Town of Dighton

Rules and Regulations of Sewer Use
under Article XVIII of the General
By-Laws

Board of Sewer Commissioners
979 Somerset Avenue
Dighton, Massachusetts

Gregory Olsen - Chairman
Timothy Lynch - Clerk
Thomas Medeiros - Commissioner
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ARTICLE I

DEFINITIONS

Unless the context specifically indicates otherwise, the meaning of the terms used in this and in the rules and regulations authorized herein, shall be as follows:

"40 CFR 403" and subsections shall mean the US EPA's Title 40 of the Code of Federal Regulations, Part 403- General Pretreatment Regulations for Existing and New Sources of Pollution.

"Allowable Headworks Loading (AHL)" shall mean the estimated maximum loading of a pollutant that can be received at a POTW's headworks that should not cause a POTW to violate a particular treatment plant or environmental criterion. AHLs are developed to prevent interference or pass through.

"Applicant" shall mean any person requesting approval to discharge wastewaters into the Town of Dighton sewer system.

"Approval Authority" shall mean the United States Environmental Protection Agency, Region 1. The USEPA is the National Pollutant Discharge Elimination System authority in Massachusetts in implementing and enforcing the federal program requirements.

"Baseline Monitoring Report (BMR)" shall mean a report submitted by categorical industrial users within 180 days after the effective date of a categorical standard which indicates the compliance status of the user with the applicable categorical standard (refer to 40 CFR 403.129[b])

"Best Available Technology (BAT)" shall mean the degree of effluent reduction attainable by the application of the best available [treatment] technology economically achievable.

"Best Management Practices (BMP)" shall mean schedules of activities, prohibitions, or practices, maintenance procedures, and other management practices to prevent or reduce pollution discharges. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spills, or leaks, sludge or waste disposal, or drainage from raw material storage.

"Best Professional Judgment" (BPJ) shall mean the highest quality technical opinion developed by a permit writer after consideration of all reasonable available and pertinent data or information that forms the basis for the terms and conditions of a permit.

"Board" shall mean the Town of Dighton Board of Sewer Commissioners.

"BOD" (denoting Biochemical Oxygen Demand) shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days at *20°* C, expressed in milligrams per liter.

"Building Drain" shall mean that part of the lowest horizontal piping of a drainage system that receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer, beginning ten (10) feet (3 meters) outside the inner face of the building wall.

"Building Sewer" also called **"house connection",** shall mean the extension from the building drain to the public sewer or other place of disposal.

"Bypass" shall mean the intentional diversion of wastewater from any portion of an industrial user's pretreatment facility.

"Categorical Pretreatment Standards" shall mean pollutant discharge limits promulgated by EPA in accordance with Section 307 of the Clean Water Act that apply to regulated process wastewaters. They are based on the capability of a specific wastewater treatment technology or series of technologies to reduce pollutant discharges equivalent to best available technology (BAT).

"Categorical Industrial User (CIU)" shall mean an industrial user subject to categorical pretreatment standards.

"Chain of Custody" shall mean a written record of sample possession for all persons who handle (i.e., collect, transport, analyze, and/or dispose of) a sample, including the names,

dates, times, and procedures followed.

"Clean Water Act (CWA)" , also known as the Federal Water Pollution Control Act, enacted by Public law 92-500, October 18, 1972, 33 USC 1251 et seq: as amended by PL 95-217, December 28, 1977; PL 97-117 December 29, 1981; PL 97-440, January 8, 1983, and PL 100-04, February 4, 1987.

"Code of Federal Regulations (CFR)" shall mean the Code of Federal Regulations published in a U.S. government publication, the Federal Register. Title 40 of the CFR contains environmental regulations.

"Combined Sewer" shall mean a sewer receiving both surface runoff and wastewater.

"Commission" shall mean the Sewer Commission of the Town of Dighton.

"Composite Sample" shall mean a sample composted of two or more discreet samples. The aggregate sample will reflect the average water quality covering the compositing or sample period.

"Contractor" shall mean a utility construction person or company that specializes in construction and placement of water lines, sewer lines, and/or construction of drainage piping.

"Control Authority", as defined in 40 CFR 403.12(a), shall mean the City of Taunton, Massachusetts Wastewater Treatment Facility, managed by Veolia Water North America, Northeast LLC. The Taunton Wastewater Treatment Facility is responsible for implementing the pretreatment program, including establishment of control mechanisms for compliance assessment and enforcement of national standards, categorical standards, and local limits.

"Conservative Pollutants" shall mean those pollutants that are presumed not to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW. Conservative pollutants introduced to a POTW ultimately exit the POTW solely through the POTW's effluent and sludge. Most metals are considered to be conservative pollutants.

"Conventional pollutants" shall mean pollutants typical of municipal sewage, and for which secondary treatment plants are designed to treat. They are Biochemical Oxygen Demand, Total Suspended Solids, fecal coliform bacteria, oil and grease and pH.

"Cooling Water" shall mean the water discharged from any use such as air conditioning, cooling or refrigeration, to which the only pollutant added to the water is heat.

"DEP" shall mean the Massachusetts Department of Environmental Protection.

"Drain Layer" shall mean a utility construction person or company that specializes in construction and placement of water lines, sewer lines, and/or construction of drainage piping.

"Easement" shall mean an acquired legal right for the specific use of land owned by others.

"Effluent Limitation" shall mean the requirement, under state or federal law, specifying the maximum permissible quantity or concentration of any pollutant that may be present in discharges, or their maximum permissible hydraulic flow, over designated periods of time, to waters of the Commonwealth or to a public sewer system.

"*Enforcement Response Plan*" shall mean a plan that documents a well-defined, legally-defensible procedure to be followed when enforcing users who are not in compliance with the Taunton Wastewater Treatment Facility's pretreatment program and/or the Town of Dighton's Sewer Use By-Laws and Rules and Regulations of Sewer Use. This formal enforcement document defines the consequences of one-time, repeated, continuing, or significant non-compliance, and ensures equitable treatment of all users of the Taunton Wastewater Treatment Facility. The Taunton Wastewater Treatment Facility's current *Enforcement Response Plan* was approved by the United States Environmental Protection Agency (Region 1) in 1996. This Plan- and any subsequent revisions to it- is incorporated by reference in the Town of Dighton's Rules and Regulations of Sewer Use. If any part of the Taunton Wastewater Treatment Facility's

Enforcement Response Plan shall contradict any part of the Town of Dighton's Rules and Regulations of Sewer Use, the more stringent response shall apply.

"EPA" shall mean the United States Environmental Protection Agency.

"Equivalent Use" shall mean that, if water usage data are not available, the cost for treatment of wastewater generated by a commercial or multi-family residential unit shall be calculated based on the estimated water use in specific processes or by specific users at that location. Equivalent Use units are a ratio of estimated water use at the location in question to water use from a single-family residence.

"Excessive" shall mean more than the limits established in these regulations or of such magnitude that, in the judgment of the Board of Sewer Commissioners, may cause damage to any facility, be harmful to the wastewater treatment process or reduce its efficiency, cannot be removed in the wastewater treatment plant to the degree required to meet discharge limitations and requirements, create any hazard in the receiving waters, exceed the capacity of the sewerage system, or otherwise endanger life, limb or property, or constitute a public nuisance.

"**Flashpoint"** shall mean the lowest temperature at which vapor combustion will propagate away from its source of ignition.

"Floatable oil" is oil, fat, or grease in a physical state such that it will separate by gravity from wastewater by treatment in an approved pretreatment facility. A wastewater shall be considered free of floatable fat if it is properly pretreated and the wastewater does not interfere with the sewerage system.

"Garbage" shall mean solid wastes from the domestic and commercial preparation, cooking, and dispensing of food, and from the handling, storage, and sale of produce.

"Grease" shall include the fats, oils, and waxes and other related constituents found in wastewater.

"Headworks" shall mean the point at which wastewater enters a wastewater treatment plant. The headworks may consist of bar screens, comminuters, a wet well, or pumps.

"Industrial User (IU)" shall mean any user identified in the Standard Industrial Classification Manual of the U. S. Office of Management and Budget, as amended and supplemented under the following divisions: Division A - Agriculture, Forestry, and Fishing; Division B – Mining; Division D – Manufacturing; Division E - Transportation, Communication, Electric, Gas and Sanitary Service; or Division I – Services. It shall also mean any non-domestic source of pollutants into a POTW that is regulated under Section 307(b), (c), or (d) of the Clean Water Act.

"Industrial Wastes" shall mean the solid, liquid or gaseous wastes resulting from industrial manufacturing processes, trade, or business as distinct from sanitary sewage.

"Industrial Waste Survey" shall mean the process of identifying and locating industrial users and characterizing their industrial discharges.

"Infiltration" shall mean the seepage of water into a sewer system, including service connections from the ground or water body, through such means as (but not limited to) defective or cracked pipes, pipe joints, connections, or manhole walls.

"Inflow" shall mean the water discharged into a sewer system and service connections from sources other than regular connections. This includes flow from (but not limited to): roof leaders; cellar, yard, and foundation drains; cooling water discharges; drains from springs and swampy areas; around manhole covers; cross connections from storm sewers and combined sewers; catch basins; storm waters; surface runoff; street wash waters; or drainage. Inflow differs from infiltration in that it is a direct discharge into the sewer rather than a leak or seepage into the sewer itself.

"Inhibition" shall mean when pollutant levels in a POTW's wastewater or sludge cause operations problems for biological treatment processes involving secondary or tertiary wastewater treatment and alter the POTW's ability to adequately remove BOD, TSS, and other pollutants.

"Interference" shall mean when a discharge, alone or with discharges from other sources: inhibits or disrupts a POTW, its treatment processes and operations; inhibits or disrupts a POTW's sludge processes, use, or disposal, and therefore, causes a violation of the POTW's MEPDES permit; increases the magnitude or duration of such a violation; or prevents the proper use or disposal of sewage sludge in compliance with the Clean Water Act, Solid Waste Disposal Act, Toxic Substance Control Act, or the Marine Protection, Research and Sanctuaries Act.

"Invert" shall mean the bottom elevation of the inside diameter of laid sewer pipe.

"Living Unit" or "**Dwelling Unit"** shall mean a room or a group of rooms forming a habitable unit for one family for living, sleeping, cooking, and eating, containing individual washing and toilet facilities.

"Lower Explosive Limit (LEL)" shall mean the minimum concentration in air at which a gas or vapor will explode or burn in the presence of an ignition source.

"Maximum Contaminant Level (MCL)" shall mean the maximum permissible level of a contaminant in water delivered to any user of a public water system. An MCL is an enforceable standard.

"Maximum Allowable Headworks Loading (MAHL)" shall mean the estimated maximum loading of a pollutant that can be received at a POTW's headworks without causing pass through or interference. The most protective (lowest) of the AHLs (see definition) estimated for a pollutant.

"Maximum Allowable Industrial Loading (MAIL)" shall mean the estimated maximum loading of a pollutant that can be received at a POTW's headworks from all permitted industrial users and other controlled sources without causing pass through or interference. The MAIL is usually calculated by applying a safety factor to the MAHL and discounting for uncontrolled sources, hauled waste and growth allowance.

"Method Detection Limit (MDL)" shall mean the minimum concentration of an analyte that can be measured and reported with 99 percent confidence that the analyte concentration is present as determined by a specific laboratory method in 40 CFR Part 136, Appendix B.

"Minimum Level of Quantitation (ML)" shall mean the lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that all method-specified sample weights, volumes, and cleanup procedures have been employed. The ML is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest (1, 2, or 5) x 10^{n} where *n* is an integer.

"Municipal sewer" shall mean a sewer controlled by a municipality.

"Municipal user" shall mean any city, town or sewer district that discharges wastewater or septage into a sewerage system connected to and served by contract with the Town.

"Natural outlet" shall mean any outlet into a watercourse, pond, ditch, lake or other body or surface or groundwater.

"National Categorical Pretreatment Standards" shall mean pollutant discharge limits promulgated by EPA in accordance with Section 307 of the Clean Water Act that apply to regulated process wastewaters. They are based on the capability of a specific wastewater treatment technology or series of technologies to reduce pollutant discharges equivalent to best available technology (BAT).

"National Pollutant Discharge Elimination System (NPDES)" shall mean the permitting system established by the Clean Water Act (as defined in Section 402 of the Federal Water Pollution Control Act Amendments of 1972 [Public Law 92-500]), which regulates the

discharge of pollutants into the waters of the United States. Such a discharge is prohibited in Massachusetts unless a NPDES permit is issued by USEPA or, where authorized, a Native American tribal government.

"New source" shall mean any building, structure, facility, or installation from which there is or may be a "discharge of pollutants," the construction of which commenced: (a) After promulgation of standards of performance under section 306 of CWA which are applicable to such source, or, (b) After proposal of standards of performance in accordance with section 306 of CWA which are applicable to such source, but only if the standards are promulgated in accordance with section 306 within 120 days of their proposal.

"Non-conservative Pollutants" shall mean pollutants that are presumed to be destroyed, biodegraded, chemically transformed, or volatilized within the POTW to some degree.

"Notice of Violation" shall mean a written notification to a user of the Town of Dighton's sewerage system that it has violated the conditions of its discharge permit or other permission to discharge to the system. The level of severity of the Notice of Violation shall be based on definitions included in the Taunton Wastewater Treatment Facility's *Enforcement Response Plan* and in these Rules and Regulations of Sewer Use.

"Owner" shall mean any person vested with ownership, legal or equitable, sole or partial, of any property.

"Pass-through" shall mean A discharge that enters the waters of the United States from a POTW in quantities or concentrations that, alone or with discharges from other sources, either causes a violation of any requirement of the POTW's NPDES permit, or increases the magnitude or duration of a violation of the POTW's NPDES permit.

"Person" shall mean any individual, firm, company, partnership, association, society, corporation, group, or any agency or political subdivision of the Commonwealth.

"Pollutant of Concern (POC)" shall mean any pollutant that might reasonably be expected to be discharged to the POTW in sufficient amounts to pass through or interfere with the works, contaminate its sludge, cause problems in its collection system, or jeopardize its workers.

"Pretreatment", as defined in 40 CFR 403.3, shall mean the reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a POTW. The reduction or alteration can be obtained by physical, chemical, or biological processes, or process changes, or by other means, except as prohibited by 40 CFR Section 403.6(d).

"Pretreatment Requirement" shall mean any substantive or procedural requirement related to Pretreatment, other than a National Pretreatment Standard, imposed on an Industrial User.

"Priority Pollutant" shall mean pollutants listed by the EPA Administrator under Clean Water Act Section 307 (a). The list of the current 126 Priority Pollutants can be found in 40 CFR Part 423, Appendix A.

"Private sewer" shall mean any lateral sewer that has been constructed across private property or in a private way financed privately or by abutters and installed for the purpose of receiving and conveying sewage from building sewers. A building sewer serving more than two buildings shall be considered a private sewer.

"pH" shall mean the logarithm of the reciprocal of the weight of hydrogen ions in grams per liter of solution.

"Properly Shredded Garbage" shall mean the wastes from the preparation, cooking, and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than one-half inch (1.27 centimeters) in any dimension.

"Property" shall mean an area of land as marked on the Town of Dighton Assessors drawings.

"Public Sewer" shall mean a sewer in which all owners of abutting properties have equal rights, and is controlled by public authority.

"POTW" shall mean a treatment works, as defined by Section 212 of the CWA, which is owned by the State or municipality. This definition includes any devices and systems used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature. It also includes sewers, pipes and other conveyances only if they convey wastewater to a POTW treatment plant [40 CFR 403.3]. Privately owned treatment works, Federally owned treatment works, and other treatment plants not owned by municipalities are not considered POTWs.

"Regulated Wastestream" shall mean an industrial wastestream regulated by a National Categorical Pretreatment Standard.

"Resource Conservation and Recovery Act (RCRA)" shall mean the 1976 Congressional act, amended in 1984 by the Hazardous and Solid Waste Amendments: Public Law 92-580, which established a "cradle to grave" program for management of hazardous wastes.

"Sanitary sewer" shall mean a sewer that carries liquid and water-carried wastes from residences, commercial buildings, industrial plants, and institutions together with minor quantities of ground, storm and surface waters that are not admitted intentionally.

"**Sanitary sewage"** shall mean liquid and water-carried human and domestic wastes from residences, commercial buildings, industrial plants and institutions, exclusive of ground, storm and surface water and exclusive of industrial wastes.

"Septage" shall mean the liquid and solid wastes of sanitary sewage origin that are removed from a cesspool, septic tank or similar receptacle.

"Sewage" is the spent water of a community. The preferred term is "wastewater". It shall include a combination of the wastes and wastewater from residences, business buildings, institutions, and industrial establishments, together with such groundwater, surface water, and storm waters as may be present.

"Sewage treatment plant" shall mean an arrangement of devices and structures for treating wastewater, industrial wastes, and sludge. This term is used as a synonym for "waste-treatment plant", "wastewater treatment plant" or "water pollution control plant".

"Sewage Works" shall mean all facilities for collecting, pumping, treating and disposing of sewage.

"Sewer" shall mean a pipe or conduit that carries wastewater (sewage).

"Sewer Use Regulations". A legal mechanism implemented by a local government entity (in this case, the Town of Dighton, Massachusetts) that sets out, among others, requirements for the discharge of pollutants into a POTW and its wastewater collection/conveyance system.

"Sewerage system" shall mean any device, equipment or works used in the transportation, pumping, storage, treatment, recycling, and reclamation of sewage and industrial wastes, and may also be called sewage works.

"Shall" is mandatory; "May" is permissive.

"Short-Term Exposure Level (STEL)". Concentrations to which a worker should not be exposed for longer than 15 minutes and which should not be repeated more than four times per day, with at least one hour between exposures (commonly accepted exposure limits identified by the American Conference of Governmental Industrial Hygienists).

"Significant Noncompliance" shall mean that a user's violation meets one or more of the criteria defined in the most recent revision of 40 CFR 403.8(f)(2)(vii), or one or more of the criteria defined in the most recent version of the Taunton Wastewater Treatment Facility's *Enforcement Response Plan.*

"Significant Industrial User (SIU)" shall be understood to be as defined by EPA guidance, that is: A) all categorical industrial users, or B) any non-categorical industrial user that i) discharges 25,000 gallons per day or more of process wastewater ("process wastewater" excludes sanitary non-contact cooling water and boiler blowdown wastewaters) or ii) contributes a process wastestream that makes up five percent or more of the average dry weather hydraulic or organic (BOD, TSS, etc..) capacity of the treatment plant or iii) has a reasonable potential, in the opinion of the Control or Approval Authority to adversely affect the POTW treatment plant (inhibition, pass through of pollutants, sludge contamination, or endangerment of POTW workers)

"Sludge" shall mean waste containing varying amounts of solid contaminants removed from water, sanitary sewage, wastewater or industrial wastes by physical, chemical and biological treatment.

"Slug" shall mean any discharge of water, sewage, or industrial waste which in concentration of any given constituent or in quantity of flow that causes harm or potential harm to the treatment works or appurtenances or such that the average hourly discharge over any period of two hours duration is more than twice the daily average hourly discharge.

"Slug load" shall mean any pollutant (including Biochemical Oxygen Demand) released in a discharge at a flow rate or concentration that will cause interference with the operation of the treatment works.

"Standard Industrial Classification" shall mean a classification scheme based on the type of industry or process at a facility.

"Spill Prevention and Control Plan" shall mean a plan prepared by an industrial user to minimize the likelihood of a spill and to expedite control and cleanup activities should a spill occur.

"Storm Drain" (sometimes termed "storm sewer") shall mean a sewer (pipe or conduit) which carries ground, storm or surface waters and drainage (or relatively unpolluted water from any source), but excludes sewage and industrial wastes, other than unpolluted cooling water.

"Superintendent" shall mean the Superintendent appointed by the Town of Dighton Sewer Commissioners, or his authorized deputy, agency, or representative.

"Suspended Solids" shall mean solids that either float on the surface of, or are in suspension in, water, sewage, or other liquids, and which are removable by laboratory filtering.

"Time-Proportional Composite Sample" shall mean a combination of individual samples with fixed volumes taken at specific time intervals.

"Town" shall mean the Town of Dighton acting by and through the Sewer Commission.

"Total Suspended Solids (TSS)" shall mean a measure of the suspended solids in wastewater, effluent, or water bodies, determined by tests for "total suspended non-filterable solids."

"Toxic Organic Management Plan (TOMP)" shall mean a written plan submitted by industrial users as an alternative to Total Toxic Organics (TTO) monitoring, which specifies the toxic organic compounds used, the method of disposal used and procedures for assuring that toxic organics do not routinely spill or leak into wastewater discharged at the POTW.

"Toxic Pollutant" shall mean any pollutant or combination of pollutants listed as toxic in regulations promulgated by the Administrator of the EPA under the provision of the Clean Water Act 307(a) or other Acts. These pollutants are pollutants that may cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions, or physical deformations. Toxic pollutants include certain metals and organic chemicals.

"Toxic Wastes" shall mean wastes containing toxic or poisonous solids, liquids or gases in sufficient quantity, either singly or by interaction with other wastes, to injure or interfere with any sewage treatment process to constitute a hazard to humans or animals, and to

create any hazard in the receiving waters of the sewage treatment plants, and those wastes so specified in these regulations and in the Act.

"Treatability Manual" shall mean guidance prepared by the U.S. EPA that provides detailed descriptions of industrial processes, potential pollutants from each process, appropriate treatment technologies, and cost-estimating procedures.

"Un-regulated wastestream" shall mean a wastestream that is not regulated by a National Categorical Pretreatment Standard and is not considered a dilute wastestream.

"User" shall mean any individual, firm, company, association, society, corporation, group, municipality, governmental agency, public authority, persons, or permittee discharging sewage or industrial wastes directly or indirectly into the Town of Dighton Sewerage System.

"Volatile Organic Compound (VOC)". As defined in 40 CFR 50.100, "volatile organic compounds" means any compound of carbon, excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions.

"Wastewater" shall mean the spent water of a community, which may be a combination of the liquid and water-carried from residences, commercial buildings, industrial plants, and institutions, together with any groundwater, surface water, or storm water that may be present.

"Wastewater Discharge Permit" shall mean a permit to convey or discharge wastewater into any sewer under the jurisdiction of the Sewer Commission.

"Watercourse" shall mean a channel in which a flow of water occurs, either continuously or intermittently.

"Waters" shall mean all waters within jurisdiction of the system including rivers, lakes, ponds, springs, impoundments, coastal and groundwater.

"Whole Effluent Toxicity (WET) Tests" shall mean the aggregate toxic effect of an effluent measured directly by an aquatic toxicity test. Aquatic toxicity methods designed specifically for measuring WET have been codified in 40 CFR 136. WET test methods employ a suite of standardized freshwater, marine, and estuarine plants, invertebrates, and vertebrates to estimate acute and short-term chronic toxicity of effluents and receiving waters.

ARTICLE II

BUILDING SEWERS AND CONNECTIONS

Section 1. No unauthorized person shall uncover, make any connections with or opening into, use, alter, or disturb any public sewer or appurtenance thereof without first obtaining a written permit from the Superintendent. All rules and regulations must be followed. Any person proposing a new discharge into the system or a substantial change in the volume or character of pollutants that are being discharged into the system shall notify, in writing, the Board of Sewer Commissioners at least forty-five (45) days prior to the proposed change or connection. Deviation from these rules and regulations may be allowed if written approval from the Board of Sewer Commissioners is granted prior to commencement of work activities.

Section 2. There shall be three (3) classes of building sewer permits: (a) for residential service, (b) commercial service and (c) for service to establishments producing industrial wastes. In all cases, the owner or his agent shall make application on a special form furnished by the Town in accordance with applicable State laws. The permit application shall be supplemented by any plans, specifications, or other information considered pertinent in the judgment of the Superintendent and Board of Sewer Commissioners. A permit and inspection fee (see fee schedule) for a residential building sewer permit, a commercial building sewer permit, or an industrial building sewer permit shall be paid to the Dighton Town Treasurer at the time the application is filed. Permits are to be obtained from the Board of Sewer Commissioners office during the posted office hours in Dighton Town Hall.

Section 3. Permits will be issued by the Board of Sewer Commissioners at scheduled meetings, which are posted at the Town Hall. The Sewer Superintendent may, at his discretion, review and approve work during emergency situations.

Section 4. All applicants must posses a Drain Layer's Permit with the Town of Dighton. Drain Layer's Permit applications may be obtained at the Sewer Commissioners Office. Application fees shall be paid at the time of application submittal (see fee schedule). The drain layer or contractor shall possess the required minimum public liability and property damage insurance, and underground coverage insurance in the amounts of $100,000.00 and $300,000.00 each. A current insurance certificate shall be filed with the Board of Sewer Commissioners at the time of application. Each drain layer must also carry a performance bond in the amount of $10,000.00 payable to the "Town of Dighton". Drain layers or contractors shall be responsible for all defects in materials and workmanship for a period of 1 year following completion and approval of the sewer service installation or repair. Any violation of the Board of Sewer Commissioners rules and regulations will result in suspension or revoking of license and/or permit. Application forms for Drain Layer's Permits shall be made annually (on January 1), completed and approved by the Board of Sewer Commissioners. An application fee (see fee schedule) is required at the time of application. A limit of ten (10) licensed drain layers will be licensed annually by the Sewer Commission. The drain layer or contractor is required to submit an as-built plan within 30 days of job completion. Failure to submit this as-built within the time allocated may result in license revocation.

Section 5. Contractors seeking a sewer connection permit by way of a Commonwealth of MA State Highway Access Permit shall secure a performance bond in the amt. of $10,000.00.

Section 6. Permits will be only issued to licensed drain layers or contractors registered in the Town of Dighton. Permits shall be subject to revocations when any of the Rules and Regulations contained herein is not adhered to. If the work under the permit is not completed within thirty (30) days of application, the permit must be reviewed by the Sewer Superintendent and the Board of Sewer Commissioners and renewed. All renewal requests must

be made in writing and shall document the reason for non-completion. No permit, except in cases of emergency, shall allow the contractor to excavate in a public way until the applicant notifies the Town of Dighton Highway Department Superintendent, DIGSAFE (1-888-344-7233), the Town of Dighton Fire Department, and the Town of Dighton Water District Superintendent.

Section 7. All costs and expenses incidental to the installation and connection of the building sewer shall be borne directly and solely by the Owner. The Owner and contractor shall indemnify the Town from any loss or damage that may directly or indirectly be occasioned by the construction or installation of the building sewer. The indemnification shall also include environmental violations and fines, such as hazardous wastes, OSHA, or wetlands violations.

Section 8. A separate and independent building sewer shall be provided for every building; except where one building stands at the rear of another or an interior lot and no private sewer is available or can be constructed to the rear building through an adjoining alley, courtyard, or driveway, the building sewer from the front building may be extended to the rear building such that the buildings will share a common building sewer. (A permit for extending this building sewer will be required prior to initiating the construction). Duplex buildings shall have a separate and independent building sewer for each unit.

Section 9. When any building, or other structure previously served by a connection to any public sewer is demolished, destroyed, abandoned, or altered so that any drain or portion of an abandoned plumbing system which is directly or indirectly connected to any public sewer is no longer used and is not longer connected to the drainage system of the building or structure, the open end of such drain which discharges, directly or indirectly, into a public sewer shall be promptly closed and sealed off so that not water or waste not otherwise permitted to enter the public sewer or drain shall be so discharged therein to. The Superintendent shall be notified, in writing, of such abandonment or discontinuance and all sealing of building sewers shall be inspected by and performed to the satisfaction of the Superintendent.

Section 10. At some future time, the old building sewers may be used in connection with new buildings only when they are found, on examination and test by the Superintendent, to meet all requirements of these rules and regulations. A building sewer permit application shall be filed in accordance with these rules and regulations.

Section 11. Building Sewers: Building sewers shall be installed by licensed drain layers or contractors. All work shall be performed in accordance with these rules and regulations and applicable state and federal regulations, requirements, and codes.

Section 12. No person shall cause to be discharged to the Town’s sewerage system- either by gravity drain or by force pump- any storm water, surface water, groundwater, roof runoff, subsurface drainage, or cooling or process waters. This shall include roof downspouts, sump pumps, exterior foundation drains, areaways drains, inflow, or other sources of surface runoff or groundwater to a building sewer or building drain which in turn is connected directly or indirectly to a public sanitary sewer. Violations will result in an initial penalty being assessed to the property owner, with additional penalties for each additional day the violation is not corrected.

Section 13. Building sewers and connections shall be made only by drain layers or contractors licensed to perform such work in the Town.

Section 14. Each drain layer or contractor shall be responsible for the faithful performance of all work performed under the license or permit issued to it or to the owner and for the conduct of all work and materials furnished on work by his or its employees or agents. No work shall be sublet by a drain layer or contractor under any permit issued under such license in any manner to divest drain layer or contractor of full control and responsibility for all parts of said work.

Only competent persons shall be employed on work performed under such license and only suitable material conforming to the standards established by the Superintendent and Board of Sewer Commissioners shall be furnished or used on such work.

Section 15. Should the Board of Sewer Commissioners find that any drain layer or contractor has failed to conform to the requirements of these rules and regulations and to the conditions of any permit issued there under, or that such drain layer or contractor has not been faithful in the performance of work or furnishing of materials under his license, the Board of Sewer Commissioners may suspend, cancel, or revoke such license and/or permit, or may extend the suspension of such license and/or permit for such period, or limit the activities of such drain layer or contractor in such manner as may appear to be to the public interest. Suspension, cancellation, or termination of a permit shall not entitle the permitee to any compensation or reimbursement from the Town or its agents for any alleged loss or expense incurred thereby, and licenses and permits shall be issued only on this condition.

Section 16 . The applicant for the building sewer permit shall notify the Superintendent, in writing, when the building sewer is ready for inspection and connection to the public sewer. The Superintendent shall be notified not less than forty-eight (48) hours in advance of the time any connection is to be made to any public sewer and such connection shall be made only in the presence of said Superintendent or his agent and then only when it has been determined that the building sewer has been constructed in accordance with these rules and regulations and is free from excessive groundwater seepage or other sources of extraneous flow as listed in Article II, Section 13 above. An additional fee (see fee schedule) per inspection will be charged for any re-inspections necessary. Additional inspections will not be performed until the fee is paid to the Town of Dighton.

Section 17. The Superintendent shall maintain detailed records of all public matters in the Town and of the locations of "wye" connections and service pipes. This information shall be available for use by all disposal works installers but at their risk as to the accuracy of the same. In addition, records shall also be maintained by the Superintendent concerning all connections to the public sewer for use by the Tax Assessor, other Town or District authorities and future property owners. All persons concerned shall assist the Superintendent in securing data needed for such records. Requests for information shall be submitted in writing to the Board of Sewer Commissioners in advance. A period of 10 days shall be allocated for the Commissioners to respond to the request. The applicant shall be responsible for all costs (copying, etc.) in accordance with the law which are associated with the request.

Section 18. It is the intention of these rules and regulations that all connections of building sewers to the public sewer be made at the owner's property line. If, for any reason, installation of pipe or other means of connection to the public sewer is required between the owner's property line and the public sewer, such work shall be carried out either by the Town at a reasonable charge to the owner to be determined by the Board of Sewer Commissioners, or, under previous agreement, by the owner's drain layer or contractor.

Section 19. Payment for Maintenance: If any sewer service connection becomes obstructed or otherwise fails to work properly, the Superintendent shall be notified promptly. Any work required between the public sewer connection and the building drain shall be the responsibility of the owner. The costs of maintenance and repair of the public sewer shall be bore by the Town of Dighton. The property owner shall be responsible to determine that the obstruction or failure is not on his property.

Section 20. Proposed Sewers: Proposed sewers and appurtenances may be extended or constructed by developers, property owners, or groups of property owners at their own cost, as a private sewer, providing the plans, specifications, and design (including materials of construction and size) are prepared by a Massachusetts registered engineer and filed with and approved by the

Superintendent and Board of Sewer Commissioners. Such proposed construction shall comply in every way with the requirements of these rules and regulations and by prior agreement, once constructed, inspected, tested and accepted by the Superintendent, such sewer shall be deeded to the Town without qualifications. All easements for such sewers shall be obtained in the name of the Town and meet the requirements of the Superintendent. Sewer construction, if approved, shall be performed in accordance with these rules and regulations. In the absence of Code provisions or in amplification thereof the materials and procedures set forth in appropriate specification of the American Society of Testing and Materials (A.S.T.M.), Water Environment Federation Manual of Practice FD-4 - "Design of Wastewater and Storm water Pumping Stations", and the New England Interstate Water Pollution Control Commission Technical Report No. 16 - "Guides for the Design of Wastewater Treatment Works shall apply.

A. Prior to the installation of sanitary sewers in new developments, the owner shall grant to the Town of Dighton an easement over the streets or property in which the sanitary sewer is installed. Such grant for the purpose of construction, supervising, maintaining, and repairing the sewer, but also, upon completion and acceptance by the Town of Dighton, shall relinquish to the Town of Dighton, all interests and claims to the sanitary sewer, and it shall become public.

B. Both sanitary and building sewers and appurtenances connecting to and within developments shall be installed at the expense of the builder and/or owner, and shall be subject to inspection and acceptance by the Town of Dighton.

C. Cross-country sewers will not be allowed.

D. The Board of Sewer Commissioners shall decide if a public sewer is reasonably available for a connection from a new development.

E. The policy of the Board of Sewer Commissioners is not to assess land in a new development abutting a public sewer installed at the expense of the developer. However, the Board reserves the right to make exceptions to this rule, therefore, each application shall be judged individually, and a ruling rendered by the Board.

F. Whenever a sewer extension is planned, the Board of Sewer Commissioners shall assess the needs of the Sewer Department pursuant to the expansion due to developed lots in any subdivision which is created pursuant to Massachusetts General Laws Chapter 41, Section 8IL. If the need is determined to increase the Department's equipment or necessity to function, associated costs will be applied to the proposed subdivision and the developer will be charged a fee to defray the costs of upgrading the existing system. Until such time as the bond, covenant, or other security required by said chapter shall have been released by the Planning Board, the developer and owner of the proposed subdivision shall be responsible for the payment of all said sewer charges assessed to the subdivision and to each lot developed or developable therein. No lot(s) can be issued a building permit until all sewer charges assessed to said lot(s) are paid in full.

G. Any project that is of sufficient capacity and requires a State sewer extension permit pursuant to Massachusetts Sewer System Extension and Connection Permit Program (through DEP’s Bureau of Resource Protection) must contribute to the reduction of inflow and infiltration (I&I) to the public sewer system. Methods to achieve this reduction of I&I may include rehabilitation of existing sewers, storm drain installation, pipeline maintenance projects, a limited I&I study, or other means as approved by the Town of Dighton.

H. Manholes, sewers, pump stations, and appurtenances shall meet in all respect the design standards, size, construction methods and tests conforming with the most recent version

of the New England Interstate Water Pollution Control Commission Technical Report No. 16 - "Guides for the Design of Wastewater Treatment Works", and standards set forth by the Superintendent/Board of Sewer Commissioners. Materials of construction shall conform to the standards of the American Society of Testing Materials or in the absence of such standards to accepted commercial standards. Interpretation of any conflict of any of the above standards shall be made by the Board of Sewer Commissioners.

Section 21. Construction of private sewers. Requirements for the construction of such proposed sewers shall include, but shall not be limited to the following:

A. The costs for the installation of all manholes required for the connection of the new development to an existing public sewer shall be borne directly by the owner and/or builder and shall be subject to inspection and acceptance by the Town of Dighton.

B. Any person owning or occupying any land upon which a private sewer is located which flow into public sewers shall be responsible for the inspection, maintenance, repair and operational integrity of such private sewer service line.

Section 22. Maintenance and Ownership: Sewer service connections on public ways from the public sewer to the property line shall be built, repaired and maintained by the Sewer Department. Connection of the building sewer from the public sewer to the house or building shall be paid for, owned and maintained by the property owner. Connections required in the future on private ways or on private property to a public sewer shall be built, paid for, repaired and maintained by the owner of the land. All work performed on private property shall be conducted in accordance with the Articles set forth in these rules and regulations, and with all applicable State and Federal requirements.

A. Any settlement over the sewer in any street or public way within one year after such sewer is accepted shall be repaired at the expense of the developer or owner of the property authorized to install such sewer and he shall be required to post a bond to cover the cost of any accident or damage which may occur in consequence of the laying of such sewer during the time the trench is open and for such period of one year after the sewer is accepted.

B. Prior to transfer of private sewer service from one property owner to another property owner, the Town may inspect (or require the inspection of) the private sewer for the purpose of determining the amount of infiltration and inflow into such lines, if any. Any conditions discovered during such inspections that cause or allow infiltration or inflow shall be repaired by the current property owner prior to transfer of the service. Where conditions have been discovered in existing private sewers for which no application for connection to the Town’s sewerage system has been filed or sought, the current property owner shall complete such repairs, maintenance and applications such that the private sewer is in compliance with these rules and regulations.

C. Prior to terminating service from a building to the Town’s sewerage system or performing demolition of any existing building, the owner shall apply to the Board for permission to terminate the service. The Town shall require the owner to cut and cap all building sewers at the connection to the Town’s sewer main. The property will be subject to inspection by the Town to ensure that all sewers and drains have been property cut and capped.

ARTICLE III

USE OF THE PUBLIC SEWERS

Section 1. No person shall discharge or cause to be discharged any storm water, surface water, groundwater, roof runoff, subsurface drainage, sump pumps, uncontaminated cooling water, any liquids and/or materials exhibiting toxic characteristics or containing pollutants, or unpolluted industrial process waters to any public sewer.

Section 2. Storm water and all other unpolluted drainage shall be discharged to such sewers as are specifically designated as storm sewers, or to a natural approved outlet. Industrial cooling water or unpolluted process waters may be discharged, on approval of the Highway Superintendent, to a storm sewer, or natural outlet.

Section 3. Prohibited Discharge Standards. Prohibited discharge standards are general, national standards that are applicable to all industrial users of the Town of Dighton's sewerage system, regardless of whether or not the industrial user has been issued a permit or is considered a National Categorical Discharger. These standards, while not developed by the Town of Dighton or the Taunton Wastewater Treatment Facility , protect the Taunton Wastewater Treatment Facility against pass through and interference, protect the Town of Dighton and City of Taunton sewerage systems, and promote worker safety and beneficial biosolids use. These standards are listed in 40 CFR 403.5 and as follows:

A) *General prohibition.* A user may not introduce into the Town of Dighton sewerage system any pollutant(s) that cause pass-through or interference. This applies whether or not the User is subject to National Pretreatment Standards or any national, State, or local pretreatment requirements.

B) *Specific prohibitions.* In addition, the following pollutants shall not be introduced into the Town of Dighton sewerage system, as defined in 40 CFR 403.5(b):
   a. Pollutants that create a fire or explosion hazard in the Town of Dighton or City of Taunton sewerage systems or the Taunton Wastewater Treatment Facility, including but not limited to waste streams with a closed cup flashpoint of less than 140 degrees Fahrenheit or 60 degrees Centigrade using the test methods specified in 40 CFR 261.21;
   b. Pollutants that will cause corrosive structural damage to the Town of Dighton or City of Taunton sewerage systems or the Taunton Wastewater Treatment Facility, but in no case discharges with pH lower than 5.5 or greater than 9.5;
   c. Solid or viscous pollutants in amounts that will cause obstruction to the flow in the Town of Dighton or City of Taunton sewerage systems or the Taunton Wastewater Treatment Facility resulting in interference;
   d. Any pollutant, including oxygen-demanding pollutants (BOD, etc..) released in a discharge at a flow rate and/or pollutant concentration that will cause interference with the Taunton Wastewater Treatment Facility;
   e. Heat in amounts that will inhibit biological activity in the Town of Dighton or City of Taunton sewerage systems or the Taunton Wastewater Treatment Facility resulting in interference, but in no case heat in such quantities that the temperature at the Taunton Wastewater Treatment Facility exceeds 40ºC (104ºF).
   f. Petroleum oil, non-biodegradable cutting oil, or products of mineral oil origin in amounts in excess of 5 mg/L or that will cause interference or pass-through;
   g. Pollutants which result in the presence of toxic gases, vapors, or fumes within the Town of Dighton or City of Taunton sewerage systems or the Taunton Wastewater Treatment Facility in a quantity that may cause acute worker health and safety problems;
   h. Any trucked or hauled pollutants, except at discharge points designated by the Town

of Dighton or City of Taunton.

i. Any Specific Prohibition developed by the Taunton Wastewater Treatment Facility subsequent to the date of these rules and regulations is incorporated by reference.

C) *When specific limits must be developed by the POTW*. Both the Town of Dighton and the Taunton Wastewater Treatment Facility have integrated the prohibitions listed in (A) and (B) of this section and shall continue to develop these limits (as necessary) and shall effectively enforce such limits. The Taunton Wastewater Treatment Facility will continue to develop and enforce specific effluent limits for industrial users and all other users, where these limits and changes in the POTW facility or operation are necessary to ensure renewed and continued compliance with its discharge permit or sludge use practices. These specific effluent limits will apply to all users of its POTW, including the Town of Dighton.

D) *Local Limits*. Where specific prohibitions or limits on pollutants or parameters are developed in accordance with (C), such limits shall be deemed pretreatment standards for the purposes of 40 CFR 403.5 (c) and (d). Local Limits were developed by the Taunton Wastewater Treatment Facility in 1996 and are listed below. If and when these Local Limits are revised, the most recent version of the Taunton Wastewater Treatment Facility's Local Limits shall be incorporated by reference into the Town of Dighton's Rules and Regulations of Sewer Use.

Pollutant	**Limitation**
Arsenic	1.21 mg/L
5-day BOD	922 mg/L
Cadmium	0.098 mg/L
Chromium	1.0 mg/L
Copper	0.59 mg/L
Cyanide	0.37 mg/L
Lead	0.88 mg/L
Mercury	0.0005 mg/L
Nickel	1.0 mg/L
Silver	0.041 mg/L
Total Suspended Solids	660 mg/L
Zinc	2.80 mg/L

E) *EPA Enforcement Actions.* If the Taunton Wastewater Treatment Facility (acting in conjunction with the Town of Dighton has not taken actions within 30 days after a notice of interference or pass-through, EPA may take appropriate enforcement action (under the authority provided in section 309(f) of the Clean Water Act) to correct the violation.

Section 4. National Pretreatment Categorical Standards. As defined in 40 CFR 403.6, National Categorical Pretreatment Standards, which specify quantities or concentrations of pollutants or pollutant properties that may be discharged to the Town of Dighton or City of Taunton sewerage systems or the Taunton Wastewater Treatment Facility by existing or new industrial users in specific industrial subcategories, have been established as separate regulations under 40 CFR Chapter I, Subchapter N. These Federally-promulgated (i.e., not developed by the Town of Dighton) standards, unless specifically noted otherwise, shall be in addition to all applicable pretreatment standards and requirements set forth in this Sewer Use Ordinance. The industrial categories presently defined in 40 CFR Chapter I, Subchapter N are as follows:

405 Dairy products processing point source category
406 Grain mills point source category
407 Canned and preserved fruits and vegetables processing point source category
408 Canned and preserved seafood processing point source category
409 Sugar processing point source category
410 Textile mills point source category

411 Cement manufacturing point source category
412 Concentrated animal feeding operations (CAFO) point source category
413 Electroplating point source category
414 Organic chemicals, plastics, and synthetic fibers
415 Inorganic chemicals manufacturing point source category
416 Soap and detergent manufacturing point source category
417 Fertilizer manufacturing point source category
418 Petroleum refining point source category
419 Iron and steel manufacturing point source category
420 Nonferrous metals manufacturing point source category
421 Phosphate manufacturing point source category
422 Steam electric power generating point source category
423 Ferroalloy manufacturing point source category
424 Leather tanning and finishing point source category
425 Glass manufacturing point source category
426 Asbestos manufacturing point source category
427 Rubber manufacturing point source category
428 Timber products processing point source category
429 The pulp, paper, and paperboard point source category
432 Meat products point source category
433 Metal finishing point source category
434 Coal mining point source category BPT, BAT, BCT limitations and new source performance standards
435 Oil and gas extraction point source category
436 Mineral mining and processing point source category
437 The centralized waste treatment point source category
438 Pharmaceutical manufacturing point source category
439 Ore mining and dressing point source category
442 Transportation equipment cleaning point source category
443 Effluent limitations guidelines for existing sources and standards of performance and pretreatment standards for new sources for the paving and roofing materials (tars and asphalt) point source category
444 Waste combustors point source category
445 Landfills point source category
446 Paint formulating point source category
447 Ink formulating point source category
454 Gum and wood chemicals manufacturing point source category
455 Pesticide chemicals
456 Explosives manufacturing point source category
457 Carbon black manufacturing point source category
458 Photographic point source category
459 Hospital point source category
460 Battery manufacturing point source category
463 Plastics molding and forming point source category
464 Metal molding and casting point source category
465 Coil coating point source category
466 Porcelain enameling point source category
467 Aluminum forming point source category
468 Copper forming point source category
469 Electrical and electronic components point source category
470 Nonferrous metals forming and metal powders point source category

As of the date of these Rules and Regulations of Sewer Use, the only Categorical Industrial User (CIU) of the Town of Dighton's sewerage system is the Dighton Power Associates combined cycle power generation facility, as defined by Category 422. This User is considered a CIU by the Taunton Wastewater Treatment Facility and is

permitted as such.

Section 5. Local Discharge Restrictions. In addition to the federal discharge standards identified in Sections 3 and 4 of this Article, no person shall discharge or cause to be discharged any of the following described waters or wastes to any public sewers:

A. Any gasoline, kerosene, benzene, toluene, xylene, ethers, alcohols, ketones, aldehydes, peroxides, methyl ethyl ketone, naphtha, lube oil, fuel oil, crude oil, or other flammable or explosive liquid, solid, or gas such that by reason of its nature or quantity is (or may be) sufficient, either alone or by interaction with other substances, to create a fire or explosion hazard or be otherwise destructive to the sewerage system or to receiving waters.

B. Any waters or wastes containing pollutants, toxic or poisonous solids, liquids, or gases in sufficient quantity, either singly or be interaction with other wastes, to injure or interfere with any public sewer or sewage treatment process, constitute a hazard to humans or animals, create a public nuisance, or create any hazard in the receiving waters of the sewage treatment plant, including but not limited to cyanides in excess of two (2) mg/L as CN in the wastes as discharged to the public sewer.

C. Any waters or wastes having a pH lower than 5.5 or greater than 9.5, or having any other corrosive property capable of causing damage or hazard to structures, equipment, and personnel of the sewage works.

D. Solid or viscous substances in quantities or of such size capable of causing obstruction to the flow in sewers, or other interference with the proper operation of the sewage works such as, but not limited to, ashes, cinders, sand, mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, underground garbage, whole blood, paunch manure, hair and fleshing, entrails and paper dishes, cups, milk containers, etc., either whole or ground by garbage grinders.

E. Any Local Discharge Restriction developed by the Taunton Wastewater Treatment Facility subsequent to the January 2007 Revision of these Sewer Use By-Laws is incorporated by reference.

Section 6. Other Types of Substances Prohibited. No person shall discharge or cause to be discharged the following described substances, materials, waters, or wastes if it appears likely in the opinion of the Superintendent that such wastes can harm either the sewers, sewage treatment process, or equipment, have an adverse effect on the receiving stream, or can otherwise endanger life, limb, public property, or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the Superintendent shall confer with the Taunton Wastewater Treatment Facility Project Manager and will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of the sewage treatment process, capacity of the sewage treatment plant, degree of treat ability of wastes in the sewage treatment plant and other pertinent factors. The substances prohibited are:

A. Any liquid or vapor having a temperature higher than one hundred fifty (150°) Fahrenheit (65° Celsius).

B. Any water or waste containing fats, wax. grease, or oils of vegetable or animal origin, whether emulsified or not, in excess of one hundred (100) mg/L or containing substances which may solidify or become viscous at temperatures between thirty-two (32°) and one hundred fifty (150°) Fahrenheit (0° and 65°Celsius). The use of chemical, biological or physical means to bypass or release fats, waxes, oils, or greases into the sewerage system is prohibited. Other requirements as defined in Article 3, Section 6 that apply to the use of

grease traps may also apply.

C. Any garbage that has not been properly shredded and is greater than 1/2 inch in any dimension or particles that will not be conveyed freely in the sewerage system. The installation and operation of any garbage grinder equipped with a motor of three-fourths (3/4) horsepower (0.76 hp metric) or greater shall be subject to the review and approval of the Superintendent.

D. Any waters or wastes containing strong acid, iron pickling wastes or concentrated plating solutions whether neutralized or not.

E. Any waters or wastes containing arsenic, iron, chromium, copper, zinc, and similar objectionable or toxic substances; or wastes exerting an excessive chlorine requirement, to such degree that any such material received in the composite sewage as the sewage treatment works exceeds the limits established by the Taunton Wastewater Treatment Facility for such materials.

F. Any waters or wastes containing phenols or other taste- or odor- producing substances in such concentrations exceeding limits which may be established by the Taunton Wastewater Treatment Facility as necessary after treatment of the composite sewage to meet the requirements of the State, Federal, or other public agencies or jurisdiction for such discharge to the receiving waters.

G. Any noxious or malodorous liquids, gases, or solids which either along or by interaction with other wastes, are capable of creating a public nuisance, or may prevent safe entry into sewers for purposes of inspection, maintenance, or repair.

H. Any radioactive wastes or isotopes of such half-life or concentration as may exceed limits established by the Taunton Wastewater Treatment Facility in compliance with applicable State or Federal regulations.

I. Materials which exert or cause:

(1) Concentrations of inert suspended solids (such as, but not limited to fullers earth, lime slurries and lime residues) containing greater than two hundred (200) parts per million of such solids or unusual concentrations of dissolved solids (such as, but not limited to, sodium chloride and sodium sulfate).

(2) Substances that cause excessive discoloration (such as, but not limited to, dye wastes and vegetable tanning solutions) or turbidity.

(3) A BOD greater than two hundred (200) parts per million, a chlorine demand greater than fifteen (15) parts per million, or an unusually high chemical oxygen demand in such quantities as to constitute a significant load on the sewage treatment works.

(4) Unusual volume of flow or concentration of wastes constituting "slugs" as defined herein.

J. Waters or wastes containing substances which are not amenable to treatment or reduction by the sewage treatment processes employed by the Taunton Wastewater Treatment Facility or are amenable to treatment only to such degree that the sewage treatment plant effluent cannot meet the requirements of other agencies having jurisdiction over discharge to the receiving waters.

K. Any wastewater containing pathogenic organisms in such quantities as determined by local, state, or federal law as hazardous to public health, environment, or workers in the Town of Dighton's sewerage system, the City of Taunton's sewerage system, or the Taunton Wastewater Treatment Facility. This shall include biological waste, biotechnology wastes, hospital wastes, medical wastes, and used or expired medical supplies.

L. Any additional substance(s) prohibited by the Taunton Wastewater Treatment Facility subsequent to these rules and regulations is incorporated by reference.

Section 7. If any waters or wastes are discharged, or are proposed to be discharged to the public sewers, which waters contain the substances or possess the characteristics enumerated in Sections 3 through 6 of this Article, and which in the judgment of the Superintendent, may have a deleterious effect upon the sewage works, processes, equipment, or receiving waters, or which otherwise create a hazard to life or constitute a public nuisance, the Superintendent may:

A. Reject the wastes,

B. Require pretreatment to an acceptable condition for discharge to the public sewers,

C. Require control over the quantities and rates of discharge, and/or

D. Require payment to cover the added cost of handling and treating the wastes not covered by existing taxes or sewer charges under the provisions of this article.

E. If the Superintendent permits the pretreatment or equalization of waste flows, the design and installation of the plants and equipment shall be subject to the review and approval of the Superintendent, and subject to the requirements of all applicable codes, by-law ordinances, and laws.

Section 8. Grease, oil, and sand interceptors and/or oil/water separators shall be provided when, in the opinion of the Superintendent, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts, or any flammable wastes, sand, or other harmful ingredients; except that such interceptors shall not be required for private living quarters or dwelling units.

A. Deep seal traps will not be allowed.

B. All interceptors shall be of a type, capacity, design, and contruction approved by the Superintendent and shall be located as to be readily and easily accessible for cleaning, maintenance and inspection. Installation shall be consistent with the requirements of the Uniform State Plumbing Code, the Massachusetts Environmental Code (Title 5) and shall be provided at the expense of the owner and user. The owner and the user shall be jointly responsible for properly servicing, maintaining, and cleaning the interceptor.

C. The Town of Dighton may require use of a grease traps or interceptors for restaurants, institutional food service establishments, commercial establishments, food processors, hospitals, hotels, nursing homes, churches, schools, apartment buildings, and any other users deemed appropriate.

D. Users that require a interceptor shall provide design, construction, and inspection information related to the units selected and installed. The Town shall provide users with management, operation, and maintenance standards as well as record keeping and reporting requirements that are appropriate for their particular use. The user may be required to provide evidence of regular cleaning and maintenance, including documentation of proper cleanout and disposal of grease.

E. Chemical, biological or physical means shall not be used to release fats, wax, oil or grease into the sewer, bypass the interceptor, or otherwise make the interceptor operate less efficiently.

F. When oil/water separators are required, the Town shall provide the user with management, operation, and maintenance standards as well as record keeping and reporting requirements. The user may be required to provide evidence of regular cleaning and maintenance, including documentation of proper cleanout and disposal of oil.

Section 9. Where preliminary treatment or flow-equalizing facilities are provided for any waters or wastes, they shall be maintained continuously in satisfactory and effective operation by the owner at his expense.

Section 10. The owner of any property serviced by a building sewer carrying industrial wastes or wastes from an industrial complex shall install a suitable control manhole together with such necessary meters, and other appurtenances in the building sewer to facilitate observation, sampling, and measurement of the wastes. Such manhole, shall be accessible and safely located, and shall be constructed in accordance with plans approved by the Superintendent. The manhole shall be installed by the owner at his expense, and shall be maintained by him so as to be safe and accessible at all times.

Section 11. All measurements, tests, and analyses of the characteristics of waters and wastes to which reference is made in these rules and regulations shall be determined in accordance with the latest edition of "Standard Methods for the Examination of Water and Wastewater", published by the American Public Health Association, and shall be determined at the control manhole provided, or upon suitable samples taken at said control manhole. In the event that no special manhole has been constructed, the control manhole shall be considered to be the nearest downstream manhole in the public sewer to the point at which the building sewer is connected. Sampling shall be carried out by customarily accepted methods to reflect the effect of constituents upon the sewage works and to determine, the existence of hazards to life, limb, and property. The particular analyses involved will determine whether a twenty-four (24) hour composite of all outfalls of a premise is appropriate or whether a grab sample or samples should be taken. Normally, but not always, BOD and suspended solids analyses are obtained from 24-hour composites of all outfalls whereas pHs are determined from periodic grab samples. All industries discharging into a public sewer shall perform such monitoring of their discharges as The Board of Sewer Commissioners and/or other duly authorized employees of the Town may reasonably require, including installation, use, and maintenance of monitoring equipment, keeping records and reporting the results of such monitoring to the Board of Sewer Commissioners. Such records shall be made available upon request by the Board of Sewer Commissioners to other Agencies having jurisdiction over discharges to the receiving waters.

Section 12. The Superintendent may at any time, at his discretion, order the cessation of the discharge into the public sewer of any substance liable to interfere with the normal operation of the public sewer or of the sewage works or sewage treatment plant and, should the Superintendent find it necessary he may at any time, in his discretion, without further notice and without recourse, sever the connection causing the removal of any tributary private or building sewer or drain through which such detrimental substances are discharged.

Section13. The owner of all houses, building, outbuildings or properties used for human occupancy, employment, recreation, or other purposes situated within the Town of Dighton and abutting on any street, alley, or right-of-way in which there is now located a public sanitary sewer of the Town and where said property is within the original mandated environmentally sensitive area of North Dighton as set forth in the order of the Suffolk Superior Court (Case #12804 McMahon v. Town of Dighton) is hereby required at his expense to install suitable toilet facilities therein, and connect such facilities directly with the proper public sewer in accordance

with the provisions of these rules and regulations, within thirty (30) days after the date of official notice to do so, except when said public sewer is greater than 200 feet from the property line and a subsurface sewage disposal facility is approved by the Superintendent, the Board of Sewer Commissioners, and the Board of Health for such property.

Section 14. The owner of all houses, building, outbuildings or properties used for human occupancy, employment, recreation, or other purposes situated within the Town of Dighton and abutting on any street, alley, or right-of-way in which there is now located or may in the future be located a public sanitary sewer of the Town, other than the original mandated area as set forth in Section 11 above, is hereby required at his expense to install suitable toilette facilities therein, and to connect such facilities directly with the proper public sewer in accordance with the provisions of these rules and regulations within thirty (30) days after the date of official notice to do so only if required by the Board of Health for sanitary reasons or if the said owner of the property shall request to connect said facilities to the public sewer. Mandatory connection to the public sewer is not required under this paragraph unless mandated for sanitary reasons by the Board of Health.

Section15. It shall be unlawful to discharge to any natural outlet within the Town of Dighton, or in any area under the jurisdiction of said Town, any sanitary sewage, industrial waste, or other polluted waters, except where previously approved suitable treatment has been provided in accordance with subsequent provisions of these rules and regulations or by a permit from Federal and State regulating agencies.

Section 16. Swimming pool water shall not be discharged to the sewerage system unless there is no other reasonable alternative. A permit for discharging the water from a swimming pool to the public sewer shall be obtained from the Superintendent before such discharge shall be made. Permit will designate the time and rate of flow permitted. The Superintendent shall have the right to enter upon the premises, designated on the permit, to inspect the project prior to and during the operation. If an owner fails to obtain such a permit or disregards instruction whether accidental or intentional the owner will be held responsible for any damage that may be caused from such discharge subject to the penalties contained in these rules and regulations.

Section 17. No statement contained in this article shall be construed as preventing any special agreement or arrangements between the Town and any industrial concern whereby an industrial waste of unusual strength or character may be accepted by the Town for treatment, subject to payment therefore, by the industrial concern.

Section 18. Dilution. Except where expressly authorized to do so, no user shall increase the use of process water or in any other way attempt to dilute a discharge as a partial or complete substitute for adequate treatment to achieve compliance.

ARTICLE IV

PROTECTION FROM DAMAGE

Section 1. No unauthorized person shall maliciously, willfully, or negligently break, damage, destroy, uncover, deface, or tamper with any structure, appurtenance, or equipment which is a part of the sewage works. Any person violating this provision shall be subject to immediate arrest under the charge of disorderly conduct, and shall be held financially responsible for said damages.

ARTICLE V

POWERS AND AUTHORITY OF INSPECTORS

Section 1. The Superintendent and other duly authorized employees of the Town of Dighton or City of Taunton bearing proper credentials and identification shall be permitted to enter all properties for the purpose of inspection, observation, measurement, sampling, and testing in accordance with the provisions of these rules and regulations. This shall include the right to inspect building drains, building sewers, private sewers, grease traps or interceptors, oil/water separators, or other facilities tributary to the Town's sewerage system. This inspection may occur at any reasonable time. The Superintendent or his representatives shall have no authority to inquire into any processes including metallurgical, chemical, oil, refining, ceramic, paper, or other industries beyond that point having a direct bearing on the kind and source of discharge to the sewers or waterways or facilities for waste treatment.

Section 2. While performing the necessary work on private properties referred to in Article V, Section 1 above, the Superintendent or duly authorized employees of the Town shall observe all safety rules applicable to the premises established by the company and the company shall be held blameless for injury or death to the Town employees and the Town shall indemnify the company against loss or damage to its property by Town employees and against liability claims and demands for personal injury or property damage asserted against the company and growing out of the gauging and sampling operation, except as such may be caused by negligence or failure of the company to maintain safe conditions as required in Article III, Section 10.

Section 3. The Superintendent and other duly authorized employees of the Town bearing proper credentials and identification shall be permitted to enter all private properties through which the Town holds a duly negotiated easement for the purposes of, but not limited to, inspection, observation, measurement, sampling, repair, and maintenance of any portion of the sewerage works lying within said easement. All entry and subsequent work, if any, on said easement, shall be done in full accordance with the terms of the duly negotiated easement pertaining to the private property involved.

Section 4. No device, equipment, or pipe shall be covered over until approval has been given by the Town's inspector.

ARTICLE VI

SCHEDULE OF FEES AND PENALTIES

Section 1. Per the sewer bylaw, the following fee schedule has been established by the Board of Sewer Commissioners as of the date of these rules and regulations.

Fee Schedule

Sewer Connection Fees	
Residential	Existing Home: $1,500.00 per residential unit
Commercial/ Industrial	$2,500.00
Application for Sewer Plan Review New Development	$75.00
Expenses (Engineering Reviews, mailings and all miscellaneous expenses)	Actual Cost Applicant will set up a 53G account with the Town of Dighton prior to review
Pumping Station – turned over to the Town for operation as listed HP = Horse Power ***Not limited to new construction	Up to 5 HP -- $85,000.00 10 HP -- $95,000.00 15 HP -- $105,000.00 20 HP -- $115,000.00 Other HP – Varies (to be determined)
Subdivision Project Connection Fees	
Single-Family Residence	$1,500.00 per living unit
Multiple-Family Residence	$1,500.00 per living unit
Pumping Stations	$85,000.00 per pumping station
Construction Oversight	Actual Cost
Inflow & Infiltration Fee	$550.00 per bedroom
Subdivision Development Charges.	8 inch line -- $50,000.00 10 inch line -- $70,000.00 12 inch line -- $90,000.00 Other size lines – varies (TBD)
User Charges	
Single-Family Dwelling	To be set per billing period
Commercial/Industrial	To be set per billing period
Other Fees	

Drain Layer's Permit	$25.00 Renewal $150.00 New (after 2 year lapse)
Residential Inspection Fee	$125.00
Commercial/Industrial Inspection Fee	$350.00
Construction Inspection	Actual Cost

Section 2. After a reasonable time limit for correction, any person found to be violating the Town's sewer bylaw and/or these rules and regulations shall be subject to penalties and fines. A sample of penalties for several categories of violations is included below. This table does not represent all potential violations. The Board reserves the right to deliberate on each violation separately and determine an appropriate penalty for each offense.

Level of Violation	**Example(s) of Violation**	**Fine or Penalty**	**Type of Fine or Penalty**
Level A	• Failure to install a backflow prevention device on a new connection. • Failure to install an inspection tee and riser and/or a cleanout for a connection.	$100 to $500	One-time
Level B	• Failure to construct, maintain, or operate a private sewer to the satisfaction of the Board. • Failure to secure permit and approval for construction of individual new building sewer. • Failure to notify Board of a changed discharge.	$500 to $1,000	One-time
Level C	• Discharging without a valid permit. • Failure to secure permit and approval for construction of sewer extension or connection to existing sewer. • Failure to maintain a grease interceptor or oil/water separator consistent with terms of permit.	$1,000 to $5,000	One-time (in addition to any penalty from the Taunton Wastewater Treatment Facility).
Level D	• Discharge of Prohibited Substance(s) to the sewerage system. • Dilution of a Prohibited Substance(s) and subsequent release to sewerage system. • Malicious, willful, or negligent destruction or damage of any part of the Town's sewerage system or equipment associated with the system.	Greater than $5,000	One-time (in addition to any penalty from the Taunton Wastewater Treatment Facility).
Level E	• Failure to provide grease interceptor or oil/water separator documentation when ordered to do so by the Board.	$100 to $500	For each day and for each violation is not corrected

	• Failure to correct private drain or sewer line connected directly to a catch basin or storm water sewer when ordered to do so by the Board. • Failure to correct conditions(s) causing violation of discharge when ordered to do so by the Board.		
Level F	• Failure to repair, modify, or replace an existing building sewer when ordered to do so by the Board. • Failure to correct non-conforming construction conditions when ordered to do so by the Board. • Failure to eliminate discharge of Prohibited Substance(s) from sewerage system when ordered to do so by the Board.	$500 to $1,000	For each day and for each violation is not corrected
Level G	• Civil Action required by Town of Dighton • Criminal Action required by Town of Dighton	Equal to actual cost incurred by the Town of Dighton, including staff, legal counsel, laboratory fees, equipment, contractors, and consultants.	

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Large Project Supplement: Rules and Regulations of Sewer Use

Definition of a "large project"

1. Gravity pipe size diameter greater than 8-inches and force main diameter greater than 1-1/4"
2. Installation depth is generally greater than 6-feet
3. Project includes manholes
4. Project may include a pumping station

Table of Contents

1. Permits and Notifications

1.1 Drain Layer's Permit

Any Contractor intending to install a sewer system or sewer service connection that meets any definition included in this Technical package shall secure a Drain Layer's Permit as defined in Article II, Section 4 of the Town of Dighton's "Rules and Regulations of Sewer Use" Fees, warranties, and submittals required by the Town of Dighton are also defined in these rules and regulations.

1.2 Insurance Requirements

Any Drain Layer or contractor shall possess the required minimum public liability and property damage insurance, and underground coverage insurance in the amounts of $100,000.00 and $300,000.00 each, respectively.

1.3 Notifications

The Drain Layer shall notify the Town of Dighton Highway Department Superintendent, DIGSAFE (1-888-344-7233), the Town of Dighton Fire Department, the Town of Dighton Water District Superintendent, and any other appropriate or impacted parties prior to initiating any excavation.

The applicant for the building sewer permit shall notify the Superintendent, in writing, when the building sewer is ready for inspection and connection to the public sewer. The Superintendent shall be notified not less than forty-eight (48) hours in advance of the time any connection is to be made to any public sewer. These notifications shall be made consistent with the conditions in Article II, Section 17 of the Town of Dighton's "Rules and Regulation of Sewer Use".

When it is necessary to make sewer connections in State highways, the applicant shall obtain the necessary permits from the Massachusetts Department of Public Works, prior to the issuance of a sewer connection permit. All work shall then be done in accordance with the requirements set forth in the permit issued by the Massachusetts Department of Public Works.

When ledge is encountered in the excavation, a permit must be obtained from the Town of Dighton Fire Chief for the use of explosives. All blasting shall be done in accordance with the requirements as imposed by the Fire Chief. All blasting must be performed by a person licensed by the Massachusetts Department of Public Safety for this purpose.

1.4 Supplemental Requirements

Based on the type and scale of the project being proposed and submitted for review, the Town of Dighton Board of Sewer Commissioners may develop additional technical requirements that shall be satisfied.

All work within 10 feet of the building foundation must conform to the Massachusetts Uniform Plumbing Code and will require a separate plumbing permit.

In general, the size, slope, alignment, materials of construction of a building sewer, and the methods to be used in excavating, placing of the pipe, jointing testing, backfilling the trench, and connecting to the public sewer shall all conform to the requirements of the building and plumbing code or other applicable rules and regulations of the Town. In the absence of Code provisions or in amplification thereof the materials and procedures set forth in appropriate specifications of the American Society for Testing and Materials (ASTM), the WEF Manual of Practice No. 9 (Design and Construction of Sanitary and Storm Sewers), New England Interstate Water Pollution Control Commission (NEIWPCC) TR-16 (Guide for the Design of Wastewater Treatment Works), Title 5 of the Massachusetts State Environmental Code, the Uniform State Plumbing Code, and any and all applicable design or guidance documents.

2. Plan Approval

The Town of Dighton has a project review process in place that establishes a basic framework for the administration of sewerage development project proposals by private developers and property owners in the Town of Dighton, provides for the conceptual and technical reviews of such proposals, and establishes a system for fee assessments at key points of project planning and development.

The key steps in this process are:

1) Pre-Application (including review of Preliminary Plans);
2) Project Design;
3) Application for Proposed Sewer Plan Approval; and
4) Application for Sewerage Facility Construction.

Each of the four steps in the review process is defined in the "Requirements" Chapter of the Town of Dighton's by-law, along with the required elements to be included in Preliminary Plans and in Applications for Approval.

3. Acceptable Equipment and Materials

3.1 Pipe

For gravity sewers, pipe material may be polyvinyl chloride (PVC) or ductile iron. Minimum requirements for each are included below. Alternate materials will be considered on a case-by-case basis by the Town of Dighton.

PVC pipe shall conform to ASTM D3034 and have an SDR of 35. Joints for PVC pipe shall be push-on joints using permanently bonded elastomeric ring joints. Such joints shall be installed in accordance with the pipe manufacturer's written instructions.

Ductile Iron pipe shall be Thickness Class 52, centrifugally cast and conform to ANSI A21.51 and ANSI A21.50. All pipe shall be made of ductile iron equal to grade 60-42-10. The pipe shall be in nominal laying lengths of 18-20 feet. Joints shall be mechanical or "push-on" type with rubber gaskets and shall conform to ANSI A21.11. Fittings shall be ductile iron with mechanical joints conforming to all requirements on ANSI 21.10. The pipe shall be coated on the outside and inside in accordance with the requirements of ANSI A21.51. As an alternative, with no additional cost to the Owner, the pipe may be cement lined to twice the thickness specified in ANSI A25.51 and ANSI 21.4 and shall be asphalt seal coated twice.

All building sewers, ties, and fittings shall be constructed utilizing PVC SDR-35 material and be installed in a watertight manner.

Buried Polyvinyl Chloride Pressure Sewer Pipe, couplings and fittings shall conform to ASTM 2241, with an SDR of 21. Joints for PVC pipe shall be push-on joints using permanently bonded elastomeric ring joints conforming to ASTM F477. Such joints shall be installed in accordance with the pipe manufacturer's written instructions. Pipe utilized for service connections shall be manufactured of PVC. Service pipe shall conform to ASTM 2241, with an SDR of 21. Joints for PVC pipe shall be push-on joints using permanently bonded elastomeric ring gaskets. As an option, SDR11 HDPE I.P.S. butt-fused pipe or SDR 7 HDPE I.P.S. pipe with compression fittings and insert stiffeners may be substituted for the SDR 21 PVC gasketed pipe for pressure main and services. All couplings, fittings, adapters, valves, reducers, wyes and tees shall be compatible with the type of pipe used. HDPE pipe shall be pressure rated for 200 psi and shall conform to ASTM D1248, ASTM D3350, ASTM D2239, and NSF-14. Compression fitting shall be brass.

3.2 Fittings

Wye branches or tees shall be of the same material and of the class and type so as to be compatible with the pipe with which they are used.

Mechanical couplings with stainless steel clamps shall be used for couplings to the public sewer from the building.

3.3 *Grinder Pumps*

For individual pumping situations, the Board of Sewer Commissioners encourages the use of self contained grinder pumps, 2000 series, as manufactured by E|One. Solids are ground into fine particles that pass easily through the pump, check valve and small-diameter pipe lines, including plastic, rubber, fiber, wood, etc. Each pump shall be of a semi-positive displacement type such that the output capacity is essentially independent of the discharge pressure. The pump shall be designed to deliver 11 GPM at a total dynamic head of 92 feet (40 psig) and 9 GPM at 138 feet (60 psig) of total dynamic head. At zero head the pump output shall not be more than 15 GPM. The pump shall be capable of intermittent operation (three minute minimum) at any head. The pump speed shall be 1,725 RPM. Power requirements shall be 1 horsepower maximum, 230 V, Single Phase, 60 Hertz.

4. Pipe Sizing

Gravity sewer pipe shall be a minimum of eight (8) inches in diameter. Pipe shall be selected to minimize settling of solids within the pipe. The Town of Dighton will not approve using larger-diameter pipe than required in order to justify pipe installation with less slope.

Service connection pipe shall be a minimum of six (6) inches in diameter for single family dwelling and such larger size for multiple family dwelling or other type of building as the Superintendent or his agent may determine. Pipes and fittings less than six (6) inches in diameter shall be allowed only under special conditions approved by the Superintendent and Board of Sewer commissioners.

5. Slope and Installation

5.1 Pipe

All gravity sewers should be designed to produce a wastewater velocity of at least 2.0 feet per second based on Manning's equation, using an 'n' value appropriate for the pipe material proposed.

All pipe shall be installed with uniform slope between manholes. Pipe alignment shall be checked both visually (manhole to manhole) and with a laser beam.

Pipe installed on grades exceeding 15% shall be anchored to prevent displacement. When pipe is installed in within areas impacted by high groundwater tables, impervious dams shall be built every 300 feet within the trench.

When different pipe diameters are joined, the invert of the larger diameter pipe shall be lowered by placing the 0.8 depth point of both sewers at the same elevation. This will encourage continuous flow without turbulence within the pipe.

Service connections in excess of one hundred (100) feet in length shall be subject to review and such other requirements as may be found necessary to assure a "functional connection" by the Superintendent/Board of Sewer Commissioners.

All pipes and fittings shall be laid in an envelope of 3/8-inch crushed stone or sand with not less than six (6) inches surrounding the pipe. No wooden blocks, bricks, stones or other unsuitable material shall be allowed directly under or above the pipe.

5.2 Service Connections

Service connections shall be installed with a minimum slope shall be 1.67 feet per 100 feet unless otherwise directed by the Town of Dighton. The extreme end of the service connection shall be capped unless it is to be connected to an existing service. Connections made to the building drain shall be upstream of any septic tank or cesspool, and done only under the supervision, inspection, and approval of the Town of Dighton Plumbing Inspector.

A service connection shall not have more than two (2) angle points, or a total angular deviation of one hundred and eighty (180) degrees. Cleanouts shall be installed within six (6) feet prior to the second deflection point and at every 100 feet of developed length, unless determined by the Board of Sewer Commissioners that a manhole is required.

An inspection tee and riser and/or cleanout, constructed of PVC, with lockable metal cover shall be required for each public sewer connection (refer to the attached figure for

details) and shall be installed near the building's sewer at the property line for access and inspection by the Town of Dighton. When new building construction is set back from the property line, the owner shall install an inspection tee and riser and/or cleanout on the service connection at the property line for access and inspection by the Town of Dighton.

In new construction, and where practicable in existing buildings, when the public sewer is sufficiently deep, the building sewer shall be laid directly without deflection, from the building plumbing vent stack to the connection provided at the public sewer.

Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor. In all buildings in which any building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drain shall be lifted by means approved by the Superintendent and discharged to the building sewer.

6. Chimneys

Chimneys (vertical pipe encased in concrete) shall be installed when the vertical distance between the sewer main and the service connection is at least three (3) feet, or when the sewer main is twelve (12) or more feet below grade. When required, the concrete utilized for the encasement of chimneys shall have a minimum compressive strength of 3,000 psi. Ends of the wye branch shall be capped with standard caps.

Connection of services to public sewers shall be made only with a "wye" branch or "chimney"; direct stub-ins through the wall of the sewer pipe shall not be permitted. Whenever possible, the service connection shall be made at the top of the sewer pipe with a smooth bend in the service pipe not exceeding forty-five (45) degrees (to prevent clogging).

7. Adjacent Utilities

7.1 Horizontal Separation

Gravity sewers shall be placed at least ten (10) feet, horizontally, from any existing or proposed water main, unless otherwise approved by the Town of Dighton. Other utilities shall be treated in a similar fashion, when possible. Whenever sewer lines are required to be within five (5) feet of water lines, the sewer lines must be constructed of durable corrosion resistant materials with water-tight joints, preferably below the water lines, and encased in concrete.

The minimum distance of a service connection from a water line shall be 10 feet and from a water supply well shall be 50 feet.

7.2 Vertical Separation

Sewers shall be placed below water mains whenever possible. When this is not possible, gravity sewers shall be placed with at least twelve (12) inches between the top of sewer and the bottom of the water main, unless otherwise approved by the Town of Dighton, with a sand "cushion" between the pipes. Exceptions to this shall include additional protection provided by flowable fill or other encasement. If sewer pipe will be placed over a water main, one full-length section of sewer pipe shall be centered do that joints will be as far from the water main as possible.

8. Backflow Prevention Device

At the Town's discretion, all existing or new building drains from plumbing fixtures subject to backflow from the Town's sewerage system or a private sewer shall be required to have a backflow prevention device installed at the owner's expense. Any plumbing fixture located at an elevation below the top of a manhole located in the Town's sewerage system shall be considered to be subject to backflow conditions. Backflow prevention devices shall be installed in compliance with the Uniform State Plumbing Code, and Section 248 of the Code of Massachusetts Regulations (248 CMR).

9. Installation Depth

All sewers, fittings, and service connections shall have a minimum of five (5) feet of cover to top of pipe. When this is not possible, pipe and fittings shall be insulated and jacketed. Pump stations shall be installed at a depth that is appropriate for the type proposed for the installation.

9.1 Insulation and Jacketing

Pipes requiring insulation shall be insulated by the void-free rigid polyurethane foam, factory applied, with an outer polyethylene jacket, UV inhibited. The minimum thickness of the insulation shall be 50 mm (2 inches); the minimum thickness of the jacket shall be 1.27 mm (50 mils).

Polymer coated, form fitting insulation kits shall be used to insulate elbows, tees and other fittings, according to the manufacturer's recommendations.

9.2 Buoyancy

If the pipes or pump stations are to be installed in areas prone to high groundwater conditions, buoyancy of the pipe and pump stations must be taken into consideration.

10. Septic Tank Decommissioning

Upon connection of the building sewer to the public sewer, existing septic tanks and cesspools shall be pumped and completely filled with suitable material under the supervision and inspection of the Town of Dighton Health Department or shall be removed. Under no circumstances shall septic or cesspool wastes be discharged to a public sewer. Verification of septic tank and cesspool abandonment shall be submitted in writing by the licensed drain layer or contractor to the Board of Sewer Commissioners.

All septic systems must be abandoned in accordance with 310 CMR 15.354 (Abandonment of Systems). This means that before a septic tank or cesspool that contains sewage is disconnected, the entire contents of the tank or cesspool must be pumped by a licensed septage hauler. All components that hold water (i.e., septic tank, pump chambers) must be broken in place or removed so that liquid can not collect in the future. All empty voids in the system (including the tank hole) must be filled with clean sand.

Leaching beds and leaching trenches are unlikely to collapse and may be left in place.

Sewage-contaminated soil around septic components is not required to be removed in order for the septic system to be abandoned unless a new sewer pipe or service connection is to be installed in or near that soil.

11. Service Tie Records

For PVC pipes, a magnetic marking tape shall be installed on the top of the pipe to facilitate locating it in the future.

The drain layer or contractor is required to submit an “as-built” plan within 30 days of job completion or within 10 days of completion of final inspection and testing of the sewer in a development, the owner thereof shall file with the Board "as built" plans which are acceptable to the Board's engineer on reproducible paper which shall be 24 inches by 36 inches in size. These as-built plans shall be certified by the installing contractor's engineer, licensed to practice in the Commonwealth of Massachusetts. The Drain Layer or contractor shall submit the “as built drawings electronically and shall also provide a scaled electronic layer in a format acceptable to the Board for use in updating the Town of Dighton’s sewer system map. In addition, the submittal shall include all testing results.

Manhole tie records shall be tied into a minimum of three points including, if possible, the permanent corners of a nearby building and/or permanent utility poles. These tie records shall be made part of the Project Record Documents.

For service connections, a steel marker shall be installed at the end and tied into a minimum of three points including, if possible, the permanent corners of the building which is to be served. The depth of cover from the ground surface to the top of the pipe at the cap shall be recorded. The depth and tie information shall be made part of the Project Record Documents. The depth of cover from the road surface to the top of the branch and the distance from the downstream manhole shall also be recorded. No wyes and tees shall be backfilled before the location measurements are taken.

12. Bypass Pumping

12.1 Discharge to Ground

Discharge of wastewater to the ground shall not be permitted under any circumstances. When extending or replacing existing sewer pipe, the Drain Layer shall provide storage of wastewater within existing infrastructure or utilize bypass pumping to convey flows to another point within the collection system.

12.2 Control of Water

The Drain Layer shall evaluate the impact of the anticipated subsurface soil and groundwater conditions on proposed method(s) of excavation, dewatering and other operations. If subsurface conditions so dictate, provide wells, wellpoints, pumps, or any other facilities to control groundwater and surface water in order to permit Work to be performed under dry and stable conditions. Provide any facilities required to remove subsurface water from a construction area in advance of excavation. Dewatering shall continue until all Work below groundwater level has been completed or otherwise stabilized against uplift or other disturbance. Pumping shall be continuous where required to protect the Work and to maintain satisfactory progress. All dewatering wells shall be backfilled upon completion of the Work in a manner approved by the Town of Dighton Superintendent (or his designated representative).

The Drain Layer shall control all surface water within each Work area. Excavations shall be protected from flooding by surface water by use of berms, ditches or other appropriate means.

The Drain Layer shall pay special attention to areas where difficult soil and groundwater conditions are anticipated and evaluate the subsurface conditions in these areas from the geotechnical data provided in the Contract Document or by other means. Dewater in a manner that does not cause loss of ground or disturbance to the bearing soil or soil supporting adjacent structures.

All pipeline(s) and structures not stable against uplift during construction or prior to completion of installation shall be thoroughly braced or otherwise protected.

13. Alternative Pipe Installation Methods

13.1 Directional Drill

The Town of Dighton will consider use of directional drilling in projects that would severely interrupt traffic, occur in State Roadways with current pavement moratoriums, or otherwise require such excavation to be cost-prohibitive.

Pipe used in directional drill shall be high-density smooth wall polyethylene pipe and meet the applicable requirements of ASTM F714 based on outside diameter or AWWA C906, ASTM D1248 and ASTM D3350. Only pipe made of virgin materials shall be installed. The new pipe shall be homogeneous throughout and shall be free of visible, cracks, holes, foreign material, blisters, or other deleterious faults. All pipe and fittings shall be at least DR-11, and meet the requirements of AWWA C906, PPI PE 3408, and ASTM D3350 cell classification 345444C, and shall be so marked. The same manufacturer shall supply both pipe and fittings. All pipe shall receive an abrasion resistant coating, as required based on boring length and soil characteristics.

The Contractor shall haul, heat fuse joints, and hydrostatically test the pipeline in one section. The limit for the minimum bending radius of the installed pipe line shall be no less than 25 times the outside diameter of the HDPE pipe. Joints shall be butt-fusion joints made in accordance with ASTM D2657.

HDPE pipe installed in this manner shall satisfy the same requirements for alignment and deflection as specified for gravity sewer and force mains.

14. Alternative Collection Systems

14.1 Force Mains

Force main pipe materials may be polyvinyl chloride (PVC) or ductile iron.

PVC force main pipe, couplings and fittings shall conform to ASTM 2241, with an SDR of 21 unless otherwise specified. Joints for PVC pipe shall be push-on joints using permanently bonded elastomeric ring joints conforming to ASTM F477. Such joints shall be installed in accordance with the pipe manufacturer's written instructions. Any joint which is not properly made, shows signs of leakage or is in the opinion of the Town of Dighton Superintendent (or his designated representative) is defective in any way shall be redone. PVC force mains shall be permanently identified with 3-inch wide silver metal detectable tape. The tape shall meet APWA requirements and use brown colored stripes with black print indicating “CAUTION BURIED FORCE MAIN BELOW”.

Ductile iron force main pipe shall be of a thickness class of 52 unless otherwise required and approved by the Town of Dighton. All ductile iron pipe shall be centrifugally cast and conform to ANSI A21.51 and ANSI A21.50. All pipe shall be made of ductile iron equal to grade 60-42-10. The pipe shall be in nominal laying lengths of 18 to 20 feet. Joints shall be mechanical or "push-on" type with rubber gaskets and shall conform to ANSI A21.11. Fittings shall be cast-iron with mechanical joints conforming to all requirements of ANSI A21.10. The pipe shall be coated on the outside and inside in accordance with the requirements of ANSI A21.51. As an alternative, with no additional cost to the Town of Dighton, the pipe may be cement lined to twice the thickness specified in ANSI A26.51 and ANSI 21.4 and shall be asphalt seal coated twice.

Concrete utilized for thrust blocks shall have a minimum compressive strength of 3,000 psi and conform to the specifications in SECTION 03310, CAST-IN-PLACE CONCRETE. Concrete thrust blocks shall be placed at all force main bends 11-1/4 degrees and greater, or otherwise required by the Town of Dighton.

14.2 Pumping Stations

Pumping stations will be evaluated on a case-by-case basis by the Town of Dighton.

14.3 Low-Pressure Sewer Systems

Low-pressure sewer systems will be considered on a case-by-case basis by the Town of Dighton. These systems shall not be submitted based only on an economic basis; the developer must clearly demonstrate that traditional gravity systems or force mains are not feasible.

For low pressure sewer systems proposed for new developments or for any proposal to the Board involving low pressure sewers, grinder pumps are required. For reasons of system and equipment compatibility, the Board strongly encourages the use of Series 2000 grinder pumps as manufactured by E|One (See Section 3, Acceptable Equipment and Materials). Alternative manufacturers may be proposed; however, experience, equipment longevity and reliability are of paramount importance. The Board reserves the

right to reject alternatives to the E|One system on the basis of inexperience, unreliability or incompatibility.

15. Trench Construction

Excavations in streets or rights-of-ways, protection, traffic control, backfilling and pavement replacement shall meet the standards and requirements of the Town of Dighton Police Chief and Highway Department for local streets and the State of Massachusetts Department of Public Works for State roads.

Trenches shall be excavated from the end of the existing public sewer to its point of connection to the building drain and the pipe line before backfilling any trench beyond the washed gravel envelope surrounding the pipe. All excavations for building sewer installation shall be adequately guarded with barricades and lights to protect the public from hazard. Methods for preventing trench excavation hazards, such as bracing, shoring, and trench boxes, shall be installed to protect the public from hazard.

Trenches shall be backfilled from the washed gravel envelope to within fourteen (14) inches of the road surface with selected materials from the excavation. Gravel borrow shall then be placed flush with the existing surface and the entire trench, within the right-of-way and shall then be compacted by puddling with jet pipes at least five (5) feet in length or by mechanical compaction equipment. Settled portions shall be filled with additional gravel borrow as required to accommodate the temporary bituminous patch, if required.

Power shovels, bull-dozers, loaders, trucks, and other equipment shall not be operated on or across sidewalks, beams, curbings, etc. until they have been properly protected from damage by planking or other approved means. All damage resulting from the licensed drain layer's or contractor's operation shall be repaired by him at no cost to the Town. All repairs to municipal structures shall be accomplished by the licensed drain layer or contractor under the supervision of the Town of Dighton Highway Department. The cost of this supervision shall be borne by the drain layer or contractor on an hourly basis. Time and one-half will be charged for overtime. Any material furnished by the Town of Dighton shall be replaced in kind.

15.1 Trench Size

Trench excavation shall consist of the removal of all materials encountered. Excavations shall be made to accommodate the elevation, depth of cover, or detail shown as required. Trench widths shall be kept to the minimum practicable but shall be at least 3 feet wide or 2 feet plus the diameter of the pipe, whichever is greater. The bottom of all trenches shall be firm and free of water and shall be accurately graded and shaped to allow placement of required bedding beneath the bottom of all barrels, bells or couplings of all pipes installed.

Design criteria requires that pipe be laid in trench conditions, therefore trenches for utilities in fill areas shall be excavated after all fill materials have been placed, spread and compacted to an elevation at least 12 inches above the top of the proposed utility. This requirement is necessary to fulfill design criteria and should not be construed as a dictation of means and methods of construction.

15.2 *Bedding Materials*

Pipe and/or structures shall be placed on specified bedding materials, to provide uniform support and a stable foundation for the pipeline(s) or structure(s) and backfill material. No bedding shall be placed on unstable subgrade soils. An unstable subgrade is defined as a condition of running sand, running silt, quick bottom, or otherwise soft, soupy or spongy bottom. If an unstable condition exists, or develops during the excavation, excavate, dewater and stabilize the subgrade to the extent necessary to provide a firm stable foundation prior to placing bedding, pipe and/or structures. Where the bottom of trench is stable and the existing material at trench grade meets the requirements for gravel fill, excavation to six (6) inches below the pipeline for placement of bedding material will not be required. Gravel fill or crushed stone bedding material shall be placed and compacted to the mid-diameter of the pipe as specified.

When the subgrade material does not meet the specification for Gravel Fill, the excavation shall be made to a depth of 6 inches below the bottom of pipe for placement of bedding material. Where the bottom of the trench excavation is below the groundwater level and pumping of water is done from within the excavation, utilize a bedding system which provides a stable working surface which limits the disturbance of the subgrade and prevents migration or washing of fine soils from the subgrade due to the flow of water into the trench. If the subgrade is stable and meets the requirements of gravel fill (specified below), excavation for six (6) inches of bedding material is not required. If crushed stone is used as bedding material, a 12-inch wide impermeable clay cutoff barrier ("Control Dam") shall be constructed across the trench from the bottom of the excavation to the mid-diameter of the pipe every 300 feet to prevent groundwater from flowing unimpeded along the pipe trench, through the crushed stone. No more than six (6) inches of crushed stone bedding shall be placed beneath the bottom of any pipe and/or structure.

Gravel fill shall consist of hard, durable gravel and sand, free from trash, organic matter and clay, surface coatings, and other deleterious materials. Select fill shall consist of hard durable sand or sand and gravel, free from trash, organic matter, clay, surface coatings and other deleterious materials. Crushed stone shall consist of clean, crushed, non-porous rock, or crushed gravel, uniformly blended.

Gravel fill shall have a maximum stone size of two thirds of the loose lift thickness or 8 inches whichever is smaller. Gravel fill used for pipe bedding shall have a maximum stone size of 2 inches. That portion passing 4 inch sieve shall meet the following gradation requirements, as determined by ASTM C136 and ASTM C117:

U.S. Sieve Size	Percent Passing
4 inch	100
1/2 inch	50-85
No. 4	40-75
No. 50	8-28
No. 200	0-10

Select fill placed between the mid-height of a pipe and 12 inches above a pipe shall have a maximum stone size of 4 inches. Select fill used for other purposes shall have a maximum stone size of two thirds of the loose lift thickness and that portion passing the 4 inch sieve shall meet the following gradation requirements, as determined by ASTM C136 and ASTM C117:

U.S. Sieve Size	Percent Passing
4 inch	100
No. 10	30-100
No. 40	0-70
No. 200	0-15

Crushed stone shall meet the following gradation requirement as determined by ASTM C136 and ASTM C117:

U.S. Sieve Size	Percent Passing
1 inch	100
3/4 inch	90-100
1/2 inch	20-55
3/8 inch	0-15
No. 4	0-5
No. 10	0-2

15.3 *Shoring/Sheeting*

Design, furnish, install and maintain temporary earth support systems, as required, to prevent injury to persons, collapse of the sides of the excavation, and damage, disturbance and settlement of adjacent property. Sheeting and bracing shall be of adequate type; size and strength for the conditions encountered and shall be driven to true alignment in a workmanlike manner.

Timber sheeting shall be straight and sound and shall be tongue and grooved where groundwater is encountered. Minimum thickness of timber sheeting shall be a nominal three inches.

Steel sheeting shall have a minimum thickness of 3/8 inch. Steel sheeting shall be designed for the conditions encountered and shall be driven tight.

Sheeting may be either left in place or removed. Sheeting left in place shall be cut off at least one foot above the crown of the pipe. In no case shall the top of sheeting be left in place within 5 feet of finish grade.

16. Dewatering

All water entering excavations shall be removed until the completion of all the work. No sanitary sewer shall be used for the disposal of dewatering liquids.

Excavations shall be kept free from water, snow and ice during construction. Bedding and backfill material shall not be placed in water. Water shall not be allowed to rise upon or flow over bedding and backfill material.

17. Rock or Ledge Excavation

When ledge is encountered in the excavation, a permit must be obtained from the Town of Dighton Fire Chief for the use of explosives. All blasting shall be done in accordance with the requirements as imposed by the Fire Chief. All blasting must be performed by a person licensed by the Massachusetts Department of Public Safety for this purpose.

Rock and/or boulder excavation shall include the excavation, removal and disposal of solid rock and all boulders one cubic yard or more in volume that require blasting or drilling and splitting. When ledge is encountered in the excavation, a permit must be obtained from the Town of Dighton Fire Chief for the use of explosives. All blasting shall be done in accordance with the requirements as imposed by the Fire Chief. All blasting must be performed by a person licensed by the Massachusetts Department of Public Safety for this purpose.

Boulders of less than one cubic yard in volume or other materials found in the excavations, however stiff, heavy and compact, including rippable rock, which, in the opinion of the Town of Dighton Superintendent, can be removed without blasting or drilling and wedging, shall not be considered as rock excavation.

Blasts shall be covered to prevent scattering of material and all adjacent property shall be suitably protected. Explosives shall be transported, handled and stored in a safe manner and in compliance with all federal, state and local regulations. Charges shall not be so large as to shake, loosen or endanger adjacent structures or their contents or to do harm to their occupants. Responsibility for damage to persons or property shall rest solely with the Contractor. Only personnel qualified in the use of explosives shall be employed for blasting. Obtain all necessary permits at no additional cost to the Town of Dighton.

Design blast pattern(s) and use blast control methods to prevent detrimental effects to the rock outside of the excavation limits. All loose, unsound or semidetached rock fragments, which may be detrimental to the proposed structure or installation, shall be removed from the excavation. Excavation beyond the necessary limits, made to remove damaged rock shall be backfilled with compacted gravel fill at no additional cost to the Town of Dighton.

After blasting, the rock surface at subgrade shall be thoroughly cleaned of all vegetation, soil, excessively broken rock, excessively weathered or decomposed rock, loose fragments, ice, snow, and other objectionable substances. Picking, barring, wedging, streams of water, hammers, and other effective means shall be used as required to accomplish this cleaning. All free water left on the surface of the rock shall be removed. The Town of Dighton Superintendent shall be notified and provided the opportunity to observe the cleaned rock surface before any masonry, concrete, bedding, or fill is placed on or against the rock.

18. Manholes and Appurtenances

18.1 Manhole Structures

Precast reinforced concrete sections for drain manholes, sewer manholes, valve manholes, chemical or process manholes, (hereinafter referred to as "manholes") and catch basins, shall conform to the applicable requirements of ASTM C478. Sections and bases shall have a minimum wall thickness of the dimensions shown in the following table.

Diameter	Wall Thickness	Floor Thickness
4 feet	5 inches	6 inches
5 feet	6 inches	7 inches
6 feet	7 inches	8 inches

Unless otherwise specified, all sections shall be of precast concrete. Flat top sections to be substituted for conical sections of manholes and catch basins in areas of low cover shall be indicated in submittals, and shall conform to the requirements for precast concrete sections for hand holes.

Unless otherwise specified, manholes shall be four foot in diameter for pipe up to 24 inches in diameter unless the angle between two 24-inch pipes is less than 120 degrees. In such cases and when the size of the pipe is less than 36 inches, a five foot inside diameter manhole shall be used. Where the pipe is 36 inches in diameter or greater, the diameter of the structure shall be specified by the Town of Dighton.

Horizontal joints between sections of manholes, unless otherwise specified herein, shall be sealed with a self-sealing butyl rubber based flexible joint sealant in rope form. Sealant material shall be Kent-Seal No. 2 as manufactured by Hamilton-Kent Mfg. Co., Kent, Ohio; C-S146 as manufactured by Concrete Products Supply Co. Div., Press Seal Gasket Corp., Fort Wayne, Indiana; Ram-Nek as manufactured by K.T. Snyder Co., Inc., Houston, Texas, or equal. Sealant shall be installed in accordance with the manufacturers written instructions.

All manholes with a depth of 20 feet or greater from rim to invert shall have installed at the midpoint of the manhole a mid-level platform.

All manholes shall be installed with an external manhole encapsulation system that seals: (1) the interface between the precast concrete manhole and the frame and cover and (2) all manhole joints which are located below groundwater. The manhole encapsulation is a heat shrinkable wraparound sleeve system and shall have an overall thickness of 0.100 inches with a minimum width of 6 inches. The manhole encapsulation shall be “Wrapid Seal Manhole Encapsulation System” as manufactured by Canusa, A Division of Shaw Pipe Resources.

In areas where high groundwater conditions are anticipated, special provisions shall be included to prevent excessive infiltration into the sewer system and manholes.

18.2 Steps

Manhole steps shall be of steel reinforced copolymer polypropylene conforming to ASTM C478, cast-in-place or installed utilizing inserts approved by the Town of Dighton. All steps shall be 12 inches on center with abrasive step surface and safety edge, drop front design, 1-inch diameter and 16 inches wide. Metal items embedded in concrete shall be painted with a zinc chromate primer.

18.3 Frame and Cover

Manhole frames and covers shall be cast iron conforming to the requirements of ASTM A48, Class 30, and shall be of noiseless, non-rocking design with pick holes. The word " Sewer" shall be cast on each cover in two inch letters as applicable. Standard manhole covers and frames shall have a minimum total weight of 420 pounds with a clear opening of 24 inches, unless otherwise specified. Standard manhole frames and covers shall be East Jordan Ironworks or comparable models as manufactured by Neenah Foundry Co., or Campbell Foundry Co.

Locking (bolted and gasketed) type manhole frames and covers shall have a minimum total weight of 680 pounds with a clear opening of 25 1/2 inches, unless otherwise specified. Bolted and gasketed type frames and covers shall be East Jordan Ironworks 2111A or 2111Z or comparable models as manufactured by Neenah Foundry Co., or Campbell Foundry Co. All cross-country manholes shall have bolted and gasketed manhole frames and covers, unless otherwise specified.

Watertight manhole frames and covers shall have a minimum total weight of 625 pounds with a clear opening of 24 inches, unless otherwise specified. Watertight manhole covers shall have a gasketed interior cover of watertight design, and shall also contain a locking bar. Watertight manhole frames and covers shall be East Jordan Ironworks model 2111APT and 2111ZPT. All electrical handhole and chemical or process pullboxes and manholes shall have watertight manhole frames and covers, unless otherwise specified.

18.4 Waterproofing

Manhole structures shall be coated with an asphalt-based waterproofing coating at the factory, prior to being delivered to the project site.

18.5 Drop connections

Drop connections shall be installed for manholes, which have invert elevation differences greater than three (3) feet. No exterior drop connections are allowed. Drop connections for manholes shall be constructed utilizing polyvinyl chloride pipe, elastomeric sealed

joints, and Type 316 stainless steel mounting hardware and materials. The size of the drop piping shall be 8 inches when the size of the sewer main is less than 24 inches. When the sewer main is equal to or larger than 24 inches, the drop piping shall be 12 inches in diameter.

19. Manhole Testing

The Town's Superintendent may require either hydrostatic/exfiltration testing or vacuum testing of manholes.

19.1 Hydrostatic/Exfiltration Testing

Exfiltration leakage for manholes shall not exceed 1 gallon per vertical foot of manhole section for a 24 hour period.

19.2 Vacuum Testing

When using the vacuum test method, the test shall be made after the manhole has been assembled, in-place, all lifting holes and horizontal joints have been filled (with an approved, non-shrinking mortar) but prior to placing tables and inverts and before filling and pointing the horizontal joints. If the groundwater table has been allowed to rise above the bottom of the manhole, it shall be lowered for the duration of the test. All pipes and other openings into the manhole shall be suitably plugged and plugs braced to prevent blowout. The test may be conducted before backfilling around the manhole. The initial test pressure shall be 10 inches mercury (i.e., 20 inches absolute). For manholes 1 to 10 feet deep, the pressure is permitted to drop by 1 inch mercury (to 9 inches mercury) in two minutes. For manholes 10 to 15 feet deep, the pressure is permitted to drop by 1 inch mercury (to 9 inches mercury) in 2.5 minutes. For manholes deeper than 15 feet, the pressure is permitted to drop by 1 inch mercury (to 9 inches mercury) in 3.0 minutes. If the pressure drop exceeds the allowable drop in the appropriate time period, the manhole shall be repaired and retested. If a manhole fails to meet the requirements even after repair, the manhole shall be exfiltration tested.

20. Erosion and Sedimentation Control

Each Drain Layer or contractor seeking to construct, repair or modify a building sewer or private sewer, or connection to the Town's sewerage system may be required to prepare an Erosion and Sedimentation Control Plan. The intent of this Plan is to prevent the introduction of sediments into the Town's sewerage system and to the environment. The design of any facilities or construction practices shall be subject to the approval of the Board, and the design, installation and maintenance of all erosion and sedimentation control devices shall be at the owner's expense.

The Drain Layer shall take such actions as may be required so as to insure that construction activities do not interfere with the hydraulic or aesthetic quality of any natural or manmade watercourses or drains. Design, furnish and install acceptable siltation control devices such as hay bale sediment control devices or permanent or portable control basins for the settling or filtering of fine sands, silts and clay caused by any dewatering operations. These siltation and erosion control devices shall be in addition to any other requirements specified in the Contract Documents.

Any natural areas or manmade structures which have been affected by siltation or erosion due to construction activities shall be restored to their preconstruction condition at no additional cost to the Town of Dighton.

21. Project Restoration

Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the Town of Dighton. All public property, curbs, pavement and roadways, sidewalks, and landscaped and grassy areas must be repaired and restored to their original condition by the drain layer or contractor upon sewer service connection. Any excavation on public property left open day or night shall be properly protected by a snow fence, horses, blinkers, and warning signs as needed

Pavement shall be replaced to match existing pavement thickness. Pavement shall be cut with pavement saws, and all edges tack coated. Overall pavement thickness shall be comprised of a binder base and top (wearing) course as applicable to the specific project.

Permanent paving shall be placed only when the underlying surface is dry, when the atmospheric temperature in the shade is above 40 degrees F, and when the weather is not foggy or rainy, provided, however, that the Engineer may permit, in case of sudden rain, the placing of mixture then in transit from the plant, if laid at proper temperature and if the roadbed is free from pools of water. Such permission shall in no way relax the requirements for quality of the pavement and smoothness of surface.

No material shall be laid upon a frozen base course or when wind conditions are such that rapid cooling will prevent satisfactory compaction. No load shall be sent out so late in the day that spreading and compaction cannot be completed during daylight.

The licensed drain layer or contractor shall maintain the temporary bituminous patch in all public ways and paved private ways for a period of not less than three (3) months, when he shall remove the temporary patch which shall include 12 inches of virgin pavement along each side of temporary pavement and place a permanent patch of Type I bituminous concrete in two layers to a total depth of two and one-half (2-1/2) inches. The edges of the patch shall be sealed with approved bitumen. All patch work shall be rolled and spread in accordance with the best practices.

The licensed drain layer or contractor shall restore the permanent road surface within fourteen (14) days following notification to do so. Failing to comply with notification requirements will result in completion of the work by the Town of Dighton Highway Department, and the licensed drain layer or contractor shall be liable for all debts incurred.

The Town of Dighton reserves the right to require placement of temporary trench pavement. Failure in the temporary patch shall be restored within eight (8) hours of notification to do so.

Existing curbing removed for a project shall be replaced with the same product.

22. Safety

All Drain Layers and contractors working in the Town of Dighton are expected to satisfy all federal, State, and local safety requirements. This includes OSHA Confined Space Entry procedures and trenching and excavation practices, and traffic management methods that keep the work zone safe. The Town of Dighton reserves the right to shut down (temporarily or permanently) any work practices that it determines pose a hazard to persons in or near the work area.

23. Failure to Conform

Should the Board of Sewer Commissioners find that any Drain Layer or contractor has failed to conform to the requirements of the Town's rules and regulations and to the conditions of any permit issued there under, or that such drain layer or contractor has not been faithful in the performance of work or furnishing of materials under his license, the Board of Sewer Commissioners may suspend, cancel, or revoke such license and/or permit, or may extend the suspension of such license and/or permit for such period, or limit the activities of such drain layer or contractor in such manner as may appear to be to the public interest. Suspension, cancellation, or termination of a permit shall not entitle the permittee to any compensation or reimbursement from the Town or its agents for any alleged loss or expense incurred thereby, and licenses and permits shall be issued only on this condition.

24. Testing and Inspection Prior to Connection

24.1 Pipe Testing

All pipe shall be tested in the presence of the Town of Dighton Superintendent or his designated agent.

The Town inspector may require either infiltration testing or pressure testing of new sewer lines. Where lines are installed in areas having a high groundwater level, an infiltration test shall be conducted for at least four hours under the supervision of the Town of Dighton Superintendent or his designated agent. The infiltration leakage shall not exceed 100 gallons per inch of pipe diameter per mile of pipe for sewers 24-inches in diameter and smaller. The leakage test using low-pressure air shall be made on each manhole-to-manhole section of pipe. Pneumatic plugs shall have a sealing length equal to or greater than the diameter of the pipe to be tested. Pneumatic plugs shall resist internal test pressure without requiring external bracing or blocking. All air shall pass through a single control panel.

Water leakage tests (i.e., exfiltration tests) may also be performed on installed sewer lines. The exfiltration leakage shall not exceed 100 gallons per inch of pipe diameter per mile per day for any section of the pipe system for sewers 24-inches in diameter and smaller. Exfiltration tests shall be performed with a minimum positive head of two (2) feet. Various sections of the sewer shall be isolated by watertight plugs and the quantity of water exiting the pipe during a predetermined time shall be measured.

Low-pressure air shall be introduced into the sealed line until the internal air pressure reaches 4 psig greater than the maximum pressure exerted by groundwater that may be above the invert of the pipe at the time of the test. The internal air pressure in the sealed line shall not exceed 8 psig. At least two (2) minutes shall be allowed for the air pressure to stabilize in the section being tested. After the stabilization period, the low-pressure air supply hose shall be quickly disconnected from the control panel. The tire required in minutes for the pressure in the section under test to decrease from 3.5 to 2.5 psig (greater than the maximum pressure exerted by the groundwater that may be above the invert of the pipe) shall not be ***less than*** that shown in the following table:

Pipe Diameter (inches)	Time (minutes)
6	4.0
8	5.0
10	6.5
12	7.5
14	9.0
15	9.5
18	11.5
Greater than 18	7.7 x Pipe Diameter (ft)

These tests shall include losses or gains through manholes as well as through pipe walls and joints, as well as through house connection fittings and joints. In case the leakage

exceeds the specified amounts, the contractor shall locate the leaks and shall repair the pipe at his own cost. After repairs have been made, the line shall be re-tested and the processes of repairing and re-testing shall be repeated until the results are within the specified limits. No sewer shall be connected until the piping has been satisfactorily tested.

When the sewer section to be tested contains more than one size of pipe, the minimum allowable time shall be based on the largest diameter pipe in the section.

After completion of each installation in a development and before connection is made, the newly constructed lines shall be cleaned, flushed and tested for deflection. The amount of deflection in all sewer lines shall be tested in the presence of the Town of Dighton Superintendent or his designated agent. This testing shall be done by the use of a deflectometer, calibrated television or photography, or a properly sized "go, no go" mandrel or sewer ball. All sewer lines with a deflection angle of greater than 5 percent shall be repaired by re-bedding or replacement of the pipe.

24.2 Force Main Testing

Any force main shall be tested in the presence of the Town of Dighton Superintendent (or his representative), by water to a pressure equal to 2 times the total dynamic head of the pump to which he force main is attached, unless the test pressure is greater than the working pressure of the pipe. In that case the pipe shall be tested to the working pressure of the pipe. The Superintendent shall provide the test pressure. This pressure shall be held for a period of at least 15 minutes, allowing a maximum pressure drop of 5 psi. Any defective work shown by this test shall be replaced at no additional cost to the Town.

24.3 Inspection

Sewers and service connections within developments shall be installed at the expense of the builder and/or owner, and shall be subject to inspection and acceptance by the Town of Dighton.

Tests shall be conducted under the supervision of the Superintendent or his designated representative. Final inspection and observation of all testing shall be done by an engineer appointed by the Board, and the owner will be required to reimburse the Board for the expense of said final inspection and testing.

Service connections shall not be backfilled beyond the hardened gravel envelope until the work has been inspected and approved by the Superintendent or his designated agent. The licensed drain layer or contractor shall arrange his work in a manner to minimize the required services and time of the Superintendent.

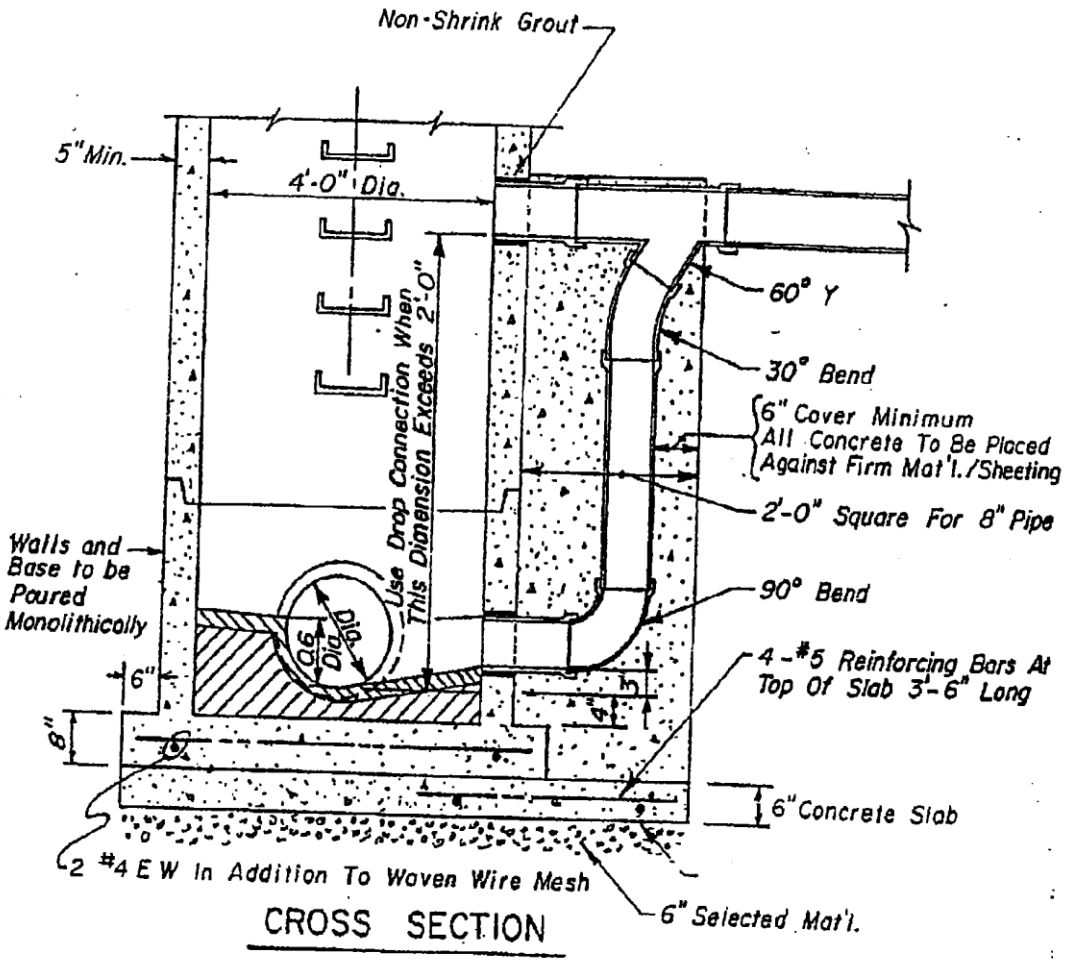
Pipes and fittings within trenches shall not be backfilled until the work is inspected and approved by the Superintendent.

The Town of Dighton also reserves the right to require inspection of the new sewers by closed-circuit television inspection. When required by the Town, copies of this inspection shall be provided on digital video disks (DVDs), compact disks (CDs) or VHS tapes.

25. Figures and Details

The following figures and details shall be used for all new construction within the Town of Dighton's collection system.

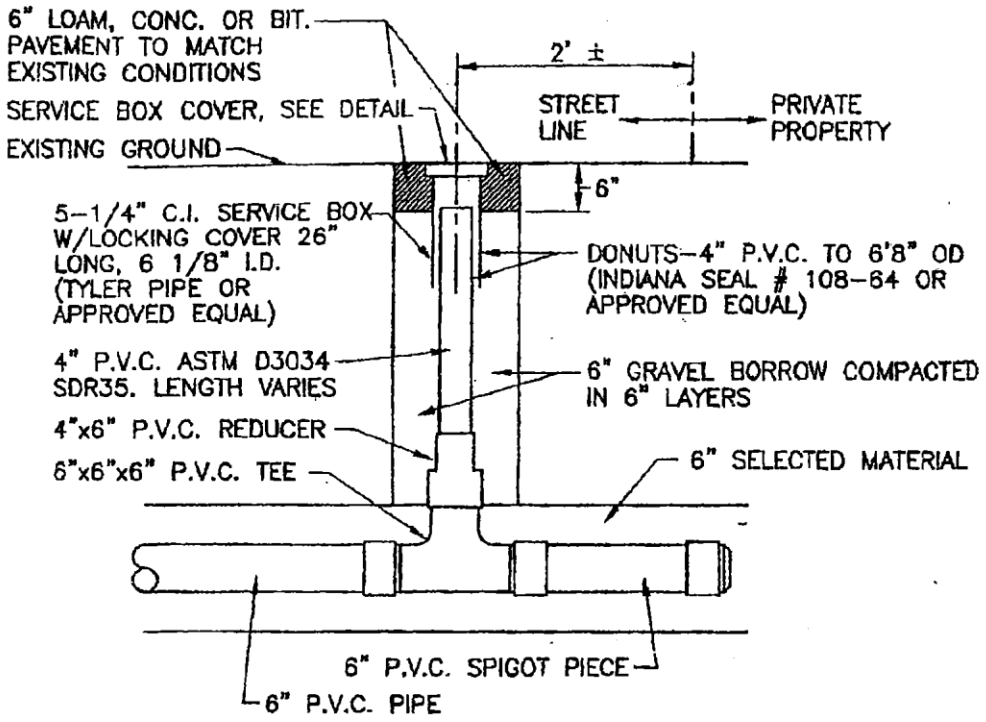
1. Typical Exterior Drop Manhole
2. Typical Inspection Tee and Riser
3. Typical Pre-Cast Manhole
4. Typical Interior Drop Manhole
5. Typical Trench Cross-Section
6. Typical Service Connection Chimney and Wye



CROSS SECTION

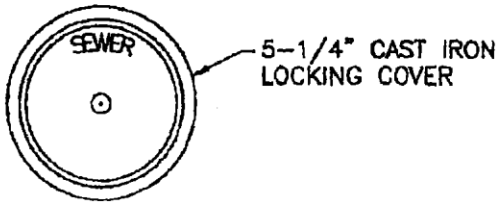
SANITARY SEWER DROP MANHOLE

TOWN OF DIGHTON
SEWER DEPARTMENT



SECTION

NOT TO SCALE



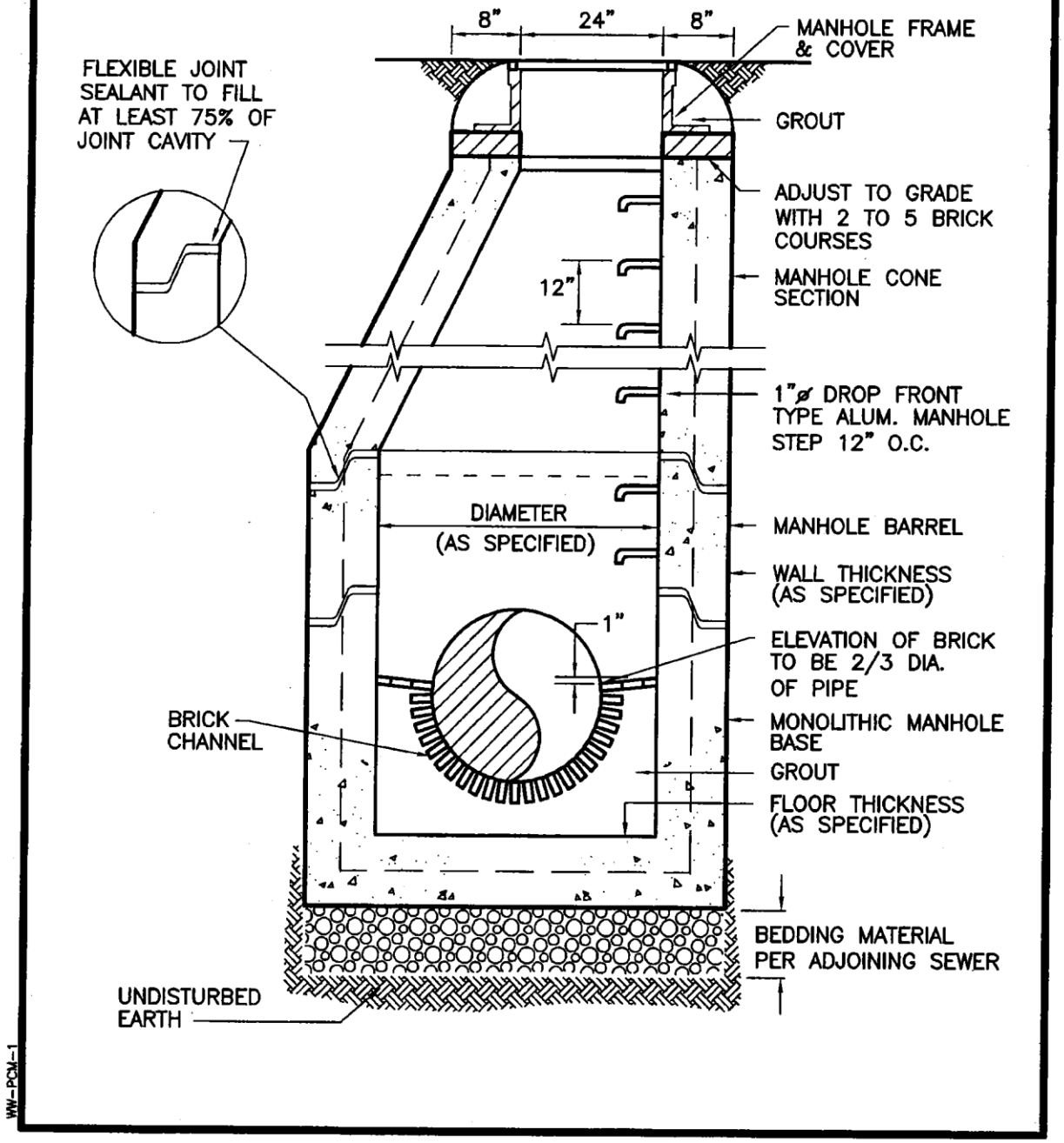
SERVICE BOX COVER DETAIL

NOT TO SCALE

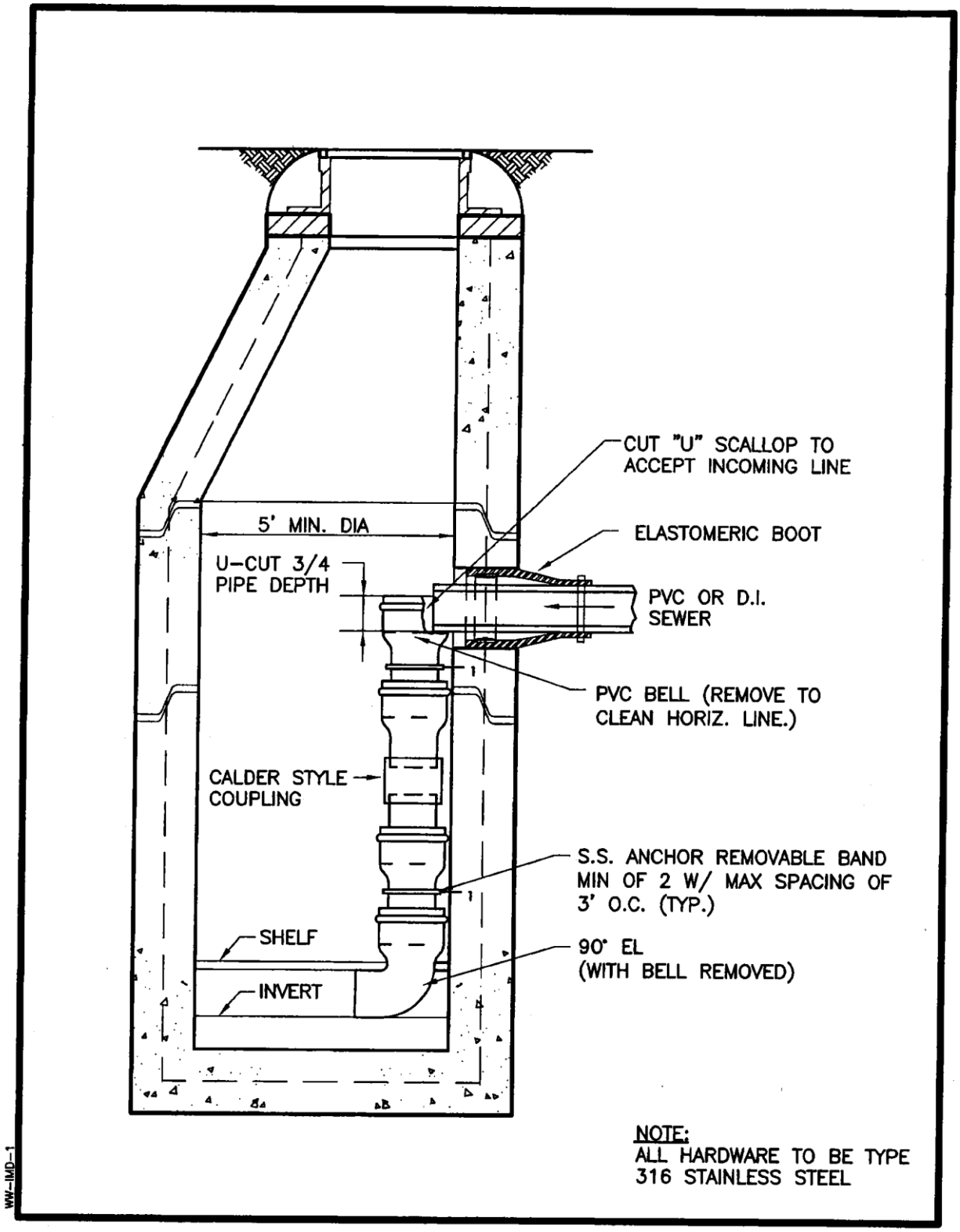
INSPECTION TEE AND RISER

TOWN OF DIGHTON
SEWER DEPARTMENT

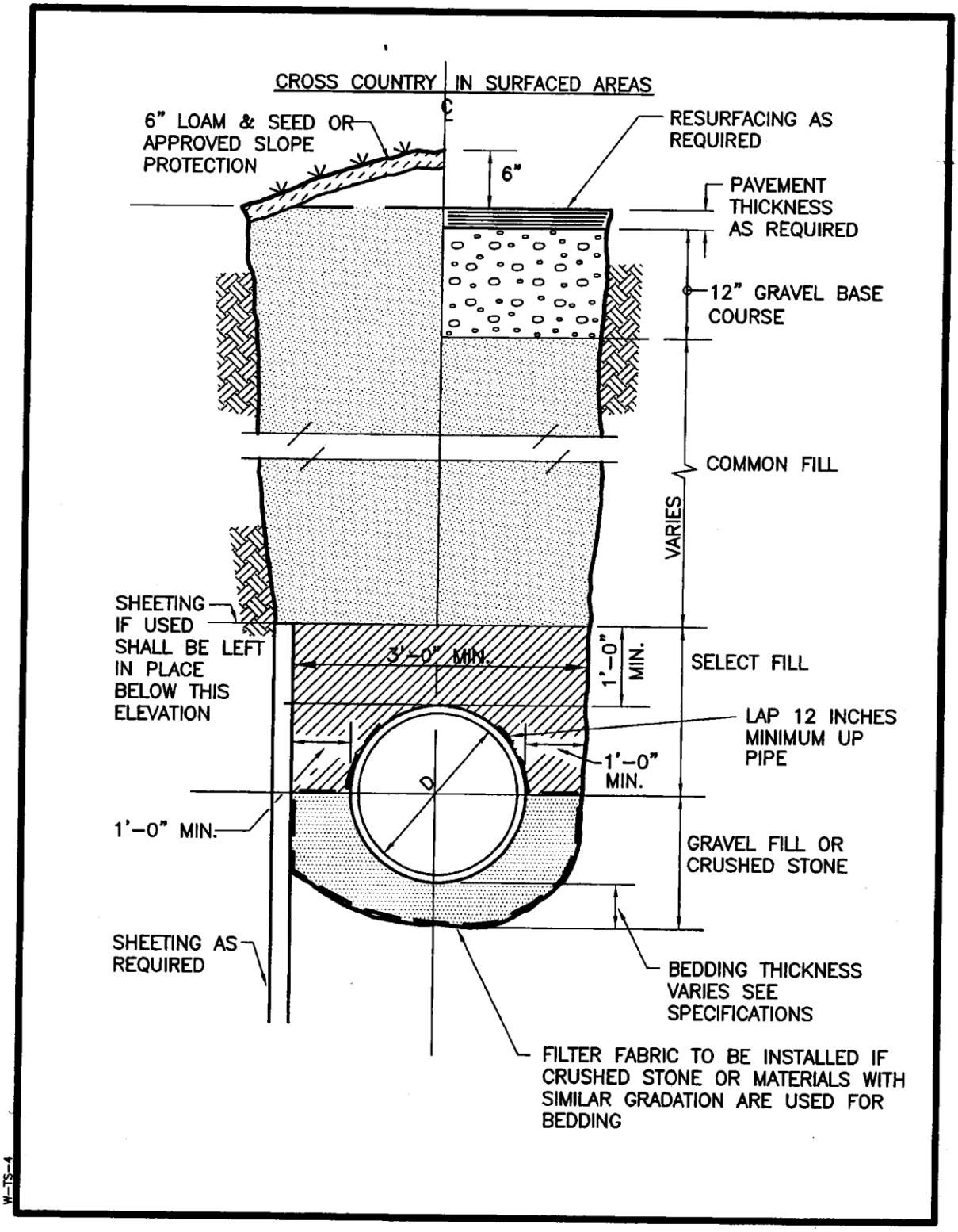
DIAMETER	WALL THICKNESS	FLOOR THICKNESS
4 FT.	5 IN.	6 IN.
5 FT.	6 IN.	7 IN.
6 FT.	7 IN.	8 IN.



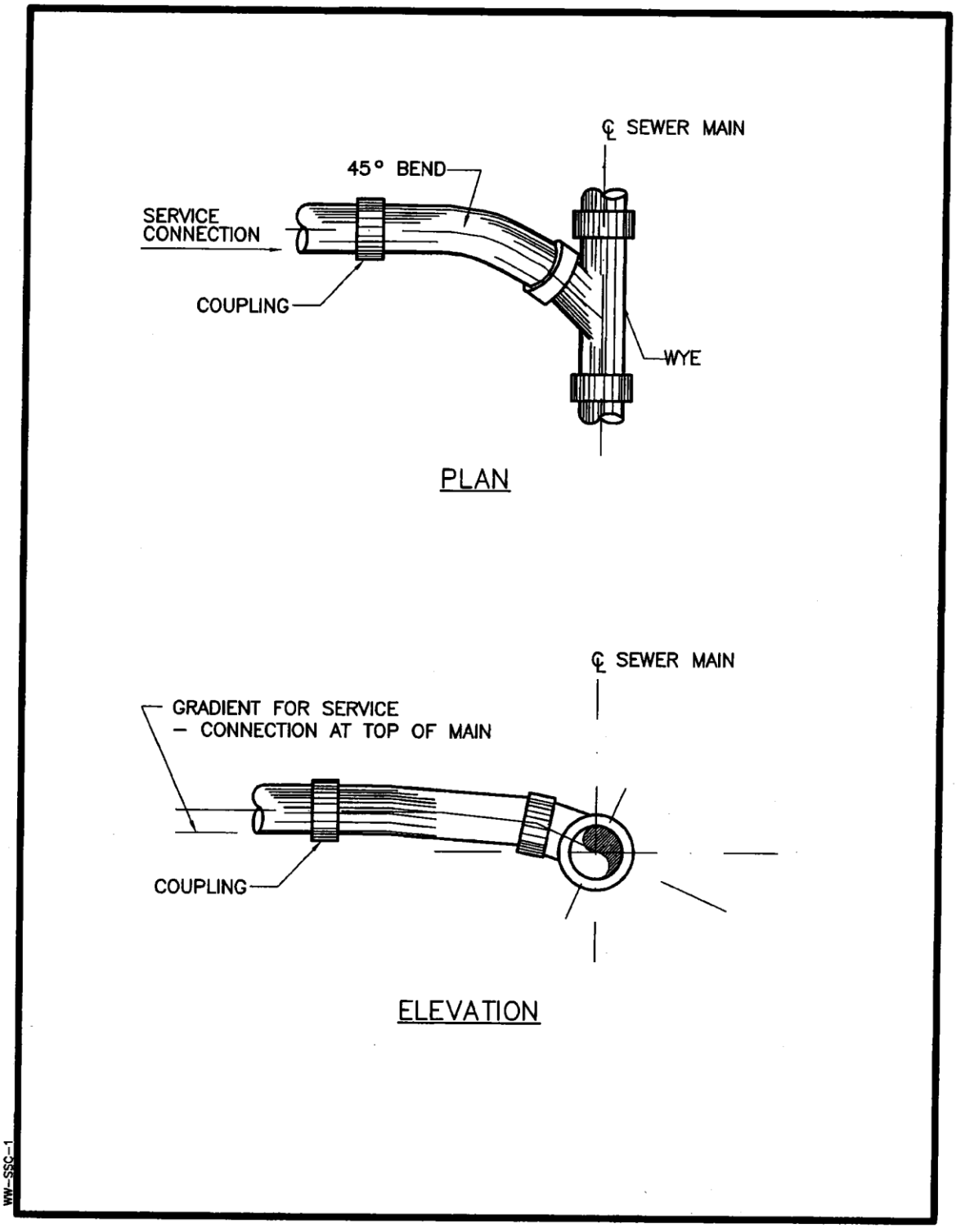
PRECAST CONCRETE MANHOLE
NOT TO SCALE



TYPICAL INTERIOR MANHOLE DROP
NOT TO SCALE



TYPICAL TRENCH SECTION
NTS



SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE