

**STANDARD CONSTRUCTION OPERATING PROCEDURE**

City of New York Department of Design and Construction  
Division of Infrastructure Bureau of Construction

**SUBJECT: MAINTENANCE AND PROTECTION  
OF EXISTING SEWERS**

**APPROVED:**   
Assistant Commissioner - William F. Lipski, P.E.

**SCOP..... : 99 - 003 S**

**CATEGORY : CONSTRUCTION  
Subcategory : SUBMITTALS**

Keywords ... : MAINTAINING EXISTING  
SEWERS, FLUMING,  
CLEANING SEWERS

Supersedes : N/A

Supplements : N/A

Sheet..... : 1 OF 2

Issue Date... : April 1, 1999

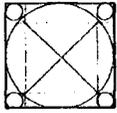
There have been several recent incidents where inadequate or unacceptable construction practices have resulted in existing sewers backing up or construction debris and silt entering downstream sewers. These incidents have adversely affected both area residents and downstream DEP facilities.

The standard sewer specifications, section 1.06.12 FLOW OF SEWERS AND DRAINS, ETC. INTERRUPTED requires maintaining flow from all existing sewers, drains and watercourses interrupted during the work. On all projects that include sewer work or that affect the flow in existing sewers, the contractor must submit for approval his method for maintaining existing flows, including wet weather flow. This submittal must also include the method proposed for preventing debris, silt, and grease from migrating downstream during any cleaning or construction operations. If fluming or bypass pumping is required, a fluming diagram in accordance with subsection (3) EXISTING FLOW must also be included in this submittal.

**No sewer work is to be allowed until the contractor's methods for maintaining all existing flows in sewers that will be interrupted as a result of construction, and for preventing debris and silt from entering downstream sewers, are submitted and approved by the Deputy Borough Director.**

In order to ensure that the above requirements are met, when a Resident Engineer is assigned to a project, he/she must carefully review the project plans to identify all existing sewers or watercourses that may be disrupted or affected by construction. The R.E. and S.E. must discuss the above requirements with the contractor at the preconstruction meeting and must review the contractor's submissions regarding maintenance and protection of existing sewers to ensure that they completely address the impact that the planned work will have on the existing sewer system. Once the R.E. and S.E. are satisfied that the contractor's submittals are complete and acceptable, they are to be forwarded to the Deputy Director for review and final approval. During construction, the R.E. must ensure that the approved procedures are followed and that they are effective. This will require the R.E. to inspect the sewers during and after each different construction operation to ensure that the methods in place are working properly. The R.E. must also ensure prior to storms and/or at the end of the day that all required and approved steps have been taken to ensure maintenance of flow.

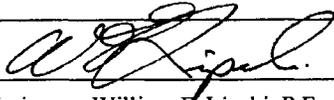
**MAINTENANCE OF FLOW - KEY FACTORS:** There are several key factors to keep in mind to determine if a contractor's proposed method of maintaining flow is acceptable. The main goal is to prevent any sewer backups or flooding. Acceptable methods must be capable of either handling peak storm flow without causing sewer backups or flooding, or be removable in the event of a storm and/or at the end of each work day. Anything that restricts flow that must be left in place at the end of the day (e.g. form work) must be removed as soon as possible after it is no longer a necessity. However, the need to have form work in place does not preclude the requirement that flow be maintained. Inspections, both upstream and downstream, prior to, during and after rain events should be made to ensure the contractor's methods are working properly.



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**PROTECTION OF DOWNSTREAM SEWERS - KEY FACTORS:** There are several key factors to keep in mind to determine if a contractor's proposed method of protecting downstream sewers and facilities is acceptable. The main goal is to prevent construction material, silt or debris from entering downstream sewers. To prevent solid construction materials or debris (e.g. wood) that fall into the sewer from washing downstream, depending on the flow and nature of the work, a bar screen may be required to be temporarily installed at the downstream end of the work. Typically, any work involving platforms and piping inside the sewer, such as in gunite operations, which could dislodge during a storm or other times of high flow will require bar screen type protection. The bar screen openings must be of sufficient size to allow normal solid waste to pass through without building up, and will require monitoring and maintenance. To prevent silt from entering downstream sewers, settling basins or filter mediums for silt laden water created by construction operations (e.g. trench sump pumping) must be provided. Should silt laden water be discharged into the downstream sewers, cleaning of any settled solids will be required. During any cleaning operations in either new or existing sewers, the R.E. is to ensure that the operations are such that silt and debris is not merely moved downstream into the existing sewer but removed from the sewer system.

Any questions regarding the adequacy of the contractor's means and methods for meeting the above contract requirements should be discussed with the Borough Director.