

SERVICEABILITY STUDY REPORT

**Kanata Research Park Corporation
4th Line Road Subdivision**

**Novatech Engineering Consultants Ltd.
July, 2000**

REF# R-2000-1

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1.0 INTRODUCTION

The 4th Line Road Subdivision is located within the City of Kanata and has a total area of approximately 52ha. The property is bounded by the 4th Line Road to the east and south, the Ottawa Central Railway to the west, and Klondike Road to the north (See Figure 1 – Key Map of Location).

This report has been prepared to outline the servicing options proposed for the development and presents conceptual water supply and wastewater system solutions for the subdivision. The stormwater management system for the development has been addressed in a Master Drainage Report by Novatech (1992) and its conclusions are outlined in this report.

2.0 WATER SUPPLY SYSTEM

As part of the Kanata Research Park Subdivision construction a 406mm ϕ watermain is proposed from Terry Fox Drive to a location just north of the OCR Railway tracks on the proposed 4th Line Road Realignment. For the development of the 4th Line Road Subdivision, the 406mm ϕ will be extended along the 4th Line Road Realignment to Klondike Road and then west along Klondike Road to the proposed extended feedermain on March Road. The need for additional infrastructure for March Road has been identified in the Master Plan and the extension of a 610mm ϕ Feedermain has been proposed along March Road to Klondike Road. Alternatively, depending on the order of development, the 406mm ϕ watermain could be extended south from Klondike Road, on the east side of the OCR Railway tracks, to a proposed 406mm ϕ watermain loop in the Briarbrook Subdivision. (Refer to the Kanata North Expansion Area Study Phase One Report produced by Lloyd Phillips & Associates, February 1998).

Depending on the order and timing of development within the Kanata North Expansion Area, both of the options outlined above are feasible options for looping the watermain for the 4th Line Road Subdivision.

(See Figure 2 – Water and Sewer Systems layout)

3.0 WASTEWATER SYSTEM

The proposed 4th Line Road Subdivision will be serviced by the existing March Pump Station via the East March Trunk Sewer. To provide the servicing needs for the 4th Line Road Subdivision (and the balance of the Briarbrook Subdivision), there will be a need to construct the proposed Briarbrook pumping station/forcemain system. The 4th Line Road lands will be drained by gravity sewer across the proposed golf course development to the proposed Briarbrook pumping station.

(See Figure 2 – Water and Sewer Systems layout)

4.0 STORMWATER MANAGEMENT SYSTEM

A Master Drainage Report was prepared by Novatech in 1992 for the Duck Club Pond located on the Department of National Defence (DND) lands. The report concluded that the existing Duck Pond can adequately handle water quantity for all areas, provided that some components of the drainage area are drained at restricted average peak runoff rates as outlined in the report. In addition, there is sufficient water quality treatment available in the pond, such that there is no need for on-site water treatment of any of the areas. The use of on-site water quality treatment through Best Management Practice's is encouraged and will be implemented.

(See Figure 2 – Water and Sewer Systems layout)

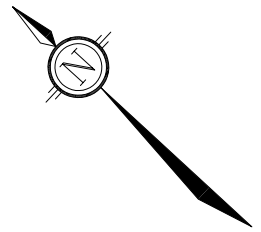
5.0 EROSION AND SEDIMENT CONTROL

Temporary and permanent erosion and sediment control measures will be implemented during construction in accordance with the *“Guidelines on Erosion and Sediment Control for Urban Construction Sites”*, (MOEE, May 1987). These measures include:

- Confining work areas with silt fences.
- Locating stockpiles away from watercourses and stabilizing stockpiles against erosion.
- Storing and completing maintenance of all machinery away from the watercourses.
- Placing silt fence along the property line adjacent to watercourses and ditches.
- Placing filter fabric under all catchbasins and manholes.
- Staking straw bales covered in filter fabric to the ground along the full width of the roadside ditches.
- Conducting regular street sweeping once the roads are completed.

6.0 CONCLUSIONS

This report presents a conceptual solution to deal with the issues of water supply and wastewater management. As stated in this report, the Master Drainage Report produced by Novatech (1992) for the Duck Pond provides the solution for stormwater management. This report is presented in support of the draft plan of subdivision. The report will provide assistance to the regulating agencies in preparing the draft subdivision conditions. Once draft conditions are received, we will proceed with a detailed design for the development.

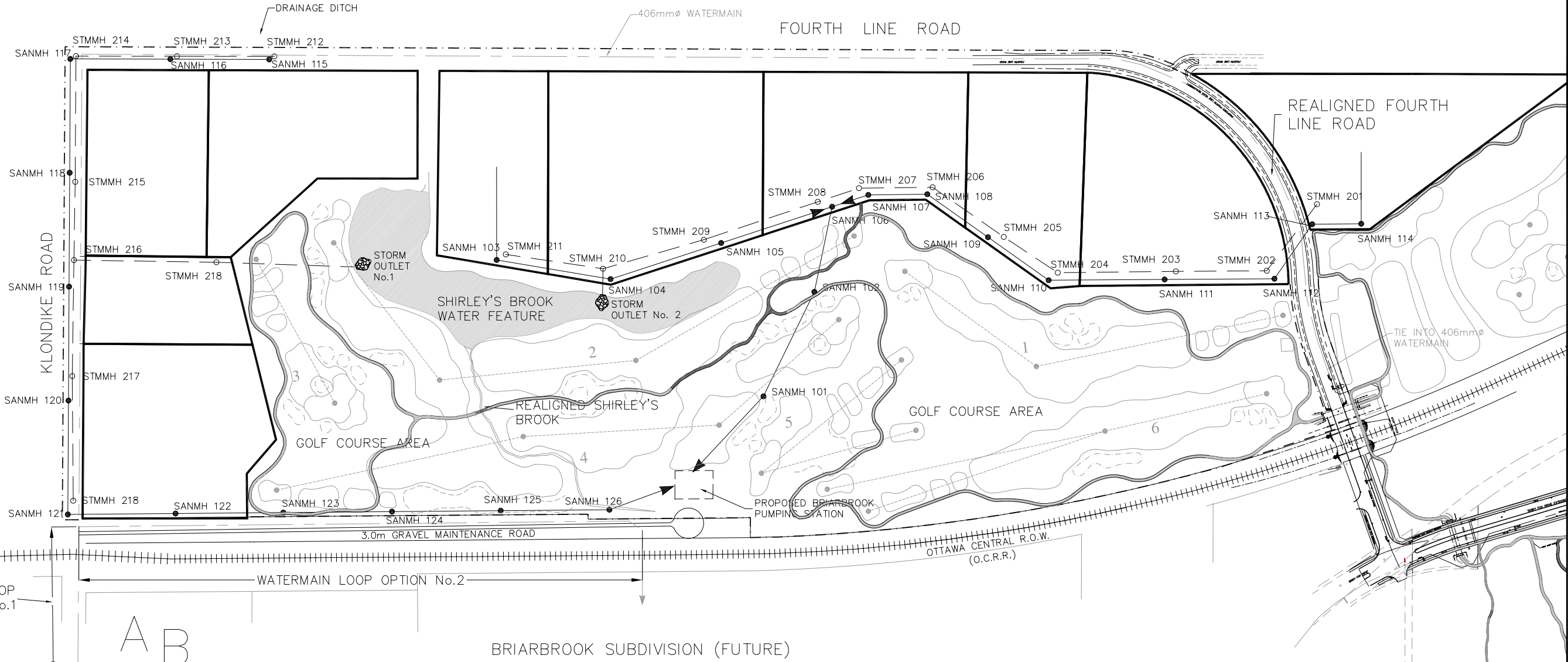


TO DUCK POND

CONNAUGHT RANGE (DND LANDS)

FOURTH LINE ROAD

REALIGNED FOURTH LINE ROAD



A B

LEGEND

- f ——— CONCEPTUAL LOT LAYOUT
- DIRECTION OF FLOW (SANITARY)
- DIRECTION OF FLOW (STORM)
- — — PROPOSED WATERMAIN
- SANMH 1 PROPOSED SANITARY SEWER AND MANHOLE
- ⊕ STMMH 1 PROPOSED STORM SEWER AND MANHOLE

FOURTH LINE ROAD SUBDIVISION CONCEPTUAL SERVICING PLAN	
SCALE 1 : 4000 (METRIC)	
JULY 2000	FIGURE 2

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NOVATECH
 CONSULTING ENGINEERS & PLANNERS
 Suite 17, 77 Auriga Drive
 Nepean, Ontario, Canada
 K2E 7Z7
 Telephone (613)727-1658
 Facsimile (613)727-6972
 Email: novainfo@novatech-eng.com