

REGION OF OTTAWA-CARLETON
RÉGION D'OTTAWA-CARLETON

REPORT
RAPPORT

Our File/N/Réf. Your File/V/Réf.	50 05-99-0001B
DATE	08 March 1999
TO/DEST.	Co-ordinator Planning and Environment Committee
FROM/EXP.	Director Engineering Division Environment and Transportation Department
SUBJECT/OBJET	ASSUMPTION OF A SECTION OF THE CITY OF OTTAWA SANITARY SEWER (RIVERSIDE DRIVE AREA)

DEPARTMENTAL RECOMMENDATION

That the Planning and Environment Committee recommend Council approve the assumption of the Riverside Sanitary Sewer from the intersection of Neil Way and Riverside Drive to the Rideau River Collector.

BACKGROUND

(A) Study Area - Riverside Drive/Neil Way

The Rideau River Collector (RRC) sewer system (Annex A) is one of the largest flow contributors to the Ottawa Interceptor Outfall sewer.

The RRC system pipe network contains three distinct reaches:

- Lower Reach - from the Keefer regulator to the Rideau Interceptor Connection
- Middle Reach - from the Rideau Interceptor to Billings Bridge Plaza
- Upper Reach - from Billings Bridge Plaza to Walkley Road

The system has limited pipe capacity along its middle reach due to weeping tile contributions and relatively gentle slopes at numerous pipe sections. The lower reach of the system is subjected to elevated flows from combined sewers. This limited capacity results in system surcharge with potential for basement flooding.

In the middle reach, along Riverside Drive near Frobisher Lane and Neil Way, the system is fairly shallow, with basement levels less than 1.3 m above the pipe invert. Flooding in the Riverside

Drive and Neil Way area (Annex B) is attributable to elevated and extraneous flow contributions and the restriction of capacity in the middle reach of the RRC.

The affected area includes the residences on Neil Way and those on Riverside Drive between Neil Way and Pleasant Park Drive. This is a small (1.3 hectares) collection system with an outlet to the RRC as it crosses Riverside Drive. South of Riverside Drive, the fairly steep topography is such that the other areas in the vicinity are less susceptible to flooding than those in the Neil Way area.

(B) Regional Significance

The Regional Official Plan sets out criteria to designate proposed work of regional significance. Although the Regional Official Plan speaks only of proposed works, the same criteria has been applied by the Region for the assumption of existing works from area municipalities, reference Section 3.10 of the Wastewater Master Plan. Alleviating the flooding of basements in the Riverside Drive and Neil Way area is regionally significant due to operational considerations.

“Consider designating a proposed work to be a Work of Regional Significance where a sanitary sewer or pumping station does not meet either of the first two criteria described above, but is significant due to certain financial or operational considerations. The following consideration may be taken into account in designating such works:

- a) impact on overall system operating efficiency;
- b) effect on overall system performance;
- c) cost-effectiveness.”

In addition to the above considerations, regional works should ensure ... “that the performance of the system as a whole is optimized” and that the proposed works “are directly connected to an existing Regional sewer...”.

The risk of basement flooding near Neil Way is directly related to surcharge elevations in the RRC. The RRC surcharges into the local sanitary sewers and eventually into basements via the house lateral. Surcharging to the flood levels in this area has a recurrence frequency of approximately once every two years.

DISCUSSION

The objective of assuming approximately 110 meters of the City of Ottawa sewer in Riverside Drive is to protect the Neil Way residents from basement flooding with a solution that will be controlled by the Region. The proposed solution, as described below, is easy to implement and is simple to operate and maintain. This solution is recommended on the basis that the RRC is a contributing factor to the operational problems in the area.

Regional staff have reviewed the T.V. inspection reports for the Riverside sewer and found it to be in good condition, requiring no upgrades at this time.

This report deals with the assumption of the above-noted infrastructure only. It should be noted that the sanitary service connections (from the sewer to the property line) outletting to these sewers will remain the responsibility of the City of Ottawa or the property owner as required by subsection 5.4.5(8) of the Regional Regulatory Code.

The regular tender process will be followed to award the contract for construction of the improvements. The recommended solution (Annex C) to prevent basement flooding is to provide off-line storage capacity and a check valve on the Riverside gravity sewer to prevent sewage backup from the RRC. These improvements are estimated to cost \$80,000. Under normal conditions, the Riverside sewer would continue to discharge wastewater to the Rideau River Collector. Under surcharge conditions, the check valve would prevent flows from backing up and local sanitary flows would be diverted to off-line storage with capacity for detaining local flows for a period of up to 12 hours. Regional Operations staff would respond within the designed period with portable pumping equipment or vacuum trucks to empty the off-line storage. It is proposed that the storage facility be located within the Neil Way right-of-way with ownership and operation by the Region.

CONSULTATION

The public consultation process is not applicable since this is only a transfer of ownership of existing infrastructure with upgrades not affecting private property and will have no negative impact on the public. The City of Ottawa is in agreement with the transfer of ownership of this section of the Riverside sewer (Annex D).

REGIONAL OFFICIAL PLAN CONFORMITY

The proposed assumption outlined in the Background is in accordance with Policy 10.2.2 of the Regional Official Plan, designating proposed works as Regionally Significant and with Section 3.10 of the Wastewater Master Plan which deals with the Assumption of Works.

FINANCIAL STATEMENT

The infrastructure being considered for assumption has no outstanding municipal debt. The annual operating and maintenance costs are estimated to be \$1,000 and will be included in the Operating Budget.

*Approved by
J. Miller, P.Eng.*

JC/gc

Figure 1: Central Wastewater Collector Sewer System

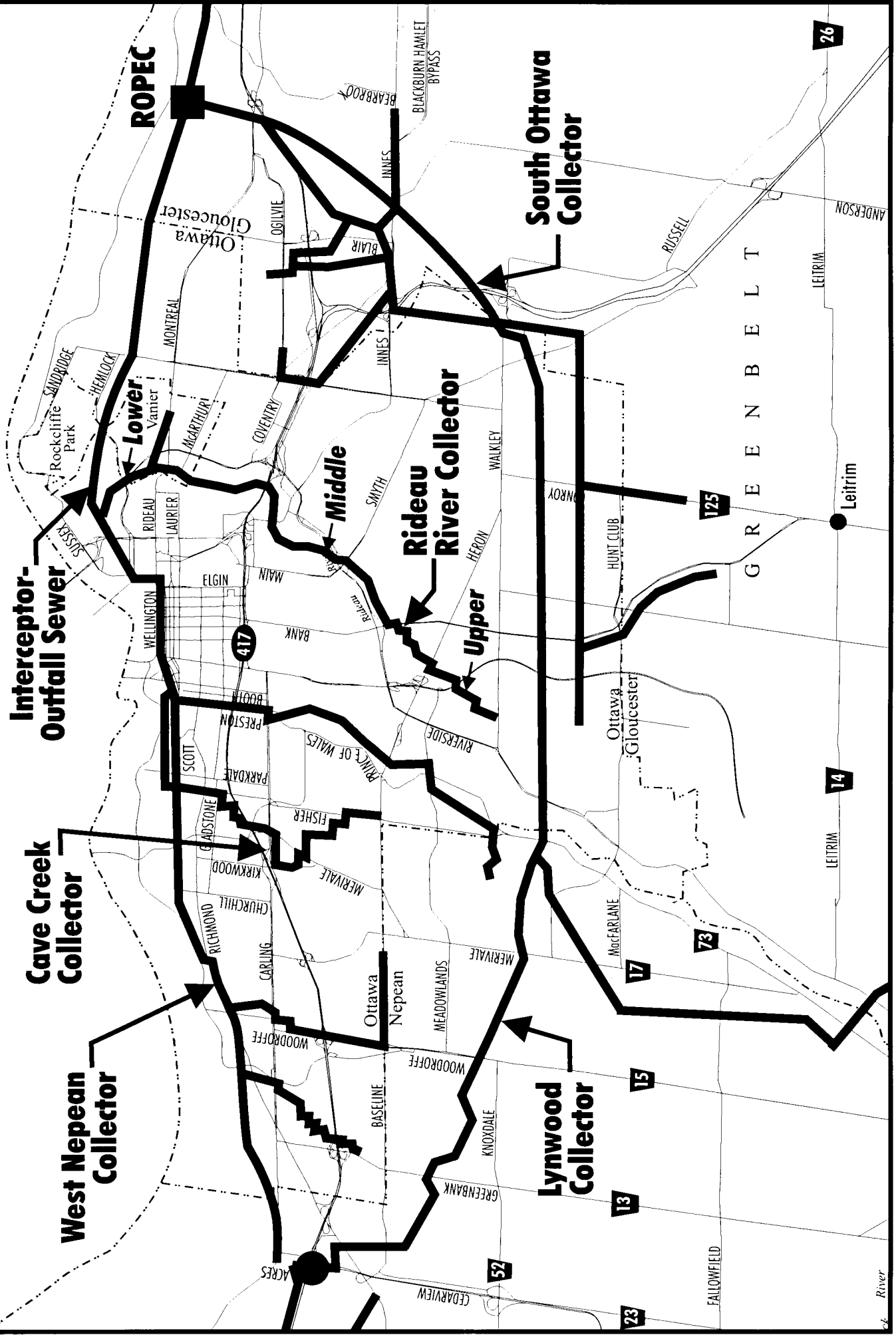


Figure 2

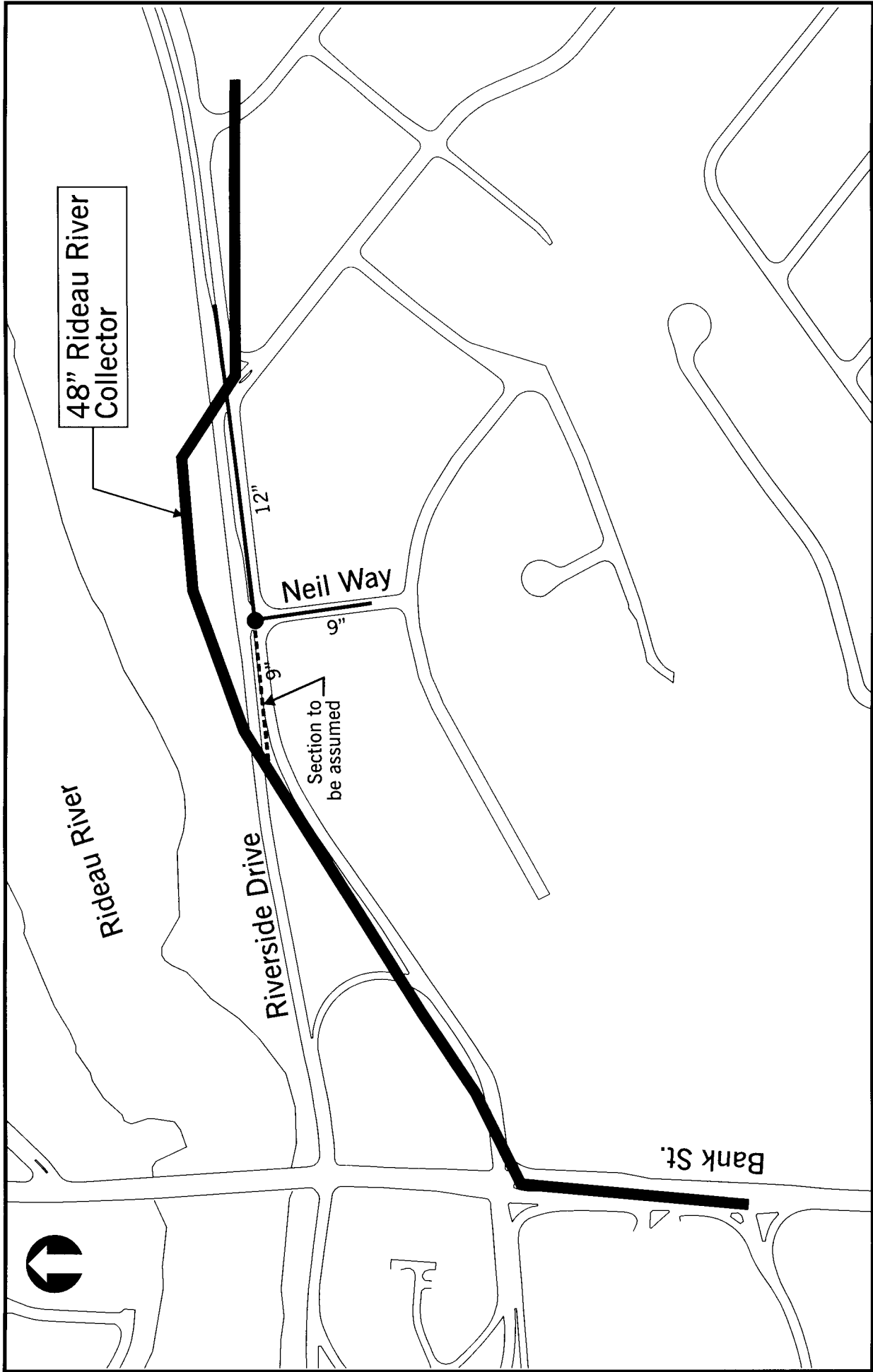
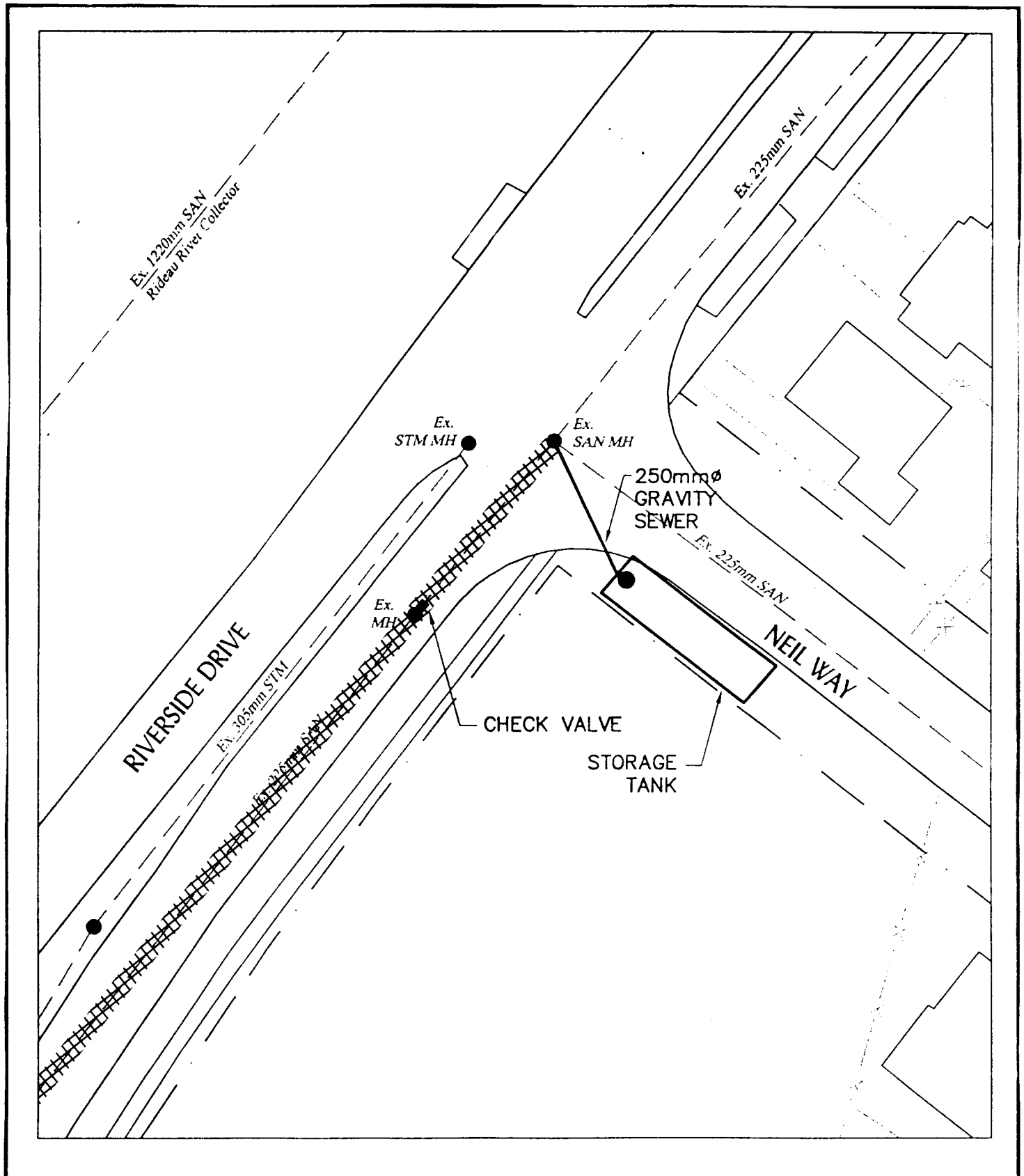


Figure 3-Preferred Solution





February 23, 1999

EW-1560-27/R76

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MAR 01 1999	
FILE NO.:	
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FILE:	COPIES SENT TO:

Attention: John Fraser, P.Eng., Senior Approvals Engineer

Dear Mr. Fraser:

Subject: Riverside Drive Sewer

This letter is further to your letter dated January 26, 1999, your File No. 50-99-0001B, regarding a proposal to assume the existing City sewer on Riverside Drive. We have reviewed your conceptual design and in principle, the Engineering Branch has no objection to the Region of Ottawa-Carleton assuming ownership of the sewer on Riverside Drive from Neil Way westerly to the Rideau River Collector.

Yours truly,

W.R. Cole, P. Eng.
 Director of Engineering
 Engineering Branch

RB/DA:sef
 ENG0120-RIVERSIDE DRIVE SEWER.wpd

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