# FAIRFAX WATER - STANDARD DETAILS

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NOTES:
1. NO PLASTIC TUBING TO BE USED INSIDE METER BOX.
2. METER BOX, METER BOX COVER, AND METER YOKE TO BE FAIRFAX WATER STANDARD TYPE.
3. THREADED SERVICE CLAMP TO BE USED ON 3" AND 20" & LARGER WATER MAINS.
4. COAT WITH PETROLATUM TAPE PER SECTION 13110 CATHODIC PROTECTION.
5. NO STRUCTURES, POLES, SIGN POSTS, TREES OR SHRUBS TO BE INSTALLED WITHIN FOUR FEET OF METER CROCK.

FAIRFAX WATER
STANDARD DETAILS

1" SERVICE CONNECTION WITH 5/8" OR 3/4" METER

DATE: 7/17

DRAWING NO.: 1
NOTES:
1. NO PLASTIC TUBING TO BE USED INSIDE METER BOX.
2. METER BOX, METER BOX COVER AND COPPER METER SETTER TO BE FAIRFAX WATER STANDARD TYPE.
3. THREADED SERVICE CLAMP TO BE USED ON 3" AND 20" & LARGER WATER MAINS.
4. COAT WITH PETROLATUM TAPE PER SECTION 13110 CATHODIC PROTECTION.
5. NO STRUCTURES, POLES, SIGN POSTS, TREES OR SHRUBS TO BE INSTALLED WITHIN FOUR FEET OF METER CROCK.
NOTE:
WHERE CURB BOX IS LOCATED IN PAVEMENT, USE VALVE BOX INSTEAD OF CURB BOX.
NOTE:
COAT WITH PETROLATUM TAPE PER SECTION 13110 CATHODIC PROTECTION
1" GRID PATTERN W/ 1/4" SPACING

2" DIA. HOLE FOR A.M.R. METERS ONLY (SEE NOTE)

TOP VIEW

1-1/2"
3/8"
5/8"

SIDE VIEW

1/2" RIB THICKNESS (TYP.)

5-1/2"
16"

BOTTOM VIEW

NOTE:
INSTALL 2" DIAMETER HOLE BETWEEN RIBS FOR AUTOMATIC METER READING METERS WHERE INDICATED ON THE PLANS OR BY FAIRFAX WATER.
NOTES:
1. THE WATER METER SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION. CRAWL SPACES ARE NOT ACCEPTABLE.
2. THE WATER METER MUST BE INSTALLED BETWEEN 2'-0" AND 4'-0" ABOVE THE FLOOR.
3. THE CUSTOMER MUST CALL 703-289-6402, FOR WIRING AND INSPECTION OF THE METER PRIOR TO FINISHING INTERIOR WALLS OF THE BUILDING.
4. GATE OR BALL VALVES SHALL BE INSTALLED APPROXIMATELY 12 INCHES ON EITHER SIDE OF THE METER SETTING.
5. IT IS THE CUSTOMER’S RESPONSIBILITY TO PREVENT THE METER FROM FREEZING.
6. BACKFLOW PREVENTION WILL BE REQUIRED IN ACCORDANCE WITH FAIRFAX COUNTY REGULATIONS.
7. FAIRFAX WATER MAINTAINS THE METER AND REMOTE REGISTER ONLY.
8. A 3" MINIMUM GATE VALVE WITH A 2" OPERATING NUT MUST BE INSTALLED ON THE SERVICE LINE WHEN TAPPED OFF THE FIRE LINE.
9. NO TAPS, PRV’S, STRAINERS, OR BACKFLOW PREVENTION DEVICES ARE TO BE INSTALLED BEFORE THE METER.
10. FAIRFAX WATER TO SUPPLY ITEMS SHOWN IN MATERIALS LIST. ALL OTHER MATERIALS TO BE SUPPLIED BY THE CUSTOMER.
11. FAIRFAX WATER TO SUPPLY AND INSTALL REMOTE REGISTER. WIRE FOR REMOTE REGISTER TO BE FURNISHED BY FAIRFAX WATER AND INSTALLED BY CUSTOMER IF REQUIRED.
MATERIALS LIST:
1. 1-METER BOX
2. 1-METER BOX COVER
3. 2-ANGLE VALVES
4. 1-IRON METER YOKE OR COPPER METER SETTER
5. 1-EXPANSION CONNECTION HANDWHEEL
6. 1-METER WITH GASKETS

BRICKS FOR SUPPORT (TYP.)
SUPPLY LINE FROM WATER MAIN
VALVE REQUIRED WHEN TAPPED OFF FIRE LINE (SEE NOTE 7)

NOTES:
1. THE WATER METER BOX SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION IN A GREEN SPACE AND SO AS NOT TO BE A TRIP HAZARD.
2. WATER METER TO BE INSTALLED BY FAIRFAX WATER AS SHOWN IN THE DIAGRAM ABOVE. METER TO BE INSTALLED BY CUSTOMER WHEN TAPPED OFF FIRE LINE.
3. THE METER INSTALLATION WILL BE INSPECTED AND APPROVED BY FAIRFAX WATER. CALL 703-289-6402 FOR INSPECTION PRIOR TO PLACING LINE IN SERVICE.
4. FAIRFAX WATER TO SUPPLY ITEMS SHOWN IN MATERIALS LIST. ALL OTHER MATERIALS TO BE SUPPLIED BY THE CUSTOMER.
5. BACKFLOW PREVENTION WILL BE REQUIRED IN ACCORDANCE WITH FAIRFAX COUNTY REGULATIONS.
6. FAIRFAX WATER MAINTAINS THE SUPPLY LINE BETWEEN THE METER AND THE MAIN, METER, METER BOX, AND METER BOX COVER ONLY. FAIRFAX WATER WILL NOT MAINTAIN SUPPLY LINE WHEN TAPPED OFF FIRE LINE.
7. A 3" MINIMUM GATE VALVE WITH A 2" OPERATING NUT MUST BE INSTALLED ON THE SERVICE LINE WHEN TAPPED OFF THE FIRE LINE.
8. NO STRUCTURES, POLES, SIGN POSTS, TREES OR SHRUBS TO BE INSTALLED WITHIN FOUR FEET OF METER CROCK.

FAIRFAX WATER STANDARD DETAILS
EXTERIOR METER INSTALLATION 5/8" THROUGH 1" METER SIZES
MATериалы Список:
1. 1 - 1 1/2" или 2" водомерный счетчик с уплотнителями
2. 2 - компаньонные фланцы

ОТМЕЧЕНО:
1. Водомерный счетчик должен быть установлен в доступном месте. Покатые норы не примем.
2. Счетчик должен быть установлен не выше 2 футов от пола, или ближе 1 фута к стене или другому несущему объекту.
3. Заказчик должен сделать необходимые provision для отвода большого объема воды, результатирующего от тестирования и ремонта счетчика, как требует Фэйрфакс.
4. Установка счетчика будет проойздена и одобрена Фэйрфакс.
5. Это ответственность заказчика привести счетчик в нерабочее состояние перед установкой.
6. Поддержка необходима для счетчика.
7. Краны или барботеры должны быть установлены приблизительно на 12 дюймов с каждой стороны счетчика.
8. Размер входных линий должен быть таким же, как размер счетчика, или не менее 3 дюймов перед счетчиком.
9. Фэйрфакс поддерживает счетчик и дистанционный регистратор только.
10. Предотвращение обратного потока будет требовать согласно правилам Фэйрфакса.
11. Минимальный 3" кран с 2" ручкой должен быть установлен на сервисной линии, когда будет установлен счетчик.
12. Нет, тапов, привычек, струйников, или обратные предотвращение устройства не должны быть установлены перед счетчиком.
13. Фэйрфакс поддерживает и устанавливает счетчик, а Фэйрфакс поддерживает и дистанционный регистратор.
14. Фэйрфакс поддерживает и устанавливает дистанционный регистратор. Кабель для дистанционного регистратора должен быть предоставлен заказчиком, если требуется.

FAIRFAX WATER
STANDARD DETAILS

INTERIOR METER INSTALLATION
1 1/2" AND 2" METER SIZES

DATE: 7/17

DRAWING NO.: 7

SCALE: NOT TO SCALE
NOTES:
1. THE WATER METER BOX SHALL BE INSTALLED IN AN ACCESSIBLE LOCATION IN GREEN SPACE AND SO AS NOT TO BE A TRIP HAZARD.
2. WATER METER TO BE INSTALLED BY FAIRFAX WATER AS SHOWN IN THE DIAGRAM ABOVE. METER TO BE INSTALLED BY CUSTOMER WHEN TAPPED OFF FIRE LINE.
3. THE METER INSTALLATION WILL BE INSPECTED AND APPROVED BY FAIRFAX WATER. CALL 703-289-6402 FOR INSPECTION PRIOR TO PLACING LINE IN SERVICE.
4. FAIRFAX WATER TO SUPPLY ITEMS SHOWN IN MATERIALS LIST ONLY. ALL OTHER MATERIALS TO BE SUPPLIED BY THE CUSTOMER.
5. BACKFLOW PREVENTION WILL BE REQUIRED IN ACCORDANCE WITH FAIRFAX COUNTY’S REGULATIONS.
7. A 3" MINIMUM GATE VALVE WITH A 2" OPERATING NUT MUST BE INSTALLED ON THE SERVICE LINE WHEN TAPPED OFF FIRE LINE.

FAIRFAX WATER
STANDARD DETAILS

EXTERIOR METER INSTALLATION
1 1/2" AND 2" METER SIZES

DATE: 7/17

SCALE:
NOT TO SCALE

DRAWING NO.: 8
NOTES:
1. THE WATER METER WILL BE LOCATED IN AN ACCESSIBLE LOCATION AND WILL NOT BE INSTALLED UNDER EXISTING PIPING OR CLOSE TO OTHER FACILITIES. CRAWL SPACES ARE UNACCEPTABLE.
2. WATER METER TO BE INSTALLED NOT MORE THAN 2.0' ABOVE THE FLOOR, OR CLOSER THAN 1.0' TO ANY WALL OR OTHER FIXED OBJECT.
3. THE DEVELOPER SHALL MAKE PROVISIONS FOR DISCHARGE OF A LARGE VOLUME OF EXCESS WATER RESULTING FROM METER TESTING AND METER REPAIRS AS REQUIRED BY FAIRFAX WATER.
4. THE METER INSTALLATION WILL BE INSPECTED AND APPROVED BY FAIRFAX WATER.
   CALL 703-289-6402 FOR INSPECTION PRIOR TO PLACING LINE IN SERVICE. (REMOTE REGISTER TO BE INSTALLED OUTSIDE BUILDING IF REQUIRED).
5. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PREVENT THE METER FROM FREEZING.
6. SUPPORT IS REQUIRED FOR THE METER.
7. THE INLET SIDE OF THE SERVICE LINE SHOULD BE THE SAME DIAMETER AS METER SIZE AT LEAST 3 FEET BEFORE METER.
8. IF THE SERVICE CONNECTION IS 3" AND ABOVE, A 3" MINIMUM GATE VALVE WITH 2" OPERATING NUT MUST BE INSTALLED AT THE MAIN IN THE STREET OR FIRE LINE.
9. NO TAPS, PRV’S, STRAINERS, OR BACKFLOW PREVENTORS ARE TO BE INSTALLED BEFORE METER.
10. GATE VALVES OR BALL VALVES MUST BE INSTALLED ON BOTH SIDES OF THE METER, AND ON THE BYPASS. BUTTERFLY VALVES ARE NOT ACCEPTABLE.
11. BACKFLOW PREVENTION WILL BE REQUIRED IN ACCORDANCE WITH FAIRFAX COUNTY’S REGULATIONS.
12. TURBINE METER, STRAINER AND COMPANION FLANGE TO BE FURNISHED BY FAIRFAX WATER AND INSTALLED BY OWNER’S PLUMBER.
NOTES:
1. THE WATER METER WILL BE LOCATED IN AN ACCESSIBLE LOCATION AND WILL NOT BE INSTALLED UNDER EXISTING PIPING OR CLOSE TO OTHER FACILITIES. CRAWL SPACES ARE UNACCEPTABLE.
2. WATER METER TO BE INSTALLED NOT MORE THAN 2.0' ABOVE THE BASE SLAB, OR CLOSER THAN 1.0' TO ANY WALL OR FIXED OBJECT.
3. THE DEVELOPER SHALL MAKE PROVISIONS FOR DISCHARGE OF A LARGE VOLUME OF EXCESS WATER RESULTING FROM METER TESTING, RPZ OPERATION AND METER REPAIRS AS REQUIRED BY FAIRFAX WATER.
4. THE METER INSTALLATION WILL BE INSPECTED AND APPROVED BY FAIRFAX WATER. CALL 703-289-6402 FOR INSPECTION PRIOR TO PLACING LINE IN SERVICE. (REMOTE REGISTER TO BE INSTALLED OUTSIDE BUILDING IF REQUIRED).
5. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PREVENT THE METER FROM FREEZING.
6. SUPPORT IS REQUIRED FOR THE METER AND RPZ.
7. INCOMING LINE SIZE MUST BE THE SAME AS METER SIZE AT LEAST 3' BEFORE THE METER.
8. THE SERVICE CONNECTION SHALL BE MADE OF DUCTILE IRON PIPE. IF THE SERVICE CONNECTION IS 3" OR LARGER, A RESTRAINED GATE VALVE WITH 2" OPERATING NUT MUST BE INSTALLED AT THE SUPPLY MAIN.
9. NO TAPS, PRV'S, STRAINERS, OR BACKFLOW PREVENTOR ARE TO BE INSTALLED BEFORE METER.
10. GATE VALVES OR BALL VALVES MUST BE INSTALLED ON BOTH SIDES OF THE METER, AND ON THE BYPASS. BUTTERFLY VALVES ARE NOT ACCEPTABLE.
11. ENCLOSURE SHALL PROVIDE UNRESTRICTED ACCESS TO METER, RPZ, AND INTERIOR PIPING.
12. TURBINE METER, STRAINER AND COMPANION FLANGE TO BE FURNISHED BY FAIRFAX WATER AND INSTALLED BY OWNER'S PLUMBER.
TYPICAL INSTALLATION SECTION VIEW

NOTES:
1. THE WATER METER WILL BE LOCATED IN AN ACCESSIBLE LOCATION AND WILL NOT BE INSTALLED UNDER EXISTING PIPING OR CLOSE TO OTHER FACILITIES. CRAWL SPACES ARE UNACCEPTABLE.
2. WATER METER TO BE INSTALLED NOT MORE THAN 2.0' ABOVE THE FLOOR, OR CLOSER THAN 1.0' TO ANY WALL OR OTHER FIXED OBJECT.
3. THE DEVELOPER SHALL MAKE PROVISIONS FOR DISCHARGE OF A LARGE VOLUME OF EXCESS WATER RESULTING FROM METER TESTING AND METER REPAIRS AS REQUIRED BY FAIRFAX WATER.
4. THE METER INSTALLATION WILL BE INSPECTED AND APPROVED BY FAIRFAX WATER.
   CALL 703–289–6402 FOR INSPECTION PRIOR TO PLACING LINE IN SERVICE. (REMOTE REGISTER TO BE INSTALLED OUTSIDE BUILDING IF REQUIRED).
5. IT SHALL BE THE RESPONSIBILITY OF THE OWNER TO PREVENT THE METER FROM FREEZING.
6. SUPPORT IS REQUIRED FOR THE METER.
7. INCOMING LINE SIZE MUST BE THE SAME AS METER SIZE AT LEAST 3' BEFORE THE METER.
8. A 3" MINIMUM GATE VALVE WITH A 2" OPERATING NUT MUST BE INSTALLED AT THE MAIN IN THE STREET OR FIRE LINE.
9. NO TAPS, PRV'S, STRAINERS, OR BACKFLOW PREVENTOR ARE TO BE INSTALLED BEFORE METER.
10. GATE VALVES OR BALL VALVES MUST BE INSTALLED ON BOTH SIDES OF THE METER, AND ON THE BYPASS. BUTTERFLY VALVES ARE NOT ACCEPTABLE.
11. FAIRFAX WATER TO SUPPLY AND INSTALL REMOTE REGISTER. WIRE FOR REMOTE REGISTER TO BE FURNISHED BY FAIRFAX WATER AND INSTALLED BY CUSTOMER IF REQUIRED.
12. BACKFLOW PREVENTIONS WILL BE REQUIRED IN ACCORDANCE WITH FAIRFAX COUNTY'S REGULATIONS.
13. 3" METER IS 24" LONG, 4" IS 29" LONG AND 6" IS 36" LONG.
14. METER, STRAINER AND COMPANION FLANGES FURNISHED BY FAIRFAX WATER AND INSTALLED BY CUSTOMER.

FAIRFAX WATER
STANDARD DETAILS

INTERIOR METER INSTALLATION WITH BY–PASS 3" AND LARGER COMPOUND METERS

DATE: 7/17

SCALE:
NOT TO SCALE

DRAWING NO.: 11
### Existing Paved Areas

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<th>TRENCH WIDTH</th>
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<td>4&quot;</td>
<td>24&quot;</td>
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<tr>
<td>6&quot;-16&quot;</td>
<td>O.D. + 18&quot;</td>
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<tr>
<td>20&quot;-36&quot;</td>
<td>O.D. + 24&quot;</td>
</tr>
<tr>
<td>42&quot;-48&quot;</td>
<td>O.D. + 30&quot;</td>
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85% Compacted Backfill (Suitable Fill)

Proposed D.I.P. Water Main W/ 8-Mil V-Bio Enhanced Polyethylene Encasement

95% Compacted Backfill (VDOT 21A Stone, See Note 1)

### Non-Paved Areas

Ex. Grade

Trench Width = 24"

Ex. Grade

Pavement Restoration

X = 24" for Pipe Less Than 24"

X = 30" for Pipe 24" and Larger

Ex. Grade

Main Size

Trench Width = X

95% Compacted Backfill (VDOT 21A Stone)

Proposed D.I.P. Water Main W/ 8-Mil V-Bio Enhanced Polyethylene Encasement

95% Compacted Backfill (VDOT 21A Stone, See Note 1)

### Notes:

1. VDOT No. 57 Stone shall be used at creek crossings or in areas where trench contains ground water.
2. All pavement restoration and compacted backfill within VDOT right-of-way shall adhere to all applicable VDOT specifications.
3. Restained joint pipe shall be identified with marking tape placed 2 feet above pipe.
4. All water main installation in areas with proposed paving shall adhere to approved development plan.
EXISTING PAVED AREAS

MAIN SIZE | TRENCH WIDTH =
4" | 24"
6"–16" | O.D. + 18"
20"–36" | O.D. + 24"
42"–48" | O.D. + 30"

85% COMPACTED BACKFILL
(SUITABLE FILL)

6 GAUGE SINGLE CONDUCTOR COATED
COPPER TRACER WIRE TO BE TAPED TO PIPE

PROPOSED H.D.P.E. WATER MAIN

95% COMPACTED BACKFILL
(VDOT 21A STONE)

NON-PAVED AREAS

EX. GRADE

4" TOPSOIL

85% COMPACTED BACKFILL
(SUITABLE FILL)

6 GAUGE SINGLE CONDUCTOR COATED
COPPER TRACER WIRE TO BE TAPED TO PIPE

PROPOSED H.D.P.E. WATER MAIN

95% COMPACTED BACKFILL
(VDOT 21A STONE)

EXISTING PAVED AREAS

MAIN SIZE | TRENCH WIDTH =
4" | 24"
6"–16" | O.D. + 18"
20"–36" | O.D. + 24"
42"–48" | O.D. + 30"

95% COMPACTED BACKFILL
(VDOT 21A STONE)

6 GAUGE SINGLE CONDUCTOR COATED
COPPER TRACER WIRE TO BE TAPED TO PIPE

PROPOSED H.D.P.E. WATER MAIN

X = 24" FOR PIPE LESS THAN 24"
X = 30" FOR PIPE 24" AND LARGER

NOTES:
1. VDOT NO. 57 STONE SHALL BE USED AT CREEK CROSSINGS OR IN AREAS WHERE TRENCH CONTAINS GROUND WATER.
2. ALL PAVEMENT RESTORATION AND COMPACTED BACKFILL WITHIN VDOT RIGHT-OF-WAY SHALL ADHERE TO ALL APPLICABLE VDOT SPECIFICATIONS.
3. ALL WATER MAIN INSTALLATION IN AREAS WITH PROPOSED PAVING SHALL ADHERE TO APPROVED DEVELOPMENT PLAN.
<table>
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<tr>
<th>WATER MAIN PIPE SIZE (INCHES)</th>
<th>CASING PIPE SIZE (INCHES)</th>
<th>CASING THICKNESS (INCHES)</th>
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<tr>
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<tr>
<td>36</td>
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FAIRFAX WATER STANDARD DETAILS

TRENCHLESS CROSSING STEEL CASING

DATE: 7/17

SCALE: NOT TO SCALE

DRAWING NO.: 14
END DIMENSIONS AND SEAL DETAIL

EQUAL SPACE NOT MORE THAN 6'-0" C TO G OR SPACING AS REQUIRED BY MANUFACTURER AND APPROVED BY FAIRFAX WATER

NOTES:
1. THE CONTRACTOR MAY INSTALL TUNNEL LINER PLATE IN LIEU OF THE STEEL CASING SHOWN, IN ACCORDANCE WITH SECTION 02400 OF FAIRFAX WATER’S SPECIFICATIONS, AT NO ADDITIONAL COST TO FAIRFAX WATER. IF THE CONTRACTOR CHOSES TO INSTALL TUNNEL LINER PLATE, SHOP DRAWINGS AND A DETAIL OF THE TUNNEL LINER PLATE INSTALLATION SHALL BE SUBMITTED, WHICH INDICATE THE ABILITY OF THE THE TUNNEL PLATE LINER TO WITHSTAND THE APPLIED LOADS. SUBMITTAL SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF VIRGINIA.
2. RESTRAINED JOINT PIPE SHALL BE INSTALLED WITHIN CASING PIPE.
3. SEE PLAN FOR TEST STATION AND ANODE REQUIREMENTS.
4. CARRIER PIPE DOES NOT REQUIRE POLYETHYLENE ENCASEMENT WITHIN CASING PIPE.
5. ALL PIPE JOINTS 24-INCH AND LARGER WITHIN CASING PIPE SHALL BE BONDED.
CLASS D (2000 PSI) CONCRETE
PLACED TO APPROXIMATE GRADE
AFTER LINER PLATE IS IN PLACE.

NOTE:
ANNULAR SPACE MAY BE FILLED AT THE DISCRETION OF FAIRFAX WATER.
SECTION A-A
CONCRETE PIER DETAIL

NOTE:
SANITARY AND WATER MAIN PIPE JOINTS SHALL BE LOCATED EQUIDISTANT FROM CROSSING SO AS TO CENTER THE PIPE SECTIONS OVER THE CROSSING. NO JOINT SHALL BE LOCATED CLOSER THAN 4 FEET TO THE CROSSING.
NOTES:
1. DETAILS SHOWN ARE FOR ALL PIPE DIAMETERS.
2. DUCTILE IRON PIPE TO BE INSTALLED WITH POLYETHYLENE ENCASEMENT.
CONCRETE BLOCK (CLASS D, 2000 PSI) TO BE POURED AFTER PLACEMENT OF SOLID CONCRETE BLOCKS

PRESSURE TREATED 6"x6" TIMBER, SEE NOTE 2

3 OR 4 - 12"x12"x6" SOLID CONCRETE BLOCKS

PROFILE

NOTES:
1. TO BE USED WHEN WATER MAIN IS REQUIRED FOR IMMEDIATE SERVICE.
2. FOR PIPE 12" AND LARGER, TWO 6"x6" PRESSURE TREATED TIMBERS SHALL BE USED.
   (USE WEDGES AS NECESSARY)

FAIRFAX WATER
STANDARD DETAILS

CUT AND CAP

DATE: 7/17

SCALE: NOT TO SCALE

DRAWING NO.: 22
<table>
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<tr>
<th>PIPE SIZE INCHES</th>
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<th>(1) WORKING PRESSURE 175 PSI</th>
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<tr>
<td>11.25/22.5</td>
<td>6.0</td>
<td>4.0</td>
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NOTES:
1. MINIMUM CONCRETE ANCHOR BLOCK DIMENSIONS IN FEET.
2. PROVIDE FORM WORK FOR ALL CONCRETE.
3. CONCRETE SHALL BE CLASS D 2000 PSI.
4. THE ABOVE TABLE IS BASED ON 2000 PSF SOIL BEARING CAPACITY,
   \( R = 2PA \sin(\theta/2) \) AND FOR A TEST PRESSURE = 1.5 x WORKING PRESSURE.
5. ANCHOR BLOCK DESIGN FOR PIPE LARGER THAN 24" SHALL BE REVIEWED
   ON AN INDIVIDUAL BASIS BY FAIRFAX WATER.
6. WRAP FITTING WITH POLYETHYLENE SHEETING. CONCRETE MUST NOT OBSTRUCT
   ACCESS TO MECHANICAL JOINT ASSEMBLY.
7. CONCRETE ANCHOR BLOCK DIMENSIONS FOR TEE'S TO BE SAME AS FOR 90° BENDS.
8. HEIGHT OF CONCRETE ANCHOR BLOCK ABOVE PIPE CENTERLINE IS 1/3 THE H DIMENSION.
9. BLOCKING SHALL BACK TO UNDISTURBED EARTH.
NOTES:
1. RESTRAIN MINIMUM 3 FULL JOINTS OF PIPE BEFORE AND AFTER FITTING FOR 8" DIAMETER WATER MAIN OR SMALLER, 4 FULL JOINTS OF PIPE FOR 12" DIAMETER WATER MAIN, OR AS REQUIRED BY FAIRFAX WATER (DUCTILE IRON ONLY).
2. OFFSET BENDS REQUIRE SIMILAR BLOCKING AND PIPE RESTRAINT.
NOTES:
1. BEARING AREA IS BASED ON 200 PSI TEST PRESSURE AND A SOIL BEARING PRESSURE OF 2000 POUNDS PER SQUARE FOOT. INCREASE BLOCK DIMENSIONS AS REQUIRED FOR HIGHER TEST PRESSURES AND IN SOILS WITH LOWER BEARING VALUES.
2. *DIMENSIONS "B" AND "D" ARE MINIMUM VALUES FOR BEARING IN UNDISTURBED EARTH.
3. CONCRETE STRENGTH SHALL BE CLASS B (4000 PSI).
4. MAINTAIN MINIMUM 1.5" CLEARANCE BETWEEN PIPE AND REBAR.
M.J. PLUG W/CONCRETE ANCHOR
M.J. WATER MAIN
2 OPPOSING RESTRAINING GLANDS
(MEGA-LUG OR EQUAL, SEE APPROVED
PRODUCT LIST) OR MANUFACTURER’S
THRUST COLLAR (FACTORY APPLIED)
3" (TYP)

PLAN

4-#6 REBARS
EACH FACE

#6 REBARS
@ 12" EACH
SIDE OF PIPE

4-#6 REBARS
EACH FACE

SECTION

2-#6 REBARS
DIAGONAL (TYP)

2-#6 REBARS

NOTES:
1. BEARING AREA IS BASED ON 200 PSI TEST
PRESSURE AND A SOIL BEARING PRESSURE OF 2000
POUNDS PER SQUARE FOOT. INCREASE BLOCK
DIMENSIONS AS REQUIRED FOR HIGHER TEST
PRESSURES AND IN SOILS WITH LOWER BEARING
VALUES.
2. *DIMENSIONS "B" AND "D" ARE MINIMUM VALUES
FOR BEARING IN UNDISTURBED EARTH.
3. CONCRETE STRENGTH SHALL BE CLASS B (4000 PSI).
4. MAINTAIN MINIMUM 1.5" CLEARANCE BETWEEN PIPE
AND REBAR.

DEAD END ANCHOR SCHEDULE

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<tr>
<th>LINE SIZE</th>
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<th>C</th>
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FAIRFAX WATER
STANDARD DETAILS

DEAD END ANCHOR
16" TO 24" WATER MAIN

DATE: 7/17

SCALE: NOT TO SCALE
DRAWING NO.: 26
NOTES:
1. THE MANUFACTURER IDENTIFICATION AND COUNTRY OF ORIGIN (IF OTHER THAN U.S.)
   SHALL BE CAST INTO ALL PARTS.
2. GUARD POSTS ARE NOT TO BE INSTALLED AT VALVES UNLESS INDICATED ON DRAWINGS,
   OR AS SPECIFIED BY FAIRFAX WATER.
3. VALVE BOX MUST MEET SPECIFICATIONS CONTAINED IN FAIRFAX WATER’S APPROVED
   PRODUCTS LIST.
4. FOR VALVE BOXES DEEPER THAN SIX FEET, USE 5-INCH DIAMETER GRAY CAST IRON (SOIL) PIPE
   TO EXTEND STANDARD TOP AND BOTTOM SECTIONS.
5. stacking of valve box sections is not acceptable.
NOTES:
1. CONCRETE PADS FOR WATER MAIN VALVE AND TERMINAL BOX ARE TO BE INSTALLED USING REQUIREMENTS FOR CLASS D CONCRETE (2000 PSI).
2. PADS TO BE FORMED AND PROPERLY FINISHED.
3. VALVE BOX CONCRETE PAD TO BE INSTALLED ON ALL VALVES IN NON-PAVED AREAS OR AS DIRECTED BY FAIRFAX WATER.
4. GUARD POSTS ARE NOT TO BE INSTALLED AT VALVES UNLESS INDICATED ON DRAWINGS, OR AS SPECIFIED BY FAIRFAX WATER.
NOTES:
1. FOR VALVE BOXES DEEPER THAN SIX FEET, USE 5-INCH DIAMETER GRAY CAST IRON (SOIL) PIPE TO EXTEND STANDARD TOP AND BOTTOM SECTIONS.
2. STACKING OF VALVE BOX SECTIONS IS NOT ACCEPTABLE.
NOTES:
1. IF SWIVEL TEE IS NOT USED, VALVE MUST BE RESTRAINED TO TEE WITH RESTRAINING GLANDS BY CONTRACTOR.
2. HYDRANTS SHALL HAVE SHOP-APPLIED COATINGS AS FOLLOWS:
   • HYDRANT BARREL: KENNEDY SAFETY RED OR MUELLER RED #10
   • TOPS AND CAPS: KENNEDY SILVER OR MUELLER SILVER #18
   • WHERE INDICATED BY FAIRFAX WATER, THE TOP SHALL BE SHOP-COATED RED AND THE BARREL AND CAPS SHALL BE SHOP-COATED SILVER IN LIEU OF THE ABOVE.
3. POLYETHYLENE ENCASEMENT TO BE INSTALLED UP TO 6-INCHES BELOW PROPOSED GRADE. ENCASEMENT SHALL BE INSTALLED SO AS NOT TO PREVENT DISCHARGE OF WATER THROUGH HYDRANT DRAIN HOLES.
4. FOR HYDRANT LOCATION IN REGARD TO FACE OF CURB, SEE FAIRFAX COUNTY PUBLIC FACILITIES MANUAL.
NOTES:
1. GUARD POSTS ARE USED TO PROTECT A HYDRANT IN AREAS WHERE VEHICULAR OR EQUIPMENT TRAFFIC MAY BE ENCOUNTERED. THE PLANS OR FAIRFAX WATER TO SPECIFY THE INSTALLATION OF GUARD POSTS. DO NOT INSTALL GUARD POSTS WITHIN VDOT RIGHT-OF-WAY UNLESS DIRECTED BY FAIRFAX WATER.
2. NO STRUCTURES, POLES, SIGN POSTS, TREES, OR SHRUBS TO BE INSTALLED WITHIN FOUR FEET OF FIRE HYDRANT.
NOTE:
GUARD POSTS SHALL BE PRIMED AND PAINTED BY CONTRACTOR AS FOLLOWS:
1. PRIMER: SHERWIN-WILLIAMS DTM WASH PRIMER
2. TOP COAT (2 COATS ARE REQUIRED): SHERWIN-WILLIAMS SHER-CRYL HPA - ROBOTIC BLUE (SW4063)
NOTES:
1. DO NOT SUBMERGE DISCHARGE END OF DRAIN HOSE, PROVIDE AIR GAP.
2. DECHLORINATE AS APPROPRIATE.
2" THREADED TAPPING SADDLE AND CORP STOP

WATER MAIN (SIZE VARIES)

12" x 24" x 8" CLASS D CONCRETE PAD (2000 PSI) WRAPPED WITH POLYETHYLENE

PLANT

EXISTING GRADE

WATER MAIN (SIZE VARIES)

PLAN

ELEVATION

NOTES:
1. THREADED SADDLE TO BE USED ON 24" & LARGER WATER MAINS.
BLOW-OFF PIPING

CONCRETE THRUST ANCHOR (SIZE AS SPECIFIED IN CONCRETE THRUST ANCHOR DETAIL & TABLE OR AS SHOWN ON THE PLANS)

D.I.P. WITH M.J. TEE
45° M.J. X M.J. BEND
DIP PE X PE NIPPLE 2'-0" LONG OR ULTRA COMPACT RESTRAINT
M.J. X M.J. VALVE
CONCRETE PAD (CLASS D, 2000 PSI)
1.5' X 1.5' X 0.5'
RESTRAIN WITH RESTRAINING GLANDS

AIR RELEASE PIPING

M.J. X M.J. VALVE
RESTRAIN WITH RESTRAINING GLANDS
D.I.P. WITH M.J. TEE
CONCRETE PAD (CLASS D, 2000 PSI)
1.5' X 1.5' X 0.5'
45° M.J. X M.J. BEND
DIP PE X PE NIPPLE 2'-0" LONG OR ULTRA COMPACT RESTRAINT
CONCRETE THRUST ANCHOR (SIZE AS SPECIFIED IN CONCRETE THRUST ANCHOR DETAIL & TABLE OR AS SHOWN ON THE PLANS)

NOTES:
1. CONCRETE PAD DIMENSIONS, APPURTE NANT SIZES AND LAYOUT IN ACCORDANCE WITH THE DRAWINGS.
2. HYDRANT INSTALLATION FOR AIR RELEASE OR BLOW-OFF SHALL BE IN ACCORDANCE WITH STANDARD HYDRANT INSTALLATION.
3. ULTRA COMPACT RESTRAINT USED IN PLACE OF DIP NIPPLE, AS DIRECTED BY FAIRFAX WATER, SHALL BE A FOSTER ADAPTER OR EQUAL APPROVED BY FAIRFAX WATER.
NOTES:
1. EXTEND BLOCKING BEYOND THE WATER MAIN TO UNDISTURBED GROUND OR AS SPECIFIED BY FAIRFAX WATER.
2. PER VDOT REQUIREMENTS, BLOW-OFF VALVE BOXES TO BE NO CLOSER THAN 5'-0" TO EDGE OF PAVEMENT IN CUL-DE-SAC INSTALLATIONS.
3. ECCENTRIC TAPPED PLUG OR CAP TO BE USED AT THE 12:00 O'CLOCK POSITION FOR AN AIR RELEASE OR THE 6:00 O'CLOCK POSITION FOR A BLOW-OFF ON WATER MAINS 12" AND LARGER. 8" AND SMALLER WATER MAINS TO BE CENTERLINE TAPPED. DISHED PLUGS AND CAPS SHALL BE PROVIDED WITH A BOSSED OUTLET SO THE 2" TAP IS PERPENDICULAR TO THE PLUG OR CAP.
NOTE:
ROUTE DRAIN TO DAYLIGHT WITH A RIP-RAP CHANNEL DITCH TO NEAREST ESTABLISHED DRAINAGE FACILITY.
NOTE:
LENGTH OF PIPING AND NUMBER OF FITTINGS VARY BY LOCATION. 
SEE PLANS FOR HORIZONTAL ALIGNMENT OF BLOW-OFF.
NOTES:
1. STANDON MODEL S96 FLANGE CRADLE PIPE SUPPORT OR APPROVED EQUAL, UNLESS OTHERWISE SHOWN.
2. PLACE MINIMUM 1/4" NEOPRENE PAD BETWEEN CRADLE & PIPE SURFACE.
NOTES:
1. ALL VAULTS TO BE IN CONFORMANCE WITH FAIRFAX WATER’S APPROVED PRODUCTS LIST.
2. DRAIN CHANNELS ARE TO BE CAST INTO VAULT FLOOR TO PROVIDE FLOOR DRAINAGE TO SUMP.
### Vault Wall and Seal

**Diagram Description:**
- **Opening to be cast into vault wall by vault manufacturer.**
- **Kor-n-seal connector.**

### Dimension Chart

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<th>Pipe Nom. Dia.</th>
<th>6&quot;</th>
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<th>12&quot;</th>
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<th>24&quot;</th>
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<td>DIP</td>
<td>DIP</td>
<td>DIP</td>
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**Fairfax Water Standard Details**

**Vault Wall and Kor-n-seal**

**Date:** 7/17

**Scale:** Not to Scale

**Drawing No.:** 42
NOTES:
1. APPLY DAMPPROOFING AS SPECIFIED IN SECTION 09900 SPECIAL COATINGS.
2. 6" THICK MASONRY RISER FOR PRECAST VAULT.
3. FILL RISER BLOCK CORES WITH MORTAR.
4. USE NO MORE THAN THREE BRICK COURSES TO ADJUST TOP ELEVATION.
5. PRECAST CONCRETE COLLARS CAN BE USED UP TO BRICK COURSES.
NOTES:
1. FOR USE ON 16" OR LARGER WATER MAINS WHERE FOREIGN UTILITY IS PROTECTED BY IMPRESSED CURRENT OR AS OTHERWISE REQUIRED BY FAIRFAX WATER.
2. MINIMUM 4 – 32 LBS MAGNESIUM ANODES INSTALLED OR AS SPECIFIED BY FAIRFAX WATER, SEE DETAIL 65 & 69 FOR QUANTITY, SPACING, AND PLACEMENT.
3. SEE DETAIL 60 FOR WIRING DETAIL.
NOTES:
1. ONLY FOR USE WHEN WATER MAIN HAS AN EXISTING OR PROPOSED CATHODIC PROTECTION SYSTEM.
2. CARRIER PIPE (WATER MAIN) WITHIN STEEL CASING DOES NOT REQUIRE POLYETHYLENE ENCASEMENT, BUT DOES REQUIRE ALL PIPE JOINTS TO BE BONDED FOR 24" AND LARGER.
3. TEST STATION REQUIRED AT BOTH ENDS OF CASING.
4. SEE DETAIL 61 FOR WIRING DETAIL.
5. SEE DETAIL 69 FOR TEST STATION LOCATIONS.
SEE TEST STATION INSTALLATION DETAIL 49
ATTACH ALL LEAD WIRES TO TERMINAL BOARD

B-1
A-2
A-1

WATER MAIN

20' (TYP.)
20' (TYP.)
20' (TYP.)

#8 ANODE HEADER CABLE

32 LB. MAG. ANODE,
SEE NOTE 2

THERMITE WELD (TYP.),
SEE DETAIL SHEET 54

B-1
A-2
A-1

ANODE SPLICE KIT,
TO HEADER CABLE,
SEE DETAIL 59

NOTES:
1. FOR USE WHEN INSTALLING WATER MAIN IN CORROSIVE SOILS (GENERALLY, TRANSMISSION MAINS ONLY).
2. SEE DETAIL 65 FOR PLACEMENT OF ANODES.
3. SEE DETAIL 69 FOR TEST STATION LOCATIONS.
4. SEE DETAIL 62 FOR WIRING DETAIL.
NOTES:
1. TYPICALLY FOR USE WHEN ISOLATING A CATHODICALLY PROTECTED TRANSMISSION WATER MAIN FROM NON-CATHODICALLY PROTECTED DISTRIBUTION MAIN OR OTHER DESIRED ELECTRICAL ISOLATION POINTS.
2. SEE DETAIL 63 WIRING DETAIL.

FAIRFAX WATER
STANDARD DETAILS

TYPE I CORROSION CONTROL
TEST STATION – ISOLATOR
(P.V.C. OR H.D.P.E. INSERT)
NOTE:
TYPICALLY FOR USE WHEN ISOLATING A CATHODICALLY PROTECTED TRANSMISSION WATER MAIN FROM NON-CATHODICALLY PROTECTED DISTRIBUTION MAIN OR OTHER DESIRED ELECTRICAL ISOLATION POINTS.
SEE TEST STATION INSTALLATION DETAIL 49
ATTACH ALL LEAD WIRES TO TERMINAL BOARD

A-1
A-2
B-1
B-2

THERMITE WELD (TYP.)
SEE DETAIL 54

WATER MAIN

DIRECT BURIED INSULATING FLANGE
WITH INTERNAL AND EXTERNAL COATING,
SEE INSULATING FLANGE DETAIL 50

1' (TYP.)

NOTES:
1. FOR USE WHEN ISOLATING CATHODICALLY PROTECTED TRANSMISSION MAIN FROM NON-CATHODICALLY PROTECTED TRANSMISSION MAINS, TRANSMISSION MAINS OF DISSIMILAR MATERIALS, OR OTHER DESIRED ELECTRICAL ISOLATION POINTS.
2. SEE DETAIL 63 FOR WIRING DETAIL.
3. SEE DETAIL 69 FOR TEST STATION LOCATIONS.
2" BRASS SURVEY MARKER (FLAT HEAD) WITH STAMPED TEST STATION NO. PER DETAIL A

24" SQUARE CONCRETE PAD FOR TEST STATION, SEE TEST STATION CONCRETE PAD DETAIL 66

INCREASING STATION NO.'S TO BE PARALLEL TO WATER MAIN

SINGLE TERMINAL BOX TEST STATION (SIMILAR WHERE 2 TERMINAL BOXES ARE REQUIRED)

3" WIDE UTILITY WARNING TAPE MARKED "CATHODIC PROTECTION CABLE BURIED BELOW"

4" DIA. STEEL GUARD POST WHERE REQUIRED BY CORROSION CONTROL TEST STATION SCHEDULE, SEE GUARD POST DETAIL TOP FLUSH WITH CONCRETE OR PAVEMENT

WIRE LEADS (NUMBER VARIES PER TYPE OF INSTALLATION)

WIRE LEADS FROM PIPE TRENCH TO TERMINAL BOX TO BE ROUTED IN PVC CONDUIT IF BOX IS NOT DIRECTLY OVER WATER MAIN. NO CONDUIT REQUIRED FOR WIRES IN PIPE TRENCH.
NOTES:
1. EXTERNAL COATING OF INSULATING FLANGE SHALL CONSIST OF COMPATIBLE PRIMER, MASTIC, PETROLATUM IMPREGNATED FABRIC TAPE AND OUTER PROTECTIVE WRAP, SEE FAIRFAX WATER’S APPROVED PRODUCTS LIST.
2. INTERNAL COATING OF INSULATING FLANGE SHALL BE NSF-61 APPROVED, TWO COMPONENT, HIGH OR 100% SOLIDS EPOXY, SEE FAIRFAX WATER’S APPROVED PRODUCTS LIST.
3. BOLTS AND BOLT STUDS SHALL EXTEND COMPLETELY THROUGH THE NUTS.
NOTE:
FOR USE WHERE SERVICE LINE IS CONNECTED TO A CATHODICALLY PROTECTED WATER MAIN.
TYPICAL PIPE JOINT BOND

AWG NO. 4 BOND WIRE (TYP.)

SEE THERMITE WELD DETAIL 54 (TYP.)

TYPICAL BONDING FOR FITTINGS

NOTES:
1. BOND JOINTS ON UNDERGROUND PIPING WHERE INDICATED ON DRAWINGS AND WITHIN ALL TRENCHLESS CROSSINGS.
2. THERMITE WELD BONDING WIRES TO TOP OF PIPE OR FITTINGS.
NOTES:
1. INSTALL ANODES IN THE VICINITY OF ALL REPAIRED PIPE FAILURES DUE TO CORROSION.
2. ANODES PLACED AT SAME DEPTH AS THE BOTTOM OF PIPE AND AT A MINIMUM OF 12" FROM EDGE TO EDGE OF PIPE.
3. HOTSPOT CATHODIC PROTECTION TO BE APPLIED TO CAST AND DUCTILE IRON PIPING, DO NOT INSTALL ON COPPER PIPING.
4. INSTALL ANODES ON BOTH SIDES OF PIPE.
5. ANODES MUST BE PLACED IN NATIVE SOIL. DO NOT BACKFILL AROUND ANODES WITH SAND OR STONE.
6. PRESOAK ANODE WITH FIVE GALLONS OF WATER AFTER PLACEMENT AND BEFORE BACKFILLING.
FOR GENERAL INFORMATION ONLY - FOLLOW MANUFACTURER'S RECOMMENDATIONS

**STEP 1**
Ductile iron or steel pipe

Clean surface to bright metal at weld location by mechanical grinder.

**STEP 2**
Stranded copper wire (with THWN or HMWPE insulation).

Strip insulation from wire and install sleeve.

**STEP 3**
Graphite mold

Hold graphite mold firmly over sleeve with opening away from operator – ignite starting powder.

**STEP 4**

Remove slag from connection. Thoroughly clean weld area. Strike weld sharply on the side with 2 lb hammer to check adhesion.

**STEP 5**

Prime and coat all exposed metal at weld area, see notes.


ductile iron or steel pipe

**NOTE:**

Thermite welds made to ductile iron and steel pipe shall be coated with a prefabricated one piece, elastomeric cap or approved equal. See Fairfax Water's approved products list.

**FAIRFAX WATER**

**STANDARD DETAILS**

**THERMITE WELD**

**SCALE:**
Not to scale

**DRAWING NO.:**
54

**DATE:** 7/17
NOTES:
1. INSTALL AC GROUND MAT WHERE INDICATED ON PLANS OR CORROSION CONTROL TEST STATION SCHEDULE.
2. CONNECT ANODE HEADER CABLE TO PIPE LEADS IN TEST STATION.
3. WHEN GROUND MAT IS INSTALLED AT APPURTENANCE OTHER THAN TEST STATION, CIRCLE APPURTENANCE WITH ZINC RIBBON ANODE AND CONNECT ANODE HEADER CABLES DIRECTLY TO PIPE IMMEDIATELY ADJACENT TO APPURTENANCE.
4. AC GROUND MAT TYPICALLY USED IN CONJUNCTION WITH OTHER TEST FACILITIES. OTHER TEST WIRES NOT SHOWN FOR CLARITY.
5. TO PROTECT THE OPERATOR FROM ACCIDENTAL SHOCK, THIS GROUNDING MAT CONFIGURATION SHALL BE USED WHENEVER HIGH VOLTAGE POWER LINES ARE WITHIN 50' OF THE WATER MAIN.
6. GROUNDING MATS SHOULD NOT BE PLACED UNDER IMPERVIOUS SURFACES UNLESS OTHERWISE DIRECTED.

NOTES:
1. INSTALL SHORTING BAR BETWEEN PIPE WIRE AND ZINC RIBBON ANODE
2. SEE GM TEST STATION TERMINAL BOARD WIRING DETAIL 64.

SEE TEST STATION INSTALLATION DETAIL 49
SPLICE ANODE HEADER CABLE TO END OF RIBBON ANODE (TYPICAL, BOTH ENDS). SEE ANODE HEADER CABLE SPLICE DETAIL.
ATTACH ALL LEAD WIRES TO TERMINAL BOARD.

SEE THERMITE WELD DETAIL 54 (TYP.)

WATER MAIN

ZINC RIBBON ANODE

AWG NO. 6 BLACK HMWPE ANODE HEADER CABLE

TEST STATION

18” MAX (TYP.)

4’ MINIMUM

PLAN

ZINC RIBBON ANODE

B-2
B-1

A-1
A-2

WATER MAIN

1’

PROFILE

FAIRFAX WATER STANDARD DETAILS

TYPE GM CORROSION CONTROL TEST STATION – GROUNDING MAT

SCALE:
NOT TO SCALE

DRAWING NO.: 55

DATE: 7/17
NOTES:
1. CIRCLE APPURTENANCE(S) WITH ZINC RIBBON ANODE AND CONNECT ANODE HEADER CABLES DIRECTLY TO PIPE IMMEDIATELY ADJACENT TO APPURTENANCE.
2. ALL PIPING FITTINGS, VALVES AND HYDRANT SHALL BE BONDED.
3. TO PROTECT THE OPERATOR FROM ACCIDENTAL SHOCK, THIS GROUNDING MAT CONFIGURATION SHALL BE USED WHenever HIGH VOLTAGE POWER LINES ARE WITHIN 50' OF THE WATER MAIN.
4. GROUNDING MATS SHOULD NOT BE PLACED UNDER IMPERVIOUS SURFACES UNLESS OTHERWISE DIRECTED.

AWG NO. 6 BLACK HMWPE ANODE HEADER CABLE

SPLICE ANODE HEADER CABLE TO END OF RIBBON ANODE (TYPICAL BOTH ENDS), SEE ANODE HEADER CABLE SPLICE DETAIL.

PLAN

HYDRANT

SEE THERMITE WELD DETAIL 54 (TYP.)

VALVE BOX

ZINC RIBBON ANODE

AWG NO. 6 BLACK HMWPE ANODE HEADER CABLE

ELEVATION
AWG NO. 12 BLACK ANODE LEAD WIRE

REMOVE INSULATION TO EXPOSE WIRE

3-LAYERS OF HALF LAPPED VINYL TAPE, SEE FAIRFAX WATER'S APPROVED PRODUCTS LIST

3-LAYERS OF HALF LAPPED RUBBER TAPE, SEE FAIRFAX WATER'S APPROVED PRODUCTS LIST

AWG NO. 8 BLACK HMWPE ANODE HEADER CABLE

COPPER CRIMP CONNECTOR

AWG NO. 8 BLACK HMWPE ANODE HEADER CABLE

3" MIN. 3" MIN.
<table>
<thead>
<tr>
<th>TEST STATION TERMINAL</th>
<th>WIRE DESIGNATION</th>
<th>COLOR/AWG</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>1</td>
<td>A-1</td>
<td>WHITE #12</td>
<td>PIPE/THWN</td>
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<tr>
<td>2</td>
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<td>BLACK #12</td>
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<tr>
<td>3</td>
<td>B-1</td>
<td>BLACK #8</td>
<td>ANODE HEADER CABLE</td>
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**NOTES:**
1. INSTALL .01 OHM SHUNT BETWEEN PIPE WIRE AND ANODE CABLE.
2. TERMINAL BOARD NUMBERS SHALL BE ENGRAVED ON TERMINAL BOARDS.
<table>
<thead>
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<td>4</td>
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NOTE:
TERMINAL BOARD NUMBERS SHALL BE ENGRAVED ON TERMINAL BOARDS.
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<td>ANODE HEADER CABLE</td>
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NOTES:
1. INSTALL .01 OHM SHUNT BETWEEN TEST STATION TERMINAL 1 AND 3 (A-1, B-1).
2. TERMINAL BOARD NUMBERS SHALL BE ENGRAVED ON TERMINAL BOARDS.
<table>
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<tr>
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NOTES:
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<td>B–1</td>
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<td>AWG</td>
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<td>4</td>
<td>B–2</td>
<td>BLACK #6</td>
<td>AWG</td>
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NOTES:
1. INSTALL SHORTING BAR BETWEEN PIPE WIRE AND ZINC RIBBON ANODE.
2. TERMINAL BOARD NUMBERS SHALL BE ENGRAVED ON TERMINAL BOARDS.
EXCAVATION AREA

BACKFILL PER CONTRACT DOCUMENTS

PROPOSED WATER MAIN

2'

32 LB PREPACKAGED MAGNESIUM ANODE

WATER MAIN

CLEAN FILL DIRT AROUND ANODE

127 MIN.

FAIRFAX WATER
STANDARD DETAILS

TYPICAL BACKFILLING AND ANODE BED PLACEMENT AREA

DATE: 7/17

SCALE: NOT TO SCALE

DRAWING NO.: 65
NOTES:
1. CONCRETE PADS FOR CORROSION CONTROL TEST STATIONS ARE TO BE INSTALLED USING REQUIREMENTS FOR CLASS D CONCRETE (2000 PSI).
2. CONCRETE PAD TO BE INSTALLED ON ALL TEST STATIONS IN NON-PAVED AREAS OR AS DIRECTED BY FAIRFAX WATER.
EXISTING PIPELINE

POLYETHYLENE MESH WEBBING PAD
(CENTER ON CROSSING)
SEE FAIRFAX WATER’S APPROVED
PRODUCTS LIST

PIPELINE

NON-METALLIC TAPE

NOTE:
USE ONLY WHEN PIPES ARE LESS THAN 12” APART.
<table>
<thead>
<tr>
<th>PLAN SHEET NUMBER</th>
<th>APPROXIMATE WATER MAIN STATION</th>
<th>TEST STATION NO.</th>
<th>TEST STATION TYPE</th>
<th>ANODE SPACING (FEET)</th>
<th>NO. OF 32 LB. PREFORMED MAGNESIUM ANODES</th>
<th>NO. OF INSULATING FLANGES</th>
<th>NO. OF A.C. GROUND MATS</th>
<th>NO. OF TEST STATIONS</th>
<th>NO. OF GUARD POSTS</th>
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FAIRFAX WATER STANDARD DETAILS

DATE: 7/17

CORROSION CONTROL TEST STATION SCHEDULE

SCALE: NOT TO SCALE

DRAWING NO.: 69