

Appendix 21: Parcel 5 – Infrastructure and Financial Overview

Parcel 5 is undeveloped and unserviced land. Infrastructure is required for the Phase I and Phase II development to support the development of the GA Centre Concept and convenience commercial on Parcel 5 including access roads, utility servicing and taxiway improvements.

In Phase I, approximately 400,000 sq. ft. (9 acres) of land is proposed to be developed for neighbourhood commercial purposes while approximately 300,000 sq. ft. (7 acres) of land is anticipated to be developed for GA hangars. In Phase II, approximately 400,000 sq. ft. (9 acres) of land is proposed to be developed for GA Hangars.

Water and Sanitary Servicing Requirements:

Using Ontario Ministry of Environment and Climate Control (MOECC) guidelines for water use and sanitary flow rates, a preliminary analysis of water and sewer requirements for the proposed Phase I and II developments was undertaken for Parcel 5.

As noted in Appendix 15, water supply requirements vary significantly depending on the fire flow requirements and type of use. The fire flow requirements depend on detailed information such as building size, building height, type of construction, etc. which is not available at this stage of the Project. The type of use proposed on Parcel 5 is General Aviation and convenience commercial. Although it is known that different forms of industrial and commercial developments have varying water and sewer needs, in this case it is quite unlikely that any uses with exceptionally high water/sewer needs will locate on Parcel 5 as these uses would generally not fit within the General Aviation or convenience commercial category.

Hence the MOECC guidelines used were a rate of 0.40 litres per second per hectare (l/s/ha) for industrial use and 0.32 l/s/ha for commercial use. The guidelines for both average water requirement and sanitary flow rates are the same. The peak rate is calculated as 3x the average for industrial uses and 2.75x the average for commercial uses. The guideline for the peak calculation is also the same for the water requirement and sanitary flow.

The average and peak water requirements for the Parcel, excluding fire flow requirements, are shown below in Table A21-1.

**Table A21-1:
Preliminary Analysis of Water Requirements for Parcel 5**

Parcel & Land Use	Proposed Development Area (hectares)	Average Case (all shown in l/s)	
		Average Water Requirement	Peak Water Requirement
Parcel 5 - Industrial	6.5	2.59	9.07
Parcel 5 - Commercial	3.6	1.17	3.21

This early analysis also provides average and peak sanitary flow rates as well as the peak sanitary flow including infiltration for each parcel, as shown in Table A21-2 below.

As mentioned in Appendix 15, the infiltration rate used is 0.21 l/s/ha which is based on a combination of the Utilities Kingston suggested infiltration rate of 0.14 l/s/ha and the MOECC standard of 0.28 l/s/ha.

**Table A21-2:
Preliminary Analysis of Sanitary Flows for Parcel 5**

Parcel & Land Use	Proposed Development Area (hectares)	Average Case (all shown in l/s)		
		Average Sanitary Flow	Peak Sanitary Flow	Peak Sanitary Flow incl Infiltration
Parcel 5 - Industrial	6.5	2.59	9.07	10.43
Parcel 5 - Commercial	3.6	1.17	3.21	3.97

The preliminary water and sewer analysis may be used to help determine future servicing needs for the subject parcel, but will need to be studied in greater detail as part of the future servicing plans.

Capital Cost Items Anticipated for Phase I Development:

It is anticipated that the following capital costs will be required to service the Phase I development on Parcel 5. The actual capital costs will be determined at the time of detailed site design:

- Access Road (from Bayridge Drive);
- Servicing (water, sanitary and storm sewers, electric, gas);
- Taxiway improvement; and
- A signalized intersection at Bayridge Drive and Roosevelt Drive might be required.

Lease Revenue, Phase I Development:

The projected area to be leased for Phase I neighbourhood commercial is approximately 400,000 sq. ft. and for the Phase I General Aviation Hangars is 430,000 sq. ft. At the lease rate of \$0.30 per sq. ft. for hangars and \$0.35 per sq. ft. for commercial land, the annual land lease revenue is estimated at \$140,000 and \$129,000 respectively.

Capital Costs Items for Phase II Development:

It is anticipated that the following capital costs will be required to service the Phase II development on Parcel 5. The actual capital costs will be determined at the time of detailed site design:

- Further extension of access road;
- Extension of services; and
- Taxiway improvement.

Lease Revenue:

The projected area to be leased for Phase II General Aviation Hangars is 650,000 sq. ft. The annual lease revenue is estimated at \$195,000.

Out of the 140 acre parcel, only 16 acres is proposed for development in Phase I and only nine (9) acres is proposed for development in Phase II. The proposed phased development reduces the financial risk by limiting the City's investment in the infrastructure to a small portion of the Parcel only. The City will proceed with Phase II development as demand dictates. The investment in infrastructure would be considerable because Parcel 5 is undeveloped and unserviced land. The City will recoup part of its investment through lease revenues. Other benefits include a substantial increase in the property tax base.