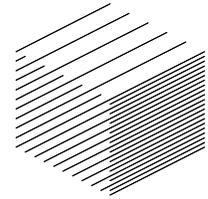

MEMORANDUM

Walker, Nott, Dragicevic
Associates Limited
Planning
Urban Design



90 Eglinton Avenue East
Suite 701
Toronto, Ontario
M4P 2Y3
Tel. 416/968-3511
Fax. 416/960-0172
e-mail: admin@wndplan.com
web: www.wndplan.com

To: County of Brant

From: Walter Hugo

Re: St. George Area Study – Response to Peer review comments of
May 17, 2013

Date: October 17, 2013

File: 10507

The following were summary comments on the Background Area Study as provided by **Ainley & Associates Ltd.** on May 17, 2013:

- (4.2) A detailed review of the transportation network and impacts is necessary to determine specific improvements that may be required;
- (4.2a) Further discussion is required to support the proposed housing absorption rate of 215 units per year vs. the current 80 units per year;
- (4.2b) Further clarification is required regarding the proposed timing/phasing of population increase of 6,700 people that upgrades to St. George servicing could support;
- (4.3) The county's minimum design criterion of 350L/c/d should be used instead of 400L/c/d;
- (4.4) Requests additional information on stormwater management. Specifically, basic mapping to show sub-catchment areas, delineation of external lands that drain through the study area, and existing drainage facilities;
- (4.6) Further clarification is required in the Market Study regarding the impact that a \$350,000 value for the County wide estimate may have on the average price and how it might affect the assumptions on building permit and tax revenues;
- (4.7) Further information is required on the compatibility of soils and groundwater levels to satisfy the stormwater management strategy and more information on thermal impacts of run off on receiving streams;"

The following brief deals with the two highlighted points above, in the following order.

4.3) "The county's minimum design criterion of 350L/c/d should be used instead of 400L/c/d;"

According to the servicing studies, the Assimilative Capacity of Fairchild Creek is 3,600m³/d, which is equivalent to the wastewater servicing capacity per the proposed servicing strategy, as advanced in the Area Study.

When using the updated new County flow rate standard of 350L/c/d or 0.35m³/d, the overall population that can potentially be serviced under the same servicing strategy increases.

Overall Population/Service Scenario

The overall population/service scenario for St. George changes with the introduction of the 0.35m³/d flow rate, as follows.

<u>Description</u>	<u>Population</u>
Total Capacity: 3,600m ³ /day ultimate servicing capacity x 0.35m ³ /day flow rate	= ~10,290
Phase 1 Capacity: Servicing capacity of new Plant at 2,600m ³ /dx0.35m ³ /d	= ~7,430
Less the existing serviced population in St. George:	<u>- ~2,300</u>
Additional Capacity	= ~ 5,130
Phase 2 Capacity: Servicing capacity of refurbished plant 1,000m ³ /d x0.35m ³ /d	= ~2,860
Total Additional population (Phase 1 and 2)	= ~7,990

By using the less conservative 0.35m³/d flow rate (previously 0.4m³/d), the population that can be serviced is thus increased. During phase 1 of the servicing strategy, the introduction of a new Water Pollution Control Plant (WPCP) at 2,600m³/d, and discounting the already serviced population in St. George of 2,300, the new or additional population that can be serviced in Phase 1 is approximately 5,130 people. Only a portion of this additional population is to be realized by the St. George Landowner Group (LOG) development proposals (see Table 1 below).

Similarly, during phase 2, with the introduction of the refurbished WPCP at 1,000m³/d capacity, it will provide the servicing capacity for an additional 2,860 people. Together, the servicing strategy can serve an additional population for St. George in the order of ~7,990 people. Again, only a portion of this population is to be realized by the LOG development proposals (see Table 1 below).

(4.2b) “Further clarification is required regarding the proposed timing/phasing of population increase of 6,700 people that upgrades to St. George servicing could support;”

In order to address the above comment, we take the new updated servicing capacity and resulting additional population that can be served (now at ~7,900 due to the flow rate standard change), and using the same servicing strategy we outline a conceptual development implementation schedule.

POTENTIAL DEVELOPMENT IMPLEMENTATION (single-detached residential unless specified):

As indicated in the Area Study, the proposed developments advance by the St. George Landowners Group include Empire 891* residential units, Activa residential 212 units and Riverview 89 residential units. Total LOG = 1,192.

Per MTE Engineering, the staging of the Landowner Group’s developments is anticipated at 90 units per year for 10 years for Empire Communities; 70 units per year for 3 years for the Activa Group; and 30 units a year for 3 years for the Riverview

Highlands. Units constructed by others (outside of the Landowners Group) are expected at a rate of 25 units per year for 0-3 years, 75 units per year for years 4-7 and 100 units per year for years 8-10. This is translated into the following potential implementation schedule (see Table 1 below).

In addition to the timing of the development for the LOG lands and “other” possible developers/developments as well, we provide additional details in terms of the implementation of various housing products, the number of units, the anticipated incremental population that can be serviced, etc. Also, the table below outlines at what point in the schedule, the water and waste water infrastructure will be brought on-line (servicing strategy) to serve the additional populations.

Table 1: Conceptual Development Implementation Schedule

Year	Infrastructure	Approximate No. of units	Approximate Population 2.89 ppu Singles, 1.94 ppu TH, 1.29 ppu Apt.	General Description
Stage 1 New WPCP (2,600m³/d)				
Years 0-3: (3 years)	New WPCP (capacity to 2600m ³ /d)	645 new units - 270 Singles Empire, - 212 Singles Activa, - 64 Singles at (1.9ppu) Riverview - 25 TH Riverview (1.9ppu) - 74 by others or equivalent non- residential.	1,777 780 613 122 48 214	LOG ONLY (plus other minor infill/intensification, or equivalent non- residential)
Years 4-7 (4 years)	New Well (TW4)	660 new units - 260 Singles Empire - 100 TH Empire - 300 by others or equivalent non- residential.	1,813 752 194 867	LOG and other (minor infill/intensification, and additional greenfield lands, or equivalent non- residential).
Year 8-10 (3 years)	New Well (TW3)	555 new units - 193 Singles Empire - 68 TH Empire - 294 Mixed use Empire*, development by others, or equivalent non- residential.	1,540 558 132 850	LOG and other (minor infill/intensification, and additional greenfield lands, or equivalent non- residential)
Sub-Total		1,860	5,130	
Stage 2 Refurbished WPCP (1,000m³/d)				
Beyond 10 years	Refurbished WPCP	990 new units by others, or equivalent non- residential)	2,860	Minor infill/ intensification and additional greenfield lands, or equivalent non-residential
TOTALS	3,600m³/d	~2,850	~7,990	

Note: The above unit/population numbers differ slightly from those in the MTE’s Water Supply and Distribution Study as that study uses higher (more conservative) population projections which is appropriate for a preliminary investigation, and it provides a conservative estimate of the required timing of infrastructure improvements. At the detailed design stage, population projections can be updated based on current data at that time, and timing of implementation of infrastructure improvements can be refined accordingly.

You will note that the implementation of the LOG developments, although given some level of proper priority, is appropriately phased in the 0-3, 4-7 and 8-10 year time

periods, providing ample room for other development to occur concurrently, and beyond the 10-year mark.

The phasing of residential units, advanced on a yearly basis and within the 0-3, 4-7 or 8-10 time frames, provides the additional level of detail that Ainley and County seek in terms of staged implementation. This schedule will be altered by the timing of actual development proposals, the processing and issuance of County approvals, other County priorities, varying market conditions, etc.

The other comments outlined in the May 17, 2013 summary of comments will be addressed by the respective consulting specialties, as part of this submission. The Area Study Background Document will be updated with warranted changes.