

ATTACHMENT J2

Minneapolis-St. Paul ARS Water Distribution System—Areas A, D & N

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J2 Minneapolis-St. Paul ARS Water Distribution System—Areas A, D & N

J2.1 Minneapolis-St. Paul ARS Overview

The Minneapolis-St. Paul Air Reserve Station (ARS) is located at Minneapolis-St. Paul International Airport in Minneapolis, Minnesota. The base, as well as much of the surrounding area, is on the site of the Fort Snelling reservation, an 1827 Army post built at the confluence of the Minnesota and Mississippi Rivers. The ARS is the home of the 934th Airlift Wing, an Air Force Reserve unit, and host to the 133rd Airlift Wing, a Minnesota Air National Guard unit. Over the years, the Fort Snelling reservation has been parceled among many federal agencies, including the US Army Reserve, the US Navy Reserve, and the Fort Snelling National Cemetery. The Minneapolis-St. Paul ARS property is comprised of:

- Area A, the site of the Officer's Club
- Area B, the site of the 934th's small arms range (currently no water or wastewater systems exist in this area)
- Area D, which houses the 133rd Airlift Wing
- Area N, which houses the 934th Airlift Wing.

Minneapolis-St. Paul ARS has 93 operational buildings among the four composite areas. These are primarily aviation maintenance, training and administrative facilities. There are no permanent party dormitories or housing. The Metropolitan Airport Commission (MAC) operates the civil side of the airport, including its four runways, and provides fire and rescue services for the 934th and 133rd.

The area encompassing the ARS consists of 257 acres on four non-contiguous parcels of land owned by the Federal Government. Both Areas D and N (MNANG and AFRC respectively) are bordered by the airport to the south, and East 58th Street (Route 62/55) and a frontage road to the north. They are separated by the US Army Reserve Center and connected by a road circling the airport's northeast-southwest runway. Each has its own main gate. The area across East 58th Street is primarily residential and light commercial. Areas A and B (the Club and Range, respectively) are located southeast of the airport, between Route 5 and the Minnesota River. Area B currently has no water distribution system and currently foresees no need for such a system, but Area B is included in this contract since the government could request installation of a water distribution system in the future.

J2.2 Water Distribution System Description - Area A, D & N

J2.2.1 Water Distribution System Fixed Equipment Inventory

The Minneapolis-St. Paul ARS water distribution system for Area A, D & N consists of all appurtenances physically connected to the distribution system from the point in which the

distribution system enters the Installation and Government ownership currently starts to the point of demarcation, defined by the Right of Way. The system may include, but is not limited to, pipelines, valves, fire hydrants, storage facilities, exterior backflow devices, pumps, 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 distribution 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.

Specifically excluded from the water distribution system privatization are:

- Area N capped deep well;
- All irrigation systems;
- Area D dedicated fire protection “deluge” system including the pump station (Bldg 660), 450,000 gallon deluge tank (Facility 661), and 1,300 LF of mains from the tank to the primary hangar (Building 685);
- Area N dedicated fire protection “deluge” system including the pump station, the 200,000 gallon water storage tank, and 13,000 LF of mains.

J2.2.1.1 Description

Area A. Water is provided to Area A by the City of Minneapolis, from the city main crossing Route 5 west of the Club. The system consists of 150 LF of two-inch copper pipe for potable water, and 100 LF of six-inch steel pipe to supply the fire sprinkler system. The club is metered and has two fire hydrants. The water system is assumed to be an average of 8 feet deep with approximately 20 percent of the system under pavements. No cathodic protection or tracer wires are on the conveyed system.

Area D. Water is provided to Area D by the City of Minneapolis, through a single 12-inch main entering from Route 55 north of the base. The Minneapolis Water Works Treatment Plant draws from the Minnesota River.

The water distribution system was originally installed in 1941 and primarily consists of ductile iron, galvanized steel and some copper, ranging in size from 1.5 inches to ten inches. The system consists of 15,500 LF of pipes, and distributes both potable water and that used for fire protection. The system includes 35 hydrants and is flushed periodically. The City of Minneapolis treats the water off-base to ensure quality. There is no on base water treatment.

The water system is assumed to be an average of 8 feet deep with approximately 20 percent of the system under pavements. No cathodic protection or tracer wires are on the conveyed system.

Area N. The water for Area N is also provided by the City of Minneapolis, through two six-inch mains entering from 58th Street and 40th Avenue north of the base, a six inch main entering in the south west corner of Area N near building 870, and a 12-inch main at the western boundary north of Military Highway which passes through the installation and exits at three locations on the east side of Area N. The portion of the system located on Area N owned by the city of Minneapolis is indicated on the Drawing Tab G-1. Static water pressure for all domestic mains is 80 pounds per square inch (PSIG). The Minneapolis Water Works Treatment Plant draws from the Minnesota River, and the base has one deep well that has been capped.

The water distribution system was originally installed in 1941, with only minor upgrades, and consists primarily of ductile iron, copper and some galvanized steel, ranging in size from two to 12 inches. The system consists of 9,400 linear feet (LF) of water distribution. The water system is assumed to be an average of 8 feet deep with approximately 20 percent of the system under pavements. No cathodic protection or tracer wires are on the conveyed system.

The water distribution system was originally sized for a significantly larger population than is currently at the base. Because of this, potable water stagnates in the system and some lead contamination has been found. The base treats the water at building 803 by injection of an orthophosphate/polyphosphate corrosion inhibitor and Chloramine, but makes no fluoridation, pH, or color adjustments. The treated water serves facilities south of Fourth Street.

J2.2.1.2 Inventory

Table 1 provides a general listing of the major water distribution system fixed assets for Area A & N of the Minneapolis-St. Paul ARS water distribution system included in the sale.

TABLE 1A
Fixed Inventory, Area A & N
Water Distribution System Minneapolis-St. Paul ARS

Item	Size	Quantity	Unit	Approximate Year of Construction
Area N				
Copper Pipe	2-inch	175	LF	1956
Copper Pipe	2 inch	192	LF	1970
Copper Pipe	2 inch	339	LF	1980
Copper Pipe	2 inch	414	LF	1996
Ductile Iron Pipe	3 inch	127	LF	1941
Ductile Iron Pipe	3 inch	71	LF	1970
Ductile Iron Pipe	3 inch	56	LF	1980
Ductile Iron Pipe	4 inch	560	LF	1941
Ductile Iron Pipe	4 inch	90	LF	1956

Item	Size	Quantity	Unit	Approximate Year of Construction
Ductile Iron Pipe	4 inch	200	LF	1970
Ductile Iron Pipe	6 inch	3,515	LF	1941
Steel Pipe	6 inch	75	LF	1956
Ductile Iron Pipe	8 inch	3010	LF	1941
Ductile Iron Pipe	12 inch	445	LF	1941
Valve, Gate	2 inch	10	EA	1941
Valve, Gate	2 inch	10	EA	1956
Valve, Gate	3 inch	3	EA	1941
Valve, Gate	4 inch	6	EA	1941
Valve, Gate	6 inch	15	EA	1941
Valve, Gate	8 inch	4	EA	1941
Valve, Gate	12 inch	3	EA	1941
Fire Hydrants w/ valve	6" Supply	9	EA	1941
Water Treatment System (orthophosphate/polyphosphate, and Chloramine injection)		1	EA	1995
Water Meter	2"	1	EA	2000
Water Meter	1.5"	1	EA	2000
Water Meter	1"	1	EA	2000
Area A				
Copper Pipe	2 inch	150	LF	1956
Ductile Iron Pipe	6 inch	100	LF	1979
Valve, Gate	2 inch	2	EA	1956
Valve, Gate	6 inch	1	EA	1979
Post Indicators for Valves	4" to 14"	1	EA	1979
Fire Hydrants w/ valve	6" Supply	2	EA	1979

Notes:

EA = Each

GAL= Gallon

HP = Horsepower

KGAL = Thousand gallons

LB = Pound

" = Inches

TABLE 1B
 Fixed Inventory, Area D
 Water Distribution System Minneapolis-St. Paul ARS

Item	Size	Quantity	Unit	Approximate Year of Construction
Copper Pipe	1 ½ inch	80	LF	1960
Copper Pipe	2 inch	200	LF	1970
Copper Pipe	2 inch	140	LF	1980
Copper Pipe	3 inch	80	LF	1980
Copper Pipe	4 inch	300	LF	1970
Ductile Iron Pipe	1 ½ inch	300	LF	1950
Ductile Iron Pipe	2 inch	900	LF	1950
Ductile Iron Pipe	2 ½ inch	540	LF	1950
Ductile Iron Pipe	3 inch	80	LF	1950
Ductile Iron Pipe	4 inch	410	LF	1950
Ductile Iron Pipe	6 inch	1,395	LF	1950
Ductile Iron Pipe	8 inch	10,070	LF	1950
Ductile Iron Pipe	10 inch	220	LF	1950
Steel Pipe	2 inch	420	LF	1997
Steel Pipe	4 inch	100	LF	1997
Steel Pipe	6 inch	199	LF	1997
Valve, Gate	1 ½ inch	4	EA	1950
Valve, Gate	2 inch	14	EA	1950
Valve, Gate	3 inch	3	EA	1950
Valve, Gate	4 inch	2	EA	1950
Valve, Gate	6 inch	11	EA	1950
Valve, Gate	8 inch	17	EA	1950
Valve, Gate	10 inch	3	EA	1950
Fire Hydrants w/ valve	6" Supply	26	EA	1950
Fire Hydrants w/ valve	6" Supply	9	EA	1997
Backflow Devices	10 inch	1	EA	1997
Meters	10 inch	1	EA	1997

Notes:
 LF = Linear Feet
 EA = Each
 " = Inches

J2.2.2 Water Distribution 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

Water Distribution System Minneapolis-St. Paul ARS

Qty	Item	Make/Model	Description	Remarks
None				

TABLE 3

Specialized Vehicles and Tools

Water Distribution System Minneapolis-St. Paul ARS

Description	Quantity	Location	Maker
None			

J2.2.3 Water Distribution 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

Water Distribution System Minneapolis-St. Paul ARS

Qty	Item	Description	Remarks
1 Sheet	Drawing	Domestic and Fire Water Systems (Area N)	Hard Copy
1 Sheet	Drawing	Water Supply System, Tab G1, (Area N)	Hard Copy
1 Sheet	Drawing	Project # QJKL 92-0012, Bldg 395 Fire Line, Drawing C-1, (Area A)	Hard Copy
1 file	Drawings	Water System (Base Drawings) (Area D)	AutoCad (updated 1998)

J2.3 Specific Service Requirements

The service requirements for the Minneapolis-St. Paul ARS Area A & N water distribution system are as defined in the Section C, *Description/Specifications/Work Statement*. The following requirements are specific to the Minneapolis-St. Paul ARS water distribution

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.

The contractor shall provide a Consumer Confidence Report as required by the State.

The contractor shall obtain a permit to operate the water treatment system at Area N.

J2.4 Current Service Arrangement

The City of Minneapolis currently provides all water required by Minneapolis-St. Paul ARS, and has adequate capacity to meet current and anticipated demands. Annual water consumption for Areas A & N is based on an average of billing records for fiscal years 2001 and 2002. For this period, Area A and Area N had an average annual consumption of 10,601 KGAL. Annual water consumption for Area D in fiscal year 2002 was 7,070 KGAL. Areas A and N had a combined maximum monthly consumption of 1,159 KGAL in March of 2002, and a minimum monthly consumption of 818 KGAL in June 2002. For area D, the monthly maximum was 2,087 KGAL in September 2002 and the monthly minimum was 211 KGAL in December 2001.

J2.5 Secondary Metering

See Attachment J52, Metering Plan, for additional metering requirements.

J2.5.1 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 for all secondary meters IAW Paragraph C.3 and J2.6 below.

TABLE 5A

Existing Secondary Meters, Area A and N
Water Distribution System Minneapolis-St. Paul ARS

Meter Location (Building Number)	Meter Type	Size (inches) (year Installed)
744 Area N	Irrigation	2" /2000
750 Area N	Irrigation	1.5" /2000
752 Area N	Irrigation	1" /2000

TABLE 5B

Existing Secondary Meters
Water Distribution System Minneapolis-St. Paul ARS

Meter Location (Building Number)	Meter Type	Size (inches) (year Installed)
660, Area D	Master	10" /1997

J2.5.2 Required New Secondary Meters

The Contractor shall install and calibrate new secondary meters as listed in **Table 6**. New secondary meters shall be installed IAW Paragraph C.13, Transition Plan. After installation, the Contractor shall maintain and read these meters IAW Paragraphs C.3 and J2.6 below.

TABLE 6A

New Secondary Meters, Area A and N
Water Distribution System Minneapolis-St. Paul ARS

Water Meter Location	Meter Type	Water Meter Size
745	Irrigation	1.5"
777	Irrigation	2"

TABLE 6B

New Secondary Meters, Area D
Water Distribution System Minneapolis-St. Paul ARS

Water Meter Location (Building Number)	Service Size	Water Meter Size
608	1"	1"
610	2"	1.5"
614	3"	2"
618	1"	1"
631	4"	3"
631 (Irrigation)	2"	1.5"
638	2.5"	2"
640	2"	1.5"
641	2"	1.5"
641	6"	4"
642	4"	3"
642 (Irrigation)	2"	1.5"
645	3"	2"
656	2"	1.5"
656 (Irrigation)	2"	1.5"
659	2"	1.5"
662	4"	3"
670	1.5"	1"
680	6"	4"
680	4"	3"
683	1.5"	1"
685	4"	3"
685	4"	3"
686	2"	1"
687	4"	3"

J2.6 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: 934 LSS/LGC
Address: 760 Military Highway
Minneapolis, MN 55450-2100
Phone number: 612-713-1432

2. 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 be submitted by the 25th of each month for the previous month. Outage reports shall be submitted to:

Name: 934 SPTG/CE
Address: 760 Military Highway
Minneapolis, MN 55450-2100
Phone number: 612-713-1946

With a copy to:

Name: Contracting Officer
Address: 760 Military Highway
Minneapolis, MN 55450-2100
Phone number: 612-713-1432

3. Meter Reading Report. The meter reading report shall show the current and previous month readings for all master meters and every three months for identified 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:

Name: 934 SPTG/CE
Address: 760 Military Highway
Minneapolis, MN 55450-2100
Phone number: 612-713-1946

With a copy to:

Name: Contracting Officer
Address: 760 Military Highway
Minneapolis, MN 55450-2100
Phone number: 612-713-1432

J2.7 Water Conservation Projects

IAW Paragraph C.3, Utility Service Requirement, no projects have been implemented by the Government for conservation purposes.

J2.8 Service Area

IAW Paragraph C.4, Service Area, the service area is defined as all areas within Area A & N of the Minneapolis-St. Paul ARS boundaries.

J2.9 Off-Installation Sites

No off-installation sites are included in the sale of the Minneapolis-St. Paul ARS water distribution system.

J2.10 Specific Transition Requirements

IAW Paragraph C.13, Transition Plan, **Table 7** provides a listing of service connections and disconnections required upon transfer. Also, see permit requirements identified in Section J2.3.

TABLE 7
Service Connections and Disconnections
Water Distribution System Minneapolis-St. Paul ARS

Location	Description
None	

J2.11 Government Recognized System Deficiencies

Table 8 provides a listing of system improvements that the Government has planned. The Government recognizes these improvement projects as representing current deficiencies associated with the Minneapolis-St. Paul ARS Area A & N water distribution 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 Sub-CLIN Project. Renewal and Replacement projects will be recovered through Sub-CLIN A(y).

TABLE 8
System Deficiencies
Water Distribution System Minneapolis-St. Paul ARS

Project Location	Project Description

