ATTACHMENT J4

Andersen AFB Wastewater Collection System

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J4.1 Andersen AFB Overview

Andersen Air Force Base (AFB) is located on the northern end of the Island of Guam, a Territory of the United States. Guam is situated in the Western Pacific, across the International Date Line at 13 degrees 28 minutes north latitude and 144 degrees 44 minutes east longitude. Guam is the largest of more than 2,000 islands scattered between Hawaii and the Philippines.

With about 170,000 residents and more than 13,000 military members and their families, Guam is the most populated island in the geographical area known as Micronesia. Two hundred-twelve square miles in size, the island is part of an underwater mountain range running southward from Japan and is the southernmost island in the Marianas archipelago. With a direct and dependent population of nearly 7,000 people, Andersen AFB comprises approximately 4 percent of the island's population and is extremely important to the local economy. The economy primarily depends on U.S. military spending and on tourist revenue. Guam is only three jet-hours away from the Asian capitals of Tokyo, Taipei and Manila, and annually welcomes more than 1 million tourists. Guam, as a U.S. Territory, falls under U.S. Customs Service jurisdiction.

The land encompassing Andersen AFB, then known as "North Field," was acquired by the federal government during World War II after the liberation of the island from occupation by the armed forces of Imperial Japan. North Field was initially used as a forward air base for bombing missions of Japan. The North Field was re-designated North Guam Air Force Base in 1947 – the same year the Air Force became a separate service. Two years later, the base was renamed in honor of Brig. Gen. Roy Andersen. Andersen had been chief of staff at Harmon Field, Guam, when his aircraft disappeared en route to Hawaii in February 1945.

Since the airfield became operational as North Field in 1945, it has continually played vital roles in maintaining U.S. presence in the Pacific. Aircraft flying in and out of Andersen participated in World War II, the conflict on the Korean peninsula, the Vietnam conflict, and Operations Desert Shield and Desert Storm.

In recent years, Andersen played a vital role in Operation Fiery Vigil, the evacuation of the Philippines following the eruption of Mount Pinatubo in June 1991, and Joint Task Force Pacific Haven, the evacuation of more than 6,000 Kurdish people from Northern Iraq in September 1996.

Today, with its fuel and munitions storage facilities and dual two-mile-long runways, Andersen AFB is an important forward-based logistics-support center for exercise and contingency forces deploying throughout the Southwest Pacific and Indian Ocean area.

Andersen AFB is home to Pacific Air Forces' 13th Air Force and the 36th Air Base Wing, Air Mobility Command's 634th Air Mobility Support Squadron and several other tenant organizations. Strategically located on the northern portion of the Island of Guam, Andersen AFB occupies 20,000 acres of land. Over the last 50+ years, the Base has supported a myriad of contingencies and missions. Today, Andersen AFB remains a viable and valuable asset to the United States due to its strategic importance as the most western American real estate in the Pacific available for use by the Military.

Andersen AFB provides logistical support to the Air Force operations throughout the Pacific Far East; however, its primary mission is to supply fuel to Air Force aircraft commissioned to protect the United States interests in this region. The 36th Supply Squadron is responsible for a supply and equipment inventory in excess of 62,000 items. The Base also performs many support functions including, but not limited to the following: minor aircraft repair and service operations, vehicle transportation maintenance and repair, and corrosion control activities.

The current population of Andersen AFB is approximately 6,683. This includes 217 active duty Air Force officers, 1,814 active duty enlisted Air Force personnel, 2,436 Air Force military family dependents, 70 active duty Navy officers, 281 active duty enlisted Navy personnel, 556 Navy military family dependents, 21 reserve officers, 167 reserve enlisted personnel and 1,121 civilian employees. There are approximately 484 major operational buildings and 1,390 military family housing units on Andersen AFB. Although Andersen AFB continually undergoes renewal and modernization of its facilities there is no major change currently expected in its staffing or physical configuration.

J4.2 Wastewater Collection System Description

J4.2.1 Wastewater Collection System Fixed Equipment Inventory

The Andersen AFB wastewater collection system consists of all appurtenances physically connected to the collection system from the point of demarcation defined by the Right of Way. The system may include, but is not limited to, pipelines, manholes, lift stations, valves, controls, treatment plants, and meters. The actual inventory of items sold will be in the bill of sale at the time the system is transferred. The following description and inventory is included to provide the Contractor with a general understanding of the size and configuration of the system. The Government makes no representation that the inventory is accurate. The Contractor shall base its proposal on site inspections, information in the technical library, other pertinent information, and to a lesser degree the following description and inventory. Under no circumstances shall the Contractor be entitled to any service charge adjustments based on the accuracy of the following description and inventory.

In addition, there are three (3) off-site locations that have small wastewater collection facilities, see Table 1, that are included in the wastewater system.

Specifically excluded from the wastewater collection system privatization are:

- Storm Sewers
- Oil Water Separators
- Wastewater System at the Santa Rosa potable water reservoir, (see below, Section J4.2.1.1)
- Wastewater System at the Federal Aviation Administration facilities located on Mount Santa Rosa, (see below, Section J4.2.1.1)
- Wastewater System at Andersen South, (see below, Section J4.2.1.1)
- Wastewater/Septic system at Det #5, Northwest Field

J4.2.1.1 Description

There are approximately 243,200 linear feet (46.06 miles) of piping in the Andersen Main Base and Andersen South Wastewater Collection Systems, ranging in size from 4-inches to 20-inches in diameter and buried at a depth ranging from 6 feet to 20 feet with marking tracer wire for PVC /ACP pipes and marking tape for cast iron pipe, 641 pre-cast manholes, ranging from 6 feet to 20 feet high and four (4) cast -in -place lift stations (each equipped with an emergency generator). Andersen AFB's Wastewater Collection System is predominantly a gravity flow system in which four main areas flow to the lift stations for discharge into the force main connected to Guam Water Authority's wastewater treatment plant (WWTP).

The wastewater collection system is currently operating only within the Andersen AFB cantonment area, including the housing area. The wastewater collection system in the Andersen South area is abandoned in place. In the event that that the Andersen South area is ever re-populated, the wastewater system will need to be made operational. No such re-population of the Andersen South area is planned at this time.

In addition, there are three (3) off-site lift stations and associated pumps and collection lines, see Table 1, that are included in the wastewater system.

(Note: The preceding description of the Andersen AFB wastewater collection system facilities and quantities thereof includes the wastewater collection system at Andersen South which has been abandoned in place and may need to be re-constructed in the future if the needs of Andersen AFB require the re-population of the area. The extent of the abandoned wastewater collection system at Andersen South includes: 5.4 miles of piping (4" to 12" diameter), 78 manholes, and one (1) lift station.)

J4.2.1.2 Inventory

Table 1 provides a general listing of the major wastewater collection system fixed assets for the Andersen AFB wastewater collection system included in the sale.

TABLE 1
Fixed Inventory
Wastewater Utility System Andersen AFB

Item	Size (in.)	Quantity	Unit	Approximate Year of Construction
MAIN BASE				
AAFB Main Waste Piping	4" C.I	5,000	LF	1948
AAFB Main Waste Piping	6" C.I	5,000	LF	1948
AAFB Main Waste Piping	6" C.I	4,500	LF	1948
AAFB Main Waste Piping	8" ACP	13,000	LF	1948
AAFB Main Waste Piping	8" ACP	36,000	LF	1948
AAFB Main Waste Piping	8"ACP	4,000	LF	1948
AAFB Main Waste Piping	10" ACP	400	LF	1948
AAFB Main Waste Piping	10" ACP	1,550	LF	1948
AAFB Main Waste Piping	12" C.I	4,000	LF	1948
AAFB Main Waste Piping	12" C.I	1,200	LF	1948
AAFB Main Waste FM Piping	18" C.I	2,800	LF	1948
AAFB Main Waste FM Piping	20" C.I	14,650	LF	1948
AAFB Main Precast Manholes	8-12 ft	263	EA	1948
Back Gate Lift Station Bldg. 1881	large	2,500	SF	1948
Vertical Pump, 2450 gpm, Bldg. 1881	150 HP	4	sets	1948
Piping and Accessories, Bldg. 1881	12" C.I	150	LF	1948
Gate Valve, Bldg. 1881	12" C.I	8	EA	1948
Check Valve, Bldg. 1881	12" C.I	4	EA	1948
Golf Course Lift Station, Bldg. 1098	large	2,500	SF	1948
Vertical Pump, 2450 gpm, Bldg. 1098	150 Hp	3	sets	1948
Piping and Accessories, Bldg. 1098	12" C.I	150	LF	1948
Gate Valve, Bldg. 1098	12" C.I	6	EA	1948
Check Valve, Bldg. 1098	12" C.I.	3	EA	1948
Palau Lift Station, Bldg. 1295	Medium	1,000	SF	1960
Submersible Pump, Bldg. 1295	40 Hp	3	sets	1960
Piping & Accessories, Bldg. 1295	6" C.I	150	LF	1960
Gate Valve, Bldg. 1295	6" C.I	6	EA	1960
Check Valve, Bldg. 1295	6" C.I	3	EA	1960

Item	Size (in.)	Quantity	Unit	Approximate Year of Construction
Flight Line Lift Station, Bldg. 24101	Medium	1,000	SF	1960
Horizontal Sewage Pump, Bldg. 24101	7-1/2 Hp	2	sets	1960
Piping & Accessories, Bldg. 24101	4" C.I	150	LF	1960
Gate Valve, Bldg. 24101	4" C.I	4	EA	1960
Check Valve, Bldg. 24101	4" C.I	2	EA	1960
Gate Valve, Bldg. 1881 & 1098	20" C.I	4	EA	1948
Emergency Generators Bldg. 1881 & 1098	Medium	2	EA	1948
Motor Control Center Bldg.1881 & 1098	Medium	2	EA	1948
Emergency Generators 24101 & 1295	Small	2	EA	1960
Motor Control Center Bldg.24101 & 1295	Small	2	EA	1960
Cleanout Tee	4" C.I	70	EA	1960
Outlying Sites				
HC-5 Lift Station	Medium	1,000	SF	1960
Sewage Pump #1	15 Hp	2	Sets	1960
Sewage Pump #2, 350gpm	25 Hp	2	Sets	1960
Piping & Accessories, PVC	4"	80	LF	1960
DODEA Lift Station	Medium	1,000	SF	1960
Sewage Pump, 375 gpm	30 Hp	2	Sets	1960
Piping & Accessories, PVC	10"	80	LF	1960
Landfill Lift Station, #2	Medium	1,000	SF	1960
Sewage Pump, #1, 160 gpm	3.7 Hp	1	Set	1960
Sewage Pump #2, 340 gpm	11. Hp	1	Set	1960
Sewage Pump, #3, 375 gpm	30 Hp	1	Set	1960
Tank Station, 100 gpm	3.7 Hp	1	Set	1960
Force Main, HDPE	8" HDPE	150	LF	1960
HOUSING				
AAFB Housing Waste Piping	4" PVC	28,000	LF	1997
AAFB Housing Waste Piping	8" PVC	84,000	LF	1997
AAFB Housing Waste Piping	10" PVC	5,000	LF	1997
AAFB Housing Waste Piping	12" PVC	6,100	LF	1997
AAFB Housing Precast Manholes	8-12 ft	328	EA	1997
Cleanout Tee	4" C.I	870	EA	1997
Cleanout Tee	6" C.I	10	EA	1997

Item	Size (in.)	Quantity	Unit	Approximate Year of Construction
Andersen South (AS)				
- Abandoned in place				
AS MAIN				
Main AS Waste Piping	6" C.I	300	LF	1976
Main AS Waste Piping	8" ACP	1,000	LF	1976
Main AS Waste Piping	8" ACP	2,500	LF	1976
Main AS Waste Piping	10" ACP	2,000	LF	1976
Main AS Waste Piping	10" ACP	4,500	LF	1976
Main AS Waste Piping	12" ACP	1,700	LF	1976
Main AS Waste Piping	12" ACP	800	LF	1976
Main AS Precast Manholes	4" ID	10	EA	1976
Main AS Precast Manholes	4" ID	24	EA	1976
Main AS Precast Manholes	4" ID	4	EA	1976
Lift Station Bldg. 1120	800 SF	1	EA	1976
Lift Station Pump & Accessories	7-1/2 Hp	3	EA	1976
Piping & Accessories	4" C.I	100	LF	1976
Gate Valve, Bldg. 1120	4" C.I	6	EA	1976
Check Valve, Bldg. 1120	4" C.I	4	EA	1976
AS HOUSING				
AS Housing Waste Piping	4" C.I	3,000	LF	1976
AS Housing Waste Piping	4" C.I	1,000	LF	1976
AS Housing Waste Piping	6" C.I	400	LF	1976
AS Housing Waste Piping	8" ACP	4,000	LF	1976
AS Housing Waste Piping	8" ACP	7,100	LF	1976
AS HSG Precast MH	4"	18	EA	1976
AS HSG Precast MH	4"	22	EA	1976
Cleanout Tee	4" C.I.	96	EA	1976

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Notes:
PVC = Polyvinyl Chloride
LF = Linear Feet
EA = Each
HDPE = High Density Polyethylene
Hp = Horsepower
Gpm = gallon per minute
Ft = feet
Bldg. = building
SF = square foot
ID = inside diameter
MH = manhole
C.I = Cast Iron
ACP = Asbestos Cement Pipe

J4.2.2 Wastewater Collection System Non-Fixed Equipment and Specialized Tools

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, vehicles, and tools prior to submitting a bid. Offerors shall make their own determination of the adequacy of all equipment, vehicles, and tools.

TABLE 2
Spare Parts
Wastewater Collection System Andersen AFB

Qty	Item	Make/Model	Description	Remarks
None				

TABLE 3
Specialized Vehicles and Tools
Wastewater Collection System Andersen AFB

Description	Quantity	Location	Maker
None			

J4.2.3 Wastewater Collection System Manuals, Drawings, and Records

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

TABLE 4
Manuals, Drawings, and Records
Wastewater Collection System Andersen AFB

Qty	Item	Description	Remarks
1	AutoCAD	Utility System Drawings	
1	Record Drawings	Copies of existing Record Drawings will be made available onsite to the contractor.	
1	Manuals/Tests	Copies of existing Manuals/Tests will be made available onsite to the contractor.	

J4.3 Specific Service Requirements

The service requirements for the Andersen AFB wastewater collection system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Andersen AFB wastewater collection system and are in addition to those found in Section C. If there is a conflict between requirements described below and Section C, the requirements listed below take precedence over those found in Section C.

- None.

J4.4 Current Service Arrangement

The Andersen AFB Wastewater Collection System is owned by the Air Force and is operated and maintained by Andersen AFB personnel, (military and Civilian). The volume of wastewater collected and discharged to the Guam Water Authority for treatment during FY 03 was 315.914 kgal. The highest level of discharge was in January 03, 30,366 kgal, and the lowest discharge was in July 03, 166,691 kgal. Overall, the Andersen AFB Wastewater Collection System is good condition and the existing system components are adequate to serve the existing wastewater collection requirements with some allowance for moderate growth.

Based on its current authority, except for a sale to the Guam Water Authority (or other specified Guam quasi-governmental units, the Guam Public Utility Commission does not have jurisdiction over the sale of the wastewater collection system. In October 1998, Guam Public Law No. 24-295 was passed by the Territorial Legislature and signed into law by the Governor of Guam. This legislation specifically targeted the ongoing DoD outsourcing / privatization of the Navy's and AF's potable water and wastewater utility systems on the Island. Guam Public Law No. 24-295 requires that any DoD utility service provider to execute a written interoperability and interconnection agreement with Guam Water Authority for the full integration of the DoD potable water and / or wastewater utility systems with Guam Water Authority's island-wide utility infrastructure.

J4.5 Secondary Metering

None

J4.6 Monthly Submittals

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

1. Invoice (IAW G.2). The Contractor's monthly invoice shall be presented in a format proposed by the Contractor and accepted by the Contracting Officer. Invoices shall be submitted by the 25th of each month for the previous month. Invoices shall be submitted to:

   Name: *36 CONS, Unit 14040*

Address: *Andersen AFB, GU 96543-4040*
Phone number: 671.366.6622

2. Outage Report. The Contractor's monthly outage report (blockage and overflow information) will be prepared in the format proposed by the Contractor and accepted by the Contracting Officer. Outage reports shall be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

   Name: *36 CONS, Unit 14040*
   Address: *Andersen AFB, GU 96543-4040*
   Phone number: 671.366.6622

3. Infiltration and Inflow Report. If required by Paragraph C.3, the Contractor shall submit an Infiltration and Inflow 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:

   Name: *36 CONS, Unit 14040*
   Address: *Andersen AFB, GU 96543-4040*
   Phone number: 671.366.6622

J4.7 Infiltration and Inflow (I&I) Projects

IAW Paragraph C.3, Utility Service Requirement, the following projects have been implemented by the Government for managing and monitoring I&I.

- None

J4.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within the Andersen AFB boundaries and service Right of Ways allowing service to the Santa Rosa potable water reservoir, the Federal Aviation Administration (FAA), and Andersen AFB South areas.

J4.9 Off-Installation Sites

Off-installation sites are included in the sale of the Andersen AFB wastewater collection system. These include: the Santa Rosa potable water reservoir, the Federal Aviation Administration (FAA) (located on Mount Santa Rosa), Det #5 located at Northwest Field, and Andersen AFB South areas.

The wastewater collection system is currently operating only within the Andersen AFB cantonment area, including the housing area. The wastewater collection system in the Andersen South area is abandoned in place, but may require service in the future. The other off-site locations do not have wastewater collection facilities but the areas would be included in the event that such services were to be needed in the future.

J4.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 5** provides a listing of service connections and disconnections required upon transfer.

TABLE 5
Service Connections and Disconnections
Wastewater Collection System Andersen AFB

Location	Description
None	

J4.11 Government Recognized System Deficiencies

Table 6 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Andersen AFB wastewater collection system. If the utility system is sold, the Government will not accomplish these planned improvements. The Contractor shall make a determination as to its actual need to accomplish and the timing of any and all such planned improvements. Capital upgrade projects shall be proposed through the Capital Upgrades and Renewal and Replacement Plan process and will be recovered through Schedule L-3. Renewal and Replacement projects will be recovered through Sub-CLIN AB.

TABLE 6
System Deficiencies
Wastewater Collection System Andersen AFB

Project Location	Project Description
None	

J4.12 Exhibits

A. Map of Premises

B. Description of Premises

C. Environmental Baseline Survey

Exhibit A—Map of Premises

Exhibit A map or maps from the Base Comprehensive Plan or other drawings show the known locations of the utility system and are available at the Base Civil Engineering Office. Portions of the utility system may not be fully shown on the map or maps. Any such failure to show the complete utility system on the map or maps shall not be interpreted as that part of the utility system being outside the Premises. The Premises are co-extensive with the entire linear extent of the utility system sold to Grantee, whether or not precisely shown on the map or maps.

Maps of the Andersen AFB wastewater collection system are in AutoCad format and will be provided upon request, subject to security considerations.

Exhibit B—Description of Premises

B.1. General Description of the Utility System, Lateral Extent of the Right-of-Way, and Points of Demarcation:

UTILITY SYSTEM DESCRIPTION:

The utility system may be composed of, without limitation, collection piping, manholes, final discharge meters, lift stations, treatment plants, supporting emergency generator sets (if any), and electrical controls associated with the lift stations and emergency generator sets on the Installation.

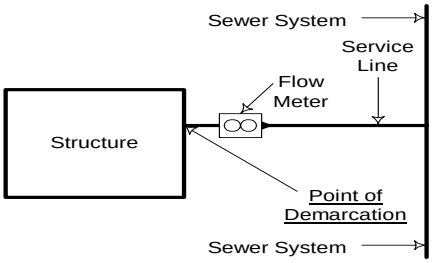
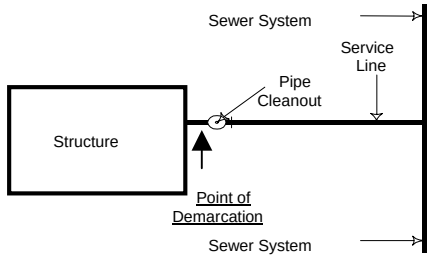
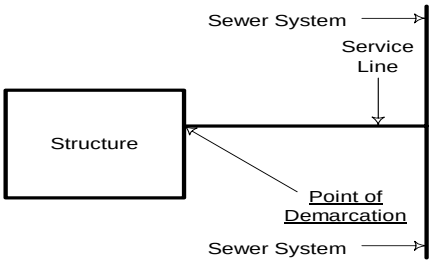
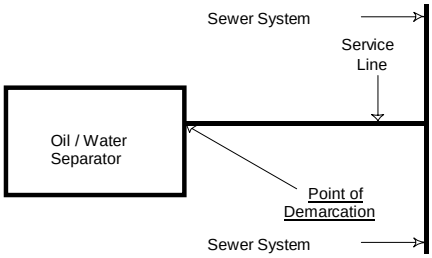
LATERAL EXTENT OF UTILITY SYSTEM RIGHT-OF-WAY:

For pipe sizes of 24 inches in diameter and less, 26-feet-wide, extending 13 feet on each side of the utility system, as installed.

For pipe sizes of greater than 24 inches in diameter, 50-feet-wide, extending 25 feet on each side of the utility system, as installed.

UTILITY SYSTEM POINTS OF DEMARCATION:

The point of demarcation is defined as the point on the utility system where ownership changes from the utility system owner to the facility owner. The table below identifies the type and general location of the point of demarcation with respect to the facility for each scenario.

Point of Demarcation (POD)	Applicable Scenario	Sketch
POD is where the service line enters the structure.	Sewer system flow meter is located on the service line entering the structure.	
POD is the cleanout device, if within 10 feet 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.	
POD is where the service line enters the structure. Note: A new cleanout device should be installed within 10 feet of the building during any stoppage or maintenance action. This will then become the new POD.	No flow meter or cleanout exists on the service line entering the structure.	
POD is the outfall of the oil/water separator.	Any oil/water separator on the service line.	
POD is the outlet side of the Grease Trap, Oil Water Separator, or Pretreatment System.	Grease Trap, Oil Water Separator, and Pretreatment System connected to the wastewater collection system.	None
POD is at the overhead service line's connection to the service entrance mast. Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and	Electric power is provided to a wastewater facility via an overhead service drop. This configuration could be found at facilities dedicated to the wastewater utility such as a lift station or wastewater treatment plant.	None

Point of Demarcation (POD)	Applicable Scenario	Sketch
maintainer of the electric meter and the can. The POD for the electric meter is at the wastewater utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric utility owner's meter. The wastewater utility owner will own the service entrance mast.		
POD is at the transformer secondary terminal spade. Note: If an electric meter is present, or is to be installed, the owner of the electric distribution system on the installation is the owner and maintainer of the electric meter. The POD for the meter is at the wastewater utility owner's conductors to the electric utility owner's conductors. This meter POD applies regardless of the location of the electric meters and transformers.	Electric power is provided to a wastewater facility via an underground service connection. This configuration could be found at facilities dedicated to the wastewater utility such as a lift station or wastewater treatment plant.	None

UNIQUE POINTS OF DEMARCATION:

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

Building No.	Point of Demarcation (POD) Description
Back Gate Lift Station, Bldg. 1881	Discharge side of Back Gate Lift Station, Bldg. 1881, where the Andersen AFB waste is discharged into the Guam Water Authority's force main.
Golf Course Lift Station, Bldg. 1098	Discharge side of Golf Course Lift Station, Bldg. 1098, where the Andersen AFB waste is discharged into the Guam Water Authority's force main.
Palau Lift Station, Bldg. 1295	Discharge side of Palau Lift Station, Bldg. 1295, where the Andersen AFB waste is discharged into the Guam Water Authority's force main.
HC-5 Lift Station	Discharge side of HC-5 Lift Station where the Andersen AFB waste is discharged into the Guam Water Authority's system.
DODEA Lift	Discharge side of DODEA Lift Station where the Andersen AFB

Station	waste is discharged into the Guam Water Authority's system.
Landfill Lift Station	Discharge side of Landfill Lift Station where the Andersen AFB waste is discharged into the Guam Water Authority's system.
AS Lift Station, Bldg. 1120	Discharge side of Andersen South Lift Station, Bldg. 1120, where the Andersen AFB waste is discharged into the Guam Water Authority's system. Note: this connection is abandoned in place.
MSA - 1	First connection downstream from the munitions storage area
MSA - 2	First connection downstream from the munitions storage area

B.2. Description of Restricted Access Areas:

Description	Facility #	State Coordinates	Other Information
None			

Exhibit C—Environmental Baseline Survey

The Air Force has determined that it is not required to conduct an EBS in regard to the sale of this utility system.