

PENNSVILLE SEWERAGE AUTHORITY

RULES AND REGULATIONS

Prepared For:

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PENNSVILLE SEWERAGE AUTHORITY

RULES and REGULATIONS

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SECTION 1 INTRODUCTION & DEFINITIONS

A. Purpose

These Rates, Rules and Regulations are established for the conduct of the Authority's business, to cover the use of sanitary sewers, pump stations and sewage treatment plants and all items related to public sewer systems, to provide a schedule of fees and rates, and to outline allowable procedures to whatever else is deemed proper within the sphere of the Authority's activity.

B. Office of Authority and Hours of Business

The principal office of the Pennsville Sewerage Authority, place of business and mailing address is 90 North Broadway, Pennsville, New Jersey 08070.

The office of the Authority will be open for the purpose of the transaction of regular business between the hours of 8:30 A.M. and 4:30 P.M., prevailing time, each weekday, Monday through Friday, except holidays.

DEFINITIONS:

Unless the context specifically indicates otherwise, the meaning of the terms used in these Rates, Rules and Regulations shall be as follows:

1.1 Authority

Shall mean the Pennsville Sewerage Authority.

1.2 Apartment

Shall mean one of the series of attached one family dwelling units each having a common or party wall or walls between it and neighboring units, and which shares with its attached neighboring dwelling units such facilities as pedestrian walks, gardens, lawns, utilities, sanitary systems and recreation area.

1.3 Biochemical Oxygen Demand (BOD)

Shall mean the quantity of oxygen utilized in the biochemical oxidation of organic matter under standard laboratory procedure in five (5) days of 20 degrees C, expressed in milligrams per liter.

1.4 Building drain

Shall mean that part of the lowest horizontal piping of a drainage system, which receives the discharge from soil, waste, and other wastewater drainage pipes inside the walls of the building and conveys it to the building sewer, beginning five (5) feet (1.5 meters) outside the inner face of the building wall.

1.5 Building sewer

Shall mean the extension from the building drain to the public sewer or other place of disposal, also called house connection or lateral. (See Lateral 1.13).

1.6 Customer

Shall mean the applicant for sewer service at one household or business, whether owner or tenant, and who enters into an agreement therefore.

1.7 Domestic Consumer Unit

Shall mean a single dwelling or structure normally occupied by a single family.

1.8 Domestic Sewage

Shall mean the normal waterborne fluid wastes from residences, commercial establishments, institutions and industrial establishments, limited to the wastes from kitchens, bathrooms, water closets, lavatories and laundries.

1.9 Easement

Shall mean an acquired legal right for the specific use of land owned by others.

1.10 Floatable oil

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

1.11 Garbage

Shall mean the animal and vegetable waste resulting from the handling, preparation, cooking and serving of foods.

1.12 Industrial wastes

Shall mean the wastewater from industrial processes, trade, or business as distinct from domestic or sanitary wastes or sewage.

1.13 Lateral

Shall mean the service line owned by the customer and extending from the dwelling or establishment to the curb.

1.14 Main

Shall mean the Authority owned or leased piping and appurtenances, in or along public highways and streets, or along privately owned right-of-way, used for the collection of domestic sewage or industrial wastes from its customer.

1.15 Person

Shall mean any individual, firm, company, association, society, corporation, or group.

1.16 pH

Shall mean the logarithm of the reciprocal of the hydrogen ion concentration. The concentration is the weight of hydrogen ions, in grams, per liter of solution. Neutral water, for example, has a pH value of 7.0.

1.17 Properly shredded garbage

Shall mean the wastes from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be carried freely under the flow conditions normally prevailing in public sewers, with no particle greater than 1/2 inch (1.27 centimeters) in any dimension.

1.18 Public sewer

Shall mean a common sewer controlled by a governmental agency or public utility.

1.19 Sanitary sewer

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

1.20 Sewage

Is the spent water of a community. The preferred term is "wastewater".

1.21 Sewer

Shall mean a pipe or conduit that carries wastewater or drainage water.

1.22 Shall

Is mandatory.

1.23 Single Family Dwelling

Shall mean a building on a lot designed and occupied exclusively as a resident for one family.

1.24 Slug

Shall mean any discharge of water or wastewater which, in concentration of any given constituent or in quantity of flow, exceeds for any period or duration longer than fifteen (15) minutes more than five (5) times the average twenty-four (24) hour concentration of flows during normal operation and shall adversely affect the collection system and/or performance of the wastewater treatment works.

1.25 Storm drain (sometimes termed "storm sewer")

Shall mean a drain or sewer for conveying water, groundwater, subsurface water or unpolluted water from any source.

1.26 Superintendent

Shall mean the person in charge of wastewater facilities of the Township, or his/her authorized representative.

1.27 Suspended solids

Shall mean total suspended matter that either floats on the surface of, or is in suspension in, water, wastewater, or other liquids, and that is removable by laboratory filtering as prescribed in "Standard Methods for the Examination of Water and Wastewater", 13th edition of the American Public Health Association, Washington, D.C., 1971, and referred to as non-filterable residue.

1.28 Townhouse

Shall mean one of a series of attached one family dwelling units each having common or party wall or walls between it and neighboring dwelling units and having an individual rear yard contiguous to the dwelling unit designed as an integral part of each one family dwelling unit and from which the occupants of the dwelling unit shall have the right to exclude the public. Each townhouse shall have separate and individual utility systems.

1.29 Unpolluted water

Is water of quality equal to or better than the effluent criteria in effect for the receiving water, or water that would not cause violation of receiving water quality standards.

1.30 Wastewater

Shall mean the spent water of a community. It may be a combination of the liquid and water-carried wastes from residences, commercial buildings, industrial plants, institutions and any groundwater, surface water and storm water that may be present.

1.31 Wastewater facilities

Shall mean the structures, equipment, and processes required to collect, carry away, and treat domestic and industrial wastes and dispose of the effluent.

1.32 Wastewater treatment works

Shall mean an arrangement of devices and structures for treating wastewater, industrial wastes and sludge. Sometimes used as synonymous with "waste treatment plant" or "wastewater treatment plant" or "water pollution control plant".

1.33 Existing Residential Properties

Shall mean a building, structure or house now erected, which may be occupied or used by human beings, on a lot designed and occupied exclusively as a residence for one or more families.

SECTION 2 DOMESTIC SERVICE

2.1 Service to New Customers Through Existing Connections

2.1.1. No new service will be extended by the Authority until the applicant has paid all charges due by the applicant at any premises now or heretofore occupied by him.

As sewer charges are municipal liens, all charges will be submitted by the Authority prior to the date of settlement and verified in written form to the title company or whatever authorized agent is processing the transfer of property. The title company shall be obligated to clear all sewer charges outstanding on the property. In the event that charges are not paid at settlement, those charges shall remain on the account as a lien against the property.

2.1.2 The Authority shall charge a search fee for sewer on each account. Search fees are due upon presentation. Failure on the part of the title company or the proper authorized agent to pay the search within 20 days of presentation shall result in the discontinuance of Authority lien information.

2.1.3 Search Fees will be charged for information in areas in which there is no existing sewer service.

2.1.4 No Authority approval will be given to the Building Inspector for issuance of a Certificate of Occupancy until the Authority has certified that sewer lateral systems have been installed in accordance with the Authority Rates, Rules and Regulations.

2.1.5 Under no circumstances shall any fixture be installed in a building or dwelling at an elevation lower than the front curb elevation or the street centerline elevation, whichever is higher, unless special precautions are incorporated into the new fixture installation to prevent surcharging of the fixture installation from the sanitary sewer main because of high flow or blockage. Owners of houses where the Authority has deemed it necessary that such precautions had to be installed, will be notified by certified mail of the requirement for the installation of that check valve system and they will be advised that they own the system and its maintenance is their responsibility and that the Authority cannot be held responsible for any damage as a result of its malfunctioning.

2.1.6 The initial billing date of a newly constructed home will be the date of the Certificate of Occupancy, the date of settlement, or water usage in excess of 1,000 gallons, whichever is first.

2.2 Landlord-Tenant Responsibility

All charges for sewer are a lien against the property and therefore the responsibility of the owner.

2.3 Discontinuation of Customer Service

In the event that a sewer lateral service will be permanently discontinued, the Authority shall be notified in writing that the service billing shall be terminated. The sewer lateral shall be permanently sealed watertight in a manner subject to the approval of the Engineer or Superintendent.

SECTION 3 INDUSTRIAL & COMMERCIAL SERVICES

Industrial and commercial establishments, making application for sanitary sewer service in addition to making written application for such services, shall furnish a detailed description of the type and size of buildings, and nature of the business to be conducted in each structure, the number and type of fixtures to be served, the type, volume and chemical characteristics of the waste to be discharged. Such applicants shall also furnish the Authority Three (3) copies of 24" x 36" or 36" x 42" plans showing at a scale no less than 1" = 100', the following:

- a) The boundaries of the property.
- (b) The location within the property of the structures to be served.
- (c) The location and profile, with respect to finished grade of the services.
- (d) Details of the proposed connections to the sewerage system, and arrangement and details of meter and sampler installation, should they be required.

3.1 Agreement Required

The Authority will accept industrial wastes into the sanitary sewage system, upon execution of a formal, written agreement, and under and subject to the provisions appearing in said agreement, and the rules stated hereinafter. The agreement will set out in detail the characteristics of the wastes, the flow conditions which shall govern, the conditions and costs with respect to the physical connection or connections, and the annual service charges. It will be the policy of the Authority to consider each application on its merits, and to establish specific conditions applicable to the particular situation, for each agreement. No connection shall be made prior to execution of the agreement. Each agreement shall have stipulated time limits for connection after which it shall become null and void at the discretion of the Authority.

3.2 Application for Construction Approval for Commercial or Industrial Applicants - Form F

3.2.1 Purpose of Application

This application and supporting data specifying the engineering details of the proposed project will be analyzed for compliance with the Authority engineering standards including the provision for orderly growth. The final condition of approval will be a mutual agreement between the applicant and the Authority regarding the terms and conditions for providing sewer service.

3.2.2 Forms and Supporting Data

FORM F: SITE PLAN - COMMERCIAL OR INDUSTRIAL - APPLICATION FOR REVIEW OF PLANS FOR PUBLIC SEWER.

Supporting data shall consist of three (3) sets of drawings, reports, and other pertinent data describing details of the sanitary sewer system including plans, profiles with rims and inverts, topographical data, pumping station and construction details as applicable. If additional data is required after the initial review, the applicant will be contacted to submit same to the Authority.

3.2.3 Fees

Filing Fee: \$10.00 Sewer

Review Fee: \$750.00 for the first 5,000 square feet or any portion thereof and \$300.00 for each additional 5,000 square feet or any portion thereof for sewer.

Minimum amount to be placed in escrow fund necessary to initiate professional review of sewer system will be \$1,500.00.

It is the policy of the Authority to charge review fees for connection to its sanitary sewer system following the attached rates of schedules. An offset to the review fee may be considered, at the discretion of the Authority, for uses where excessive water distribution and sewer collection is not required by the permitted use of the facility.

Inspection Fee: 5% of the total sewer construction cost, as verified by the Authority Engineer.
(Minimum of \$750.00)

3.2.4 Action by the Authority

The application and supporting data will be reviewed by the Authority. If it is determined that it is feasible to extend service and that the plans are in compliance with Pennsville Sewerage Authority Rates, Rules and Regulations, the applicant will be notified of the Authority approval and the connection fee. Upon receipt of the fee, the sewer permit will be issued to the applicant and to the Building Inspector.

The actual amounts of review and inspection fees shall be based on vouchers and all surpluses shall be returned to the applicant when the respective phases are completed. In the event that the costs of review are more than deposited, the applicant shall pay the additional cost prior to final approval by the Authority.

Six (6) sets of completed construction plans will be required prior to the preconstruction meeting. The Authority Superintendent will stamp these plans for distribution prior to construction. All bond estimates shall be approved and escrow fees paid prior to the pre-construction meeting.

3.2.5 Failures to Tie In

Should the applicant fail to tie-in or connect to the sanitary sewer system within the time period specified in the agreement or if not specified in the agreement, within two (2) years of the issuance of the Permit to do so. The Authority reserves the right to inform the applicant that the Permit will be considered void within thirty (30) days of said notice. If the Applicant fails to complete the connection within that thirty (30) days period, the Authority will notify the Applicant that the Permit is void and return the appropriate funds.

Reactivation of the Permit will subject the Applicant to compliance with the rates and connection fees applicable at the time of reactivation.

Prior to approving an application for a connection involving the acceptance of industrial wastes, the applicant shall submit complete data with respect to the following:

- (a) Completed Industrial Sewer Connection Application, Form F (See sample of Form F in back portion of Section 7).
- (b) Average, maximum and minimum rates of flow to be expected daily and seasonally.
- (c) Flow diagram, showing points of application of chemicals, type and quantity of each chemical used per day and per shift, a schedule of operations, expected chemical characteristics of the untreated wastes, and the point or points of connection to the sewerage system. The normal situation will require the separation of, and separate points of connection for domestic sewage and industrial wastes for each industrial establishments.

3.3 Prohibited Wastes

The Applicant shall refer the latest version of the Pennsville Sewer Authority Pre-Treatment Rules and Regulations for information pertaining to Prohibited Wastes and Pretreatment requirements.

- (a) The Pre-Treatment Rules and Regulation sets forth uniform requirements for users of the Publicly Owned Treatment Works for the Pennsville Sewerage Authority (PSA) and enables [the PSA] to comply with all applicable State and Federal laws, including the Clean Water Act (33 United States Code § 1251 et seq.) and the General Pretreatment Regulations (40 Code of Federal Regulations Part 403).

THE PENNSVILLE SEWERAGE AUTHORITY
90 North Broadway, Pennsville, New Jersey 08070
Telephone: (856) 678-7500

SAMPLE OF LETTER OF CREDIT THAT MAY BE SUBMITTED IN LIEU OF 120%

PERFORMANCE BOND

(Bank Letterhead)

RE: (Irrevocable Letter of Credit #)

Re: (Name of Tract)

Gentlemen:

You are hereby authorized to draw on us at sight for the account of (Name of Tract), for sums up to \$_____ for sanitary sewer construction costs. This letter shall remain in effect until final acceptance by adoption of a resolution, by the Pennsville Sewerage Authority.

The condition of the Irrevocable Letter of Credit is that within two years period of time, (Name of Tract), shall cause to be installed the improvements mentioned above and if they shall fail to do so we shall honor all drafts upon us for the purpose of paying for such improvements.

The drafts under this letter must contain the clause "Drawn under Irrevocable Letter of Credit" # _____, of (Name of Bank), dated _____.

(Signed)

Position
Name of Bank

THE PENNSVILLE SEWERAGE AUTHORITY
90 North Broadway, Pennsville, New Jersey 08070
Telephone: (856) 678-7500

SAMPLE PERFORMANCE UTILITY BOND

INSURANCE COMPANY LETTERHEAD

PERFORMANCE UTILITY BOND:

KNOW ALL MEN BY THESE PRESENTS: That we, (NAME OF BUILDER), as Principal and (NAME OF INSURANCE COMPANY), a corporation organized under the laws of the State of (NAME) and duly authorized to transact business in the State of New Jersey, as Surety, are held and firmly bound unto PENNSVILLE SEWERAGE AUTHORITY in full and just sum of \$ _____, lawful money of the United States of America for payment of which sum, well and truly to be made, we and each of us bind ourselves, our and each of our heirs, executors, administrators, successors and assigns, jointly and severally firmly by these presents.

THE CONDITIONS of the above obligation are such, that

WHEREAS, the above named Principal (NAME OF BUILDER), is planning to construct underground utilities in a subdivision known as SECTION _____ of (NAME OF BUILDER).

AND the further condition that the Principal will complete the proposed sewage system and appurtenances in said subdivision within two years after approvals by the Authority and in full compliance with the plans and profiles submitted with the subdivision, as required by the PENNSVILLE SEWERAGE AUTHORITY.

NOW, THEREFORE, if the above named Principal shall complete said improvements in the said subdivision according to the subdivision regulations of PENNSVILLE SEWERAGE AUTHORITY, then this obligation shall be void; otherwise to remain in full force and effect until acceptance by adoption of a resolution by the PENNSVILLE SEWERAGE AUTHORITY.

Signed, sealed and delivered this (DATE).

(NAME OF BUILDER)

By: (AUTHORIZED SIGNATURE)
(TITLE)

(NAME OF INSURANCE COMPANY)

By: (AUTHORIZED SIGNATURE)
(TITLE)

Countersigned by N.J. Res. Agent:

SECTION 4 SEWER MAIN EXTENSIONS

4.1 General Provisions

Persons proposing subdivisions or developments requiring a main extension for sewer service shall prepare applications described in this section with the necessary supporting documents. The policy of the Authority is to permit extensions only when paid for and installed by the applicant. No facilities for collection, treatment or disposal of sewage within the "district" of the Authority (which corresponds with the boundaries of the Township) shall be constructed unless the Authority shall give its consent and the Authority Engineer shall approve Contract plans and specifications therefore.

It is the policy of the Authority to charge connection fees for connection to its sewer system following the rates indicated in Section 14. An offset to the connection fee may be considered by the Authority for user installed sewer collection in excess of users needs.

Connection fees shall be payable within thirty (30) days of approval of Form C, Form E or Form F by the Authority unless specific arrangements are agreed upon. If payment is not received within this time period, the connection fee shall be at the prevailing rate at the time of receipt of the check. The Authority will not accept dedication of the systems without receipt of the connection fees. Use of the system will not be permitted until such payment unless deemed by the Authority as a potential health hazard.

Residential subdivisions containing more than four (4) contiguous building sites or lots or any residential structure to be used by three or more families, regardless of volume of flow, and all non-residential developments such as schools, commercial buildings, industrial buildings and all other structures, will be required to install a sanitary sewer system to be connected with the nearest existing sanitary sewer in the Township unless deemed to be too remote from existing facilities by the Authority.

Residential subdivisions containing three or less building sites or lots or if the lands are deemed by the Authority to be too remote from any existing facilities, then consideration will be given to an individual sewage system, with a dry sanitary sewer system for future use, in lieu of connection to existing facilities. Individual sewage disposal systems will be permitted only upon specific written permission of the Authority.

Any main extension and related facilities installed under the provisions of this section shall be transferred to the Authority as hereinafter described unless deemed otherwise by the Authority.

During construction, but before final acceptance, the Authority shall have the right to use any completed portion of the system without waiving its right to further inspection or testing or to order correction of any defects.

Use of the sanitary sewer system for the discharge of sump pumps, or drainage from cellar drains, leaders, downspouts, drainage tile, swimming pools, cooling system drains and other similar discharges shall not be permitted.

Unpolluted industrial cooling waters and unpolluted drainage shall be discharged into a storm sewer or natural outlet.

These General Provisions are and shall be subject to the existing contractual obligations outstanding.

4.2 Applications - General

A sequence of applications for sanitary sewer are required for the Authority's determination of needs, availability of service, effect of proposed extension, and inspection of installed extension. Application forms are available from the Authority. No application will be considered unless a Professional Engineer, registered in the State of New Jersey is in charge of the planning and design of the proposed sanitary sewer facilities and has affixed his seal and signature thereto. Each application shall be submitted in duplicate with the designated fee to the Authority not less than thirty (30) days prior to the Authority meeting at which action on the application is desired.

Applications shall be signed by the Owner or Owners, or by a proper official of the company, or, if signed by an authorized agent, a certified copy of authorization of the company shall be attached to the application.

All fees accompanying applications shall be cash, certified check or acceptable other draft at the option of the Authority.

4.3 Application for Feasibility - Form A

4.3.1. - Purpose of Application

An application describing the proposed subdivision of development (residential, commercial, industrial or other) shall be submitted to the Authority with supporting data to determine the technical feasibility of extending sewer service. The Authority may defer or waive certain parts of this supporting data at its discretion where the cost of data preparation is not commensurate with the development or project planning and approvals.

4.3.2 - Forms and Supporting Data

FORM A: APPLICATION FOR REPORT ON FEASIBILITY OF PUBLIC SEWER, RECOMMENDATIONS AND CONDITIONS

In addition to preparation and submission of the application, the applicant shall furnish a general location plan showing streams, streets, blocks, lots and tax map numbers, copy of application submitted to the Planning Board, if required, location of any existing sanitary systems in the area, proposed system outline, existing topography and route of construction, and estimated volume of flow.

4.3.3. - Fee

Application Fee: \$10.00 Sewer

Review Fee: \$1,000.00 for sewer.

In the event that the costs of review are more than deposited, the applicant shall pay the additional costs prior to approval.

4.3.4. - Action by Authority

The Authority shall analyze the submitted application and supporting data and report to the applicant the Authority's recommendations and/or findings.

4.3.4.1 - Subdivisions

On all subdivisions, the Authority shall issue a letter REPORT ON FEASIBILITY to the Applicant.

If the project is shown to be technically feasible, the applicant shall also receive a letter of recommendations and conditions from the Authority along with FORM B or FORM F, as appropriate, "APPLICATION FOR PRELIMINARY REVIEW OF PLANS FOR PUBLIC SEWER" for the applicant's submittal.

If the Authority determines that the proposed subdivision or development is too remote for extending sewer service, or contains three or less building sites or there are other circumstances peculiar to this application, the Authority may do the following:

- (a) Waive the application and fee.
- (b) Send a letter of APPROVAL TO INSTALL ONSITE DISPOSAL SYSTEM AS APPROVED BY THE BOARD OF HEALTH to the Applicant, Building Inspector, and Board of Health.
- (c) Approve the application and waive all subsequent applications.

4.4 Application for Preliminary Approval - Form B

4.4.1 Purpose of Application

An application and supporting data specifying the engineering details of the proposed project will be analyzed for compliance with Authority engineering standards including provisions for orderly growth. This form is filed as an initial request after approval of FORM A on all subdivisions. All plans, specifications and applications shall be provided and meet the technical requirements of the Authority and other agencies having jurisdiction over the same.

4.4.2 Forms and Supporting Data

FORM B - "APPLICATION FOR PRELIMINARY REVIEW OF PLANS FOR PUBLIC SEWER". The application shall be accompanied by two (2) copies of the Engineer's Report as described in Section 12.7 and 13.4 five (5) original copies of Form TWA-1, two (2) original copies of Form WQM-003, two (2) original copies of Plans and Profiles, two (2) copies of Construction Specifications and any and all other forms and data required by the New Jersey Department of Environmental Protection.

4.4.3 Fee

The application fee shall be determined as follows:

(a) Filing Fee - \$0.00 - Sewer

(b) Review Fee - \$15.00 per domestic consumer unit for the first 100 units, additionally \$7.50 per domestic consumer unit for the next 100 units (101-200), and additionally \$5.00 per domestic consumer unit for all in excess of 200 units.

Fees, calculated in this manner, shall be paid for the sanitary sewer application. Minimum amount to be placed in escrow fund for this application shall be \$2,000.00. In the event that the costs of review are more than deposited, the applicant shall pay the additional costs prior to approval. Any excess moneys shall be returned to the applicant. Projects defined as a minor subdivision shall deposit a minimum escrow amount of \$1,500.00.

4.4.4. Action by Authority

The application and supporting data will be reviewed by the Authority to determine compliance with the Authority's comprehensive sewer distribution plan, these Rates, Rules and Regulations, applicable statutes, and projected growth patterns.

Upon approval, the Authority shall adopt a resolution indicating same and authorizing the applicant to submit the project to the New Jersey Department of Environmental Protection for a permit to construct.

Upon notification by the Authority that Preliminary Approval has been given to the proposed project, the applicant may file an application or series of applications for Construction Approval (Form "C") within a period not to exceed two (2) years from date of Preliminary Approval by the Authority, unless otherwise waived or extended by the Authority.

4.5 Application for Construction Approval - Form C

4.5.1 Purpose of Application

Following Preliminary Approval (Form B) for a period not to exceed two (2) years, the applicant may apply for construction approval. This application may be submitted as a sequence of applications as each segment of the total approved project is scheduled for construction. This application provides a control on the extent and schedule of planned sewer facilities installation and establishes a schedule for Authority inspection of completed installation.

4.5.2 Forms and Supporting Data

The application shall be accompanied by two (2) sets of final data as approved in the Preliminary Approval, as per Paragraph 4.4.2. This data will be the basis of construction approval, inspection and testing. Requested major revisions will be treated as resubmissions of Preliminary Approval requiring review and approval. Such revisions are subject to the requirements of Paragraph 4.4 in its entirety.

The following supporting data will be required prior to approval:

1. List of Tax Lot and Blocks cross-indexed with street addresses.
2. Operating permit must be received from the N.J.D.E.P.
3. Legal descriptions of all easements must be reviewed and approved.
4. Easement Agreement documents prepared by Developer's attorney based on approved legal descriptions, reviewed approved by the Solicitor and Authority Engineer.
5. Final Plan of Lots and All easement agreements must be recorded with the County and four (4) recorded copies provided.
6. Where plans of final sections are not identical to those approved by the Authority and the NJDEP, revised plans (4 sets) and a letter, signed and sealed, (4 copies), from the Professional Engineer explaining each revision with the basis and justification for each revision must be received by the Authority.
7. A complete set of utility plans and profiles for the project on a CD in AutoCAD format.

4.5.2.1. Other Data

In addition, applicant shall submit all data required by the Rules and Regulations of the New Jersey Department of Environmental Protection, as revised. Permits to construct sewers or other structures within flood plains, wetlands and the right-of-way limits of state, county, municipal roads and all railroads and all other permits must be secured by and paid for by the applicant.

The applicant must inform and secure any necessary clearance and/or approval from any public utility involved. Proof of such notice and/or approvals shall be filed with the Authority.

The applicant shall also submit all offsite sewer deeds of easement with legal descriptions from the respective property owners for such easements, prior to Form "C" approval.

4.5.3 Fee

Filing Fee: \$0.00 – Sewer

Review Fee: \$750 - Sewer

In the event that the costs of review are more than deposited, the applicant shall pay the additional costs prior to approval. Any excess moneys shall be returned to the applicant.

Inspection Fee: 5% of the total sanitary sewer construction costs, as verified by the Authority Engineer. (Minimum of \$750.00.)

The applicant shall periodically escrow portions of the escrow account as required by the Authority. The actual amounts of review and inspection fees shall be based on vouchers and all surpluses shall be returned to the applicant when the respective phases are completed.

4.5.4 Performance Bond

A Performance Bond, Letter of Credit or Surety Documents, satisfactory in form to the Authority, in the amount of at least 120% of the total construction cost of that portion of the project covered by the application shall be furnished with the application guaranteeing complete construction within a time period to be agreed upon by the Authority and the applicant and further guaranteeing that said construction will be in accordance with the Rates, Rules and Regulations of the Authority, the plans and specifications and Engineer's Reports and cost estimate approved by the Authority Engineer. The amount of the required performance bond may be increased for due cause by the Authority.

The Bond, Letter of Credit, or Surety Documents shall remain in effect until the sanitary sewer collection system and related appurtenances are installed, tested and protected by an adequate layer of flexible bituminous paving or approved equal, and all connection fees for sanitary sewer have been received. At that time and subject to the recommendation and approval of the Authority Engineer, the Bond, Letter of Credit or Surety Documents may then be reduced to 50% of the original amount bonded.

The Bond, Letter of Credit or Surety Document may be further reduced to 30% of the original amount bonded upon the completion, submission and approval by the Authority Engineer and Executive Director of the following:

1. If required, all access roads must be constructed at the easement locations as per the approved plans.
2. As-Built Plans must be completed as per Form D requirements and video inspection by the Applicant must be submitted and deemed acceptable. A separate copy of the plans shall be provided on compact disc (CD).

The developer shall continue to be completely responsible for this section of the system until it is in a legally accepted by the Authority Resolution. A section is typically legally accepted after the completion of the final road surfacing when the sanitary sewer system receives final inspection and approval from the Authority Engineer.

4.5.5 Action by Authority

Upon approval of the application, the Authority shall grant approval for construction of the project to the extent requested and subject to the receipt of the necessary permits from the State and all other agencies. At this time, the Authority considers sanitary sewage capacity allocated to the project. Form "C" approval will be void and invalid after six months, unless construction has commenced. Where construction has commenced within the six month period, the approval is automatically approved for successive six month periods, to a maximum of two (2) years. At the conclusion of this time period the Form "C" Approval shall be considered void and all unused fee refunded. In order to commence construction, a new Form "C" Application will be submitted to the Authority for consideration. The application shall be subject to any and all conditions, fees and rates in place at the time of the reapplication. The Authority may choose to waive the reapplication if substantial construction progress or other extenuating circumstances are demonstrated by the applicant.

Six (6) sets of completed constructions will be required prior to the preconstruction meeting. The Authority Superintendent will stamp these plans for distribution prior to construction. All bond estimates shall be approved by the Authority Engineer and escrow fees paid prior to the pre-construction meeting.

4.6 Application for Acceptance - Form D

4.6.1 Purpose of Application

Upon satisfactory completion of construction, inspection and testing and payment of connection fees, the applicant shall request the Authority to accept the installed system.

Ownership, maintenance and operation of the system shall be the responsibility of the Authority only after specific written acceptance by the Authority for the system, whether it is in whole or in part as issued by the Authority. Until this written acceptance is issued by the Authority, the ownership, maintenance and operation shall remain the responsibility of the Applicant.

4.6.2 Fee

Filing Fee: \$0.00 – Sewer

Review Fee: (Defined Below)

It is the policy of the Authority to charge a review fee for the submitted as-built plans and verification of slopes for sanitary sewer gravity mains.

In the event that construction deficiencies are found (i.e. minimum slopes are insufficient, etc...) and additional remediation measures are required, additional as-built surveys may need to be performed at the Applicant's expense.

Minimum amount to be placed in escrow fund shall be \$500.00. In the event that the costs of review are more than deposited, the applicant shall pay the additional costs prior to approval. Any excess moneys shall be returned to the applicant.

4.6.3 Forms and Supporting Data

FORM D "APPLICATION FOR TITLE TRANSFER PUBLIC SANITARY SEWER SYSTEMS:

The application shall be accompanied by:

- (a) As-built Plans of the project as prepared and sealed by the Applicant's Engineer and certified as described herein.
- (b) All necessary documents, legal descriptions, deed of easement and plans approved by the Authority that will permit the dedication of all necessary property and easements that are inherent and a necessary part of the completed project.
- (c) Proof of payment of all fees and charges required by these Rates, Rules and Regulations up to and including this application shall be verified by the Authority's Administrative Assistant.
- (d) Certification by the Authority Engineer as to the quality and content of the installed system.
- (e) Required application filing fees.

- (f) N.J. Department of Environmental Protection Permit to Operate.
- (g) The Applicant shall perform a T.V. video tape of the condition of the sanitary sewer system. This taping shall be performed after all construction within an individual development has been completed and prior to Authority acceptance of the system. Any defects, debris, slit, etc. within the pipeline shall be corrected prior to Form "D" approval. All connections shall require the lines to be re-taped. Notice shall be provided to the Authority and Authority Engineer a minimum of 48 hours prior to the video inspection.
- (h) Letter from the Authority superintendent certifying that a visual inspection of all the Authority improvements has been completed.

4.6.4 As-Built Plans

The "As-Built" Plans will contain all pertinent information such as, but not limited to, manhole to manhole distances, inverts and rim elevations of the manholes, bearings and distances of all easements and properties required, lot and block numbers, sizes and type of pipe material, location of all wyes and tees, valves, cleanouts and also certifications as detailed herein.

The "As-Built" Plans must contain a certification by and be sealed by the applicant's Engineer, who must also be a duly licensed engineer in the State of New Jersey worded as follows:

I, _____ duly licensed Engineer in the State of New Jersey have made an inspection of the work shown on these drawings as it is proposed for acceptance by the Authority and find good workmanship throughout the entire project, that the sewer mains exist true and straight to grade, that the free flow conditions exist, that no debris or obstructions are in the lines, and that the infiltration of the completed system does not exceed the limits set forth in the Rates, Rules and Regulations of the Pennsville Sewerage Authority.

I also certify that the project as offered and as shown on these particular drawings is in substantial compliance with the plans that were approved by the Pennsville Sewerage Authority on _____.

 (Signature and Seal) P.E.

Before acceptance by the Authority, the applicant is to furnish to the Authority one (1) set of the As-Built Plans, in ink, on mylar, as approved by the Authority Engineer, one (1) set of As-built plans on CD in AutoCAD format, and one (1) set of prints of each drawing showing the sewers, manholes, rims, inverts, pipe lengths, slopes, connections, etc., as constructed. All as-built plans shall be drawn on a scale of 1" = 50'.

4.6.5 Acceptance of New Sewers by Authority

After satisfactory completion of all phases of the proposed project the Authority will accept the facilities upon compliance with this section.

The applicant shall:

- (a) Verify secured title to all lands, easement, legal descriptions, sewer structure and appurtenances, obtained with Form C or Form F approval, to the satisfaction of the Authority Solicitor.
- (b) Post a maintenance bond equal to 15% of the Performance Bond guaranteeing the satisfactory performance of the system for a period of two (2) years from the date of the acceptance.

Upon acceptance by the Authority, the Authority will:

- (a) Release the applicant from the Performance Bond and accept the Maintenance Bond.
- (b) Accept the title to all lands, easements, sewer main structures and appurtenances.
- (c) Operate and maintain the system(s) thereafter.

4.6.6 Sewer Connections

Approved sanitary sewer connections shall be made to a street main only under the supervision and inspection of the Authority and/or the Authority Engineer. Connections to the sewer shall be made through an approved wye, saddle, or manhole. Connection shall be made in accordance with the direction of the Authority and/or its Engineer, or any other Authority designee.

House connections are under the jurisdiction of the Construction Code Official and/or Board of Health and approval of the Construction Code Official and/or Health Office will be required before the Authority will accept discharge of sewage into its mains.

4.7 Application for Connection of an Individual Dwelling Unit Into The Existing Authority System - Form E

4.7.1 Purpose of Application

To determine the technical and economic feasibility of extending sanitary sewer to the Authority system and to verify that the systems will be constructed in compliance with these Rates, Rules and Regulations.

4.7.2 Forms and Supporting Data

FORM E "APPLICATION FOR CONSTRUCTION OF PUBLIC SEWER SYSTEM FOR AN INDIVIDUAL UNIT INTO AN EXISTING AUTHORITY SYSTEM.

Connections for new sewer services will be made upon completing the application at the Authority Office by the property owner, or his authorized agent, and filing with the Authority. Sewer service, through existing connections, will be furnished, upon written application signed by the customer. Blank forms for all applications prepared for their respective service will be furnished by the Authority and all applications must receive the approval of the Authority before connection is made, or any service furnished.

Application shall be accompanied by two (2) sets of plans prepared by a registered plumber showing the proposed line from the dwelling to the Authority main. Plans must include all elevations.

No applications for service will be accepted by the Authority until the applicant has paid, or made satisfactory arrangements to pay, all arrears and charges due by the applicant, at any premises now or heretofore occupied by him.

The accepted application shall constitute a contract between the Authority and the applicant, obliging the applicant to pay the Authority its rates as established from time to time, and to comply with its Rates, Rules and Regulations. Connection fees shall be payable within thirty (30) days of approval of Form C, Form E or Form F by the Authority unless specific arrangements are agreed upon

Applications for service connections will be accepted subject to there being existing mains in streets or right-of-way abutting the premises to be served.

When a prospective customer has made application for a new service, or has applied for the reinstatement of an existing service, it shall be presumed that the piping and fixtures on the applicant's premises are in good condition. The Authority will not be liable, in any event, for any accident, breaks or leakage arising in any way in connection with the pipes or fixtures of the customer, nor for any damage to the property, which may result from the usage thereof.

A new application must be made upon any change in the service, from that described in the application, or in ownership of the property when the owner is the customer. The new customer shall be responsible for making application for approval by the Authority, before sewer service is received or continued.

4.7.3 Fees

The Application Fee shall be \$10.00 for Sewer.

Review Fee: \$500 - Sewer

Inspection Fee: 5% of the total sanitary sewer construction costs, as verified by the Authority Engineer. (Minimum of \$750.00.)

In the event that the costs of review are more than deposited, the applicant shall pay the additional costs prior to approval. Any excess moneys shall be returned to the applicant.

All Fees payable to the Pennsville Sewerage Authority.

4.7.4 Action by Authority

The application and supporting data will be reviewed by the Authority. If it is determined that it is feasible to extend service and that the plans are in compliance with these Rates, Rules and Regulations, the applicant will be notified of the Authority approval and the connection fee. Upon receipt of the fee, the sewer permits will be issued to the applicant and copies forwarded to the Building Inspector.

If it is not feasible to extend service to the dwelling, a letter of APPROVAL TO INSTALL ONSITE SANITARY SEWER AS APPROVED BY THE BOARD OF HEALTH will be issued to the applicant, the County Board of Health, and the Building Inspector.

SECTION 5 CONNECTIONS & SERVICE LINES: SEWER

5.1 Authority Service Line

New connections to existing sewer mains shall be at the expense of the applicant, including tapping (if Approved by the Authority), fittings, pipe, labor and related materials. Such new connections and laterals will become the property of the Authority to the curb line, except when the sewer main is located in the sidewalk area, then the Authority's ownership shall extend to the right-of-way line. The Authority will maintain such new connection and new laterals from the sewer main to the curb line or property line (depending on the location of the sewer main) after installation, and inspection and approval by the representative of the Authority. Applicant will be fully responsible for acquiring and the costs of street permits, excavation and restoration.

5.2 Size and Kind of Service Lateral

The Authority reserves the right to determine the size and kind of the service lateral from the main to the vicinity of the curb line, from the vicinity of the curb line to the property to be served, or from the main in the right-of-way, to the property to be served. Laterals of all sizes shall be constructed of medium strength cast iron soil pipe or other piping materials specifically approved by the Authority.

The service lateral from the curb to the property line including the sewer clean-out shall be furnished, installed and maintained by the owner of the property. A size 4" lateral shall be laid at a minimum grade of 1/4" per foot and in a straight line from the point of connection to the main, where the main is in a right-of-way, or from the end of the Authority constructed service lateral, to the structure to be served and where possible shall be at least four (4) feet below the surface of the ground when final grading of the property has been completed. That portion of the service lateral and sewer clean-out installed and maintained by the owner shall be installed in accordance with the Township Plumbing Code and shall be inspected and approved by the Township Plumbing Inspector prior to backfilling the trench. Any construction not approved shall be immediately removed and reconstructed in an approved manner.

5.3 Service Lateral Placement

No service lateral shall be laid in the same trench with any gas pipe, water service, or any other facility of any public utility company, nor within three (3) feet of any open excavation, vault, meter pit; nor shall the location be in conflict with any sidewalk or driveway, or subject to vehicular traffic. All laterals shall be installed within the limits of the customer's property and be a minimum of three (3) feet from any property line(s).

5.4 Elevation of Sanitary Fixtures

Under no circumstances shall any sanitary fixtures be installed in a building at an elevation lower than the front curb or street centerline elevation whichever is higher.

5.5 Maintenance By Customer

All connections, service laterals, sewer clean-outs and fixtures furnished by the customer, shall be maintained by him/her in good order, and all piping and connections furnished and owned by the Authority and on the property of the customer, shall be protected properly and cared for by the customer. All leaks in the service lateral or any other pipe or fixture in or upon the premises served, must be repaired immediately by the owner or occupant of the premises. The customer shall be responsible for notifying the Authority of the party, e.g. plumber, engaged by said customer to do any maintenance work in the customer's service lateral, prior to work being commenced, and said party shall not backfill any trench until the work has been inspected and approved by the Authority's representative such as the Township Plumbing Inspector. Any work not acceptable shall be immediately removed and replaced by work that is acceptable.

5.6 Responsibility of Authority

The Authority shall in no way be responsible for maintaining any portion of the service lateral owned by the customer, or for damage done by sewage escaping there from; or for lines or fixtures on the customer's property; and the customer shall at all times comply with applicable municipal regulations with respect thereto, and make changes therein, required by reason of changes of grade, relocation of mains or otherwise.

5.7 Renewal of Service Lateral

Where the replacement of the service lateral from the roadway to the curb is necessary, the Authority will replace the service in the location as previously used. If the property owner or customer, for his own convenience, desires the new service lateral at some other location, all expenses of such relocation in excess of the cost of laying the service lateral in the same location as previously used, and cutting and disconnecting the old service lateral, shall be the responsibility of the customer.

5.8 Prohibited Connections

Under no circumstances will any of the following be connected to the sanitary sewers, either directly or indirectly:

- (a) Foundation underdrains, sump pumps.
- (b) Floor drain, area drain or yard drain, or drain from swimming pools.
- (c) Rain conductor or downspout.
- (d) Grease pit.
- (e) Air conditioning equipment, except condensate which will be permitted under conditions approved by the Authority.
- (f) Storm water inlets or catch basins.
- (g) Drains from pieces of equipment or manufacturing process, except when specifically authorized under the provisions of these Rates, Rules and Regulations.

5.9 Special Connections

Service laterals to public buildings, churches, apartment houses, commercial establishments, and industrial establishments, shall be installed to conform to detailed plans and specifications approved by the Authority Engineer.

5.10 Special Precautions in Wet Ground

Where ground water is normally above the invert elevation of the service lateral, cast iron soil pipe, with rubber "O"-Ring joints, shall be used in construction of the size 4" service laterals. An approved Static Test shall be witnessed by the Authority Superintendent. Where the trench bottom is soft and yielding, the Authority Engineer reserves the right to require that the service be cast iron soil pipe laid in partial or total concrete encasement. Junctions of two different types of pipe, may, at the option of the Authority Engineer be required to be encased in concrete of mix determined by the Authority Engineer.

5.11 Property Served by Single Service Lateral

A service lateral from the vicinity of the curb, or the main in a right-of-way to a property, shall not serve more than one property but any such property upon proper application of the owner may be served by two or more service laterals, each of which, for billing purposes, shall be considered as being one customer account.

5.12 Single Service Lateral With Two or More Customers

Where two or more customers are now served through a single service lateral, any violation of the Rates, Rules and Regulations of the Authority, with respect to either or any of said customers, shall be deemed a violation as to all, and unless said violation is corrected after reasonable notice, the Authority may take such action as may be taken for a single customer, except that such action will not be taken until a customer who has not violated the Authority's Rates, Rules and Regulations has been given a reasonable opportunity to connect his pipe to a separately controlled service lateral. Such installations will be billed by the number of customers on the lateral.

5.13 Policy on Blockages

While the Authority has no responsibility beyond the curb line, it will, as a public service, clear the curb clean-out at the request of the customer on his initial request. The Authority will also verify that the portion of the service line between the curb and main is clear and, when necessary, take action to clear that section of the line.

5.13.1 Clean-out - Distance Behind Curb

If the curb clean-out is so positioned on the property that there is a distance between it and the curb, the Authority may clear the line and if it is determined that the blockage was between the clean-out and the curb, the Authority will charge the customer for clearing the blockage, if requested. The Authority will not be held responsible for any damages to piping or property.

5.13.2 If Authority Opens Street

If the customer requests that the Authority open the street to clear a blockage and the result of the excavation clearly indicates that the blockage is on the service line belonging to the customer, the customer will be assessed all costs of the excavation, service and repairs.

5.13.3 No Clean-out - Responsibility

If the customer has no curb clean-out, any blockage in the service line between the dwelling and the main shall be considered the responsibility of the customer. It is recommended that the customer install a cleanout during any repairs as they may occur.

5.14 Policy on Missing or Damaged Curb Clean-out Caps

When the Authority inspection indicates that a sewer cap is missing or damaged, the customer will be notified that the cap must be repaired or replaced within seven (7) days. After that time period, the Authority will replace or repair the clean-out cap and the customer will be charged for parts and service.

5.15 Unauthorized Connection

No person(s) shall uncover, make any connections, use, alter, or disturb any public Authority sewer, service lateral or appurtenance thereof without first obtaining a written permit from the Authority, accompanied by the required fee.

5.16 Construction Safeguards

All excavations for service lateral installation shall be adequately guarded with barricades and lights so as to protect the public from hazard. No excavations on Township property shall be left open after working hours. Streets, sidewalks, parkways and other public property disturbed in the course of the work shall be restored in a manner satisfactory to the Township.

SECTION 6 DAMAGE TO SYSTEM

6.1 Penalty

No person(s) shall maliciously, willfully or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance or equipment which is part of the Pennsville Sewerage Authority wastewater facilities. Any person(s) violating this provision shall be subject to immediate arrest under charge of disorderly conduct.

SECTION 7 MINIMUM TECHNICAL DESIGN STANDARDS - SEWER

In addition to the technical design standards described below, the applicant shall also refer to the most current requirements set forth within the New Jersey Administrative Code Title 7, Department of Environmental Protection, and Title 5, Residential Site Improvement Standards, to assure compliance with all necessary permit applications.

7.1 Separate Sewers Required

The Authority will approve plans for proposed new sewerage systems or extensions only when designed upon the separate system plan, in which all water from roofs, cellars, streets, and other areas is to be excluded.

7.2 Summary of Information Required

The following documents, as prepared by the applicant's engineer, are:

- (a) A general map of the entire project including a key map showing the location of the project with respect to municipal boundaries.
- (b) An area map covering probable future tributary areas for sewer system projects.
- (c) Plans and Profiles of all proposed sewers.
- (d) Specifications for all proposed construction.
- (e) An Engineer's Report describing the proposed system. (See Section 7.7).

7.3 Preparation of Sewer Maps and Plans

7.3.1 General

Plans shall be drawn too standard scales generally 1" = 50' and shall show the entire area of the project. The name of the Engineer and his seal shall be shown. Where there is more than one sheet, all shall be bound together and an index map supplied, showing by number, the area and districts covered by the various sheets.

A general plan shall accompany each application for a new system or any extension or modification of any existing sewer system. Plans should be 24 by 36 inches where possible and not generally exceed 30 by 42 inches in size.

Plans shall show district boundaries and all existing and proposed streets and the surface elevations at all street intersections where sewer lines are proposed. Existing structures, both above and below ground, will be shown.

7.3.2 Symbols

Sewers to be built at present and sewers to be constructed later shall be shown by standard conventions. Existing sanitary sewers and combined sewers shall be shown by special designations. All topographical symbols and conventions used are to be the same as those of the United States Geological Survey.

7.3.3 Elevations

Elevations of the surfaces of streets shall be placed outside the street lines opposite their respective positions in the street. The elevations of sewer inverts shall be shown at street intersections, ends of lines, and wherever a change of grade occurs. The elevation of the surfaces shall be shown to the nearest 0.1 foot; those of the sewer inverts to the nearest 0.01 foot. All elevations will be referenced to the standard datum. Sufficient benchmarks shall be permanently established on U.S. Coast and Geodetic Survey Datum.

7.3.4 Distances, Grades, Sizes and Types

The horizontal distance and stationing between manholes, grades in percent and sewer sizes and types shall be shown on all proposed sewer lines. Arrows shall be drawn to indicate the direction of flow.

7.3.5 Sewer Appurtenances

All sewer appurtenances, such as manholes, siphons, pumping stations, etc., shall be designated on the plans by suitable symbols and referenced by a legend near the title.

7.4 Profiles

Profiles shall indicate all manholes (with manhole numbers), siphons, pumping stations, etc., and, in the case of stream crossings, elevations of stream beds, normal flow lines and the type of pipe. Figures showing the sizes and gradients of sewers; surface elevations, sewer inverts, etc., shall be shown at or between each manhole.

Profiles of sewer lines shall be drawn to standard scales which shall be shown upon each sheet.

On each sheet of profiles shall be given, in addition to the title, an index of the streets appearing on that sheet. Profile sheets shall be numbered consecutively.

7.5 Standard Details of Construction

The Authority's standard detail drawings of all sewer appurtenances, such as manholes, inspection chambers, siphons, pumping stations, etc., shall be utilized when preparing plans for approval.

7.6 Specifications

Specifications directly applicable to the sanitary engineering (including hydraulic features) of the proposed project shall accompany all plans.

7.7 The Engineer's Report

A report by the designing or consulting engineer shall accompany all plans and specifications. The report shall include or be accompanied by a signed and sealed statement by the engineer certifying that the proposed project complies with all of the Rules and Regulations of the Department of Environmental Protection; provided, however, if there are any exceptions thereto, the certification of compliance shall include a listing of such exceptions and an explanation of the reasons therefore. The report itself shall give all pertinent data upon which the design is based, including, where applicable and appropriate, the following:

7.7.1 Required Information Concerning Sewer Systems

- (a) The nature and extent of the area which it is proposed to include within the present system of sewerage, and of the area which it is planned shall drain ultimately into the system, including sections not within the boundaries of the affected municipality.
- (b) The number of houses and the population to be served, both present and estimated for at least twenty five (25) years hence, with computations and curves.
- (c) The estimated per capita daily flow of sewage to be cared for, with supporting data.
- (d) The total and per capita water consumption of the district to be served at the present time, if available.
- (e) The allowance made for infiltration in the sewers.
- (f) The estimated daily flow of sewage, including infiltration.
- (g) The character of the sewage (whether domestic or industrial wastes or process waters, and in case of the latter, the nature and approximate quantity of the same stated in specific terms); also a breakdown of all quantities.
- (h) That portion of the system to be built at the present time.
- (i) The minimum grades of sewers for each size used.
- (j) Logs of test borings and ground water elevations will be shown.

7.8 Capacity and Design Period

All sanitary sewers, including outfalls, shall be designed to carry at least twice the estimated average design flow when flowing half full. In the case of large interceptor sewer systems, consideration may be given to modified designs.

The design period for the estimated flow shall be at least twenty-five (25) years; longer periods are recommended for major projects.

For sewers other than circular in cross section, the data to be submitted shall include the geometrical shape, dimensions and hydraulic characteristics of the proposed sewer.

7.9 Materials, Minimum Grades and Velocity of Flow

- (a) All sewers shall be constructed of materials acceptable to the Authority for the purposes and conditions they are intended to serve.
- (b) Sewers shall be designed with such hydraulic slope as will give a mean velocity of not less than two (2) feet per second when flowing full or half full, based on Kutter's or Manning's formula with $n = 0.013$. The fall in feet per 100 ft. of sewer shall be not less than those identified in NJAC 7:14A-23.6.

When PVC pipe is utilized for sanitary sewerage, consideration may be given to utilizing a Kutter's or Manning's "N" of 0.010, thereby allowing lower grades.

- (c) Grades producing velocities in excess of 10 ft. per second are not permitted.
- (d) The minimum size of sewers will be 8-inch. Maximum manhole spacing shall be 400 feet.
- (e) Sewers crossing streams or to be located within ten (10) feet of a stream embankment or otherwise where unusual strength is indicated, shall be of steel, reinforced concrete, cast iron or other suitable material and shall be properly protected.
- (f) Sewers and water mains generally shall be separated, a distance of at least 10 feet horizontally. If such lateral separation is not possible, the pipes shall be in separate trenches with the sewer at least 18 inches below the bottom of the water main; or such other separation as approved by the Authority shall be made. In general, the vertical separation at a crossing of sewer and water line shall be at least 18 inches. Where this is not possible, the sewer shall be constructed of cast iron pipe using mechanical or slip- on joints, or hot poured lead joints for a distance of at least 10 feet on either side of the crossing or other suitable protection shall be provided.
- (g) Any sewer within 100 feet of a water supply well or a below grade reservoir shall be of steel, reinforced concrete, cast iron or other suitable material; shall be properly protected, of completely watertight construction, and shall be tested for water tightness after installation.

- (h) When grades less than those specified above are proposed, an explanation for the use of such grades shall be included in the Engineer's Report; and said explanation shall be included in the averment called for under 7.7.

7.10 Inverted Siphons

Inverted siphons shall be of cast iron or other approved material and shall have not less than two barrels. Provision shall be made for rodding and for flushing. A velocity of 3.0 feet per second should be provided.

7.11 Joints

Standard slip-on or other approved manufactured joints for PVC pipe may be used. Joints for ductile / cast iron pipes shall be of slip-on or mechanical type.

7.12 Manholes

Manholes shall be provided at the ends of each sewer line and at intersections and at all changes in grade, size or alignment. Lampholes will not be used.

Distances between manholes shall not exceed 350 feet for sewers 18 inches or less in diameter; 400 feet for sewers greater than 18 inches in diameter.

A drop pipe shall be provided for lateral sewers entering manholes above the manhole invert wherever the difference in elevation is two (2) feet or more.

No manholes or connections on a sanitary sewer system will be permitted within 100 feet of a water supply well or a below-grade reservoir.

Adequate provision shall be made for ventilation.

All manholes with forced main connections shall have a PVC or epoxy coated surface.

7.13 Pumping Stations

The applicant shall also refer to the Authority's standard pump station details and the most current version of the New Jersey Administrative Code Title 7, Chapter 14, Department of Environmental Protection to assure compliance with all Authority and TWA permit requirements.

7.13.1 General

Raw sewage shall be screened before pumping unless special pumping equipment approved by the Department of Environmental Protection is used. Comminutors may be approved in lieu of screens.

When two pumping stations are outletting into a common force main, the design shall provide for staged pumping, preferably by the use of variable-speed pumps, so as to eliminate, as far as practical, surges of flow.

An auxiliary source of power shall be provided for electrically driven pumps, unless an alternate is approved by the Authority.

Automatic sound alarms, operating independently of the station power, shall be installed to give warning of high water, power failure, or breakdown. Such alarm system shall extend by wire to the police station or other location where competent assistance can be obtained in emergency.

Pumping stations shall not be subject to flooding, must be accessible by motor vehicles, and must be fenced and landscaped.

Adequate light and ventilation shall be provided at all pumping stations. Where operational or maintenance duties are required in enclosed areas or pits, forced ventilation by suitable means shall be provided with sufficient capacity to induce at least twelve (12) air changes per hour.

Adequate fresh-water facilities shall be provided to permit routine wash down and cleaning operations at all pumping stations. Where a domestic water service connection is provided to a pumping station, the water supply shall be properly protected as described below. No connections between fresh-water and sewage pumps or pipes shall be permitted.

- (a) An adequate supply of water under pressure shall be installed.
- (b) Where a domestic water service connection is provided, within a building, to a pumping station, the water supply shall be protected by an approved backflow prevention device acceptable to the N.J.D.E.P.
- (c) Where a domestic water service connection is provided on the exterior of a pumping station, the water supply shall be protected by a yard hydrant with air gap separation to prevent cross connections within the dry well. This shall mean a physical break between a supply pipe and a receiving vessel. The air gap shall be at least double the diameter of the supply pipe, measured vertically above the top rim of the vessel, in no case less than one inch. All hose connections from the domestic water supply shall be protected with an approved device acceptable to the N.J.D.E.P.
- (d) Taps supplying non-potable water shall be clearly labeled "Unfit for Drinking".

7.13.2 Pumps

Pumping station capacity should be compatible with the ultimate capacity of the influent sewer. At least two pumps, each designed to handle peak flows for ten (10) years hence, shall be provided. If more than two pumps are provided, their capacities shall be such that, upon failure of the largest pump, the others will handle such peak flows. When ejectors are provided as the method of raising sewage, two compressor units are required, and they shall be so interconnected that the duplicate unit will commence operation in the event of failure of the one in use.

Pumps shall be installed in accordance with the Authority's typical design as defined in detail section of these rules and regulations. Gorman Rupp self priming, above grade pumps with enclosure shall be the standard of design for pumping stations to be owned and operated by the Authority. A means of flow metering is required. Shut-off valves will be provided on suction and discharge piping, which shall be flanged or otherwise removable, and check valves and pressure gauges shall be provided

on discharges. Force main velocities shall not be less than 2 ft./second at normal pumping rates. Properly designed air release valves shall be provided on the high points of the force line.

7.13.3 Dry Wells and Wet Wells

- (a) Dry and wet wells shall be completely separated and shall be provided with adequate ventilation and drainage; and means of entrance and exit, preferably by a stairway, shall be provided.
- (b) Dry wells shall provide sufficient space for accessibility for the repair and removal of pumps.
- (c) The capacity of a wet well should not exceed ten (10) minutes when the flow is at the average dry weather rate.
- (d) The floors of wet wells shall slope at least 45 degrees toward pump suction to prevent solids accumulation.
- (e) Dry wells will be provided with a sump pump.

7.13.4 Electrical Equipment

- (a) Electric motors shall be so located as to be protected from flooding.
- (b) Electric motors and electrical power equipment should not be installed in subsurface chambers; where installation in such a location is necessary, the motors and equipment shall be of the explosion - proof and damp - proof type.
- (c) All electrical equipment and work shall comply with Fire Underwriter's regulations for the location involved and to the National Electric Code.

SECTION 8 RELATED TECHNICAL STANDARDS - SEWER

8.1 Materials

Materials used in the construction of sewers, force mains and outfalls shall be as follows:

- (a) Gravity sewers shall be constructed of cast iron, ductile iron or PVC pipe.
- (b) Inverted siphons, force mains and outfalls shall be constructed of ductile iron or steel pipe, unless otherwise permitted by the Authority.

8.2 Ductile Iron Pipe and Fittings

Ductile iron pipe shall conform to the requirements of the American Standards Association Specification A21.51 as amended and revised to date. Unless otherwise specified herein, ductile iron pipe shall be thickness Class 52.

"Tyton" joints shall conform to the American National Standards Specification A21.11 as amended and revised to date.

All cast iron fittings, including Y-branches, shall conform to the requirements of the current American Water Works Association Specifications therefore, except that fittings shall be provided with joints suitable for use with the adjoining pipe. Unless otherwise specified herein, cast iron fittings shall be 250 PSI for sizes 12 inches and less, and 150 PSI for sizes 14 inches and greater. Cast iron saddles shall be subject to the approval of the Engineer.

8.3 Polyvinyl Chloride (PVC) Sewer Pipe

Shall be made of PVC plastic having a cell classification of 12454-B or 12454-C or 13364-B (with minimum tensile modulus of 500,000 psi) as defined in ASTM Specification D-1784. Fittings shall be made of PVC plastic having a cell classification of 12454- B, 12454-C, or 13343-C as defined in Specification D1784. Compounds that have different cell classifications because one or more properties are superior to those of the specified compounds are also acceptable.

All fittings shall utilize rubber gasket joints, the rubber gaskets complying in all respects with the physical requirements specified in ASTM F-477, D-1869, C-361 or C-443.

The pipe and fittings shall be homogeneous throughout and free from visible cracks, holes, foreign inclusions, or other injurious defects. The pipe shall be as uniform as commercially practical in color, opacity, density, and other physical properties.

PVC pipe and fittings shall be Type PSM SDR 35 Gravity Sewer Pipe conforming to ASTM D3034 as manufactured by Johns-Manville, Certainteed or approved equal.

All pipe and fittings shall receive a protective lining consisting of two (2) coats of asphaltic paint equal to Inertol No. 49 as manufactured by Inertol Co., Inc. The total dry film thickness shall not be less than 4 mils.

Materials for house service from the main to two (2) feet inside of the curb line shall be cast iron pipe. The cleanout shall be located two (2) feet inside the curb line. House connections from the building to the cleanout shall be cast iron or approved equal.

8.4 Manholes

8.4.1 Construction

All manholes shall be constructed of precast reinforced concrete riser sections, an eccentric conical or flat slab top section, and a base section as shown or required. Where required, eccentric reducing sections shall be used to join riser sections of different diameters.

Precast manhole sections shall be manufactured in accordance with ASTM Designation C478. Manholes shall be manufactured by the "wet" process and shall be cured in the forms for several hours. The minimum compressive strength of the concrete for all sections shall be 4000 lbs. Per-square inch.

The maximum allowable absorption of the concrete shall not exceed 8% of the dry weight. Tests shall be similar to those described in ASTM C-76. The circumferential reinforcement in the walls of all sections shall be a minimum of 0.12 square inch per linear foot for inside diameters up to and including 54 inches, and 0.17 square inch per linear foot for the larger sizes. Reinforcement in flat slab top sections shall be designed for the load to be supported. Additional reinforcement shall be provided at all openings larger than six (6) inches.

Joints of the sections shall be formed entirely of concrete in accordance with ASTM Designation C443 and shall be made with a rubber gasket installed in accordance with the manufacturer's recommendations. Joints shall be self-centering and watertight against internal and external hydrostatic pressure with the gasket utilized as the sealing element and external and internal seams grouted.

Base sections shall be furnished by the manufacturer with either a compressible rubber ring equal to the Omega manhole, or with a flexible sleeve equal to the Interpace flexible manhole sleeve. Waterways shall be constructed by a journeyman mason in the field after the manhole has been installed. The shape and size of waterways shall conform to the shape and size of connecting pipes as shown or ordered. Special shall be taken to form channels with curved shapes that will provide the best hydraulic conditions for smooth flow. Benches shall be sloped to drain to the waterways. Concrete used in forming water ways shall be a stiff, rich mix, and shall be given a steel trowel finish.

Riser sections, conical sections, and the outer sides of flat slab top sections, shall be given a protective lining consisting of two (2) shop coats of asphaltic paint. The total dry film thickness shall be not less than 4 mils. The line shall be applied in accordance with the manufacturer's recommendations.

Foundation material under manholes shall be crushed stone. Excavation and earthwork shall be as specified.

Manhole frames shall be adjusted to finish grade by building a circular brick-in-mortar collar above the precast manhole opening. Maximum height of the collar shall be 12 inches except where otherwise ordered. Brick shall be sound, hard, well-burned, sewer brick conforming to the requirements of ASTM Designation C-32, Grade MA and shall be laid radially. Mortar shall consist of two (2) parts sand to one (1) part cement, thoroughly mixed in the required proportions before adding water. After laying up the collar and setting the frame in a full bed of mortar, the exterior of the collar shall receive a minimum 3/4 inch thick mortar coat to provide water tightness.

8.4.2 Manhole Appurtenances

Appurtenances shall include manhole frames and covers, and manhole rungs. Manhole frames and covers shall be of the best quality, close grained grey iron castings conforming to the requirements of ASTM Designation A 48, Class No. 30. Seating surfaces of manhole frame and covers shall be machined to insure a non-chattering fit. Manhole frames and covers shall be properly cleaned and coated with a waterproof asphaltum applied by immersion, while the castings are hot.

Unless otherwise indicated, manhole frames and covers shall be of the circular flared type frame with round flange equal to Catalog No. 1217 as manufactured by Campbell Foundry Company or Bridgestate Pattern 1206 or 1012A..

Locking devices, equal to Campbell No. 1487, shall be provided on frames and covers on all manholes located in easements. Locking type covers shall also be provided with a single recessed lifting handle. Lifting handle shall be equal to that shown for Campbell No. 1255. A key shall be supplied with each locking type unit.

Frames and covers equal to those specified above as manufactured by the Campbell Foundry Co Neenah Foundry Co. will be acceptable.

All covers shall be cast with identifying letters shown. Letter shall be two (2) inches high and embossed against a recessed background.

Manhole rungs shall be extruded aluminum alloy of the step drop front design. Rungs shall be cast in the vertical sides of the manhole sections on twelve (12) inch centers.

Special details shall be provided for drop manholes with invert differences exceeding two (2) feet, and for shallow manholes where the grade-to-invert depth is less than 5'-6".

Between manholes, pipe shall be straight and at uniform grade. Spacing shall not exceed 350 feet for sewers 18 inches or less and 400 feet for sewers greater than 18 inches in diameter.

The Contractor shall modify existing manholes by cutting masonry, setting pipe in place and filling with non-shrink grout. Waterways shall be chipped and roughened, and then finished with cement mortar to provide the best hydraulic conditions for smooth flow.

Flexible joints shall be placed at the manhole wall, and within four (4) feet of the wall.

SECTION 9 RELATED TECHNICAL STANDARDS - GENERAL

The work shall conform in all respects to the requirements of Standard Specifications of the New Jersey Department of Transportation as amended and revised to date.

9.1 Cement

Cement used shall conform to the following requirements of the ASTM as amended and revised to date.

- (a) Standard Portland Cement - ASTM Designation C-150, Type 1.
- (b) High Early Strength Portland Cement - ASTM Designation C-150, Type 3.
- (c) Air Entraining Portland Cement - ASTM Designation C-175, Type 1-A. Air Entraining Agent shall be Vinsol Resin or Darex A.E.A.

9.2 Aggregates

Aggregates, both fine and coarse, shall conform to the requirements therefore of the N.J. Department of Transportation Standard Specifications as amended and revised to date.

9.3 Water

Water shall be clean, fresh and free of oils, acids, salts, organic matter or other injurious substances.

9.4 Concrete

Unless otherwise provided, all concrete shall be air entrained having 4% to 7% of entrained air, and shall be produced by using Standard Portland Cement with additive or Air Entraining Portland Cement with or without additional additive as may be required.

Except where otherwise specifically provided, concrete shall be Class A, B, C or S, as prescribed, proportioned as follows:

			Course	Void	28 Day Verification
Class	Cement	Sand	Aggregate	Content	Strength (PSI)
A	1	1.50	3.0	1.350	5000
B	1	1.75	3.5	1.575	4500
C	1	2.00	4.0	1.800	4000
S	1	2.25	4.5	2.025	2000

When the coarse aggregate has a percentage of voids above or below 45, the volume of coarse aggregate or sand, respectively, shall be decreased so that the volume of said voids will equal 90 percent of the sand volume. The volumes shall be measured when the materials are dry and loose, not when they are rodded or shaken.

Class "C" concrete shall be used for the construction of concrete cradles and Class "S" for the construction of thrust blocks. Batching and mixing equipment shall be of a size and type suitable for work to be done and shall be subject to the approval of the Engineer. The Class of concrete required for the various items of work shall be as shown on the plans or in the specifications.

9.5 Reinforcement Steel

Reinforcement steel shall be Grade 40, conforming to the requirements of either ASTM Designation A-615 or ASTM Designation A- 617.

9.6 Wire Mesh or Fabric

Wire mesh or fabric shall conform to ASTM Designation A-185 as amended and revised to date.

9.7 Concrete Block

Concrete block for the construction of manholes, inlets and catch basins shall conform to the requirements of the American Society for Testing Materials Specifications therefore, as amended and revised to date. Concrete blocks for manholes shall have the required radius and batter.

9.8 Brick

Brick shall be Grade MA conforming to the American Society for Testing Materials Specifications therefore, as amended and revised to date.

9.9 Mortar

Mortar shall be 1 : 2 cement-sand mortar.

9.10 Iron Castings

Iron castings shall conform to the requirements of the American Society for Testing Materials Specifications for gray iron casting as amended and revised to date, supplemented as follows:

Castings shall be boldly filleted and risers shall be sharp and perfect. The castings shall be true to pattern in form and dimension, free of pouring faults, sponginess, cracks, blowholes and other defects which affect their strength and value for the service intended. The bearing surfaces of frames, covers and grates shall be fitted together so as to prevent rocking and the pieces match marked.

9.11 Ladder Rungs - Aluminum

Ladder rungs shall be fabricated of extruded aluminum alloy conforming to the current American Society for Testing Materials Specifications therefore and shall be subject to the approval of the Engineer.

9.12 Excavation and Earthwork

9.12.1 Limits of Excavation

Excavation shall be made to approved lines which shall be of sufficient width for forming the pipe joints. Trench widths shall be selected so that the backfill will not exceed the safe load on the pipe. In all cases, the trench sides shall be vertical from the bottom to twelve (12) inches above the top outside diameter of the pipe. In general, the widths of pipe trenches shall not be wider than the outside diameter of the pipe barrel plus two (2') feet at the level of the top of the pipe, unless otherwise approved. Trench bottoms shall be trimmed by hand to provide firm bedding. The last three (3) inches of depth for all pipe trenches shall be removed with pick and shovel to the proper lines and grades before placing foundation material and pipe.

All excavation and earthwork activities shall be in full compliance with OSHA regulations. Blasting for rock excavation will be permitted only on approval of methods, and in compliance with applicable State and local regulations. The Pennsville Sewage Authority is not responsible for onsite safety.

9.12.2 Sheet piling and Bracing

Where excavations are made with sides at greater than natural slope, sheet piling and bracing shall be used of sufficient strength to sustain the sides of the excavations and to prevent movement which could in any way injure the work, or diminish the work spaces sufficiently to delay the work. Sheet piling and Bracing shall conform to the requirements of the "Construction Safety Code" of the Bureau of Engineering and Safety of the New Jersey Department of Labor and Industry.

9.12.3 Dewatering

The Contractor shall provide, operate and maintain satisfactory facilities and equipment including well points, with which to collect and pump all water entering excavations or other parts of the work to suitable places for disposal. All excavations shall be kept free of water until the work or structure to be built therein is completed. Water shall be discharged through pipe or gutters, or any other suitable artificial means to catch basins, watercourses, or ditches in such a manner as to avoid interference with business, pedestrian and vehicular traffic and so as to prevent damage to property. Dewatering shall continue on a 24 hour per day basis as required to avoid flotation danger to the structures until completed.

Contractors intending to divert more than 100,000 gallons of water per day for less than 31 days within a consecutive 365 day period may be authorized for such a diversion under a short term use permit rule provided that certain conditions are met. The contractor shall be responsible for meeting these conditions and submitting all required information to NJDEP for compliance. The Contractor shall be responsible for supplying any dewatering permits required in accordance with the New Jersey Administrative Code, Title 7, Chapter 19.

9.12.4 Backfill

All backfill shall consist of a suitable selected and approved earth generally from storage of approved excavated soil, free from rejected organic matter, boggy, peaty, humus or other unsuitable material such as silt, rubbish, waste, ashes or cinders. If sufficient suitable material for backfill is not available from the excavated material, as determined by the Engineer, the Contractor shall procure elsewhere a sufficient quantity of suitable material and shall furnish and place such material. No frozen earth shall be used for backfill, and all stones more than six (6) inches in the largest dimensions shall be removed from the acceptable earth or fill and backfill. Unsuitable or excess backfill material shall be promptly removed from the site.

9.12.5 Placing and Compacting Backfill

Backfill shall be made to the slopes, grades and elevations required. Backfill shall be compacted, in an approved manner to a density at least equal to that of the adjacent undisturbed soil, so as to avoid future unequal settlement.

No backfill shall be placed until the structure has been inspected in place and approved. Backfilling shall be carried out as soon as possible after such approval.

Trenches shall be backfilled from the top of the foundation material to a depth of not less than twelve (12") inches over the pipes using only bank run sand and gravel. Such material shall be uniformly placed on each side of the pipe in six (6") inch layers, wetted as required, and firmly compacted by approved tamping machines. Care shall be taken not to damage the pipe. After a compacted coverage of twelve (12") inches has been made, the remainder of the trench shall be compactly filled in an approved manner.

The bank run sand or gravel must be compacted after sprinkling with water to obtain optimum moisture content. Final in-place density must be at least ninety (90%) percent of the maximum density obtainable with the material used, as determined by AASHO Designation T 99 Compaction and Density Tests, using Method "C".

9.12.6 Foundation Material

Foundation material used for pipe bedding, from a distance below the pipe invert to the lower quarter point of the pipe, shall be bank run sand and gravel or crushed stone. Pipe embedment material from the lower quarter point to twelve (12") inches above the top of the pipe shall be bank run sand and gravel.

Bank run sand and gravel shall conform to the requirements of the New Jersey Department of Transportation, 1989 Revisions, Standard Specifications for Type 1, Class A bank run sand and gravel, while crushed stone shall conform to the requirements of the New Jersey Department of Transportation Standard Specifications, Division 8, Subsection 900, Type 1, Class C. Frozen and lumpy material shall not be used.

All crushed stone shall be screened and prior to its placement with the trench. All foundation material shall be placed and compacted as directed and approved by the Engineer.

9.13 Pipe Laying and Installation

All pipe and fittings shall be installed to the lines and elevations shown or ordered, and in accordance with the manufacturer's recommendations.

Suitable tools and equipment shall be used for proper handling, storing, laying pipe and fittings. In order to avoid damage to the interior coatings of pipe, lifting hooks or bars shall not be inserted therein. Each pipe and fitting shall be checked for defects and injuries as laying proceeds. Imperfect pipe materials shall be rejected and removed from the work. Pipe found to be defective after laying shall be removed and replaced by undamaged material.

The interior of all pipe shall be cleaned of dirt, and other deleterious materials, and kept clean, as the next section of pipe is laid. During the progress of the work, the exposed ends of the pipe shall be provided with approved temporary covers fitted to the pipe, in order to prevent material from entering the pipe.

Where pipe must be cut to fit as closing pieces, such cuts shall be evenly and squarely made in a workmanlike manner with approved equipment. Injury to linings or coatings shall be satisfactorily repaired.

Where cast iron mechanical joint, Tyton or Ring-Tite fittings are used, the Contractor shall furnish and install concrete thrust blocks, tie rods, or other approved means for preventing movements at joints, bends, tees and other fittings as shown or directed. Joints must be thoroughly brushed with a wire to remove all loose rust or foreign materials, soapy water must be brushed over the joint surfaces and over the gasket. Bolts shall be tightened uniformly, using only torque-limiting wrenches to avoid over stressing the bolts. Bolt heads, nuts and other unpainted surfaces shall be coated with two (2) heavy applications of black asphaltum varnish.

All pipe shall be laid in accordance with approved details. All pipe shall be laid on top of a layer of foundation material and the same material shall be carried up to a level four (4") inches from the bottom of the pipe. Where concrete cradles are used to support the pipe, foundation material will not be required. No solid blocking will be permitted under pipe. Joints shall be made in accordance with the recommendations of the manufacturer.

SECTION 10 INSPECTION & TESTING OF INSTALLED FACILITY

10.1 Inspection of Sanitary Sewer System During Course of Construction

All construction of sanitary sewer systems shall be under the jurisdiction of the Engineer for the Authority, either directly or through inspectors under his supervision.

- (a) The Authority Engineer shall enforce compliance with the approved plans and specifications.
- (b) The Authority Engineer shall have the authority to have the work discontinued in the event of noncompliance.
- (c) The applicant shall also furnish the name of the occupant, the street address, and lot and block number two (2) weeks prior to request for certificate of occupancy from the Building Inspector in order that the wiring, meter installations and lateral inspections can be accomplished.
- (d) No sewer connections shall be made to the appropriate street main whether tested or not, unless under the supervision and inspection of the Engineer for the Authority.

A temporary, leak proof bulkhead type plug shall be installed in the upstream (inlet) side of the manhole furthest downstream in any sewer main or branch under construction and shall remain intact and unloosened until written permission is received from the Authority Engineer to remove same.

This permission will not be granted until each section of the sewer has been cleaned and flushed in a manner acceptable to the Authority's Engineer.

10.2 Testing of Completed System

All sewer mains shall be subjected to one or more of the following types of tests (infiltration, exfiltration or pressure test). Exfiltration tests shall be conducted in lieu of infiltration tests when the pipe has been laid above the groundwater level. The tests shall be performed between two manholes or as otherwise directed by the Engineer for the Authority and shall include all related sewerage including house connections.

The Contractor shall furnish all labor, materials and equipment necessary for the testing.

Exfiltration tests shall be under at least a four (4) foot head or a pressure corresponding to the head equal to the depth of the lower manhole of the section under the test.

An infiltration test should be performed in the late winter or early spring following construction. Allowable infiltration or exfiltration shall not exceed a rate of 100 gallons per mile, per inch of diameter of sewer per 24 hours.

In order to ensure that there shall be no gushing or spurting streams entering the sewer, the Contractor shall be held responsible for water tightness of the line, shall satisfactorily repair all joints and other parts not sufficiently watertight and then shall make additional tests of the infiltration or exfiltration until the test results conform to the requirements given herein.

When individual or house connections are connected to sewer mains already tested, the individual or house connections shall be pressure tested prior to connection to the sewer main. Individual or house connections shall be pressure tested under a ten (10) foot head of water and shall be made tight from the point of connection at the main to the lowest cleanout in the building.

10.3 Infiltration

10.3.1 Objective

This procedure establishes the method(s) to be used for the testing of sanitary sewer system.

10.3.2 Purpose

The purpose of this procedure is to establish a uniform method and practice in testing sanitary sewers for infiltration, exfiltration and alignment.

10.3.3 Infiltration Test

The test shall be performed in the presence of the Pennsville Sewage Authority's Engineer

Examine the sanitary sewer system for infiltration at the downstream end of the system after construction has been completed and prior to any sanitary building connections.

In the event that there is infiltration and water is flowing at the downstream end of the system, then the source and volume of flow must be determined.

To isolate the source, it is necessary to go upstream one manhole at a time, to find where the flow is originating. This is done by plugging the first upstream manhole and observing to see if the flow stops. This procedure is repeated one manhole at a time until the infiltration has been isolated.

When the infiltration has been isolated to a section or area, the volume of flow shall be determined as follows: (Installation and use of V-Notch weirs)

- (a) Insert a 60 degree V-Notch weir into the downstream end of pipe and ensure there is no leakage between weir seal and pipe wall.
- (b) Allow water to build up and flow over weir until a maximum crest is established.
- (c) To read, observe the water level against the back side, or upstream side, of the transparent dial at the side away from the "V" opening. The figures at this point will give you the rate of flow in gallons per day.
- (d) The permissible infiltration is based on the allowable rate of 100 gallons/inch diameter of pipe per mile/24 hours.

- (e) The installation of the eight (8”), ten (10”), twelve (12”) inch or larger weir is very simple. Place weir in the pipe and adjust to proper position as indicated by level bubble. However, on the larger size pipes, select the adapter numbered for size or pipe to be tested. Place in the pipe, the upper crescent of this adapter has a fifteen (15”) inch diameter. Set the fifteen (15”) inch weir in this crescent, adjust using level bubble and clamp tight.
- (f) If the permissible infiltration number is greater than the actual infiltration number, the infiltration test passes. If the actual infiltration is greater than the permissible infiltration, the infiltration test fails, and further investigation by the Contractor will be required to reduce the infiltration.

10.4 Exfiltration Test Procedures

10.4.1 Testing Sanitary Sewer Lines For Exfiltration

The test shall be performed in the presence of the Pennsville Sewage Authority’s Engineer

When testing sanitary sewer lines for exfiltration, the following method shall be used:

The low pressure air test is the most desirable method of testing and should be used when possible. The low pressure air test is very fast, and isolation of leaks is very precise.

Prior to the start of the exfiltration test, all construction work for the system under test shall be completed. This includes backfilling and completion of all manholes.

- (a) Low Pressure Air Test (4.0 lbs.) to be conducted between two consecutive manholes, as directed by the Engineer.
- (b) The test section of the sewer line is plugged at each end. One of the plugs used at the manhole must be tapped and equipped for the air inlet connection for filling the line from the air compressor.
- (c) All service laterals, stubs and fittings into the sewer test section should be properly capped or plugged, and carefully braced against the internal pressure to prevent air leakage by slippage and blowouts.
- (d) Connect air hose to tapped plug selected for the air inlet. Then connect the other end of the air hose to the portable air control equipment which consists of valves and pressure gauges used to control:
 - (1) The air entry rate to the sewer test section, and
 - (2) To monitor the air pressure in the pipe line.

More specifically, the air control equipment includes a shut- off valve, pressure regulating valve, pressure reduction valve and monitoring pressure gauge having a pressure range from 0 to 5 psi. The gauge should have a minimum division of 0.10 psi and an accuracy of .04+/- psi. See Figure No. 1 for typical control equipment apparatus.

Connect another air hose between the air compressor (or other source of compressed air) and the air control equipment. This completes the test equipment set up. Test operations may commence.

Supply air to the test section slowly, filling the pipe line until a constant pressure of 4.0 psi is maintained. The air pressure must be regulated to prevent the pressure inside the pipe from exceeding 5.0 psi.

When constant pressure of 4.0 psi is reached, throttle the air supply to maintain the internal pressure above 3.5 psi for at least 5 minutes. This time permits the temperature of the entering air to equalize with temperature of the pipe wall. During this stabilization period, it is advisable to check all capped and plugged fittings with a soap solution to detect any leakage at these connections.

If leakage is detected at any cap or plug, release the pressure in the line and tighten all leaky caps and plugs. Then start the test operation again by supplying air. When it is necessary to bleed off the air to tighten or repair a faulty plug, a new five-minute interval must be allowed after the pipe line has been refilled.

After the stabilization period, adjust the air pressure to 4.0 psi and shut off or disconnect the air supply. Observe the gauge until the air pressure reaches 3.5 psi. At 3.5 psi, commence timing with a stop watch which is allowed to run until the line pressure drops to 2.5 psi at which time the stop watch is stopped. The time required, as shown on the stop watch, for a pressure loss of 0.5 psi is used to compute the air loss. Most authorities consider it unnecessary to determine the air temperature inside the pipe line and the barometric pressure at the time of the test.

If the air pressure drops but remains above (Greater than shown in Table #1) 3.5 psig, (3.5 psig being the cut off) and does not exceed the starting pressure of 4.0 psig in the allowable time, in minutes and seconds, shown in Table 1 for the designated pipe size, the section undergoing the test shall have passed and shall be presumed to be free of defects. The test may be discontinued at that time.

If the air pressure drops below (LESS than shown in Table 1) 3.5 psig in the allowable time, in minutes and seconds, shown in Table 1 for the designated pipe size, the section undergoing the test shall not have passed the test; therefore, adequate repairs must be made and the line retested.

TABLE 1

<u>TIME REQUIREMENTS FOR AIR TESTING</u>		
<u>PIPE SIZE</u>	<u>TIME</u>	
<u>(In Inches)</u>	<u>Minutes</u>	<u>Seconds</u>
4	2	32
6	4	00
8	5	6
10	6	22
12	7	39
14	8	56
15	9	35
16	10	12
18	11	34
20	12	45
21	13	30

NOTE: Test at 4.0 PSI with .5 PSI Maximum Allowable Loss

- a) Pipe sizes with their respective Recommended Minimum Times, in Minutes and Seconds, for Acceptance by the Air Test Method.
- (b) For eight (8) inch and smaller pipe, only: if, during the five minute saturation period, pressure drops less than 0.5 psi after the initial pressurization and air is NOT added, the pipe section undergoing test shall have passed.
- (c) Multi Pipe Sizes: When the sewer line undergoing test is 8" or larger diameter pipe and includes 4" or 6" laterals, the figures in Table 1 for uniform sewer main sizes WILL NOT give reliable or accurate criteria for the test. Where multi-pipe sizes are to undergo the air test, the engineer can compute the "average" size in inches which is then multiplied by 38.2 seconds. The results will give the minimum time in seconds acceptable for a pressure drop of 0.5 psi for the "averaged" diameter pipe.

An air pressure correction is required when the prevailing ground water is above the sewer line being tested. Under this condition, the air test pressure must be increased .433 psi for each foot the ground water level is above the invert of the pipe.

10.4.2 Procedures for Making Air Pressure Correction

Determination of Ground Water Elevation.

Where ground water is known to exist or is anticipated in the area before the air testing would be conducted, the following procedure is suggested at the time the sewer main and manholes are constructed.

Determine air pressure correction, which must be added to the four (4.0) psi normal starting pressure of test, by dividing the vertical height in feet by 2.31. The result gives the air pressure correction in pounds per square inch to be added. Example: If the vertical height of water from the sewer invert to the top of the water column measures 11.55 feet, the additional air pressure required would be:

$$\frac{(11.55)}{2.31} = 5 \text{ psi}$$

Therefore, the starting pressure of the test would be four (4.0) plus five (5.0) or nine (9.0) psi, and the one half pound drop becomes 8.5 psi. There is no change in the allowable drop (0.5 psi) or in the time requirements established for the basic air test.

All force mains and pressure lines shall be tested at 50 psi or 2 times the operating pressure whichever is greater or as required by the specifications.

Each section of pipe shall be slowly filled with water. Before applying the specified test pressure, all air shall be expelled from the pipe through blow-offs or taps that may be required for the release of air at the highest points.

When the test pressure has been reached, the amount of make-up water to maintain the test pressure in two (2) hours shall be measured.

No pipe installed will be accepted until the amount of leakage does not exceed 50 gallons per day per inch diameter per mile of pipe.

Where sections of pipeline fail to meet this requirement, they shall be repaired, again maintained under pressure in two (2) hours and retested as necessary until these requirements are complied with.

Calculations to determine loss per inch of pipe per day per mile shall be done as follows:

- a. Gallons of make-up water x 24 = gallons loss/day.
- b. Gallons x loss/day x 5280 feet/mile = gallons loss/ mile/ day
Feet or Pipe Being Tested
- c. Gallons loss/mile/day = gallons/inch dia./mile/day
Pipe Dia. Inches

Allowable exfiltration rate is 50 gallons/inch dia./mile/day

Example: 2 x TDH x (.4333)
 TDH = 130
 Test Pressure = 90 PSI
 TDH = Total Dynamic Head

10.5 Alignments

Alignment (Lamp Test) shall be done on all gravity sanitary sewer lines.

Alignment consists of visually examining inside of pipe between two consecutive manholes with the aid of a light and mirror.

A light is shown from one manhole towards the other manhole. A mirror is held at the invert of pipe and adjusted so the light and barrel of pipe can be seen.

The barrel of the pipe shall have no vertical deflection and at least 75% of the barrel shall be visible in the horizontal direction.

In the event that alignment shows the pipe not laid true and to grade it shall be repaired and be aligned as necessary until the alignment complies with these requirements,

SECTION 11 BILLING, PAYMENTS, DELINQUENCIES, Etc.

(THIS SECTION IS RESERVED AND WILL BE UPDATED WITH FUTURE AMENDMENTS TO THIS DOCUMENT)

SECTION 12 RESERVE CAPACITY

Generally, The Pennsville Sewer Authority does not reserve capacity and cannot commit serving proposed development until the project is formally approval by the Authority, NJDEP and other regulatory agencies with jurisdiction. Connection fees must also be paid before capacity is allocated.

Sections of the Municipality designated as redevelopment areas by the Township may be allotted capacity prior to the receipt of regulatory approvals, in an effort to support business development and improve the tax base, as redevelopment areas are an overall benefit to the Municipality as a whole. Prior to allocating capacity, the availability of sanitary sewer would need to be determined during a feasibility review of the project once a formal application is submitted with required supporting documentation. Upon satisfactory completion of the feasibility review, the Authority shall adopt a resolution allocating capacity to the project for a period not to exceed two (2) years. The Applicant must formally request a time extension before the end of the initial two (2) year period, otherwise the allocation of capacity may be withdrawn from the project by a formal action from the Authority.

SECTION 13 RESPONSIBILITY FOR SERVICE

The Authority will not permit its mains or service pipes to be connected in any way to any piping, swimming pools, tank, vat or other apparatus containing liquids, chemical, or any other matter which is prohibited by the Rules and Regulations.

Whenever any person, persons, firm or firms, partnership or partnerships, corporation or corporations, or any combination thereof causes or has caused any damage to the sewer system or facilities of the said Authority, the party or parties causing such damage shall immediately notify the Authority of such damage. The said Authority shall have the right to repair such damage or have such damage repaired, and shall have the further right to recover the full cost and expense of such repairs, including, but not limited to, the standard charges for work performed by Authority employees, for materials, supplies and equipment used for such repairs from the party or parties causing such damage.

13.1 Complaints

Complaints with respect to the character of the service furnished, of the bills rendered, must be made at the Authority's office, either orally or in writing, and a record of such complaint will be kept by the Authority, noting the name and address of the complainant, the date, the nature of the complaint and the remedy.

13.2 Reasonable Access

The properly identified authorized agents of the Authority shall have the right of access to the premises served, at all reasonable hours, for the purposes of examining fixtures and pipes, observing the manner of using sewers, and for any other purposes which are proper and necessary in the conduct of the Authority's business.

13.3 No Oral Agreements

No agent or employee of the Authority has authorization to bind it by any promise, agreement or representation not provided for in these Rates, Rules and Regulations.

13.4 Single Service - Sewerage Only

In instances where owners of existing properties make application for and are furnished only sewerage service, all rules applicable to furnishing sewerage service must be complied with, and the charge for such service shall be as described in the Schedule of Rates.

13.5 Emergency

As necessity may arise in the event of breakdown, emergency, or for any other unavoidable cause, the Authority shall have the right to cut-off the water supply temporarily, in order to make necessary sanitary sewer repairs, connections, etc. The Authority will use reasonable and practical measures to notify the customer of such discontinuance of service but the Authority shall not be liable for any damage or inconvenience experienced by the customer; or any claim against it at any time for interruption in service, lessening of the supply, inadequate pressure, poor quality of water, or for causes beyond its control. When the supply of water is to be temporarily interrupted, written notice will be given, when practicable, to all customers affected by the temporary interruption of service, stating the probable duration of the interruption, and also the purpose of the interruption.

13.6 Discharges

The discharge of any surface or subsurface water directly or indirectly to the sanitary sewer system is prohibited. Underdrain systems for foundation of buildings shall be connected to a storm drainage system approved by the Township Engineer. Further, underdrain systems in municipal rights-of-way shall have separate cleanouts which shall not be in any appurtenance of the sanitary sewer system.

13.7 Mandatory Sewer Connection

When the Authority provides for sanitary sewer to pass immediately adjacent to a property owner's boundary line, and within 200 feet of buildings, structures or houses, upon notice of the availability of sewer, said property owner shall make the necessary arrangements to tie into the system provided for within 61 days of delivery of the written notice. Such written notice should be served by certified mail, return receipt requested.

13.7.1 Failure to Tie In

Should a property owner, after the 61 days referred to in 13.7 fail to tie in to the sewage facility provided for along the property owner's property line, then and in that event the Authority may make the tie-in or contract with a duly licensed contractor to effect the tie-in and then proceed against the property owner for the cost of the tie-in as well as other expenses including attorney fees incidental to the collection of the cost for the tie-in. This shall be accomplished by having a lien, filed against the property, and that steps to perfect that lien, including a tax sale through the Municipal Clerk, be employed. If the tie-in has been commenced but not completed within the 61 days referred to in Section 13.7, the Authority may grant a reasonable extension of time to complete the tie-in.

13.7.2 Cost of Tie-In

The property owner shall be responsible for the cost of all tie- ins for sanitary sewer.

13.7.3 Required to Tie-In

Only improved properties with structures for either habitation or commercial use such as retail stores, manufacturing or service centers, but not limited thereto, shall be subject to Section 13.7 through 13.7.2.

13.7.4 Tie-In or Lateral

The terms "tie-in" or "lateral" are intended to be used interchangeably and shall be the same as found in Section 1.13.

SECTION 14 SCHEDULE OF RATES

Schedule 1 – Sewer Service Charge Schedule

<u>Classification of Building or Facility Use Connected to the Sewerage System Under Permit</u>	<u>Charge per Quarter</u>
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RESIDENTIAL and/or ASSOCIATED DOMESTIC

BASIC DOMESTIC UNIT INCLUDES:

1.	Private Dwelling – Typical Single Family Home	\$ 96.25
	Senior Citizens & Disabled Persons Qualified as Required P.L. 1994, c. 78; Owner Occupied	\$ 56.23
2.	Private Dwelling with Rental Apartment(s) Basic Domestic Unit & Each Rental Unit	\$ 96.25
3.	Private Dwelling with Rental Sleeping Room(s), Rest Homes Basic Domestic Unit & Each Rental Sleeping Room	\$ 96.25 \$ 61.35
4.	Private Dwelling – With Part Business or Commercial Use With Water Fixture Basic Domestic Unit & Business or Commercial Unit (Add Excess Charge Under Metered Commercial Below)	\$ 82.18 + excess
5.	Domestic Multi-Units (Apartments, Condos, Townhouses, Similar) Basic Domestic Apartment or Living Unit	\$ 96.25
6.	Senior Citizens Complex (Public or Private Owner) Each Occupancy Unit (Whether or Not Used)	\$ 96.25
7.	Mobile Homes – Parks, Campsite Each Unit Site	\$ 96.25
	HOTEL, MOTEL ROOMING HOMES Each Occupancy Unit (Whether or Not Used) & Office or Control Unit (Add Basic & Excess of Business- Commercial Rate)	\$ 45.74
	NURSING HOMES Per Patient Bed (Whether or Not Used) & Office or Control Unit (Add Basic & Excess of Business-Commercial Rate)	\$ 61.35

MUNICIPAL GOVERNMENT

- | | | |
|----|--|----------|
| 1. | Municipal Buildings, Public Library, Municipal Garage (Maint.) | \$ 96.25 |
| 2. | Water Treatment Plants, Fire Stations, Comfort Stations | \$ 61.35 |

INSTITUTIONAL

- | | | |
|----|----------------------------------|----------|
| 1, | Churches | |
| | Basic Charge (7500 Gallons) | \$ 61.35 |
| | Excess Charge (Per 1000 Gallons) | \$ 3.66 |
| 2. | Residence | \$ 96.25 |
| 3. | Annex, Social Hall | |
| | Basic Charge (7500 Gallons) | \$ 96.25 |
| | Excess Charge (Per 1000 Gallons) | \$ 3.66 |
| 4. | Day School – See “Schools” Below | |

*If any of the above designated units are metered on a single meter, the charges will be the following:

- | | |
|----------------------------------|----------|
| Basic Charge (7500 Gallons) | \$ 96.25 |
| Excess Charge (Per 1000 Gallons) | \$ 3.66 |

SCHOOLS

- | | |
|--|----------|
| Public, Private, Parochial, Nursery, Day School | |
| Attendance Calculation = Each Unit @ | \$ 96.25 |
| Calculation: $\frac{\text{Avg. Attendance} \times 8 \text{ gpd} \times \text{no. school days per } \frac{1}{4}}{7,500 \text{ Gals. Consumed}}$ | |
| Excess Charge (Per 1000 Gallons) | \$ 3.66 |
| (Avg. Attendance Includes Pupils, Faculty & Employees) | |

ORGANIZATIONS

- | | |
|---------------------------------------|----------|
| Service, Civic, Fraternal, Lodges | |
| (Organizations of Incorporated Units) | |
| Basic Charge (7,500 Gallons) | \$ 82.18 |
| Excess Charge (Per 1,000 Gallons) | \$ 3.66 |

COMMERCIAL, INDUSTRIAL, OTHER BUSINESS USE

(Water Metered Usage)

- | | |
|--|----------|
| Basic Charge (7,500 Gallons) | \$ 82.18 |
| Excess Charge (Per 1,000 Gallons Up to 500,000 Gallons) | \$ 3.66 |
| Excess Charge (Per 1,000 Gallons greater than 500,000 Gallons) | \$ 3.37 |

SEPTAGE SEWERAGE

Septic Tanks/Cesspools Received at Treatment Plant (Must Originate within Pennsville Township)	
Basic Charge per 100 Gallons	\$ 3.66
Minimum Charge per Load	\$ 54.40

Schedule 2 – Sewer Connection Fees

The following connection fees have been established for Residential and Commercial Applications. The Authority has established a connection fee in the amount of \$5,277 per equivalent domestic unit (EDU).

Residential Connection fees are equal to one (1) EDU: \$5,277 per unit.

- Example: A proposed residential subdivision submits an application including 20 single family homes and 20 townhouses for a total of 40 connections.
 - Connection fee (For this Example) = 40 connections x \$5,277 per unit = \$211,080.00

Commercial Connection fees are calculated based on the following formula and criteria:

Connection fee = [(Total Application Flow) / (Avg. EDU Flow)] x \$5,277 per EDU

- **Total Application Flow** shall be determined in accordance with the most current version of the New Jersey Administrative Code Title 7, Chapter 14, Department of Environmental Protection to assure compliance with all Authority and TWA permit requirements.
- **The Authority has set the Average EDU flow** equal to 225gpd/unit.
- Example: A proposed commercial development submits an application including facilities with a total flow of 50,000 gpd.
 - Connection fee (For this Example) = [50,000 gpd/225 gpd/unit] x \$5,277/unit = (222.22 units) x \$5,277 per unit = \$1,172,666.67

Please Note: The installation of the lateral(s) shall be done by the connection applicant or their contractor. The installation of the lateral(s) shall be done in accordance with the specifications as are set forth in the Pennsville Sewerage Authority (PSA) Rules and Regulations. The installation of the lateral(s) and the connection to the sanitary main shall be inspected by the PSA or its designated inspector. All costs and fees related to lateral(s) installation shall be paid by the applicant for connection.

The wastewater connection charge will be a one-time charge by the Authority payable when required by these Rates, Rules and Regulations or as directed by the Authority. This charge does not include fees and/or charges required by agencies other than Pennsville Sewerage Authority.

Connection fees shall be payable within thirty (30) days of approval of Form C, Form E or Form F by the Authority unless specific arrangements are agreed upon.

Schedule 3 – Sewer Disconnection/Reconnection Fees

Disconnection fee - \$50.00

Reconnection fee - \$50.00

Rate payers may submit an application for temporary or permanent termination of sewer service, under the conditions as set forth below, to the Authority Clerk if the property is to be demolished, rebuilt or for major repairs (defined to mean cost in the amount of \$20,000 or more):

Temporary Termination: In the event the termination is to be for a period of one year or less, the applicant shall pay the disconnect/reconnect fee. (Account must be current to disconnect)

Permanent Termination: In the event the termination is to be for a period greater than one year, the applicant shall pay the disconnect fee. If the termination of sewer service exceeds one year, the connection fee as set forth in the Authority's fee schedule must be paid to reconnect to the Authority's system. **Reconnection is not guaranteed. Only one temporary termination shall be approved during any one ten-year period.**

SECTION 15 REVISION OF RATES, RULES & REGULATIONS

The Authority reserves the right to change or amend, from time to time, these Rates, Rules and Regulations.

Adopted: May 2008

Revised:

APPENDIX A: PENNSVILLE SEWERAGE AUTHORITY

APPLICATION FORMS

Sewer Main Application Summary

Form A: APPLICATION FOR REPORT ON FEASIBILITY OF PUBLIC SEWER ,
RECOMMENDATIONS AND CONDITIONS

Form B: APPLICATION FOR PRELIMINARY REVIEW OF PLANS FOR PUBLIC SEWER.

Form C: APPLICATION FOR CONSTRUCTION OF PUBLIC SEWER SYSTEM

Form D: APPLICATION FOR TITLE TRANSFER, PUBLIC SEWER SYSTEMS

Form E: APPLICATION FOR CONSTRUCTION OF PUBLIC SEWER SYSTEM FOR A
INDIVIDUAL DWELLING UNIT INTO AN EXISTING PSA SYSTEM.

Form F: COMMERCIAL OR INDUSTRIAL APPLICATION FOR REVIEW OF PLANS FOR
PUBLIC SEWER

PENNSVILLE SEWAGE AUTHORITY

90 North Broadway

Pennsville, New Jersey 08070

Phone: (856) 678-7500 Fax: (856) 678-9428

FORM A: APPLICATION FOR REPORT ON FEASIBILITY OF PUBLIC SEWER, RECOMMENDATIONS AND CONDITIONS

PURPOSE: To determine the technical feasibility of extending public sewer service to the municipal system.

FILING FEE: \$10.00 Sewer
(Check should be made payable to Pennsville Sewage Authority)

REVIEW FEE: \$1,000.00 minimum fee for Sewer to be deposited into Escrow funds for professional review. In the event that the costs of review are more than deposited, the applicant shall pay the additional cost prior to final approval by the Authority.

1. APPLICANT:

Name: _____

Address: _____

Telephone: _____

2. PROJECT TO BE SERVICED:

Name: _____

Location: _____

Area of Entire Tract: _____

Portion to be Serviced: _____

No. of Lots: _____

Tax Map: Plate: _____ Block(s): _____ Lot(s): _____

Type: (Check) Single Family: _____ Townhouses: _____

Industrial: _____ Commercial: _____

Apartments: _____ Other: _____

3. ACTION INITIATED WITH PLANNING BOARD:

Type of Request: (Check)

Subdivision Classification: _____

Zoning Change: From Zone: _____ To Zone: _____

4. DEVELOPMENT PLANS:

Construction Start Date: _____

Applicant Intends to: Sell unimproved lots: _____

 Sell improved lots: _____

 Sell completed units: _____

5. PROFESSIONAL ENGINEER DESIGNING SEWER SYSTEM:

Name: _____

Company: _____

Address: _____

Telephone: _____

6. DESCRIPTION OF PROPOSED SYSTEMS:

Sewer: _____

7. SUPPORTING DATA REQUIRED:

- A. Three (3) Copies of General location plan showing streams, streets, blocks, lots and tax map numbers.
- B. Three (3) Copies of Conceptual Utility Plan showing location of proposed gravity mains with inverts, topographical survey data and existing conditions.
- C. Estimated volumes of flow: _____

Signature of Applicant

Date

ACTION: A letter will be issued by the Pennsville Sewer Authority to the Applicant within 45 days after this application has been received.

FOR OFFICE USE ONLY:

Date Application Received: _____

Amount of Check: Application Fee: _____ Check #: _____

Review Fee: _____ Check #: _____

Signature of PSA

ACTION BY THE AUTHORITY:

1. Subdivision Classification: Letter Issued: Date: _____

Feasibility: _____

Feasible: _____

Not Feasible Letter Issued:

Date: _____

2. Zoning Change: Letter Issued
(Date): _____

PENNSVILLE SEWAGE AUTHORITY

90 North Broadway

Pennsville, New Jersey 08070

Phone: (856) 678-7500 Fax: (856) 678-9428

FORM B: APPLICATION FOR PRELIMINARY REVIEW OF PLANS FOR PUBLIC SEWER

PURPOSE: This application and supporting data specifying the engineering details of the proposed project will be analyzed for compliance with Authority engineering standards including provisions for orderly growth. The final condition of approval will be a mutual agreement between the applicant and the Authority regarding the terms and conditions for providing sewer service.

FILING FEE: \$0.00 Sewer

REVIEW FEE: The Fee shall be \$10.00 per Domestic Consumer Unit (DCU) for the first 100 units; \$7.50 per DCU for the next 100 units; \$5.00 per DCU for all DCU's in excess of 200 units. Minimum amount to be placed in escrow fund necessary to initiate professional review of the sanitary sewer system improvements is \$2,000.00. Projects defined as minor Subdivisions shall place a minimum amount of \$1,500.00 in the escrow fund. In the event that the costs of review are more than deposited, the applicant shall pay the additional cost prior to final approval by the Authority.

1. APPLICANT:

Name: _____

Address: _____

Telephone: _____

2. PROJECT TO BE SERVICED:

Name: _____

Location: _____

PSA Form A Letter Issued On: _____

Planning Board Classification Issued on _____

(Attach Copy)

Proposed No. of Lots: _____

SUPPORTING DATA REQUIRED:

Application for sanitary sewer approval shall include:

1. Five copies of Application Form TWA-1
2. Two copies of Form WQM-003
3. Two copies of Engineer's Report
4. Two copies of Plans, Profiles and Details
5. Two copies of the Construction Specifications

ESTIMATED TOTAL ITEMIZED CONSTRUCTION COSTS OF FACILITIES OF PROJECT

Sewer: _____

ESTIMATED CONSTRUCTION TIME REQUIRED TO FINISH PROJECT ONCE
AUTHORIZATION TO CONSTRUCT (CONSIDER STATE PERMIT ALSO) IS
GIVEN: _____

Duration of Project: _____

When the Agreement between applicant and the PSA has been signed, the applicant may, at that time, prepare the necessary data for the submittal to the N.J. Dept. of Environmental Protection for state sewer permits.

Signature of Applicant

Date

ACTION:

Resolution by Pennsville Sewage Authority approving submittal of the Project to the New Jersey Department of Environmental Protection.

Resolution #: _____

FOR OFFICE USE ONLY:

Date Application Received: _____

Amount of Check: Application Fee: _____ Check #: _____

Review Fee: _____ Check #: _____

Signature of PSA

ACTION BY THE AUTHORITY:

Contract negotiated and sent to
Applicant: _____

Signed Contract received by
PSA: _____

Abstract of Agreement sent to Planning
Board: _____

PENNSVILLE SEWAGE AUTHORITY

90 North Broadway

Pennsville, New Jersey 08070

Phone: (856) 678-7500 Fax: (856) 678-9428

FORM C: APPLICATION FOR CONSTRUCTION OF PUBLIC SEWER SYSTEM

PURPOSE: To control the extent and schedule of planned sewer system installation and to establish a schedule for Authority inspection of completed installations.

FILING FEE: \$0.00 - Sewer:

REVIEW FEE: \$750.00 - Sewer:

INSPECTION FEE: 5% of total sanitary sewer construction costs, as verified by the Authority Engineer. (Minimum of \$750.00).

In the event that the costs of review are more than deposited, the applicant shall pay the additional cost prior to final approval by the Authority.

1. APPLICANT:

Name: _____

Address: _____

Telephone: _____

2. PROJECT:

Name: _____

Location: _____

Section: _____ No. of Lots: _____

Date of PSA Form B Approval: _____

Date of Planning Board Preliminary Approval: _____

3. PROFESSIONAL ENGINEER DESIGNING SEWER SYSTEM:

Name: _____

Address: _____

Telephone: _____

4. SUPPORTING DATA REQUIRED:

The following supporting data will be required prior to approval:

- A.** Engineer's Itemized Report on total sewer construction costs:
\$ _____
- B.** Detailed Plans, Profiles and Specifications of sewage pump stations, sanitary sewer mains and appurtenances (Plans shall indicate individual tax lots and blocks):
4 sets: _____
- C.** N.J. Department of Environmental Protection Permit to Construct
No. _____ Date: _____
- D.** List of Tax Lot and Blocks cross-indexed with street addresses.
- E.** Legal descriptions of all easements must be reviewed and approved.
- F.** Easement Agreement documents prepared by Developer's attorney based on approved legal descriptions, reviewed approved by the Solicitor and Authority Engineer.
- G.** Final Plan of Lots and All easement agreements must be recorded with the County and four (4) recorded copies provided.
- H.** Where plans of final sections are not identical to those approved by the Authority and the NJDEP, revised plans (4 sets) and a letter, signed and sealed, (4 copies), from the Professional Engineer explaining each revision with the basis and justification for each revision must be received by the Authority.
- I.** A complete set of utility plans and profiles for the project on a CD in AutoCAD format.
- J.** Performance Bond: 120% (Min.) of total sewer construction costs (see attached samples)
- K.** Cash payment (to be escrowed) in the amount of 5% of total construction costs to insure payment of Inspection Fee.
- L.** Typed list coordinating individual tax lot and block with street address.

ESTIMATED CONSTRUCTION TIME REQUIRED TO FINISH PROJECT ONCE AUTHORIZATION TO CONSTRUCT IS GIVEN: _____

Signature of Applicant

Date

ACTION: **AUTHORITY LETTERS OF AUTHORIZATION TO CONSTRUCT** will be issued. Sewer permits will be issued upon receipt of the Performance Bond, Assessment, Review Fee, the Department of Environmental Protection Construction Permit, and necessary connection fees.

(Reference is made to Chapter 199, P.L. 1954, and Standards for the Construction of Water Supply Systems and Sewerage Facilities for Realty Improvements)

Connection fees shall be payable within thirty (30) days by the Authority unless specific arrangements are agreed upon.

FOR OFFICE USE ONLY:

Date Application Received: _____

Amount of Check: Application Fee: _____ Check #: _____

Notification of construction costs by Authority Engineer: _____

Signature of PSA

ACTION BY AUTHORITY

Form C Approval Letter sent to Applicant: _____

Sewer permit No. _____ Issued: _____

Connection Fee: \$ _____ Received: _____

PENNSVILLE SEWAGE AUTHORITY

90 North Broadway

Pennsville, New Jersey 08070

Phone: (856) 678-7500 Fax: (856) 678-9428

FORM D: APPLICATION FOR TITLE TRANSFER, PUBLIC SEWER SYSTEMS

PURPOSE: To request the Pennsville Sewage Authority to accept the installed system.

FEES: A fee was presented by applicant at time of submittal of Form C as a cash payment (which was escrowed) in the amount of 5% of the total sewer construction costs. Upon Authority acceptance of the systems, the balance, if any, of the fee after legal and engineering vouchers have been deducted, will be returned to the applicant. In the event that the costs of review and inspection are more than deposited, the applicant shall pay the additional cost prior to final acceptance by the Authority.

APPLICANT: _____

PROJECT:

Name: _____

Location: _____

Section: _____

Sewer Permit No _____ Issued: _____

Total No. Lots in Section: _____ No. Lots Completed: _____

HAVE THE STREETS BEEN ACCEPTED BY THE TOWNSHIP? Yes No (CIRCLE ONE)

HOW LONG HAS THE SYSTEM BEEN COMPLETED? _____

DOES THE AS-BUILT PLAN FOLLOW EXACTLY THE PLAN SUBMITTED WITH FORM C IN REGARD TO DETAILS AND AREA COVERED? IF NOT, INDICATE SIGNIFICANT CHANGES: _____

SUPPORTING DATA REQUIRED:

1. Two sets of As-Built Plans. One (1) paper copy and One (1) copy on CD in AutoCAD format.
2. Verify secured title to all lands, easement, legal descriptions, sewer structure and appurtenances, obtained with Form C or Form F approval, to the satisfaction of the Authority Solicitor.
3. Maintenance Bond (15% of the total cost of the improvement) guaranteeing satisfactory performance of the system for a period of two years from date of acceptance.
4. All necessary documents, legal descriptions, deed of easement and plans approved by the Authority that will permit the dedication of all necessary property and easements that are inherent and a necessary part of the completed project.
5. Proof of payment of all fees and charges required by these Rates, Rules and Regulations up to and including this application.
6. The applicant shall perform a T.V. video tape of the condition of the sanitary sewer system. This taping shall be performed after all construction within an individual development has been completed and prior to AUTHORITY acceptance of the system. Any defects, debris, slit, etc. within the pipeline shall be corrected prior to Form "D" approval. All connections shall require the lines to be retaped. Notice shall be provided to the AUTHORITY and Authority Engineer a minimum of 48 hours prior to the video inspection.
7. Certification by the Applicant's Engineer as to the following:
 - A. The quality and content of the installed system.
 - B. That the As-Built plans are as herein described (see attached)

FOR SEWER

I, _____, being a duly licensed Engineer in the State of New Jersey have made an inspection of the work shown on these drawings as it is proposed for acceptance by the Authority and find good workmanship throughout the entire project, that the sewers exist true and straight to grade, that the free flow conditions exist, that no debris or obstructions are in the lines, and that the infiltration of the completed system does not exceed the limits set forth in the Rates, Rules and Regulations of the Pennsville Sewage Authority.

Signature of Applicant

Date

ACTION: Within 45 days after this form has been received at the Authority office, the Authority Engineer will conduct a final inspection. Upon his recommendation to accept the systems, the Authority Solicitor will have executed the transfer of the necessary deeds, easements and/or public rights-of-way. The applicant will be notified that the Authority accepts the Maintenance Bond as of that date; releases him from the Performance Bond and agrees to take responsibility for the system.

PENNSVILLE SEWAGE AUTHORITY

90 North Broadway

Pennsville, New Jersey 08070

Phone: (856) 678-7500 Fax: (856) 678-9428

FORM E: APPLICATION FOR CONSTRUCTION OF PUBLIC SEWER SYSTEM FOR A INDIVIDUAL DWELLING UNIT INTO AN EXISTING PSA SYSTEM.

PURPOSE: To determine the technical and economic feasibility of extending sewer to the Authority system and to verify the that the system will be constructed in compliance with the PSA Rates, Rules & Regulations.

FILING FEE: \$0.00 Sewer

REVIEW FEE: \$500.00 - Sewer:

INSPECTION FEE: 5% of total sanitary sewer construction costs, as verified by the Authority Engineer. (Minimum of \$750.00 to be deposited in escrow.)

- Authority Engineer will observe the installation of the sanitary sewer lateral from the sewer main to the cleanout located along the frontage of the property.
- In the event that the costs of review are more than deposited, the applicant shall pay the additional cost prior to final approval by the Authority. Checks shall be payable to the PSA.

APPLICANT: Name: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Phone: _____

SERVICE LOCATION: Tax Map: _____ Block: _____ Lot: _____

SUPPORTING DATA REQUIRED:

Two (2) sets of plans showing the proposed line from the dwelling to the PSA main. The plans must include elevations, topographical survey as well as existing and proposed inverts.

Signature of Applicant

Date

ACTION BY THE AUTHORITY:

The application and supporting data will be reviewed by the Authority. If it is determined that it is feasible to extend service the applicant will be notified of the Authority's approval and the connection fee, service charges and/or other charges as per the Rates, Rules and Regulations of the Pennsville Sewage Authority. If it is NOT, feasible to extend service, a letter of APPROVAL TO INSTALL ONSITE SANITARY SEWER AS APPROVED BY THE BOARD OF HEALTH will be issued to the applicant, the Salem County Board of Health, and the Building Inspector.

GENERAL REQUIREMENTS:

Application and materials must be approved by the Authority before any construction can be started. All connections and taps to any sewer main must be done in the presence of a representative of the Authority. Inspections by a representative of the Authority shall only be done during the regular business hours of the Authority. All requests for inspections must be made at least two (2) working days in advance. The Authority reserves the right to reschedule any inspection in the event that an inspector will not be available. All connections and taps must be done by a registered plumber as approved by the Authority.

The applicant is responsible for any person, persons, firm or firms, partnership or partnerships, corporation or corporations, or any combination thereof that causes or has caused any damage to the sewer system or facilities of the Authority. The Authority shall have the right to repair such damage or have such damage repaired, and shall have the further right to recover the full cost and expenses of such repairs, including, but not limited to, the standard charges for work performed by Authority employees, for materials, supplies and equipment used for such repairs. The service shall not begin or be restored until the Authority receives payment in full for the total cost of the repairs.

The accepted application shall constitute a contract between the Authority and the applicant, obliging the applicant to pay the Authority its rates as established from time to time, and to comply with its Rates, Rules and Regulations. **Connection fees shall be payable within thirty (30) days of approval by the Authority unless specific arrangements are agreed upon.**

=====

FOR OFFICE USE ONLY:

Application Received: _____ Check #: _____ Amount: \$ _____

Application Type: Sewer Connection

Action: Feasible _____ Not Feasible _____ Reviewed by: _____

Approved by: _____ Date: _____

Letter of Approval for Onsite Sewer Issued: YES NO (Circle One)

Sewer Connection Fee: _____ Ck #: _____ Date: _____

Service Charge: _____ Ck.#: _____ Date: _____

Inspected by: _____ Date: _____

Inspection Check: _____ Date Received: _____

PENNSVILLE SEWAGE AUTHORITY

90 North Broadway

Pennsville, New Jersey 08070

Phone: (856) 678-7500 Fax: (856) 678-9428

SITE PLAN: **COMMERCIAL OR INDUSTRIAL**

FORM F: **APPLICATION FOR REVIEW OF PLANS FOR PUBLIC SEWER**

PURPOSE: This application and supporting data specifying the engineering details of the proposed project will be analyzed for compliance with Authority engineering standards including provisions for orderly growth. The final condition of approval will be a mutual agreement between the applicant and the Authority regarding the terms and conditions for providing sanitary sewer service.

Connection fees shall be payable within thirty (30) days of approval by the Authority unless specific arrangements are agreed upon.

FILING FEE: \$10.00 Sewer
(Checks made out to the Pennsville Sewage Authority)

REVIEW FEE: A review fee of \$750.00 shall be deposited for the first 5,000 square feet or any portion thereof and \$300.00 for each additional 5,000 square feet or part thereof. Minimum Amount to be deposited in escrow is \$1,500.00.

Inspection Fee: 5% of the total sewer construction cost, as verified by the Authority Engineer. (Minimum of \$750.00.)

In the event that the costs of review are more than deposited, the applicant shall pay the additional cost prior to final approval by the Authority. Both checks shall be payable to the PSA.

APPLICANT:

Name: _____

Address: _____

Telephone: _____

PROJECT:

Name: _____

Location: _____

Area of Entire Tract:_____ Portion to be serviced:_____

Tax Map: Plate:_____ Block:_____ Lots:_____

Industrial or Commercial:_____ Total Sq.Ft.:_____

No. of Individual Stores or Offices:_____

Proposed Use for Stores or Offices:_____

Other:_____ Describe:_____

3. **DEVELOPMENT PLANS:**

Construction Date:_____ Duration of Project:_____

4. **PROFESSIONAL ENGINEER DESIGNING SEWER SYSTEM**

Name:_____

Address:_____

Telephone:_____

5. **REQUIRED SUPPORTING DATA:**

Four sets of drawings, reports and other pertinent data describing details of the sanitary sewer system including plans, profiles, topographical survey data, must be submitted. For industrial applications, a description of the process, as well as the types of chemicals to be discharged to the sanitary sewer system and process flow diagram If additional data is required after the initial review, the applicant will be contacted to submit same.

6. **INDUSTRIAL WASTE AGREEMENT** (If Required):

The undersigned being the of the _____ located at _____
(owner, lessee, tenant, etc.)

does hereby request a permit to _____ an
industrial (install, use)

_____ which company

(Name of Company)

is engaged in _____ at said location.

- (a) A plan of the property showing accurately all water, sewer and drains now existing is attached hereunto as Exhibit "A"
- (b) Plans and Specifications covering any work proposed to be performed under this application is attached hereunto as Exhibit "B".
- (c) A complete schedule of all process waters and industrial wastes produced or expected to be produced at said property, including a description of the character of such waste, the daily volume, maximum rates of discharge and representative analysis is attached hereunto as Exhibit "C".
- (d) The name and address of the person or firm who will perform the work covered by this application is

In consideration of reviewing this application, the undersigned agrees:

- (a) To furnish any additional information relating to the installation or use of the industrial sewer for which this application is made as may be requested by the superintendent or Authority Engineer.
- (b) To accept and abide by all provisions of the Ordinances of the Township of Pennsville and of all other pertinent ordinances or regulations that may be adopted in the future regarding industrial waste.
- (c) To operate and maintain any waste pretreatment facilities, as may be required, as a condition of the acceptance into the public sewer of the industrial wastes involved, in an efficient manner at all times, and at no expense to the Authority.
- (d) To cooperate at all times with the superintendent and his representatives in their inspecting, sampling, and study of the industrial wastes, and any facilities provided for pretreatment.
- (e) To notify the superintendent immediately in the event of any accident, negligence, or other occurrence that occasions discharge to the public sewers of any wastes or process waters not covered by this application.

Signature of Applicant

(Date)

(Address of Applicant)

FOR OFFICE USE ONLY:

Date Application Received: _____

Amount of Check: Application Fee: _____ Check #: _____

Review Fee: _____ Check #: _____

Signature of PSA

=====

ACTION BY AUTHORITY:

Review Fee
Requested: _____ Received: _____

Contract Negotiated & Sent to
Applicant: _____

Signed Contract Received by PSA: _____

Report Sent to Planning
Board: _____

Inspection Fee
Requested: _____ Received: _____

Excess Review and/or Inspection Fees Returned to Applicant:

Date: _____ Amount: _____

APPENDIX B: PENNSVILLE SEWAGE AUTHORITY STANDARD DETAILS

PRECAST CONCRETE MANHOLE DETAIL.....	PSA-01
PRECAST DROP MANHOLE DETAIL.....	PSA-02
TYPICAL CHANNELING OF MANHOLE BOTTOM.....	PSA-03
DOGHOUSE MANHOLE DETAIL.....	PSA-04
SPLASH MANHOLE DETAIL.....	PSA-05
AIR RELEASE / VACCUUM MANHOLE DETAIL.....	PSA-06
STANDARD LATERAL DETAIL 4'-6' IN DEPTH.....	PSA-07
DEEP CUT LATERAL DETAIL (OVER 6' DEEP).....	PSA-08
P.V.C. SADDLE CONNECTION DETAIL.....	PSA-09
FORCE MAIN – INSIDE DROP CONNECTION DETAIL.....	PSA-10
MANHOLE FRAME AND COVER DETAIL.....	PSA-11
SANITARY SEWER CLEANOUT COVER DETAIL.....	PSA-12
CONCRETE CRADLE DETAIL.....	PSA-13
CONCRETE ENCASEMENT DETAIL.....	PSA-14
MINIMUM SIZE OF CONCRETE THRUST BLOCKS.....	PSA-15
YARD HYDRANT DETAIL.....	PSA-16
GATE VALVE & VALVE BOX DETAIL.....	PSA-17
STANDARD PUMP STATION DETAIL.....	PSA-18
STANDARD PUMP STATION NOTES.....	PSA-19
TYPICAL PUMPING STATION SITE PLAN.....	PSA-20
SINGLE LINE DIAGRAM.....	PSA-21