

**LAWRENCE-HICKORY  
MUNICIPAL AUTHORITY**

**SECOND AMENDED AND RESTATED  
RULES AND REGULATIONS AND SEWER  
SERVICE  
CHARGES WITH RESPECT TO THE SEWER  
SYSTEM  
(Effective January 1, 2024)**

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# LAWRENCE-HICKORY MUNICIPAL AUTHORITY

## SECOND AMENDED AND RESTATED RULES AND REGULATIONS AND SEWER SERVICE CHARGES WITH RESPECT TO THE SEWER SYSTEM (Effective January 1, 2024)

### PREAMBLE

These Rules and Regulations are promulgated under the authority of the Municipality Authorities Act, 53 Pa. C.S.A. 5601, et. seq. These Rules and Regulations are a part of the contract with every Person who is served by the Sewer System, and every such Person served by the Sewer System or who takes sewer service agrees to and shall be bound by these Rules and Regulations.

### ARTICLE I

#### DEFINITIONS

**Section 1.01.** The following words and terms used in these rules and regulations shall have the following meanings, unless the context clearly requires otherwise:

"Abnormal Industrial Waste" shall mean any industrial waste having a suspended solid content or B.O.D. appreciably in excess of that normally found in municipal sewage. For the purposes of these rules and regulations, any industrial waste containing more than 275 parts per million (p.p.m.) of suspended solids, or a chlorine demand greater than 15 p.p.m., or having a B.O.D. in excess of 300 p.p.m., regardless of whether or not it contains other substances in concentrations differing appreciably from those normally found in municipal sewage, shall be considered to be abnormal industrial waste.

"Agreement" shall mean the Sewer Service Agreement, dated as of January 1, 1980, between the Township and the Authority, pertaining to the acceptance, collection, transportation, treatment and disposal of acceptable sanitary sewage and/or industrial wastes from certain parts of the Township (as established in the Agreement).

"Authority" shall mean Lawrence-Hickory Municipal Authority, and its successors.

"B.O.D." shall designate the "Biochemical Oxygen Demand" and shall mean the quantity of oxygen utilized in the biochemical oxidation of the organic matter in sewage or industrial waste under standard laboratory procedure in five days at 20°C., expressed in p.p.m. by weight. It shall be determined by one of the acceptable methods described in the latest edition of "Standard Methods for the Examination of Water, Sewage and Industrial Waste", published jointly by the American Public Health Association, the American Water Works Association and the Federation of Sewage and Industrial Wastes Association (hereinafter termed an "acceptable method") or their

successors.

"Board" shall mean the Board of the Authority, and its successors and assigns.

"Connection Fee" shall have the meaning set forth in the Municipality Authorities Act.

"Consumer" shall mean each consumer as defined by the regulations of the Water Utility serving such consumer at that time.

"Developer" shall mean any owner or other person engaged in the development of property for any purpose requiring the construction of a Sewer to facilitate the use of the property.

"Dwelling Unit" shall mean any room, group of rooms, enclosure, etc., occupied or intended for occupancy as a separate living quarters by a family or other group of persons living together or by persons living alone. Each dwelling unit in a double house, in a row of connection houses, or in an apartment shall be a separate entity for sewer service charge purposes.

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

"H.P." shall mean horsepower.

"Industrial Wastes" shall mean any liquid, gaseous or waterborne wastes from industrial manufacturing, commercial or business establishments or processes or from the development, recovery or processing of any natural resources, as distinguished from Sanitary Sewage.

"Municipality Authority Act" shall mean the Municipality Authority Act, 53 Pa. C.S.A. Section 5601, et. seq. as amended.

"Occupied Building" shall mean any structure erected and intended for continuous or periodic habitation, occupancy or use by human beings or animals, and from which structure sanitary sewage and industrial wastes, or either thereof, is or may be discharged.

"Owner" shall mean any person having an equitable or legal interest in real property.

"Person" includes but is not limited to natural persons; partnership; associations; private and public corporations, limited liability companies and other forms of business or private entities; clubs; societies; institutions and governments and governmental agencies and subdivisions thereof.

"pH" shall mean the logarithm to the base 10 of the reciprocal of the hydrogen ion concentration expressed in moles per liter and shall be determined by an acceptable method.

"Premises Accessible to the Sewer System" shall mean any real property in the Township accessible to and whose principal building is within one hundred fifty feet of the Sewer System in the Township and such real property is legally benefitted, improved or accommodated by the Sewer System with a building thereon from which sewage and/or industrial wastes originates.

"Properly Shredded Garbage" shall mean the wastes from the preparation, cooking and dispensing of food and from the handling, storage and sale of food products and produce 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 (1/2") in any dimension.

"Sanitary Sewage" shall mean the normal water carried household and toilet wastes from residences, business and other buildings, institutions, schools, churches, and industrial and commercial establishments, exclusive of storm water runoff, surface water or ground water.

"Sewage" shall mean a combination of water carried wastes from residences, business and other buildings, institutions, schools, churches, and industrial and commercial establishments, together with such ground water, surface water and storm water runoff as may be present.

"Sewage Treatment Works" shall mean an assemblage of devices, structures and equipment for treating and disposing of treated sewage and industrial wastes, including the sewage treatment plant of the New Castle Sanitation Authority, which under the Service Agreement, dated as of February 1, 1974, as amended and supplemented by the First Supplemental Service Agreement, dated as of April 1, 1976, will treat and dispose of sewage and industrial wastes from the Sewer System, on behalf of the Authority.

"Sewer" shall mean a public sewer, pipe or conduit which carries sewage or industrial wastes or a combination of both and to which storm water runoff, surface water and ground water are not intentionally admitted.

"Sewer Lateral" or "Lateral Sewer" shall mean the sewer pipe leading from a dwelling or other structure to the Sewer System.

"Sewer System" shall mean all public sewers and combined sewers, pump stations, treatment plants and related public sewage facilities owned, operated or leased by the Authority for the collection, transportation, treatment and/or disposal of sanitary sewage and/or industrial wastes now or hereafter constructed or otherwise acquired by the Township and/or the Authority in the Township.

"Storm Sewer" shall mean a pipe or conduit which is intended to carry storm water runoff, surface water or ground water, but which is not intended to carry sewage or industrial wastes.

"Storm Water Runoff" shall mean that portion of the rainfall which reaches a channel, trench, storm sewer or sink.

"Suspended Solids" shall mean solids that either float on the surface or are in suspension in water, sewage, industrial waste, or other liquids, and which are removable by laboratory filtration. Quantitative determination of suspended solids shall be made by an acceptable method as described above.

"Tap-in" shall mean the connection of a Sewer Lateral to the Sewer System Main.

"Tap-in-Permit" shall mean the permit the Authority has the authority to issue to a person who submits a Tap-in Permit Application and has complied with all of the requirements necessary to obtain such permit.

"Tap-in-Permit Application" shall mean the application required to be submitted to the Authority to obtain a Tap-in Permit.

"Tap-in Permit Fee" shall mean the fee charged by the Authority to review a Tap-in Permit Application and for material, labor and services related to a Tap-in and paid by a person seeking a Tap-in Permit.

"Township" shall mean the Township of Hickory, situated in Lawrence County, Pennsylvania, and its successors.

"Township Users" shall mean, at any particular time, as defined in the Agreement, property owners and all persons in the Township (within the Neshannock Creek watershed area of the Township) using, directly or indirectly, the Sewer System at such particular time, and their heirs, personal representatives, administrators, successors and assigns.

"Unpolluted Water or Wastes" shall mean any water or wastes containing none of the following: free or emulsified grease or oil; pH less than 6.0 or greater than 9.0; acids or alkalis, phenols or other substances imparting taste and odor or color to receiving waters; toxic or poisonous substances in suspension, colloidal state or solution; or obnoxious or odorous gases. It shall contain not more than 10,000 p.p.m. by weight of dissolved solids, of which are not more than 1,500 p.p.m. shall be as chloride and not more than 3,200 p.p.m. each of suspended solids and B.O.D. The color shall not exceed 50 p.p.m. Analysis for any of the above-mentioned substances shall be made by an acceptable method.

"Water Utility" shall mean the Pennsylvania-American Water Company, and its successors and assigns, and any other public or quasi-public corporation or utility supplying water within the territorial limits of the Township.

## ARTICLE II

### ADMISSION OF INDUSTRIAL WASTES AND SANITARY SEWAGE TO THE SEWER SYSTEM

**Section 2.01.** The economy and desirability of the combined collection, transportation and treatment of industrial wastes and sanitary sewage is recognized. Any and all industrial wastes and sanitary sewage may be discharged into the Sewer System except those which are deemed harmful to the Sewer System or the sewage treatment works or the operation thereof or

are specifically prohibited by these rules and regulations or those of New Castle Sanitation Authority. However, it is also recognized that the collection, transportation and treatment of any wastes and sewage from time to time determined to be acceptable but which are abnormal industrial wastes and abnormal sanitary sewage may add to the cost of operating and maintaining the Sewer System and the sewage treatment works. Such additional cost should be borne by the person receiving the benefit of such collection, transportation and treatment.

**Section 2.02.** The City of New Castle, Pennsylvania Waste Water Ordinance Article 933, except Section 933.11, is hereby adopted by the Lawrence-Hickory Municipal Authority as the operative rules and regulations for industrial users of the Lawrence-Hickory Municipal Authority Sewage System. The New Castle Sanitation Authority is authorized and empowered along with the Lawrence-Hickory Municipal Authority to enforce the rules and regulations, including the granting of permits.

**Section 2.03.** The Board reserves the right to refuse connection to the Sewer System for discharge of deleterious industrial wastes, or to compel users of the Sewer System to discontinue the use of the Sewer System for such wastes, or to require pretreatment thereof in order to prevent harmful or adverse effect upon the Sewer System and/or the sewage treatment works. The design, construction and operation of such pretreatment facilities shall be subject to the approval of the Board. The standards to be used by the Board in the enforcement of these rules and regulations, and particularly this Section 2.02 and Sections 3.01, 3.03 and 3.04, shall be at least comparable to those used by the New Castle Sanitation Authority in connection with the sewage treatment works.

**Section 2.04.** The Board reserves the right to require industries having large variations in the rate of discharge of industrial waste to install suitable regulating devices, approved by the Board, for equalizing industrial waste flows.

**Section 2.05.** Industrial waste and sanitary sewage will be considered harmful to the Sewer System and the sewage treatment works if it may cause any of the following damaging effects: (a) chemical reaction either directly or indirectly with the materials of construction of the Sewer System and/or the sewage treatment works in such manner as to impair the strength or durability of such structures; (b) mechanical action that will destroy such sewer structures; (c) restriction of the hydraulic capacity of such sewer structures; (d) restriction of the normal inspection or maintenance of such sewer structures; (e) danger to public health and safety; or (f) obnoxious condition inimical to public interest.

**Section 2.06.** The Board may, at its discretion, require any person discharging industrial wastes or combined industrial wastes and sanitary sewage into the Sewer System to install a suitable manhole or manholes on his connecting sewer or sewers to facilitate observation, sampling and measurement of the flow of wastes from the premises. Such manhole or manholes shall be installed by such person at his expense, maintained by such person so as to be safe and accessible to the Board at all times, and constructed in accordance with plans approved by the Board.

**Section 2.07.** The Board shall have the right of access at all reasonable times to



dwelling units, residences, business and other buildings, institutions, schools, churches and industrial or commercial establishments to inspect sewage and/or industrial wastes discharged into the Sewer System and/or the sewage treatment works.

**Section 2.08.** All persons owning any property accessible to and whose principal building now or hereafter erected is within the Authority's service area and within 150 feet of the Sewer System shall, at their own expense, make connection with the Sewer System in accordance with the applicable Connection Ordinance of the Township in effect in the Authority's service area within 60 days after notice to connect is served on such owner. Any presently unoccupied building shall be connected before occupancy will be permitted.

**Section 2.09.** All persons owning any occupied building within the Authority's service area upon premises which subsequently become accessible to the Sewer System shall, at their own expense, make connection with the Sewer System within the time period stipulated after proper notice to do so has been given in accordance with applicable law.

**Section 2.10.** All connections to the Sewer System shall be made in accordance with Article VIII hereof.

**Section 2.11.** No privy vault, cesspool, septic tank, mine hole or similar receptacle for human excrement shall presently or at any time hereafter be connected with the Sewer System.

**Section 2.12.** The discharge of storm water, surface water, roof runoff, swimming pool waters, subsurface drainage, cooling waters and unpolluted waste waters to Sewer System is prohibited.

**Section 2.13.** The Board may require the exclusion from the Sewer System and/or the Sewage treatment works of non-contaminated waste waters and waters used for cooling purposes.

**Section 2.14.** The Board reserves the right to determine the adequacy and capacity of Sewers in the Sewer System.

**Section 2.15.** The Board reserves the right to approve garbage grinders or disposers; provided, however, no private dwelling unit shall operate more than one grinder or disposer which shall be not greater than 3 horsepower in size.

**Section 2.16.** The Board reserves the right to require every person discharging any Industrial Wastes into the Sewer System, or sewers connected thereto, to keep and maintain records, available to the Board, to consist of the following minimum information:

1. Name and address of the business.
2. Title of official making report.
3. Location of establishment.
4. The nature of the business conducted in such establishment.
5. The volume of Industrial Wastes and Sewage discharged by each establishment.

- a. To Sewers.
  - b. To combined sewers.
  - c. To Storm Sewers.
6. The average daily number of employees employed in each establishment in shifts.
  7. The source of water supply of each establishment and the volume of water used by each establishment daily, specified separately as to each source.
  8. Such additional information as is deemed applicable to ascertain the volume, nature and composition of the industrial wastes so discharged.

Such records shall be available for inspection during regular business hours by authorized representatives or employees of the Board upon presenting written credentials of their authority, and such representatives or employees shall be permitted to make and retain copies of such records.

**Section 2.17.** When the Board deems it advisable, it may require any person discharging industrial wastes into the Sewer System to install and maintain, at his own expense, in a manner approved by the Board, a suitable device to continuously measure and record the pH of the Industrial Wastes so discharged.

**Section 2.18.** The Board may conduct such tests as are necessary to enforce these rules and regulations, and duly authorized representatives and/or employees of the Authority may enter upon any property for the purpose of taking samples, obtaining information or conducting surveys or investigations relating to such enforcement. Entry shall be made during operating hours unless circumstances require otherwise. In all cases where tests are conducted by the Board for the purpose of checking to determine if a previously found violation of these rules and regulations has been corrected, the costs of such tests shall be charged to the Township User's sewer charge. In those cases where the Board determines that the nature of the volume of a particular Township User's sewage requires more frequent than normal testing, the Board may charge such Township User for the tests, after giving the Township User ten (10) days written notice of its intention to do so, and the cost thereof shall be added to the Township User's sewer charge. In any case where industrial wastes are discharged to the Sewer System, the Board may require the Township User, at his own expense, to test his discharge on a regular basis and to report the test results to the Board within a reasonable time. All such tests shall be as ordered by the Board and shall be conducted by qualified personnel in accordance with the latest edition of Standard Methods for the Examination of the Water and Wastewater and also Regulation 40 CFR, Part 136, Guidelines Establishing Test Procedures for Analysis of Pollutants or their successor publications and/or regulations.

## ARTICLE III

### PROHIBITED WASTES AND SANITARY SEWAGE

**Section 3.01.** The discharge of excessive amounts of unpolluted water or waste into the Sewer System and/or the sewage treatment works is expressly prohibited. The Board reserves the right to define the amount it deems excessive in each particular instance and to determine the adequacy of a sewer's capacity.

**Section 3.02.** The discharge of garbage to the Sewer System is expressly prohibited except from the single family dwelling units, and in such cases the garbage must be first properly shredded by a mechanical garbage grinder or disposed of a type approved by the Board.

**Section 3.03.** No person shall discharge or permit the discharge or infiltration into the Sewer System or the sewage treatment works of any of the following substances:

A. Wastes containing ashes, cinders, sand, mud, greases, lime or acetylene sludges, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, sawdust, paunch manure, cotton, chemical or paint residues, wool, plastic or other fibers, hair, hides, dead animals, spent mash and grain, pulp from food processing, water or wastes containing grease, fat or oil in excess of 100 p.p.m., or any other liquids, gases, solids or viscous substances which by reason of their quality, quantity or characteristics may cause fire, explosion, obstruction to the flow in the Sewer System and/or the sewage treatment works, or in any other way interfere with or be deleterious to persons, the structure, or the proper operation of the Sewer System and/or the sewage treatment works.

B. Wastes or sanitary sewage having a temperature in excess of 120°F. or less than 32°F.

C. Wastes or sanitary sewage having pH lower than 6.0 or higher than 9.0 or having any corrosive property capable of causing damage or hazards to structures, equipment or personnel of the Sewer System and/or the sewer treatment works. When the Board deems it advisable, it may require any person discharging wastes or sanitary sewage to install and maintain, at his own expense, in a manner approved by the Board, a suitable device to continuously measure and record the pH of the wastes or sanitary sewage so discharged.

D. Garbage, whether ground or not, except properly shredded garbage from a private dwelling unit, resulting from the proper use of a garbage grinder or disposer of a type (i) approved by the Board and (ii) maintained in good operating condition; provided, however, that no private dwelling unit shall operate more than one grinder or disposer which shall not be greater than 3 H.P. in size.

E. Wastes containing mineral acids, waste acid, pickling or plating liquors from the pickling or plating of iron, steel, brass, copper or chromium, or any other dissolved or solid

substance which will endanger health or safety, interfere with the flow in, or attach or corrode, or otherwise interfere with or be detrimental to, the Sewer System and/or the sewage treatment works or the operation of either thereof.

F. Wastes or sanitary sewage containing cyanides or cyanogen compounds capable of liberating hydrocyanic gas on acidification; and wastes or sanitary sewage containing any of the following substances in concentration exceeding those shown in the following table:

<u>Substance</u>	<u>Maximum Permissible Concentration</u>
Phenolic compounds as C <sub>6</sub> H <sub>5</sub> OH	1 p.p.m.
Cyanides as CN	1 p.p.m.
Cyanates as CNO	10 p.p.m.
Iron as Fe	15 p.p.m.
Trivalent Chromium as Cr	3 p.p.m.
Hexavalent Chromium as Cr	0.5 p.p.m.
Nickel as Ni	3 p.p.m.
Copper as Cu	2 p.p.m.
Lead as Pb	2 p.p.m.
Tin as Sn	2 p.p.m.
Zinc as Zn	2 p.p.m.

and wastes and sanitary sewage containing other chemicals or other matter detrimental to the operation of, or causing erosion, corrosion or deterioration in the Sewer System and/or the sewage treatment works.

G. Wastes or sanitary sewage containing more than 10 p.p.m. of any of the following gases: Hydrogen sulfide, sulfur dioxide, nitrous oxide, or any of the halogens.

H. Wastes or sanitary sewage containing a toxic or poisonous substance in quantities sufficient to injure or interfere with any sewage treatment process, constitute a hazard to humans or animals or create any hazard in the Sewer System and/or the sewage treatment works operation; and such toxic substances shall include, but shall not be limited to, substances containing cyanide, chromium and/or copper ions.

I. Wastes or sanitary sewage containing toxic substances in quantities sufficient to interfere with the biochemical processes of the sewage treatment works or that will pass through the sewage treatment works and exceed the state requirements in respect thereof.

J. Wastes or sanitary sewage containing any toxic radioactive isotopes, without a special permit.

K. Fats, entrails and the like from meat processing plants, rendering plants and similar industries and establishments.

L. Sludges or other materials from septic tanks or similar facilities or from sewage or industrial waste treatment plants or from water treatment plants.

M. Wastes or sanitary sewage containing any noxious or malodorous gas or substance which either singly or by interaction with sewage or other wastes is likely, in the opinion of the Board, to create a public nuisance or hazard to life, or prevent entry to the Sewer System and/or the sewage treatment works for maintenance and repair.

N. Wastes or sanitary sewage containing gas or vapors, either free or occluded, in concentrations toxic or deleterious to humans or animals; and wastes containing non-biodegradable detergents.

O. Wastes or sanitary sewage containing insoluble, non-flocculent substances having a specific gravity in excess of 2.65.

P. Wastes or sanitary sewage containing soluble substances in such concentration as to cause the specific gravity of the waste to be greater than 1.1.

**Section 3.04.** The Board may from time to time adopt such further particular rules and regulations, in addition to those set forth in these rules and regulations, as the Board, with the advice of its consulting engineer, shall deem necessary or appropriate for the efficient operation, maintenance and preservation of the Sewer System and/or the sewage treatment works or the sewer business operation. The construction, meaning and application of the prohibited wastes and sanitary sewage regulations set forth in Section 3.03 shall be made by the Board and shall be binding and conclusive with respect to users of the Sewer System and/or the sewage treatment works, as the case may be.

#### ARTICLE IV

##### SEWER SERVICE CHARGE - SCHEDULE OF RATES

**Section 4.01.** There is hereby imposed upon the owners of, or the users of water in or on all properties situate within the geographical limits of and served by the Sewer System, a sewer service charge for the collection, transportation, treatment and disposal of industrial wastes and sanitary sewage, payable as hereinafter provided in the amounts hereinafter provided. Said owners and users shall be jointly severally liable for the payment of the sewer service charge and the penalty herein prescribed for delinquent payment thereof. The sewer service charge for the collection, transportation, treatment and disposal of industrial wastes and sanitary sewage shall begin to immediately accrue with respect to any owners and users presently connected to or hereafter connected to and using a sanitary sewer line directly or indirectly discharging into the present public sanitary sewage sewer lines of the Authority.

**Section 4.02.** The sewer service charge for the collection, transportation, treatment and disposal of industrial wastes and sanitary sewage shall be based as follows:

A. Residential owners and water users shall pay a flat rate sewer service charge as fixed by resolution of the Board from time to time:

B. Non-Residential owners and water users shall pay a flat sewer service charge as fixed by resolution of the Board from time to time based upon estimated water consumption or industrial wastes and sanitary sewage volumes discharged into the Sewer System and the schedule of rates set forth in subsection (A).

C. Any additional charges and surcharges imposed by the New Castle Sanitation Authority, its successors and assigns, or any government or any other governmental agency shall be in addition to the rates set forth herein, unless otherwise provided by resolution of the Authority.

## ARTICLE V

### SURCHARGE FOR CERTAIN INDUSTRIAL WASTES

**Section 5.01.** There is hereby imposed a surcharge upon the owners of, and the users of water in or on all properties discharging or permitting to be discharged or infiltrated into the Sewer System and/or the sewage treatment works abnormal industrial wastes, which surcharge is intended to cover the additional cost to the Sewer System and/or the sewage treatment works resulting from the treatment and disposal of such abnormal Industrial Waste. Such surcharges shall be in addition to the regular sewer service charge set forth in Article IV of this Ordinance, and shall be payable as hereinafter provided in the amount hereinafter provided.

**Section 5.02.** The strength of any Industrial Waste, the discharge of which is subject to surcharge, shall be determined monthly, or more frequently, from samples taken either at the manhole referred to in Section 2.05 hereof or at any other sampling point mutually agreed upon by the Board and the producer of such wastes. The frequency and duration of the sampling period shall be such as, in the opinion of the Board, will permit a reasonably reliable determination of the average composition of such wastes, exclusive of storm water runoff, surface water and ground water. Samples shall be collected by the Board in proportion to the flow of wastes, exclusive of storm water runoff, surface water and ground water, and composited for analysis in accordance with the latest edition of Standard Methods for Examination of Water and Sewage as published by the American Public Health Association. Except as hereinafter provided, the strength of such wastes so found by analysis shall be used for establishing the surcharge or surcharges. The Board may, if it so elects, accept the results of routine sampling and analyses by the producer of such wastes in lieu of making its own samplings and analyses.

**Section 5.03.** In the event any Industrial Waste is found by the Board to have a B.O.D. in excess of 300 p.p.m., the owners of and users of water in or on the property from which such wastes are discharged shall be surcharged an amount equal to the product of (a) the actual volume of wastes in thousand gallons per billing period, exclusive of storm water runoff, surface water

and ground water, discharged to the Sewer System and/or the sewage treatment works and (b) the "B.O.D. surcharge rate". The "B.O.D. surcharge rate" shall be determined by the following formula:

$$R_c = 0.00834 P (C-300)$$

Where  $R_c$  = the B.O.D. surcharge rate in cents per 1,000 gallons of waste discharged

$P$  = the average annual fixed, operating and maintenance cost of treatment processes per pound of a B.O.D. received at the sewage treatment works including chlorination. (Prior to completion of the first year of operation the value of the "P" shall be deemed to be four (4) cents.)

$C$  = the average B.O.D. of the industrial waste expressed in p.p.m. as determined in accordance with Section 5.02 hereof.

The figure 300 appearing in the above formula corresponds to the maximum B.O.D. permissible without surcharge. The figure 0.00834 is the factor to convert parts per million to pounds per 1,000 gallons. No discount will be permitted for sewage or industrial wastes having a B.O.D. less than 300 p.p.m.

**Section 5.04.** In the event any Industrial Waste is found by the Board to have an average suspended solid concentration in excess of 275 p.p.m., the owners of, and the users of water in or on the property from which such wastes are discharged shall be surcharged an amount equal to the product of (a) the actual volume of wastes in thousand gallons per billing period, exclusive of storm water runoff, surface water and ground water, discharged to the Sewer System and/or the sewage treatment works and (b) the "suspended solids surcharge rate". The "suspended solids surcharge rate" shall be determined by the following formula:

$$R_s = 0.00834 \times B (S-275)$$

$R_s$  = the suspended solids surcharge rate in cents per 1,000 gallons of waste discharged

$B$  = the average annual fixed operating and maintenance cost of the sludge digestion, sludge drying and sludge disposal operations per pound of suspended solids received at the sewage treatment works. (Prior to completion of the first year of operation the value of "B" shall be deemed to be four (4) cents.)

$S$  = the average suspended solids concentration of the abnormal industrial wastes expressed in p.p.m. as determined in accordance with Section 5.02 hereof.

The figure 275 appearing in the above formula corresponds to the maximum suspended solids concentration permissible without surcharge. The figure 0.00834 is the factor to convert parts per million to pounds per 1,000 gallons. No discount will be permitted for sewage or Industrial Wastes having a suspended solids concentration less than 275 p.p.m.

**Section 5.05.** The surcharges provided for in this Article will be added to the service charges set forth in Article IV. They will be billed monthly and shall be due at the same time and shall be subject to the same penalty as set forth in Section 6.01.

## ARTICLE VI

### BILLING AND COLLECTION

**Section 6.01.** The sewer service charge and the surcharges, where applicable, provided for in these Rules and Regulations shall be payable in monthly payments or as may otherwise be determined and imposed by the Authority. All bills for sewer service charges shall be due upon receipt. If payment, therefore, is not received by the Authority within thirty (30) days from the date the bill is sent, the user shall be subject to a penalty of ten dollars (\$10.). If the sewer service charges are not paid within sixty (60) days from the date of the bill, subsequent billings shall include interest at the rate of one-half of one percent (1/2 %) per month, or part thereof, until paid.

**Section 6.02.** The Board, either directly or through any person whom it may by resolution appoint or with whom it may contract, including the Authority or its agent, will render such bills for the sewer service charges and surcharges imposed hereby and will make collections thereof in accordance with these Rules and Regulations.

**Section 6.03.** Bills and notices relating to the sewer service charges and surcharges will be mailed or delivered to the property owner's and/or the water user's last address as shown on the books of the Board and/or the Water Utility, and the Board shall not be otherwise responsible for delivery of such bills and notices. No change of address will be honored unless and until such change shall have been furnished in writing to the Board and the Water Utility.

**Section 6.04.** The Board shall have access at all reasonable times to residences, business and other buildings, institutions, schools, churches and industrial and commercial establishments connected to the Sewer System and/or the sewage treatment works to inspect the connection with the Sewer System and/or the sewage treatment works and/or the discharge of sanitary sewage, water of any kind and industrial waste into the Sewer System and/or the sewage treatment works.

**Section 6.05.** The Board shall have the power and authority at any time and from time to time to make such other rules and regulations or to change the foregoing provisions with respect to the manner and procedure of billing and collections as said Board, in its sole discretion, may determine consistent with the Agreement.



## ARTICLE VII

### INDUSTRIAL COST RECOVERY

**Section 7.01.** Every industrial Township User within an area benefitting from a governmental grant-in-aid of construction from (the "EPA") is required under current laws and regulations to pay its share of such grant.

**Section 7.02.** The industrial cost recovery (the "ICR") period shall be thirty (30) years commencing when the E.P.A. grant funded sewage facilities improvement is complete and operable, or upon the date of the beneficial use thereof by the first industrial Township User. A new industry shall begin payments on the date its use is initiated and shall continue for the unexpired portion of the ICR period or until the industry ceases use of the Sewer System, whichever occurs first. If an industrial Township User discontinues use of the sewage treatment works, its payment for ICR will cease. Industry remaining will not have to make up the payment of the departed industry.

**Section 7.03.** The industrial costs recovery amount to be apportioned to each industrial Township User shall be determined by employing the percentage of the design capacity of each segment or facility in the Sewer System utilized by the industry. The formulas to be used for calculating the annual industrial cost are:

- (A) as related to the capital cost of the transportation of wastewater downstream of the improvement:

$$\text{Cost} = \frac{(\text{Grant Amount}) (\text{Industrial Flow})}{30 (\text{Design Flow})}$$

- (B) as related to the capital cost of wastewater treatment process:

$$\text{Cost} = \frac{(\text{Grant Amount} \quad \text{Industrial Flow})}{30 (\text{Design Flow})} \quad \times \text{Q, B.O.D., or SS}$$

Q = % cost attributable to flow

BOD = % cost attributable to treatment of BOD

SS = % cost attributable to treatment of SS

The values employed for Industrial Flow, Q, BOD, and SS will vary based upon the average of the preceding year. The average method will be modified if an industry institutes a permanent change affecting any of the variable parameters. This method shall also apply to any future expansion or upgrading of the sewage treatment works funded by the E.P.A.

**Section 7.04.** Major contributing industries to the Sewer System shall monitor no less

than quarterly. Minor contributing industries to the Sewer System shall monitor no less than annually.

The Board shall determine the substances to be monitored on an industry basis dependent upon the industries user classification. The Board may utilize Federal Guidelines: State and Local Pretreatment Programs (three volumes) as published January 1977, or its latest revision, in determining substances to be monitored.

The Board may amend the monitoring requirements on an industry by industry basis for the purpose of enforcing these rules and regulations.

**Section 7.05.** The Board shall compute the amount owed by each industrial Township User for its share of the portion of the EPA grant. The Board shall then render a statement on the quarterly bill to each said industrial Township User showing the basis of the charge and the amount due for the industrial cost recovery.

**Section 7.06.** In the event that the allocations and ICR assessments are not acceptable to an industry, such industry shall have the right to appeal as follows:

Two professional engineers shall be chosen, one by the industry and the other by the Board, neither of whom shall be a regular employee of either principal. Such person shall act as referee. As soon as such referees are chosen, the Board shall file with them a certified copy of the complaint and the decision of the Board and it shall be the duty of such referees to investigate the complaint and to agree either to affirm or reject the findings of the Board and file a report with the Board within a reasonable time, setting down their decision. If the referees so chosen are unable to agree, they shall choose a third professional engineer, and the decision or recommendation of the majority shall be reported to the Board. The decision or ruling of the Board shall be final and shall be reported to the industry.

The fees and expenses of the referee appointed by the industry shall be paid by the industry and the fees and expenses of the referee appointed by the Board shall be paid from funds appropriated by the Board for such purposes, from the surcharge collections if possible. The fees and expenses of the third referee shall be equally divided between the industry and the Board.

**Section 7.07.** Persons affected by the ICR system may obtain local review of the Authority's administration of the ICR system by means of an audit trial.

## **ARTICLE VIII**

### **SPECIFICATIONS FOR LATERAL SEWERS**

#### **Section 8.01. Application of These Specifications**

These specifications shall apply to extension of the Sewer System by a Developer and

Lateral Sewers.

**NOTE:**

Reference is made in these specifications to "NON-SHEAR FERNCO" couplings. If such a coupling cannot be procured, an alternate Std Fernco with stainless steel Metal Band fitting shall be used. No other type of connection shall be made without written approval of the Authority.

**Section 8.02. Tap-in Procedure.**

**(a) Tap-in Permit**

Before any Lateral Sewer is connected to the Sewer System, approved for use and accepted by and prior to the issuance of any Township Building Permit, a Tap-in Permit must be obtained from the Authority.

**(b) Tap-in Permit Application**

A Tap-in Permit may be obtained by submitting to the Authority a completed Tap-in Permit Application which is available at the office of the Authority.

**(c) Tap-in Permit Fee**

The Tap-in Permit Application shall be submitted with the Tap-in Permit Fee. The current Tap-in Permit Fee is \$2,500.00. The fee may be increased or decreased by the Authority from time to time. Contact the Lawrence-Hickory Municipal Authority at 724-654-5934 for the current Tap-in Fee required to connect to the Sewer System.

**(d) Expiration of Tap-In Permits:**

The Sewer Lateral must be constructed and connected to the Sewer System within one year from the date of the issuance of a Tap-in Permit, unless a permit extension is requested in writing by permittee no less than 10 business days prior to the permit expiration date. Permit extensions, if approved, shall be no more than 180 days from the previous expiration date. Otherwise, the Tap-in Permit shall be void.

**(e) Crossing Adjoining Property to Connect to Sewer System**

If a Lateral Sewer crosses other property or properties, a perpetual easement/right of way agreement satisfactory in form and content to the Authority must be secured from the necessary parties and shall be submitted with the Tap-in Permit Application. The party placing a request for a Tap Permit shall provide evidence of the easement (easement plan as filed with Country Recorders Office). Sketches, drawings, surveys, or any other source evidence other than a recorded easement with the County shall not be acceptable, and no Tap Permit will be issued.

**(f) Re-issuance of Tap-in-Permit**

In the event a structure is destroyed for any reason, and within a one year period, a new structure is built on the same property for which a Tap-in Permit was issued, a "re-issued Tap-in Permit shall be required following the submission of a new Tap-in-Permit Application as provided in this Section. No work shall proceed until a Tap-in Permit is issued. The property Owner shall document and provide entry of Authority representative within 30 days of the structure destruction to inspect that the sewer lateral has been capped to prevent extraneous surface/ground water runoff from entering the sewer system after the structure has been destroyed.

**Section 8.03. Applicable Codes and Authority Inspection, Inspection Status, and Plumbing Permit Requirements**

**(a) Current International Plumbing Code Requirements Shall be Applicable.**

The provisions of the International Plumbing Code ("IPC") shall be applicable to all works to which these specifications apply. If any of the requirements of these specifications are found to be in direct conflict with the requirements of the then current IPC, the requirements of the IPC shall govern. Furthermore, if the IPC contains requirements exceeding those contained in these Specifications, the requirements of the IPC shall govern.

**(b) Authority Inspection**

The Authority shall inspect and approve piping of all Sewers and Sewer Laterals, traps, vents and cleanouts.

**Section 8.04. Lateral Sewer Work**

It shall be an Owner's sole responsibility to maintain, repair or replace Lateral Sewers as deemed necessary or advisable by the Authority.

**(a) Location of "Wye" Fittings:**

The location of a Wye fitting shall be determined solely by the Authority.

**(b) Pipe Materials & Sizes Allowed:**

All Lateral Sewers shall be comprised of four-inch (4") or six-inch (6") SDR35 OR SCHEDULE 40 (ABS or PVC) pipe materials as determined by the Authority. All lateral piping within an Authority Easement shall be six-inch (6") SDR35. All Wye fittings shall be a six-inch

(6") inlet with at least a ten foot (10') section of six-inch (6") SDR35 pipe extended towards the dwelling/structure. At that point, the piping may be reduced to four-inch (4").

All Sewers to be approved for use and accepted by the Authority, or already owned by the Authority shall be comprised of eight-inch (8") SDR35 or larger piping.

**(c) Times Permitted to Work in Easements:**

An Owner shall not uncover, or make connections to the Sewer System, or in any of the Authority easements before 7:00 AM or after 3:00 PM on any weekday, or at any time during a weekend.

**(d) Providing Depth for Gravel Bedding:**

All sewer piping excavation must be deep enough to provide for stone bedding of six inches (6") under the proposed pipe grade elevation.

**(e) Gravel Bedding:**

Sewer bedding shall be stone (57s) of no less than six inches (6") in depth, shall be placed under the entire length of any and all piping installed, whether new, used for a repair, or as replacement. Six inches of such gravel must be placed around all sides of the piping and twelve inches (12") of such gravel shall be placed over top of the pipe to prevent any deflection.

**(f) Site Tees (New and Repair Work)**

A six-inch (6") site tee fitting along with a six-inch (6") vertical riser pipe and access cap, shall be installed in the Lateral Sewer at a point as near as possible to the Authority easement or roadway. All site tees and the vertical riser piping shall be six-inch (6") diameter and be an actual tee fitting. (Not a Y plus 45 bend fittings) Reduction to four-inch (4") piping from the site tee back toward the structure is permitted. The access cap for the site tee may be the push over or threaded style and shall be as close to the finish grade as possible or higher.

In driveway applications a Josam Series 57008-Z-CI iron housing and cover or equivalent shall be used. Grouting and concrete shall be placed as directed by the Authority.

**(g) Lateral "Clean-out" - Spacing:**

Cleanout fittings are to be placed in the Lateral Sewer piping at intervals of 100 feet. A clean out shall be placed within five feet (5') from the foundation just before the house-trap on new Sewer Lateral construction.

**(h) House-trap Requirements:**

House-traps shall be of seamless construction at the lower elbow and shall be installed no

more than five feet (5') from the foundation of new structures. In existing structures, house-traps shall be placed as close as possible to the existing foundation, without violating applicable codes. No house-trap is to be installed using SDR35 piping.

**(i) Fresh Air "Cover":**

A Pittsburgh Pattern Cast Iron "Fresh Air Cover" is required on the house-trap and shall be 3-4" above the finished grade, and no more than five feet (5') from the foundation in all new structures. No Fresh Air Vents for the house-trap shall be placed in any driveway.

Piping is to be routed away from the area completely. If this proves impossible, concrete work to support piping and a Josam Series 57008-Z-CI Iron Cover assembly or equivalent shall be used.

**(j) 6" to 4" Reducing Similar Pipe Materials:**

A reducer fitting must be used at the transition of pipe sizes from six-inch (6") to four-inch (4") near the Authority easement. Piping may be reduced from six-inch (6") to four-inch (4") pipe on private property from the Authority's easement to the house trap. A 4" x 6" Fernco (boot) fitting, or 6" x 6" non-Shear Fernco fitting is required between the service lateral and dwelling line.

**(k) 90 Degree Elbow Fittings in Sewers:**

No 90-degree bend fitting laid on its side is permitted as a part of the Sewer Lateral. They are permitted only to allow a change in the elevation of the Sewer Lateral.

**(l) Manhole Tap Connections:**

No Sewer Lateral shall be connected to a manhole unless approved in writing by the Authority.

**(m) Fats, Oils and Grease (FOG) Traps/Interceptors/Separators:**

Appropriate FOG traps, interceptors, or separators shall be installed in all commercial food preparation locations, restaurants, or any facilities handling food in any way (whether deep fryers or flat top grilles are present or not), gas stations, service garages and other dwellings and structures as required by the Authority.

FOG traps, separators, and interceptors shall be constructed of impervious materials capable of withstanding abrupt and extreme changes in temperature. They shall be of substantial construction, watertight, and equipped with easily removable covers which when bolted in place shall be gastight and watertight. Grease traps shall be located far enough away from the structure to ensure that the grease shall solidify within the trap and

does not allow for short circuiting or blow through.

All FOG traps, separators, and interceptors, where required, shall be installed by the owner at his expense. Such units shall be operated, cleaned, and maintained so that they shall be continuously efficient and shall be operated, cleaned, and repaired by the owner at his expense as required to maintain such efficient operation.

**(n) Working in a Public Right-of-way or Road:**

Only a registered plumber shall perform work within or under an Authority or Township or other right-of-way or road, after having obtained any necessary permits. A copy of any required permit shall be submitted to the Authority with the Tap-in Permit Application.

Before work begins an inspection schedule shall be arranged with the Authority Engineer.

**(o) Multiple Connections Using One Common Lateral:**

Any existing property with multiple structures using a single common Sewer Lateral that was constructed prior to the inception of this document shall be permitted until the property is subdivided or sold. Separate Sewer Laterals shall then be constructed to the Sewer System after a new tap-in permit(s) is obtained.

**(p) Separate Sewer Laterals Required**

A separate Sewer Lateral shall be required for each single-family residence or apartment, and/or non-continuous structures, or outbuildings requiring a new sewer connection.

**(q) No Plumbing Contractors Recommended:**

The Authority does not recommend Plumbing Contractors. The Authority may develop a list of plumbers that have previously performed sewer work in Hickory Township. No recommendations of these or any others can or will be made.

**(r) Slope of Pipe/Percent (%) Grade:**

Four-inch (4") pipe shall be constructed at a minimum slope of 1/8" per foot or 1 %. Six-inch (6") pipe shall be constructed at a minimum slope of 1/16" per foot or 0.6%.

**(s) Concrete Encasement:**

Concrete encasement approved in writing by the Authority shall be placed in any installation application where a Sewer Lateral, or a Sewer Line being built or repaired

crosses under a creek, stream, or other waterway. This encasement shall be no less than twelve-inch (12") cross section on all sides of the pipe and shall meet all applicable state and federal laws whichever is more stringent. Proper ground preparations and pipe supports shall be made to handle the increased weight of the concrete places on the piping.

#### **Section 8.05. Inspections**

##### **(a) Scheduling Inspections:**

All Sewer Lateral inspections shall be performed by the Authority Representative and shall be scheduled in advance. No Sewer Lateral inspections will be done on weekends or after 3:00 PM on weekdays, unless pre-scheduled with the Authority.

**(b)** All completed Sewer Lateral work shall be inspected by the Authority Representative before the work is back-filled, partially back-filled or covered. If any work is covered prior to the inspection, the work shall be uncovered to allow for visual inspection.

**(c)** If using PVC SCH 40 Pipe, the Owner/Plumber shall show to the Authority Representative that all glued joints are permanently, properly and solidly joined together.

Authority Representative must be present when the Wye fitting is installed.

#### **Section 8.06. Grinder Pumps**

**(a)** Grinder Pumps for new construction shall be permitted after written application is made to the Authority and only where approved in writing by the Authority. The grinder pump, pump housing, and piping vendor information and "cut sheets" shall be provided to the Authority's Engineer for review and approval.

**(b)** The house lateral discharging into the Grinder Pump basin shall be at least four-inch (4") pipe.

**(c)** The discharge piping from the Grinder Pump assembly shall be 1 1/4", 1 1/2" or 2". It shall be of rolled HDPE piping with appropriate butt fusion or electro-fusion weld joints and/or fittings that may be required to make connections to the pump discharge and terminal connection.

**(d)** The Grinder Pump installation shall be in accordance with the manufacturer's specifications and inspected by the municipal building inspector.

**(e)** Replacement, repair, and maintenance of the entire Grinder Pump system (pump, piping, and electrical work) shall be the responsibility of the Owner even where the system may cross another property. If the system is constructed on any property other than that of the owner, an easement (as noted above) permitting the placement shall be provided to the Authority at the time application to use a Grinder Pump is made.



(f) The entire installation shall be inspected and approved by the Authority before the system is placed into operation.

#### **Section 8.07. Septic Tank Disconnection**

(a) No privy, vault, cesspool, septic tank, mine hole or other similar receptacle used for sanitary wastewater and solids shall at any time be directly or indirectly connected to the Authority Sewer System.

#### **Section 8.08. Swimming Pool Draining & Roof Leaders**

(a) Swimming Pool drain water discharge, whether public or private, shall not be directed into the Sewer System. All draining of this water shall be directed to a berm, gutter way, roadway, piping, or any other conduit leading to a Storm Sewer, or other storm water collection system.

(b) Roof leaders are not permitted to enter the Sewer System. They must discharge either to a gravel pit or be directed to a roadway or some other lower point.

#### **Section 8.09. Laterals - When Structure Is "Destroyed, Removed, Replaced or Otherwise Completely Altered"**

(a) When a structure or dwelling is destroyed by Fire, Wind, Construction, or any other manner and has a Sewer Lateral connection to the Sewer System the Sewer Lateral connection must be capped immediately until the structure is replaced, rebuilt, or lawfully reused.

(b) The Authority shall be notified of the capping and provided with the opportunity to perform an inspection.

### **ARTICLE IX**

#### **PROPOSED EXTENSIONS OF SEWER SYSTEM BY DEVELOPERS**

**Section 9.01.** A Developer proposing to extend the sewer system shall submit to the Authority two (2) copies of preliminary plans for the proposed extension. The proposed Sewer System Extension shall be depicted on 24" x 36" sheets showing plan views to a scale of 1" = 50' and profiles to a scale of 1" = 10' vertically and 1" = 50' horizontally, a north point, a suitable title block, date and the name of the engineer or surveyor and imprint of his registration seal.

**Section 9.02.** All such plans shall conform to the latest requirements of the Commonwealth of Pennsylvania Department of Environmental Protection Wastewater Facilities Manual, the Lawrence-Hickory Municipal Authority Developer's Manual (a

copy of which is attached and incorporated herein) and any other applicable laws, rules, regulations, and specifications applicable thereto.

**Section 9.03.** All Sewers shall be designed in accordance with the Sewerage Manual of the Commonwealth of Pennsylvania Department of Environmental Protection, these Rules and Regulations and the Lawrence-Hickory Municipal Authority Developer's Manual and any other applicable laws, rules, regulations, and specifications applicable thereto.

**Section 9.04.** The Authority's Engineer shall review all plans for Sewers to be constructed by a Developer and later to be taken over by the Authority. All engineering fees and costs incurred by the Authority in connection with a review of the plans and otherwise related to the project shall be paid by the Developer.

**Section 9.05.** After review of the preliminary plans by the engineers employed by the Authority and approval by the Authority and the Township, one copy thereof shall be returned to the Developer with such comments and notations thereon as may be deemed appropriate by the engineers of the Authority. After making the necessary modifications and corrections, five (5) final copies of the plans for the proposed extension shall be submitted to the Board, said plans to have the same characteristics as set forth in this Article.

**Section 9.06.** Construction of Sewers shall not be permitted until all required permits have been obtained for the development and the Sewer Extension, the proposed Sewer Extension has been approved in writing by the Authority, the required deposit has been made by the Developer with the Authority to cover engineering reviews, inspections, administrative, legal and other fees based upon the anticipated costs thereof and, if required by the Authority, a standard Developer's agreement as promulgated by the Authority has been executed by the Developer and delivered to the Authority.

**Section 9.07.** Prior to final acceptance by the Board of any Sewer Extensions, the Developer shall furnish to the Board "as built plans" showing the angles and distances between manholes, the top and invert elevation of each manhole and the exact location of all Sewer Laterals and house Sewer Lateral connections relative to the nearest manhole both downstream and upstream. The Developer shall provide the Authority with access to the Sewer System extension for the purpose of conducting an inspection.

**Section 9.08.** Prior to final acceptance by the Board of any Sewer Extension, all easements over private property in a form acceptable to the Authority and required for the construction of the Developer's sewer shall be obtained and recorded at the Developer's expense, naming the Authority as grantee therein. Any legal fees and costs incurred by the Authority in connection with the preparation or review of, or in the effort to secure easement agreements shall be paid by the Developer.

**Section 9.09.** All Sewer pipes shall be new and shall be PVC pipe conforming to

ASTM Specification 3035, unless otherwise specified for extraordinary ground conditions by the Board.

**Section 9.10.** All sewer pipes shall be a minimum of 8" in diameter and have a minimum laying length of not less than five (5) feet unless otherwise approved in writing by the Board in advance of the laying of such pipe.

**Section 9.11.** The installation of Sewers shall start at the lower end of the line and proceed upstream so that the spigot ends point in the direction of flow. The pipe shall be carefully laid to the approved and required line and grade. The handling, placing, and jointing of pipe shall be in strict accordance with the pipe manufacturer's recommendations.

**Section 9.12.** All manholes shall be constructed in accordance with the standards established by the Board. Frames and covers for all manholes shall conform to the standards established by the Board. Vented covers shall be furnished at the ends of lines. All manholes shall have exterior surfaces coated in a bitumastic coating and shall be vacuum tested to show water tightness.

**Section 9.13.** All such Sewers shall be low pressure tested and mandrel tested for leakage and minimal pipe deflection and successful passage of such testing shall be a condition precedent to acceptance of such Sewer lines by the Board in all events.

**Section 9.14.** The Developer desiring to connect an occupied building to the Sewer System constructed or being constructed by the Developer shall file all necessary applications for Tap-in or connection permits and pay to the Authority the applicable Tap-in Permit fee for each occupied building which amount shall be due and payable prior to beginning to connect to an occupied building.

**Section 9.15.** The Developer shall reimburse the Board in full for all costs of inspection in connection with the construction of any Sewer System constructed by the Developer. The amount and type of inspection required shall be determined by the Authority during construction. The estimated amount of inspection fees shall be deposited with the Authority in accordance with Section 9.06 hereof, and any portion of said deposit not utilized for such inspection shall be refunded to the Developer. In the event it becomes apparent during the course of construction that the amount deposited will not cover the inspection fee, the Board may require a further deposit by the Developer, and upon notice of the need for such further deposit, developer shall do no further construction work until such deposit is made.

**Section 9.16.** No Sewer extensions constructed by a Developer will be approved for use and acceptance by the Board until said Sanitary Sewers are formally approved by the Board, all Tap-in Fees for each building then connected to the Sewer System and other fees and costs have been paid, and the Board has been reimbursed in full for all inspection costs incurred during construction, testing and approval.

## ARTICLE X

### DELINQUENCIES, VIOLATIONS AND REMEDIES

**Section 10.01.** Each sewer service charge (including the industrial cost recovery), surcharge, penalty and interest imposed by these rules and regulations shall be a debt due the Authority and shall be a lien on the property served, and if not paid within thirty (30) days after the date rendered shall be deemed delinquent. In such event, the Authority may proceed to file a lien in the Office of the Prothonotary of Lawrence County, Pennsylvania, and collect the same in the manner provided by law for the filing and collection of municipal claims; or the Authority may proceed to collect such delinquent sewer service charge, surcharge, penalty and interest by an action in assumpsit, or by distress of personal property on the premises, or by any other legal or equitable remedy then available to the Authority. In the event of failure to pay the sewer service charge, surcharge, penalty and interest after they become delinquent as herein provided, the Authority shall be authorized, in addition to any other remedies authorized by law, and to the extent authorized by law, to shut off or cause to be shut off, the water delivered to such property, and/or to remove or close the sanitary sewer connection, and shall have the right to enter upon the property served for such purposes and to take such steps as may be necessary to accomplish the same; and any expenses with respect thereto, as well as the expense of restoring any such water and/or sewer service or connection, shall likewise be a debt due the Authority and a lien on the property served and may be filed and collected as hereinabove provided, and such water and/or sanitary sewer connection may not again be turned on or restored for the same owner or user until all sewer service charges, surcharges, penalties and interest, including the expense of removal, closing and restoration, shall have been paid.

**Section 10.02.** Pursuant to the provisions of 53 P.S. 7101, et. seq., the Authority shall be entitled to collect from an Owner(s) the sum of One Hundred Seventy Five Dollars (\$175.00) per hour to compensate attorneys retained by the Authority in connection with the collection of a delinquent account, or the filing of a municipal claim or lien, or undertaking collection and representation of the Authority in any actions in law or equity involving the collection of delinquent accounts, municipal claims or municipal liens.

**Section 10.03.** Change of ownership or occupancy of any property served by the Sewer System and/or the sewage treatment works as to which the service charge, surcharge, penalty or interest imposed by these rules and regulations is delinquent, as provided in Section 7.01 hereof, shall not be a cause for reducing or eliminating the rights and remedies of the Authority as set forth in this Article X.

## ARTICLE XI

### VALIDITY

**Section 11.01.** If any one or more of the provisions of this set of rules and regulations shall for any reason be held to be illegal or invalid or otherwise contrary to law, then such provisions shall be null and void and shall be deemed separable from the remaining provisions.

hereof but shall in no way otherwise affect the validity of these rules and regulations.

**Section 11.02.** All other rules and regulations affecting the Sewer System not in accordance with these rules and regulations are hereby repealed insofar as they affect these rules and regulations. The rules and regulations may be amended and modified from time to time by resolution of the Board duly adopted.

**Section 11.03.** The Board may, by agreement with any person or firm, delegate, transfer, set over and assign to such other person or firm any and/or all administrative duties, obligations and rights of the Board under these rules and regulations.

**Section 11.04.** To the extent these rules and regulations are internally inconsistent or inconsistent with the Lawrence-Hickory Municipal Authority Developer's Manual or any applicable law, rule, regulation, or specifications, the more stringent requirements shall apply.

**Section 11.05.** These rules and regulations were adopted pursuant to and in accordance with a resolution of the Board adopted December 21, 2023.

**Section 11.06.** These rules and regulations shall be effective as of January 1, 2024.

**LAWRENCE HICKORY  
MUNICIPAL AUTHORITY**

# **DEVELOPER'S MANUAL**

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**SECTION 1: PROCESS OVERVIEW**

**Introduction**

The Lawrence Hickory Municipal Authority (LHMA) Developer's Manual outlines the regulations and procedures for developments connecting to public sewer facilities or constructing new facilities to be dedicated to LHMA. The purpose of this manual is to describe the permit application process, the requirements of the application materials, and the developer's responsibilities. To ensure timely review and approval of tap-in plans, this manual is to be used in conjunction with an open dialogue with LHMA.

More than one section of the manual may be applicable dependent upon the type of development and scope of work proposed by the applicant. In instances where the manual does not address a specific or unique site condition of a proposed development, the applicant should contact LHMA to determine if additional information is required.

LHMA is regulated by the Pennsylvania Public Utility Commission (PUC). Any standards set forth in this manual are subject to PUC review.

At minimum, this manual may be updated annually. More frequent updates may occur as procedures or regulations change.

**Development Permit Process**

The following is a general overview of the development permit process. For more detailed information, please refer to the specific sections referenced in the manual.

LHMA requires submission of all applications and drawings for development projects to be delivered to the LHMA office. After the pre-development meeting described below, the applicant can begin their permit application. Applications and documents are not considered submitted until all fees are paid.

All applications must include the required documentation outlined in this manual. Failure to provide will result in delayed approval.

**Pre-Development Meeting**

Prior to submitting the permit application, the applicant is required to request a pre-development meeting. A meeting request may be submitted early in the planning process or after preliminary tap-in plans have been designed. If you have engaged an engineer, architect, or plumber, it is highly recommended that they attend the meeting.

A meeting may be requested by contacting the LHMA office during operating hours. LHMA will send out pre-development meeting minutes after the meeting.

**Department of Environmental Protection (DEP) Sewage Facilities Planning Module**

Any development within the LHMA service area that meets the DEP's criteria will be required to complete sewage planning. The requirement for sewage planning depends on a variety of factors, including but not limited to, the Existing Flows, Project Flows, Net Flows, date of lot creation, previous planning module approvals, etc.

Detailed instructions are covered in the DEP Sewage Facilities Planning Module section.

**Tap-in Plan Review**

Most development projects will require sewer tap-in plans to be reviewed and approved by LHMA staff. No work on existing or new taps, including terminations, is to begin prior to obtaining this approval.

Detailed drawing requirements are covered in the Tap-in Procedures section.

**Sewer Availability Letter Request**

Projects requiring the submittal of a DEP Sewage Facilities Planning Module must submit a **Sewer Availability Letter Request**. The request letter may be obtained from the LHMA Secretary. LHMA staff will review and return a will-serve letter with detailed available infrastructure and infrastructure maps. Some lenders may also require a will-serve letter.

The sewer availability letter is not a permit and all procedures set forth in this document must be completed to obtain approval.

**Construction and/or Relocation of LHMA Facilities**

A development may require an extension, relocation, or construction of LHMA facilities to provide sewer service. A development agreement and construction drawings will be required.

Requirements are detailed in the **Private Construction of Public Facilities section**.

**Review Procedures and Fees**

LHMA will review applications in the order received unless an expedited review has been requested by applicant. Baseline review times are 30 business days per review. Review times may vary depending on volume and complexity. Expedited reviews will guarantee a review within 15 business days after the review fees have been paid. Projects that receive an expedited review will be charged a higher fee detailed in the **Fee Schedule**. To see a complete list of LHMA fees, review our **fee schedule**; please contact the LHMA Secretary. LHMA does not provide a preliminary cost estimation prior to completing the development permit review process as fees may change depending on the project scope.

An additional review fee will be required for any revisions to plans that have been previously issued a permit.

Additional fees may be required including but not limited to:

- Sewage facilities planning module review fee (PADEP)
- Street closure and traffic obstruction permits (TWP/PENNDOT)
- Utility street/road occupancy permit (Twp/PENNDOT)
- Building permit fees (County/Twp)

**Permit Expiration**

Issued permits are valid for a period of five (5) years from date of issuance. Issued permit refers to an application that has met all of the requirements of this manual and have paid all fees due.

**SECTION 2: SINGLE-FAMILY RESIDENTIAL DEVELOPMENTS**

**Overview**

Single-family residential developments are equal to one single-family residential unit. Single family residential units with fire service or developments on land that has been subdivided to include multiple single-family homes are not considered a single-family residential development and shall fall under the regulations set forth in the remaining sections of this manual.

Single-family residential developments are required to submit tap-in drawings to obtain sewer service, additionally they must obtain a Residential Permit from LHMA prior to completing any sewer work.

Single-family homes that are separating a party line, reconnecting an existing sewer lateral, or reusing an existing tap for a new construction house are required to apply for a Residential Permit. Party line sewer separations do not incur any fees.

**Submission Requirements**

To obtain a Residential Permit, the applicant is to complete and submit the residential permit application.

All fees are to be paid at the required intervals and prior to start of work.

All applications are subject to tap-in plan review, all sewer work for single-family homes are required to meet LHMA minimum standards for tap installation outlined in the Tap-in Procedure section. All work is to be inspected by LHMA prior to backfilling.

### **SECTION 3: PADEP SEWAGE FACILITY PLANNING MODULE**

#### **Overview**

The Pennsylvania Sewage Facilities Act (Act 537, as amended) requires each municipality in Pennsylvania to have an Official Sewage Facilities Plan (Official Plan) to address existing and future sewage disposal needs. Please note that the Pennsylvania Department of Environmental Protection (PADEP) administers and oversees the Act 537 regulations. The Sewage Facilities Planning Module (SFPM) is the instrument for legally amending the Official Plan to account for flows from new/unforeseen subdivisions and land developments. The SFPM requires review/approval from each Facility Owner within the sewerage system, including Collection (LHMA), Conveyance (New Castle Sanitation) and Treatment (New Castle Sanitation). Please be advised that the LHMA review/approval shall be limited to the collection system portions of the SFPM. Each Facility Owner conducts a review to understand how the proposed development will impact available dry-weather capacity and whether the proposed flows will create a dry-weather hydraulic overload within the next five (5) years.

Amendments to Act 537 have created a process by which certain developments may be exempt from the planning module process. However, in accordance with 25 Pa. Code 71.51(2), the exemption process requires that the existing collection, conveyance, and treatment facilities are in compliance with the Clean Streams Law.

Any development within the LHMA service area that meets the PADEP's criteria shall be required to complete sewage planning. The requirement for sewage planning depends on a variety of factors, including but not limited to, the Existing Flows, Project Flows, Net Flows, date of lot creation, previous planning module approvals, etc.

Please note that the SFPM requires approval from LHMA, New Castle Sanitation, Township Planning, Township Supervisors and the PADEP. As a result, the approval process, from start to finish, can take several months. The PADEP has up to 90 days to respond upon receipt of the completed SFPM.

#### **SFPM Steps for Applicant**

1. The Applicant shall obtain a Determination on the Need for Sewage Planning from the LHMA by initiating a Development Permit Application. If a SFPM is not required, then the requirements of this Section shall be satisfied and complete. If a SFPM is required, then the LHMA shall provide the location of the most limited capacity sewer (MLCS). The Applicant shall be required to assess the hydraulic capacity of the MLCS per the requirements contained within this Section. In addition, the following steps would apply.
2. The Applicant shall submit the Sewage Facilities Planning Module Application Mailer to the DEP and obtain the applicable SFPM forms and DEP Code Number.
3. The Applicant shall obtain approval from the LHMA for the Collection System portion of the SFPM. Please refer to the Development Permit application, where a
4. SFPM sub-process should have been generated.
5. The Applicant shall obtain approval from New Castle Sanitation for the Conveyance and Treatment System portions of the SFPM. Please coordinate with New Castle Sanitation for additional information on their review process.
6. After obtaining approvals from the Collection, Conveyance and Treatment System Owners, the Applicant shall obtain approval from the Planning Department. Please coordinate with the Planning Department for additional information on their review process. The Planning Department will forward the SFPM to the Township Solicitor to draft a Resolution for approval by Township Supervisors.
7. After obtaining approval from the Township Supervisors the Applicant shall obtain final approval from the DEP. Please be advised that the LHMA cannot issue the Development

Permit until the DEP approves the SFPM.

### Determination on the Need for Sewage Planning

The LHMA will determine the need for sewage planning in during the initial review of the development permit application. Please note that sewage planning is not required for every development. However, the criteria which effect the determination are often misunderstood. The primary criteria are summarized, as follows: Lot Creation Date, Existing and Proposed Flows, Historical SFPM Approvals, and Additional Lot Creation. Please note that lot consolidations and lot line revisions do not necessarily result in the need to complete sewage planning. However, subdivisions which result in additional lots, as compared to the existing configuration, will always result in the need for sewage planning.

### Flow Estimate Calculations

Within the Development Permit application, the Applicant shall be required to provide the supporting calculations utilized to estimate the Existing Wastewater Flow and Proposed Wastewater Flow. The flow calculations shall represent the peak daily flow, which is defined as the maximum volume of wastewater during a continuous 24-hour period, expressed in gallons per day (gpd). As a result, the Applicant shall assume full occupancy, maximum turnover, etc. We understand that the DEP flow estimates may appear much higher than anticipated usage due to the use of low-flow fixtures, etc. However, please note that the flow estimates are attempting to estimate the peak daily flow, not the average daily usage.

The preferred means of calculating the Existing and Proposed Flows is via flow estimate calculations. Please refer below to Table 3.1. However, on a case-by-case basis, the LHMA may consider flow calculations based on historical water usage records. In these instances, the LHMA will allow the use of a peaking factor of 2.5 to establish the peak daily flow.

The flow calculations shall be limited to wastewater flows and represent the entirety of the existing and proposed uses (i.e. retail, residential, office, etc.).

The LHMA service area can be generally described as agricultural. However, Existing Flows shall be limited to uses which have occurred within 15 years of the submission date. The LHMA will utilize Google Street View to confirm the existence of structures and uses.

Please see below for a few common uses and the associated information that would be required for

the flow calculations:

- Restaurant and/or Bar:
  - o Maximum occupancy
  - o Number of turnovers per day, typically three (3)
- Hotel:
  - o Number of hotel rooms
  - o Presence of any public retail or restaurant facilities

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- Residential:
  - Number of equivalent dwelling units from single-family residences, apartments, townhouses, duplexes, and condominiums
  - Presence of public facilities, such as swimming pools, gyms, cafeterias, etc..
- Office:
  - Maximum number of employees. The applicant shall assume 150 square feet of floor space per employee. The square footage can be limited to the office space, and does not need to include hallways, shared areas, etc.
  - Number of any public restrooms if any

**Net Flow**

The LHMA defines "net flow" as the difference between the proposed flow and existing flow, as follows:

$$\text{Net Flow} = \text{Proposed Flow} - \text{Existing Flow}$$

As a result, please note that the net flow may be positive or negative, depending on if there is a net increase or decrease in usage.

**Table 3.1**  
**Peak Daily Wastewater Flow Estimates**  
 (Flows are based on PA Code Title 25 Chapter 73 Paragraph 73.17)

Type of Use	Peak Daily Flow, and
Single family dwelling (For each bedroom over 3, add 100 gallons.)	400
Multiple family dwellings, including townhouses, duplexes, and condominiums	400
Apartment, one bedroom	150
Apartment, two bedroom	300
Apartment, three bedrooms or more	400
Hotels and motels (rent unit)	100
Rooming houses (rent unit)	200
Airline catering (per meal served)	3
Airports /per passenger-not including food)	5
Airports Per employee	10
Beauty shops (per customer chair)	200
Bus service areas not including food (per patron and employee)	5
Country clubs not including food (per patron and employee)	30
Drive-in theaters (not including food-per space)	10
Factories and plants exclusive of industrial wastes (per employee)	35
Laundries, self-service (gallons per washer)	400
Laundries, self-service gallons/front loading washer)	200
Mobile home parks, independent (per space)	400
Theaters (not including food, per auditorium seat)	5
Offices (per employee)	10
Restaurants (toilet and kitchen wastes (per patron)	10
(Additional for bars and cocktail lounges)	2
Restaurants (kitchen and toilet wastes, single-service utensils/person)	8.5
Restaurant, fast food (kitchen and toilet wastes/patron)	6
Restaurants (kitchen waste only, single-service utensils/patron)	3
Stores (per public toilet)	400

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Stores (per public urinal)	200
Stores (per public sink)	200
Warehouses (per employee)	35
Work or construction camps (semi-permanent) with flush toilets (Per employee)	50
Work or construction camps (semi-permanent) without flush toilets (per employee)	35
Churches (per seat)	3
Churches additional kitchen waste (per meal served)	3
Churches additional with (per service per meal served)	1.5
Hospitals (per bed space, with laundry)	300
Hospitals (per bed space, without laundry)	220
Institutional food service (per meal)	20
Institutions other than hospitals (per bed space)	125
Personal care home (per bed space)	125
Schools, boarding (per resident)	100
Schools, day (without cafeterias, gyms or showers per student and employee)	15
Schools, day (with cafeterias, but no gym or showers per student and employee)	20
Schools, day (with cafeterias, gym and showers per student and (per employee)	25
Camps, day (no meals served)	10
Camps, winter and summer residential (night and day) with limited plumbing including water-carried toilet wastes (per person)	50
Campgrounds, with individual sewer and water hookup (per space)	100
Campgrounds with water hookup only and/or central comfort station which includes water-carried toilet wastes (per space)	50
Fairgrounds and parks, picnic-with bathhouses, showers, and flush toilets (per person)	15
Fairgrounds and parks, picnic (toilet wastes only, per person)	5
Swimming pools and bathhouses (per person)	10

**Supplemental Guidance for the SFPM Component 3 Form**

The SFPM Component 3 Form is for sewage collection and treatment facilities. Please be advised that these instructions are intended to supplement the DEP's instructions. In the event that there is a conflict between this supplemental guidance and DEP's instructions, the Applicant shall complete the Component 3 Form per DEP instructions. This supplemental guidance is not intended to cover each section on the Component 3 Form, but rather, only the sections that directly apply to LHMA. The supplemental instructions for the SFPM Component 3 Form are as follows:

- Section A No additional comments. Please refer to the PADEP Instructions.
- Section B Please note that the Hickory Township and LHMA are separate and distinct entities. This section shall not be populated with LHMA information.
- Section C No additional comments. Please refer to the PADEP Instructions.
- Section D No additional comments. Please refer to the PADEP Instructions.
- Section E Submit a Sewer Availability Letter Request Form to confirm that LHMA can provide service to the proposed development. Please refer to the Process Overview for additional information.
- Section F No additional comments. Please refer to the PADEP Instructions.
- Section G The LHMA review is limited to Section G(1) - Collection System. Complete Section G(1b), as follows:  
Existing collection or conveyance system: [ROAD NAME - SEWER DIAMETER AND MATERIAL]

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<u>Owner:</u>	<u>The Lawrence Hickory Municipal Authority</u>
<u>Existing Interceptor:</u>	<u>Neshannock Creek Interceptor</u>
<u>Owner:</u>	<u>The New Castle Sanitation Authority</u>

- Section H No additional comments. Please refer to the DEP Instructions.
- Section I No additional comments. Please refer to the DEP Instructions.
- Section J For J(1), the Project Flows shall be identical to the Net Flows approved during the Determination on the Need for Sewage Planning step. For J(2), the LHMA applicable portions of the table are limited to the "Collection" row. Refer to the sections that follow for detailed information on submittal requirements.
- Section K No additional comments. Please refer to the DEP Instructions.
- Section L No additional comments. Please refer to the DEP Instructions.
- Section M No additional comments. Please refer to the DEP Instructions.
- Section N No additional comments. Please refer to the DEP Instructions.
- Section O No additional comments. Please refer to the DEP Instructions.
- Section P No additional comments. Please refer to the DEP Instructions.
- Section Q No additional comments. Please refer to the DEP Instructions.
- Section R No additional comments. Please refer to the DEP Instructions.

**Methodology to Determine the Present Flow Within the Most Limited Capacity Sewer**

The SFPM shall analyze the most limited capacity sewer (MLCS) downstream of the proposed connection to ensure the proposed flows will not create a dry-weather hydraulic overload within the next five (5) years. The LHMA shall provide the location of the MLCS within our online permitting portal. Please note that the MLCS is not typically the same sewer utilized for connection. The Present Flow within the MLCS shall be determined, as follows:

Method No.	Project Flows, gpd	Methodology to Determine the Present Flow within the MLCS
Method #1	Up to and including 4,000 and	Peak Flow Depth Measurements
Method #2	Greater than 4,000 and	Flow Monitoring

**Method #1: Peak Flow Measurement**

The Applicant shall take a minimum of five (5) flow depth measurements at the MLCS over a one-hour period between 6-8 AM or 6-8 PM. For example, an Applicant could take measurements at 7:00AM, 7:15AM, 7:30AM, 7:45AM and 8:00AM. The maximum of the five flow measurements shall be utilized as the flow depth for the Manning equation calculations. All flow depths between zero and one inch shall be rounded to one-inch.

**Method #2: Flow Monitoring**

The Applicant shall contract with a professional flow monitoring company to monitor the Present Flows at the MLCS. The flow monitoring shall take place for a minimum period of 30 calendar days, unless otherwise approved by the LHMA. Data should be checked for quality and analyzed to provide the present maximum monthly dry weather average flows and peak flows in gallons per day. For peak flows in the LHMA's collection



systems, indicate whether the flow is peak hourly flow or peak instantaneous flow. The Applicant shall provide the results in an excel spreadsheet.

**Calculations for Design Capacity, Present Flows and Projected Flows**

**General Information**

The flow calculations shall be signed and sealed by a Professional Engineer licensed in the Commonwealth of Pennsylvania.

When available, the Applicant may utilize historical as-built information to determine the existing sewer slope. If historical as-built information is not available, the Applicant shall either utilize the minimum slope permitted per the DEP Wastewater Facilities Manual or survey the existing sewer to determine the actual sewer slope.

The Applicant shall utilize the following Manning Roughness Coefficients (n):

**Table 3.2  
Manning Roughness Coefficient**

Pipe Material	Manning Roughness Coefficient, n
Brick	0.016
Concrete	0.013
Ductile Iron	0.012
Plastic	0.010
Vitrified Clay	0.015

The Applicant shall utilize the following Peaking Factors:

**Table 3.3 Peaking Factors**

Type of Collection System	Peaking Factor
Combined	3.5
Separate	3.0

**Flow Calculations**

The Applicant shall calculate the Design and/or Permitted Capacity, Present Flows and Projected Flows in 5 Years, as follows:

**Table 3.4 Flow Calculation Methodology**

Flow Type	Calculation Methodology
Peak Design Capacity	Use the Manning Equation for full-flow conditions
Average Design Capacity	= Peak Design Capacity + Peaking Factor
Present Peak Flow	Method #1: Use the Manning's Equation for partially filled pipes
	Method #2: Analyze the flow data
Present Average Flow	Method #1: = Present Peak Flow + Peaking Factor
	Method #2: Analyze the flow data
Projected Peak Flow in 5 Years	= (Present Peak Flow + Project Flow) x 1.05
Project Average Flow in 5 Years	= Projected Peak Flow in 5 Years + Peaking Factor

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## **SECTION 4: TAP TERMINATIONS**

### **Overview**

All connections to LHMA public facilities which are abandoned, proposed to be abandoned, or otherwise not in use or service, must be terminated at the connection to the LHMA-owned facilities per LHMA details, specifications, and/or standards at the property owner or developer's expense. All structures to be demolished must obtain a tap termination permit from LHMA. This includes but is not limited to restoration of public and private streets, sidewalks, utilities, or paving and landscaping or demolition of structures. If no tap termination permit is issued by LHMA, the property owner will continue to receive a monthly bill.

All tap terminations require a permit. A development permit application and drawings must be submitted. Any tap terminations proposed as part of the development of a property shall be included and approved on the tap-in plans as described in the Tap-in Procedures section.

### **Submission Requirements**

The applicable standard details must be shown on the applicant's drawings. All current standard details can be found in Appendix A. The applicant should note on the drawing any existing account numbers associated with the tap to be terminated. Please contact customer service if the account numbers are unknown.

### **Termination Procedure**

LHMA must verify the termination of the existing connections. The applicant shall notify LHMA by contacting the Field Supervisor provided with their permit at least 3 business days in advance of the proposed termination date. A LHMA inspector must be on site during the termination procedure and witness said terminations and pipe zone backfilling. Removal of existing private portions of abandoned or unused sewer laterals is the responsibility of the property owner. Absent the written agreement of the LHMA to the contrary, should the LHMA be required to remove a property owner's abandoned sewer laterals and/or abandoned, the total LHMA cost of that removal shall invoice and/or lien said property.

#### **Trenchless Technology**

If the applicant proposes to terminate a sanitary or storm sewer connection using trenchless technology, then the applicant must submit shop drawings and calculations for method to be used and conduct NASSCO certified closed-circuit televised video (CCTV) inspections of the public sewer before and after the termination(s). Copies of the videos and related report information must be submitted to the LHMA. All CCTV inspections must be compatible with LHMA electronic media and adhere to current LHMA standards.

## **SECTION 5: TAP-IN PROCEDURES**

### **Overview**

All developments and/or redevelopments proposing new taps, increasing flow to existing taps must submit tap-in plans stamped by a Pennsylvania Certified Engineer for review by LHMA engineers. This section outlines general plan requirements and specific tapping procedures. A development may include all taps described in this section while others may only include one.

The following prerequisite conditions must be satisfied prior to the review of tap-in drawings:

- The applicant shall have submitted a Sewer Availability Letter Request.
- If applicable, DEP Sewage Facilities Planning Module must be under review by LHMA.
- Applicable fees have been paid.

LHMA grants final approval of the tap-in drawing at their monthly Authority meeting. A copy of the approved drawings will be provided to the applicant when the permit is issued. A permit is not considered issued until all fees are paid.

### **General Requirements**

General tap-in guidelines are as follows:

- A development permit application has been submitted.
- Drawing size shall be 24 inches x 36 inches in landscape.
- Plan views shall be drawn to 1"=20' or 1"=30'.
- Drawing shall be readable and drawn to scale with a north arrow pointing to the top or the right of said sheet.
- The drawing shall include a plan view of the entire site. All existing topographic information shall be shown either 50 percent screened or half-toned.
- Existing building footprints shall be displayed and shall show the address, parcel ID, type of building, number of floors, the square footage of each floor and the total square footage of the building. If an address or parcel ID has not yet been established, use the proposed address.
- CCTV is required for all sewer lines pre and post construction when new taps, concrete work, or foundation work are proposed.
- Light cleaning may be required prior to CCTV which shall remain the responsibility of the developer.
- CCTV shall be in MPEG format and include a NASSCO/PACP export of CCTV database, PDF map showing the location of manhole IDs, PDF of all CCTV inspection logs.
- Existing manholes and wyes must be shown by survey stationing matching CCTV.
- All existing sewer, storm and water lines, as well as all other underground utilities near the project location shall be displayed. Each line shall be marked private or public.
- All existing sanitary sewers that will be tapped shall be displayed. The size and material type shall be shown.
- The proposed location and size of the service line shall be shown and stationing. Stationing shall be established from a fixed location such as centerline, right-of-way line, or property line. Manholes are not considered a fixed location unless otherwise directed by LHMA. Proposed sewer, storm and water lateral information is to be shown in bold line weight and text.
- The appropriate scalable plan view, profiles, and details shall be displayed.

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- All applicable standard tapping and termination details shall be displayed.
- All existing private water and sewer lines connected to the existing building or servicing the site including abandoned facilities. Any existing service line that will not be reused by the proposed project must be terminated by the owner. The service line must be terminated at the main as per LHMA Specifications and in a manner acceptable to the LHMA.
- All existing easements must be displayed on the plans. Documentation of easements must be provided.
- Each tap-in drawing must also include an appropriate title block in the lower right-hand corner of the drawing.
- All applicable tapping, termination, and trenching details shall be shown. Any modifications to LHMA details must be explicitly called out on the plans.
- Connection to LHMA sewer can be made through an existing wye or through a new approved connection into the LHMA sewer main. If private connection is proposed to be made through an existing wye, then the location of the existing wye must be shown and stationed to the nearest LHMA manhole on the sewer tap-in drawing(s). Certain existing wye stationing can be obtained from LHMA records/video location of taps. If a new connection is proposed using a new wye, then a detail of the connection must be shown and also stationed as stated above on the sewer tap drawing. New connections must follow current LHMA specifications and standards.
- CONSTRUCTION/CONNECTION of private sanitary laterals to LHMA manholes is not permitted.

### Tap Installation Procedures

#### Sewer line Taps

No sewer taps are to occur prior to LHMA approval.

Listed below are the required steps for sewer tap-in:

- The customer is to follow all steps outlined in previous sections of this manual to obtain a development permit.
- Once the permit is issued, the customer/ developer may begin site prep for service line.
- Customer/ developer shall obtain street opening permit if necessary and begin excavation to open street and expose sewer main.
- Customer/ developer shall use the contact information provided at permit issuance to schedule tap installation.
- LHMA will inspect service line tap installation.
- LHMA will inspect excavation for tap and any tap terminations, if necessary.

Construction personnel employed by the applicant are responsible for all permitting, excavation, backfill, trench restoration, and sewer lateral installations from the building to the point of the tap-in at the LHMA sewer main. The applicant's construction personnel must have proper trench shoring and equipment on site to conduct all required work and complete the job.

LHMA does not accept maintenance responsibility for any private sewer laterals including the connection to the main.

**SECTION 6: FEES**

LHMA will calculate the appropriate fees based upon the related project information submitted by the applicant. All fees are based on the extents of project scope and review, plus the cost of the taps.

**Fee Schedule**

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All fees are established in the LHMA.

**Fee Descriptions**

**Application Fees:**

LHMA charges an application fee based on the level of review required for each permit.

**Connection Fees:**

LHMA's current policy for sewer connections states that the customer is responsible for excavating and connecting the private sewer lateral at the LHMA main line as per current LHMA standards and specifications and installing the private service lateral from the LHMA main to the building to be served.

## **SECTION 7: PRIVATE CONSTRUCTION OF PUBLIC FACILITIES**

### **Overview**

This section is relevant to developments which require physical modifications to LHMA's existing water and sewer facilities. Please see below for a list of common examples:

- The development consists of a proposed public roadway to a residential subdivision. The developer is proposing new sewer facilities within the public roadway and intends to transfer ownership of the constructed facilities to LHMA.
- The LHMA has an existing sewer main that traverses the developer's property. The proposed structure is in direct conflict with the sewer main. The LHMA requires the developer to relocate the sewer main within the cartway of an adjacent street.

### **General Requirements**

The first step for developments which include Private Construction of Public Facilities (PCoPF) work is to submit a pre-development meeting request, as described in Section 1: Process Overview. The pre-development meeting is intended to address early-stage questions, such as:

- Is the PCoPF work required? Can the development be adequately serviced via existing infrastructure?
- What is LHMA's procedure for PCoPF Projects?
- What are the developer's next steps?
- Are there any immediate concerns with the proposed work?
- Are there better alternatives?

LHMA facilities in conflict with a proposed development shall be relocated at the developer's expense. LHMA is to review and approve all plans and specifications prior to construction as described in this section.

### **Conditions of Acceptance**

The LHMA will only accept the dedication of sewer facilities, including but not limited to manholes, sewer main, drainage structures, pump stations, etc.

The LHMA shall not accept any facilities located within private property or private right-of-way. In such circumstances, the constructed facilities would remain privately owned. If an existing private street is adopted by the Township as a public street, and said street contains privately owned sewer facilities, the LHMA is under no obligation to accept said facilities.

LHMA will not accept dedication of facilities that have not followed the processes contained herein. Lack of inspection by the LHMA, as-built drawings, or other requested documentation to verify the proper construction of the proposed sewer facilities may result in LHMA using funds from the performance bond to complete construction to our standards. LHMA reserves the right to require the unearthing of any completed infrastructure to ensure proper inspections take place prior to acceptance.

In any instances that LHMA cannot verify the new or relocated facilities have been constructed according to minimum standards, the facilities will remain private, and the developer will be required to obtain additional permits from the PADEP. The developer is also required to properly record with the County Recorder of Deeds the ownership/maintenance agreement between all parties that share use of the private utilities. The LHMA will not permit the connection of the proposed facilities to existing LHMA public facilities

if the maintenance agreement is not recorded. Copies of the PADEP variance letter, recorded easement(s), and recorded maintenance agreement must be submitted to the LHMA.

Past work not properly permitted and/or accepted via recorded agreement by the LHMA is the responsibility of the current property owner(s). This includes a wide range of structures including unauthorized private sewer taps. Any past maintenance and/or repairs done to said private facilities by the LHMA for the sake of public health and safety does not imply ownership by the LHMA.

Common reasons why facilities may not be accepted by LHMA are as follows:

- The facilities only serve a single customer. In such a situation, the facilities would be considered private sewer lateral(s) or private water service line(s). Documentation must be provided to LHMA that the correct permits and variances are in place for these private structures/facilities. This may include encroachment permits for facilities in the right-of-way, variances from Hickory Township/PADEP, recorded easements/agreements for other properties crossed, and other requirements depending on the specific site.
- Newly constructed roads not accepted by Hickory Township
- Facilities that cross private property (with or without easements) when it is not required by site conditions as interpreted by LHMA.
- Facilities that do not have all the required recorded legal agreements, easements and/or permits. It is the developer's responsibility to research and acquire at their expense all permits and/or recorded easements prior to dedication of public sewer facilities to LHMA.
- Facilities built do not match materials, methods, or general locations on an approved plan. Any departures from approved plans must be approved in writing by LHMA.

### **Development Agreement**

The Development Agreement is a legally binding document that defines the process for constructed facilities to be accepted by the LHMA. Upon request, the LHMA will provide a Development Agreement for the developer to review. The developer is encouraged to review the Development Agreement with legal counsel. Under no circumstances is the developer to change any items in the Development Agreement, unless otherwise directed.

Once finalized, the Development Agreement may be subject to approval at the next available LHMA Board of Directors meeting. Please note that, to be placed on the agenda, the Development Agreement needs to be finalized approximately one (1) month prior to the regularly scheduled Board meeting.

The Development Agreement, executed by the developer and the LHMA, shall be required prior to any subsequent approvals (e.g. construction drawings, performance bond, construction cost estimate, etc.). However, the absence of an executed Development Agreement does not preclude a developer from submitting documentation for review. The Checklist of Required Approvals summarizes the typical approvals contained within the Development Agreement, as further described below.

If the proposed scope of work requires an external inspection from an on-call consultant, the procurement process typically takes approximately six (6) weeks. The following approvals shall be required by the LHMA before a determination can be made on whom will perform the inspection services:

### **Construction Drawings**

The construction drawings must comply with the design standards contained within the latest version of the Checklist of Requirements for Construction Drawings. In addition, please see below for additional information:

- The LHMA aims to respond to each submission within 30 business days of receipt. However, the actual length of time required to conduct the review is largely influenced by the quality of the submission and complexity of the project.
- Newly constructed facilities shall be adequately sized and positioned to account for future development.
- Typically, the LHMA will install the proposed connections once a constructed sewer main is completed. However, please note that the developer's contractor is permitted to install connections per the following conditions:
  - o Connections shall be contained within an approved LHMA Development Permit. Please refer to Section 6 - Tap-in Procedures for additional information.

### **Construction Management and Construction Inspection**

The developer shall coordinate with the LHMA project manager to procure construction inspection (CI) services for the work contained within the Development Agreement. The LHMA will either perform the CI with internal resources (i.e. LHMA staff) or external resources (i.e. on-call consultants). There are many factors that will influence how the CI will be performed, including but not limited to, the scope of the work, allocation of internal resources in relation to the proposed schedule, type of work, etc. There are no exceptions to this requirement: all work shall require CI oversight. Changes to the construction start date shall require input and approval from the CI team to ensure availability.

The following approvals shall also be required prior to construction start-up, but are not typically on the critical path:

### **Performance Securities**

A performance security shall be required by the LHMA to ensure the developer constructs the work in accordance with the development agreement. The developer shall furnish a performance security in the amount equal to one hundred percent (100%) of the total construction cost estimate. The performance security may be in the form of a performance bond or other form acceptable to LHMA. The LHMA shall be the only named obligee on the security.

Please note that the Township may impose separate bonding requirements for street or sidewalk restoration.

### **Insurance**

The Developer shall provide a Certificate of Insurance, with LHMA listed as additionally insured, in accordance with the following coverage requirements:

Commercial General Liability: \$1 million per occurrence, and in the aggregate  
Automobile Liability: \$1 million per occurrence and in the aggregate

The Developer's policies shall also require 30 business days' prior written notice to the Authority of any cancellation, amendment, or non-renewal of the policies.

### **Executed Contract Between the Developer and Contractor**

The Developer shall submit an executed contract with the selected Contractor for the proposed work.



### **Construction Materials**

The developer shall submit the proposed construction materials (i.e. shop drawings, cut sheets, submittals) for LHMA approval. The construction materials must comply with LHMA specifications. Please be advised that the usage of rejected or unapproved materials may result in the LHMA not accepting the constructed facilities.

### **Easements for Construction on Private Property**

The LHMA requires the construction of new facilities to be located within the public right-of-way. In the event that the aforementioned requirement is unfeasible, and the proposed facilities need to be located on private property, the LHMA shall require a recorded easement. The developer must show recorded proof that all easements and/or encroachments exist in the records of the County Recorder of Deeds. The minimum easement width is 20-feet centered on the facility. The construction of adjacent facilities would result in a wider easement. In addition, the LHMA may request additional width for reasons including, but not limited to, the following:

- Excessive depths
- Soil conditions
- Site obstructions

### **Pre-Construction Meeting**

The LHMA shall require a pre-construction meeting on-site. The required attendees shall include the LHMA Project Manager, LHMA Inspector, developer, developer's design engineer and developer's contractor. The topics of discussion shall include introductions, roles and responsibilities, inspection protocols, close-out procedures, testing requirements, open discussion, etc.

### **Acceptance of Privately Constructed Public Facilities**

The following approvals shall also be required prior to issuance of the Notice of Acceptability letter:

#### **As-Built Drawings**

The developer shall supply as-built drawings for review and approval at project completion. The LHMA will accept redline drawings, provided the plans are in neat condition, and free from dirt, tears, staining, etc. During construction, the Contractor shall meet with the construction inspector at regular intervals to exchange as-built information. The redlines shall include, but not be limited to, invert elevations, structure locations, slopes, fitting locations, etc.

#### **Maintenance Securities**

Upon completion of the work, the developer shall furnish a maintenance bond in the amount equal to twenty-five percent (25%) of the construction cost estimate for a period of twentyfour (24) months. The LHMA shall be the only named obligee on each security. Please note that the Township may impose separate bonding requirements for street or sidewalk restoration.

#### **Design Requirements**

The LHMA design standards are contained within the Checklist of Requirements for Construction Drawings. Please see below for additional information:

**General Requirements**

- The existing LHMA facilities shall be clearly indicated with the appropriate identification number, including but not limited to, sewer mains, drainage structures, manholes, etc.
- Work located within PennDOT right-of-way shall require a Highway Occupancy Permit. Please note that PennDOT shall require the LHMA to submit the permit application on behalf of the developer.
- The developer shall consider the proximity and depth of adjacent utilities to determine if the proposed work is feasible, please note that the large majority of LHMA facilities rely upon the surrounding soil to maintain structural integrity. Close excavations, and removal of that support, often results in sewer main breaks. The LHMA may require that facilities be shut down during construction. The developer would be responsible for providing temporary services to any impacted customers.
- The private construction of public facilities shall be limited to situations where the existing infrastructure is incapable of providing the required level of service.
- The proposed facilities shall be designed and constructed in accordance with LHMA specifications.

**Sewer Requirements**

- Sewers shall be constructed at a depth sufficient to serve nearby basements and future growth. The LHMA may require additional depth, as directed.
- Sewer mains shall be designed in accordance with the DEP's Wastewater Facilities Manual and LHMA standards, whichever is more stringent.
- The pipe material required is dependent upon the depth and diameter. Per the design conditions, the LHMA accepts the following types of materials: PVC (SDR 26), PVC (PS115), RCP (Class IV).
- The design shall consider the need for bypass pumping, which may necessitate flow monitoring. The developer shall ensure that upstream and downstream manhole access is available. Discharge piping shall not interfere with roadway or pedestrian traffic.
- Connections to new sewer extensions shall be made at a pre-constructed wye fitting. The use of a cored connection (e.g. Inserta Tee) shall be prohibited.

**Profile Requirements**

- Profiles shall be required for sewer mains and drainage structure laterals.
- Profiles shall indicate the location of crossed utilities, which shall be drawn per the outside diameter. Please note that the outside diameter can be significantly different than the nominal diameter. For instance, a 24" reinforced concrete pipe has an internal diameter of 24-inches and an outside diameter of 30-inches. Crossed utilities shall have a minimum vertical clearance of 18- inches from outer surface to outer surface.
- For sewer, the profile shall include lateral design information including the minimum depth to serve customer connections via gravity flow.

**Tap-in Drawings**

Separate tap-in drawings are required when the development includes all the following:

- Development of lots,
- Construction of public sanitary sewer.

## LHMA Developer's Manual

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- Construction of building(s).
- Construction of laterals and service lines from building(s) to the new sewer and/or water lines.

Tap-in drawings are not required when the development is limited to the following:

- Development of lots, and
- Construction of public sanitary sewers.

Under the second scenario where the developer only develops the lots and constructs the LHMA facilities, the responsibility of applying for sewer taps falls on the future property owner whenever that owner decides to connect to the LHMA facilities.

Tap-in drawings for sanitary sewers can be submitted at any time but cannot be approved until the private construction drawings have been approved by LHMA. Please refer to the Tap-in Procedures of this manual.

**LAWRENCE HICKORY MUNICIPAL AUTHORITY**

**HICKORY TOWNSHIP, LAWRENCE COUNTY**

**1928 HARLANSBURG ROAD, Suite A**

**P.O. BOX 7957**

**NEW CASTLE, PA. 16107**

**MONDAY & WEDNESDAY 8 a.m to 4 p.m.**

**PHONE - 724-654-5934 - FAX - 724-656-3443**

**DEVELOPER'S INITIAL APPLICATION**

**Developer Information:**

**Developer Firm Name:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**Consultant Information:**

**Consultant Firm Name:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**Account Holder Information:**

**Property Owner Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone Number:** \_\_\_\_\_

**Email Address:** \_\_\_\_\_

**Project Information:**

**Project Name:** \_\_\_\_\_

**Project Address:** \_\_\_\_\_

**Parcel ID Number:** \_\_\_\_\_

**Pre-Development Meeting Date:** \_\_\_\_\_

**Pre-Development Meeting Minutes:** Yes No

**LHMA Account Type:** Residential Commercial Other: \_\_\_\_\_

**Property Attributes:**

**Has the lot previously received DEP sewage planning approval?** Yes / No

**If yes, please provide a copy of the DEP approved SFPM and supporting calculations for sewage flows already allotted to the permit.**

**Existing Wastewater Flow, gpd:** \_\_\_\_\_

**Proposed Wastewater Flow, gpd:** \_\_\_\_\_

**Supporting Calculations for the existing and Proposed Wastewater flows in PDF Format.** Y N

**Proposed sewer tap location (this will be used to determine the most limited capacity sewer for the DEP SFPM).**

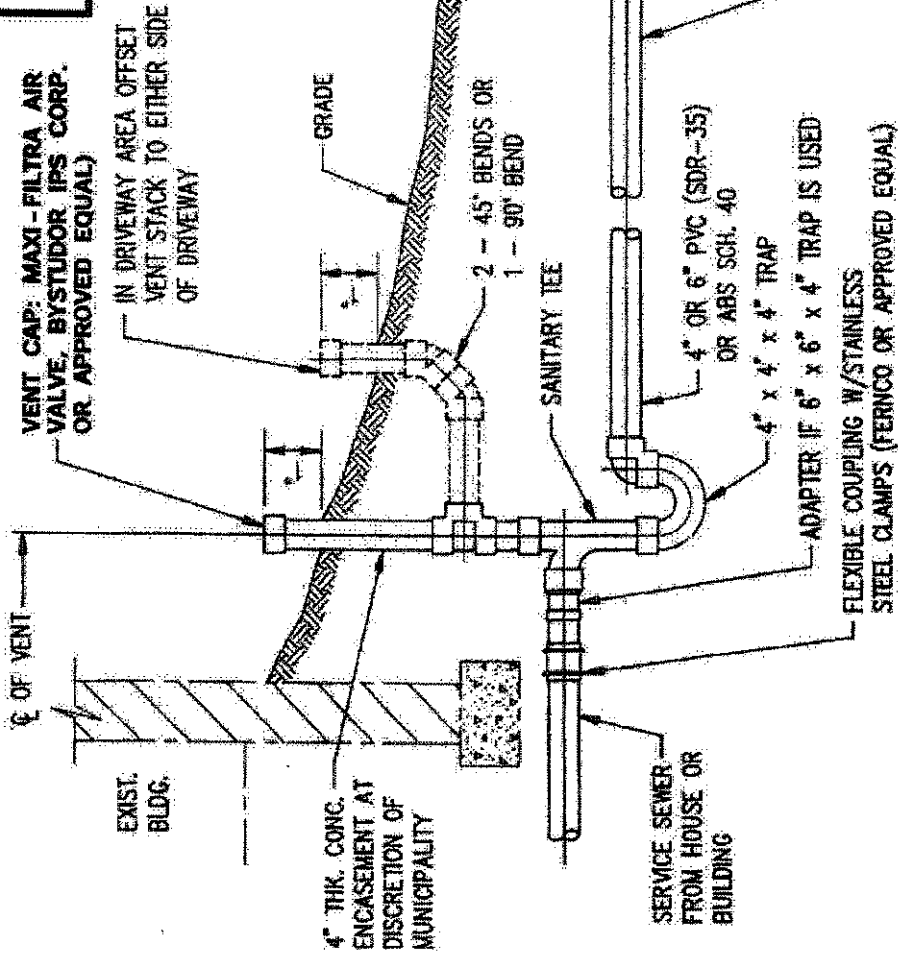
**DEP signed SFPM:** Y N

**For Final approval please follow instruction in Developer's Design Manual.**

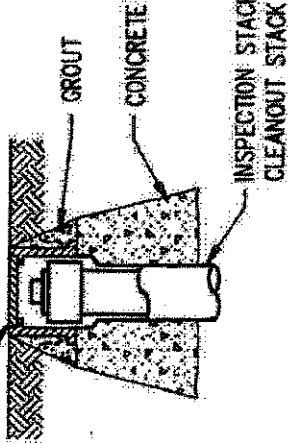
NOTE:

SDR-35 PVC PIPE MUST BE BEDDED AND SURROUNDED WITH SAND, GRANULATED SLAG OR PEA GRAVEL 6" MIN. THICKNESS BELOW PIPE.

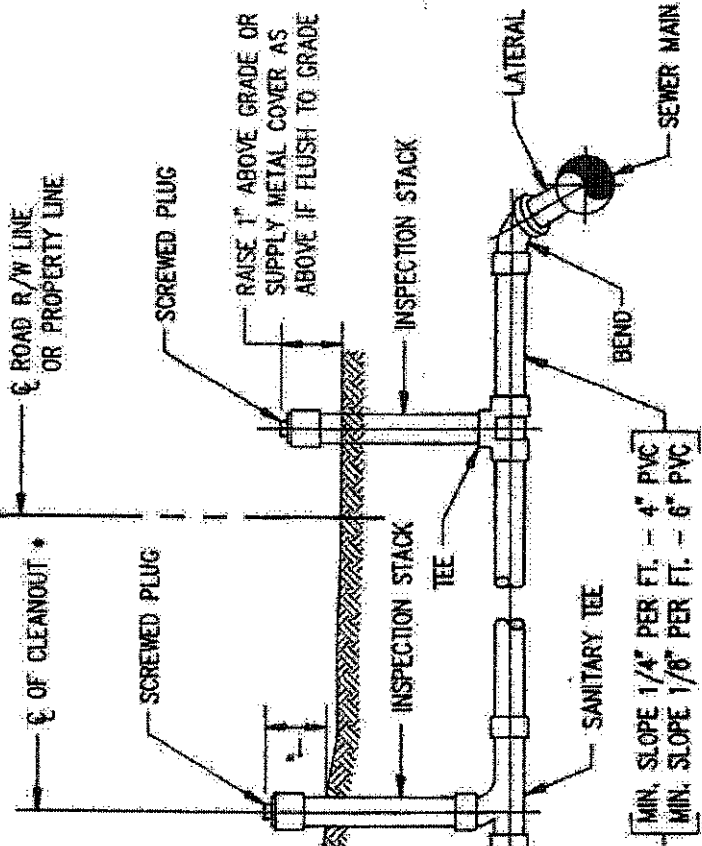
\* NOTE: CLEANOUT STACK TO BE INSTALLED EVERY 50' ON 4" DIA. LATERALS AND EVERY 100' ON 6" DIA. LATERALS.



GREY IRON FRAME AND COVER SUBJECT TO MOTOR VEHICLE LOADING SHALL BE: EAST JORDAN FOUNDRY SERIES 1573 OR APPROVED EQUAL.

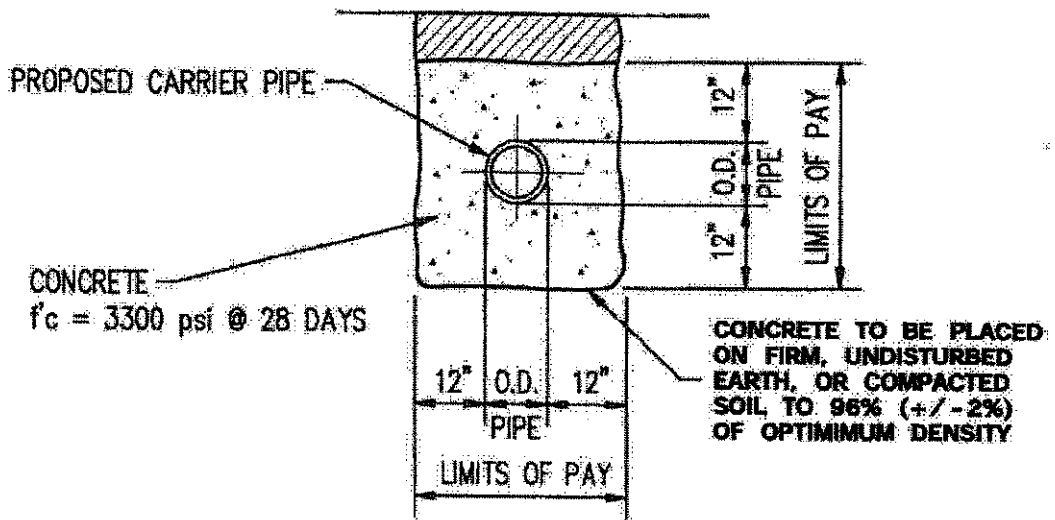


### CLEANOUT INSTALLATION USED IN ALL PAVED AREAS



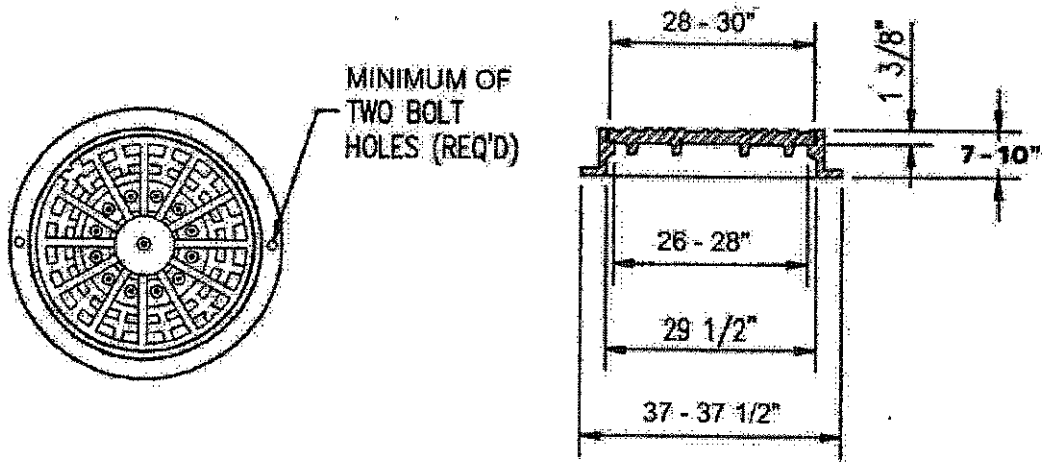
### BUILDING SEWER AND LATERAL SEWER DETAIL

LHMA DETAIL



**CONCRETE ENCASEMENT DETAIL**

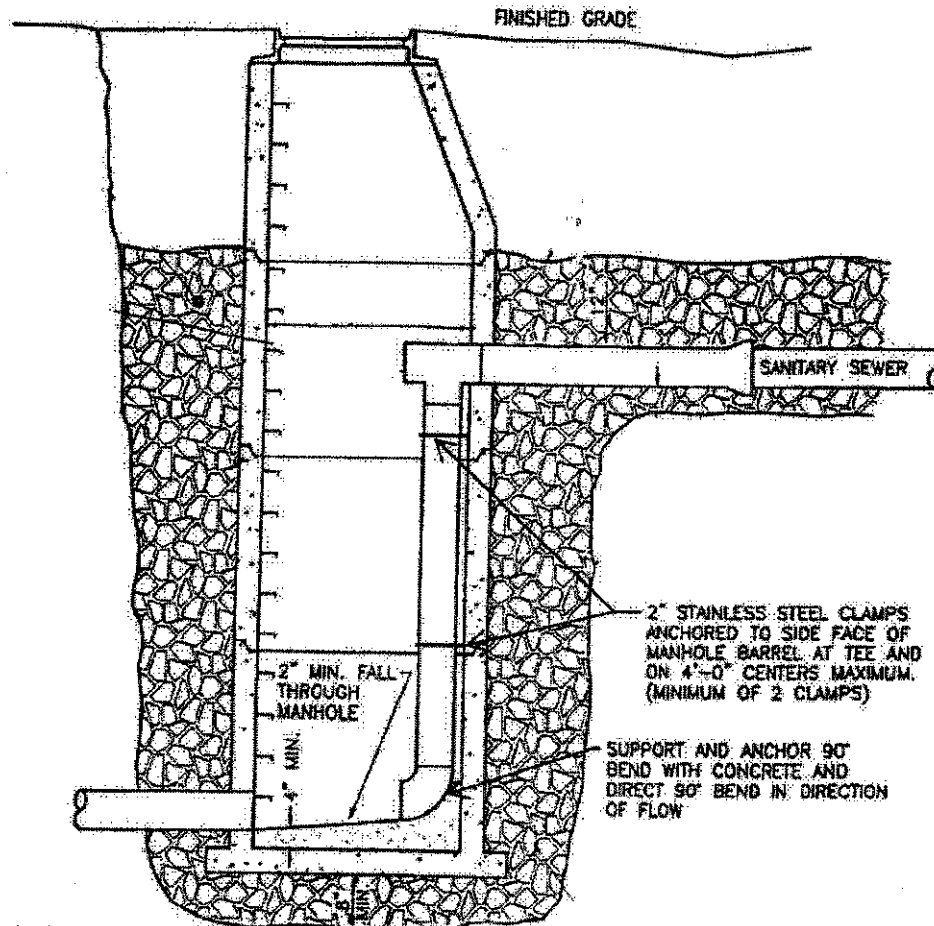
(N.T.S.)



NEENAH FOUNDRY STANDARD MANHOLE FRAME AND COVER.  
 PATTERN R-1753-A FRAME AND COVER, 300 LBS.  
 EAST JORDAN FOUNDRY STANDARD MANHOLE FRAME AND COVER  
 PATTERN 1890A2GS, (OR APPROVED EQUAL).  
 THE LETTERING "SANITARY" SHALL APPEAR ON MANHOLE COVER.

SANITARY MANHOLE FRAME AND COVER DETAIL  
 (N.T.S.)



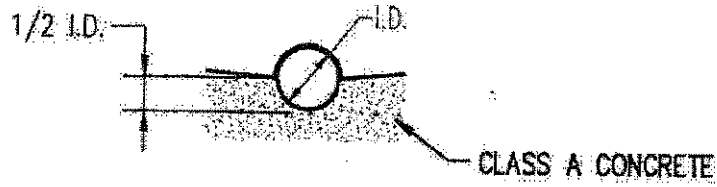


**NOTES:**

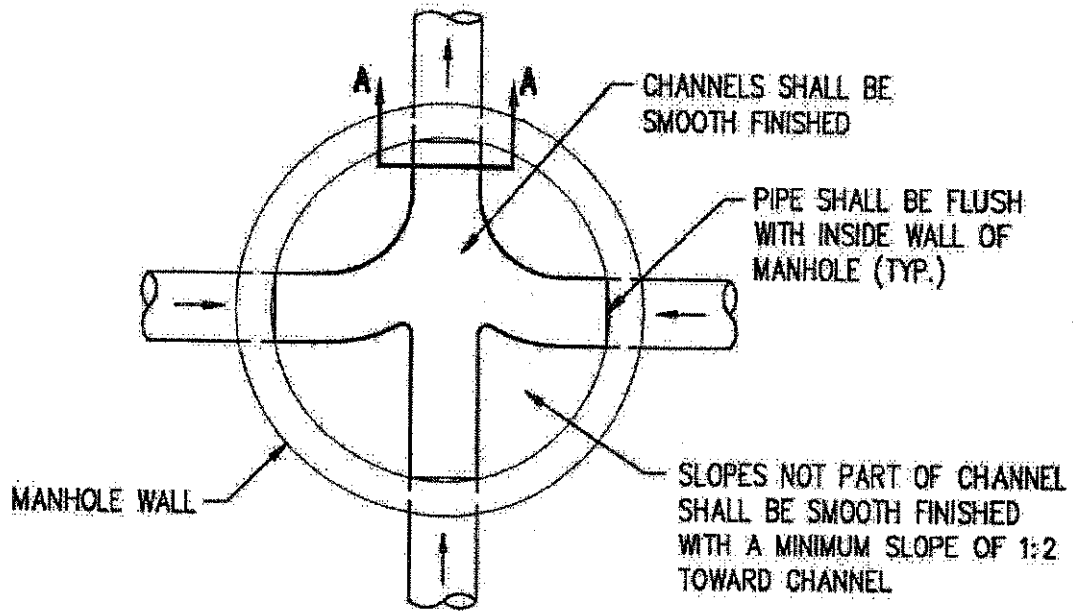
1. DROP CONNECTION INLET PIPE SHALL BE P.V.C. PIPE CONFORMING TO ASTM SDR 35.
2. DIAMETER OF THE DROP CONNECTION INLET PIPING SHALL EQUAL THE DIAMETER OF THE INLET PIPE.

**TYPICAL  
INSIDE MANHOLE DROP CONNECTION**

N. T. S.



SECTION A-A  
(TYP. ALL PIPES)



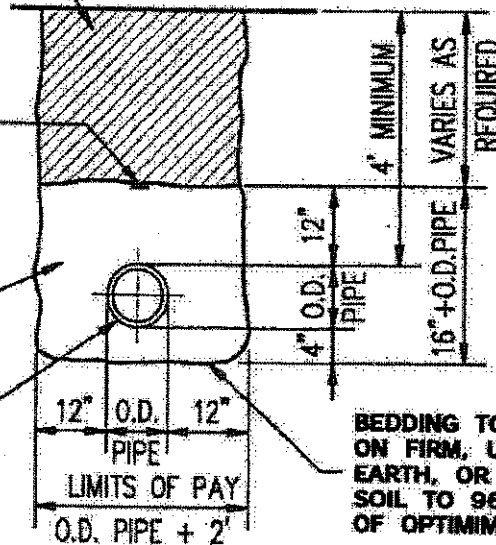
MANHOLE CHANNEL DETAIL  
(N.T.S.)

BACKFILL WITH EXISTING ACCEPTABLE SOIL IN UNDEVELOPED AREAS. USE 2A MODIFIED LIMESTONE AGGREGATE UNDER ALL ROADWAYS, DRIVEWAYS, SIDEWALKS, OTHER DEVELOPED AREAS, OR AS DIRECTED BY THE ENGINEER. ALL BACKFILL SHALL BE PLACE AND COMPLACTED IN LOOSE LIFT LAYERS OF NO MORE THAN 6".

AMERICAN PUBLIC WORKS ASSOCIATION APPROVED - DETECTABLE WARNING TAPE (2" WIDTH MIN.) THAT IS CONSTRUCTED WITH 5-MIL ALUMINUM BACKING AND LABELED "CAUTION BURIED SEWER LINE BELOW"

#57 CRUSHED AGGREGATE, FREE OF FINES, TAMPED IN 4" LAYERS AS DIRECTED BY THE ENGINEER

PROPOSED PIPE



BEDDING TO BE PLACED ON FIRM, UNDISTURBED EARTH, OR COMPACTED SOIL TO 96% (+/-2%) OF OPTIMUM DENSITY

### BEDDING & BACKFILLING DETAIL

(N.T.S.)

CARRIER PIPE

NOTE: CASING PIPE ENDS  
TO BE SEALED WITH EDPM  
RUBBER BOOT TO PROVIDE  
WATER TIGHT SEAL.

**STEEL CASING PIPE:**

1. SHALL MEET ASTM A139  
GRADE B AND AT A MINIMUM BE  
CONSTRUCTED OF SCHEDULE 40  
CARBON STEEL, 0.375-INCH  
THICKNESS, WITH SEAMLESS  
WELDS AND PROVIDE A YIELD  
STRENGTH OF 35,000 PS;

2. IF A SPECIFIC ENTITY'S (I.E.  
PENNDOT OR A RAILROAD)  
MINIMUM REQUIREMENTS ARE  
GREATER, THEN THE CONTRACTOR  
SHALL MEET THEIR STANDARDS

3. ALL JOINTS SHALL BE FULL  
CIRCUMFERENCE BUTT WELDED  
AND WATERTIGHT.



CASING SPACERS SHALL BE HEAVY  
DUTY, TWO PIECE SYSTEM  
CONSTRUCTED OF 304 STAINLESS  
STEEL BANDS AND GLASS FILLED  
POLYMER OR HDPE RUNNERS. THE  
SIZE, NUMBER, AND INSTALLATION  
SHALL BE AS PER THE  
MANUFACTURER'S INSTRUCTIONS AND  
RECOMMENDATIONS TO CENTER  
CARRIER PIPE(S) WITHIN THE CASING  
PIPE.

BORING DETAIL

(N.T.S.)

LHMA DETAIL

2 - 3/4" DIA. STAR INSERTS REQUIRED FOR BOLTING MANHOLE FRAMES TO THE PRECAST MANHOLE. ANCHOR BOLTS SHALL BE 3/4" DIA. GALVANIZED ALL THREAD STEEL RODS AND A MINIMUM 2" PROJECTION THROUGH THE BASE OF THE FRAME. (OR APPROVED EQUAL)

ALL SUB-GRADE CONCRETE SURFACES SHALL HAVE 2 COATS OF EPOXY BITUMASTIC 300M BY CARBOLINE, OR ENGINEER APPROVED EQUAL.

0" - RING SEAL OR EQUAL

JOINTS MORTARED SMOOTH, INSIDE AND OUT

ALL PIPE PENETRATIONS (CORED OR CAST) SHALL BE MADE WATER TIGHT WITH FLEXIBLE BOOT SEAL AS MANUFACTURED BY A-LOK OR APPROVED EQUAL.

A MAXIMUM OF 2-FOOT RING RISER ADJUSTMENT BETWEEN MANHOLE CONE AND COVER FRAME SHALL BE PERMITTED. ALL SEAMS SHALL BE MADE WATER TIGHT WITH APPROVED GASKET MATERIAL. MINIMUM WALL REINFORCEMENT #8 GAUGE WIRE @ 12" C/C VERT., #4 GAUGE WIRE @ 4" C/C HORIZ.

STEPS - ALL RUNGS 16" C/C ALCOA ALUM. PART #12653 WITH 2 COATS BITUMASTIC #300M OVER ENTIRE RUNG (OR APPROVED EQUAL)

INVERT ELEVATION OF CLEANOUT PIPE AS SHOWN ON PLANS OR DIRECTED

WYE OR TEE CONNECTION

45° ELBOW USED WITH WYE CONNECTION

DROP CONNECTION TO BE USED IF GREATER THAN 2'-0" DIFFERENCE IN INVERT ELEVATIONS.

CLASS "A" CONCRETE TO SOLID BEARING

90° ELBOW

4" MINIMUM CLEARANCE FOR PRECAST BASE

6" MINIMUM THICKNESS FOR PRECAST BASE

8" MINIMUM THICKNESS FOR POURED IN PLACE BASE

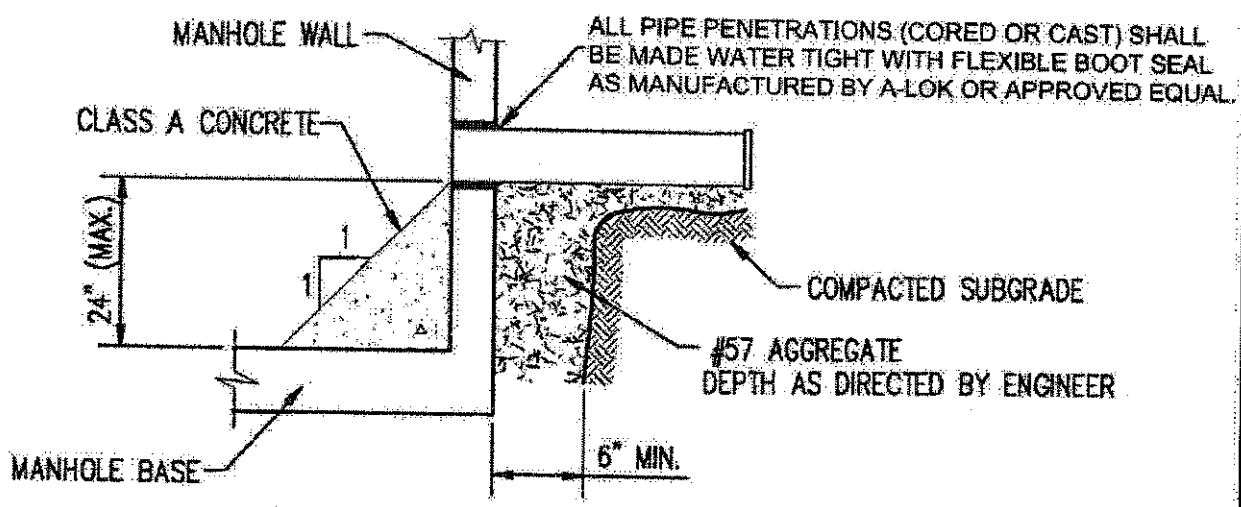
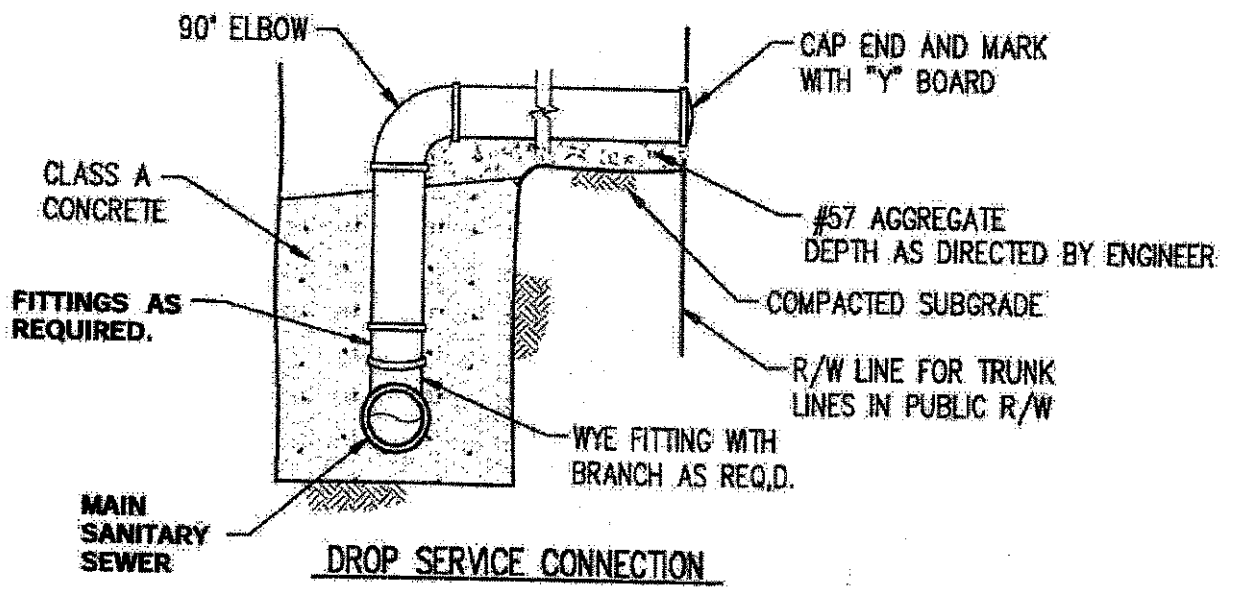
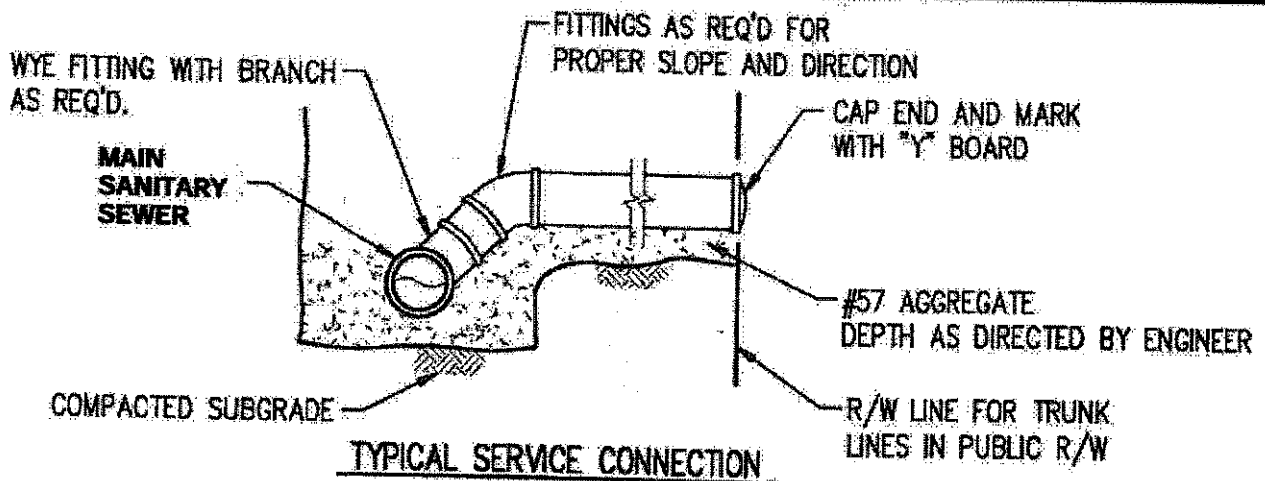
REINFORCING FOR POURED IN PLACE - #5 @ 12" GRID C/C CLASS "A" CEMENT CONCRETE.

SELECT BACKFILL BASE 6" MIN.

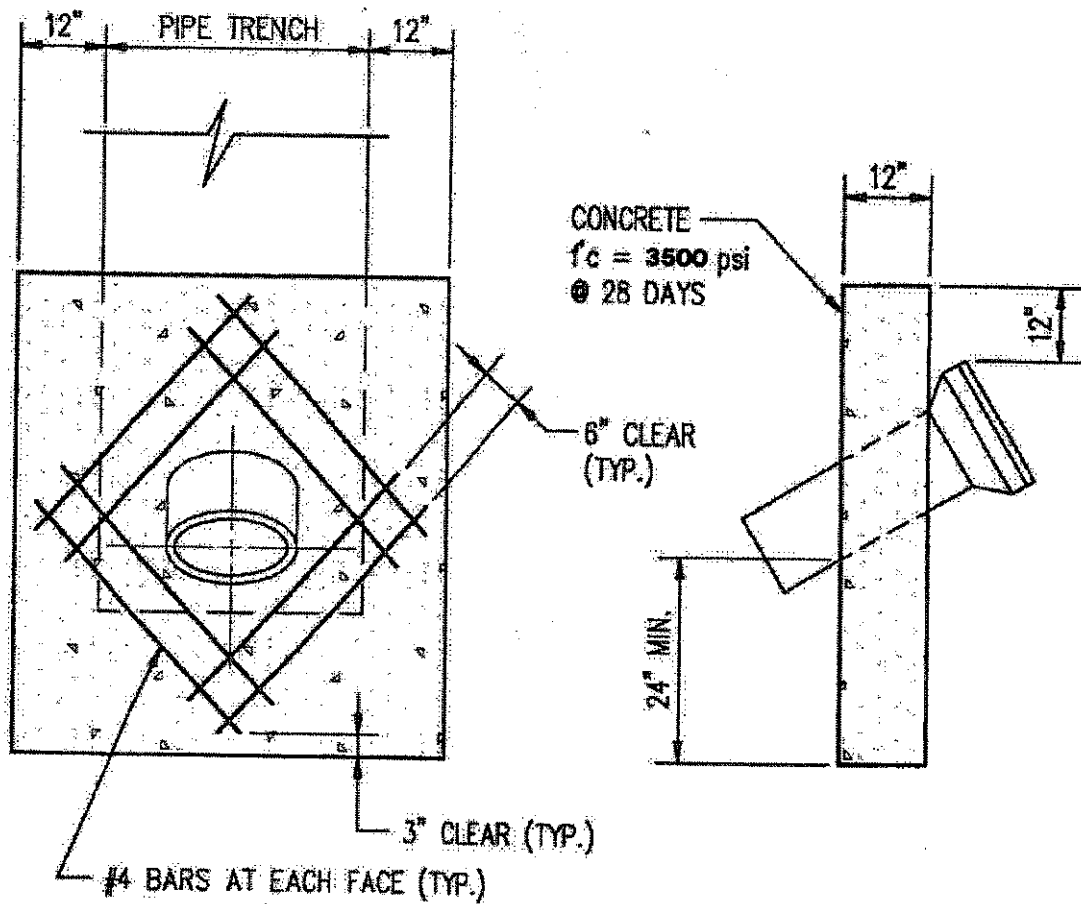
## SANITARY MANHOLE DETAIL

(N.T.S.)

LHMA DETAIL

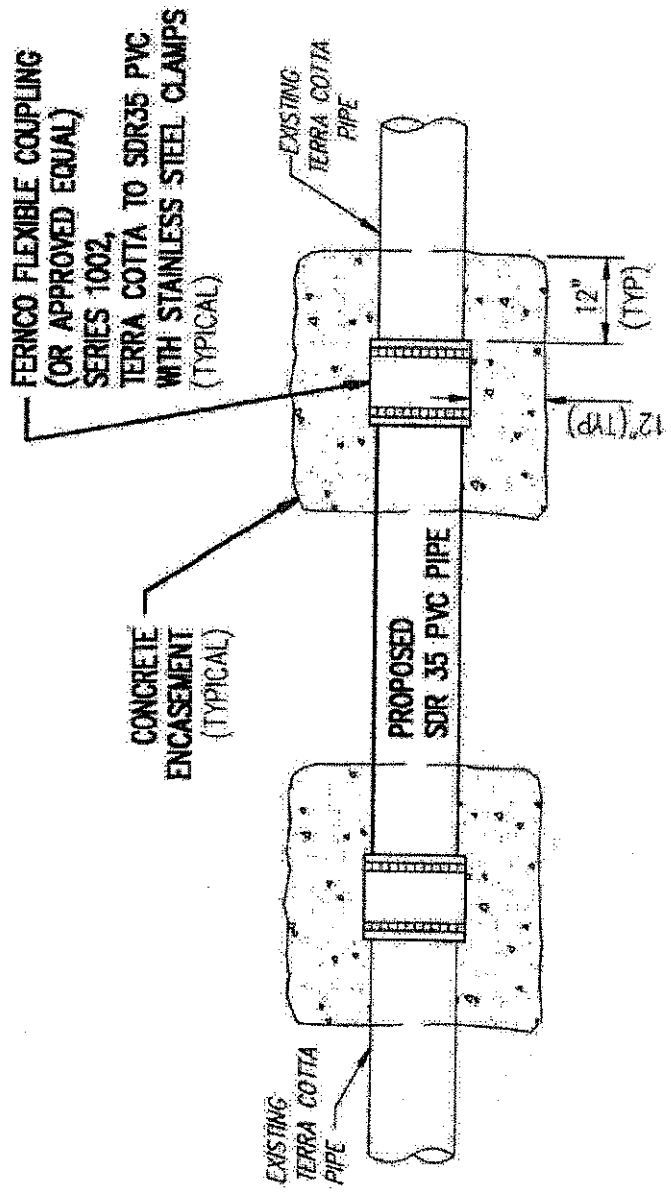


**SERVICE CONNECTION DETAILS**  
(N.T.S.)



**SEWER LINE ANCHOR DETAIL**

(N.T.S.)



**SEWER REPAIR DETAIL**