

STITTSVILLE SOUTH – AREA 6 Welcome



Welcome to the Stittsville South – Area 6 Open House

The Stittsville South land owners have initiated coordinated approvals under the Planning Act and Environmental Assessment Act process for the lands located between West Wind Farms, and Woodside Acres, and easterly to Shea Road.

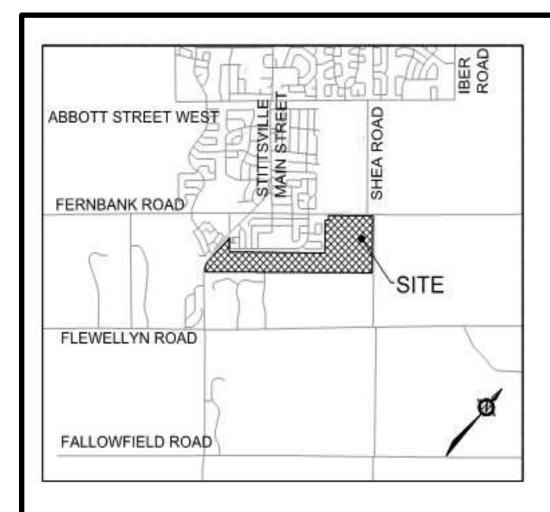
The purpose of this process is to develop an overall Demonstration Plan and to detail transportation and servicing infrastructure for Stittsville South.

Tonight you have the opportunity to learn and comment on the:

- Environmental assessment and planning processes;
- Existing conditions and constraints;
- Preliminary transportation and servicing alternatives; and
- Next steps in the study process.

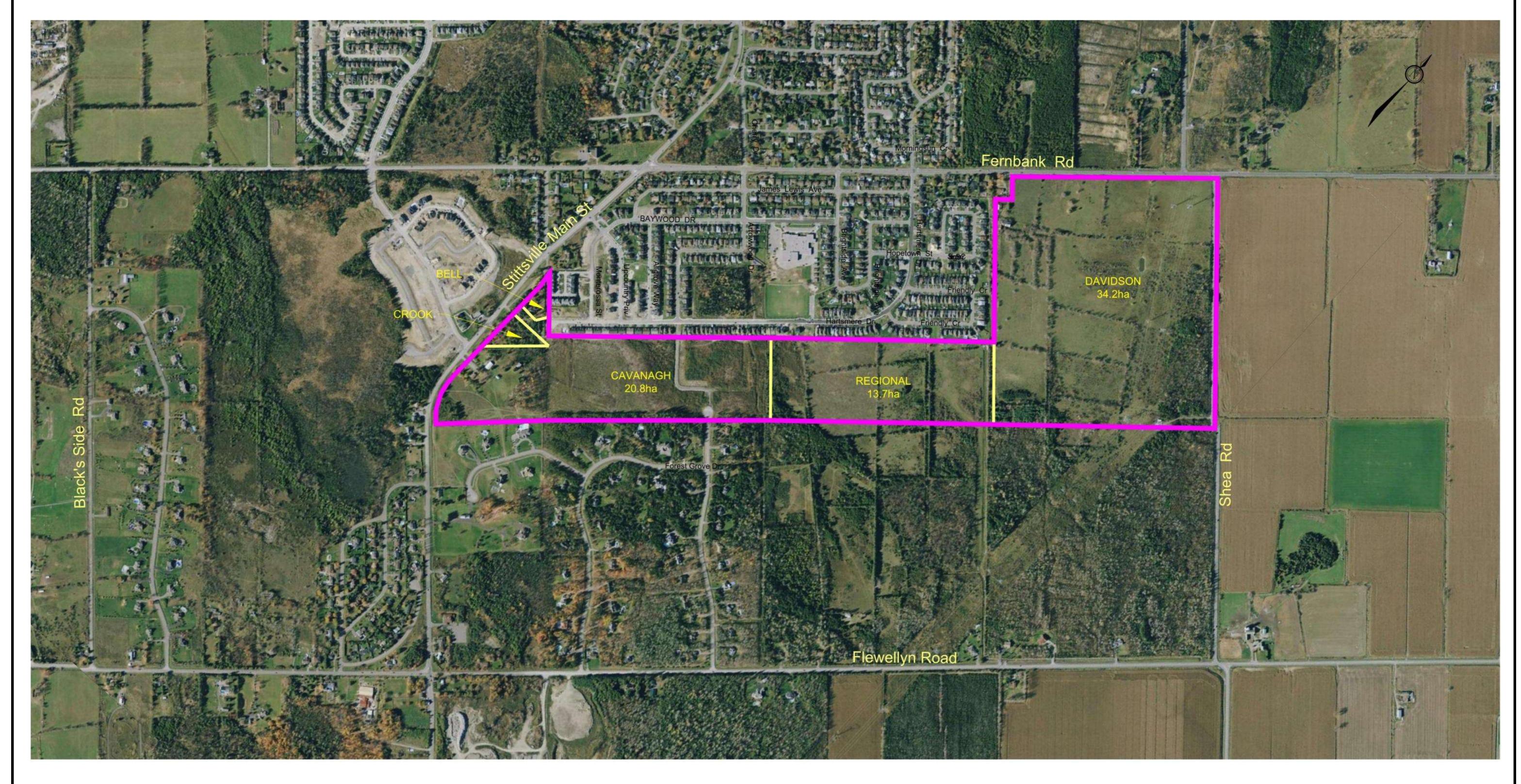
Representatives from the City of Ottawa and the Study Team are here to answer your questions.

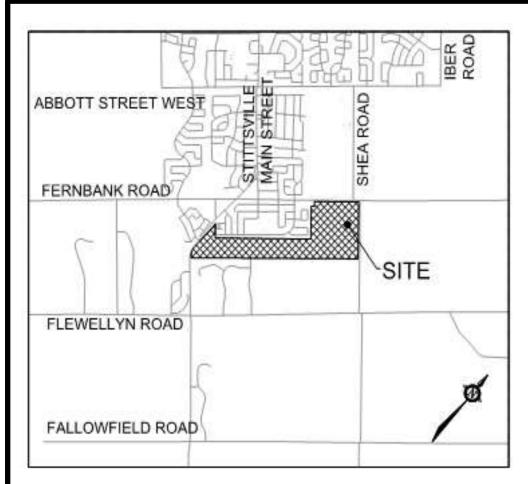
A brief presentation will be held at 8:00pm.



STITTSVILLE SOUTH – AREA 6 Study Area







We are

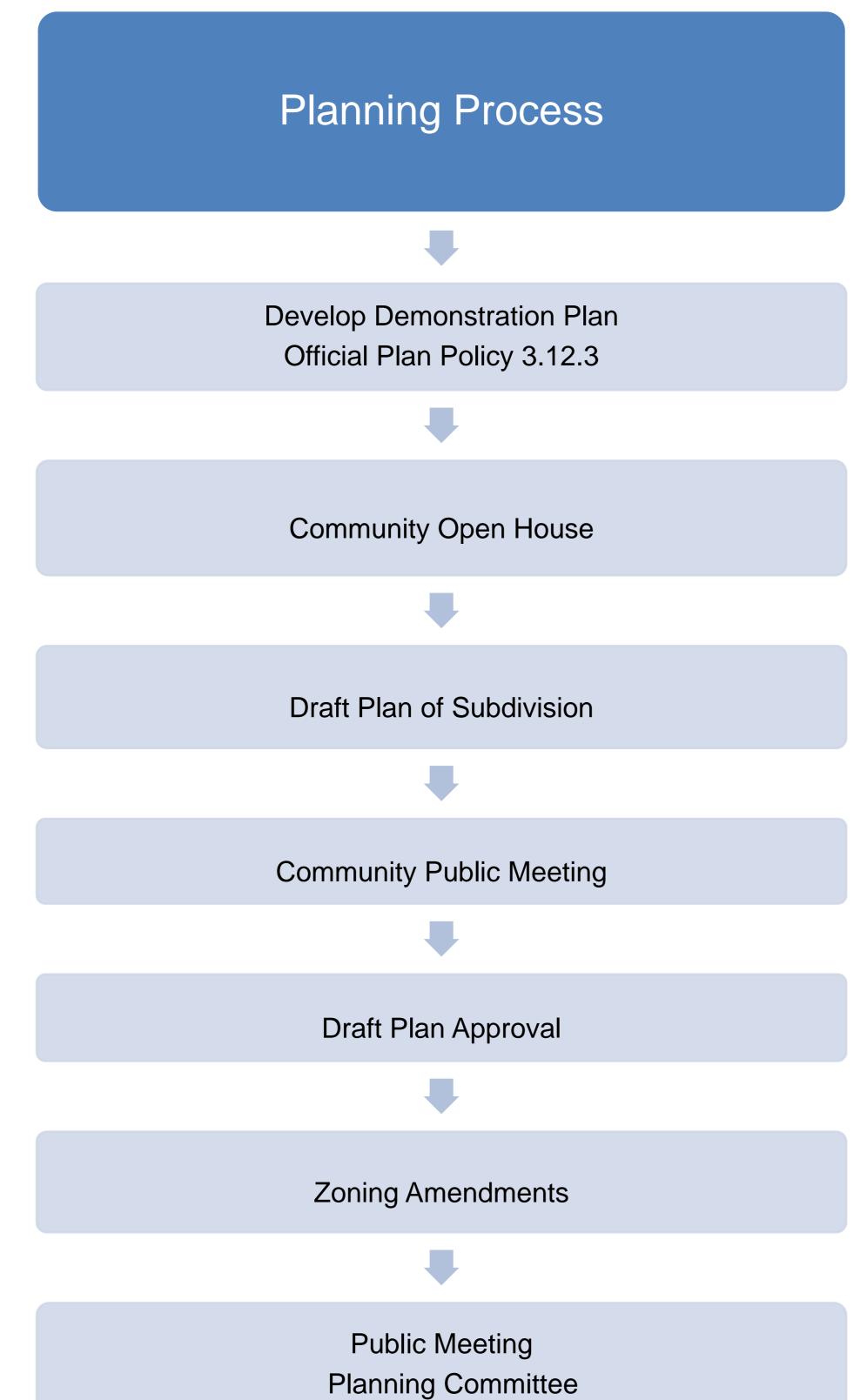
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STITTSVILLE SOUTH – AREA 6 Planning & Environmental **Assessment Process**

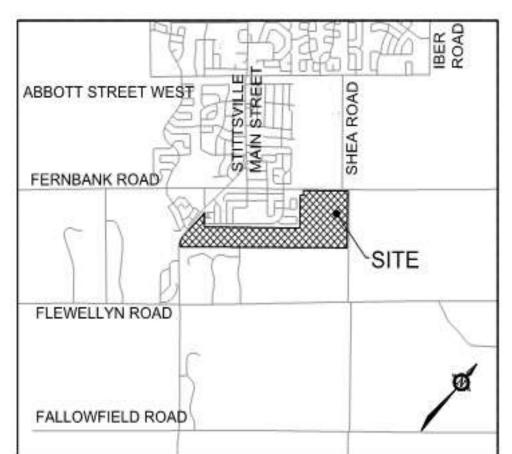


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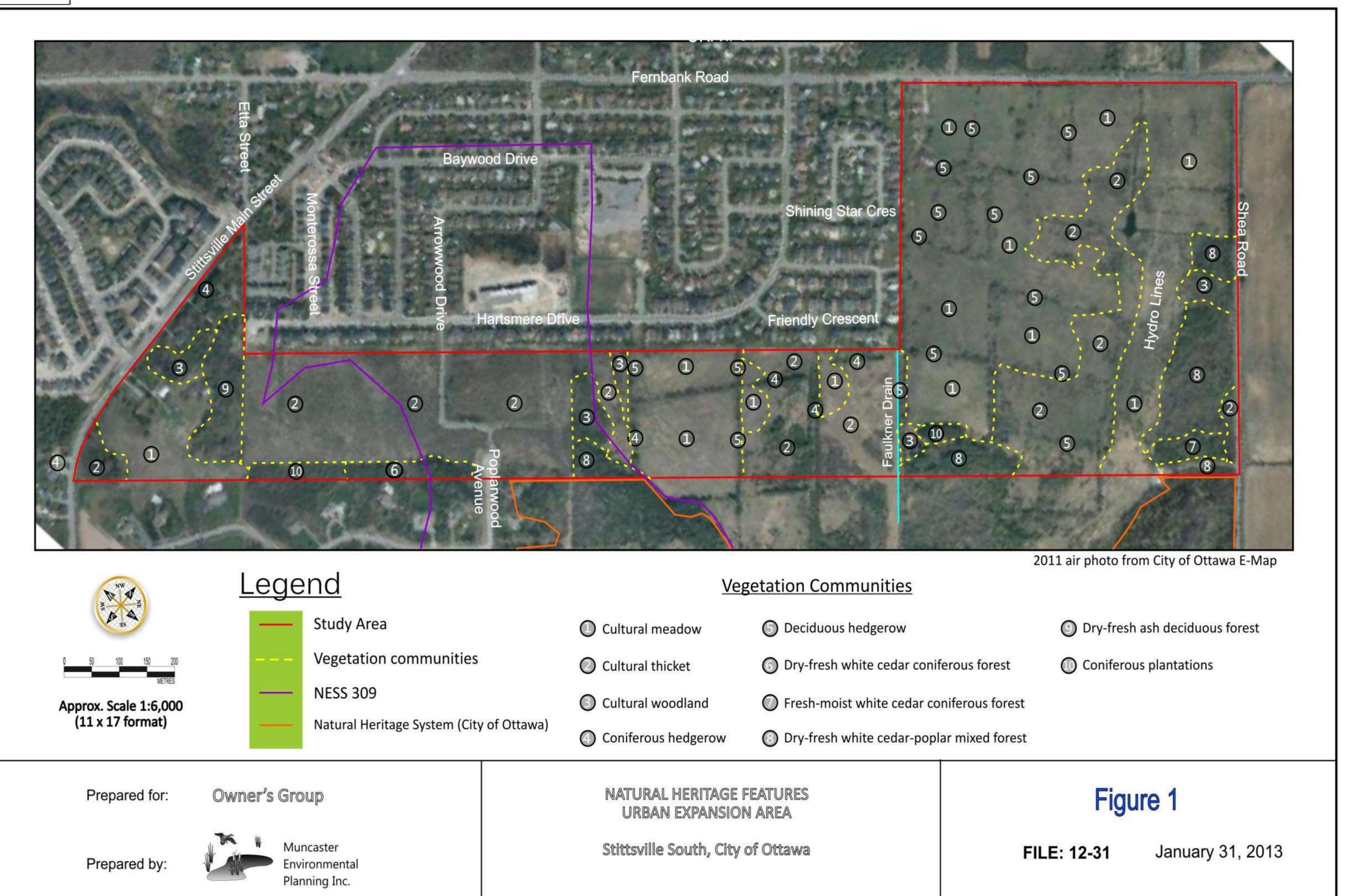






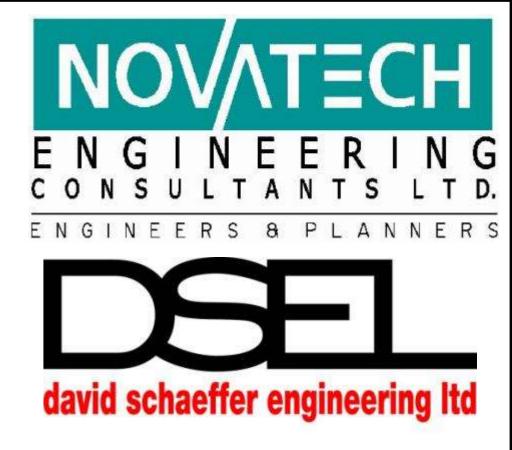
STITTSVILLE SOUTH – AREA 6 Existing Natural Conditions

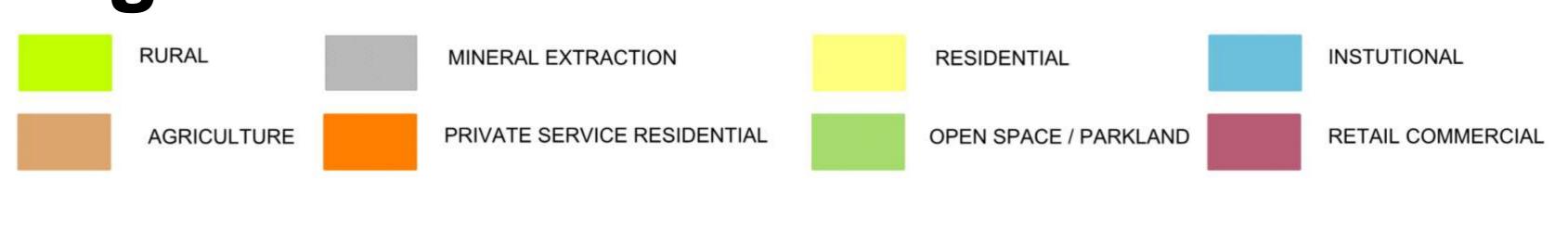


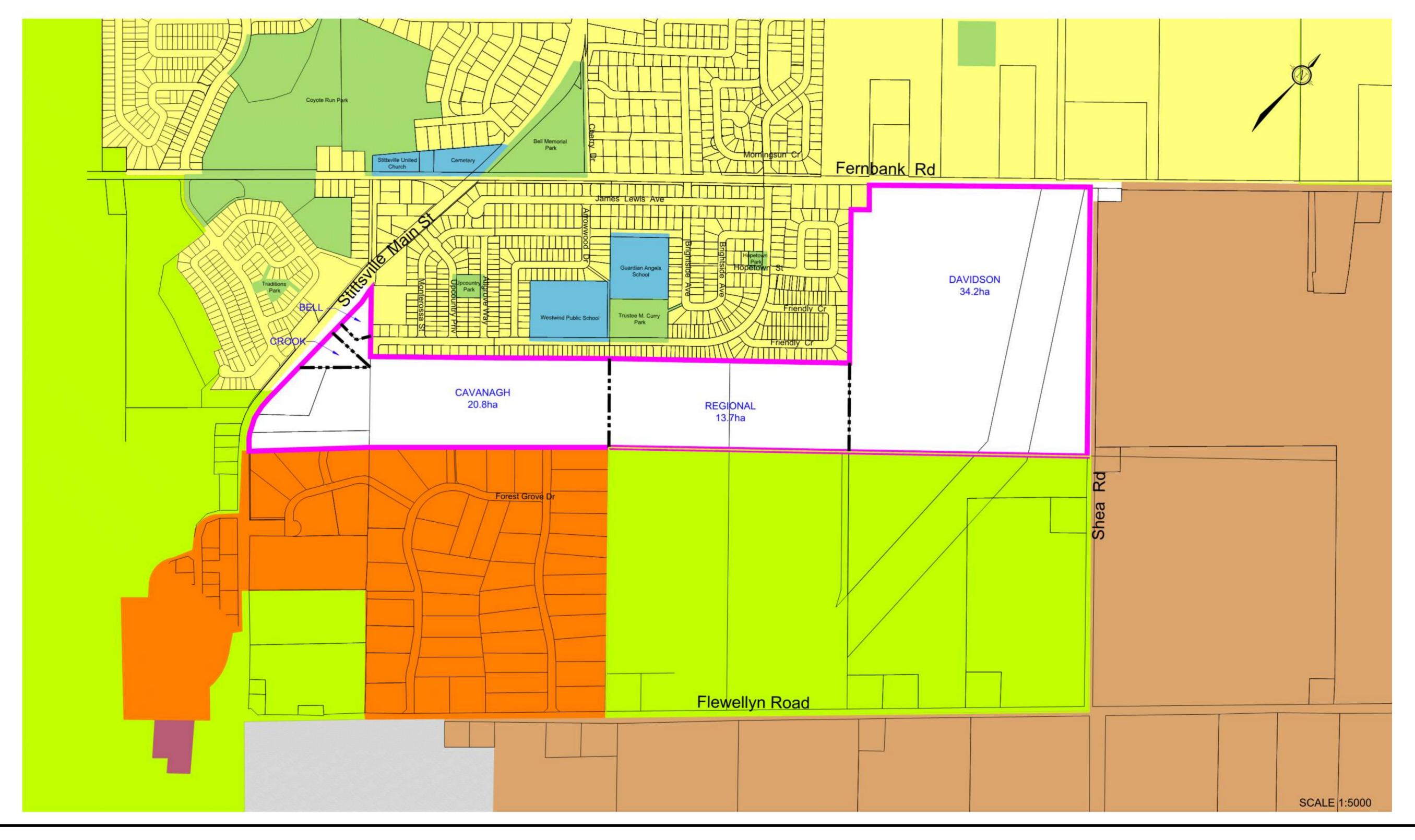




STITTSVILLE SOUTH – AREA 6 Existing Social / Land Use Conditions



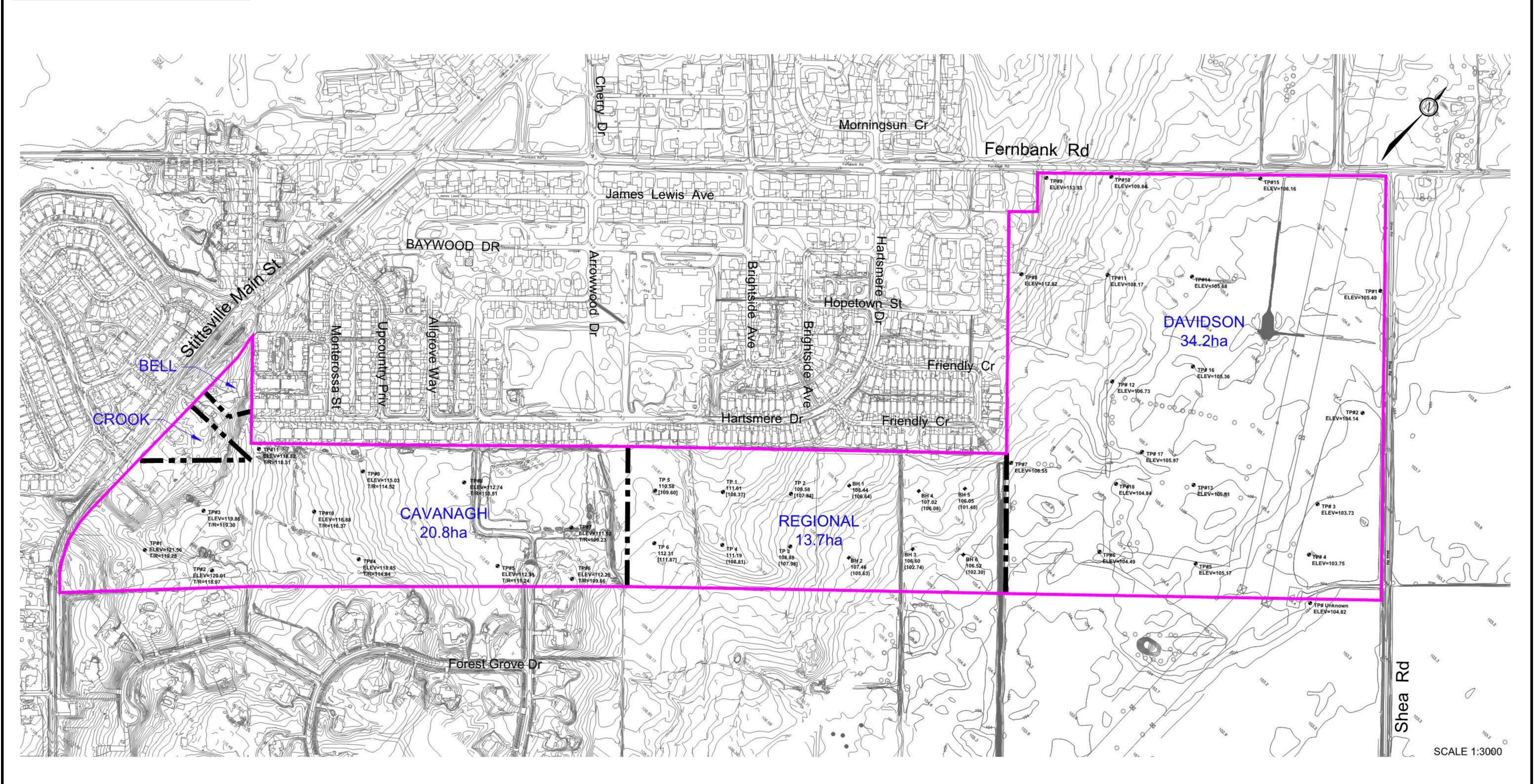






STITTSVILLE SOUTH – AREA 6 Existing Physical Conditions

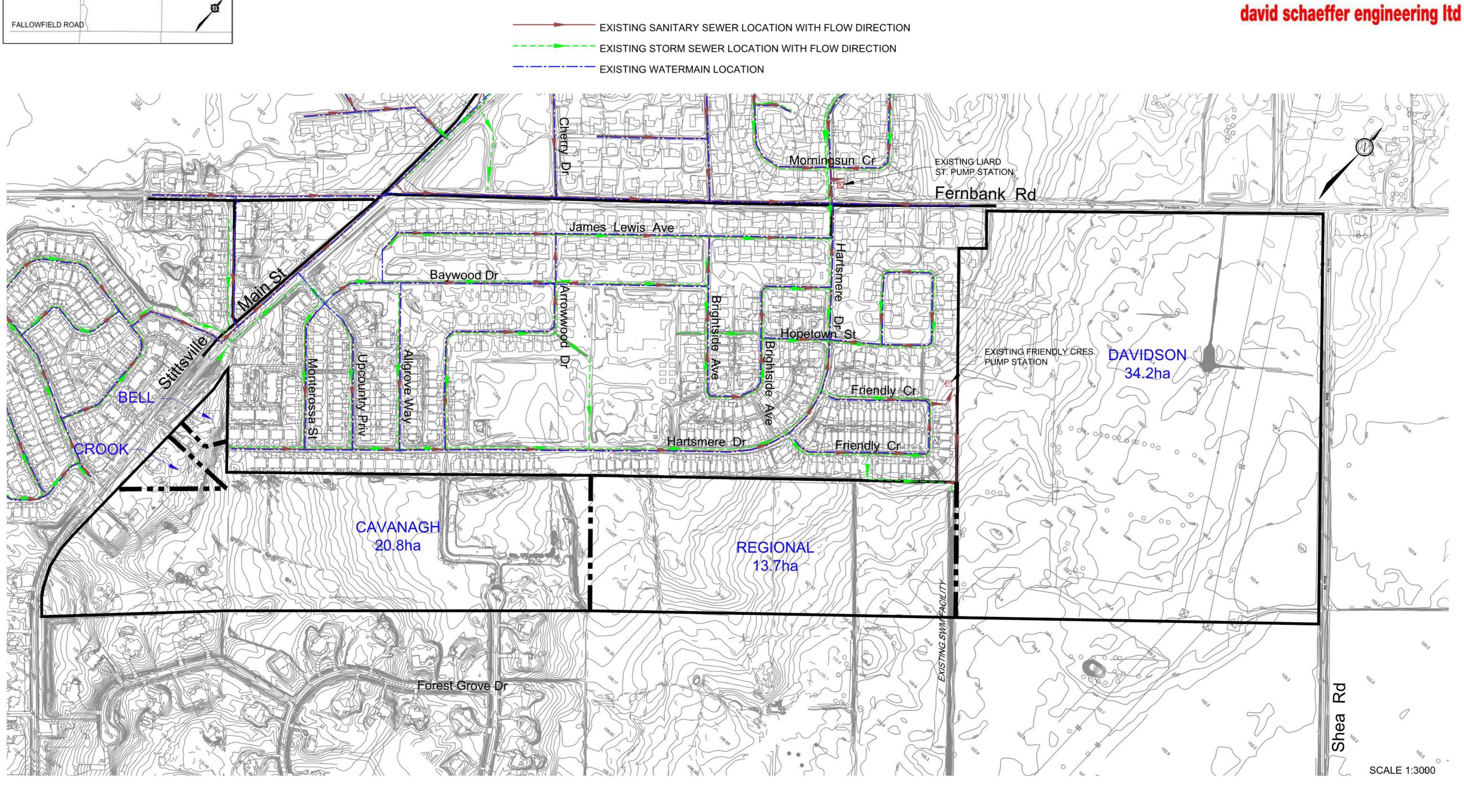






STITTSVILLE SOUTH – AREA 6 Existing Infrastructure







STITTSVILLE SOUTH – AREA 6 Transportation Alternatives and Preferred Alternative



Alternative 1 – "Do Nothing"

Limit development based on the existing/planned transportation network. Planned improvements include a roundabout at Fernbank Road/Shea Road, a minor collector road through the Tartan-Cavanagh lands and the Kanata West North-South Arterial

•Alternative 2 – Provide Required Mitigation Measures

Implement required turning lanes and traffic control measures to accommodate full development, accommodate transit, pedestrian and cycling movements, and support City's Transportation Demand Management (TDM) initiatives

Alternative 2 is selected as the Preferred Transportation Alternative. The Preferred Transportation Alternative will:

- Include a form of all-way traffic control at the Area 6 access/Tartan-Cavanagh access on Fernbank Road (ie: roundabout, traffic signals etc.)
- Include an internal collector road that supports future transit use
- Provide internal pedestrian/cycling linkages to open space, parkland, and neighbouring developments
- Provide a portion of the planned multi-use pathway connection between the Trans Canada Trail and Shea Road



STITTSVILLE SOUTH – AREA 6 Servicing Alternatives



Water:

- Private Wells
- Communal Well and Distribution System
- Expand Existing Municipal System

Wastewater:

- Private Septic Systems
- Communal Sewer Collection and Treatment System
- Expand Existing Municipal System

Stormwater:

- •Rural Drainage System Ditches/Culverts
- Urban Dual Drainage System Sewers and Roads
- Direct Outlet to Shirley's Brook No Quality/Quantity Control
- •End-of-Pipe Treatment Water Quality/Quantity Control at Outlet
- •Implement lot level Best Management Practices



STITTSVILLE SOUTH – AREA 6 Preferred Servicing Alternatives



Water:

- Expand Existing Municipal System
- •Safe, Reliable, Wide Spread Fire Protection
- Consistent with City Servicing Practices
- Consistent with Surrounding Urban Area

Wastewater:

- Expand Existing Municipal System
- •Safe, Reliable, and Best Overall Protection of the Environment
- Consistent with City Servicing Practices
- Consistent with Surrounding Urban Area

Stormwater:

Combination of:

Urban Dual Drainage System - Sewers and Roads

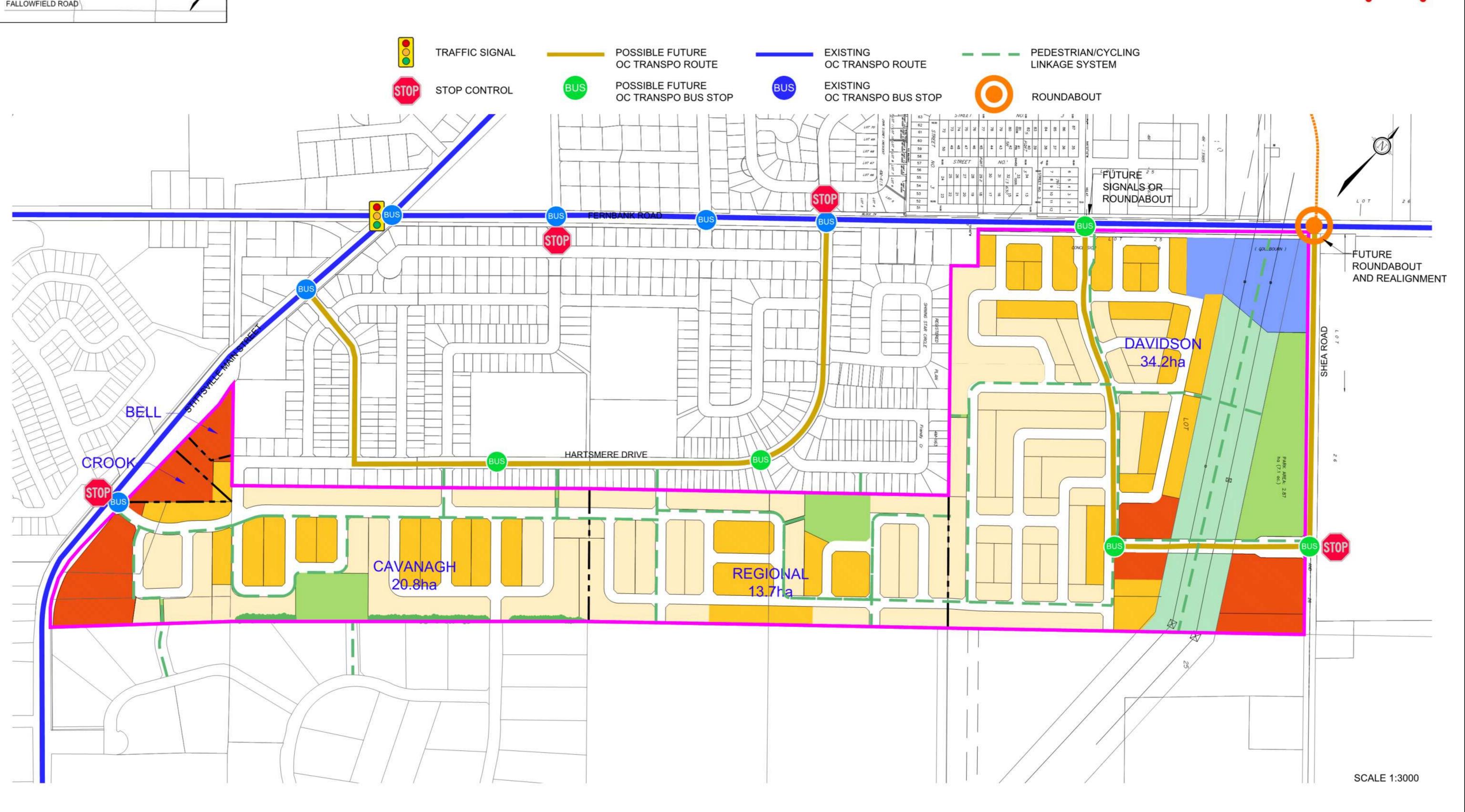
End-of-Pipe Stormwater Management Facility for Water Quality and Quantity Control at Storm Outlet Lot level Best Management Practices

- Treatment Train approach provides Maximum Protection to Receiving Watercourses
- Consistent with City and Conservation Authority Mandate
- Consistent with Surrounding Urban Area



STITTSVILLE SOUTH – AREA 6 TRANSPORTATION PLAN





COMMUNITY FEATURE

HYDRO CORRIDOR

DESCRIPTION OF OPTION 1

- A) Construct 250 mm dia. sanitary sewer on Main Street to service Area I
- B) Construct 250 mm diameter sanitary sewer to MH 105 on Hartsmere Drive to service Areas II and III
- C) Construct 250 mm diameter sanitary sewers to new pump station to service Areas IV, V, and VI

DISCUSSION OF OPTION 1

As-Built information of sanitary sewers on Hartsmere Drive indicates section of limited capacity for new development based on calculating theoretical flows in the pipes. However, computer modeling of the hydraulic grade line indicates moderate capacity exists.

Due to elevation of existing sanitary sewer on Hartsmere Drive, and establishing new road grades set by 2.5 meters of cover on the extended sanitary sewers, approximately 1.5 meters of additional fill material is required to grade the site (105,000 cubic meters).

Areas IV, V and VI are too low to drain to existing sanitary sewers by gravity. A new pump station will be required at the south end of the site (lowest point) which will discharge to a forcemain and then to the existing Liard Street Pump Station.

Once new pump station is built the existing Friendly Crescent pump station will be decommissioned and those flows will be directed to the new pump station.

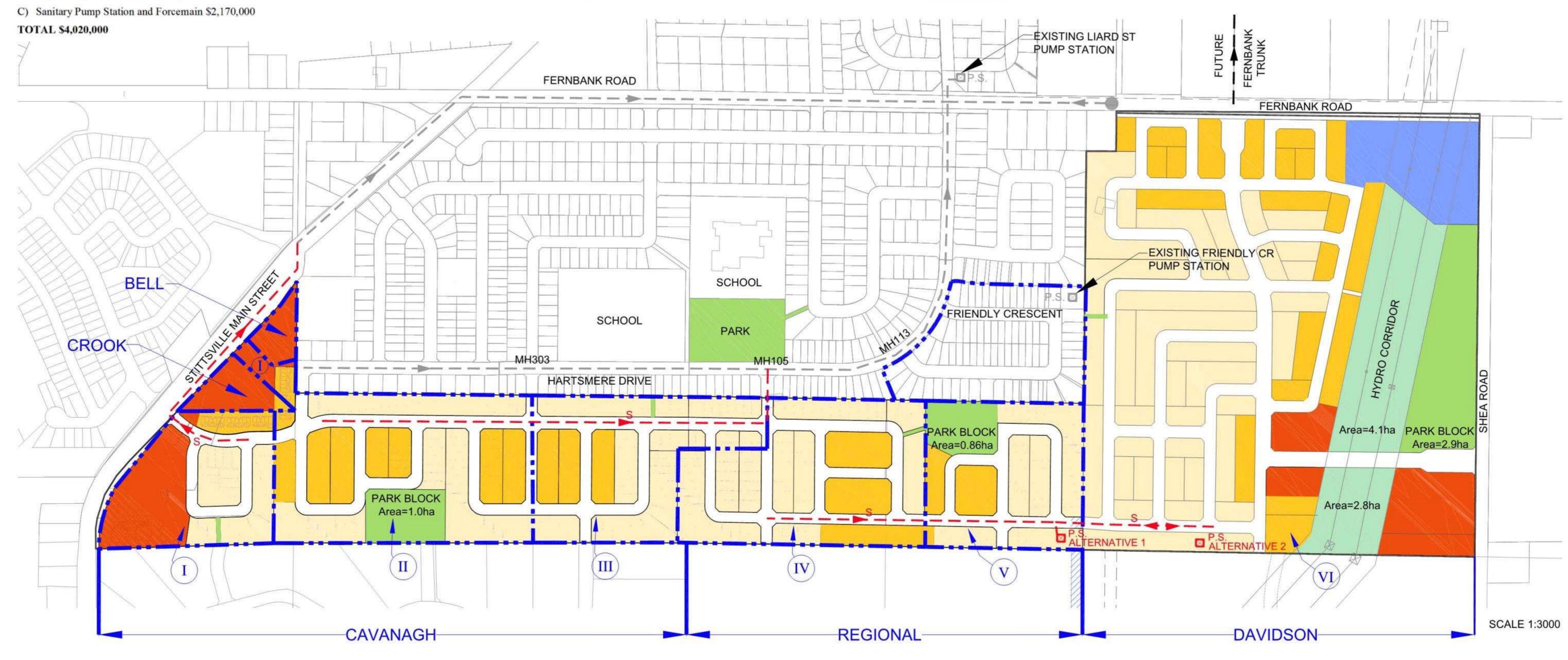
COST IMPLICATIONS OF OPTION 1

The additional cost of this option over and above normal development costs is as follows:

- A) Sanitary Sewer on Main Street \$275,000
- B) Imported Fill in Area III \$1,575,000

Sanitary Sewer Option 1 PROPOSED SANITARY SEWER AND FLOW DIRECTION david schaeffer engineering Itd PROPOSED SANITARY PUMP STATION ALTERNATE LOCATIONS SANITARY SUBCATCHMENT AREA EXISTING SANITARY SEWER AND FLOW DIRECTION EXISTING SANITARY PUMP STATION MEDIUM DENSITY RESIDENTIAL DENSITY RESIDENTIAL COMMERCIAL HIGH DENSITY RESIDENTIAL

STITTSVILLE SOUTH – AREA 6



DESCRIPTION OF OPTION 2

- A) Replace 250 mm dia. sewer on Hartsmere Drive with 300 mm dia. sanitary sewer b/w MH105 and MH113
- B) Construct 250/300 mm diameter sanitary sewer to MH 105 on Hartsmere Drive to service Areas I, II and III
- C) Oversize sanitary sewer through Area III from 250 mm dia. to 300 mm dia.
- D) Construct 250 mm diameter sanitary sewers to new pump station to service Areas IV, V, and VI

DISCUSSION OF OPTION 2

As-Built information of sanitary sewers on Hartsmere Drive indicates section of limited capacity for new development based on calculating theoretical flows in the pipes. However, computer modeling of the hydraulic grade line indicates moderate capacity exists. Replacing section between MH105 and MH113 adds more surplus capacity and lowers grade of sewer as well.

Required fill in Area III is reduced by one half because of lowering the sanitary sewer and seeking a reduction in cover on top of sanitary sewer from 2.5 meters to 2.0 meters (fill reduced to 52,500 cubic meters).

Areas IV, V and VI are too low to drain to existing sanitary sewers by gravity. A new pump station will be required at the south end of the site (lowest point) which will discharge to a forcemain and then to the existing Liard Street Pump Station.

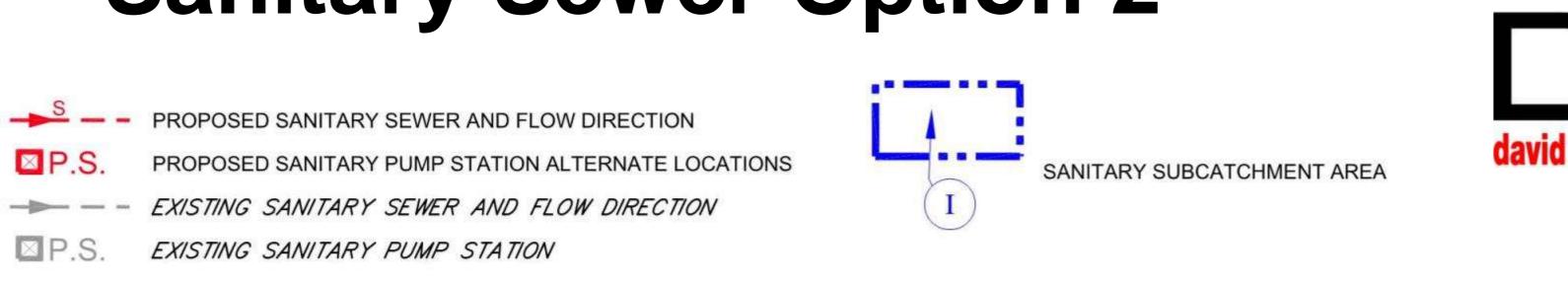
Once new pump station is built the existing Friendly Crescent pump station will be decommissioned and those flows will be directed to the new pump station.

COST IMPLICATIONS OF OPTION 2

The additional costs of this option over and above normal development costs are:

- A) Replace Sanitary Sewer on Hartsmere Drive Between MH105 and MH113 \$300,000

STITTSVILLE SOUTH – AREA 6 Sanitary Sewer Option 2



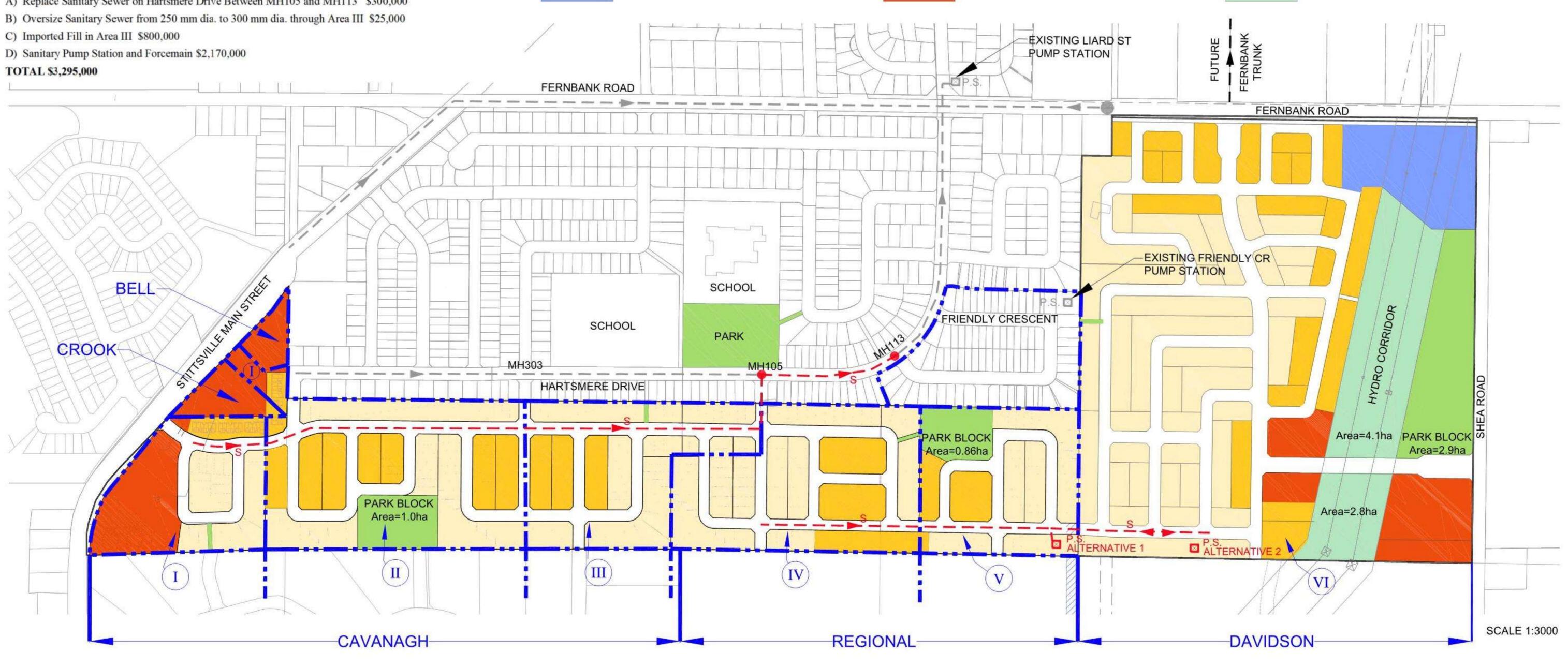
LOW DENSITY RESIDENTIAL

HIGH DENSITY RESIDENTIAL



COMMUNITY FEATURE

HYDRO CORRIDOR



MEDIUM DENSITY RESIDENTIAL

COMMERCIAL

DESCRIPTION OF OPTION 3

- A) Construct 250 mm dia. sanitary sewer to MH303 on Hartsmere Drive to service Areas I and II
- B) Construct 250 mm diameter sanitary sewers to new pump station to service Areas III, IV, V, and VI

DISCUSSION OF OPTION 3

As-Built information of sanitary sewers on Hartsmere Drive indicates section of limited capacity for new development based on calculating theoretical flows in the pipes. However, computer modeling of the hydraulic grade line indicates moderate capacity exists. Capacity is available at MH303 for Area I and II.

Areas IV, V and VI are too low to drain to existing sanitary sewers by gravity. A new pump station will be required at the south end of the site (lowest point) which will discharge to a forcemain and then to the existing Liard Street Pump Station. Area III will also go to the pump station since capacity is not available on Hartsmere Drive. As a result, fill requirement in Area III is eliminated.

Once new pump station is built the existing Friendly Crescent pump station will be decommissioned and those flows will be directed to the new pump station.

COST IMPLICATIONS OF OPTION 3

The additional costs of this option over and above normal development costs are:

A) Sanitary Pump Station and Forcemain \$2,295,000

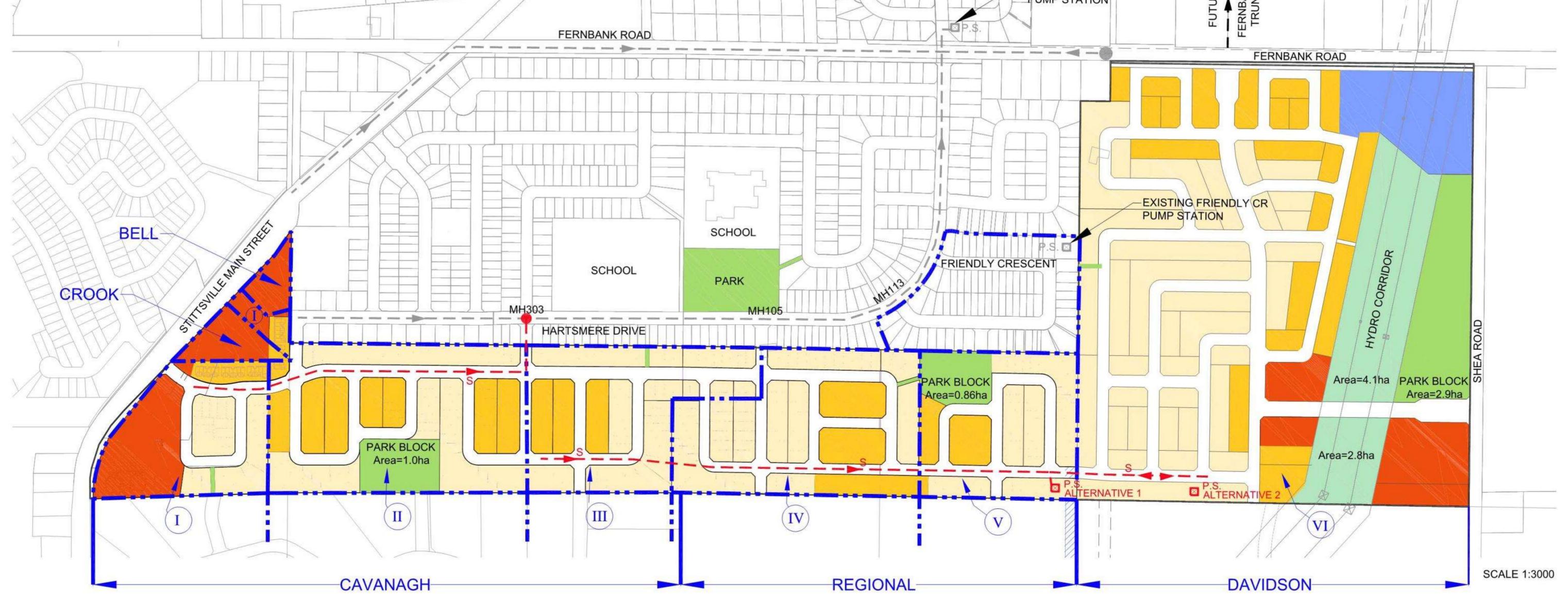
TOTAL \$2,295,000

STITTSVILLE SOUTH – AREA 6 Sanitary Sewer Option 3









DESCRIPTION OF OPTION 4

A) Construct 250 mm diameter sanitary sewers to new pump station to service Areas I, II III, IV, V, and VI

DISCUSSION OF OPTION 4

As-Built information of sanitary sewers on Hartsmere Drive indicates section of limited capacity for new development based on calculating theoretical flows in the pipes. Flows will not be directed to Hartsmere Drive.

Required fill in Area III is eliminated because all areas will drain to pump station and grading is not dependent on sanitary sewer elevations on Hartsmere Drive.

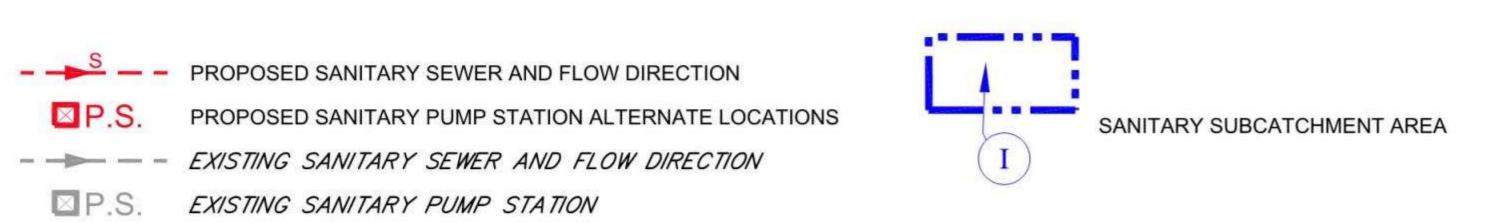
Once new pump station is built the existing Friendly Crescent pump station will be decommissioned and those flows will be directed to the new pump station.

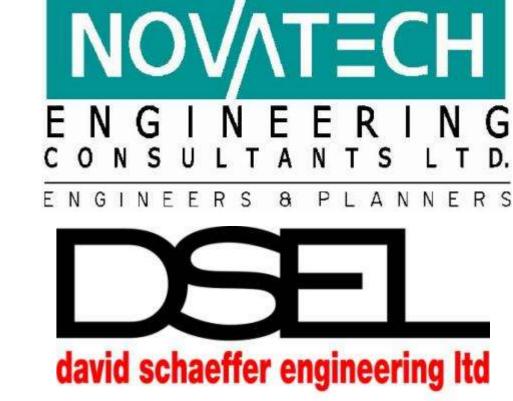
COST IMPLICATIONS OF OPTION 4

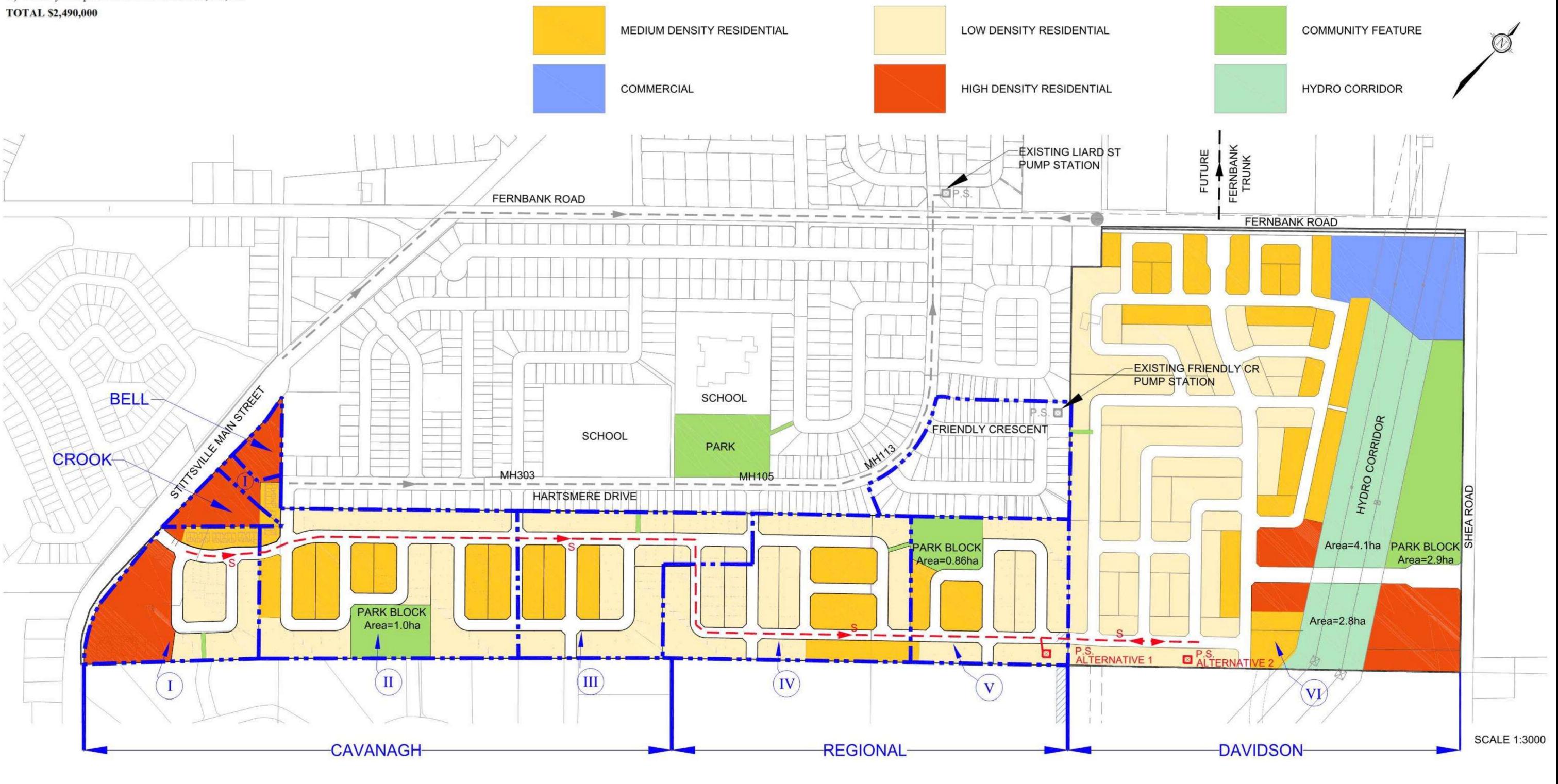
The additional costs of this option over and above normal development costs are:

A) Sanitary Pump Station and Forcemain \$2,490,000

STITTSVILLE SOUTH – AREA 6 Sanitary Sewer Option 4







STITTSVILLE SOUTH – AREA 6 DESCRIPTION OF PUMP STATION ALTERNATIVES Pump Station and Forcemain Options A. Pump Station on Regional Lands and 3 Forcemain Options Forcemain Option 1: Forcemain Along Hartsmere Drive to Liard Sreet **PROS** Existing Corridor is Available CONS Construction Along Hartsmere Disruptive to Public PROPOSED SANITARY PUMP STATION ON REGIONAL LAND • Wet Well 1.0 m Lower than Pump Station on Davidson (\$25,000) PROPOSED SANITARY FORCE MAIN OPTIONS ON REGIONAL LAND • Costly Option: \$765,000 (Forcemain) PROPOSED SANITARY PUMP STATION ON DAVIDSON LAND Forcemain Option 2: Forcemain Back to Main Street david schaeffer engineering Itd PROS CONS PROPOSED SANITARY FORCE MAIN OPTIONS ON DAVIDSON LAND Construction Less Disruptive to Public Very Long Forcemain and Higher Maintenance Wet Well 1.0 m Lower than Pump Station on Davidson (\$25,000) EXISTING SANITARY SEWER AND FLOW DIRECTION Costly Option: \$910,000 (Forcemain) EXISTING SANITARY PUMP STATION Forcemain Option 3: Forcemain Through Davidson Lands · Forcemain on Davidson Lands Will Require Agreement on Location CONS PROS Construction Least Disruptive to Public of dedicated Right of Way Prior to Draft Plan Approval of Davidson Forcemain Alternative: \$575,000 COMMUNITY FEATURE Lands. MEDIUM DENSITY RESIDENTIAL LOW DENSITY RESIDENTIAL Wet Well 1.0 m Lower than Pump Station on Davidson (\$25,000) B. Pump Station on Davidson Lands and 2 Forcemain Options COMMERCIAL HIGH DENSITY RESIDENTIAL HYDRO CORRIDOR Forcemain Option 1: Forcemain Along Collector Road CONS Less Disruptive to Public Long Distance to Emergency Overflow. (\$25,000) **PROS** Cheap Forcemain Alternative: \$650,000 **EXISTING LIARD ST** Forcemain Option 2: Forcemain Along Local West Side Road PUMP STATION **PROS** Least Disruptive to Public Similar to Option A.3 CONS Long Distance to Emergency Overflow. (\$25,000) **FUTURE FERNBANK** Cheap Forcemain Alternative: \$625,000 PULLBACK SEWER FERNBANK ROAD DISCUSSION OF OPTION 2 The existing Liard Street Pump Station has surplus capacity of 60 L/sec based on flow monitoring and analysis completed by the City. The total theoretical peak flow from Areas I - VI is calculated to be 86 L/sec. Build-out of the site to the maximum theoretical flow will take 10 years approximately. Before this occurs, the City plans on building a sanitary gravity sewer from Liard Street east to the new Fernbank Collector Sewer which should reach Fernbank Road, just east of Shea Road, in about 5 years. The Liard Street Pump Station would then be decommissioned. EXISTING FRIENDLY CR PUMP STATION STITISVILLE MAIN STREET SCHOOL FRIENDLY CRESCENT SCHOOL PARK HARTSMERE DRIVE Area=4.1ha PARK BLOCK 5 PARK BLOCK Area=2.9ha Area=0.86ha Area=2.8ha PARK BLOCK Area=1.0ha SCALE 1:6000 **CAVANAGH** REGIONAL DAVIDSON

STITTSVILLE SOUTH – AREA 6 Watermain Concept

FERNBANK ROAD

SCHOOL

HARTSMERE DRIVE

PHASE I WATERMAIN

CONNECT TO EXISTING

CAVANAGH

20.8ha

BELL WATER CONNECTION SUBJECT TO EASEMENT

PARK

BLOCK Area=1.0ha SCHOOL

PARK

DESCRIPTION

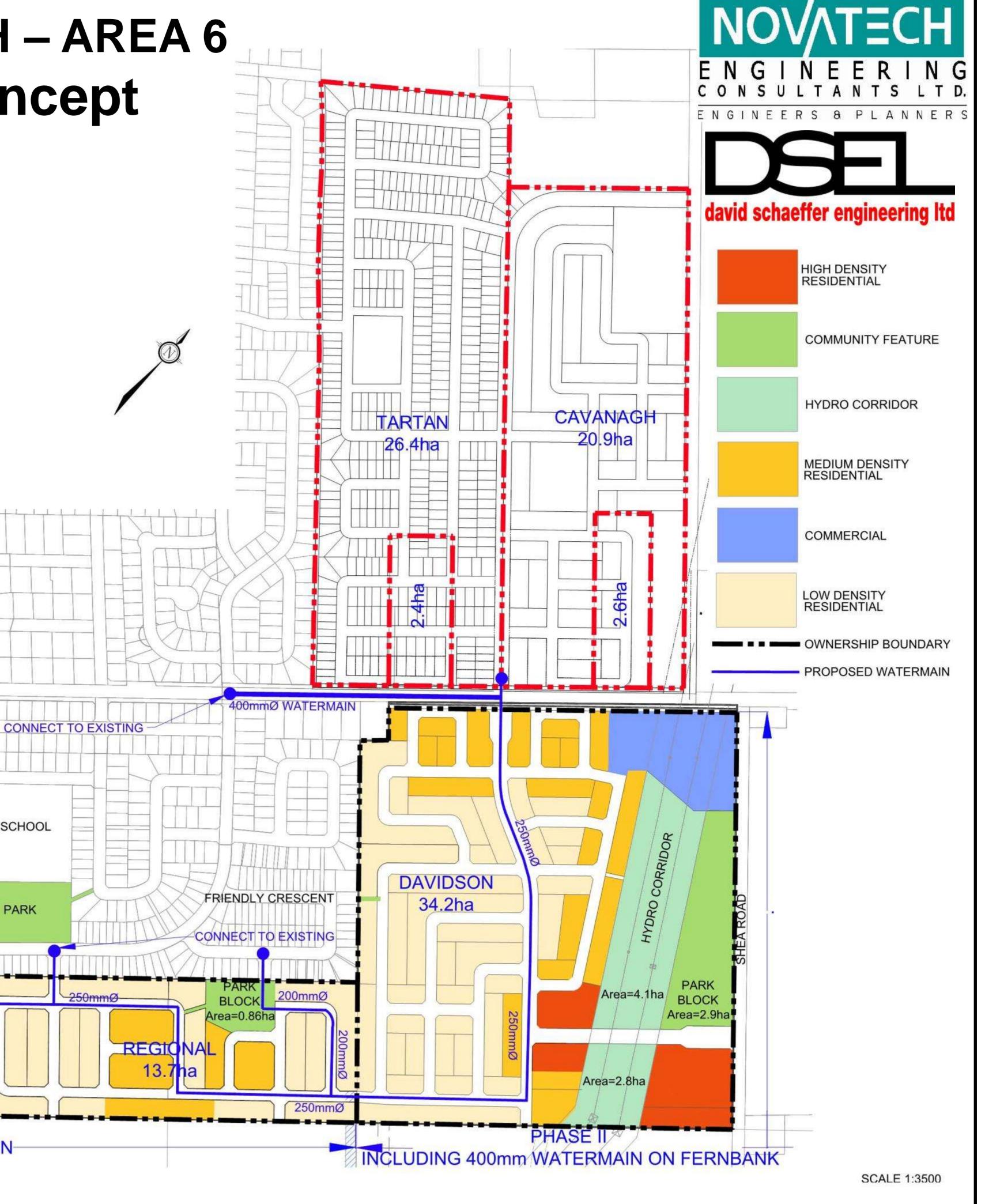
- · Phase 1 works will include connection to the existing watermain on the west side of Main Street and extending a 250 mm diameter watermain through the site, connecting to existing watermains on Hartsmere Drive at three locations and then terminating at the Davidson Lands.
- Phase 2 would include the completion of the 250 mm diameter watermain east and then north to Fernbank Road. A section of 400 mm watermain would be constructed westerly along Fernbank Road to connect to the existing watermain at Liard Street, thereby completing the loop.
- Should Phase 2 watermain go first, a connection to Friendly Crescent through the Regional Lands would be

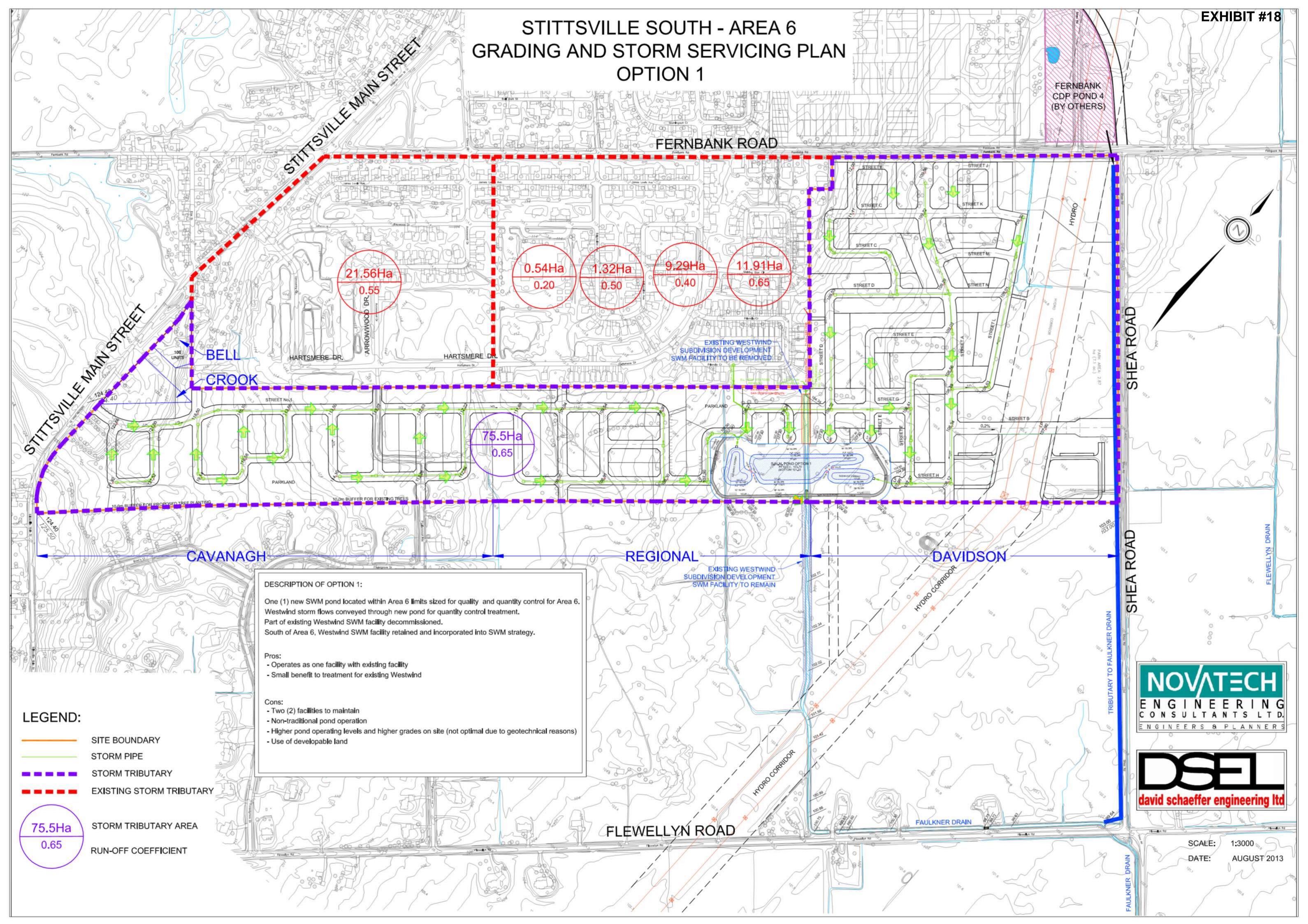
BELL-

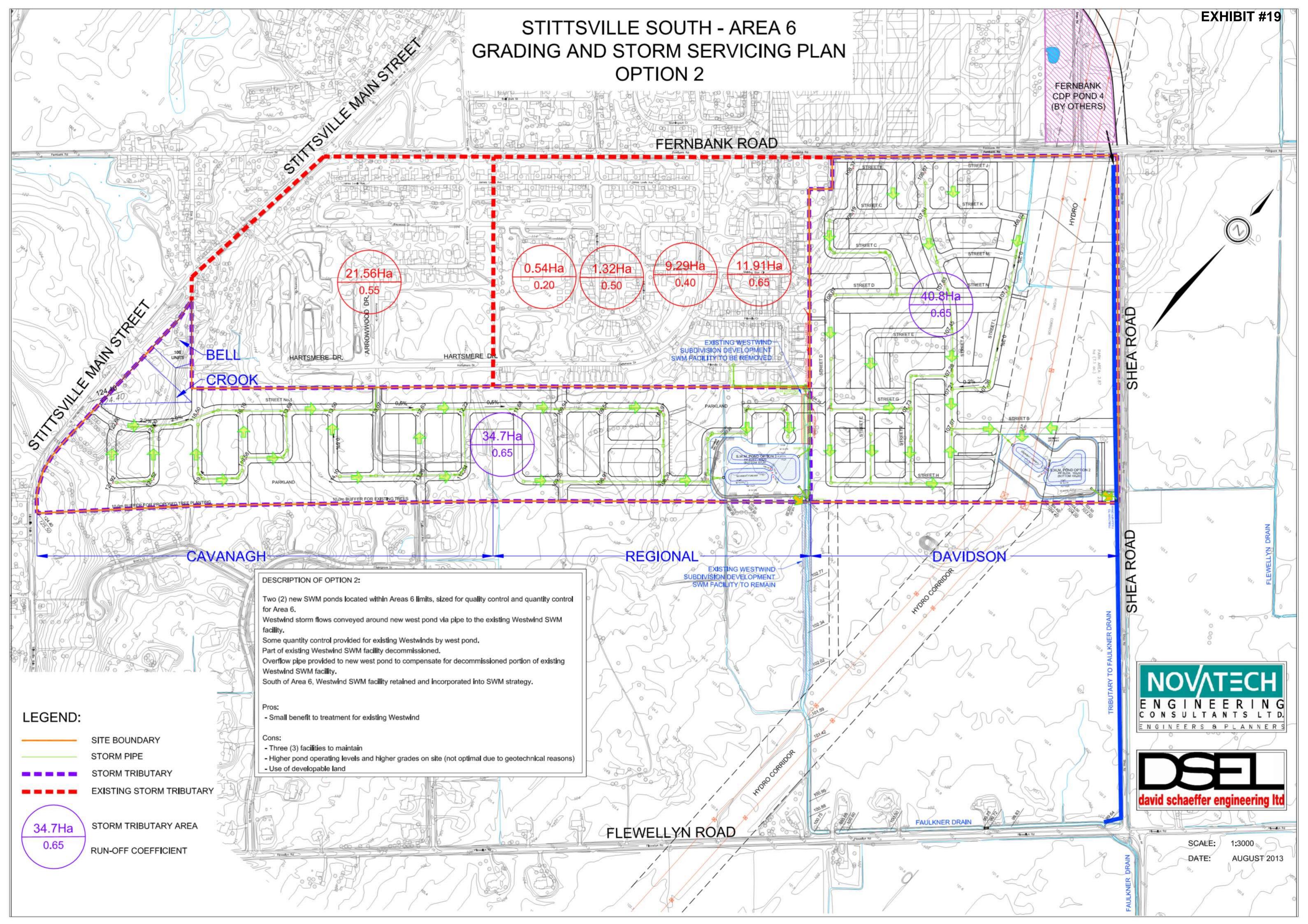
CROOK

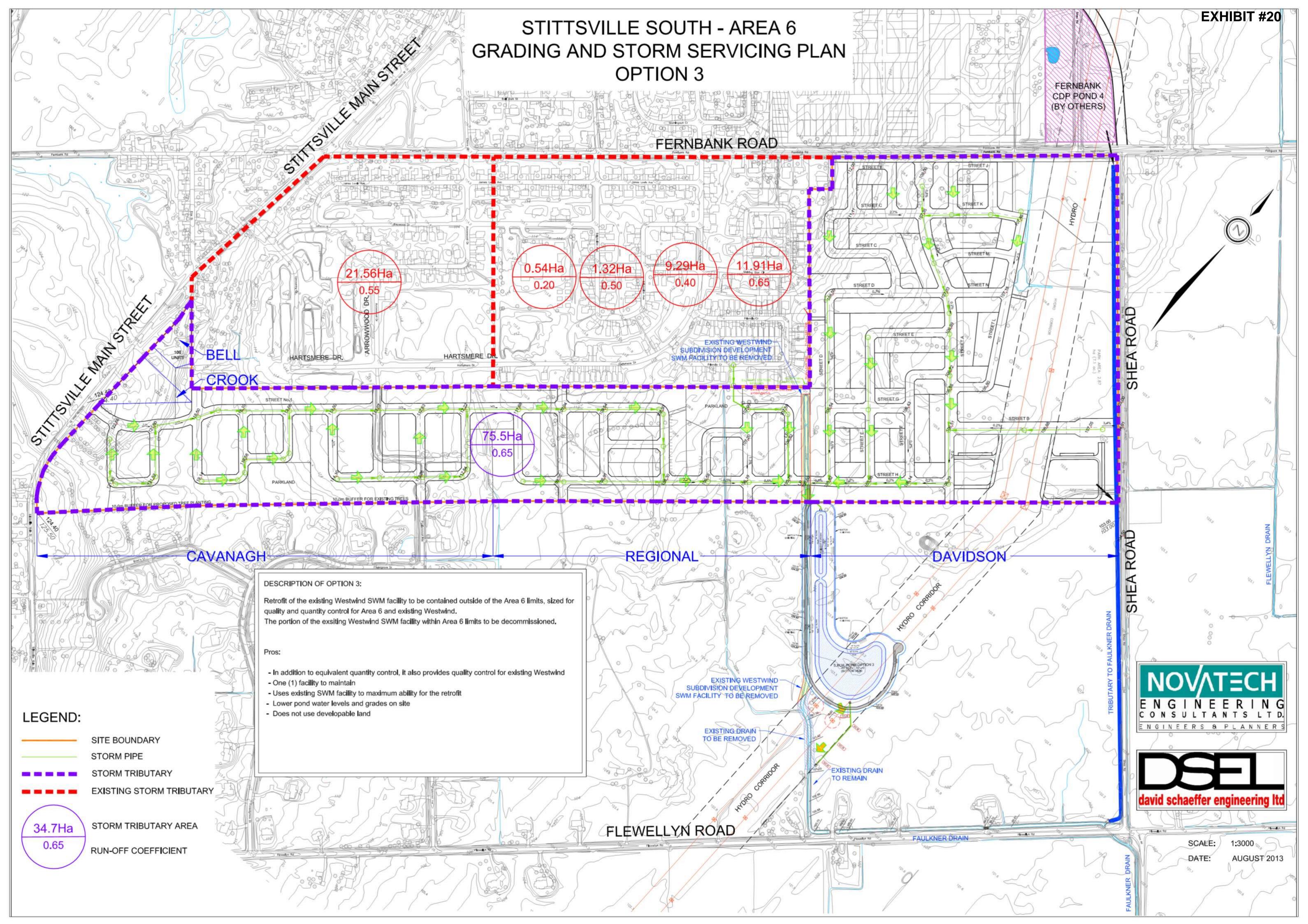
CONNECT TO EXISTING

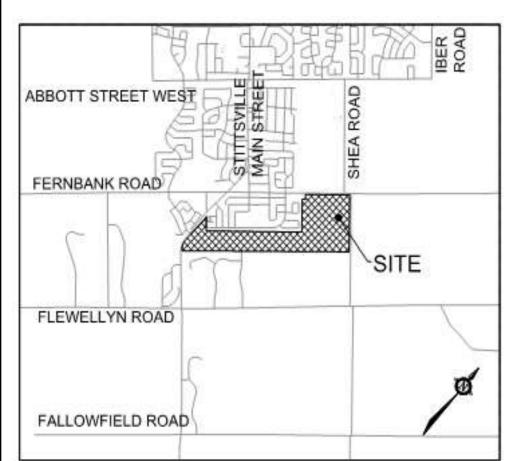
· Extension of the future watermain from the lands under development to the north will provide another level of reliability to the general area. The timing of this connection is approximately 2-5 years.











STITTSVILLE SOUTH – AREA 6 Impacts and Mitigation



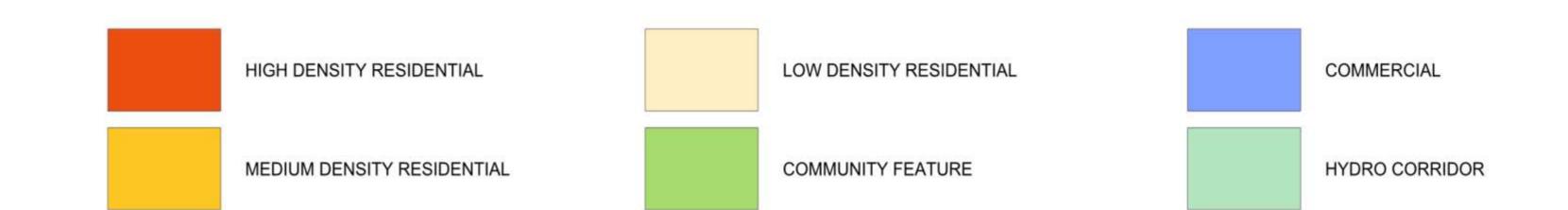
Criteria	Potential Impact	Mitigation Measures	Monitoring Requirements Construction monitoring.	
Natural Environment -Air Quality-	Potential creation of dust from construction.	Contractor will be required to monitor construction activities and mitigate dust by watering roadways and applying calcium chloride where required.		
Natural Environment -Vegetation-	Construction will result in loss of vegetation, exposed soils and contaminated runoff into the Faulkner Drain and downstream water courses.	An Erosion and Sediment Control Plan will be developed prior to construction which will include implementation of erosion control measures such as silt fence, check dams, and siltation pools.	Construction monitoring. Mitigation measures will not be removed until after new vegetation is established.	
Natural Environment -Watercourses-	Storm water runoff captured by the proposed storm sewer network will be greater than under existing conditions that could lead to downstream erosion and potential flooding.	Stormwater management facilities will be constructed to control peak post-development stormwater runoff to pre-development levels. Stormwater runoff will also be controlled to levels that will not cause downstream erosion.	Construction of facilities will be monitored during construction. Post construction monitoring will be in place to ensure continued performance.	
Natural Environment -Features-	Construction will result in the loss of trees and vegetation which could potentially affect the natural environmental features and associated functions.	A Natural Environmental Existing Conditions Report has been completed for the majority of the site. Potential aquatic habitat in the area is limited. The forested areas distributed throughout the site are not considered significant due to the poor condition of the trees and the general disturbance caused by extensive distribution of non-native vegetation. The only habitat considered present for the species at high interest included identification of butternut. To mitigate loss of these butternut, additional butternut will be planted elsewhere through discussions with Ministry of Natural Resources. As well, where possible, vegetated buffers will remain along the south property line of the study area, subject to grading constraints.	Medium term monitoring of newly planted butternut to ensure they are established.	
Social Environment - Noise-	Exposure to noise from traffic on Main Street, Fernbank Road and Shea Road may result in an exceedance of allowable noise levels.	A Noise Study will be undertaken prior to construction which will recommend measures to mitigate noise such as noise walls, building facades, double glazed windows, etc.	Noise walls will be inspected to ensure compliance. Other mitigation measures will be checked for proper implementation.	
Social Impact -Traffic-	The construction of watermain and sewers on Main Street and Fernbank Road will result in a disruption to vehicles, pedestrians and cyclists.	The Contractor will be required to submit a Traffic Management Plan prior to construction outlining how it proposes to minimize impacts to users of the roads in terms of delays, inconvenience and access.	The Traffic Management Plan will be monitored during construction and modified if necessary to respond to site conditions.	
Physical Environment -Grading Soils-	Proposed site grading will result in finished levels higher than existing.	Detailed geotechnical studies have been completed and have not identified any concerns with the underlying soils or adjacent structures due to the additional grade raise.	None required.	
Physical Environment -Blasting Rock-	Blasting and excavation of rock will be required during the installation of underground services and stormwater facilities which may result in vibrations.	A pre-blast survey of all adjacent structures which could be affected by blasting will be completed prior to construction. Blasting patterns will be designed to minimize impacts on adjacent structures and private wells.	Construction blasting will be monitored, if necessary, by installing blasting monitors at specific locations and baseline survey of existing wells will be completed and any impacts during construction will be rectified.	
Physical Environment -Dewatering-	It is expected that dewatering of trenches will be required during construction of services and the stormwater facilities. Some short term impacts to local water courses may result.	A dewatering program will be established prior to construction to ensure downstream watercourses are not affected by sediment and runoff. As well, a Permit to Take Water will be required from the Ministry of Environment to ensure that the local water table is not affected in the short term. Long term mitigation will include installation of clay dykes in the sewer and watermain trenches to prevent the granular trenches from lowering the water table.	Monitoring of dewatering will be required in the short term to ensure compliance with the Dewatering Program and the Permit to Take Water.	

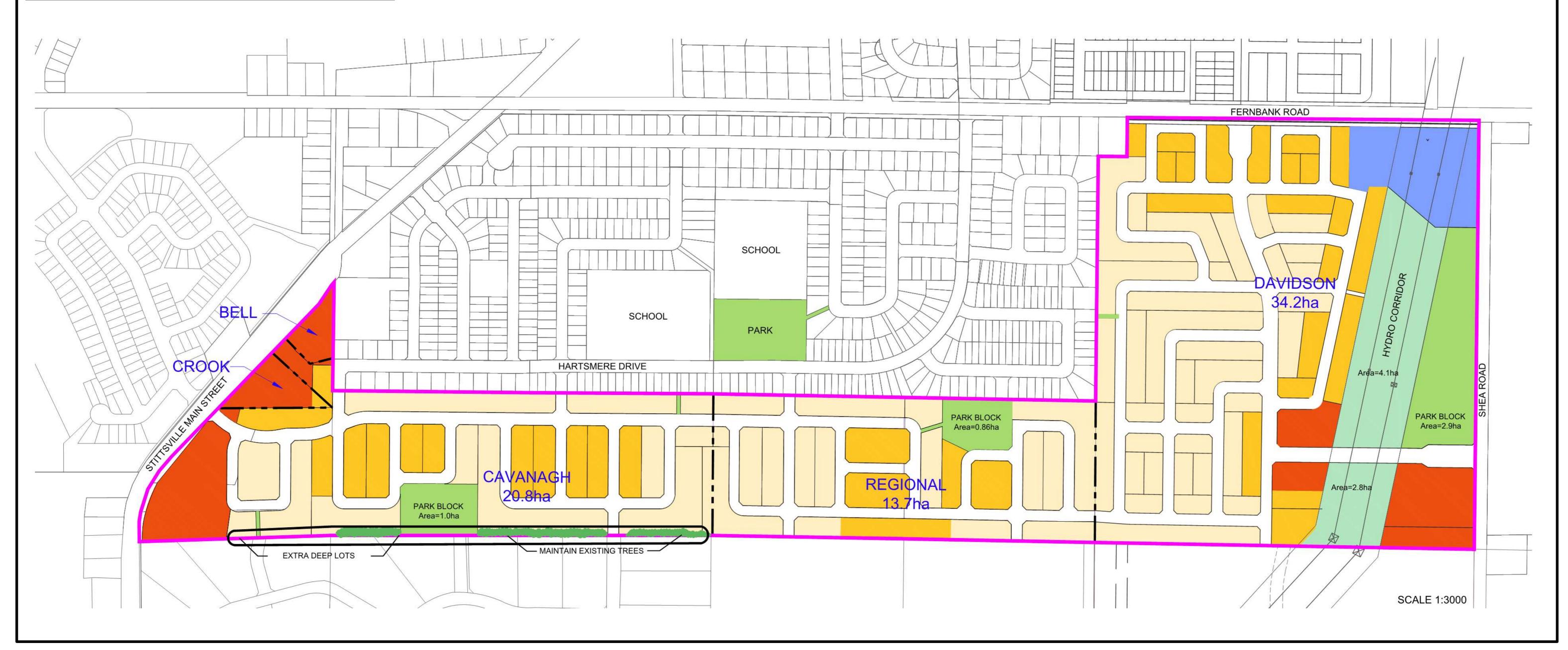


STITTSVILLE SOUTH – AREA 6 Demonstration Plan



Stittsville South - Area 6						
	Yield		Area			
	Units	%	На	Acres		
High Density	422	27	6.19	15.30		
Medium Density (towns)	541	35	12.43	30.72		
Low Density	578	38	25.98	64.20		
Parkland			4.76	11.76		
Commercial			2.56	6.34		
Hydro Corridor			6.90	17.05		
Total Units	1541					







STITTSVILLE SOUTH – AREA 6 Residential Density



Net Residential Density: What Does it Look Like?



Large Single-Detached Residential (Lot Width: ±15.2m)
Average Net Density: 19 dwellings/hectare

What is Net Residential Density?

Many people find it challenging to conceptualize what communities of different densities look like "on the ground". Net Residential Density is based on the area of land used exclusively for residential purposes, including lanes and parking areas internal to developments but excluding public streets, rights-of-way, and all non-residential uses.

Why Does Net Residential Density Matter?

The Official Plan of the City of Ottawa, the document which guides how the City will develop and grow into the future, states that all new developments must have a minimum net residential density of 34 units per hectare. This is the standard that the Demonstration Plan for Stittsville South must achieve, according to Section 3.12 of the Official Plan.



ownhouse Residential (Lot Width: ±6.0m)

Iverage Net Density: 42 dwellings/hectare



Single-Detached Residential (Lot Width: ±11.0m)
Average Net Density: 26 dwellings/hectare



Townhouse Residential (Lot Width: ±6.0m)

Average Net Density: 40 dwellings/hectare

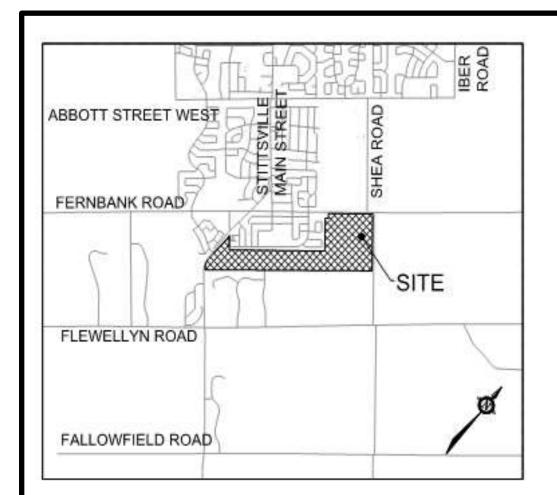


Semi-Detached Residential (Lot Width: ±13.5m)
Average Net Density: 29 dwellings/hectare



Townhouse Residential (Single Storey) (Lot Width: ±9.7m)

Average Net Density: 24 dwellings/hectare

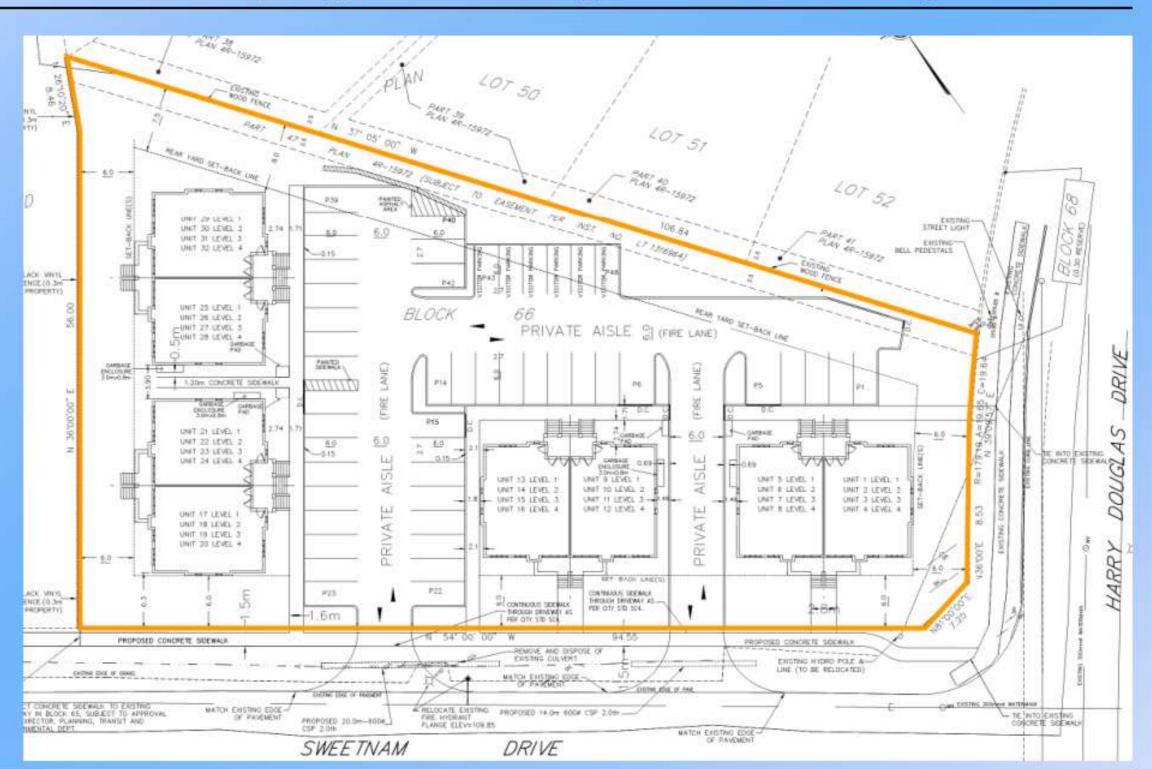


STITTSVILLE SOUTH – AREA 6 **High Density**



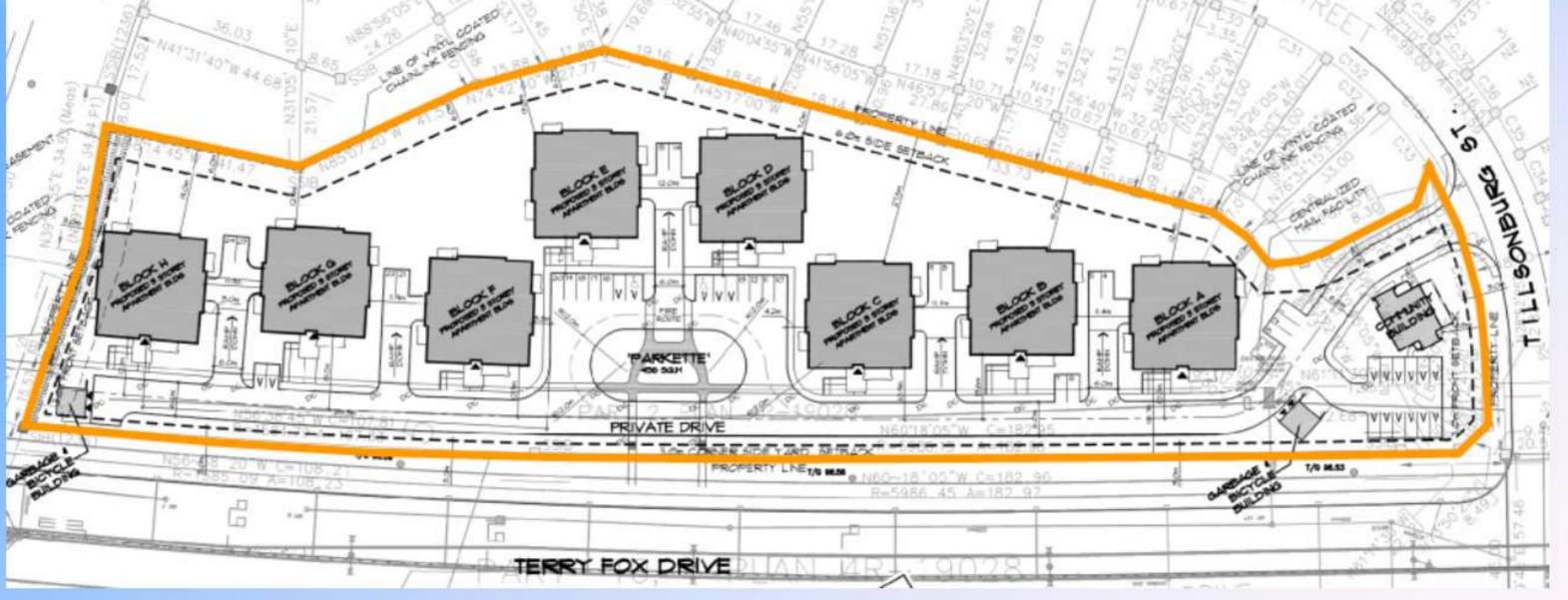






Foxwood: Low-Rise Condominiums Average Net Density: 49 dwellings/hectare







STITTSVILLE SOUTH – AREA 6 Next Steps



Thank you for attending tonight's Open House.

Your contribution to the planning process is important to us and we appreciate your comments. Your input can be provided on the comment sheets provided.

Following this Open House:

- ·Your comments will be reviewed along with input received from the stakeholders, and technical agencies;
- •Subdivision applications will be prepared with consideration of comments received following this open house;
- •Consultation will continue as part of the processing of subsequent subdivision applications.

Feedback may also be submitted directly to:

John Riddell, P.Eng.

President, Novatech Engineering Consultants Ltd.

Or

Cynthia Jacques, Planner

Thank you for your participation in the project.