

Attachment J12

Fort Story Wastewater System

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J12 Fort Story Wastewater System

J01.1 Fort Story Overview

Fort Story, named for General Patton Story, a well noted artilleryman, is located on Cape Henry, Virginia and is bounded by the Chesapeake Bay and the Atlantic Ocean. During World War I, Fort Story was made a part of the coastal defense group along with Fort Monroe and Fort Wool. Then in 1925, Fort Story became a designated harbor defense command. As World War II drew nearer, Fort Story went on to become the immediate headquarters of the Harbor Defense Command which was originally based at Fort Monroe. In 1944, Fort Story slowly transformed its position as Harbor Headquarters to a recovery hospital for returning World War II veterans. In 1946, by the end of World War II, Fort Story redefined its mission by becoming an amphibious training base. By 1962, Fort Story was declared a Class I sub-installation of Fort Eustis. Today, its 1451-acre territory is primarily used as a “LOTS” training facility, which is also known as Logistics-Over-The -Shore. It supports approximately 3,000 soldiers, sailors, marine personnel, retirees and military family members.

J01.2 Wastewater System Description

The Fort Story Wastewater system comprises all appurtenances physically connected to the system from the point in which the Government ownership currently, starts to the point of demarcation defined by the real estate instruments. Generally, the point of demarcation will be the building footprint. The system may include, but is not limited to the manholes, lift stations, and the collection lines including service laterals. The following description and inventory is included to provide the Offeror with a general understanding of the size and configuration of the Collection system. The inventory is assumed to be approximately 90 percent complete. The Offeror shall base the proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description. Under no circumstances shall the successful Contractor be entitled to any rate adjustments based on the accuracy of the following description and inventory.

J01.2.1 Wastewater System Fixed Equipment Inventory

The existing sanitary collection system at Fort Story comprises approximately 19 miles of gravity sewers ranging in size from less than 2-inch to 12-inch and approximately 200 collection system manholes. The installation was built in 1917, however, a majority of the collection system was installed in the early 1940s. Much of the original system has been replaced through the years. The primary piping material is vitrified clay. There are sections of concrete, PVC, cast iron, and ductile iron piping materials as well as sections that have been rehabilitated through use of trenchless technology. The Post has 20 sanitary sewage lift/pump stations which convey the Post’s wastewater to the Hampton Roads Sanitation District’s (HRSD) wastewater treatment facilities.

Primarily, Atlantic Avenue and Hospital Road divide the collection systems at Fort Story. A combination of force mains and gravity sewers follow these roadways to a main pumping station, 651, located off Marshall’s Island Road. This pump station is equipped with variable frequency controls, which allows each of the two pumps to discharge approximately 1200 gallons of wastewater per minute. From Pump Station 651, the wastewater is pumped through a 12-inch force main off Post to the HRSD’s treatment facilities. The other lift stations either discharge directly to the trunk lines or to the gravity piping adjacent to the trunk lines.

1.2.1.1 Inventory

Table 1 provides a general listing of the major Wastewater system fixed assets for the Fort Story Wastewater system included in the purchase. The system will be sold in a “as is, where is” condition without any warranty, representation, or obligation on the part of Government to make any alterations, repairs, or improvements. Ancillary equipment attached to, and necessary for, operating the system, though not specifically mentioned herein, is considered part of the purchased utility.

TABLE 1
1. Fixed Inventory
Wastewater Collection System Fort Story

Item	Size	Quantity	Unit	Approximate Year of Construction
Pipe and Mains	Less than 4"	3,570	Linear Feet	Various
	4"	8,036	Linear Feet	Various
	6"	17,230	Linear Feet	Various
	8"	50,326	Linear Feet	Various
	10"	3,048	Linear Feet	Various
	12"	<u>16,895</u>	Linear Feet	Various
Total		99,105	Linear Feet	Various
Main Sewage Meter	12"	1	Each	Unknown
Building Services		162	Each	Various
Manholes		212	Each	Various
Air Release Valves		4	Each	Various
Pump/ Lift Stations		20	Each	Various

J01.2.2 Wastewater Collection System Non-Fixed Equipment and Specialized Tools Inventory

Table 2 lists other ancillary equipment (spare parts) and **Table 3** lists specialized vehicles and tools included in the purchase. Offerors shall field verify all equipment and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment and tools. The successful Contractor shall provide any and all equipment, vehicles, and tools, whether included in the purchase or not, to maintain a fully operating system under the terms of this contract.

TABLE 2
2. Spare Parts
Wastewater Collection System Fort Story

Qty	Item	Make/Model	Description	Remarks
No spare parts for maintenance of the Fort Story wastewater collection system will be available to the new owner of the system. The Army does not maintain an inventory of spare parts for the system. The Fort Story wastewater collection system is currently being operated and maintained by the Navy Public Works Center (PWC) of Norfolk, VA, through an Interservice Support Agreement with Fort Eustis.				

TABLE 3
3. Specialized Equipment and Vehicles
Wastewater Collection System Fort Story

Description	Quantity	Location	Maker
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Description	Quantity	Location	Maker
No specialized equipment or vehicles for maintenance of the Fort Story wastewater collection system will be available to the new owner of the system. The Fort Story wastewater collection system is currently being operated and maintained by the Navy Public Works Center (PWC) of Norfolk, VA, through an Interservice Support Agreement with Fort Eustis.			

J01.2.3 Wastewater System Manuals, Drawings, and Records Inventory

Table 4 lists the manuals, drawings, and records that will be transferred with the system.

TABLE 4

4. Manuals, Drawings, and Records

Wastewater Collection System Fort Story

Qty	Item	Description	Remarks
No manuals, drawings, and records for installed equipment are available for transfer to the new owner of the system. All available construction ("as built") drawings and system maps of the system will be provided to the new owner during the transition period. System maps will be available in the technical library.			

J01.3 Current Service Arrangement

The wastewater from Fort Story is treated at an HRSD treatment facility. A 12-inch force main takes sewage from the on-post Pump Station 651 to an HRSD pump station that pumps the sewage to the HRSD sewage treatment facility.

J01.4 Secondary Metering

The Installation may require secondary meters for internal billings of their reimbursable customers, utility usage management, and energy conservation monitoring. The Contractor shall assume full ownership and responsibility for existing and future secondary meters IAW Paragraph C.3.

J01.4.1 Existing Secondary Meters

TABLE 5

5. Existing Secondary Meters

Wastewater Collection System Fort Story

Meter Description	Meter Location
NOTE: The Fort Story wastewater collection system has one 12" sewage meter located at Building 651. This meter is read, calibrated annually, and maintained by PWC personnel. This meter is part of the Fort Story sewerage and will be transferred to the new owner. Currently, there are no other sewage meters in the Fort Story wastewater system.	

J01.5 Submittals

The Contractor shall provide the Government monthly submittals for the following:

1. Invoicing (IAW paragraph G.2) for the previous month's services. The Contractors invoice shall be prepared in a format proposed by the Contractor and accepted by the Contracting Officer.

2. Monthly Service Interruption Report for the previous month.
3. Meter Reading Report in support of internal billings, wastewater usage management, and monitoring.
4. System Efficiency Report. If required by Paragraph C.3, the Contractors shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer.

J01.6 Infiltration and Inflow (I&I) Projects

IAW paragraph C.3, Utility Service Requirement, the following projects have been implemented by the Government for system monitoring and control and I&I reduction purposes:

A Sanitary Sewer Evaluation Survey (SSES) was conducted at Fort Story. A computerized hydraulic evaluation was made of the entire sanitary sewer gravity collection system. The primary goal of the SSES was to determine the quantity of storm water and groundwater entering the wastewater collection system and to determine the locations where clean water was entering the system. To accurately depict the volume rate of inflow/infiltration and to identify sources, the following was accomplished:

1. Pipe flow monitoring
2. Rainfall gauging
3. Groundwater gauging
4. Physical inspection
5. Smoke testing
6. Night Flow isolations
7. Internal pipeline inspections

The project was conducted in two phases. First, the flow monitoring, rainfall gauging, and groundwater gauging were conducted. After review of the results of the first phase the physical inspections, smoke testing, night flow isolations, and internal pipeline inspections were conducted.

Fort Story is currently installing a Utility Monitoring and Control System (UMCS). The UMCS will be used to monitor and control the on-post utility systems. It will be connected to components of each of the utility systems. The contractor will be required to cooperate with UMCS operation at no cost to the government by allowing continued connection to the utility components and connection to existing and new components when required for support of UMCS operation. Detailed information on the UMCS and its operation will be available in the technical library.

The pipe listed in the table below was installed or rehabilitated to reduce I&I.

TABLE 6
6. I&I Projects

Wastewater Collection System Fort Story Sewerage Pipe, Pump, and Pump Station Repair

Year	Pipe Size	Length (LF)	Pipe Type	Work Type	Description	Cost
FY93	12"	16,895	Ductile Iron	New Pipe	Force Main	\$603K
FY93	6"	3,226	Ductile Iron	New Pipe	Force Main	84K
FY99	10"	186*		CIPP**	Sewer	Project cost was \$1.6M.
FY99	8"	9,641*		CIPP	Sewer	
FY99	6"	926*		CIPP	Sewer	
Other major work: In FY93 replaced the two sewage pumps, two motors, and pumping station building at cost of \$561K.						
*All associated manholes were rehabilitated.						
**CIPP – Cured in place pipe						

J01.7 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Fort Story boundaries.

J01.8 Off-Installation Sites

There are no off-installation sites except piping associated with this scope. There is one 12-inch force main that takes sewage from the on-post Pump Station 651 to an HRSD pump station that pumps the sewage to an HRSD sewage treatment facility. The 12-inch force main, including the off-post portion, is a part of the Fort Story sewerage and will be transferred to the new owner. The force main piping is across city right-of-way. Information on this easement access is in the technical library.

J01.9 Specific Transition Requirements

IAW Paragraph C.13, Operational Transition Plan, **Table 7** lists service connections and disconnections required upon transfer, and **Table 8** lists the improvement projects required upon transfer of the Fort Story Wastewater system.

TABLE 7

7. Service Connections and Disconnections

Wastewater Collection System Fort Story

Location	Description
None Identified as of the beginning of FY01. A list of service connections and disconnections for the ten-year period from FY91 through FY00 is available in the technical library. Required service connections and disconnections will be provided to the contractor as the requirements become known.	

TABLE 8

8. System Improvement Projects

Wastewater Collection System Fort Story

Project Location	Project Description
None Identified as of the beginning of FY01.	

J01.10 Wastewater System Points of Demarcation

The point of demarcation is defined as the point on the wastewater collection pipe where ownership changes from the Grantee to the building owner. The table below identifies the general locations of these points with respect to the building served. During the operation and maintenance transition period, concurrence on specific demarcation points will be documented during the joint inventory of facilities.

TABLE 9

9. Points of Demarcation

Wastewater Collection System Fort Story

Point of Demarcation	Applicable Scenario	Sketch
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Point of Demarcation	Applicable Scenario	Sketch
Point where the service line enters the structure	Sewer system flow meter is located on the service line entering the structure.	
Point of demarcation is the cleanout device. if within 10' of the building perimeter	No flow meter exists and a sewer system cleanout is located within 10 feet of the building perimeter on the service line.	
Point where the service line enters the structure <i>Note: A new cleanout device should be installed within 10' of building during any stoppage or maintenance action. This will then become the new point of demarcation.</i>	No flow meter or cleanout exists on the service line entering the structure.	

J01.11 Unique Points of Demarcation

The following table lists anomalous points of demarcation that do not fit any of the above categories.

TABLE 10
10. Unique Points of Demarcation
Wastewater Collection System Fort Story

Building No.	Point of Demarcation Description
None	

J01.12 Plants

TABLE 11
11. Plants
Wastewater Collection System Fort Story

Description	Facility Number	State Coordinates	Other Information
None			
Note: No land is being transferred with the Fort Story wastewater system.			