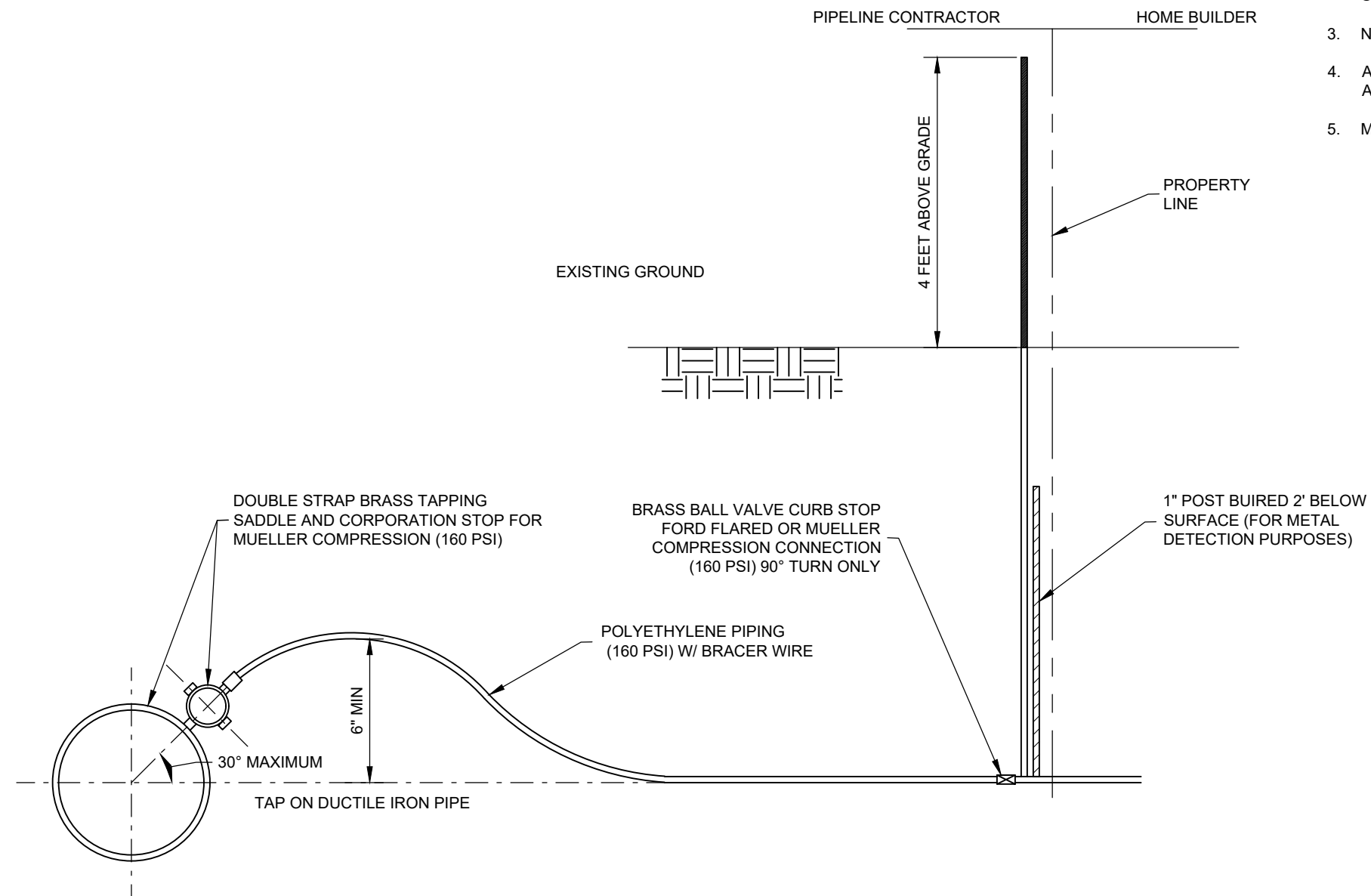
STANDARD DETAIL
 INDIVIDUAL PRV DETAIL
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NOTES:

1. ALL WORK MUST BE INSPECTED PRIOR TO BACKFILL.
2. MINIMUM DISTANCE BETWEEN TAPS-30" WITH A MINIMUM 5' STAGGER.
3. NO TAPS WITHIN 30" FROM END OF PIPE.
4. ALL SERVICE TAPS ARE TO BE DONE WITH A TAPPING MACHINE APPROVED BY WATER CO.
5. MINIMUM DEPTH FOR WATER SERVICE TO BE 5'.



PROMONTORY 3/4" TO 2" SERVICE DETAIL
NTS

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MOUNTAIN REGIONAL WATER SPECIAL SERVICE DISTRICT
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STANDARD DETAIL
3/4" TO 2" SERVICE DETAIL
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