

N.J.A.C. TITLE 7 - CHAPTER 14. WATER POLLUTION CONTROL ACT
SUBCHAPTER 2. CONSTRUCTION OF WASTEWATER TREATMENT FACILITIES

[This is a courtesy copy of this rule. The official version of these regulations was published in Title 7 of the New Jersey Administrative Code (N.J.A.C.). Should there be any discrepancies between the text on this document and the official version of the rule, the official version will govern.]

§ 7:14-2.1 Construction procedures

The Department shall require and adhere to the procedures identified in this subchapter. Actions or procedures by owners, permittees, consultants, contractors, or other persons affected by this subchapter which are not in accordance with this subchapter shall not be acceptable to the Department. Where applicable, the Department may grant a waiver from any requirement of this subchapter upon presentation of written justification by the owner, permittee, consultant or contractor.

HISTORY:

Amended by R.1999 d.163, effective May 17, 1999.

See: 31 New Jersey Register 508(b), 31 New Jersey Register 1314(b).

Substituted references to the Department for references to the Division and substituted references to this subchapter for references to this chapter throughout.

§ 7:14-2.2 Record drawings; collector sewers, interceptor sewers and force mains

- (a) The owner shall be responsible for the preparation of all record drawings required for sewer lines. This responsibility may be delegated to the owner's representative with adequate compensation for this service.
- (b) This responsibility shall not be delegated or transferred to the contractor. The contractor shall assist the owner/engineer, by providing record information, when requested, during the progress of the work.

§ 7:14-2.3 Permits

- (a) Federal, State, county and municipal permits required as a result of the construction activity within the delineated site shall be obtained by the owner and associated fees shall be paid by the owner. In addition, permits required for construction activities on railroad properties shall be obtained by the owner.
- (b) Exceptions to this section shall be a permit to use explosives for rock excavation and such other permits which by law are required to be obtained by the contractor.
- (c) The owner shall make every reasonable effort to identify permits and fees and costs required as a result of the construction activity in effect 60 days prior to the receipt of construction bids. This responsibility may be delegated to the owner's engineer with adequate compensation for this service. The engineer shall be held harmless from any penalty or action resulting from the failure to obtain a permit where every reasonable effort has been made by the engineer to obtain such permits. Conditions made a part of any permit shall be imposed upon the contractor as described in the contract or bid documents. Additional costs associated with a permit resulting from the construction activity which is beyond that stipulated in the contract shall be the responsibility of the contractor.

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- (d) Whenever necessary or appropriate the contractor shall assist the owner in the acquisition of permits.
- (e) The Department may intercede and assist in the resolution of any problems resulting from the acquisition of any permits.

§ 7:14-2.4 Easements/rights-of-way

An interruption of construction or an extension of contract time may be a basis for a claim by a contractor for additional cost when such interruption or extension is caused by the owner's inability to obtain an easement/right-of-way. Claims shall include any reasonable cost incurred by the contractor and shall be reviewed and approved by the owner prior to submission to the Department. The Department may approve all, any portion, or deny the cost for eligibility for projects funded under the Grant Program.

§ 7:14-2.5 Field layout (baseline and monuments)

The owner shall be responsible to establish and confirm field controls prior to start of construction. The contractor shall not be liable to check the accuracy of field controls (baseline and monuments) for sewer pipe installation. However, the contractor's layout must be based on a minimum of two field control points. Whenever the contractor detects an error in the field controls during pipe installation, the contractor shall immediately notify the owner and the owner's engineer of such error with sufficient documentation. The contractor shall be held responsible for all corrective measures and associated costs for failure to notify the owner of such error.

§ 7:14-2.6 Engineer design activities: plan scale and plan updating

- (a) On occasion, projects do not go to construction within a reasonable time after the bid advertisement. During this period, utilities may be relocated or installed, as well as other changes which can take place that are unknown to the contractor. Because of this, problems can take place during construction and result in numerous change orders and increases in the cost of the project.
- (b) The horizontal scale for construction plans for sewerage facilities shall not be less than one inch equals 100 feet. A larger horizontal scale shall be used where appropriate to show sufficient detail to construct the project. The vertical scale for construction plans for sewerage facilities shall be not less than one inch equals 10 feet. Based upon the best information available, the location of underground utilities and support structures for overhead utilities shall be shown on the plans.
- (c) Construction plans for sewerage facilities shall be updated whenever the bid advertisement date exceeds one year after approval by the responsible State or Federal regulatory agency. The engineer shall receive adequate compensation for updating plans and specifications. All such revisions shall be noted and dated on the plans prior to bid.

§ 7:14-2.7 Construction, overhead and profit factors for Extra Work compensation

- (a) The contractor is entitled to all identifiable direct job costs associated with Extra Work excluding subcontractor's costs. For Extra Work not in excess of \$ 10,000 the contractors may add up to 10 percent overhead factor to their identifiable direct job costs, but excluding the cost of any subcontracting, plus up to a 10 percent profit factor to their identifiable direct costs plus overhead amount.

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- (b) As general policy, these overhead and profit factors may be accepted by owners as reasonable in lieu of requiring the submission of additional supporting data. However, the owner must reserve its right to review any cost or profit element on a case-by-case basis, where the submission for overhead and profit is in excess of the 10 percent overhead and 10 percent profit indicated above.
- (c) Cost increase in subcontracted work may be similarly handled and a prime contractor may add up to 10 percent to the total cost (including overhead and profit factors) incurred by the subcontractor. In such cases, the same reservations for rights shall apply.
- (d) For Extra Work in the amount of \$ 10,000 to \$ 100,000, the above factors may be included initially for equitable adjustments but will be subject to negotiation, cost and pricing data, and owner review requirements. Federally funded projects will be governed by Federal regulations.

§ 7:14-2.8 Payments to contractors

- (a) At least 20 days before each monthly progress payment falls due for approval (but not more often than once per month), the contractor will submit to the engineer a partial payment estimate filled out and signed by the contractor covering the work performed during the period covered by the partial payment estimate and supported by such data as the engineer may reasonably require. Where any specific item(s) in the partial payment estimate is in dispute, the engineer may delete those costs from the estimate and approve the acceptable portion of the payment request. Payment requested for stored materials and/or equipment shall be subject to the following conditions being met or satisfied:
 - 1. The materials and/or equipment shall be received in a condition satisfactory for incorporation in the work.
 - 2. The materials and/or equipment shall be stored in such manner that they will not be damaged due to weather, construction operations or any other cause.
 - 3. An invoice from the supplier shall be furnished for each item on which payment is requested.
 - 4. The contractor shall furnish written proof from the supplier of 90 percent payment for the materials and/or equipment no later than 30 days after receipt of payment for same from the owner. The owner shall have the right to deduct from the next payment estimate an amount equal to the payment for said material and/or equipment if reasonable and adequate proof is not submitted.
- (b) The contractor warrants and guarantees that title to all work, materials, and equipment covered by an Application for Payment, whether incorporated in the project or not, will pass to the owner upon the receipt of such payment by the contractor free and clear of all lien, claims, security interests or encumbrances (except 10 percent retention which may be withheld from suppliers and subcontractors to guarantee completion and performance). The engineer will after receipt of each partial payment estimate either indicate in writing his approval of payment and present the partial payment estimate to the owner, or return the partial payment estimate to the contractor indicating in writing his reasons for refusing to approve payment. In the latter case, the contractor may make the necessary corrections and resubmit the partial payment estimate. The owner shall review the partial payment estimate at its next regularly scheduled meeting and, if approved, payment shall be made available to the contractor within five days. The owner shall retain not more than two percent of the amount of each payment claimed. In accordance with EPA regulations, prime contractors are also required to make prompt payment to

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subcontractors and suppliers for eligible construction, material, and equipment costs. Generally, payments of all valid subcontractor and supplier requests for payment should be satisfied prior to the next succeeding request for progress payment by the prime contractor.

- (c) When the work is substantially complete (Operational or Beneficial Occupancy), the withheld amount shall be further reduced below two percent but not less than twice the current market value of the work yet to be completed. On completion and acceptance of a part of the work on which the price is stated separately in the Contract Documents, payment shall be made in full including retained percentages, less authorized deductions. The contractor or owner may request assistance and guidance from the Department on disputes regarding retainage.
- (d) "Substantial completion" as used in the context of this section shall mean satisfactory completion of major portions of the contract work, including inspection and testing, so that the facility may be turned over to the owner for its intended use or occupancy. The engineer shall certify the date of substantial completion and that date shall establish the beginning date of the warranty/guarantee period unless a prior date has been established.

§ 7:14-2.9 Mobilization: unit price contracts for sewer construction

- (a) Mobilization shall consist of the cost of initiating the contract. Payment for mobilization will be made at the lump sum price bid for this item in the proposal, which price shall include the cost of initiating the contract. The provisions for payment for the item mobilization supersede any provisions elsewhere in the specifications for including the costs of these initial services and facilities in the prices bid for the various items scheduled in the proposal. The lump sum price bid for mobilization shall be payable to the contractor whenever he shall have completed 10 percent of the work of the contract. For the purposes of this item, 10 percent of the work shall be considered completed when the total of payments earned, exclusive of the amount bid for this item, shown on the monthly certificates of the approximate quantities of work done, shall exceed 10 percent of the total price bid for the contract.
- (b) The lump sum price bid for mobilization is limited to the following maximum amounts:

<u>Original Contract Amount (including Mobilization)</u>		
From More Than	To and Including	Maximum Amount for Item of Mobilization
\$ 0	\$ 100,000	\$ 3,000
100,000	500,000	15,000
500,000	1,000,000	30,000
1,000,000	2,000,000	60,000
2,000,000	3,000,000	90,000
3,000,000	4,000,000	120,000
4,000,000	5,000,000	125,000
5,000,000	6,000,000	150,000
6,000,000	7,000,000	175,000
7,000,000	10,000,000	200,000
10,000,000	--	2.5% of Amount Bid

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§ 7:14-2.10 Bid items for sewer pipe installation

- (a) This section establishes bid items which shall be included in unit price contracts for sewer pipe installation where applicable.

Description	Unit of Measure
1. Test Pits	Cubic Yard
2. Stone Foundation (bedding)	Cubic Yard
3. Select Material (below and above pipe grade)	Cubic Yard
4. Rock Excavation (including removal and disposal of boulders)	Cubic Yard
5. Wood Sheeting (install and remove where shown on plans)	Square Feet or 1000 Board Feet
6. Wood Sheeting (left in place where shown on plans)	Square Feet or 1000 Board Feet
7. Steel Sheeting (install and remove where shown on plans)	Square Feet or Tons
8. Steel Sheeting (left in place where shown on plans)	Square Feet or Tons
9. Permanent Pavement Gravel	Square Yard
10. Pavement	
i. Municipal:	
(1) Temporary which shall be removed (where applicable)	Square Yard
(2) Base	Square Yard
(3) Top	Square Yard
ii. County:	
(1) Temporary which shall be removed (where applicable)	Square Yard
(2) Base	Square Yard
(3) Top	Square Yard
iii. State:	
(1) Temporary which shall be removed (where applicable)	Square Yard
(2) Base	Square Yard
(3) Top	Square Yard
11. Testing	Linear Feet
12. Concrete Cradle or Encasement (to be identified where applicable)	Cubic Yard

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§ 7:14-2.11 Reasonable minimum unit prices

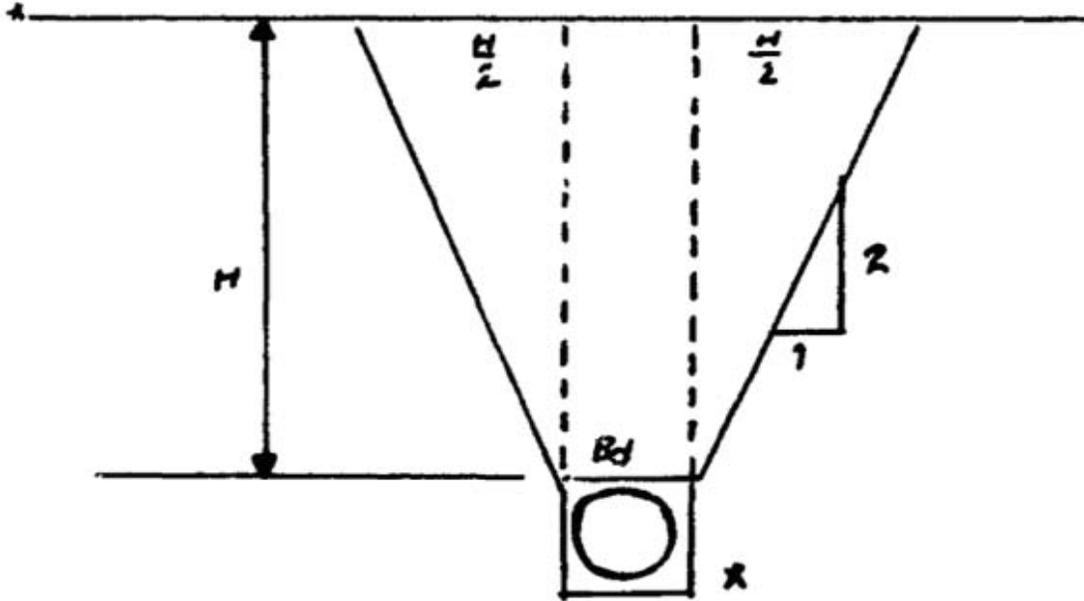
- (a) This section establishes reasonable minimum unit prices for indeterminate items, where applicable, for sewer pipe installation. Indeterminate items are those items which may be anticipated and for which quantities cannot be determined.
- (b) The reasonable minimum unit prices are to be established by the owner/engineer for the following items:
1. Stone Foundation;
 2. Select Material;
 3. Concrete Cradle or Encasement--Nonreinforced;
 4. Concrete Cradle or Encasement--Reinforced;
 5. Test Pits;
 6. Rock Excavation;
 7. Wood Sheeting (install and remove)--square feet or 1000 board feet;
 8. Wood Sheeting (left in place)--square feet or 1000 board feet;
 9. Steel Sheeting (install and remove)--square feet or tons;
 10. Steel Sheeting (left in place)--square feet or tons.

§ 7:14-2.12 Payment widths, trench backfill and roadway paving for Federally funded sewer projects

- (a) This section establishes eligible payment widths for select fill used for trench backfill and roadway pavement for federally funded sewer projects.
1. Select trench backfill will be eligible for grant funding when the excavated material is totally or partially unacceptable for reuse as trench backfill. When the unacceptable material must be replaced with approved select backfill in a trench with a depth of 10 feet or less from the top of the pipe, the eligible payment width shall be Bd as shown below. For trenches of a greater depth the maximum eligible payment width shall be Bd plus H for the depth of unsuitable material as measured at the time of excavation.

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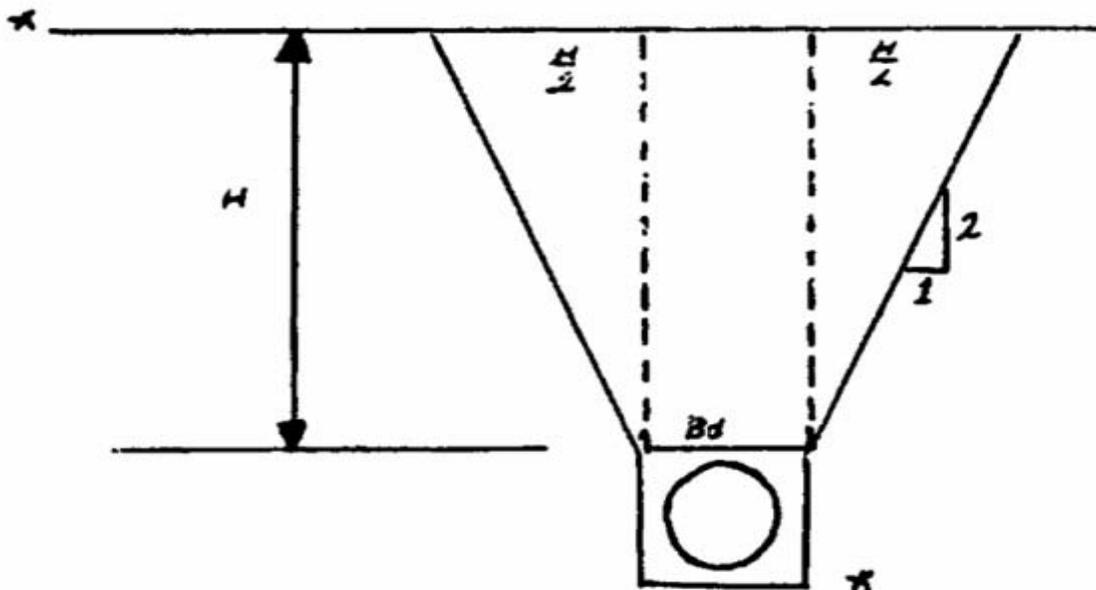
2. When trench width is less than Bd plus H , the actual width shall control the payment.



3. Bd equals Maximum trench width (measured at the top of the pipe) allowed by the engineer for the type and strength class of pipe being installed.
4. The owner/engineer must make every effort to minimize the use of select fill. Marginal backfill material (material which is not acceptable for use in the pipe envelope or as a subbase for roadways) will be limited to the midzone of the trench. The midzone is defined as that portion of the trench beginning two feet above the top of the pipe, after compaction of the pipe envelope, to a point two feet below the final road or easement elevation. The owner/engineer must make all final decisions concerning the above.

(b) Paving:

1. Maximum eligible payment width shall be the disturbed width plus two feet. In no case shall the maximum eligible payment width be greater than Bd plus H ;



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2. Maximum Eligible Pay Width equals Bd plus H;
 - i. Pavement replacement shall, in all instances, be "like kind" replacement except where the replacement of the original thickness of roadway material will not yield a structurally stable surface over the disturbed trench area, or where the requirements of the responsible governmental jurisdiction specify roadway materials other than the original disturbed pavement. In these instances, the engineer should specify the minimum thickness necessary to obtain a structurally sound surface or to comply with established local, county or State road opening permit requirements. Such requirements shall be contained in the contract documents.
 - ii. Roadways where the original total pavement thickness is less than two inches and the pavement cannot be boxed and maintained during construction, will be eligible for "like kind" replacement outside of the eligible trench pavement width.
 - iii. Any deviation from the above should be submitted during the design phase (Step II) for approval if possible. In all instances, approvals must be obtained prior to soliciting bids.
 - iv. Reducing the pavement thickness specified by the engineer and spreading it across a wider area of the street will not be approved unless extenuating circumstances justify the need to pave a wider area. These situations will be considered on a case by case basis and must be submitted as a Change Order and receive approval prior to implementing such a change.
- (c) Application of this section is mandatory for all Federal Grants awarded to projects, pursuant to the provisions of the Federal Clean Water Act (33 U.S.C. §§ 1251 et seq.) as amended, before October 1, 1998. For all Federal Grants awarded after October 1, 1998, the allowable costs shall be determined in accordance with the applicable provisions of the Financial Assistance Programs for Environmental Infrastructure Facilities rules at 7:22-5, Determination of Allowable Costs: Fund and Trust.

HISTORY:

Amended by R.1999 d.163, effective May 17, 1999.

See: 31 New Jersey Register 508(b), 31 New Jersey Register 1314(b).

Rewrote (d).

§ 7:14-2.13 Excavation material unacceptable or conditionally acceptable for reuse as trench backfill

- (a) The following trench excavation materials are unacceptable as trench backfill:
 1. Any excavation materials that will cause damage to the piping systems;
 2. Any excavation material that cannot be compacted or consolidated to yield the desired density as specified in the contract specifications;
 3. Trees, stumps and foreign material.
- (b) The following excavation materials are conditionally acceptable as trench backfill only if provided for in the contract specifications and the trench is located in a right-of-way, an easement, a roadway or an unimproved area:
 1. Clay, organics and silt determined to be suitable in accordance with soil tests required by the owner/engineer.

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2. Hard materials, such as blacktop, concrete, stone and rock.
 - i. The hard materials shall only be placed in the midzone of the trench beginning two feet above the top of the pipe, after compaction of the pipe envelope, to a point two feet below the final road or ground surface.
 - ii. Placement of the hard materials shall not create a potential hazard to the pipe or create voids that will cause adverse settlement.
 - iii. The maximum overall size of any piece of hard material shall be 12 inches.
- (c) The Department may require that all trench backfill material not conforming to this subsection and contract specifications be removed and spoiled to a spoil site approved by the Department in accordance with the requirements of 7:26-1, for solid or hazardous wastes.

HISTORY:

R.1984 d.339, effective August 6, 1984.

See: 16 New Jersey Register 1147(a), 16 New Jersey Register 2102(b).

§ 7:14-2.14 Construction equipment costs compensation for extra work

- (a) The contractor is entitled to all identifiable direct job equipment costs associated with extra work. The compensable cost for construction equipment shall be based upon the most current costs established in "Rental Rates for Construction Equipment" and "Rental Rates for Older Construction Equipment" (Blue Book), Dataquest Incorporated, A.C. Nielsen Company, San Jose, CA, 1983.
- (b) Overhead and profits factors allowed in 7:14-2.7, shall only be applied to the rates charged for rental equipment used by the contractor for extra work.

HISTORY:

R.1984 d.339, effective August 6, 1984.

See: 16 New Jersey Register 1147(a), 16 New Jersey Register 2102(b).

§ 7:14-2.15 Substantial and final completion of pipe projects; contractor's guarantees

- (a) The contractor shall notify the owner/engineer in writing when the contract work is substantially complete as defined by 7:14-2.8(d). Within a reasonable time, the owner/engineer shall inspect the work.
- (b) If the owner/engineer considers the work to be substantially complete, and before the Certificate of Substantial Completion is issued, the contractor shall:
 1. Submit a construction schedule for the remaining work to be completed, and
 2. Warrant and guarantee, for a period of one year or for a period as otherwise specified, from the date of Substantial Completion, that the completed work is free from defects due to faulty materials, equipment or workmanship. The Performance Bond shall remain in effect through the guarantee period.
- (c) If the owner/engineer does not consider the work to be substantially complete, the engineer shall notify the contractor in writing, listing the items to be completed or corrected.

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1. The contractor shall correct or complete items identified in writing within a reasonable time as specified in the contract documents, including repairs of any damage resulting from such defects to other work completed under the contract.
 2. If the contractor fails to make such corrections within a reasonable time as specified in the contract documents, the owner may do so and charge the costs incurred, including direct and indirect costs, to the contractor.
- (e) Before the Contractor has received notification of substantial completion, the owner/engineer may submit a request to the contractor to use a functional portion of the work if:
1. Such use does not significantly interfere with construction on any portion of remaining work to be completed, and
 2. The conditions of such use shall be identified in the Certificate of Substantial Completion when issued by the owner/engineer.
- (f) Final completion shall be that point at which the contract is completed, defective work corrected and clean up work accomplished. Unless a Certificate of Substantial Completion has been issued, the guarantee period shall begin upon certification of final completion by the engineer.

HISTORY:

R.1984 d.339, effective August 6, 1984.

See: 16 New Jersey Register 1147(a), 16 New Jersey Register 2102(b).

