

Attachment J03

Fort Jackson Water System

Table of Contents

J03 Fort Jackson Water System	J03-1
J03.1 Fort Jackson Overview.....	J03-1
J03.2 Water System Description	J03-1
J03.2.1 Water System Fixed Equipment Inventory.....	J03-2
J03.2.2 Water Distribution System Non-Fixed Equipment and Specialized Tools Inventory.....	J03-4
J03.2.3 Water System Manuals, Drawings, and Records Inventory.....	J03-5
J03.3 Current Service Arrangement	J03-5
J03.4 Secondary Metering	J03-5
J03.4.1 Existing Secondary Meters	J03-5
J03.5 Submittals	J03-6
J03.6 Energy Savings and Conservation Projects	J03-8
J03.7 Service Area.....	J03-8
J03.9 Specific Transition Requirements.....	J03-8
J03.10 Water Distribution System Points of Demarcation.....	J03-09
<u>J03.10.1 Unique Points of Demarcation.....</u>	<u>J03-09</u>
<u>J03.11 Plants and Towers.....</u>	<u>J03-09</u>

List of Tables

1 Fixed Inventory, Water System Area.....	J03-3
2 Spare Parts.....	J03-4
3 Specialized Equipment and Vehicles	J03-5
4 Manuals, Drawings, and Records	J03-5
5 Existing Secondary Meters	J03-5
6 Service Connections and Disconnections	J03-8
7 Points of Demarcation Water Distribution System	J03-6
8 Unique Points of Demarcation Water Distribution System	J03-7
9 Plants and Towers Water Distribution System.....	J03-7
10 System Improvement Projects.....	J03-7

J03 Fort Jackson Water System

J03.1 Fort Jackson Overview

The main mission of Fort Jackson is to support a military tradition of excellence established on June 2, 1917, a new Army training Center was established to answer America's call for trained fighting men in the early, ominous days of World War I. This installation would become the largest and most active of its kind in the world. First known as the Sixth National Cantonment, and later as Camp Jackson, Fort Jackson has always served as the Army's pioneer in the training environment. Named the Army's Community of Excellence in 1988, Fort Jackson has continued to earn awards for excellence year after year. The initial site of the cantonment area consisted of almost 1,200 acres. The citizens of Columbia donated the land to the federal government, thereby initiating the long tradition of respect, cooperation and friendship between the city and the installation. In fact, Fort Jackson was incorporated into the city in October 1968.

Named in honor of Major General Andrew Jackson, a native son of the Palmetto State and the seventh president of the United States, Camp Jackson was designated as one of 16 national cantonments constructed to support the war effort. The pressure of World War I brought swift changes. Within 11 days of the signing of a contract to construct the camp, the 110-man camp guard arrived. By the end of the first month, the labor force had grown to more than 1,200 and the first two barracks were completed. Two months later, the force had grown to almost 10,000 men. Virtually overnight, Camp Jackson had grown from a sandy-soil, pine and scrub oak forest to a thriving Army training center, complete with a trolley line and hundreds of buildings. Three months after construction began; some 8,000 draftees arrived for training. The first military unit to be organized here was the 81st "Wildcat" Division, under the camp's first official commander, Major General Charles H. Barth. Members of the original guard, who had been the first to occupy the camp, were moved to Camp Sevier in Greenville, S.C., and incorporated into the 30th "Old Hickory" Division, named in honor of Jackson. More than 45,000 troops from these famed divisions went to France as part of the America Expeditionary Forces. The World War Years In less than eight months, construction of the vast camp was complete. But almost as suddenly as it began, the clamor subsided. With the signing of the Armistice in 1918, the famed 30th Division was inactivated. The 5th Infantry Division trained here until it was inactivated in 1921. Control of the camp reverted to the Cantonment Lands Commission, and from 1925 to 1939, the sleepy silence was broken only by the occasional reports of weapons fired by state National Guardsmen. In 1939, the demands of war brought the area again under federal control, and Fort Jackson was organized as infantry training center. Four firing ranges were constructed, and more than 100 miles of roads were hard surfaced and named for legendary Revolutionary War figures and heroes of the Civil War. During World War II, the "Old Hickory" Division was one of the first units to reappear on the scene, just as it had in 1917. More than 500,000 men received some phase of their training here. Other famed units to train at Fort Jackson during this period were the 4th, 6th, 8th, 26th, 77th, 87th, 100th and 106th. The 31st "Dixie" Division trained here during the Korean Conflict. 75 Years of Excellence Fort Jackson had grown over the years, but most of the buildings were temporary. Finally in 1964, construction began on permanent steel and concrete buildings to replace wooden barracks that had housed the Fort's troops since the early 1940's. In recognition of the Fort's 50th anniversary in 1967, the citizens of Columbia gave Fort Jackson the statue of Andrew Jackson that stands at Gate #1. With the establishment of the modern volunteer Army in 1970 and the need to promote the attractiveness of service life, construction peaked in an effort to modernize facilities and improve services. In June 1973, Fort Jackson was

designated as an U.S. Army Training Center, where young men and women are taught to think, look and act as soldiers - always. Through the year, changes have been made to enhance training. Victory Tower, an apparatus designed to complement basic combat training, is used to reinforce the skills and confidence of the individual soldier. Field training exercises (FTX) were incorporated into advanced individual training (AIT) so soldiers would have an opportunity to practice MOS and common skills in a field environment. By 1988, initial entry training (IET) strategy was implemented. The standard unit of training was the platoon. Training focused on hands-on skill development rather than platoon instruction. Fort Jackson continues to win awards as we move toward our vision of the future. The goal is to make Fort Jackson the living, working and training environment it can be. "Victory Starts Here", as it has since 1917.

Major Activities/Tenants include:

- ?? Basic Combat Training (BCT)
- ?? Basic Training Tour
- ?? 1st Basic Combat Training Brigade
- ?? 1st Battalion, 28th Infantry Regiment
- ?? 2nd Battalion, 28th Infantry Regiment
- ?? 2nd Battalion, 13th Infantry Regiment
- ?? 3rd Battalion, 13th Infantry Regiment
- ?? 2nd Battalion, 60th Infantry Regiment
- ?? 4th Training Brigade
- ?? 1st Battalion, 61st Infantry Regiment
- ?? 2nd Battalion, 39th Infantry Regiment
- ?? 1st Battalion, 34th Infantry Regiment
- ?? Victory Brigade and Support of Basic Training
- ?? Advanced Individual Training (AIT)
- ?? Chaplain Center & School
- ?? Drill Sergeant School
- ?? Pre-Command Course
- ?? Soldier Support Institute
- ?? Adjutant General School
- ?? Finance School
- ?? NCO Academy
- ?? Recruiting and Retention School
- ?? Hospital
- ?? Other Military and Civilian Organizations

J03.2 Water System Description

Source of Supply: Fort Jackson is supplied water by the City of Columbia, South Carolina, at six connections located on the Installation at intervals along the west reservation (I-77) boundary and along the southern boundary. Flows are metered using three 8-inch and three 6-inch compound meters. One-way flow is assured at each connection using double-check type flow prevention devices located in below ground vaults or exposed above ground configurations. Fort Jackson is contractually guaranteed water at the maximum rate of 6.5 million gallons per day.

System Storage: Potable water is stored in a 2.0 million gallon elevated tank located east of the Hampton Parkway - Lee Road intersection – one of the highest elevations on the Post. The tank was constructed in 1992, included internal cathodic protection, and is connected to the distribution system

through an altitude valve and 12-inch main. Chlorination facilities installed in a fiberglass pre-fabricated structure located adjacent to the tank maintain chlorine residuals at the required levels. A 1.8 million-gallon standpipe sited immediately west of the elevated tank has been taken off the distribution system and is now scheduled for demolition.

A 1.3 million gallon ground storage reservoir situated northeast of the Marion Avenue-Pickens Avenue intersection and constructed in the 1940's has not been operational for some years and is scheduled for demolition.

Distribution System: The distribution system serves the main Cantonment area. The existing potable water distribution has approximately 384,500 linear feet of mains and laterals in sizes ranging from 4 to 16 inches in diameter. Sizes smaller than 4-inches, totaling 85,000 feet make up the remainder of the system and supply individual structures, warehouses facilities, and family housing units. Cement, concrete, cast iron, and PVC are the most common materials found throughout the system. The system includes main valves, pressure reducing stations, post-indicator valves, monitoring and warning systems, fire hydrants, and an elevated storage facility.

Pressure reducing valves are strategically placed throughout the system to effect the two-zone operation. Pressures throughout the system generally range from 40 to 80 pounds per square inch (psi).

Six well systems designed with hydro pneumatic pressurization and sodium hypochlorite disinfection systems serve the training ranges and the Weston Lake Recreation Area east of the Main Cantonment, however, these facilities are to be included in the privatized facilities and are reflected in the accompanying inventory. The irrigation systems serving landscaped areas and golf courses are not included in the inventory.

J03.2.1 Water System Fixed Equipment Inventory

Table 1 provides a general listing of the major system fixed assets for the Fort Jackson water 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

Fixed Inventory
Water Distribution System Inventory Fort Jackson

Item	Size	Quantity Unit	Approximate Year of Construction
PVC & Cast Iron pipe, Cement	<2 in.	19,522 lft	1970
	2	44,394 lft	1970
	2.5	7,414 lft	1970
	3	13,592 lft	1970
	4	26,426 lft	1970
	6	154,302 lft	1970
	8	94,680 lft	1970
	10	43,574 lft	1970
	12	42,457 lft	1970
	16	23,089 lft	1970
Building Services		790 ea	1970
Main Valves		598 ea	1970
Post Indicator Valves		33 ea	1970
Fire Hydrants		575 ea	1970
Water Storage Tank	2,000,000 gal	1 ea.	1989
	1,000,000 gal	1ea	1941 (not being used)
PUMP STATIONS			
Wells		2 EA	1972
		6 ea w/chlorination	varies

Notes:

PVC = polyvinyl chloride
lft = linear feet
Ea = each
Gal = gallon

J03.2.2 Water Distribution 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

Spare Parts
Water Distribution System

Qty	Item	Make/Model	Description	Remarks
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See Note Immediately Below

NOTE: Fort Jackson maintains an inventory of spare parts for the water distribution system. Contents of this inventory vary as items are used and/or purchased. Availability of this inventory to the new owner will be negotiated before or during the transition period.

TABLE 3
Specialized Equipment and Vehicles
Water Distribution System Fort Jackson

Description	Quantity	Location	Maker
Engine Powered Hydraulic Valve Opening Machine	1		

J03.2.3 Water System Manuals, Drawings, and Records Inventory

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

TABLE 4
Manuals, Drawings, and Records
Water Distribution System

Qty	Item	Description	Remarks
	See Note Immediately Below		

NOTE: Fort Jackson maintains a limited collection of technical manuals, drawings and records on the installed components of the water collection system. This information will be transferred to the new owner during the transition period. System maps will be available in the bidders' library.

J03.3 Current Service Arrangement

Fort Jackson is supplied water by the City of Columbia, South Carolina, at six connections located on the Installation at intervals along the west reservation (I-77) boundary and along the southern boundary. Flows are metered using three 8-inch and three 6-inch compound meters. One-way flow is assured at each connection using double-check type flow prevention devices located in below ground vaults or exposed above ground configurations. Fort Jackson is contractually guaranteed water at the maximum rate of 6.5 million gallons per day.

J03.4 Secondary Metering

The Base may require additional 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 Clause C.3.

J03.4.1 Existing Secondary Meters

Table 5 provides a listing of the existing (at the time of contract award) secondary meters that will be transferred to the Contractor. The Contractor shall provide meter readings once a month for all secondary meters IAW H.5 and J03.5 below.

TABLE 5
Existing Secondary Meters
Water Distribution System

BLDG NO.	USER/FUNCTION	READING	METER LOCATION	METER S/N	REASON FOR METER
1558	LAUNDRY	2.2E+07	VAULT REAR BLDG 50 FT FROM DOCK	C393533 9	REIMBURSMENT
1558	LAUNDRY	190	VAULT REAR BLDG 50 FT FROM DOCK		REIMBURSMENT
1701	120TH	3205000	VAULT FRONT OF BLDG	7096405	REIMBURSMENT
1890	MEDICAL CLINIC				REIMBURSMENT
2139	PX ANNEX	1288900	REAR BLDG INSIDE EQUIP	3.1E+07	REIMBURSMENT
2445	VET CLINIC				REIMBURSMENT
2498	VET CLINIC				REIMBURSMENT
2522	LION CLUB	79200	VAULT REAR BLDG	9.6E+07	REIMBURSMENT
3240	POST EXCHANGE	2213300	VAULT RIGHT SIDE OF BLDG		REIMBURSMENT
3305	MCGRUDER CLUB	4282800	INSIDE UTILITY ROOM	9014413	REIMBURSMENT
3630	O CLUB WATER	2.4E+07	INSIDE UTILITY ROOM		REIMBURSMENT
3656	GOLF CLUB	7608000	INSIDE UTILITY ROOM	9.3E+07	REIMBURSMENT
4120	PX ANNEX		RIGHT OF BUILDING (FAILED & CARS PARK OVER METER)		REIMBURSMENT
4169	PX ANNEX	1976900	ON LEFT INSIDE MECHANICAL RM	9014414	REIMBURSMENT
4323	DENTAL CLINIC				REIMBURSMENT
4500	MONCRIEF HOSPITAL				REIMBURSMENT
4575	TROUP CLINIC				REIMBURSMENT
4590	DENTAL CLINIC				REIMBURSMENT
4709	WACHOVIA	706100	VAULT FRONT OF BANK	9014391	REIMBURSMENT
4710	CREDIT UNION	2217900	VAULT FRONT OF BLDG NEAR DOOR	F03781	REIMBURSMENT
4712	PX (TO BE REPLACED)	3877800	VAULT AT FIRE HYDRANT NEAR CREEK	F013779	REIMBURSMENT
4712	PX (TO BE REPLACED)	2.8E+07	INSIDE UTILITY ROOM	F013779	REIMBURSMENT
4716	COMMISSARY	9990700	VAULT RIGHT FRONT OF BUILDING	7131572	REIMBURSMENT
5330	DENTAL CLINIC				REIMBURSMENT
5475	PX ANNEX	1425800	INSIDE EQUIP ROOM AT WALL	9015214	REIMBURSMENT
5615	SCHOOL	7317400	VAULT REAR CORNER OF BUILDING	284	REIMBURSMENT
5615	SCHOOL	574800	VAULT HOOD ST RIGHT FRONT 50 FT	9.6E+07	REIMBURSMENT
5650	PX	859600	VAULT FRONT BLDG AT SIDE WALK	2.2E+07	REIMBURSMENT
5670	PX ANNEX BURGER KING		REAR OF BLDG		REIMBURSMENT
5700	NCO CLUB	2.8E+07	VAULT FRONT OF BLDG	9014409	REIMBURSMENT
5715	SCHOOL	8689100	VAULT CORNER OF IMBODEN & ADAMS CT	1.1E+07	REIMBURSMENT
5900	SCHOOL	2.4E+07	VAULT LEFT SIDE DRIVE IN		REIMBURSMENT
6000	PALMETTO LODGE	7.3E+07	BASEMENT INSIDE FURNACE ROOM	7108576	REIMBURSMENT
6510	COMMUNITY ACTIVITY CENTER	2698200	VAULT REAR BLDG NEAR ROAD	2.6E+08	REIMBURSMENT
9810	USAR 120TH	6540300	VAULT FRONT OF BLDG	C069313	REIMBURSMENT
10440	PX ANNEX	7345000	VAULT FRONT BLDG NEAR HYDRANT	F013780	REIMBURSMENT
13000	US ARMY RESERVE	1450200	VAULT REAR BLDG NEAR CENTER	9.5E+07	REIMBURSMENT
13100	US ARMY RESERVE	17600	RIGHT SIDE FRONT DOOR	9.6E+07	REIMBURSMENT

13200	US ARMY RESERVE	252800	VAULT INSIDE FENCE NEAR BLDG	9412229	REIMBURSMENT
AREA	GENERAL QTRS	513500	RIGHT NEAR CAR PORT OF BLDG 3600		REIMBURSMENT
AREA	GENERAL QTRS	830100	50 ' REAR ENTRANCE OF BLDG 3600		REIMBURSMENT
AREA	GENERAL QTRS	378200	LEFT SIDE QTRS 3600		REIMBURSMENT
AREA	OFFICERS QTRS	136033	VAULT CORNER SEEMES & CUSTER LOOP		REIMBURSMENT
AREA	GOLF WATER	1890100	LEFT SIDE ROAD VET CLINIC		REIMBURSMENT
AREA	OFFICER'S QTRS		VAULT CORNER OF SEEMES & KNIGHT RD		REIMBURSMENT
AREA	OFFICER'S QTRS		SOUTH END OF BLDG 3748 NEAR REFUSE		REIMBURSMENT
AREA	GOLF (6 INCH)	2206000	RIGHT SIDE SEEMES RD AT PINE TREE	6945607	REIMBURSMENT
AREA	GOLF CLUB	252500	LEFT SIDE IVEY ROAD AT BUMP	9.6E+07	REIMBURSMENT
AREA	GOLF CLUB (8")	1.1E+07	VAULT SEEMES & CHESTNUT LEFT SIDE	BP89456 03	REIMBURSMENT
LOOP	EM QTRS(FAILED LOOP)		VAULT CHESTNUT & SERGEANT JASPER		REIMBURSMENT
LOOP	EM QTRS ELEC (FAILED LOOP)		VAULT NEAR WATER TANK RT SIDE OF RD		REIMBURSMENT

J03.5 Submittals

In addition to the submittal requirements from Clause H.5, the Contractor shall provide the Government monthly submittals for:

1. Invoicing (IAW 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, Water usage management, and monitoring.
4. System Efficiency Report. If required by Clause C.3 the Contractors shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer.
5. System malfunctions, discharges or overflows will be reported immediately to the Contracting Officer's designee. The Contractor, as the owner/operator of the system, must notify the State of Virginia of any discharges or overflows immediately.

Outage Report. The Contractor's monthly outage report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall include the following information for Scheduled and Unscheduled outages:

Scheduled: Requestor, date, time, duration, facilities affected, feedback provided during outage, outage notification form number, and digging clearance number.

Unscheduled: Include date, time and duration, facilities affected, response time after notification, completion times, feedback provided at time of outage, specific item failure, probability of future failure, long term fix, and emergency digging clearance number.

Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

Meter Reading Report. The monthly meter reading report shall show the current and previous month readings for all secondary meters. The Contractor's monthly meter reading report will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Meter reading reports shall be submitted by the 15th of each month for the previous month. Meter reading reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

System Efficiency Report. If required by Paragraph C.3, the Contractor shall submit a system efficiency report in a format proposed by the Contractor and accepted by the Contracting Officer. System efficiency reports shall be submitted by the 25th of each month for the previous month. System efficiency reports shall be submitted to the Contracting Officer's designee. (This information will be provided upon award)

J03.6 Energy Savings and Conservation Projects

IAW C.3, Utility Service Requirement, the following projects have been implemented by the Government for energy conservation purposes:

?? None

J03.7 Service Area

IAW Clause C.4, Service Area, the service area is defined as all areas within the Fort Jackson Area boundaries except for areas served by water wells.

J03.8 Off-Installation Sites

There are no off-installation sites associated with this scope.

J03.9 Specific Transition Requirements

IAW Clause C.17, Transition Plan, **Table 6** lists service connections and disconnections required upon transfer, and **Table 7** lists the improvement projects required upon transfer of the Fort Jackson Water system.

TABLE 6
Service Connections and Disconnections
Water Distribution System

Description

NOTE: None identified as of the beginning of FY01. Required service connections and disconnections will be provided to the Contractor as the requirements become known.

TABLE 7
System Improvement Projects
Water Distribution System

Project Location	Project Description
None	

J03.10 Water System Points of Demarcation

The point of demarcation is defined as the point on the water 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 for each scenario. During the operation and maintenance transition period, concurrence on specific demarcation points will be documented during the joint inventory of facilities.

Point of Demarcation	Applicable Scenario	Sketch
Water Meter or Backflow Device, or Valve (closest apparatus to the exterior of the structure)	Water meter, backflow device, or valve is located on the service line entering the structure within 25 feet of the exterior of the structure.	<p>The sketch shows a rectangular box labeled 'Structure' on the left. A horizontal line representing the 'Service Line' enters the structure from the right. On this line, there is a symbol for a 'Water Meter'. An arrow points from the label 'Point of Demarcation' to this water meter. To the right of the structure, the line continues as a vertical line labeled 'Service Line'. At the top and bottom of this vertical line, there are arrows pointing right, labeled 'Water System'.</p>
Point of demarcation is the cleanout device if it is 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.	<p>The sketch shows a rectangular box labeled 'Structure' on the left. A horizontal line representing the 'Service Line' enters the structure from the right. On this line, there is a symbol for a cleanout device. An arrow points from the label 'Point of Demarcation' to this cleanout device. To the right of the structure, the line continues as a vertical line labeled 'Service Line'. At the top and bottom of this vertical line, there are arrows pointing right, labeled 'Water System'.</p>

J03.10.1 Unique Points of Demarcation

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

Building No.	Point of Demarcation Description
None	

Building No.	Point of Demarcation Description
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J03.11 Plants and Towers

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

Table 10
 Plants and Towers Water Distribution System – Fort Jackson

Description	Facility Number	State Coordinates	Other Information
Water Tower 3,000,000		Available in base maps	
Water Tower 1,000,000		Available in base maps	Not in use.

The contractor is to provide a proposal value for demolition of the existing 1,000,000 gallon water tower which is currently not in use.