



**Request for City Council Committee Action  
From the Department of Public Works and Procurement**

**Date:** September 14, 2006  
**To:** Honorable Sandra Colvin Roy, Chair Transportation & Public Works Committee  
**Referral to:** Honorable Paul Ostrow, Chair Ways & Means Committee  
**Subject:** **Acceptance of the bid of Pall Corporation for Ultrafiltration Equipment for the Membrane Filtration Plant in Fridley (Official Publication #6518)**

**Recommendation:**

Acceptance of the bid of Pall Corporation for Ultrafiltration Equipment for the Membrane Filtration Plant in Fridley for an estimated expenditure of \$17,500,000.00. Funds are available within the project budget (Water 7400/ 950/ 9515/ C5200024).

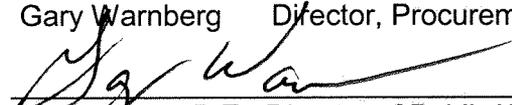
Further recommend proper Officers be authorized and directed to execute a contract for this project all in accordance with specifications prepared by HDR Engineering, Inc.

Contingent on approval by the Civil Rights Department.

**Previous Directives:**

- On September 23, 2005, the City Council authorized execution of agreements with up to five qualified equipment manufacturers to conduct performance testing of ultrafiltration membrane pilot-scale systems.

**Prepared by:** Gary Warnberg Director, Procurement

**Approved by:**   
Steve Kotke, P.E., Director of Public Works/City Engineer

**Presenters:** Dale A. Folen or Shahin Rezania Public Works Water Department

Permanent Review Committee (PRC) Approval \_\_\_\_\_ Not applicable  X   
Policy review Group (PRG) Approval \_\_\_\_\_ Not applicable  X

**Financial Impact** (Check those that apply)

- X  No financial impact - or - Action is within current department budget (If checked, go directly to Background/Supporting Information)
- \_\_\_\_\_ Action requires an appropriation increase to the Capital Budget
- \_\_\_\_\_ Action requires an appropriation increase to the Operating Budget
- \_\_\_\_\_ Action provides increased revenue for appropriation increase
- \_\_\_\_\_ Action requires use of contingency or reserves
- \_\_\_\_\_ Business Plan:  X  Action is within the plan. \_\_\_\_\_ Action requires a change to plan.
- \_\_\_\_\_ Other financial impact (Explain):
- \_\_\_\_\_ Request provided to department's Finance Dept. contact when provided to the Committee Coordinator

## Community Impact

Neighborhood Notification: Not Applicable

City Goals: "A Safe Place To Call Home" the city's infrastructure will be well-maintained.

Comprehensive Plan: Not Applicable

Zoning Code: Not Applicable

## Background/Supporting Information

The City of Minneapolis Capitol Improvement Plan includes building a new Ultrafiltration (UF) water treatment plant. The proposed plant, called the Fridley Membrane Filtration Plant (FMFP) will be connected to the existing Fridley Filtration Plant (FFP), which was constructed in 1925. The proposed plant will produce 95 million gallons per day (mgd) in the summer, and 70 mgd in the winter. The primary objective of the Ultrafiltration program is to provide physical removal of pathogenic microorganisms and improve the quality of water delivered to the citizens of Minneapolis.

Public Works, with the technical assistance of consultants, conducted a treatment feasibility study for the entire water supply and treatment system. The team recommended two new membrane filtration plants, one at the Columbia Heights Filtration Plant site, and the second near the existing FFP site.

The project is proceeding in phases. The Phase One was the procurement of Ultrafiltration equipment for the Membrane Filtration Plant at Columbia Heights (CHMFP). Phase Two was the design and construction of the CHMFP. These phases were completed in 2005. Testing and confirmation of that plant operation occurred through much of 2006.

Phase Three (current request) is the procurement of membrane filtration equipment for FMFP at Fridley. Phase Four is the design and construction of the FMFP building, piping, and ancillary systems to house and operate the UF equipment. Both of these phases are currently underway.

## Current Request

Official Publication #6518 solicited bids for the procurement of Ultrafiltration equipment for the proposed treatment plant. Three manufacturers submitted Technical Information Packages along with their sealed (price) bid. All three bidders were qualified to enter a 7-month Performance Testing to evaluate membrane capacity, operational efficiency, life-cycle costs, and design parameters of each manufacturer's ultrafiltration system. Two of the manufacturers passed all of the detailed performance requirements, and their sealed price bids were opened.

Item	Unit Price	Quantity (Base Bid)	Cost
First 8 UF Membrane skids	\$875,000.00	8	\$7,000,000.00
UF Membrane Skids # 9 to 32	\$662,000.00	12	\$7,944,000.00
Backwash Pumps	\$53,625.00	8	\$429,000.00
Backwash Blowers	\$47,667.00	3	\$142,000.00
Process Blowers	\$20,667.00	3	\$62,000.00
Clean-In-Place Pumps	\$44,000.00	6	\$264,000.00
Total Base Bid Price			\$15,842,000.00
Membrane Module Replacement Cost		Each	\$2,100.00
Membrane Module Warranty Period		(prorated)	84 months

Life-Cycle cost calculations showed that Ultrafiltration Equipment from Pall Corporation had a substantially lower long-term cost than the other manufacturer. The initial capital costs for the Pall Corporation system were also lower than those of the other manufacturer. The base bid for the Pall system was \$15,842,000.

The bid included several unit prices to allow flexibility in the design of the treatment plant. It is recommended that Public Works staff be authorized to determine the optimal number of units for the various items. We recommend awarding a contract to Pall Corporation with a total not to exceed \$17,500,000.

Note: The current price of the UF equipment seems reasonable compared to the previous project. On November 21, 2001, the City Council accepted a low bid for ultrafiltration equipment for the Membrane Filtration Plant at Columbia Heights. The contract was \$17,000,000.00 for a plant capacity ranging from 45 mgd in winter to 70 mgd in summer.

Attachments: Tabulation Sheet

CC: Shahin Rezania, P.E., Interim Director of Water Treatment and Distribution Services  
Dale A. Folen, P.E., Engineering Services at Minneapolis Water Works  
Roger Nubbe Civil Rights

"RE-BID FOR MEMBRANE FILTRATION EQUIPMENT FOR FRIDLEY FILTRATION PLANT" - P/W Water

Offl. Publ. #6518  
 Bids opened 10 AM, CDST  
 June 14, 2006  
 Minneapolis MN

*Rochell Corp.  
 Membrane  
 Sys. Inc.*

	TOTAL BASE BID	\$	<i>23,619,400.</i>
7.6	Sum 7.6.1 thru 7.6.5	\$	<i>15,842,000</i>
7.7	Membrane Module Replacement Cost	\$	<i>3,195.00</i>
7.8	Membrane Module Performance Warranty Period	\$	<i>2,100?</i> <i>36</i> <i>84 months</i>

We, the undersigned, hereby certify that the above bids were publicly opened and read aloud:

*Edgar Jackson*  
 FINANCE OFFICER

*David M. Brown*  
 ASST. DIRECTOR, PURCHASING