



CITY OF RICHMOND

REPORT TO COMMITTEE

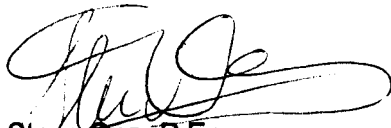
TO: Public Works and Transportation Committee
FROM: Steve Ono, P.Eng.
Director, Engineering
RE: **Mitchell Island Watermain Crossing**

TO FW+T - Nov. 7/01
DATE: October 25, 2001
FILE: 6340-20-P.00412

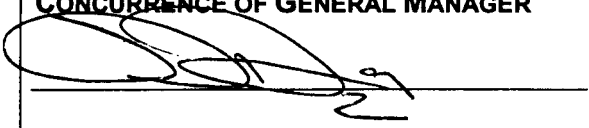
STAFF RECOMMENDATIONS

It is recommended that:

1. The City of Richmond enter into a contract with P. Baratta Construction Limited in accordance with Tender T.1528 for the construction of the Mitchell Island Watermain Crossing for the total tendered amount of \$839,020.00 plus GST.
2. An additional \$157,401 from the 2000 Water DCC Bylaw No. 7080 be allocated to the Mitchell Island Watermain Crossing project.



Steve Ono, P.Eng.
Director, Engineering

| FOR ORIGINATING DIVISION USE ONLY | | |
|-----------------------------------|--|--|
| ROUTED TO: | CONCURRENCE | CONCURRENCE OF GENERAL MANAGER |
| Water Services | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> |  |
| Budgets | Y <input checked="" type="checkbox"/> N <input type="checkbox"/> | |

STAFF REPORT

ORIGIN

The Mitchell Island Watermain Fraser River Crossing project is included in the 2001 Capital Program. The purpose of this report is to obtain approval from Council to proceed with contract award and construction of this project.

BACKGROUND

Mitchell Island receives its potable water from Lulu Island through a watermain hung under the Knight Street Bridge. In 1999, a barge hit the Knight Street Bridge and disrupted the only water supply to Mitchell Island. This detrimentally impacted many businesses that rely on potable water while the watermain's condition was assessed and repaired over the following couple of weeks. This project will provide a second water supply to Mitchell Island. Should one watermain be out of service for whatever reason, the impact to local business will be negligible.

In addition, the proposed watermain is being designed to withstand a seismic event. The watermain location and construction methodologies reflect the intent for the watermain to remain intact post-disaster.

Scope of Work

This project entails directional drilling a new watermain under the Fraser River to Mitchell Island. The proposed watermain alignment is from Simpson Road on Lulu Island at the south end to Page Street on Mitchell Island at the north end. The required rights-of-way through the private properties at both the north and south sides have been acquired.

The drilling rig will be set up on Mitchell Island to drill from north to south. The new watermain will be stretched out along Simpson Road and subsequently pulled into the drilled excavation from south to north.

There will be a two week material delivery period upon contract award. Therefore, construction is expected to commence in mid-November 2001 with completion by the end of February 2002.

Appended is a drawing of the proposed watermain alignment.

ANALYSIS

Tender Results

The consultant's tender estimate was \$660,000. Two tenders for this project were received, and were reviewed by the City's Engineering staff. Tenders were as follows:

| TENDERER | TOTAL TENDERED AMOUNTS |
|---------------------------------|------------------------|
| P. Baratta Construction Limited | \$ 839,020.00 |
| B. Cusano Contracting Limited | \$ 1,015,000.00 |

All tenders were checked for legal or mathematical errors. The low bidder for contract T.1528 is P. Baratta Construction Limited. This contractor has recently successfully completed a similar project as well as others in the past and is therefore acceptable to staff.

FINANCIAL IMPACT

Funding details are shown in APPENDIX A.

| | |
|----------------------------|--|
| Funding Required | \$ 1,057,401.00 |
| Current Funding Available | \$ 900,000.00 |
| Additional Funding Sources | \$ <u>157,401.00</u> (2000 Water Utility Bylaw 7080) |
| Balance | \$ <u>0.00</u> |

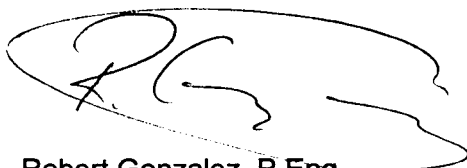
The 2000 Water DCC Bylaw No. 7080 currently has \$320,800 of unallocated excess funds. Therefore, allocating \$157,401.00 in additional funds from this Bylaw to the Mitchell Island Watermain Project will have no impact on current capital projects and will provide sufficient funds for this project to proceed.

DISCUSSION

Tender prices for directional drilling contracts of this size and complexity fluctuate with market demands for this type of work. There are relatively few contractors in North America with the capacity to successfully undertake such projects. The increase in required funding is attributable to higher than anticipated market demands for contractors having the necessary specialized expertise and equipment. This is very evident in the Lower Mainland where only one local contractor has the required machinery and expertise for a directional drilling project of this size and complexity. All other contractors are either from Alberta or the United States.

CONCLUSION

The tender being recommended for award is the lowest of the tenders received. The tender from P. Baratta Construction Limited has been reviewed and is in order. It is therefore recommended that the project be awarded to P. Baratta Construction Limited.



Robert Gonzalez, P.Eng.
 Manager, Engineering Design and Construction

RG:rg

APPENDIX A

| COST BREAKDOWN: TENDER NO. T. 1528 | |
|---|------------------------|
| Tender | \$ 839,020.00 |
| GST (3%) | \$ 25,171.00 |
| Overhead on Tender (5%) | \$ 43,210.00 |
| City Amount | \$ 100,000.00 |
| SubTotal | \$ 1,007,401.00 |
| Contingency (5%) | \$ 50,000.00 |
| Estimated Total Project Cost | \$ 1,057,401.00 |

Current funding sources are as follows:

| Funding Source: Tender T.1528 | Project | Funding Approval to Date | Total Package Funding Required | Additional Funding Required (Unallocated) |
|--------------------------------------|--------------------------------------|--------------------------------|--------------------------------------|--|
| 2000 Cap Rsv Bylaw No. 7079 | 2 nd Crossing Mitchell | \$ 30,000.00 | \$ 30,000.00 | \$ 0.00 |
| 2000 DCC Water Bylaw No. 7080 | 2 nd Crossing Mitchell | \$ 470,000.00 | \$ 470,000.00 | \$ 0.00 |
| 2001 Water Utility Bylaw No. 7248 | 2 nd Crossing Mitchell | \$ 400,000.00 | \$ 400,000.00 | \$ 0.00 |
| TOTAL | | \$ 900,000.00 | \$ 900,000.00 | \$ 0.00 |

Additional funding source is as follows:

| Funding Source: Tender T.1528 | Bylaw Funds Approved | Current Excess Unallocated Bylaw Funds* | Total Package Funding Required | Remaining Excess Unallocated Bylaw Funds |
|----------------------------------|-------------------------|---|--------------------------------------|---|
| 2000 Water DCC Bylaw No. 7080 | \$ 1,233,280.00 | (\$ 320,800.00)* | \$ 157,401.00 | (\$ 163,399.00) |
| TOTAL | \$ 1,233,280.00 | (\$ 320,800.00)* | \$ 157,401.00 | (\$ 163,399.00) |

*Note excess bylaw funds are a result of watermain projects completed within budget.

VANCOUVER

MITCHELL ISLAND

PAGE ST

TWIGG PL

EBURNE PL

EBURNE WAY

MILLCARCH ST

TWIGG PL

MITCHELL RD

EBURNE WAY

PROPOSED WATERMAIN

RIVER RD

SIMPSON ROAD

RICHMOND