CITY OF RICHMOND

REPORT TO COMMITTEE

To PW+T- June 19/02

TO: Public Works and Transportation Committee
DATE: June 3, 2002

FROM: Steve Ono, P.Eng.
Director, Engineering
FILE: 6400-01

RE: Approval for Additional Ageing Sewer Pipe Assessment Work

STAFF RECOMMENDATION

That $428,000.00 of excess sewer utility funding from the 2000 Sanitary Sewer Infrastructure Rehabilitation capital project (#45606) be allocated for assessment of an additional 50 kilometres of ageing sanitary sewer in the Fraser and City Centre sewerage areas in 2002 and 2003.

Steve Ono, P.Eng.
Director, Engineering

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Budget ..... Y ☑ N ☐	
Sewerage & Drainage..... Y ☑ N ☐	

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STAFF REPORT

ORIGIN

In 2000, Council approved $1,087,000 for rehabilitation of 8.5 km of ageing sanitary sewers in the Steveston sewerage area. Specialist contractors and City forces completed this project well within budget at an estimated final cost of $330,000. Subsequently, in 2001 Council approved the use of $320,000 of the remaining balance for assessment of additional ageing sanitary sewers in the Shellmont sewerage area (project #40608).

The purpose of this report is to obtain Council approval to advance the next phase of sewer assessment in the Fraser and City Centre sewerage areas with the remaining funds.

ANALYSIS

The funding surplus for the Steveston sanitary sewer rehabilitation project is attributable to efficiencies realized during the detailed design stage of this project. Staff recognized that the assistance of a consultant with expertise specific to the area of sewer condition assessment and trenchless technology for sewer rehabilitation could benefit the City and the Steveston residents by minimizing construction disturbance and cost.

The success of this project has led staff to undertake similar approaches to sanitary sewer rehabilitation in other areas. An investigation in Shellmont with the funding approved by Council in 2001 is currently in progress. In order to expedite sanitary sewer infrastructure assessments, staff recommend that the balance of funds be allocated to analyse 50 kilometres of sanitary sewer in the Fraser and City Centre sewerage areas, the next priority areas.

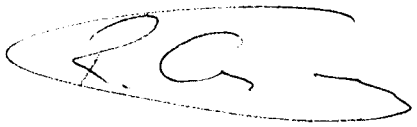
The Fraser sanitary sewerage area generally comprises some 9 kilometres of poly-vinyl chloride (PVC) pipes. The City Centre sewerage area comprises approximately 86 kilometres (only 41 kilometres will be inspected with the requested funds) of which approximately 63% is PVC, 29% asbestos cement (AC), and 8% fibreglass reinforced plastic (FRP) pipes. Public Works staff have noted these areas to be problematic due to relatively high maintenance needs over the past few years. Assessing the sanitary sewer is the first step in planning rehabilitation of the Fraser and City Centre sanitary sewers.

FINANCIAL IMPACT

The 2000 Steveston Sanitary Sewer Rehabilitation project (#45606) is complete and $320,000 has already been allocated to sanitary sewer assessment in Shellmont (#40608), leaving a balance of $468,977. Utilizing $428,000 for additional sanitary sewer assessment in the Fraser and City Centre areas will not impact the current capital program. The remaining $40,977 will stay in the 2000 Steveston Sanitary Sewer Rehabilitation project to address unforeseen deficiencies that may be encountered during final inspection.

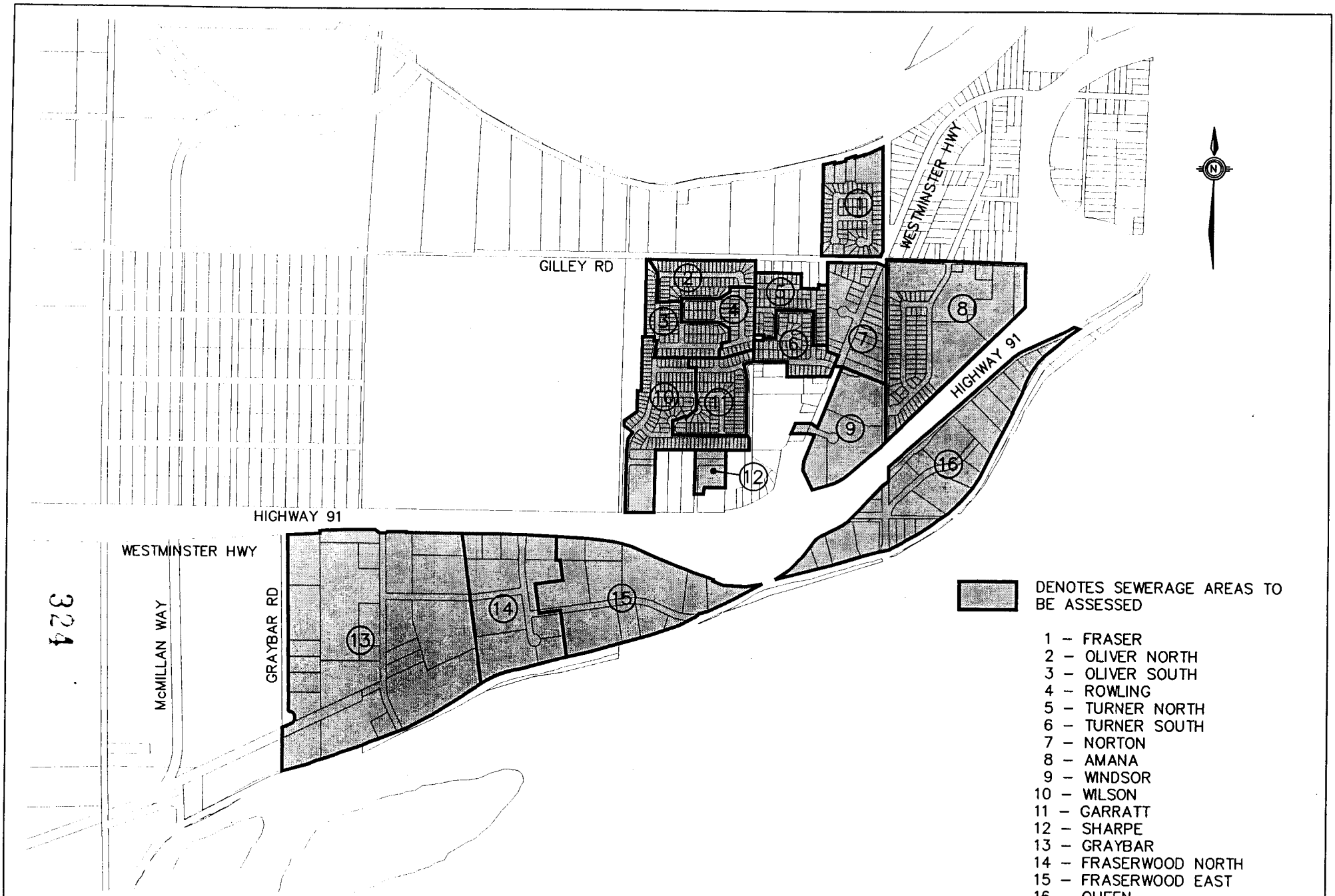
CONCLUSION

The City has successfully completed rehabilitation of ageing sanitary sewers in the Steveston area with extensive use of trenchless technologies and is in the process of analysing sanitary sewers in the Shellmont area. The work done to date in Steveston alone has resulted in significant cost savings. Accordingly, staff recommend that the balance of the remaining funds be dedicated to advance the assessment of ageing sanitary sewers in the Fraser and City Centre areas in preparation for rehabilitation of sanitary sewers.

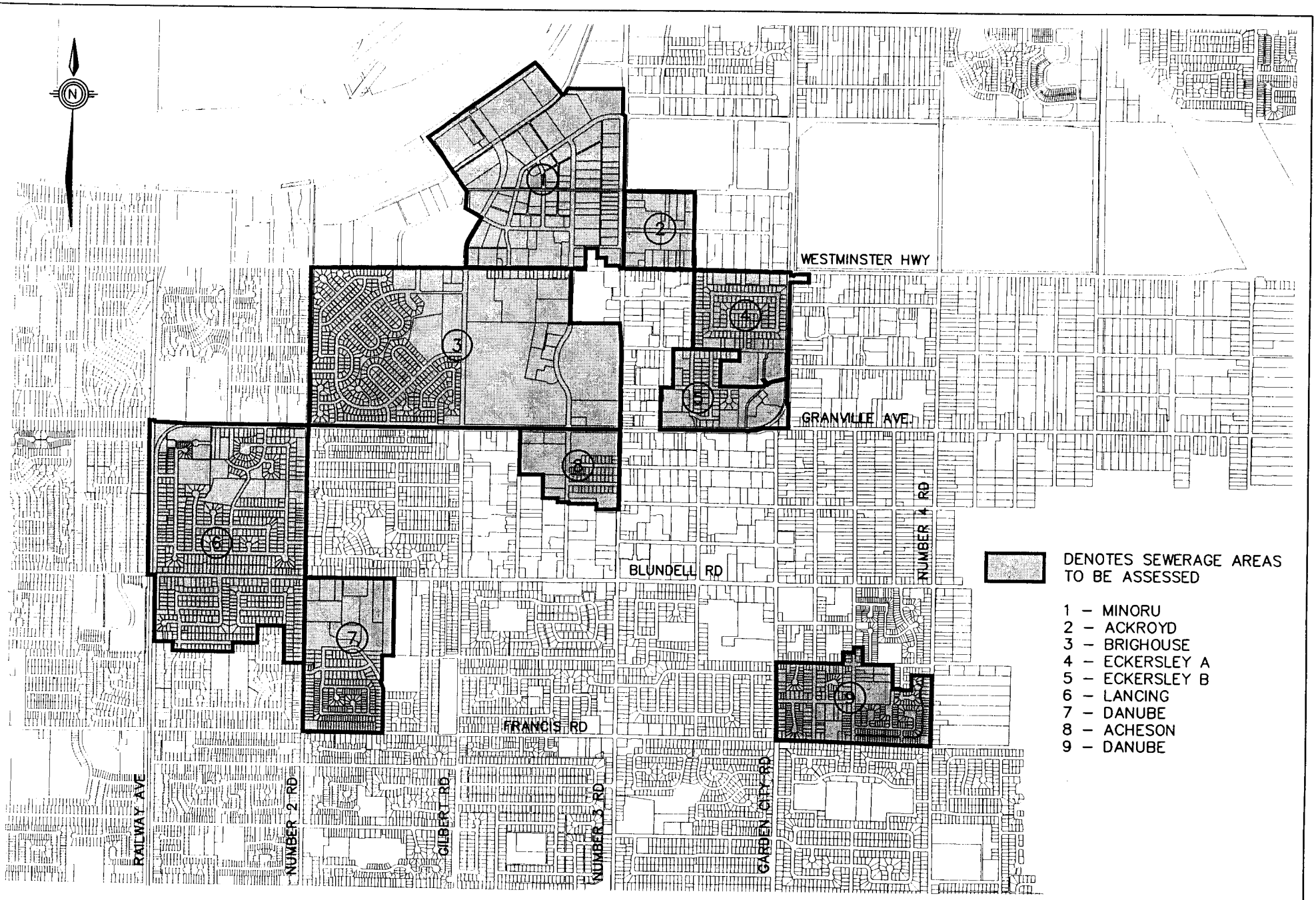


Robert Gonzalez, P.Eng.
Manager, Engineering Design & Construction

RG:rg



FRASER SEWERAGE ASSESSMENT AREAS



CITY CENTRE SEWERAGE ASSESSMENT AREAS