



September 9, 2022

Via: Email

Clinton Stredwick
Municipal Planner
Township of Southgate
185667 Grey Road 9
Dundalk ON N0C 1B0

Dear Mr. Stredwick:

**Re: Servicing Options Strategy Report
Feairs Drive Lot Development
Project No.: 300054349.1000**

R.J. Burnside & Associates Limited (Burnside) was retained by Pete O'Donnell (Owner) to provide engineering services for the proposed residential development at 150 Feairs Drive in Cedarville in the Township of Southgate, County of Grey. In accordance with the requirements of the Township of Southgate and County of Grey Planning Department, Burnside provides the following evaluation of the potential servicing options to meet the D-5-3 Servicing Options Statement required for the proposed development.

The property is divided into two parcels by the open Feairs Drive and unopened Mill Street municipal right-of-ways; the west parcel which is approximately 13.6 ha, and the east parcel which is approximately 22.7 ha. Both the east and west parcel are bisected in the northwest corner by the South Saugeen River and are primarily agricultural land with some natural range and forested land surrounding the watercourse. The west parcel contains a house and farm buildings, and the east parcel contains a constructed open drain (Cedarville Drain No. 10). Some portions of each parcel that front Feairs Drive are within the limits of settlement limits for Cedarville and these portions are proposed for the severance. Three parcels are to be severed off both the west and east parcel of the property, with the remaining area retained. The existing house and farm buildings are located on the west parcel retained lands and the open drain is located on the east parcel retained lands. The six parcels proposed to be severed for residential lots ranging in size from 0.36 ha to 0.54 ha (0.9-1.3 acres).

The six proposed residential parcels are on a portion of the site zoned as Restricted Agricultural (A2) and the retained portions are zoned Restricted Agricultural (A2) and Environmental Protection (EP). Under the Municipality's Official Plan, the area of the six proposed parcels is within the Cedarville limits and is designated as a Secondary Settlement Area. The site is currently being used for agriculture. There is an existing private well and septic bed for the existing dwelling on the retained portion of the east parcel.

Based on a review of the Municipality's Official Plan (OP), the Ministry of Environment, Conservation and Parks (MECP) Procedure D-5-3 "Servicing Options Statement", the Provincial Policy Statement (2020) Section 1.6.6, as well as the Hydrogeological Assessment - Nitrate Impact Study prepared by Burnside in December 2021, we offer the following evaluation of

servicing options for the proposed development. For both water and sanitary services, Burnside has considered the location, proposed density, and available servicing options for the development, reviewed the hierarchy of preferred services (municipal, communal and individual) and determined a recommended servicing strategy for the development.

Water Servicing

Cedarville is a secondary settlement area within the Township of Southgate. There are approximately 25 residential lots (R5), one commercial lot (C2) and one lot zoned community facility. The majority of lots in Cedarville are serviced by individual or shared private wells. There is no municipal watermain available in this area. The Township of Southgate only operates one water system for the Town of Dundalk, which is approximately 25 km from the property. The closest water system to the property is Mount Forest which is operated by Township of Wellington North and is approximately 20 km from the property. A cross-border servicing agreement would be required between Wellington North and Southgate Townships for the servicing of the residential lots. Similar to residential lots in the area of the Municipality, it is recommended that the multiple shared or individual private wells be installed to service the development. The capital costs required for the municipal watermain to be extended is not feasible for the size of development. This option for servicing is significantly more expensive than the preferred option.

The other option is a communal system. Since the properties will be sold individually, a communal well system would need to be owned and operated by the Township to service the development. Area for a drinking water treatment system would need to be taken from the development of the site. Typically, these small communal systems are not a preferred option for residential developments because of the high operation costs and responsibilities for the Township. At this time there is no direction from the Township to create small drinking water systems for long term operation.

The preferred option is for private shared wells that would be installed by a Licensed Well Driller and would serve up to 5 lots per well in the development. The proposed lots are large enough in size that there is adequate separation available between the proposed private wells and septic systems. The development of the lots will most likely be completed individually, and property owners can choose to enter into private well agreements with their neighbours. Private Well Agreements between lot owners will outline the operation, maintenance and monitoring responsibilities of the well for protection of the environment and public health. As mentioned in the Hydrogeological Assessment, the site is outside any Wellhead Protection Areas (WHPA). The proposed wells should be installed in the limestone bedrock and constructed as per the requirements of Ontario Regulation 903. Costs per lot for private wells would range from \$5,000 to \$15,000 per lot depending on the number of shared users with minimal yearly operating costs.

Sanitary Servicing

The majority of residential lots in Cedarville are serviced by individual private septic systems.

There is no available sanitary servicing in the area for connection. Similar to the drinking water system, the closest connection points to a municipal sanitary servicing are at the town limits of Mount Forest or Dundalk. In addition to the length and river crossings that would need to extend to service the site, a sewage pumping station would be required to service the development. Servicing the proposed development by public sanitary services is not feasible due to the cost of a sewage pumping station and extension of municipal services compared to the low population density of the proposed development and existing settlement.

With the current proposed lot layout, there is no area available for a communal septic or sewage treatment system to service the development. As the lots will be sold and developed individually, the Township would be responsible for the operation and maintenance of a communal system to service the development. Similar to the communal drinking water system, the cost of maintenance and operating these small systems make this servicing option not favoured by municipalities.

It is recommended that the proposed development be serviced by private individual septic systems, similar to the surrounding residential lots.

A Hydrogeological Assessment Nitrate Impact Study was prepared by R.J. Burnside & Associates in December 2021 for the property. Per the report, the creation of six residential lots meets the MECP's Drinking Water Quality Standards nitrate loading requirements for the area proposed to be severed. As noted in the report, the percolation time for the soils was estimated to be in the range of 50 min/cm and approximately 800 m² of area is required to construct a fill-based absorption trench disposal bed including mantle and side slopes for each single family dwelling proposed.

Conclusion

Burnside recognizes that where financially feasible connecting to municipal water and sewage services are the preferred form of servicing for new developments and has reviewed potential servicing options for the proposed development in Cedarville. The installation of private shared wells and private individual septic systems is recommended for the proposed residential development. This servicing strategy is consistent with the existing lots in Cedarville. The proposed development is relatively small, with a low proposed density and there are no other known proposed developments in the neighbouring area that would allow the large capital expenditures that would be required to upgrade to full municipal servicing to be economically feasible.

Yours truly,

R.J. Burnside & Associates Limited



Maisy Jefferson, P.Eng.
Project Engineer
JCT/MMJ:tp

cc: Pete O'Donnell, Owner (Via: Email)
Caroline Baker, Planner (Via: Email)

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