

REGULATIONS OF THE WATER DIVISION



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**REGULATIONS
OF THE
WATER DIVISION
DEPARTMENT OF PUBLIC WORKS
TOWN OF PORTLAND**

**SECTION A1
Definitions**

- A.1. **Contractors and Developers** shall mean an individual, firm or corporation who installs water mains, water services and their appurtenances.
- A.1.2 **Cross Connection** shall mean any link through which it is possible for contaminating materials to enter a potable water supply.
- A.1.3 **Customer** shall mean the individual, firm, or corporation listed as the owner of the property.
- A.1.4 **DCVA** shall mean Double Check Valve Assembly which is an assembly composed of two single, independently acting check valves, including closing shutoff valves located at each end of the assembly and suitable connections for testing the water-tightness of each check valve.
- A.1.5 **Director** shall mean the Director of Public Works or the Director's designee.
- A.1.6 **Division** shall mean the Town of Portland, Department of Public Works, Water Division or its designee.
- A.1.7 **DPUC** shall mean the State of Connecticut Department of Public Utilities Commission.
- A.1.8 **Incidental Water Use Charges** shall mean the fees recommended by the Director and approved by the Board of Selectmen for services rendered.
- A.1.9 **Main** shall mean the supply pipe laid in the street from which house connections are made.
- A.1.10 **Meter** shall mean a device provided by the Division for measurement of water consumption.
- A.1.11 **Premises** shall include but is not restricted to the following:
 - (a) A building or combination of buildings owned or leased by one customer, in one common enclosure, occupied by one family as a residence or one corporation or firm as a place of business.

- (b) Each unit of a multiple house or building separated from the next unit by a solid vertical partition wall occupied by one family as a residence or one firm as a place of business.
- (c) A building owned or leased by one customer and having a number of apartments, offices or lofts which are rented to tenants using in common one hall and one or more means of entrance.
- (d) A building two or more stories high under one roof owned or leased by one customer and having an individual entrance for the ground floor occupants and one for the occupants of the upper floors.
- (e) A combination of buildings owned by one customer, in one common enclosure, none of the individual buildings of which is adapted to separate ownership as, for example, a State Elderly Housing Project.
- (f) A public building.
- (g) A single plot used as park, recreational area or agricultural area.

A.1.12 **RPD** means Reduced Pressure Principal Backflow Device used to eliminate cross-connections.

A.1.13 **Service** shall mean the pipe running from the main in the street including a corporation stop, curb stop and curb box.

A.1.14 **Water Use Charge** shall mean the scale of prices or terms established by the Board of Selectmen for which water shall be furnished.

SECTION A2 General Provisions

The following regulations as herein set forth constitute a part of the contract with every person who takes water and govern the relations between the Division and its customers and the contractors and developers who install water systems. The rules and regulations as herein set forth constitute a part of the contract with every customer taking water from the Division, each of whom shall be deemed to assent and be bound thereby.

A.2.1 **Application for Water Service.** All applications for introduction of water onto private premises shall be made to the Division by the owner of the property, by the person to be charged therefore or by their authorized agent. The fee payment for connection charges must be made in advance.

A.2.2 **Construction Outside Scope of Regulations.** Owners of property desiring any unusual construction, alterations or attachments connected with the water supply, outside the scope of these regulations shall submit plans and specifications for the proposed work to the Director for approval.

- A.2.3 **Right of Entry.** Owners or occupants of any commercial, industrial or residential premises served by Portland's water system shall, upon presentation by Division personnel of their credentials, authorize entry to their premises without a warrant for the purpose of inspecting and surveying their water system for new installation, cross connections or to remove, read, repair or replace any water meter at any time the Division deems necessary. When such access is refused, the water shall be shut off and shall not be turned on until such access has been allowed and fees have been paid for shutting off and turning on the water.
- A.2.4 **Fires.** Whenever a fire occurs in the Town, it is the duty of customers to discontinue, as far as practicable, the use of water.
- A.2.5 **Variable Conditions.** The Division does not guarantee constant pressure or uninterrupted service, nor does it assure the customer either a full volume of water or the required pressure necessary to effectively operate hydraulic elevators, sprinkler systems or other appliances, the same being subject to all the variable conditions that occur in the supply of water from the water system.
- A.2.6 **Interruption of Service.** The Division will undertake to provide an adequate supply of potable water at adequate pressure throughout its system, but cannot assume responsibility or liability, direct, indirect or consequential, for any damage from failure to do so. Whenever possible, work necessitating the interruption of service will be scheduled to provide the least inconvenience to the customer. The Division will make a reasonable effort to give notice in advance of any work necessitating the interruption of service. To safeguard against possible damage due to interruption of service, customers are advised to protect their plumbing systems connected to the water supply system so that damages will not occur if water is shut off without notice.
- A.2.7 **Dirty Water.** The Division shall not be responsible for damages caused by dirty water resulting from the normal operation of the water system, the opening or closing of any gate for repairs, the use of any hydrant, or the breaking of any pipe.
- A.2.8 **Customer Pipes.** The Division assumes no liability for conditions which exist in customer's pipes and cause trouble coincident with or following the repairs of any main, service pipe, meter or other appliances belonging to the Division.
- A.2.9 **Collapsed Boilers/Water Heaters.** The Division reserves the right at any time and without notice to shut off the water mains for purposes of making repairs, extensions or for other necessary purposes. Customers having boilers or other appliances on their premises which depend on pressure in the pipes for safe operation are required to install, suitable safety appliances to protect themselves against damage or danger. In any event, it is expressly stipulated

that the Division will not be liable for any damage, resulting from water having been shut off, either through accident or necessity.

- A.2.10 Shutting Water Off Without Notice.** When it becomes necessary to shut off the water to any section of the Town because of an accident or for the purpose of making changes or repairs, the Division shall endeavor to give timely notice to as many customers affected thereby, as time and the character of the repairs or the accident will permit, and shall, so far as practical, use its best efforts to prevent inconvenience and damage arising from any such cause. However, failure to give such notice shall not render the Division responsible or liable for any damages that may result from the shutting off of the water or any coincident conditions.
- A.2.11 Non-Essential Water Use.** Whenever the public interest so requires, the Division reserves the right to curtail or suspend entirely the use of water for non-essential purposes. Such limitation of use shall be without liability on the part of the Division.
- A.2.12 Low Pressure.** In areas where pressure is low, the Division may require that the customer install and operate a booster pump and tank of a combined capacity approved by the Division. In such cases the customer shall sign a waiver with the Division in which he holds the Division blameless for possible damages and inconvenience resulting from low pressure. If there is not sufficient pressure or flow in the Division's system to permit a customer to qualify for preferred risk insurance, the expense for any improvement in the system for this specific purpose shall be borne by the customer.
- A.2.13 High Pressure.** In some area where pressures are high, it is the responsibility of the customer to install pressure reducing valves to protect the plumbing system. In areas where pressures exceed 90 psi, the customer shall install a pressure reducing valve, with the exception of fire services.
- A.2.14 Furnishing Water to Other Premises.** A customer shall not supply the premises of another person with a water connection except in special emergencies and then only with the approval of the Director.
- A.2.15 Freezing Pipes.** Customers are responsible for keeping their service pipes, house pipes and fixtures protected from freezing. Failure to do so may result in interruption of service and costly repairs for which the Division is not liable. All cost for thawing of frozen service pipes shall be paid for by the party owning the service pipe.
- A.2.16 Cross Connection.** No existing or proposed pipe or fixture connected with the mains of the Division may be connected with pipes or fixtures supplied with

water from any other source. Public or private fire hydrants shall not be used for filling insecticide tanks or tankwagons for spraying unless such filling is done under the supervision of Division personnel. Storage or mixing tanks subject to contamination, swimming pools, swimming pool recirculating system, private wells and reclaiming water systems, etc., are considered for the propose of this regulation as other sources. Such cross connections are in violation of the Connecticut Department of Public Health regulations.

A.2.17 Code Compliance. The piping and plumbing on all premises supplied from the Division's water system shall conform to the State of Connecticut Public Health Regulations, Building Code and applicable codes, if any, of the Town of Portland.

A.2.18 Water Cooled Equipment. Customers who plan to install or have installed air conditioning or refrigeration equipment totaling over three tons in capacity shall provide water conserving equipment as approved by the Division, except that if such water is subsequently re-used in industrial processing or similar purposes, water conserving equipment will not be required. Cross connection regulations shall be adhered to.

A.2.19 Pressure Variations. In the event that any customer uses water at rates of flow that cause noticeable pressure variations in the water system, the Division may require that the customer control his flow rates or install equipment to minimize such variations.

A.2.20 Lawn Irrigation Systems. Permanently installed irrigation systems are the responsibility of the customer and will be inspected by the Division. The customer shall obtain all required permits. The system shall be installed by a licensed installer. All existing and proposed installations shall comply with all cross connection regulations of the Division. The installer will also provide an as-built of the installed system where systems are installed within the Town right-of-way. The customer shall hold the Division and the Town of Portland harmless for any or all injuries or damages caused by such irrigation system. The Division has the right to terminate service or to regulate use of said system in times of water shortage.

A.2.21 Notifications by Customer. Customers shall notify the Division in writing when premises are to be vacated so that the water may be turned off, the meters read and/or removed, and the account transferred. If the premises are to be permanently abandoned, owners shall notify the Division immediately so that the service connection can be closed. The closure will be made at the Division's expense.

SECTION A3
Charges

- A.3.1 **Responsibility of Payment.** Customers shall be charged with and held responsible for payment for all water passing through their service pipes until such time as the Division is notified in writing that they no longer desire the use of water. In case of the transfer of ownership of property, notice shall be given to the Division of the name and billing address of the new owner.
- A.3.2 **Start of Charges.** Charges will be assessed for water service from the date the water meter is installed to the date the meter is removed or ownership of the premises is transferred. Charges will be assessed whether water is used or not. First and final billing shall be prorated so as to adjust the bill to the period for which service was rendered.
- A.3.3 **Separate Premises.** Separate premises shall be separately billed.
- A.3.4 **Late Payment.** All bills must be paid within 30 days from the date of invoice. Late payments will be charged at current legal rates from the date of invoice. After 30 days a reminder notice will be sent for delinquent bills. After 60 days, unpaid bills shall be delinquent and service may be discontinued in accordance with the DPUC regulations and all other applicable provisions contained herein. Failure of the customer to receive the bill or notice does not relieve him from the obligation of payment or from the consequences of its non-payment. Liens shall be filed for any unpaid bills in accordance with applicable Connecticut General Statutes.
- A.3.5 **Multiple Meters.** Where premises are supplied by two or more meters connected to a single service, the minimum charge for each meter shall be applied.
- A.3.6 **Billing Frequency.** Bills shall be rendered on a **quarterly** basis and shall cover actual or estimated consumption during the previous time period.
- A.3.7 **Authorization to Bill Tenant.** Must provide to the Director a stipulated agreement in writing between the owner and tenant. Said agreement shall be executed by both the owner and tenant, and be acceptable to the Director. Said agreement does not relieve the property owner of his responsibility for payment.
- A.3.8 **Private Fire Protection.** Private fire protection charges are billed semi-annually and cover service in advance.

- A.3.9 **Construction Water.** Water for construction purposes will be metered if practical and will be charged at regular rates.
- A.3.10 **Water Turn On/Off.** A charge as indicated in Section A9 shall be made for turning on or shutting off water.
- A.3.11 **Delinquent Customers.** No customer who owes a delinquent bill shall be entitled to the further use of water at the same or other premises until such charges are paid in full.
- A.3.12 **Claims for Bill Adjustment.** All claims for adjustments of water bills shall be made within thirty (30) days of receipt of bill.
- A.3.13 **Incidental Water Use and Services Rendered.** Billed as the service is rendered.
- A.3.14 **Returned Checks.** All checks returned for insufficient funds on delinquent accounts may not be redeposited at the option of the Division. A fee of \$25.00 will be owed for returned checks. Subsequent payment must be made with a certified bank check or cash.

SECTION A4 Discontinuation of Service

A.4.1 **Conditions of Termination.** Refusal or discontinuation of service by the Division is restricted by certain provisions of Connecticut General Statutes and of the DPUC's "Rules and Regulations Concerning Termination of Electric, Gas, Water and Sewage Utility Service." Copies of the applicable statutes and of the DPUC publication are available for inspection at the Division office. A brief summary of the restrictions appear at the end of this section.

Termination proceedings may be started by the Division for any of the following reasons and carried out subject to the aforementioned restrictions. Service may be terminated upon 13 days written notice, first class mail and certified mail, return receipt requested, except that service may be terminated without notice, again subject to certain restrictions, for reason (a) below:

- (a) A condition determined by the Division to be hazardous.
- (b) Failure by a Customer to comply with the terms of any agreement where under he is permitted to amortize the unpaid balance of an account over a reasonable period of time, or any failure by such a customer to simultaneously keep his account for utility service current as charges accrue in each subsequent billing period.
- (c) Failure of the Customer to furnish such equipment, permits, certificates, or rights of way as shall have been specified by the

Division as a condition to obtaining service, or if such equipment or permissions are withdrawn or terminated.

- (d) Failure of the Customer to fulfill his contractual obligations for service or facilities subject to regulation by the DPUC.
- (e) Failure of the Customer to permit the Division reasonable access to the Division's equipment during normal working hours.
- (f) Failure or refusal of the Customer to reimburse the Division for repairs to or loss of Division property on his property when such repairs are necessitated or loss is occasioned by the intentional or negligent acts of the Customer or his agents.
- (g) Customer use of equipment in such a manner as to adversely affect the Division's equipment or the Division's service to others.
- (h) When the Division has discovered that by fraudulent means a Customer has obtained unauthorized water service has diverted the water service for unauthorized use or has obtained water service without same being properly registered upon the Division's meter.
- (i) Tampering with the equipment furnished and owned by the Division.
- (j) Violation of or non-compliance with the Division's Rules and Regulations.

A4.2 Termination Proceedings. Termination proceedings may be started by the Division for non-payment of a delinquent account, provided that the Division has notified the Customer of the delinquency and has made a diligent effort to have him pay the delinquent account. A termination notice to a Customer whose account is delinquent will be mailed not earlier than 64 days after mailing the original bill. Actual termination of the service will not occur earlier than 13 days after mailing the termination notice pursuant to Section A.4.1.

A.4.3 DPUC Restrictions. The Division will not terminate service to a customer

- (a) If the customer has an unresolved complaint or dispute with the Division and/or the DPUC. Such complaint must be made to the within seven days of his receipt of a termination notice.
- (b) If there is known to be serious illness in the home of a residential customer. The customer is required to make an equitable arrangement with the Division to pay the delinquent part of his bill, and to pay all future bills on a current basis while the illness continues. The Division must be notified by a doctor within seven days of the customer's receipt of a termination notice, and such notice must be confirmed by letter within a week after the verbal notification.
- (c) If the customer is a landlord or agent for an occupied residential rental property, and the delinquent bill is for water service to that property. If practicable arrangements may be made with the tenant

for payment of bills for future service, and appropriate legal action may be taken against the customer for the delinquent and current amounts.

- (d) On the day immediately prior to a weekend or holiday except under conditions as set forth in Sections A.4.1(a), (h) and (i).

SECTION A5 Meters

- A.5.1 **Metered Use.** All water use must be metered.
- A.5.2 **Meter Installation Requirements.** A meter must be installed at least eighteen (18") above the finished floor and supported. Continuity of electrical grounding path bonding connection to interior piping shall not rely on water meters. Electrical system grounding connections shall be made to the piping on the street side of the water meter. Where plastic service pipe is used, there shall be no connection of the electrical grounding system to the water piping. An electrical bonding jumper shall be sized and installed in accordance with the National Electric Code and shall be connected in a manner so as not to impair operation of meter tailpiece for the installation and removal of the water meter. A shut-off valve at the meter inlet shall be the first fitting inside a service building and its location shall be approved by the Division. A shut off valve and a residential dual check valve device shall be installed immediately downstream of the meter by the Customer. The water meter shall also be located to enable the reader to walk up to the meter to remove or to read. No meter shall be located in crawl spaces or under stairs, landings, etc. All existing and proposed meter installations shall comply with the requirements of this Section.
- A.5.3 **Meter Repairs.** All repairs or damage to meters from freezing, hot water or external causes shall be charged to the Customer.
- A.5.4 **Meter Size.** The size, type and kind of meter required for any given service shall be approved by the Director.
- A.5.5 **Meter Installation.** All meters up to and including 2 inch in size shall be provided and installed by the Division and shall not be moved or disturbed except by the same. Any requested changes in location of the meter or meter remotes shall, if approved by the Division, be made at the Customer's expense. Larger meters shall be installed by the Customer under the Division's supervision. All meters shall be sealed. No person, other than a Division employee or its agent, shall break seals or disconnect meters unless specifically authorized in writing by the Division to do so.

- A.5.6 **Meter Pits.** Installation of meter pits shall be the Customer's expense and shall adhere to all applicable confined space regulations.
- A.5.7 **Right to Remove, Repair or Replace.** The Division shall have the right to remove, repair, or replace any meters at any time it so determines. All meter installations of services which cannot be shut off for meter repairs shall be equipped with a metered by-pass at the expense of the Customer.
- A.5.8 **Meter Accessibility.** It shall be the duty of the Customer to ensure that the meter(s) shall be readily accessible at all times to Division personnel, (see Section A.5.2). Failure to remove any obstruction which prevents access to the meter within thirteen (13) days after being notified by the Division shall cause the water to be shut off to the premises, and it shall not be turned on until all obstructions are removed, all regulations complied with, and all charges for shutting off and turning on the water are paid.
- A.5.9 **Meter Testing.** The accuracy of the meter on any premise shall be tested the Division upon written request of the Customer, who shall pay in advance a fee to cover the cost of the test. If, on such a test the meter is found to register over two (2) percent more water than actually passes through it, the meter shall be repaired, the fee shall be refunded, and the water bill for the current period shall be adjusted in accordance with the result of this test. However, if it appears that the Customer was charged or has paid for less water than they should have been charged or should have paid, the meter testing fee shall not be refunded. If the Division elects to test a meter, there will be no charge to the Customer for the test. Where meters three (3) inches or larger are removed for testing for more than one day, water use charges shall be estimated.

SECTION A6

Service, Pipes, and Fixtures

- A.6.1 **Customer Responsibilities.** Customers must keep their water pipes and fixtures in good repair, and protected from frost at their own expense. They shall be held responsible for any damage resulting from their failure to do so. They shall prevent any waste of water. The pipe from the curb box to the building (or all pipe beyond the Town property line or within a public right of way including meter pits and curb-boxes) is the property of the Customer, and all the repairs to the same shall be made at the Customer's expense.
- A.6.2 **New Services.** For new services, pipes shall be installed by the Customer from the distribution main to the premises. The charges for new services shall be as set forth in Section A9. All pipes and trenches shall meet the approval of the Division. Each premise shall have its own separate service, consisting of a

corporation stop, curb stop, curb box, cellar valve, meter and remote register. The service pipe shall be at least one (1) inch diameter Type K copper in accordance with ASTM B88. Magnetic tracing tape shall be placed twelve (12) inches above all service pipes. Underground valves and fittings shall be in accordance with AWWA C800 latest edition. Use of any other material is subject to approval by the Director. No soldered fittings shall be allowed between the street main and the building interiors. Where the service length is 100 feet or greater, the size of the service pipe shall be subject to approval by the Director. For service pipes larger than one (1) inch diameter, thrust blocks will be required. Polyethylene service pipes will be allowed after pit meters, and shall be copper tubing size with a minimum of 160 psi working pressure. Service pipes are to be installed by persons licensed by the State of Connecticut to do such work; such licensed persons shall be retained by the Customer and paid by the Customer. Such persons shall have a valid State or town permit for excavation, and any other local license or permit as may be required for the work to be accomplished. All such installations between the distribution main and meter setting shall be laid in a manner prescribed by the Division, and subject to inspection before backfilling by a representative of the Division. Service pipes shall not cross intervening properties.

- A.6.3 **Division Responsibilities.** For each new service, the Division will provide the Customer with a corporation stop, curb stop, curb box, tap and installation of the corporation stop, and inspection of the water service installation. The pipe from the main to the curb box or property line, whichever is closer to the main, is the property of the Division, and all repairs to the same shall be made by the Division. The curb box when located on Town property or within a public right-of-way is the property of the Division and all repairs to the same shall be made by the Division.
- A.6.4 **Right to Repair.** When it deems it necessary for the protection of the supply or the giving of satisfactory water service, all services pipes between the street property line and the building interior may be repaired or re-laid by the Division. The cost shall be charged to the Customer.
- A.6.5 **Temporary Services.** When permission to open a permanently paved street is refused by the Board of Selectman or when, for any physical reason, it is impossible to open a street and the applicant requests the water be furnished **temporarily** from an adjacent service, the same may be done at the expense of the Customer if approved by the Director.
- A.6.6 **Special Service Pipe.** Any Customer requiring a service pipe between the main and the street property line, which is of a different type or larger size than one (1) inch, shall be at the expense of the Customer.

- A.6.7 **One Service Per Premises.** Unless otherwise approved by the Director, each premises shall have (1) service connection. If a multiple family house is being served by a single service and meter, and a part of the house is sold, the new owner shall have a separate service and meter installed.
- A.6.8 **Water Turn On/Off.** Requests for turning on or shutting off a water service shall be made 24 hours in advance, except in case of an emergency. Customers shall be charged for each such service. Only Division personnel shall open or close curb cocks. Requests for turning on or shutting off water, other than at normal working hours, shall be billed at the hourly overtime rate with a 4 hour minimum.
- A.6.9 **Service Installation Dates.** No new service shall be installed before April 15. No new service will be installed after December 1 or after closing of asphalt batch plants, whichever occurs first, except in such cases deemed emergencies. Applications must be received by November 1.
- A.6.10 **Extension of Service.** Installation of service beyond the end of an existing water main will not be allowed. The main must be extended, including necessary hydrants and appurtenances at the Customer's expense. Water mains shall be looped when required by the Director.
- A.6.11 **Separation Distances.** Service pipes shall not be placed within ten (10) feet of any other utilities, except under special conditions and with the approval of the Director. The Division will not be responsible for damage to other utilities laid within ten (10) feet of a water service or water main. No service pipe shall cross any portion of a septic system or be installed less than ten (10) feet away from any portion of a septic system.
- A.6.12 **Fire Protection Systems.** The Division will furnish water for fire protection systems in accordance with the rates for sprinkler systems. All equipment for this purpose shall be installed entirely at the expense of the Customer, and with the approval of the Director. Such pipes shall not be used for supplying water for any other purpose and must be so arranged that easy inspection can be made by Division personnel. Whenever it is considered necessary for the protection of the water supply and in the interest of the Public, the Director shall have the right to require the installation of meters, alarms or Backflow devices on existing and proposed systems. The installation and upkeep of such equipment shall be at the Customer's expense. Backflow devices and detector check valves shall be installed and maintained at the Customer's expense. Domestic water use may include residential life safety automatic sprinkler systems to one and two-family units in accordance with the provisions of the National Fire Protection Association (NFPA) Code Section 13D, "Sprinkler Systems for One and Two Family Dwelling and Mobile Homes". The entire

service will be metered. The meter will be sized for the minimum allowable flow demand per NFPA 13D. Water service for NFPA13D will not be subject to private fire protection.

- A.6.13 Testing Private Fire Protection Systems.** No water shall be taken or used through private fire protection systems for the purpose of testing, unless the Director issues written permission. Such test must be conducted under the supervision of the Division, at the Customer's expense.
- A.6.14 Hydrant Flow Tests.** Where required for the Customer's use for design of fire protection systems or other purposes, the Division will conduct hydrant flow tests. The Customer's representative must be present during the tests with flow and pressure measuring equipment to conduct the test and record data. Customers will be charged the current rate for the flow tests.
- A.6.15 Private Fire Hydrants.** It is the responsibility of the Customer to keep fire hydrants on private properties in good working order. Any repairs necessary for proper operation of private hydrants are the responsibility of the Customer. If the hydrant is out of service, the Customer must give notice to the Emergency Dispatcher.
- A.6.16 Use of Fire Hydrants.** The use of Division fire hydrants is restricted to members of the Fire Department and to employees of the Division. Other persons may request, in writing, use of the fire hydrants only with the specific permission of the Director. Except for fires, use of fire hydrants will be subject to charges for turning hydrant on and off, and metered rate charges.
- A.6.17 Cross Connection Control.** Under provision of the Safe Drinking Water Act of 1974, the Division is required to maintain and administer a cross-connection control program. Under this program the Division has the right of entry to determine degree of hazard and the existence of cross-connections, in order to protect the potable water system. If, in the opinion of the Director, the installation of an approved backflow preventer(s) on the property side of a meter of any Customer's service is considered necessary for the safety of the potable water system, such approved device(s) shall be immediately installed at the expense of the Customer, after due notice in writing has been given the Customer by the Director. Lawn irrigation systems will require a Reduced Pressure Principle Backflow Preventer (RPD). All outside hose bibs will be of frost free design and have a built-in vacuum breaker. RPD(s) shall be tested annually by the Division for a fee. Failure to comply with these provisions could result in termination of water service. Refer to Cross Connection Regulations.

A.6.18 **Private Services.** Unless the water piping is owned by the Division with suitable easement rights by previous negotiation, maintenance of water piping installed within a private development and supplied from one service connection to the Division's main shall be the responsibility of the private development.

SECTION A7

Requirements & Specifications for Replacement or New Water Mains

A.7.1 **Pipe.** All pipe shall be ductile iron pipe conforming to AWWA C151, latest edition. The minimum thickness class shall be 52. All pipes and fittings shall have a cement lining and be double thickness lining as specified in AWWA C104, latest edition. Push-on or mechanical joints are permitted in accordance with AWWA C111, latest edition. Fittings shall be mechanical joint conforming to AWWA C110 or C153. All mechanical joint fittings shall have joint restraint.

A.7.2 **Valves.** Gate valves shall conform to "AWWA C509 Standard for Resilient Seated Gate Valves For Water Supply Service," latest edition. Gate valves shall be iron body, non-rising stem, bronze fitted with resilient seats, o-ring seals, two (2) inch operating nut. Minimum design working pressure shall be 200 psi. Generally, all gate valves shall have mechanical joint connections with joint restraint. Tapping valves shall have one flanged connection. Flanged connections will be permitted in valve pits and other structures where the pipe is not subject to earth loadings.

Butterfly valves shall conform to "AWWA C504 Standard for Rubber Seated Butterfly Valves," latest edition. Minimum design working pressure shall be 150 psi. Valve and geared manual actuator shall be designed for buried and submerged service with two (2) inch operating nut. Generally all butterfly valves shall have mechanical joint connections with joint restraint. Flanged connections will be permitted in valve pits and other structures where the pipe is not subject to earth loadings.

All valves 12 inches and larger shall be butterfly valves.

All valves shall open left (counterclockwise).

A.7.3 **Joint Restraint.** Mechanical joints shall be restrained using retained glands EBAA Iron Megalug or approved equal. T-bolts shall be high strength, low alloy steel.

A.7.4 **Hydrants.** Hydrants shall conform in design and manufacture to latest issue of AWWA Standard C502 "Standard for Fire Hydrants." Acceptable hydrants are Mueller Centurion and Clow Eddy. Hydrant shall be manufacturers' best quality

and design. Hydrants shall be compression type. The drain mechanism shall be an integral part of the valve assembly. All internal parts shall be removable through the top of the hydrant when the bonnet has been removed. Hydrants shall also comply with the following:

- A. Main Valve Opening - 5-1/4 inches minimum
- B. Number of Outlets - 2-2½" hose connections
1-4 ½" steamer connection
- C. Operating Nut Size 1 – ½" point to flat
- D. Thread Type - National standard.
- E. Shoe - 6" mechanical joint with joint restraint
- F. Direction of Opening - Counterclockwise
- G. Bury Length - 5'6"
- H. Height (bury line to operating nut) 28 3/4" minimum
- I. Sub-seat Material - Bronze
- J. Model - Traffic (breakaway design)
- K. Color - Red

Any hydrant that does not comply with all the above specifications will not be accepted.

- A.7.5 **Installation.** Installation shall conform to AWWA C-600, latest edition. Pipe shall have at least five (5) feet of cover measured to finish grade of the street. In case of any excavations in swamp or when unsuitable material is encountered, the Contractor shall replace same with a good material approved by the Director to provide proper support and alignment of the pipe. In some cases, the Contractor shall use crushed stone and or filter fabric for good bedding. Magnetic tracing tape shall be placed twelve (12) inches above all piping. Refer to Standard Detail Drawings for earth materials and compaction requirements.
- A.7.6 **Ledge.** All ledge shall be removed to a width two (2) feet greater than the diameter of the pipe and one (1) foot below the underside of the pipe. Refer to Standard Detail Drawings.
- A.7.7 **Blasting Precautions.** No blasting will be allowed within 50 feet of existing water main or service pipes without prior approval by the Director. The Contractor/Developer shall submit a blasting plan for approval.
- A.7.8 **New Subdivision Installations.** Pipes shall be laid within the roadway layout (or easement in certain cases) as shown on plans approved by the Town of Portland Planning & Zoning Board. Survey markers (line and grade) shall be required on all new streets. All roads shall be rough graded and embankment formation completed before installation of water mains.

A.7.9 Excavation Permit. An excavation permit shall be obtained from the Department of Public Works before any excavation can begin within any Town accepted street. The work shall be performed in accordance with the permit.

A.7.10 Testing and Disinfection. Before acceptance by the Division, all pipe shall be pressure tested in accordance with AWWA C600, latest edition and disinfected in accordance with AWWA C651, latest edition. Test pressure, based on the low point, shall be 150 psi unless otherwise approved by the Director.

No one shall pressure test or disinfect an installation without notifying the Division at least 48 hours in advance. An employee of the Division must be present for the duration of pressure test, and disinfection to witness and sign the results. Test report forms will be provided by the Division. Samples of water taken after disinfection of the water pipes shall be delivered to a testing laboratory approved by the State of Connecticut, Department of Public Health. Copies of the test results shall be delivered to the Director, who shall then determine whether the pipes meet the Division's water system requirements.

SECTION A8 Violations

Reserved

SECTION A9 Rates and Charges

A.9.1 Establishment of Water Use Rates. Pursuant to Chapter 102 of the Connecticut General Statutes as amended, and Sections 406 and 1213 of the Charter of Town of Portland, the Board of Selectmen of the Town of Portland, Connecticut adopted the following water rates and water charges on March 4, 2015. The following changes are effective July 1, 2015, except as otherwise indicated.

The rates are as follows:

A.9.2 Meter Rates:

Usage Rate: \$4.76/ccf per 100 cubic feet – effective 1/1/2019
\$4.90/ccf per 100 cubic feet – effective 7/1/2019

Flat Meter Charges:

<u>Meter Size</u>	<u>Per Quarter</u>
5/8"	\$ 35.00 per quarter
3/4"	\$ 35.00 per quarter
1"	\$ 47.00 per quarter
1½"	\$ 70.00 per quarter
2"	\$ 89.00 per quarter
3"	\$105.00 per quarter
4"	\$135.00 per quarter
6"	\$155.00 per quarter
8"	\$175.00 per quarter

A.9.3 Private Fire Protection Charges:

Automatic Sprinklers	
6" or smaller pipe from street mains	\$200.00 Semi-Annually
8" Pipe from street mains	\$275.00 Semi-Annually
10" Pipe from street mains	\$275.00 Semi-Annually
Private fire hydrants	\$ 40.00 Semi-Annually

A.9.4 Incidental Water Use Charges. Water used from a hydrant will be metered and charged for at the current per 100 cubic feet rate, plus the hydrant turn-on turn-off fees. Residential construction may have unmetered service for a maximum of one year at the rate of \$5.00 per day.

A.9.5 Charges for Incidental Services Rendered. The following flat rate charges are for standard work services rendered Monday through Friday, excluding holidays, between the hours of 7:00 a.m. thru 3:00 p.m.

a) Turn On or Off Fire Hydrant	\$ 30.00 per visit
b) Turn On or Off Water Service	\$ 30.00 per visit
c) Meter Readings for Property Transfers	\$ 25.00 per visit
d) Meter Tests:	
1" or smaller meter	\$ 75.00 per test
1½" - 2" meter	\$1,500.00 per test
3" or larger meter – Customer shall pay all costs related to testing	
e) Backflow Prevention Service Test (initial and each re-test).	
First device	\$ 75.00
All additional devices	\$ 35.00
f) Hydrant Flow Test	\$ 75.00 per hydrant flowed
g) Service Installation*	
1" Service	\$ 675.00
1 ½ ", 2", 4" Service	\$2,400.00
6" Service	\$2,600.00

8" Service \$3,000.00

* Only includes tap, shut off valve and box, and installation inspection.

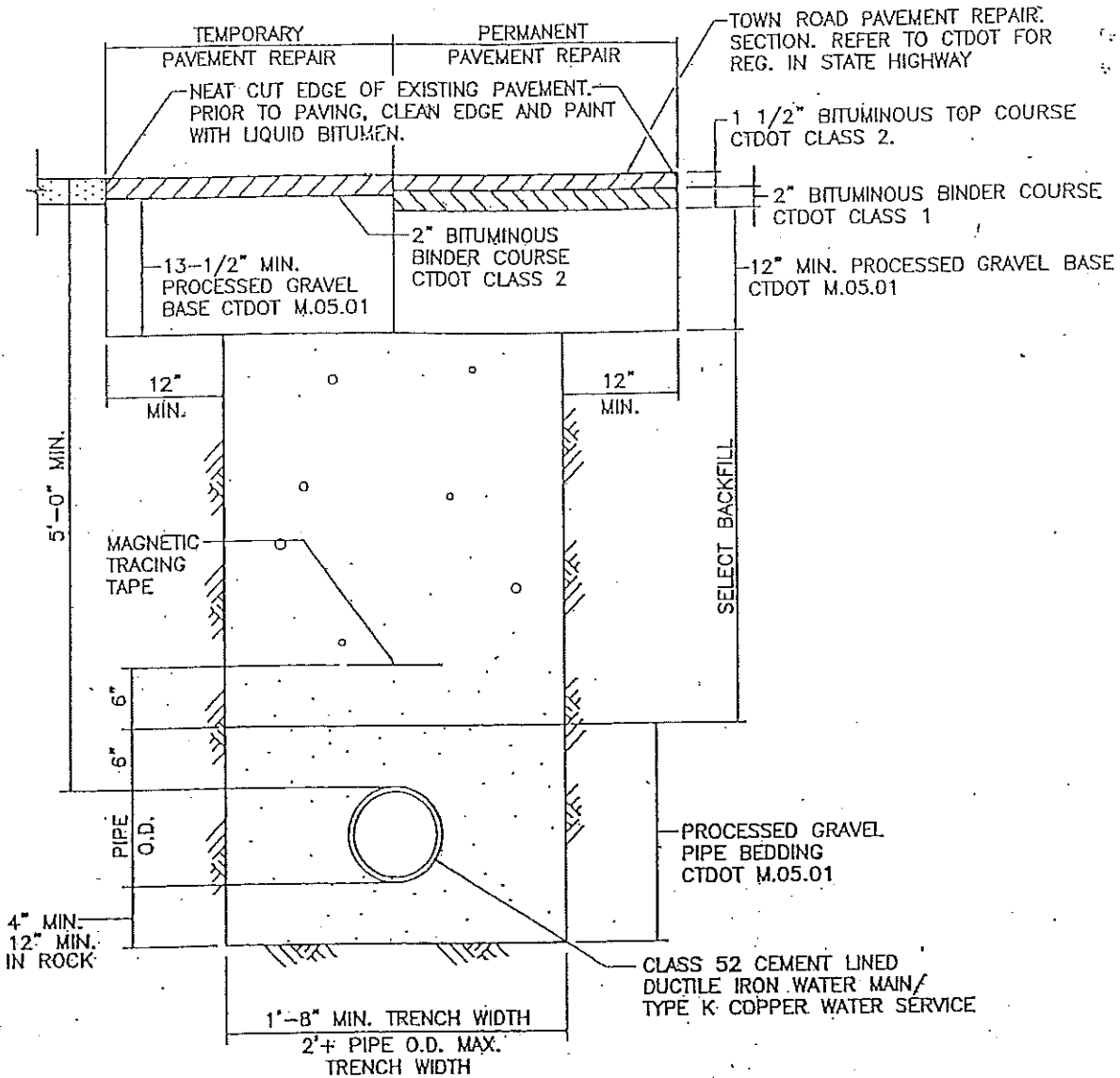
h) All other incidental services rendered will be charged at the current prevailing hourly rates for employees, and at the following hourly rates for equipment:

Pickup Truck	\$ 15.00 per hour
Dump Truck	\$ 40.00 per hour
Backhoe	\$ 60.00 per hour

A.9.6 Payment of Bills for Rates and Charges and Unpaid Rates and Charges. All bills for rates and charges must be paid within 30 days from the date of invoice. Any such amount remaining unpaid for 30 days shall bear interest at the same rate as would unpaid taxes. All amounts unpaid for 30 days shall constitute a lien upon the premises served and a charge against the owners thereof, and the legislative body of the Town of Portland shall have all rights, remedies and authorities to collect said delinquent charges as conferred by C.G.S. 7-239.

A.9.7 Charges for Public Fire Hydrant Maintenance/Up-Keep. \$235.00 per year per hydrant.

CONSTRUCTION DETAILS



NOTES:

1. SELECT BACKFILL MATERIALS - EARTH BACKFILL EXCLUDING STONES LARGER THAN 3 1/2", NOT MORE THAN 10% PASSING THE 200 SIEVE, FREE FROM ORGANIC AND FROZEN MATERIALS.
2. COMPACTION--
 PIPE BEDDING - CAREFULLY HAND TAMP TO AVOID DISTURBANCE AND DAMAGE TO PIPE. COMPACT TO 90% OF STANDARD PROCTOR, AASHTO T-99.
 SELECT BACKFILL - UNDER PAVED OR CONCRETE SURFACES, COMPACT WITH VIBRATORY PLATE IN LAYERS NOT EXCEEDING 12" IN DEPTH TO 95% OF MODIFIED PROCTOR, AASHTO T180, METHOD C. UNDER VEGETATED SURFACES, COMPACT WITH VIBRATORY PLATE IN LAYERS NOT EXCEEDING 24" IN DEPTH TO 85% OF MODIFIED PROCTOR, AASHTO T180, METHOD C.
 PROCESSED GRAVEL BASE - COMPACT WITH VIBRATORY PLATE OR ROLLER IN TWO LAYERS TO FINISHED THICKNESS TO 95% OF MODIFIED PROCTOR, AASHTO T-180, METHOD C.
 COMPACTION TESTING - WATER MAIN TRENCHES SHALL HAVE IN PLACE DENSITY TESTING PERFORMED IN ACCORDANCE WITH AASHTO T205 BY AN APPROVED LABORATORY AT A MINIMUM RATE OF ONE TEST PER 100 FEET. TEST DEPTH AND LOCATION SHALL BE AS DIRECTED BY THE DIRECTOR. UNSATISFACTORY TEST RESULTS SHALL BE REPEATED AFTER CORRECTIVE ACTIONS ACCEPTABLE TO THE DIRECTOR. THE DIRECTOR MAY ORDER ADDITIONAL TESTING, IF IN HIS OPINION ADDITIONAL TESTS ARE REQUIRED TO MAINTAIN CONFORMANCE WITH SPECIFICATION. ALL TEST FEES SHALL BE PAID BY THE CONTRACTOR. COMPACTION TESTING SHALL BE PROVIDED FOR WATER SERVICE TRENCHES WHEN REQUIRED BY THE DIRECTOR.
3. DEWATERING - TAKE ALL ACTIONS NECESSARY TO KEEP TRENCHES FREE OF WATER DURING PIPE LAYING AND COMPACTION.
4. TEMPORARY PAVEMENT REPAIR TO BE IN PLACE, 60 DAYS MINIMUM, 150 DAYS MAXIMUM BEFORE REPLACEMENT WITH PERMANENT PAVEMENT REPAIR.

Date: DEC. 1996

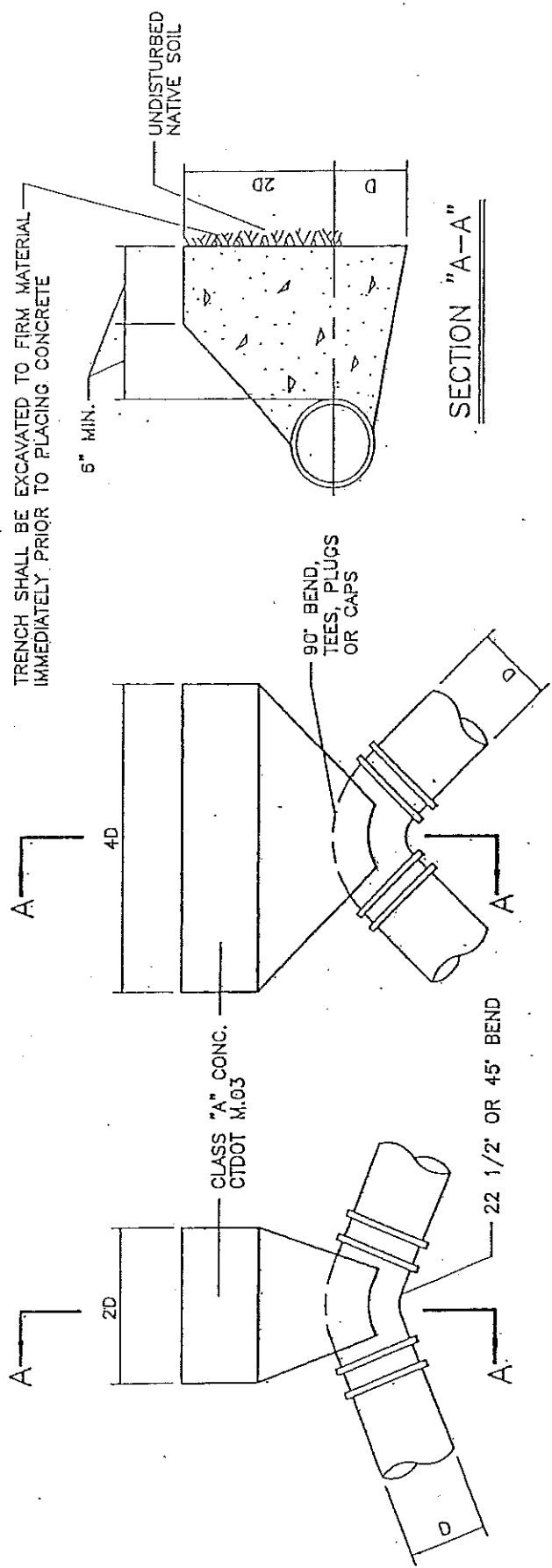
DESIGNED BY: BFB

Scale: N.T.S.

Drawing No. 1

STANDARD DETAIL DRAWING
TYPICAL TRENCH

PORTLAND
PUBLIC WORKS DEPARTMENT
WATER DIVISION



NOTE:
 ALL FITTINGS SHALL HAVE MECHANICAL JOINTS WITH JOINT RESTRAINERS.
 FORM CONCRETE IN SUCH A WAY THAT THE PIPE AND FITTING JOINTS
 WILL BE ACCESSIBLE FOR REPAIR.

NOTE:
 THRUST BLOCK DIMENSIONS BASED ON MAXIMUM PRESSURE OF 150PSI
 AND ALLOWABLE SOIL BEARING CAPACITY OF 2500 PSF. REFER TO
 DIRECTOR IF PRESSURE EXCEEDS RATING OR UNDISTURBED SOIL
 MATERIALS ARE SOFT.

STANDARD DETAIL DRAWING
 CONCRETE THRUST BLOCK

Date: DEC. 1996
 Scale: N.T.S.

Designed By: BFB
 Drawing No. 2

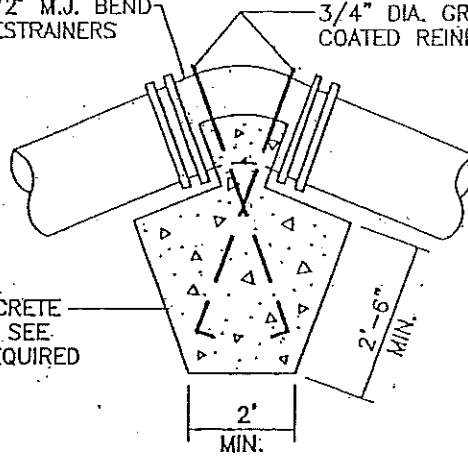
PORTLAND
 PUBLIC WORKS DEPARTMENT
 WATER DIVISION

NOTE:
ALTERNATELY, A DESIGN USING JOINT RESTRAINTS ON CONNECTING
PIPING MAY BE PROPOSED FOR THE DIRECTORS APPROVAL.

45° OR 22 1/2° M.J. BEND
WITH JOINT RESTRAINTERS

3/4" DIA. GRADE 60 EPOXY
COATED REINFORCING BARS

CLASS A CONCRETE
CTDOT M.03. SEE
TABLE FOR REQUIRED
VOLUME.



NOTE:
FOR PIPE SIZES GREATER THAN
12" REFER TO THE DIRECTOR.

NOTE:
THRUST BLOCK VOLUMES BASED
ON MAXIMUM PRESSURE OF
150 PSI AND CONCRETE UNIT
WEIGHT OF 140 lbs/cu. ft.

PIPE SIZE	REQUIRED VOLUME (CUBIC YARDS)
6	1.25
8	2.25
12	5.0

FOR PIPE SIZES GREATER
THAN 12" REFER TO
DIRECTOR.

Date: DEC. 1996

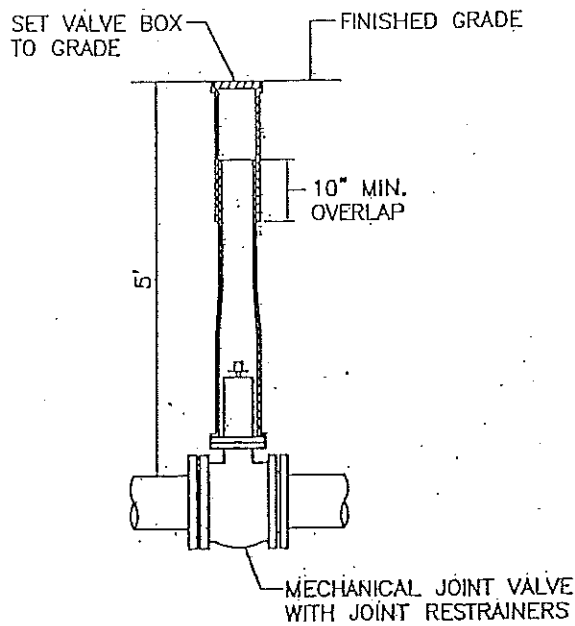
DESIGNED BY: BFB

Scale: N.T.S.

Drawing No. 3

STANDARD DETAIL DRAWING
CONCRETE THRUST BLOCK
AT VERTICAL BENDS

PORTLAND
PUBLIC WORKS DEPARTMENT
WATER DIVISION



Date: DEC. 1996

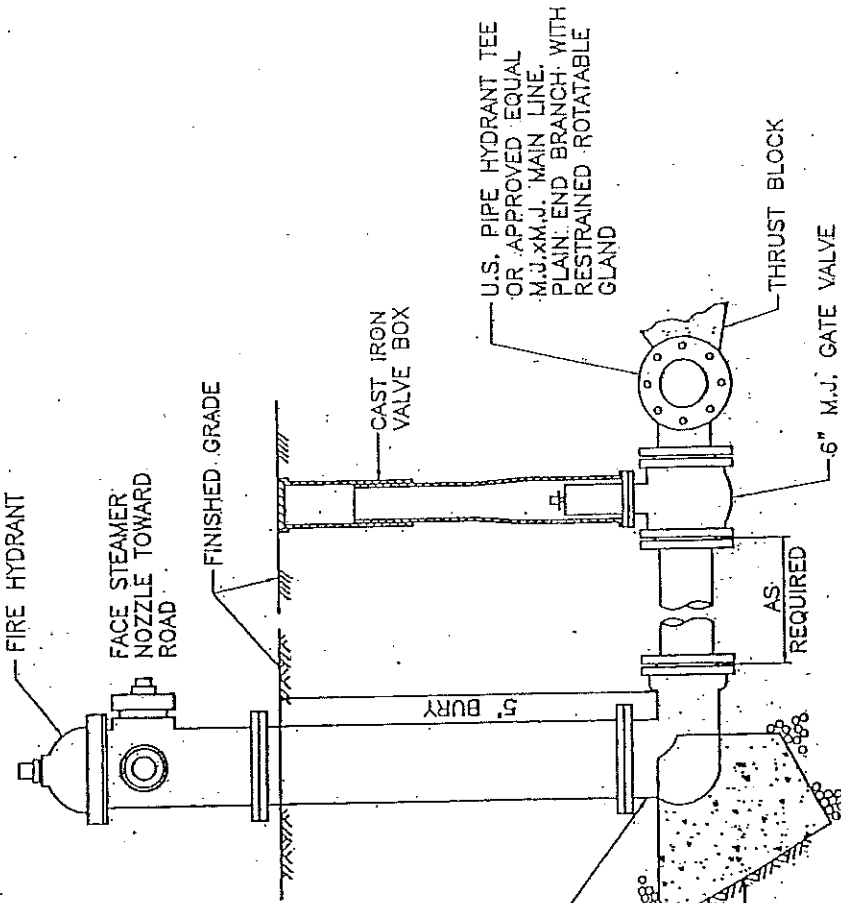
DESIGNED BY: BFB

Scale: N.T.S.

Drawing No. 4

STANDARD DETAIL DRAWING
 WATER MAIN VALVE
 AND VALVE BOX DETAIL

PORTLAND
 PUBLIC WORKS DEPARTMENT
 WATER DIVISION



NOTE:
 HYDRANT LOCATION AND SPACING ARE SUBJECT TO APPROVAL OF THE DIRECTOR AND THE FIRE DEPARTMENT. GENERALLY, HYDRANTS ARE REQUIRED AT STREET INTERSECTIONS, DEAD ENDS, LOW POINTS, AND HIGH POINTS. GENERALLY, SPACING SHALL BE SUCH THAT THE MAXIMUM SPACING BETWEEN HYDRANTS IS 600 FEET.

NOTE:
 ALL JOINTS SHALL BE M.J. WITH JOINT RESTRAINERS.

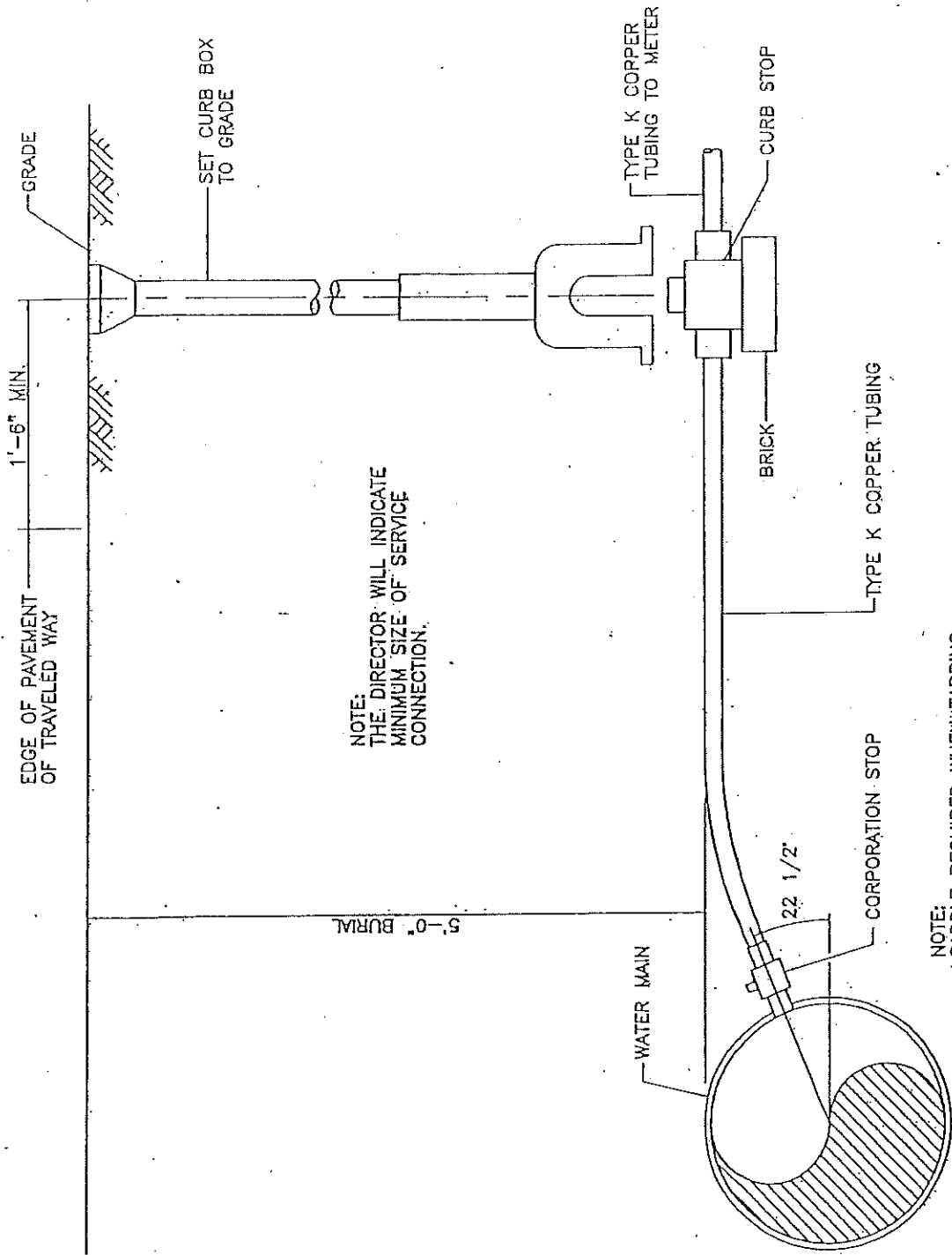
NOTE:
 BE SURE DRAIN IS CLEAR OF CONCRETE. PLACE 1 C.Y. OF 1/2" BROKEN STONE AROUND HYDRANT. COVER STONE WITH FILTER FABRIC/BUILDING PAPER.

CONCRETE THRUST BLOCK OR APPROVED BLOCKING MATERIAL WITH 3" SQUARE FOOT MINIMUM BEARING AREA ON UNDISTURBED NATIVE SOIL.

PORTLAND
 PUBLIC WORKS DEPARTMENT
 WATER DIVISION

Date:	DEC. 1996	Designed By:	BFB
Scale:	N.T.S.	Drawing No.	5

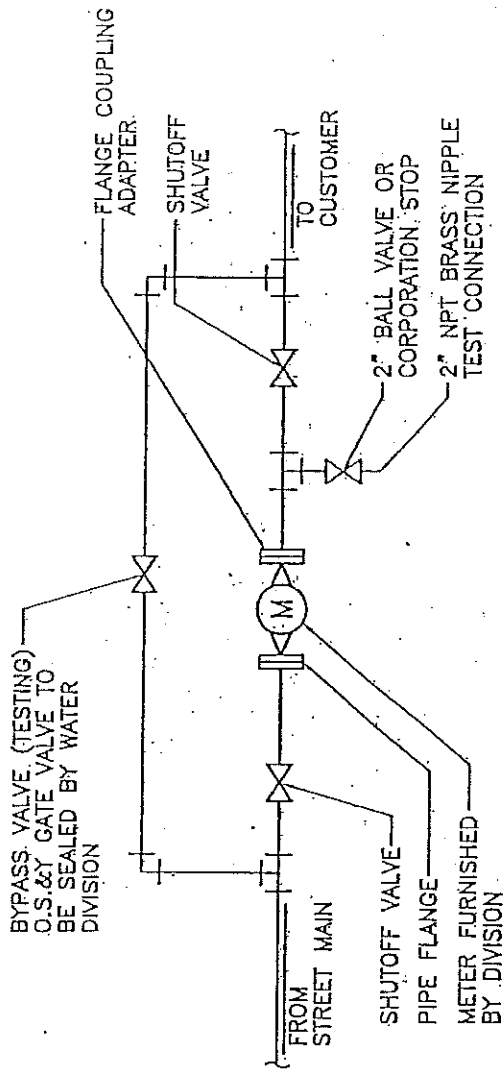
STANDARD DETAIL DRAWING
 HYDRANT INSTALLATION



NOTE:
THE DIRECTOR WILL INDICATE
MINIMUM SIZE OF SERVICE
CONNECTION.

NOTE:
SADDLE REQUIRED WHEN TAPPING
EXISTING TRANSITE WATER MAINS.

STANDARD DETAIL DRAWING TYPICAL SERVICE CONNECTION		Date:	DEC. 1996	Designed By:	BFB	PORTLAND PUBLIC WORKS DEPARTMENT WATER DIVISION
		Scale:	N.T.S.	Drawing No.	6	



**STANDARD DETAIL DRAWING
2" & LARGER METER
INSTALLATION SCHEMATIC**

Date: APR. 1997

Scale: N.T.S.

Designed By: BFB

Drawing No. 7

**PORTLAND
PUBLIC WORKS DEPARTMENT
WATER DIVISION**

**PORTLAND WATER DIVISION
CROSS-CONNECTION CONTROL
PROGRAM REGULATIONS**

**SECTION B1
Definitions**

- B.1.1 **Approved** shall mean accepted by the Director as meeting an applicable specification stated or cited in this regulation, or as suitable for the proposed use.
- B.1.2 **Air Gap** shall mean the vertical separation between the free flowing discharge end of the potable supply line and the overflow rim of the receiving vessel.
- B.1.3 **Atmospheric Vacuum Breaker (AVB)** shall mean a device which contains a float check (poppet), a check seat and an air inlet vent. When water pressure is reduced to a gauge pressure of zero or below, air enters the device, preventing backsiphonage. It is designed to protect against backsiphonage only.
- B.1.4 **Auxiliary Water Supply** shall mean any water supply, on or available, to the premises other than the Division's water supply system.
- B.1.5 **Auxiliary Water Supply - Approved** shall mean an auxiliary water supply which has been investigated and approved by the State Department of Public Health that meets water quality regulations and is accepted by the Division.
- B.1.6 **Auxiliary Water Supply - Unapproved** shall mean an auxiliary water supply which is not approved by the State Department of Public Health.
- B.1.7 **Backflow** shall mean the flow of water or other liquids, mixtures or substances, under positive or reduced pressure in the distribution pipes of a potable water supply from any source other than its intended source.
- B.1.8 **Backflow Preventer** shall mean a device or means designed to prevent backflow or backsiphonage. Categories include air gaps, reduced pressure principle devices, double check valve assemblies, pressure vacuum breakers, atmospheric vacuum breakers, hose bib vacuum breakers, residential dual checks, double checks with intermediate atmospheric vent, and barometric loops.
- B.1.9 **Backpressure** shall mean water pressure which exceeds the operating pressure of the public potable water supply. A condition in which the Customers system pressure is greater than the Divisions system pressure would be considered backpressure.

- B.1.10 **Backsiphonage** shall mean backflow due to a negative or reduced pressure within the Division's water supply system.
- B.1.11 **Barometric Loop** shall mean a fabricated piping arrangement rising at least thirty five (35) feet at its topmost point above the highest fixture it supplies, utilized in water supply systems to protect against backsiphonage.
- B.1.12 **Certified Backflow Assembly Tester** shall mean a person who is certified by the State Department of Public Health to test backflow prevention assemblies.
- B.1.13 **Certified Cross Connection Control Specialist/Inspector** shall mean a person who is certified by the State Department of Public Health to administer a cross connection control program and to conduct cross connection surveys.
- B.1.14 **Confined Space** shall mean any space having a limited means of egress which is subject to the accumulation of toxic or flammable contaminants or may contain an oxygen deficient atmosphere.
- B.1.15 **Containment** shall mean a method of backflow prevention which requires a backflow preventer at the water service entrance.
- B.1.16 **Contaminant** shall mean a substance that will impair the quality of water to a degree that it creates a serious health hazard to the public, leading to poisoning or the spread of disease.
- B.1.17 **Critical Level** shall mean the point on a vacuum breaker which determines the minimum elevation above the flood level rim of the fixture or receptacle served, at which the vacuum breaker may be installed.
- B.1.18 **Cross-Connection** shall mean any actual or potential connection between the public water supply and a source of contamination or pollution.
- B.1.19 **Customer** shall mean the individual, firm, or corporation listed as the owner of the property.
- B.1.20 **Customer's System** shall mean those parts of the facilities beyond the water service entrance.
- B.1.21 **Director** shall mean the Director of Public Works or his designee.
- B.1.22 **Distribution System** shall mean the network of conduits used for the delivery of water from the source to the Customer's water service entrance.
- B.1.23 **Division** shall mean the Portland Water Division.

- B.1.24 **Division's System** shall mean the source facilities and the distribution system, and shall include all those facilities of the water system under the complete control of the Division, up to the water service entrance.
- B.1.25 **Double Check Detector Assembly (DCDA)** shall mean an approved assembly consisting of two (2) approved double check valve assemblies, set in parallel, equipped with a meter on the bypass line to detect small amounts of water leakage or use. (This unit must be purchased as a complete assembly).
- B.1.26 **Double Check Valve Assembly (DCVA)** shall mean an approved assembly consisting of two (2) independently operating check valves loaded to the closed position by springs or weights, and installed as a unit with and between two resilient seated shutoff valves and having suitable connections for testing.
- B.1.27 **Double Check Valve with Intermediate Atmospheric Vent** shall mean a device having two (2) spring loaded check valves separated by an atmospheric vent chamber.
- B.1.28 **Fixture Isolation** shall mean a method of backflow prevention in which a backflow preventer is located to correct a cross-connection at an in-plant location rather than at a water service entrance.
- B.1.29 **Flood Level** shall mean the highest level to which water, or other liquid, will rise within a tank or fixture (i.e. the overflow rim of the receiving vessel).
- B.1.30 **High Hazard** shall mean a physical or toxic hazard that could be detrimental to one's health.
- B.1.31 **Hose Bib Vacuum Breaker** shall mean a device which is permanently attached to a hose bib and which acts as an atmospheric vacuum breaker.
- B.1.32 **In-Plant Protection** shall mean the practice of installing backflow prevention assemblies at the point of hazard, to protect one or more actual or potential cross connections within a premise.
- B.1.33 **Internally-Loaded Check Valve** shall mean a check valve which is internally loaded, either by springs or weights, to the extent it will be drip tight with a 1 psi differential in the direction of flow.
- B.1.34 **Low Hazard** shall mean a hazard which could cause aesthetic problems or have a detrimental effect on the quality of the Division's water supply system.

- B.1.35 **Non-Potable Fluid** shall mean any water, other liquid, or other substance which is not safe for human consumption, or is not a part of the Division's water supply system as described by the State Department of Public Health.
- B.1.36 **Permit** shall mean a document issued by the Division, which allows the use of a backflow preventer.
- B.1.37 **Pollutant** shall mean a foreign substance, that if permitted to get into the Division's water supply system, will degrade its quality so as to constitute a moderate hazard, or impair the usefulness or quality of the water to a degree which does not create an actual hazard to the public health but which does adversely and unreasonably effect such water for domestic use.
- B.1.38 **Pollution** shall mean the presence of any foreign substance in water that tends to degrade its quality so as to constitute a non-health hazard or impair the usefulness of the water.
- B.1.39 **Potable Water** shall mean water which is safe for human consumption, free from harmful or objectionable materials, as regulated by the State Department of Public Health.
- B.1.40 **Premises** shall include but is not restricted to the following:
- (a) A building or combination of buildings owned or leased by one customer in one common enclosure, occupied by one family as a residence or one corporation or firm as a place of business.
 - (b) Each unit of a multiple house or building separated from the next unit by a solid vertical partition wall occupied by one family as a residence or one firm as a place of business.
 - (c) A building owned or leased by one customer and having a number of apartments, offices or lofts which are rented to tenants using in common one hall and one or more means of entrance.
 - (d) A building two or more stories high under one roof owned or leased by one customer and having an individual entrance for the ground floor occupants and one for the occupants of the upper floors.
 - (e) A combination of buildings owned by one customer, in one common enclosure, none of the individual buildings of which is adapted to separate ownership as, for example, a State Elderly Housing Project.
 - (f) A public building.
 - (g) A single plot used as a park, recreational area or agricultural area.
- B.1.41 **Private Hydrant** shall mean any hydrant which is not owned, operated and maintained by the Division.

- B.1.42 **Process Water** shall mean water that is directly connected to, or could come in contact with, an extreme high hazard situation, and must never be consumed by humans.
- B.1.43 **Pressure Vacuum Breaker** shall mean a device containing one or two independently operated spring loaded check valves and an independently operated spring loaded air inlet valve located on the discharge side of the check or checks. Device includes tightly closing shut-off valves on each side of the check valves and properly located test cocks for the testing of the check valves(s).
- B.1.44 **Reduced Pressure Detector Assembly (RPDA)** shall mean an approved assembly consisting of two approved reduced pressure backflow assemblies, set in parallel, equipped with a meter on the bypass line to detect small amounts of water leakage or use. (This unit must be purchased as a complete assembly).
- B.1.45 **Reduced Pressure Principle Backflow Preventer** shall mean an assembly consisting of two (2) independently operating approved check valves with an automatically operating differential relief valve located between the two (2) check valves, tightly closing shut-off valves on each side of the check valves, plus properly located test cocks for the testing of the check valves and the relief valve.
- B.1.46 **Residential Dual Check** shall mean an assemble of two (2) spring loaded, independently operating check valves without tightly closing shut-off valves and test cocks. Generally employed immediately downstream of the water meter, to act as a containment device.
- B.1.47 **Source** shall mean all components of the Division's facilities utilized in the production, treatment, storage, and delivery of water to the distribution system.
- B.1.48 **Thermal Expansion** shall mean the condition of pressure developed due to the heating of water without room to expand.
- B.1.49 **Used Water** shall mean any potable water which is no longer in the Division's distribution system.
- B.1.50 **Water Service Entrance** shall mean the curb stop on the Customer's water service, except where the curb stop is located on the Customer's property. Where the curb stop is located on the Customer's property, the water service entrance shall be the Town property line or public right of way limit.
- B.1.51 **Water System** shall mean the water system as made up of two parts: the Division's system and the Customer's system.

SECTION B2

Purpose

- B.2.1 To protect the Division's water supply system from the possibility of contamination or pollution by isolating such contamination or pollutants at the Customer's premises, which could backflow or backsiphon into the Division's water supply system.
- B.2.2 To promote the elimination or control of existing cross-connections, actual or potential, between the Customer's in-plant potable water system, and the non-potable systems.
- B.2.3 To provide for the maintenance of a continuing program of cross-connection control which will effectively prevent the contamination or pollution of the Division's water supply system by cross-connection.

SECTION B3

Authority

- B.3.1 The Federal Safe Drinking Water Act of 1974, and the statutes of the State of Connecticut (25-32g) Chapters (474) require that the Division have the primary responsibility for preventing water from unapproved sources, or any other substances, from entering the Division's water supply system.
- B.3.2 Portland Water Division's adopted Rules and Regulations
- B.3.3 State of Connecticut Cross Connection Control Manual

SECTION B4

Responsibility

- B.4.1 The Director is charged with protecting the Division's water supply system from contamination or pollution due to the backflow or backsiphonage of contaminants or pollutants through the water service connection. If, in the judgment of the Director, an approved backflow device is required at the Division's water service connection to any Customer's premises, the Director, or his delegated agent, shall give notice in writing to said Customer to install an approved backflow prevention device at each service connection to his premises. The Customer shall, within 90 days, install such approved device, or devices, at his own expense. Failure or refusal, or inability on the part of the Customer to install said device or devices within ninety (90) days, shall constitute a grounds for discontinuation of water service to the premises until such device or devices have been properly installed.

SECTION B5 Administration

- B.5.1 The Portland Water Division is charged with the responsibility for implementation and enforcement of a cross-connection control program. This will include the keeping of necessary records, which fulfill the requirements of the State of Connecticut Cross Connection Regulations.
- B.5.2 The Customer shall allow his property to be inspected for possible cross-connections and shall follow the provisions of the program regulations; if a cross connection is permitted.
- B.5.3 If the Division requires that the public supply be protected by containment, the Customer shall be responsible for water quality beyond the outlet end of the containment device and should utilize fixture outlet protection for that purpose.
- B.5.4 The Director may utilize public health officials, or personnel from the Division, or delegated representatives, to assist him in the survey of the Customer's facilities and in the selection of proper fixture outlet devices.

SECTION B6 Requirements

- B.6.1 **Division's Responsibilities.** On new installations, the Division will provide on-site evaluation and/or inspection of plans in order to determine the type of backflow prevention device, if any, that will be required and will issue a permit. A minimum of a dual check valve will be required for any new construction.

For premises existing prior to the adoption of these program regulations, the Division will perform evaluations and inspections of plans and/or premises and inform the Customer by letter of any corrective action deemed necessary, the method of achieving the correction, and the time allowed for the correction to be made. Ordinarily, ninety (90) days will be allowed, however, this time period may be shortened depending upon the degree of hazard involved and the history of the device(s) in question. In the event that the Customer informs the Division in writing, of extenuating circumstances as to why the correction has not been made, a time extension may be granted by the Division. Any request for a time extension must be accompanied by a written compliance schedule.

The Division will not allow any cross connection to remain, unless it is protected by an approved backflow preventer which will be regularly tested to insure satisfactory operation. Failure on the part of any customer to eliminate any unprotected cross connections is sufficient cause for the immediate discontinuance of water service to the premises.

If the Division determines at any time that a serious threat to the public health exists, water service will be terminated immediately.

The Division provides testing of backflow devices for a fee. Alternatively, the Customer may have testing performed by a certified backflow assembly tester.

B.6.2 Customer's Responsibilities. The Customer shall be responsible for the elimination or protection of all cross connections on his premises, and shall conform with all requirements of the State of Connecticut Cross Connection Control Manual.

The Customer, after having been informed by a letter from the Division, shall at his expense, install, maintain, and test, or have tested, any and all backflow prevention devices on his premises.

The Customer shall correct any malfunction of the backflow prevention device which is revealed by periodic testing.

The Customer shall inform the Division of any proposed or modified cross connections and also any existing cross connections of which the Customer is aware, but has not been found by the Division.

The Customer shall not install a bypass around any backflow preventer unless there is a backflow preventer of the same type on the bypass.

The Customer shall install backflow preventers in a manner approved by the Division as described in Section B.6.3.

Any Customer having an auxiliary water supply must have a permit. The Customer may be required to install a backflow preventer at the water service entrance if a private water supply is maintained, even if it is not cross connected to the Division's system.

In the event the Customer installs plumbing connected to the Division's side of a backflow preventer, such plumbing must be inspected by the Division.

All new residential buildings will be required to install a residential dual check device immediately downstream of the water meter. The installation of a residential dual check valve results in a potential closed plumbing system. The Customer must provide for thermal expansion within his system. (i.e., the installation of thermal expansion devices and/or pressure relief valves.)

The Division strongly recommends that all new retrofit installations of reduced pressure principle devices and double check valve backflow preventers include

the installation of strainers located immediately upstream of the backflow device. The installation of strainers reduces the fouling of backflow devices due to debris and particulate matter.

Where entry is required into confined spaces for inspection or testing by the Division, the Customer shall provide all necessary equipment to meet OSHA confined space entry regulations. All new installations of exterior faucets shall be frost proof, with integral hose bib vacuum breakers.

All costs associated with the design, purchase, installation, replacement, maintenance, parts and repairs of any backflow device on the Customer's premises are the financial responsibility of the Customer.

The Customer is responsible for all maintenance of backflow preventer devices.

- B.6.3 Installation Requirements.** To ensure proper operation and accessibility of all backflow prevention devices, the following requirements shall apply to the installation of these devices;
- a. All backflow prevention devices shall be installed in a location that is easily accessible. Devices shall not be installed below ground, in a pit. Installations in confined spaces are discouraged by the Division.
 - b. Devices required for facility containment must be installed at the point of delivery of the water supply, before any branch in the line, on private property located immediately after the water meter. Alternate locations must be approved in writing by the Division prior to installation.
 - c. Devices must be protected from freezing and other severe weather conditions.
 - d. The installation of all devices shall be installed in accordance with the certified cross connection inspector's survey report. All location changes must have approval in writing by the Division.
 - e. If a reduced pressure backflow preventer cannot be removed from service for maintenance and testing during normal working hours, a second reduced pressure backflow preventer shall be installed in parallel so as to permit inspection and repair of either device.
 - f. Any water pressure reduction caused by the installation of a backflow preventer device is not the responsibility of the Division.

- g. All plumbing must be labeled to the satisfaction of the cross connection inspector.
- h. For installations of fire sprinkler systems, the Division shall review and approve all plans.
- i. For installations of permanently installed lawn irrigation systems, the Division shall review and approve all plans. A reduced pressure principal device shall be installed on all permanently installed lawn irrigation systems.

**SECTION B7
Degree of Hazard**

- B.7.1 The Division recognizes the threat to the public water supply system arising from cross connections. All threats will be classified by degree of hazard and will require the installation of approved backflow prevention devices.

**SECTION B8
Permits**

- B.8.1 The Division will not permit a cross connection within the Customer's water supply system unless it is considered absolutely necessary and can not be eliminated.
- B.8.2 Cross connection permits are required for each backflow prevention device and are obtained from the Division.
- B.8.3 Permits shall be renewed every two (2) years and are non-transferable. Permits are subject to revocation and become immediately revoked if the Customer should so change the type of cross connection or degree of hazard associated with the service.
- B.8.4 A permit is not required when fixture isolation is achieved with the utilization of approved non-testable backflow preventers.

**SECTION B9
Existing In-Use Backflow Prevention Devices**

- B.9.1 Any existing backflow preventer shall be allowed by the Division to continue in service unless the degree of hazard is such as to supersede the effectiveness of the present backflow preventer, or result in an unreasonable risk to the public health. Where the degree of hazard has increased, as in the case of a

residential installation, any existing backflow preventer must be upgraded to a reduced pressure principle device.

- B.9.2 A reduced pressure principle device is required on all permanently installed lawn irrigation systems.

SECTION B10 Testing and Repairs

- B.10.1 Reduced pressure principle backflow devices shall be tested and inspected at least annually.
- B.10.2 Periodic testing shall be performed by the Division's certified tester or his delegated representative. This testing will be done at the Customer's expense.
- B.10.3 Testing shall be conducted during the Division's regular business hours. Exceptions to this would be at the request of the Customer and may require additional charges to cover the increased costs to the Division.
- B.10.4 All testable backflow devices installed within the Customer's system shall be tested immediately upon installation and at least annually thereafter by a certified backflow assembly tester who is approved by the State Department of Public Health. Any backflow preventer which fails during a periodic test shall be repaired or replaced. When repairs are necessary, upon completion of the repair, the device will be re-tested at Customer's expense to insure correct operation. High hazard situations will not be allowed to continue unprotected if the backflow preventer fails the test and cannot be repaired immediately. If any such device is not promptly repaired or replaced, the Division may discontinue water to the premises. In other situations, a compliance date of not more than thirty (30) days after the test date will be established. The Customer is responsible for spare parts, repair tools, or a replacement device. Parallel installation of two (2) devices is an effective means of the Customer insuring that uninterrupted water service is maintained during testing or repair of devices and is strongly recommended when the Customer desires such continuity.
- B.10.5 Backflow prevention devices will be tested more frequently than specified in Section B.10.1 above, in cases where there is a history of test failures.

SECTION B11 Records and Reports

- B.11.1 The Division will initiate and maintain the following:
1. Master files on Customer cross connection tests and/or inspections

2. Master files on cross connection permits
3. Copies of permits and permit applications
4. Copies of lists and summaries supplied to the State Department of Public Health

B.11.2 The Division will submit the following to the State Department of Public Health

1. Initial listing of low hazard cross connections
2. Initial listing of high hazard cross connections
3. Annual update lists of items 1 and 2 above
4. Annual summary of cross connection inspections

SECTION B12 Fees and Charges

B.12.1 Fees and charges for services or permits are provided in Section A9 of the Regulations of the Water Division.