

**Responses to IBI Memorandum - Information Request: Growth Forecast and Level of Service Calculations, dated March 29, 2018**

1. **Residential Supply** – The level of detail being asked has not been consolidated and summarized by application; however, the number of units within each application is based on development approvals and detailed within the City’s Development Priorities Plans, the applicable decision reports or certified by-laws, which are all publicly available on the City’s website. The exact timing for each application is completely dependent upon the builder and cannot be predicted, however, the City does manage the rate and timing of growth through the annual Development Priorities Plan. Servicing considerations are available through the various City-Wide Master Plans which provide an overview of required infrastructure and the associated timing. The Guelph Innovation District Secondary Plan contains the target population and employment growth along with the respective residential and employment densities which are detailed by block plan area. Assumptions for the uncommitted lands are from the Local Growth Management Strategy, and are based on historic development activity, adjusted to reflect recent trends and to ensure achievement of the Growth Plan targets.
2. **Student Housing** – Yes, the growth forecast excludes private off-campus student housing units. This has been the approach used in previous DC Background Studies (DCBS) prepared for the City of Guelph. During the preparation of this DCBS growth forecast discussions were held with City staff regarding anticipated purpose-built student housing projects within the City over the forecast period. The City has identified that there are no purpose-built student housing projects currently being reviewed in the development approvals process. Forecast off-campus student housing growth is anticipated to be modest for the City over the long-term forecast period. For these reasons, student households were not included in the DCBS, consistent with previous DCBS reports.
3. **Approach to Growth Forecast** – The DCBS 10-year growth forecast considers both supply (e.g. greenfield housing units in the development approvals process, housing intensification opportunities, supply of employment lands) and demand factors (e.g. historical development trends, anticipated housing demand by structure type, historical and forecast trends in housing occupancy, employment demand by major sector) within the Provincial and local planning policy framework. The build-out forecast is largely based on the supply of designated urban lands, excluding the Clair Maltby Secondary Plan Area.
4. **Timing of Residential Growth** – Buildout represents the quantum of residential and non-residential development which is anticipated to be yielded on designated greenfield lands and identified intensification areas within the City, excluding the Clair-Maltby Secondary Plan (CMSP) Area. It is noted that only the reserve and Special Study Area (formerly Open Space) lands are excluded from the CMSP forecast, which is consistent with the approach used in the 2014 DCBS. The exact timing of residential and non-residential buildout is not known. It is anticipated that the majority of the City’s remaining low and medium-density housing units identified in Schedule 6 will be developed shortly after 2031. It is foreseeable that a portion of the identified high-density housing supply identified in Schedule 6 may take longer to develop relative to the low and medium-density housing.

5. **Unit Mix** – Schedule 7 (Historical Residential Building Permits) provides a summary of historical residential development activity between 2008 and 2017. It is noted that both the CMHC housing completion data and City of Guelph building permit data show a steady shift in housing activity by structure type over the past 10 years from low-density to high-density.
6. **Accessory Apartments** – City of Guelph considers an accessory apartment as a self-contained unit within a single-detached, semi-detached or townhome unit. Accessory apartments are included in the growth forecast as they contribute to the City’s Official Plan population and housing forecast. It is noted that the buildout forecast for high-density households exceeds the City’s housing supply estimates (as summarized in Schedule 6) when accounting for accessory apartments.
7. **Timing of Non-Residential Employment Growth** – Similar to the residential buildout forecast, the timing of non-residential growth between 2028 and 2031 has not been explicitly determined as part of the DCBS. We would note that the timing of buildout of the non-residential growth forecast is anticipated to occur beyond 2041.
8. **Facility Replacement Costs:** Some facility replacement costs have increased significantly, compared to the 2013 Development Charges Background Study. Please provide sources for replacement cost assumptions. Please provide the breakdown by component (Land [\$/ha], Site Works [\$/ha], building [\$/sqm) and other inputs used for each facility.

The building replacement costs were updated by Mario Petricevic, General Manager of Facilities Management, and are based similar projects completed at the City of Kitchener and the City of Guelph.

In addition to the construction costs, an allocation for furniture fixtures and equipment (FF&E) are included at 5% of average construction costs for most facilities. For Fire and Police 10% is used for FF&E, for Library 15% is used for FF&E due to all the shelving and other specialized equipment requirements. An average value of land is then applied to the acreage of land the facilities are situated on. The land values were updated based on current MPAC assessments data for the area as well as recent sales data. Land values related to health and ambulance facilities were based on the County’s 2017 D.C. study. The land values used are as follows:

- Health Facilities & Ambulance \$102,000/acre (based on average land values in the County, as per the County’s 2017 D.C. study (indexed to 2018);
- Library – Baker Street Property – based on actual cost of \$4.7 million/acre; and
- All other facilities \$780,000/acre.

In addition to the construction, FF&E and land values, an additional 5% was added to account for all parking and site works at the facilities.

It is noted that the actual size (acres) of properties were used where known. When actual size was unknown or where there were shared facilities, an assumption was made based on three times lot coverage of the facility.

See Table A attached for additional details on a facility by facility basis.

- 9. Road Replacement Costs:** - The road replacement costs have increased significantly compared to the 2013 Development Charges Background Study. These costs have been updated to reflect current replacement values based on data collected from tenders and previous projects, which provide a breakdown in construction costs to the unit. Guelph's Design Standards were then used to identify the quantities and thicknesses of materials used, along with consultation of Project Management staff to reflect current construction practices.

The resulting unit costs take into consideration the entirety of the construction process, from start-up to completion. Included in the unit costs are the following:

- Design, Contingency and Contract Administration expenditures.
- Start-up Costs: this includes mobilization, bonding, traffic control, etc.
- Removals: this includes all removals of asphalt, concrete, and piping.
- Paving and roadway surfacing: this includes the laying of new asphalt on the roadway, and dust control (but not multiuse paths).
- Line painting and signage: this includes the painting of all symbols and lines on the roadway.
- Streetscaping: this includes sidewalks and curbs.
- Planting of the boulevards: this includes trees & grass seed.

Preliminary costing does not include streetlights, updates will be provided as part of final service standard calculations.

2018 DC Background Study

Revised Draft Service Standard – Services Related to a Highway – Roads (including land value):

**City of Guelph**  
**Service Standard Calculation Sheet**

Service: Services Related to a Highway - Roads Including Land Values  
Unit Measure: km of roadways

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Value (\$/km)	
<b>Roads Related:</b>												
Collectors - Rural kilometres												
2 lane	14	14	14	14	14	14	14	14	14	14	\$2,629,000	
Collectors - Urban kilometres												
2 lane	53	53	53	53	53	53	53	53	53	53	\$3,019,000	
3 lane	3	3	3	3	3	3	3	3	3	3	\$3,196,000	
Arterial - Rural Kilometres												
2 lane	35	35	35	35	35	35	35	35	35	35	\$2,920,000	
Arterial - Urban Kilometres												
2 lane	11	11	11	11	11	22	34	45	57	68	\$2,939,000	
3 lane	5	5	5	5	5	5	5	5	5	5	\$4,497,000	
4 lane	52	52	52	52	52	44	36	29	21	13	\$5,188,000	
5 lane	-	-	-	-	-	1	1	1	1	1	\$5,188,000	
6 lane	-	-	-	-	-	1	1	1	1	1	\$5,188,000	
<b>Active Transportation Related:</b>												
On-Road AT (km)	-	-	-	-	-	-	-	-	-	1	1	\$232,800
Off-Road AT (km)	16	16	16	20	20	25	25	25	25	25	\$268,700	
<b>Total</b>	<b>189</b>	<b>189</b>	<b>189</b>	<b>193</b>	<b>193</b>	<b>204</b>	<b>207</b>	<b>211</b>	<b>215</b>	<b>219</b>		

Population	117,666	119,073	120,085	121,688	123,275	125,003	127,232	129,157	131,794	134,033
Per Capita Standard	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016

10 Year Average	2008-2017
Quantity Standard	0.0016
Quality Standard	\$3,178,063
Service Standard	\$5,085

DC Amount (before deductions)	Build Out
Forecast Population	34,519
\$ per Capita	\$5,085
Eligible Amount	\$175,525,663

2018 DC Background Study

Revised Draft Service Standard – Services Related to a Highway – Roads (excluding land value):

**City of Guelph**  
**Service Standard Calculation Sheet**

Service: Services Related to a Highway - Roads Excluding Land Values  
Unit Measure: km of roadways

Description	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018 Value (\$/km)
<b>Roads Related:</b>											
Collectors - Rural kilometres											
2 lane	14	14	14	14	14	14	14	14	14	14	\$2,100,000
Collectors - Urban kilometres											
2 lane	53	53	53	53	53	53	53	53	53	53	\$2,490,000
3 lane	3	3	3	3	3	3	3	3	3	3	\$2,636,000
Arterial - Rural Kilometres											
2 lane	35	35	35	35	35	35	35	35	35	35	\$2,391,000
Arterial - Urban Kilometres											
2 lane	11	11	11	11	11	22	34	45	57	68	\$2,410,000
3 lane	5	5	5	5	5	5	5	5	5	5	\$3,687,000
4 lane	52	52	52	52	52	44	36	29	21	13	\$4,254,000
5 lane	-	-	-	-	-	1	1	1	1	1	\$4,254,000
6 lane	-	-	-	-	-	1	1	1	1	1	\$4,254,000
<b>Active Transportation Related:</b>											
On-Road AT (km)	-	-	-	-	-	-	-	-	1	1	\$232,800
Off-Road AT (km)	16	16	16	20	20	25	25	25	25	25	\$268,700
<b>Total</b>	<b>189</b>	<b>189</b>	<b>189</b>	<b>193</b>	<b>193</b>	<b>204</b>	<b>207</b>	<b>211</b>	<b>215</b>	<b>219</b>	

Population	117,666	119,073	120,085	121,688	123,275	125,003	127,232	129,157	131,794	134,033
Per Capita Standard	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016	0.0016

10 Year Average	2008-2017
Quantity Standard	0.0016
Quality Standard	\$2,610,625
Service Standard	\$4,177

DC Amount (before deductions)	Build Out
Forecast Population	34,519
\$ per Capita	\$4,177
Eligible Amount	\$144,185,863

**10. Land Costs for Road Capital Projects:** Please provide a list of historical examples where the City incurred land costs for road capital projects.

1. Woodlawn Multi-use path projects
2. Speedvale widening
3. York Trunk past Victoria Road to the City Limits (this is an anticipated future purchase)

**11. Waste Diversion:** Please provide additional details on how “eligible split by type and source” was prepared. Also, provide additional information on what portion of waste diversion service is attributable to residents and employment.

	% Attributable to Recycle and Organics from City Sources									
<b>Facility and Related Assets</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>
Administration Centre	0.33	0.33	0.34	0.20	0.30	0.32	0.26	0.21	0.24	0.22
East Scale House	0.66	0.66	0.60	0.52	0.58	0.62	0.45	0.36	0.09	0.08
Household Hazardous Waste	0.84	0.80	0.73	0.74	0.75	0.77	0.78	0.72	0.75	0.75
Material Recovery Facility	0.49	0.49	0.43	0.46	0.48	0.60	0.33	0.26	0.40	0.52
Organic Waste Processing Facility	1.00	1.00	1.00	0.79	0.57	0.54	0.54	0.53	0.52	0.35
Transfer Station (Includes commingled C&D)	0.09	0.09	0.10	0.08	0.04	0.04	0.04	0.01	0.00	0.00
West Scale House	0.18	0.18	0.24	0.20	0.21	0.18	0.15	0.10	0.48	0.46
New PDO Pad (Includes source separated C&D)	0.18	0.18	0.24	0.20	0.21	0.18	0.15	0.10	0.48	0.46
Recycle Zone (was old PDO pad)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
Yardwaste	0.90	0.90	0.90	0.96	0.96	0.99	0.94	0.99	0.98	0.99
Roll off (all MRF transfers, and only PDO divertable transfers)	0.24	0.24	0.28	0.25	0.24	0.25	0.31	0.43	0.37	0.30
Dual Stream Packers	0.00	0.00	0.00	0.00	0.76	0.76	0.76	0.76	0.76	0.76
Single Stream Packers that are 100% recycle or organics	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Staff determined the eligible splits by type and source through an analysis of the transactional history over the last 10 years and the operational processes of each facility, piece of equipment and vehicle.

Table A

	2013 Bldg \$/ft2	2018 Bldg \$/ft2	% Change	2013 Bldg with land, site works, etc.	2018 Bldg with land, site works, etc.	% Change	2013 Cost/Acre attributable to land	2018 Cost/Acre attributable to land
<b>Fire Facilities</b>								
Headquarters (50 Wyndham St.)	220	245	11.4%	247	318	28.7%	\$75,000	\$780,000
Station #2 (Speedvale Ave)	168	250	48.8%	214	345	61.2%	\$75,000	\$780,000
Station #3 (Stone Road)	168	250	48.8%	195	391	100.5%	\$75,000	\$780,000
Station #4 (21 Imperial Road)	181	250	38.1%	206	345	67.5%	\$75,000	\$780,000
Station #5 (Victoria/Elizabeth Road)	288	321	11.5%	340	606	78.2%	\$75,000	\$780,000
Station #6 (160 Clair CRESC)	276	307	11.2%	323	735	127.6%	\$75,000	\$780,000
<b>Police Facilities</b>								
Headquarters - 15 Wyndham St. South	300	334	11.3%	333	400	20.1%	\$75,000	\$780,000
Beechwood Avenue - Storage	134	149	11.2%	149	190	27.5%	\$75,000	\$780,000
Royal Storage	134	149	11.2%	153	229	49.7%	\$75,000	\$780,000
Clair Road Emergency Services Centre	276	308	11.6%	358	412	15.1%	\$75,000	\$780,000
Hanlon Park Storage- media	134	149	11.2%	149	229	53.7%	\$75,000	\$780,000
<b>Services Related to a Highway-Facilities</b>								
Large Sand/salt Domes	60	67	11.7%	136	803	490.4%	\$75,000	\$780,000
Small Sand/salt Domes	60	67	11.7%	136	803	490.4%	\$75,000	\$780,000
Operatings Main Building, storage and garage (45 Municipal)	133	148	11.3%	159	289	81.8%	\$75,000	\$780,000
Annex Building at 50 municipal street (70%)	125	139	11.2%	143	225	57.3%	\$75,000	\$780,000
Cold Storage Barn	60	67	11.7%	174	1190	583.9%	\$75,000	\$780,000
Community Services	250	279	11.6%	281	364	29.5%	\$75,000	\$780,000
Public Works Engineering Admin	315	351	11.4%	353	443	25.5%	\$75,000	\$780,000
<b>Indoor Recreation Facilities</b>								
Centennial Arena	215	350	62.8%	242	442	82.6%	\$75,000	\$780,000
Exhibition Arena	207	350	69.1%	234	442	88.9%	\$75,000	\$780,000
Exhibition Hall	161	350	117.4%	183	442	141.5%	\$75,000	\$780,000
University of Guelph Arena (@ 25%)	79	102	29.1%	93	169	81.7%	\$75,000	\$780,000
Delhi St. Rec Centre	147	350	138.1%	167	442	164.7%	\$75,000	\$780,000
Victoria Rd. Rec. Centre - Aquatic	279	450	61.3%	313	553	76.7%	\$75,000	\$780,000
Victoria Rd. Rec. Centre - Arena	215	350	62.8%	242	442	82.6%	\$75,000	\$780,000
Victoria Rd. Rec. Centre - Community	135	350	159.3%	154	442	187.0%	\$75,000	\$780,000
Evergreen Seniors Centre	186	350	88.2%	210	468	122.9%	\$75,000	\$780,000
Centennial Pool	280	450	60.7%	314	553	76.1%	\$75,000	\$780,000
Lyon Pool	106	450	324.5%	122	553	353.3%	\$75,000	\$780,000
Parks Maint. Building (Riverside)	102	250	145.1%	118	332	181.4%	\$75,000	\$780,000
West End Community Centre - Aquatic	280	250	-10.7%	314	332	5.7%	\$75,000	\$780,000
West End Community Centre - Arena	215	450	109.3%	242	553	128.5%	\$75,000	\$780,000
West End Community Centre - Community	213	350	64.3%	240	442	84.2%	\$75,000	\$780,000
Community Centre - Lawn Bowling	213	350	64.3%	240	442	84.2%	\$75,000	\$780,000
<b>Library Facilities</b>								
Main Branch (Paisley)	200	220	10.0%	241	322	33.6%	\$75,000	\$780,000
Scottsdale Drive Branch	150	250	66.7%	182	358	96.7%	\$75,000	\$780,000
Bullfrog Mall	150	250	66.7%	182	358	96.7%	\$75,000	\$780,000
West End Branch	189	250	32.3%	228	358	57.0%	\$75,000	\$780,000
Westminister Branch	226	250	10.6%	271	358	32.1%	\$75,000	\$780,000
East Side Branch	179	250	39.7%	222	358	61.3%	\$75,000	\$780,000
Phase 1 Library Land Purchase				4,400,000	4,713,000	7.1%	\$4,400,000	\$4,713,000
<b>Health Facilities</b>								
Aboyne	206	230	11.7%	233	261	12.0%	\$50,000	\$102,000
Southgate Drive	180	200	11.1%	204	228	11.8%	\$50,000	\$102,000
Shelldale	180	200	11.1%	204	228	11.8%	\$50,000	\$102,000
Orangeville	129	140	8.5%	148	162	9.5%	\$50,000	\$102,000
Shleburne	129	140	8.5%	148	162	9.5%	\$50,000	\$102,000
New Mount Forest	292	330	13.0%	327	371	13.5%	\$50,000	\$102,000
Palmerston	129	140	8.5%	148	162	9.5%	\$50,000	\$102,000
<b>Ambulance Facilities</b>								
Guelph `0`	138	180	30.4%	158	206	30.4%	\$50,000	\$102,000
Guelph `01` Base	157	180	14.6%	179	206	15.1%	\$50,000	\$102,000
Fergus Base	107	180	68.2%	123	206	67.5%	\$50,000	\$102,000
Mount Foreset Base	106	180	69.8%	122	206	68.9%	\$50,000	\$102,000
Arthur Base	138	180	30.4%	158	206	30.4%	\$50,000	\$102,000
Harriston Base	138	180	30.4%	158	206	30.4%	\$50,000	\$102,000
Drayton Base	138	180	30.4%	158	206	30.4%	\$50,000	\$102,000
Guelph 03 Base (Clair Road)	272	400	47.1%	338	448	32.5%	\$50,000	\$102,000
Rockwood Base	270	180	-33.3%	303	206	-32.0%	\$50,000	\$102,000