

# Service Business Plan



<b>Service Name</b>	Roads and Structures - Design and Construction	<b>Service Type</b>	Public
<b>Service Owner Name</b>	Scott Hamilton	<b>Budget Year</b>	2017
<b>Service Owner Title</b>	Manager of Design and Construction		

## Service Description

A public service to provide design and construction services for roads and structures.

## Current State

<p>Customers &amp; Their Expectations</p>	<p>This service is delivered to:</p> <ul style="list-style-type: none"> <li>• The public</li> <li>• Council</li> <li>• Senior management</li> <li>• Other City services</li> <li>• Other municipalities</li> <li>• Utilities</li> <li>• Private companies</li> <li>• Government agencies.</li> </ul> <p>The most important customer is the public. The public expects that Burlington’s roadways are designed and built to specifications that will provide a high level of service over a long life, at a low cost, with safety and overall customer satisfaction in mind.</p> <p>This service affects Burlington residents and visitors to our community every day. The condition of the roads generally reflects the values, livability and prosperity of a community.</p>
<p>Existing Service Delivery</p>	<p>This service is responsible for environmental assessments, permitting, planning, design, project management, construction and inspection of all road and bridge structure projects within City-owned rights-of-way. These are identified in the Capital Budget or required by third-party developers.</p> <p>This service supports other service providers in approving and coordinating all utility companies and Region of Halton municipal consent applications for works within City rights-of-way.</p> <p>This is accomplished through effective infrastructure asset management, planning and cost estimating, design and inspection of City construction works/new development and management of utility company work.</p> <p>This service is delivered in consultation and collaboration with other departments, municipalities, agencies and utility companies.</p>

Existing Customer Engagement Tools / Methods	In person, by phone, e-mail, committee reports, City website, public questionnaires, surveys, public open house, 311 and Council-approved Annual Capital Budget.
Is this Service Provincially Legislated?	Yes Biennial bridge inspections (legislated by the Province).
For this Service are there Approved Service Standards?	No N/A

## Sub-Services

Survey	Responsible for carrying out all functions required to complete a topographic field survey for the purposes of: <ul style="list-style-type: none"> <li>• Creating pre-design base drawings</li> <li>• Completing as-built construction drawings</li> <li>• Confirming property lines</li> <li>• Confirming public/private tree ownership.</li> </ul>
Design	Responsible for carrying out all functions required to complete a detailed design, including: <ul style="list-style-type: none"> <li>• Class Environmental Assessments</li> <li>• Functional designs</li> <li>• Preliminary designs</li> <li>• Detailed designs</li> <li>• Preliminary and detailed cost estimates</li> <li>• Holding public open houses</li> <li>• Acquiring all necessary regulatory permits and approvals.</li> </ul>
Construction Administration	Responsible for the overall administration of the construction process, including: <ul style="list-style-type: none"> <li>• Preparing and tendering the construction specifications</li> <li>• Delivering public notifications</li> <li>• Responding to public complaints/concerns</li> <li>• Holding regular on-site progress meetings</li> <li>• Confirming quantities</li> <li>• Issuing payment certificates</li> <li>• Overall project management.</li> </ul>
Construction Inspection	Responsible for on-site field inspection to ensure that the contractor's work is carried out in a safe and professional manner, and is completed to the City's standards and specifications as tendered.

## Recent Continuous Improvement Initiatives

Improvements continue to be made in how Capital Construction projects are tendered to achieve optimum pricing. Staff were successful in contractor prequalification for 2016 on large scale projects that resulted in shortened construction windows and reduced staff costs/public impact. This allowed staff to ensure that the Contractor had adequate resources available to deliver the project in a timely manner and control the impact on neighboring projects.

Internally, we are utilizing technology and changing skillsets to become more efficient within our existing staff complement. Through attrition, the Design and Construction section are replacing the draftsperson position with that of a Senior Designer who is able complete both the design and drafting components of a project from start to finish.

## Emerging Opportunities and Anticipated Risks

Emerging Opportunities	With a long-term Asset Management Plan, there will be an increase in the number of renewal projects we deliver each year. The added funding will allow us to reduce the infrastructure funding gap and replace/repair our roadway infrastructure at the right time.
Anticipated Risks	<p>With the added funding, staff will have to deliver more projects, putting increased workload on our Design &amp; Construction section of the Capital Works Department. We will have to continue to improve our methods to increase project delivery.</p> <p>If staffing levels are maintained or decreased, work would be outsourced to consultants to ensure the timely delivery of the Capital Program and maintain a healthy backlog. This would increase project costs, resulting in fewer projects delivered each year for the funding provided.</p>

## Service Objectives

## Target Completion

Have one-third of roadway construction projects tendered	Mar 2017
Have two-thirds of roadway construction projects tendered	May 2017
Secure Ministry of Environment permits for upcoming year construction projects	Jan 2017
Complete preliminary cost estimates for upcoming year Capital Budget	Aug 2016

# MEASURING SUCCESS

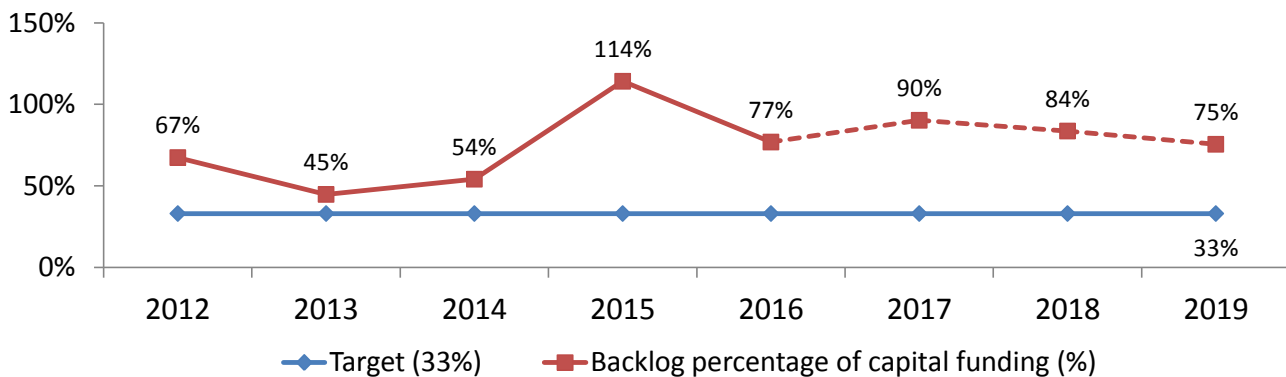
## How much did we do?

Performance Measurement	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Projection	2017 Forecast	2018 Forecast	2019 Forecast
Value of roadways annual capital budget (millions)	\$21.83	\$26.61	\$44.26	\$20.43	\$28.57	\$25.97	\$27.92	\$47.54
Value of capital project backlog (millions)	\$14.70	\$11.90	\$23.93	\$23.32	\$21.96	\$23.43	\$23.35	\$35.89
Value of capital work delivered (millions)	\$28.73	\$29.41	\$32.23	\$21.04	\$29.93	\$24.50	\$28.00	\$35.00

## How well did we do it?

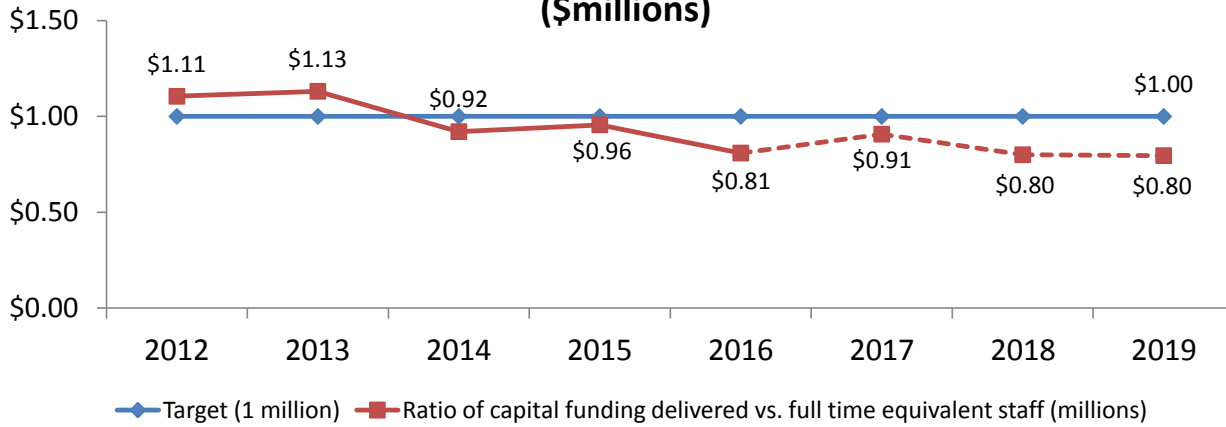
Performance Measurement	Backlog Percentage of Capital Funding for Road and Structure - Design and Construction
Story behind the data	<p>The Capital Backlog is the unspent portion of the approved Capital Budget. We anticipate some backlog, recognizing that some projects will carry over multiple years due to their size. Best practices indicate that a normal or healthy backlog is one-third (33%) of the projected expenditure for that year.</p> <p>We need to maintain a healthy backlog target of 33% to ensure that the assets are being fixed/replaced at the optimum time when approved funding is already available. The backlog spike in 2015 was a result of the increase in external funding in 2014 to the Capital Program. This spike is expected to occur again in 2020 with our Joint Venture projects with the City of Hamilton and Metrolinx.</p>

**Backlog Percentage of Capital Funding for Road and Structure - Design and Construction**



<b>Performance Measurement</b>	Ratio of Capital Funding Delivered per Full Time Staff (\$millions)
Story behind the data	<p>This ratio measure estimates whether we have sufficient resources. This approach does have an element of variability depending on the composition of the Capital program in any given year. The staff time for Contract Administration of Regional works under joint contracts with the City are excluded from this metric as Region of Halton works are not included in the Annual Capital Budget amount.</p> <p>Best planning estimates are at \$1 Million for each staff member involved in the Capital program. A ratio of 1.0 is an efficient use of staff resources, according to industry standards.</p> <p>In 2016 we had a significant amount of redesign work on New St post tender that resulted in projects being deferred and increasing work for consultants to mitigate a backlog spike in 2017. Our managing of Consultants to maintain a healthy backlog is further reducing our efficiency to deliver our Capital Program.</p>

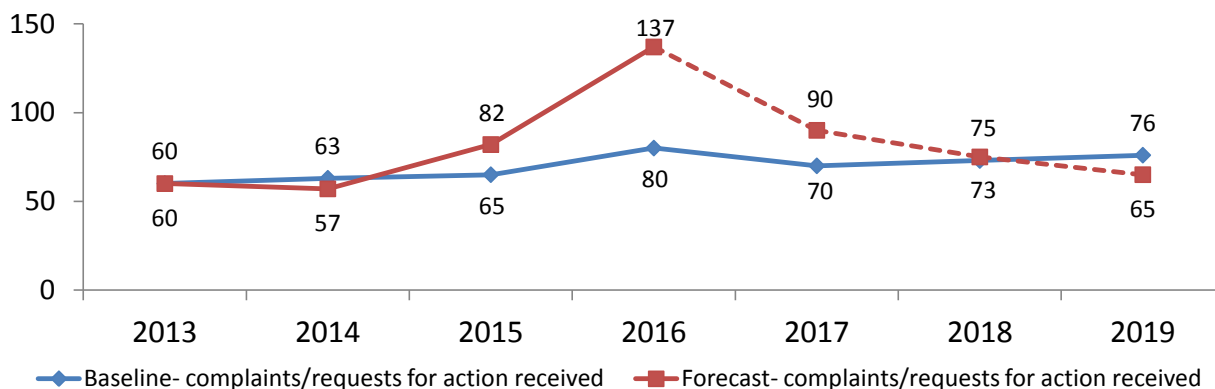
**Ratio of Capital Funding Delivered per Full Time Staff (\$millions)**



**Is anyone better off?**

<b>Performance Management</b>	Number of Resident Complaints for Road and Structure - Design and Construction Service
Story behind the data	<p>The number of complaints were expected to increase in 2016 as there were numerous high profile projects that affected a larger group of people. Contractors inability to maintain adequately trained staff are also having a trickle down effect on the projects being completed correctly and on time, thus increasing public frustration and staff time to ensure built correctly.</p> <p>As the road conditions deteriorate, the number of complaints/requests for action from residents and Councillors increases. The bulk of the complaints received in 2016 were in relation to dust control and dead sod as a result of the dry hot weather this summer.</p>
Where do we want to go?	We want to establish proactive and timely road repairs and reduce the number of complaints re: Road and Structure - Design and Construction Service.

**Number of Resident Complaints for Road and Structure - Design and Construction**



2017 OPERATING BUDGET

**SERVICE RESOURCE SUMMARY**

**ROADS AND STRUCTURES - DESIGN AND CONSTRUCTION**

**Service Description**

A public service to provide design and construction services for roads and structures

**Service Owner Name**

Scott Hamilton

	2015	2016		2017 Proposed				
	Actual	Budget	Year End Projections	Base Budget	% Change vs. 2016 Budget	Business Cases	Total Budget	% Change vs. 2016 Budget
Human Resources	\$ 2,636,549	\$ 2,867,120	\$ 2,852,335	\$ 2,943,250	2.7%	\$ -	\$ 2,943,250	2.7%
Operating/Minor Capital Equip.	\$ 61,532	\$ 86,730	\$ 81,130	\$ 78,410	-9.6%	\$ -	\$ 78,410	-9.6%
Purchased Services	\$ 101,487	\$ 89,930	\$ 85,345	\$ 92,707	3.1%	\$ -	\$ 92,707	3.1%
Corp. Expenditures/Provisions	\$ -	\$ -	\$ -	\$ -	n/a	\$ -	\$ -	n/a
Internal Charges & Settlements	\$ 4,826	\$ 9,044	\$ 9,044	\$ 8,360	-7.6%	\$ -	\$ 8,360	-7.6%
<b>TOTAL EXPENDITURES</b>	<b>\$ 2,804,394</b>	<b>\$ 3,052,824</b>	<b>\$ 3,027,854</b>	<b>\$ 3,122,727</b>	<b>2.3%</b>	<b>\$ -</b>	<b>\$ 3,122,727</b>	<b>2.3%</b>
Controllable Revenues	\$ (38,335)	\$ (31,000)	\$ (30,000)	\$ (21,500)	-30.6%	\$ -	\$ (21,500)	-30.6%
General Revenues & Recoveries	\$ (1,749,751)	\$ (1,518,000)	\$ (1,899,000)	\$ (1,637,600)	7.9%	\$ -	\$ (1,637,600)	7.9%
<b>TOTAL REVENUES</b>	<b>\$ (1,788,086)</b>	<b>\$ (1,549,000)</b>	<b>\$ (1,929,000)</b>	<b>\$ (1,659,100)</b>	<b>7.1%</b>	<b>\$ -</b>	<b>\$ (1,659,100)</b>	<b>7.1%</b>
<b>NET OPERATING BUDGET</b>	<b>\$ 1,016,309</b>	<b>\$ 1,503,824</b>	<b>\$ 1,098,854</b>	<b>\$ 1,463,627</b>	<b>-2.7%</b>	<b>\$ -</b>	<b>\$ 1,463,627</b>	<b>-2.7%</b>