

Fire Protection Tank & Hydrant: Vertical Draft

Scale: N.T.S.

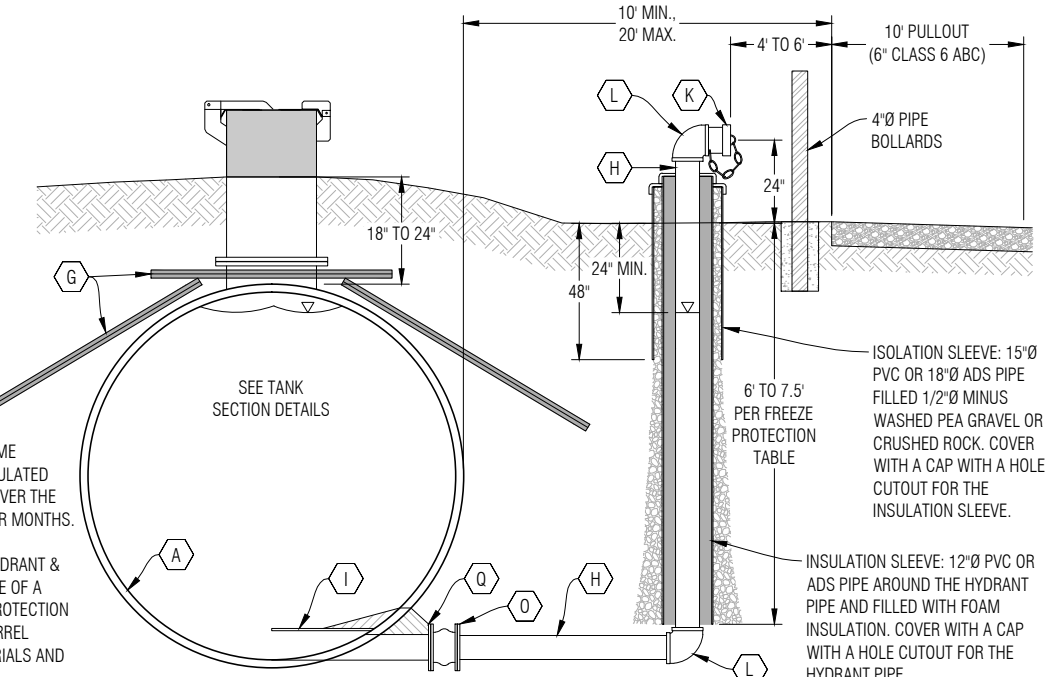
TANK SYSTEM NOTES:

1. THE REQUIRED AMOUNT OF FIRE PROTECTION STORAGE SHALL BE DETERMINED PER PLAN REVIEW.
2. STORAGE SYSTEM WITH MULTIPLE TANKS SHALL CONTAIN 6"Ø TANK OUTLETS AND A 6"Ø MANIFOLD, MIN.
3. SCH. 40 PVC PIPE SHALL HAVE WATERTIGHT GLUED JOINTS AND FITTINGS.
4. THE DRY HYDRANT SHALL BE LOCATED AT LEAST 100- FEET PHYSICALLY FROM A BUILDING STRUCTURE, BUT NOT GREATER THAN 250- FEET ALONG THE ALIGNMENT OF A ROAD OR DRIVE.
5. A MINIMUM OF 3- FEET OF CLEARANCE SHALL BE PROVIDED AROUND THE DRY HYDRANT.
6. DRY HYDRANTS SHALL BE LOCATED SO THAT THEY ARE ACCESSIBLE UNDER ALL WEATHER CONDITIONS.
7. NO PARKING OR OTHER OBSTACLES SHALL BE ALLOWED WITHIN 20- FEET OF THE ACCESS SIDE OF THE HYDRANT.
8. DRY HYDRANT LOCATIONS SHALL BE MADE VISIBLE FROM THE MAIN ROADWAY BY REFLECTIVE MARKINGS AND SIGNAGE.
9. AUTO-FILL IS PREFERRED OVER MANUAL FILL. FOR MANUAL FILL, THE WATER LEVEL MUST BE CHECKED EVERY 3 MONTHS AND REFILLED AS NECESSARY.
10. IT IS HIGHLY RECOMMENDED THAT DRY HYDRANT SYSTEMS BE INSPECTED AT LEAST QUARTERLY AND MAINTAINED AS NECESSARY TO KEEP THEM IN GOOD OPERATING CONDITION.
11. THOROUGH SURVEYS SHALL BE CONDUCTED, TO REVEAL ANY DETERIORATION IN THE WATER SUPPLY SITUATION IN PONDS, STREAMS, OR CISTERNS.
12. GRASS, BRUSH, AND OTHER VEGETATION SHALL BE KEPT TRIMMED AND NEAT. VEGETATION SHALL BE CLEARED FOR A MINIMUM 3- FEET RADIUS FROM AROUND HYDRANTS.
13. HYDRANT RISERS AND EXPOSED PIPE SHALL BE PROTECTED FROM ULTRAVIOLET (UV) DEGRADATION BY PAINTING OR OTHER MEASURES.
14. HYDRANTS SHALL BE FLOW TESTED WITH A FIRE DEPARTMENT PUMP PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY TO ENSURE THAT THE MINIMUM DESIGN FLOW IS OBTAINED.

FREEZE PROTECTION TABLE		
REGION	TANK INSULATION THICKNESS (INCHES, MIN.)	MINIMUM WATER PIPE COVER (FEET)
ROARING FORK RIVER VALLEY WEST OF BASALT	2.5	6
MISSOURI HEIGHTS: NORTH OF C.R.113/122	3.5	7
ABOVE THE INTERSECTION OF W. SOPRIS CREEK RD. & STONE RD.	3.5	7
ABOVE THE INTERSECTION OF E. SOPRIS CREEK RD. & TRACT 36 RD.	3.5	7
ABOVE THE INTERSECTION OF SNOWMASS CREEK RD. & GATEWAY RD.	3.5	7
INTERSECTION OF FRYING PAN RD. & TAYLOR CREEK RD. TO THOMASVILLE	3.5	7
ABOVE THOMASVILLE	3.5	7.5
ALL OTHER DISTRICT AREAS	3.0	6.5

NOTES:

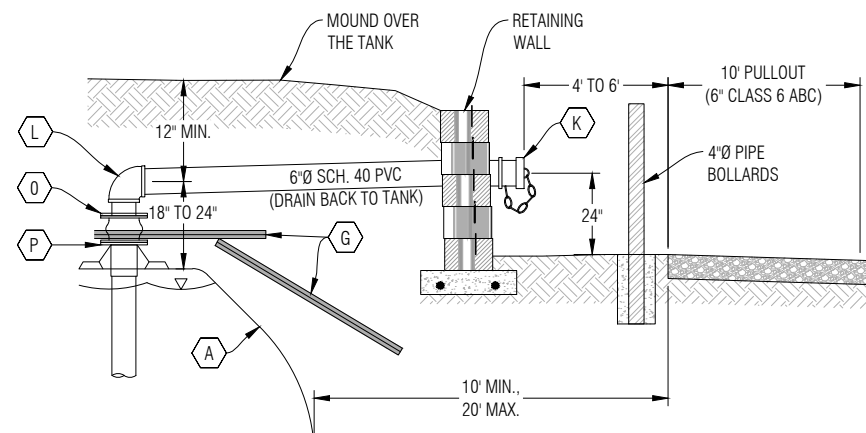
1. IN AREAS SUBJECT TO EXTREME FREEZING, A REMOVABLE INSULATED COVER SHOULD BE PLACED OVER THE HYDRANT DURING THE WINTER MONTHS.
2. A CITY STYLE DRY BARREL HYDRANT & VALVE MAY BE USED IN PLACE OF A STAND PIPE. SEE THE 'FIRE PROTECTION TANK: GRAVITY WITH DRY BARREL HYDRANT' DETAIL FOR MATERIALS AND INSTALLATION.



Alternate Hydrant: Extended Stand Pipe Draft

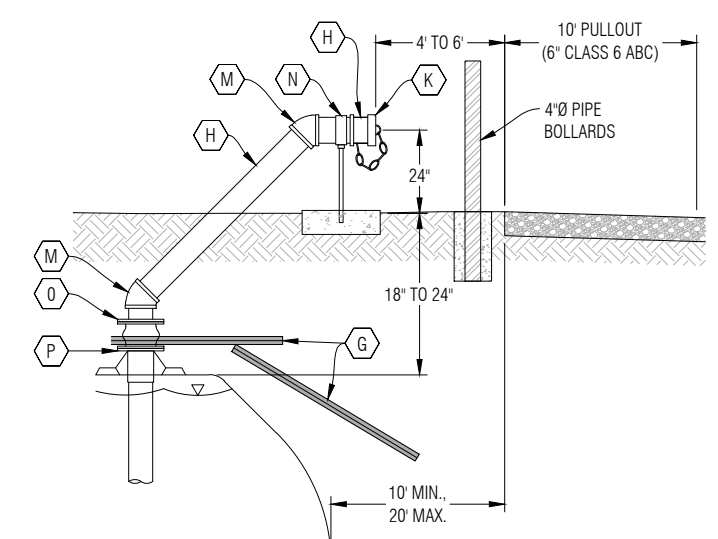
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MARK TABLE			
MARK	DESCRIPTION	MARK	DESCRIPTION
A	SINGLE WALL POTABLE WATER STORAGE TANK (FIBERGLASS, POLYETHYLENE OR EXTERIOR POLYAMIDE EPOXY PAINT COATED STEEL, 8"Ø MAX.), INSTALLED PER MANUFACTURER'S REQUIREMENTS, NSF-61, NFPA-22 & 1142 APPROVED	K	HYDRANT HEAD ASSEMBLY: HARD ANODIZED ALUM. 6"Ø NST-N THREAD ADAPTOR, REMOVABLE STRAINER AND COVER (RED), ORIENT TOWARDS THE ROAD. NO OTHER CONNECTIONS ON THE RISER ARE PERMITTED.
B	BUOYANCY OPTION #1: 4"Ø PERF. PVC DRAIN PIPES WITH SOLID PIPE TO DAYLIGHT (SEE SHEET #3)	L	6"Ø SCH.40 PVC 90° BEND, COAT EXPOSED W/ UV INHIBITOR PAINT
C	BUOYANCY OPTION #2: MANUFACTURER SUPPLIED ANCHOR SYSTEM (SEE SHEET #3)	M	6"Ø SCH.40 PVC 45° BEND, COAT EXPOSED W/ UV INHIBITOR PAINT
D	30"Ø FLANGED MANWAY (NO LID)	N	GALVANIZED VERTICAL PIPE SUPPORT EMBEDDED IN 2x2x4" CONCRETE
E	ACCESS RISER: 30"Ø RISER W/ LOCKING ASSEMBLY, COAT EXPOSED W/ UV INHIBITOR PAINT	O	PRESSURE RATED (75 PSI, MIN.) FLEXIBLE ELASTOMERIC (RUBBER) COUPLING
F	LADDER: AT THE DISCRETION OF THE AUTHORITY HAVING JURISDICTION. INSTALLED BY MANUFACTURER.	P	6"Ø FLANGED AND GUSSETED FITTING WITH 6"Ø FRP OR SCH.40 PVC SUCTION PIPE
G	4" STYROFOAM HIGH LOAD-40 INSULATION, LAP JOINTS 12" MIN.	Q	6"Ø TANGENTIALLY MOUNTED FLANGED FULL BOTTOM DRAIN NOZZLE -OUTLET
H	6"Ø SCH.40 PVC, COAT EXPOSED W/ UV INHIBITOR PAINT	AA	TANK LEVEL MONITOR (RECOMMENDED): TANK MANUFACTURER SUPPLIED SYSTEM OR OTHER METHODS AS DEEMED ACCEPTABLE BY THE AUTHORITY HAVING JURISDICTION.
I	ANTI-VORTEX PLATE ASSEMBLY, BY MANU. (NFPA-22 APPROVED)	AB	STRUCTURALLY ENGINEERED ALL WEATHER SURFACE CAPABLE OF SUSTAINING A VEHICULAR LOAD OF 75,000 LBS.
J	COMBINATION AIR VENT/MANUAL REFILL: 6"Ø NPT FITTING, SCH.40 GALVANIZED STEEL PIPE, TEE WITH A 2-1/2" NST-F BRASS SWIVEL & PLUG, GOOSENECK, AND A 24-MESH STAINLESS STEEL INSECT SCREEN SECURED WITH A STAINLESS STEEL PIPE CLAMP		



Alternate Hydrant: Minimum Lift Draft

Scale: N.T.S.



Alternate Hydrant: 45° Draft

Scale: N.T.S.

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 Glenwood Springs, CO 81601
 tele: 970.945.5252
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Basalt & Rural Fire Protection District
 1089 JW Drive (El Jebel)
 Carbondale, CO 81623
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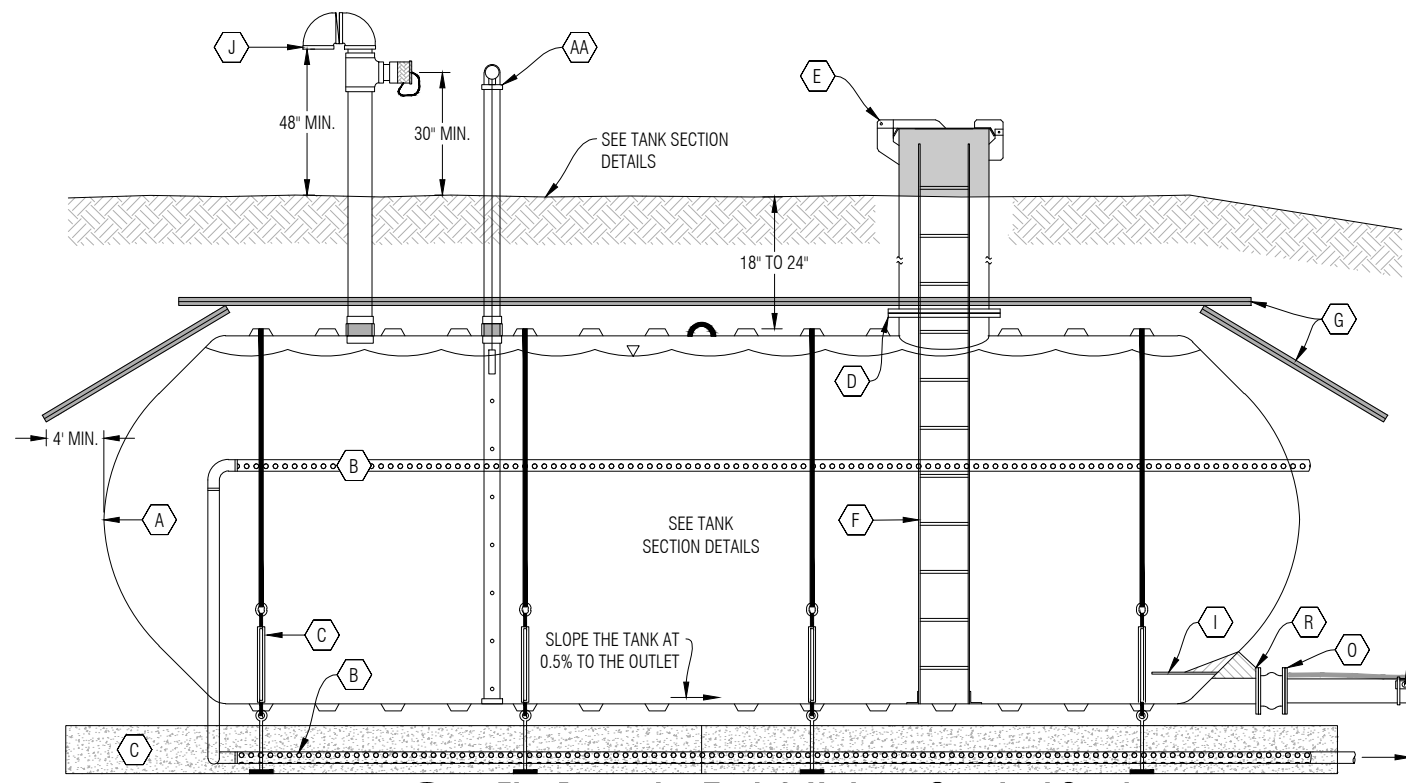


BRFPD Boundaries
Basalt & Rural Fire Protection District
 Fire Protection Tank Details
 Draft (Suction)

By	Revision	Date	No.



FREEZE PROTECTION TABLE		
REGION	TANK INSULATION THICKNESS (INCHES, MIN.)	MINIMUM WATER PIPE COVER (FEET)
ROARING FORK RIVER VALLEY WEST OF BASALT	2.5	6
MISSOURI HEIGHTS: NORTH OF C.R.113/122	3.5	7
ABOVE THE INTERSECTION OF W. SOPRIS CREEK RD. & STONE RD.	3.5	7
ABOVE THE INTERSECTION OF E. SOPRIS CREEK RD. & TRACT 36 RD.	3.5	7
ABOVE THE INTERSECTION OF SNOWMASS CREEK RD. & GATEWAY RD.	3.5	7
INTERSECTION OF FRYING PAN RD. & TAYLOR CREEK RD. TO THOMASVILLE	3.5	7
ABOVE THOMASVILLE	3.5	7.5
ALL OTHER DISTRICT AREAS	3.0	6.5

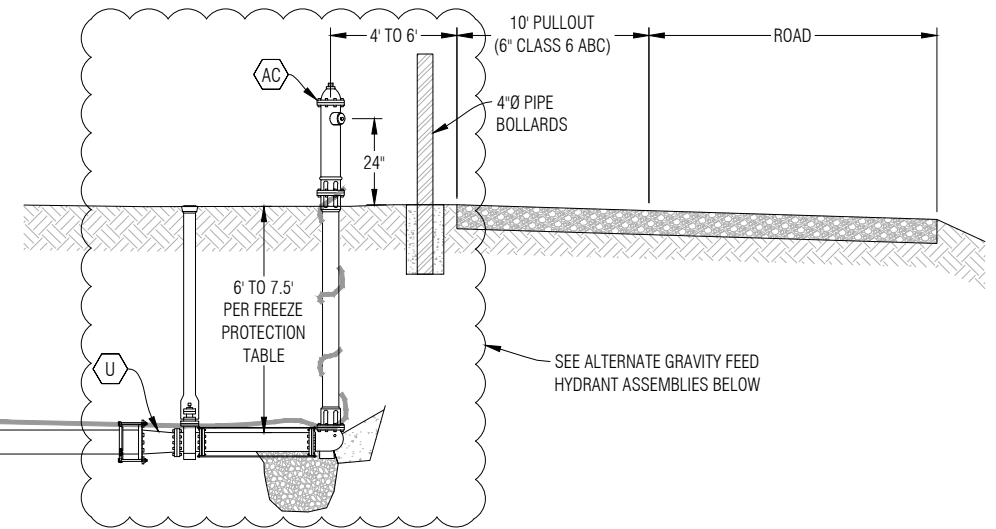


Fire Protection Tank & Hydrant: Standard Gravity

Scale: N.T.S.

PIPE MAY BE REDUCED TO 6"Ø FOR DISTANCES LESS THAN 50 LF BETWEEN THE TANK AND THE HYDRANT

WATER SERVICE (DOMESTIC & FIRE SPRINKLER, WHERE APPLICABLE): DOUBLE STRAP SERVICE SADDLE, STAINLESS STEEL NUTS/BOLTS, CORPORATION STOP & COUPLING, CURB STOP AND BOX. INSTALL TRACER WIRE IF PURE-CORE PIPE IS USED.

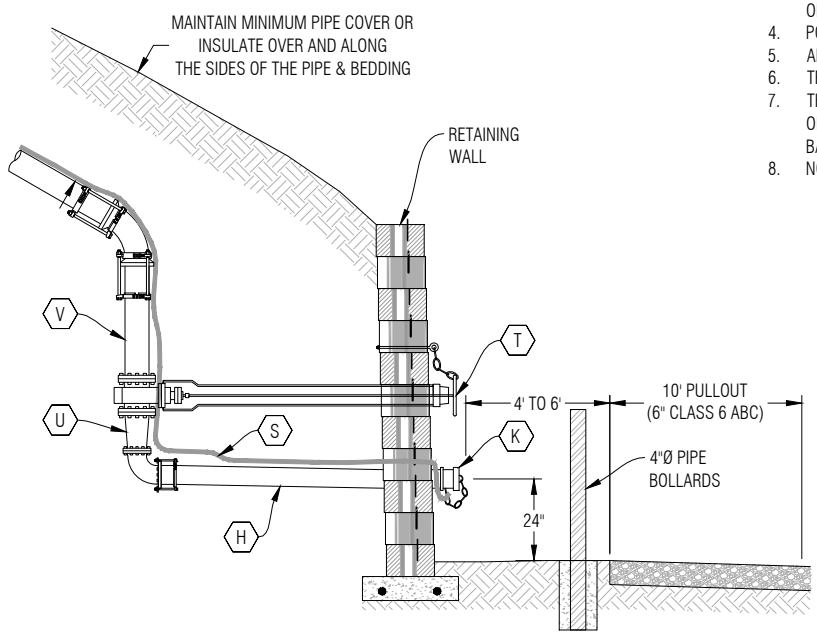


Dry Barrel Hydrant Assembly

Scale: N.T.S.

TANK SYSTEM NOTES:
SEE SHEET #1

MARK TABLE			
MARK	DESCRIPTION	MARK	DESCRIPTION
A	SINGLE WALL POTABLE WATER STORAGE TANK (FIBERGLASS, POLYETHYLENE OR EXTERIOR POLYAMIDE EPOXY PAINT COATED STEEL, 8"Ø MAX.), INSTALLED PER MANUFACTURER'S REQUIREMENTS, NSF-61, NFPA-22 & 1142 APPROVED	L	6"Ø SCH.40 PVC 90° BEND, COAT EXPOSED W/ UV INHIBITOR PAINT
B	BUOYANCY OPTION #1: 4"Ø PERF. PVC DRAIN PIPES WITH SOLID PIPE TO DAYLIGHT (SEE SHEET #3)	M	6"Ø SCH.40 PVC 45° BEND, COAT EXPOSED W/ UV INHIBITOR PAINT
C	BUOYANCY OPTION #2: MANUFACTURER SUPPLIED ANCHOR SYSTEM (SEE SHEET #3)	N	GALVANIZED VERTICAL PIPE SUPPORT EMBEDDED IN 2"x2"x4" CONCRETE
D	30"Ø FLANGED MANWAY (NO LID)	O	PRESSURE RATED (75 PSI, MIN.) FLEXIBLE ELASTOMERIC (RUBBER) COUPLING
E	ACCESS RISER: 30"Ø RISER W/ LOCKING ASSEMBLY, COAT EXPOSED W/ UV INHIBITOR PAINT	R	8"Ø TANGENTIALLY MOUNTED FLANGED FULL BOTTOM DRAIN NOZZLE-OUTLET
F	LADDER: AT THE DISCRETION OF THE AUTHORITY HAVING JURISDICTION. INSTALLED BY MANUFACTURER.	S	TRACER WIRE FROM TANK TO HYDRANT BASE: 10 GAUGE SOLID THHN INSULATED DETECTION WIRE. ALL SPLICES SHALL BE MADE WITH WATERTIGHT CONNECTIONS.
G	4" STYROFOAM HIGH LOAD-40 INSULATION, LAP JOINTS 12" MIN.	T	HORIZONTAL GATE VALVE WITH HANDWHEEL, CHAIN AND PADLOCK. ANGLE THE CONTROL ROD SLLEEVE SLIGHTLY DOWN TO THE HANDWHEEL AND AVOID ICING.
H	6"Ø SCH.40 PVC, COAT EXPOSED W/ UV INHIBITOR PAINT. ANGLE THE PIPE SLIGHTLY DOWN TO DRAIN TOWARDS THE CAP AND PREVENT ICING.	U	8"Øx6"Ø REDUCER
I	ANTI-VORTEX PLATE ASSEMBLY, BY MANU. (NFPA-22 APPROVED)	V	8"Ø CLASS 150 C900 PVC WITH DUCTILE IRON FITTINGS AND MECHANICAL JOINT RESTRAINTS AT ALL FITTINGS AND JOINTS WITHIN 30 FEET OF A FITTING. POLYWRAP ALL FITTINGS AND RESTRAINTS.
J	COMBINATION AIR VENT/MANUAL REFILL: 6"Ø NPT FITTING, SCH.40 GALVANIZED STEEL PIPE, TEE WITH A 2-1/2" NST-F BRASS SWIVEL & PLUG, GOOSENECK, AND A 24-MESH STAINLESS STEEL INSECT SCREEN SECURED WITH A STAINLESS STEEL PIPE CLAMP	AA	TANK LEVEL MONITOR (RECOMMENDED): TANK MANUFACTURER SUPPLIED SYSTEM OR OTHER METHODS AS DEEMED ACCEPTABLE BY THE AUTHORITY HAVING JURISDICTION.
K	HYDRANT HEAD ASSEMBLY: HARD ANODIZED ALUM. 6"Ø NST-N THREAD ADAPTOR, REMOVABLE STRAINER AND COVER (RED). DRILL A 1/4"Ø WEEP HOLE IN THE BOTTOM FRONT OF THE CAP. NO OTHER CONNECTIONS ON THE HYDRANT PIPE ARE PERMITTED.	AC	DRY BARREL HYDRANT: MUELLER SUPER CENTURION 250 (A-423) OR KENNEDY (K81D), OR AUTHORITY HAVING JURISDICTION APPROVED EQUAL. OPEN COUNTER-CLOCKWISE, STAINLESS STEEL BURIED NUTS AND BOLTS.

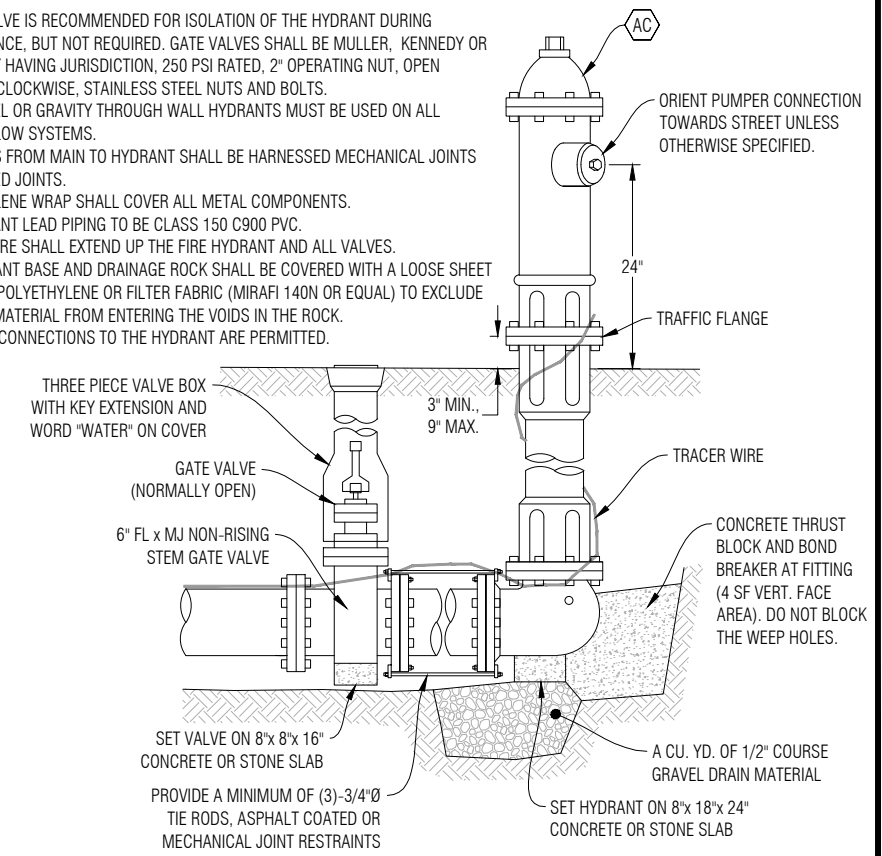


Hydrant: Gravity thru Wall

Scale: N.T.S.

HYDRANT NOTES:

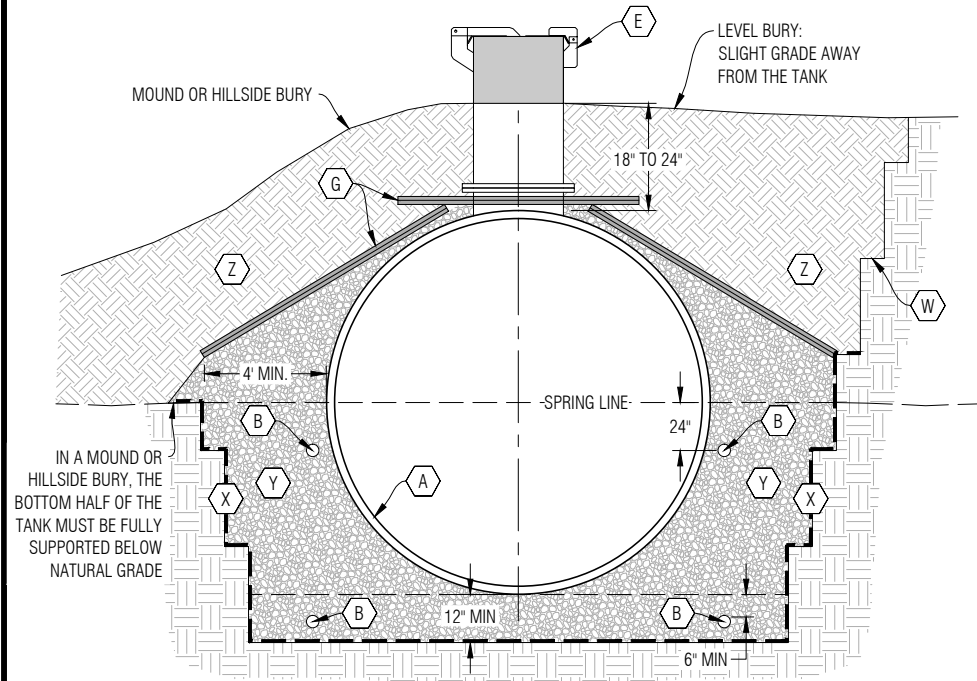
1. A GATE VALVE IS RECOMMENDED FOR ISOLATION OF THE HYDRANT DURING MAINTENANCE, BUT NOT REQUIRED. GATE VALVES SHALL BE MULLER, KENNEDY OR AUTHORITY HAVING JURISDICTION, 250 PSI RATED, 2" OPERATING NUT, OPEN COUNTER-CLOCKWISE, STAINLESS STEEL NUTS AND BOLTS.
2. DRY BARREL OR GRAVITY THROUGH WALL HYDRANTS MUST BE USED ON ALL GRAVITY FLOW SYSTEMS.
3. ALL JOINTS FROM MAIN TO HYDRANT SHALL BE HARNESSED MECHANICAL JOINTS OR FLANGED JOINTS.
4. POLYETHYLENE WRAP SHALL COVER ALL METAL COMPONENTS.
5. ALL HYDRANT LEAD PIPING TO BE CLASS 150 C900 PVC.
6. TRACER WIRE SHALL EXTEND UP THE FIRE HYDRANT AND ALL VALVES.
7. THE HYDRANT BASE AND DRAINAGE ROCK SHALL BE COVERED WITH A LOOSE SHEET OF 10 MIL POLYETHYLENE OR FILTER FABRIC (MIRAFI 140N OR EQUAL) TO EXCLUDE BACKFILL MATERIAL FROM ENTERING THE VOIDS IN THE ROCK.
8. NO OTHER CONNECTIONS TO THE HYDRANT ARE PERMITTED.



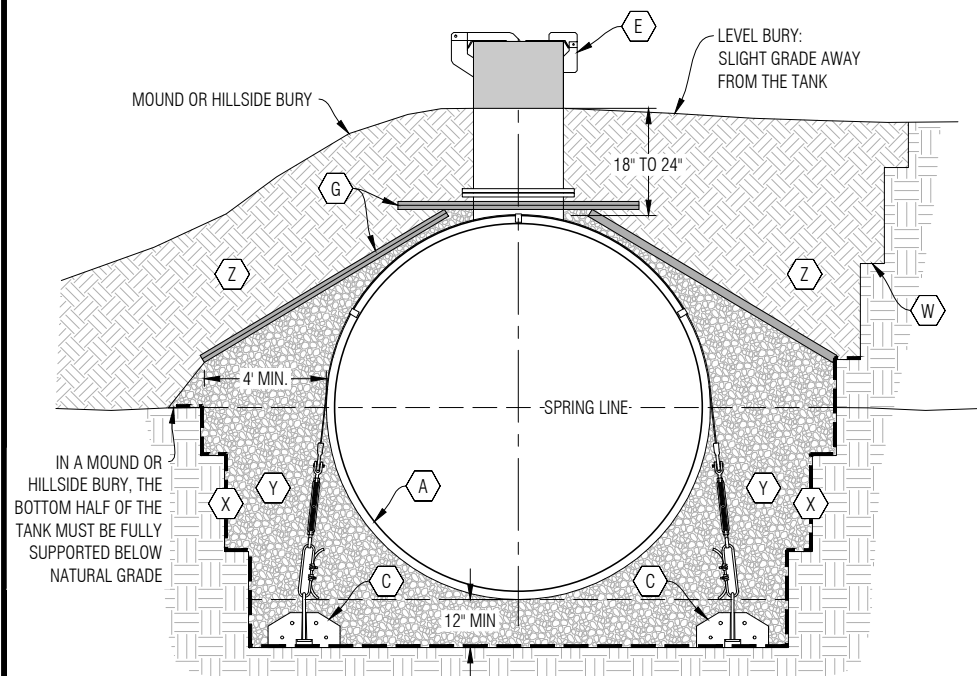
Dry Barrel Hydrant Assembly

Scale: N.T.S.

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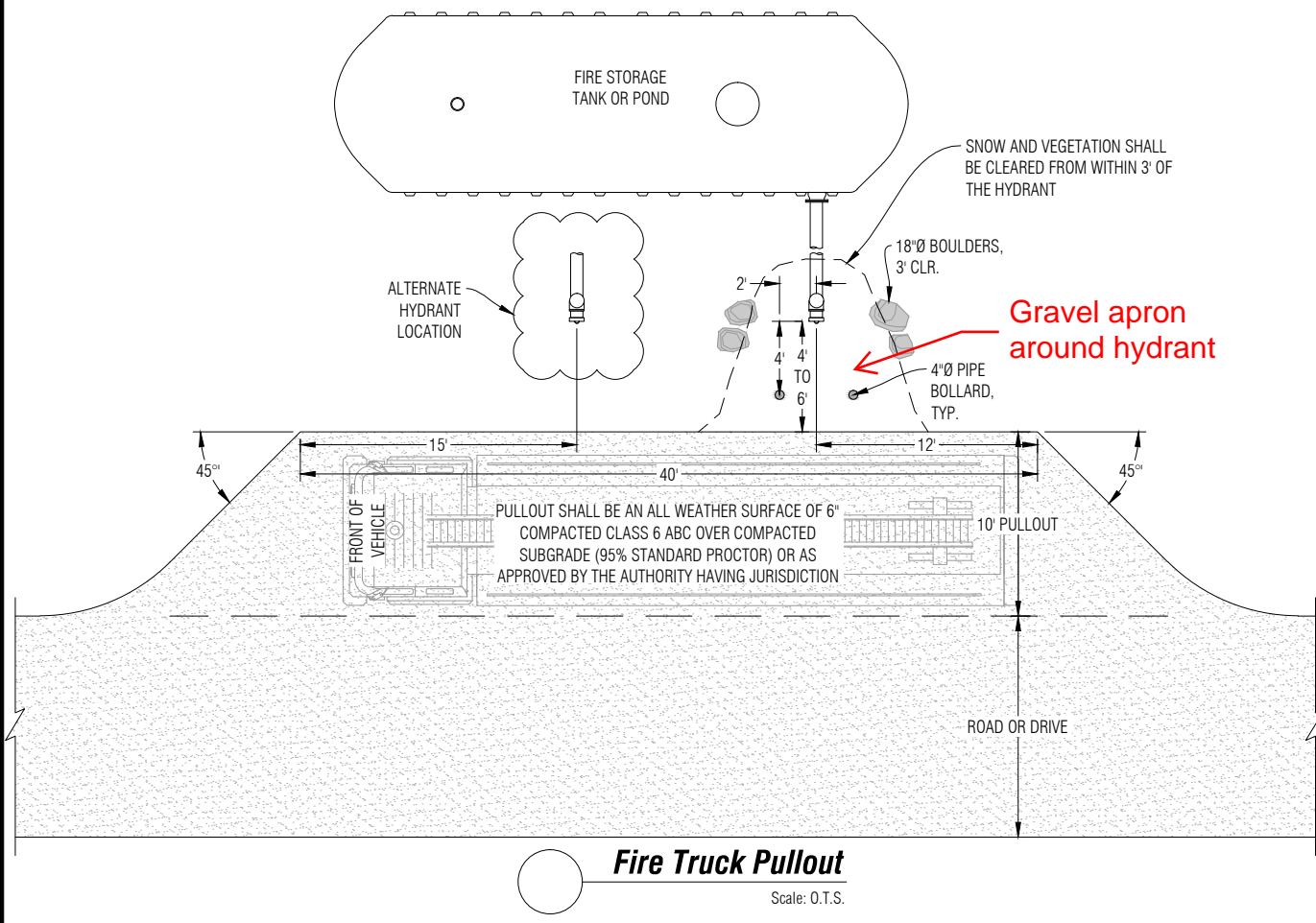


1 Tank Section with Underdrain (Option #1)
Scale: O.T.S.



2 Tank Section with Anchoring (Option #2)
Scale: O.T.S.

MARK TABLE	
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B	BUOYANCY OPTION-A: 4"Ø PERF. PVC DRAIN PIPES WITH SOLID PIPE TO DAYLIGHT
C	BUOYANCY OPTION-B: MANUFACTURER SUPPLIED ANCHOR SYSTEM
E	ACCESS RISER: 30"Ø RISER W/ LOCKING ASSEMBLY, COAT EXPOSED W/ UV INHIBITOR PAINT
G	4" STYROFOAM HIGH LOAD-40 INSULATION, LAP JOINTS 12" MIN.
W	BENCH THE EXCAVATION PER OSHA
X	FILTER FABRIC, MIRAFI 140N OR EQUAL
Y	MANUFACTURER APPROVED BEDDING & BACKFILL (TYPICALLY WASHED 1/2" MINUS PEA GRAVEL OR CRUSHED ROCK) DRY AND FREE OF SNOW/ICE, HAND TAMPED UNDER HAUNCHES AND COMPACTED IN 12" LIFTS TO 95% STANDARD PROCTOR.
Z	ONSITE SELECT STRUCTURAL BACKFILL COMPACTED IN 12" LIFTS TO 95% STANDARD PROCTOR



Fire Truck Pullout
Scale: O.T.S.

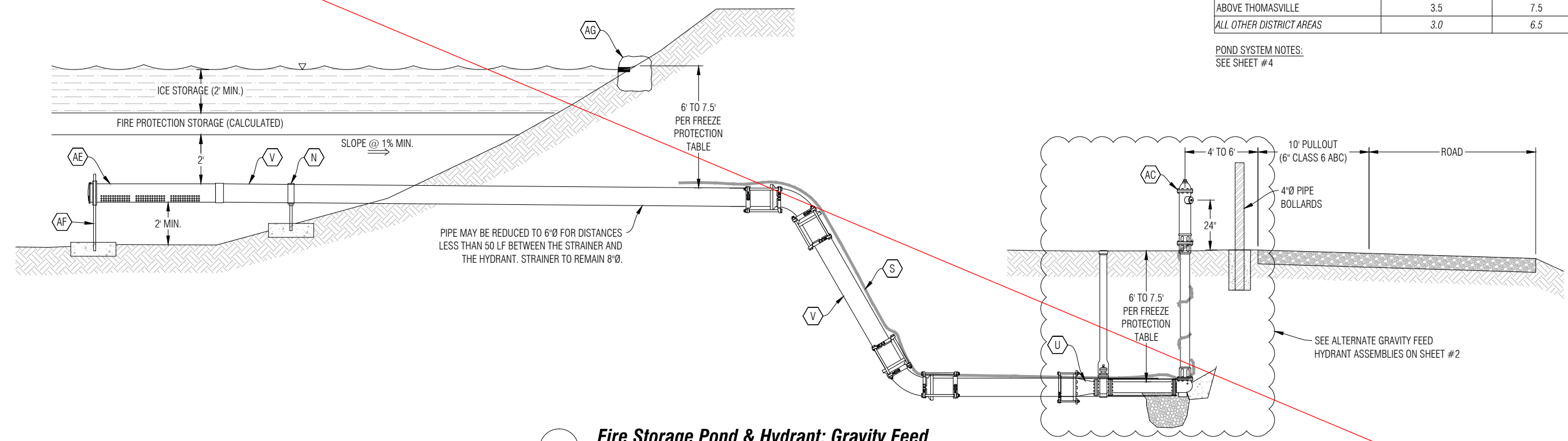


No.	Date	Revision	By



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REGION	TANK INSULATION THICKNESS (INCHES, MIN.)	MINIMUM WATER PIPE COVER (FEET)
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ABOVE THE INTERSECTION OF SNOWMASS CREEK RD. & GATEWAY RD.	3.5	7
INTERSECTION OF FRYING PAN RD. & TAYLOR CREEK RD. TO THOMASVILLE	3.5	7
ABOVE THOMASVILLE	3.5	7.5
ALL OTHER DISTRICT AREAS	3.0	6.5

POND SYSTEM NOTES:
SEE SHEET #4



Fire Storage Pond & Hydrant: Gravity Feed
Scale: N.T.S.

AS OF JANUARY 1, 2022 PONDS ARE NO LONGER ACCEPTABLE WATER SOURCES FOR MANUAL FIREFIGHTING

MARK TABLE	
MARK	DESCRIPTION
N	GALVANIZED VERTICAL PIPE SUPPORT EMBEDDED IN 2'x2'x4" CONCRETE
S	TRACER WIRE FROM POND TO HYDRANT BASE: 10 GAUGE SOLID THIN INSULATED DETECTION WIRE. ALL SPLICES SHALL BE MADE WITH WATERTIGHT CONNECTIONS.
U	8"Øx6"Ø REDUCER
V	8"Ø CLASS 150 C900 PVC WITH DUCTILE IRON FITTINGS AND MECHANICAL JOINT RESTRAINTS AT ALL FITTINGS AND JOINTS WITHIN 30 FEET OF FITTING. POLYWRAP ALL FITTINGS AND RESTRAINTS., COAT EXPOSED W/ UV INHIBITOR PAINT
AC	DRY BARREL HYDRANT: MUELLER SUPER CENTURION 250 (A-423) OR KENNEDY (K81D), OR AUTHORITY HAVING JURISDICTION APPROVED EQUAL. OPEN COUNTER-CLOCKWISE, STAINLESS STEEL BURIED NUTS AND BOLTS.
AE	8"Ø PVC HORIZONTAL STRAINER WITH BACK FLUSH CAP, 4:1 MINIMUM INTAKE RATIO (120 SQ. IN.)
AF	8"Ø STRAINER SUPPORT CLAMP (MANUFACTURER SUPPLIED)
AG	18"Ø BOULDER WITH A DISTINCT RED LINE PAINTED AT THE MINIMUM WATER SURFACE ELEVATION.

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