RE:EX12.2u

Engineering & Construction Services

Service Level Review

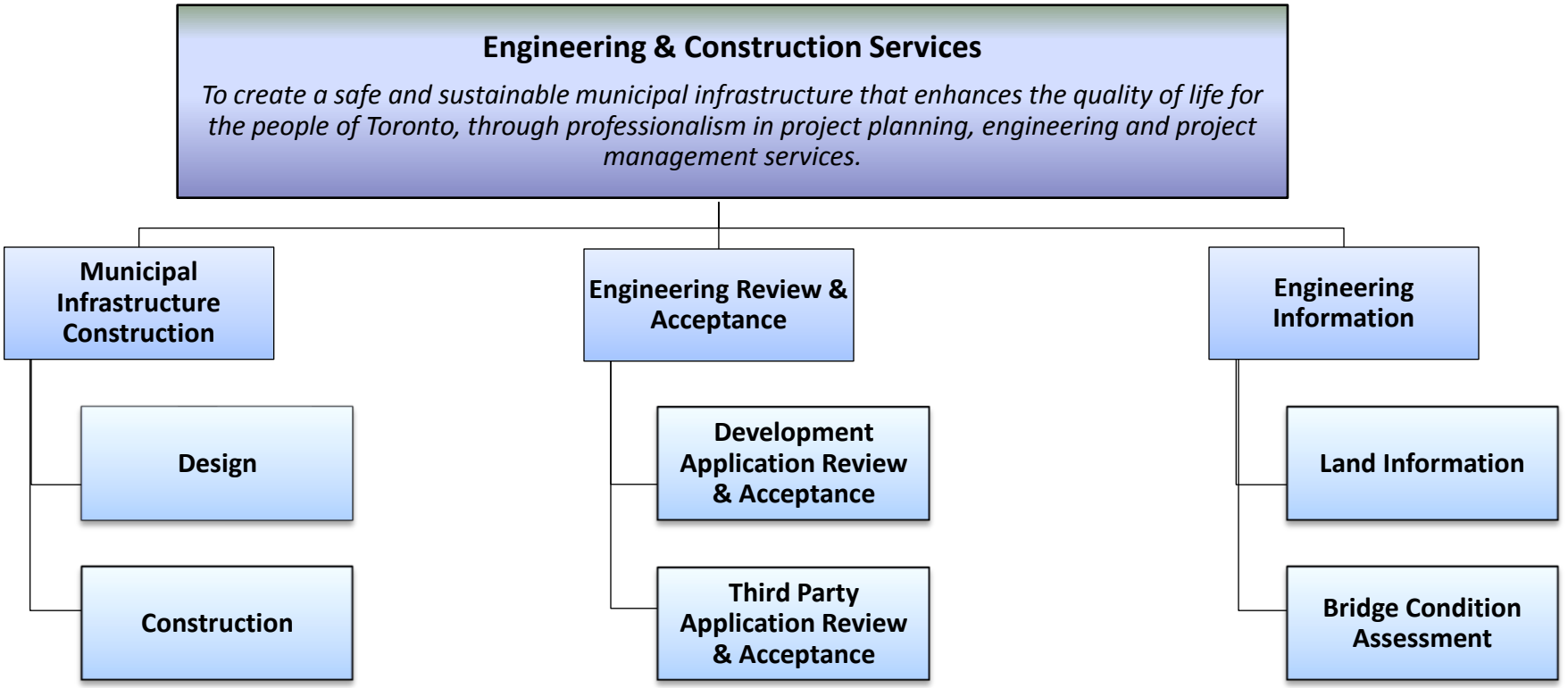
Public Works and Infrastructure Committee Presentation
June 17, 2015

TORONTO

Overview

- Engineering & Construction Services Program Map
- Capital Coordination Framework
- Service Levels and Service Performance
- Service Challenges and Opportunities
- Strategies and Priority Actions to Address Issues and Achieve Results

Engineering & Construction Services 2015 Program Map

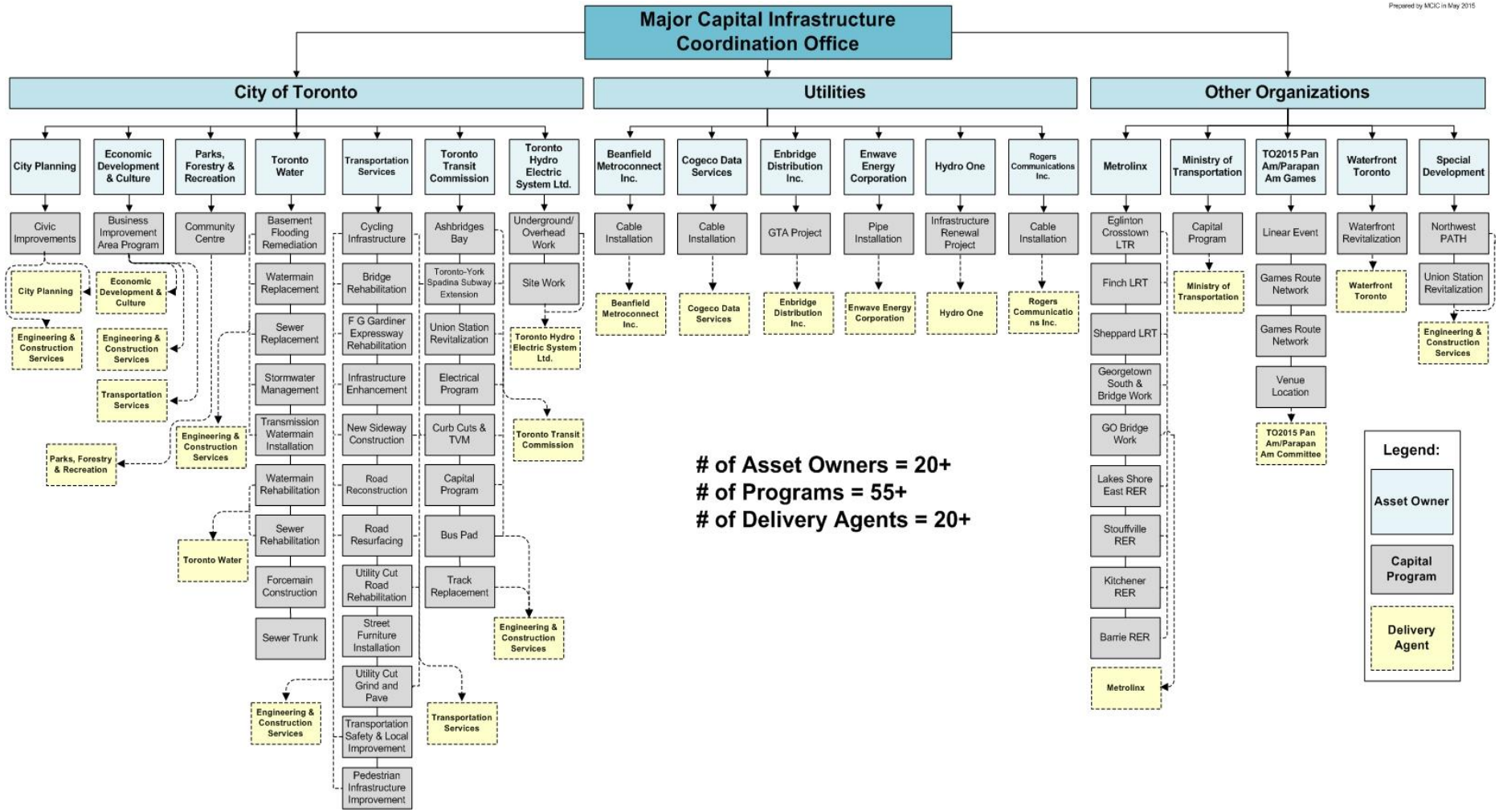


Municipal Infrastructure and Design
To provide engineering and project management services to internal clients (Toronto Water, Transportation Services, Solid Waste Management Services) for the construction of new and upgraded infrastructure including:
- Roads & Bridges
- Sewers & Watermains
- Stormwater Management Facilities
- Water and Wastewater Treatment Facilities
- Solid Waste Management Facilities

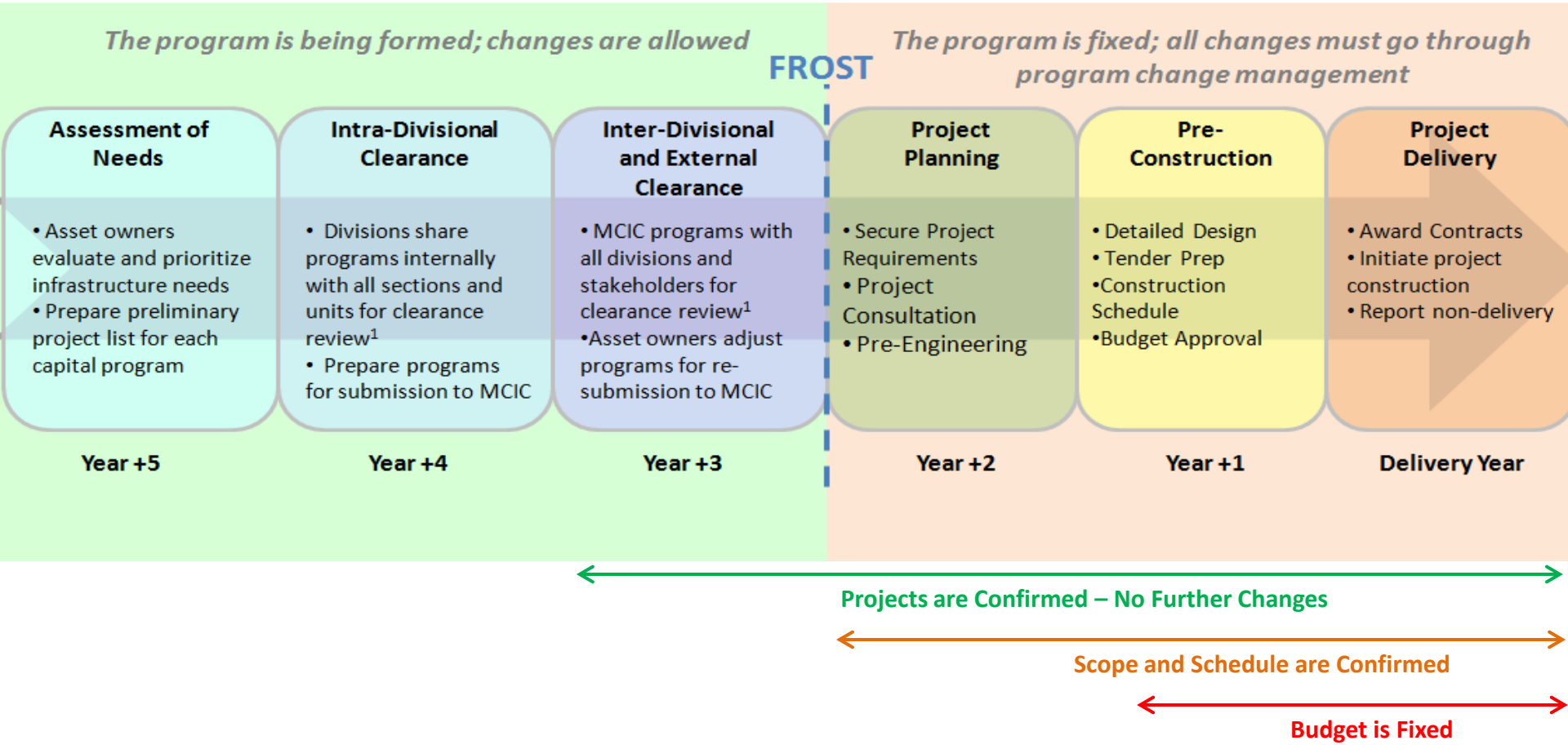
Engineering Review and Acceptance
To provide engineering review and acceptance services to external clients:
- development industry
- utility companies
- public agencies

Engineering Information
To establish and maintain effective technical and data support to the various business units across the division and cluster involved in managing and building the City's infrastructure

Multi-year Capital Coordination Process



Multi-year Capital Coordination Process



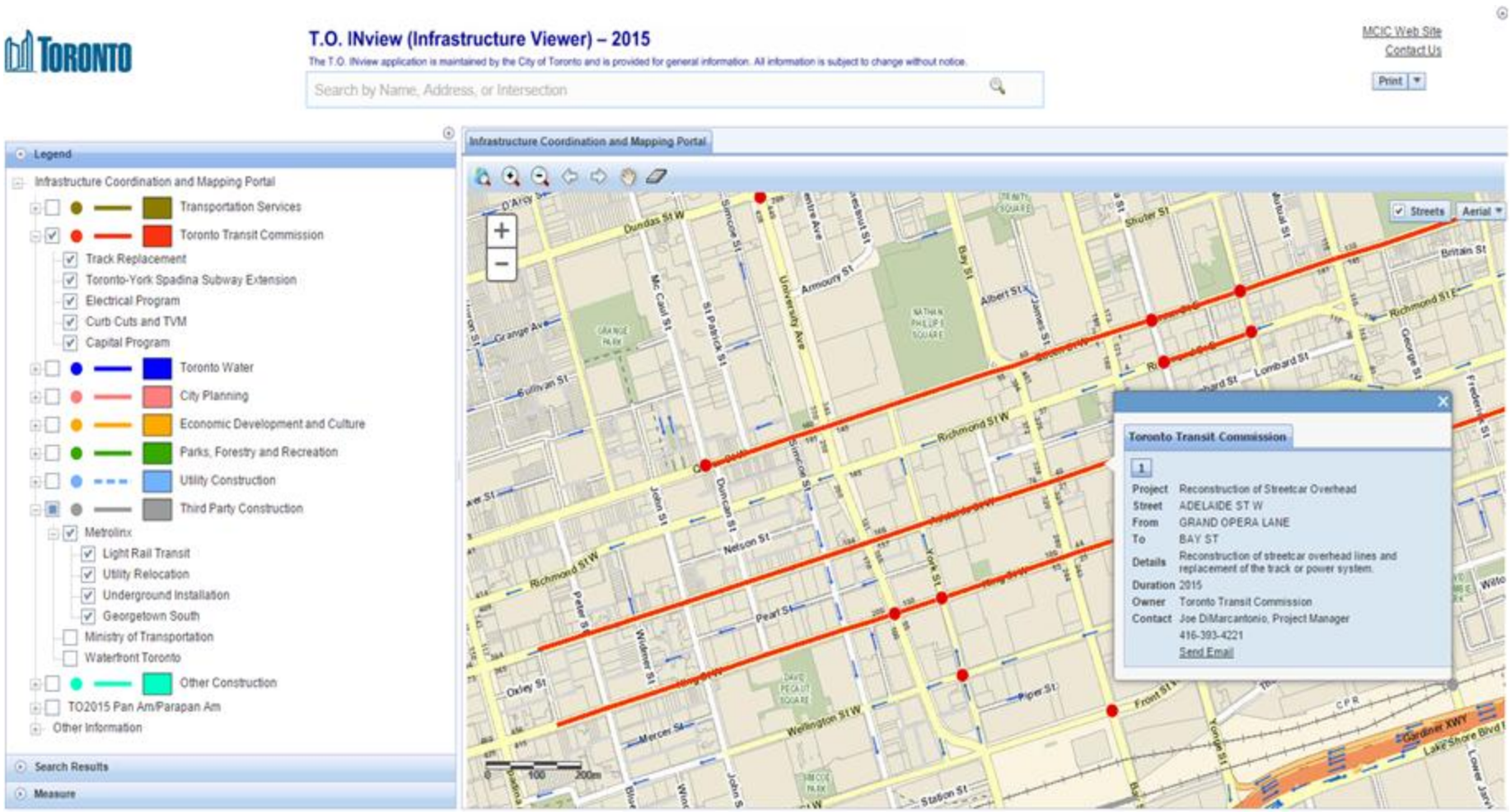
*FROST = Final Review of Scope and Timing

Multi-year Capital Coordination Process

- Goal: Bundle and sequence projects to: *avoid conflicts*, *minimize disruption* and *improve delivery rates*.

  - ✓ A *multi-year perspective* ensures the **correct sequence** of work (e.g., underground work preceding construction at-grade).
  - ✓ A *multi-agency approach* achieves **construction efficiencies** (e.g., joint excavation and effective work-zone coordination).
  - ✓ A *multi-stage process* **minimizes disruption** to road users (e.g., coordination with transit operations and routine maintenance of buried plant and equipment).

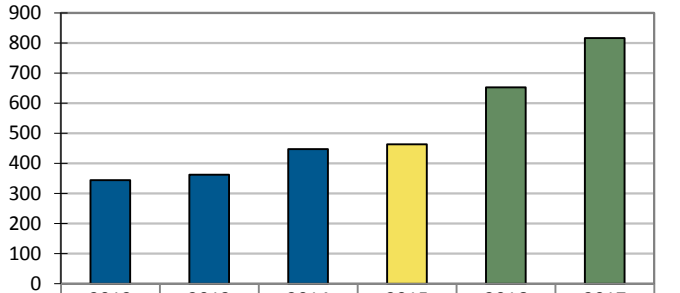
Multi-year Capital Coordination Process



Service Levels – 2012 - 2018

Service Level Description		2012	2013	2014	2015	2016	2017	2018
Municipal Infrastructure Construction								
Tenders / RFPs / RFQs issues compared to plan	Approved	90%	90%	90%	90%	90%	90%	90%
	Actual	96%	91%	124%	n.a.	n.a.	n.a.	n.a.
Contracts substantially completed compared to plan	Approved	90%	90%	90%	90%	90%	90%	90%
	Actual		33%	95%	n.a.	n.a.	n.a.	n.a.
Year end actual expenditure as a percentage of approved cap	Approved	80%	80%	80%	80%	80%	80%	80%
	Actual	77%	74%	86%	n.a.	n.a.	n.a.	n.a.
Engineering Review & Acceptance								
Development Applications review and acceptance within STAR timelines	Approved	75%	75%	75%	75%	75%	75%	75%
	Actual	61%	85%	95%	n.a.	n.a.	n.a.	n.a.
Engineering drawing sets reviewed within set timelines	Approved	75%	75%	75%	75%	75%	75%	75%
	Actual	88%	96%	93%	n.a.	n.a.	n.a.	n.a.
Third Party and Utility Applications review and acceptance within 20 working days	Approved	90%	90%	90%	90%	90%	90%	90%
	Actual	97%	99%	99%	n.a.	n.a.	n.a.	n.a.
Engineering Information								
Bridge condition inspection compliance within regulatory timelines	Approved	100%	100%	100%	100%	100%	100%	100%
	Actual	100%	100%	100%	n.a.	n.a.	n.a.	n.a.

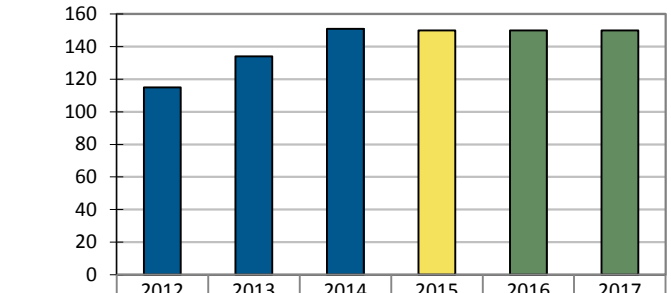
Performance Measures



	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Plan	2017 Plan
ECS Expenditure on Municipal Infrastructure Design & Construction	344	362	447	463	653	817

Municipal Infrastructure Construction:

- ECS continues to experience substantial growth in construction activity for clients' capital programs.
- $447 million in capital projects were delivered by ECS in 2014 – 86% of the approved budget allocation
- For 2015, ECS is targeting delivery of capital projects worth $463 million (80% of $579 million, which is the ECS portion of the approved capital budget)

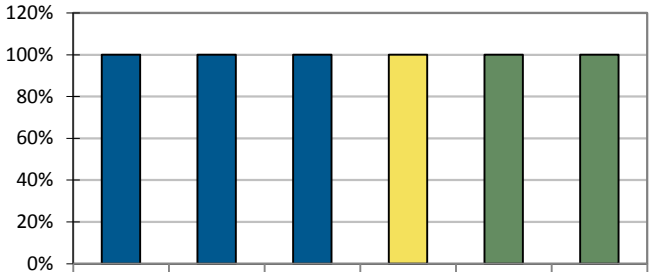


	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Plan	2017 Plan
Number of tenders/RFPs/RFQs issued	115	134	151	150	150	150

Tenders / RFPs / RFQs:

- The number of tenders, requests for proposals and requests for qualifications has increased from 115 in 2012 to 151 in 2014.
- In 2015, ECS expects to issue an estimated 150 tenders for a capital program that is valued at $579 million. Future year estimates are 150 for each of 2016 and 2017, and will be based on client's requirements and the planned continued bundling of construction projects into single tenders.

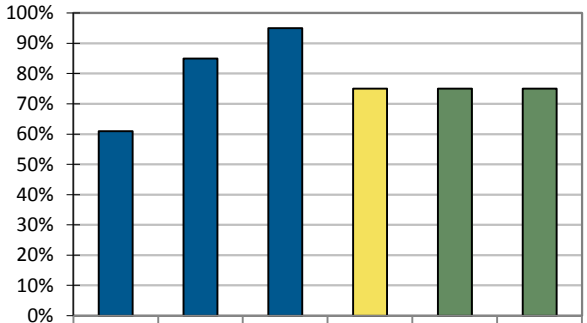
Performance Measures



	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Plan	2017 Plan
Percentage bridge condition inspections completed compared to plan	100%	100%	100%	100%	100%	100%

Bridge Condition Inspections

- In 2014, ECS again completed 100% of planned bridge condition inspections.
- ECS is targeting to maintain a 100% completion rate in 2015 and future years for a 2-year bridge condition inspection cycle.



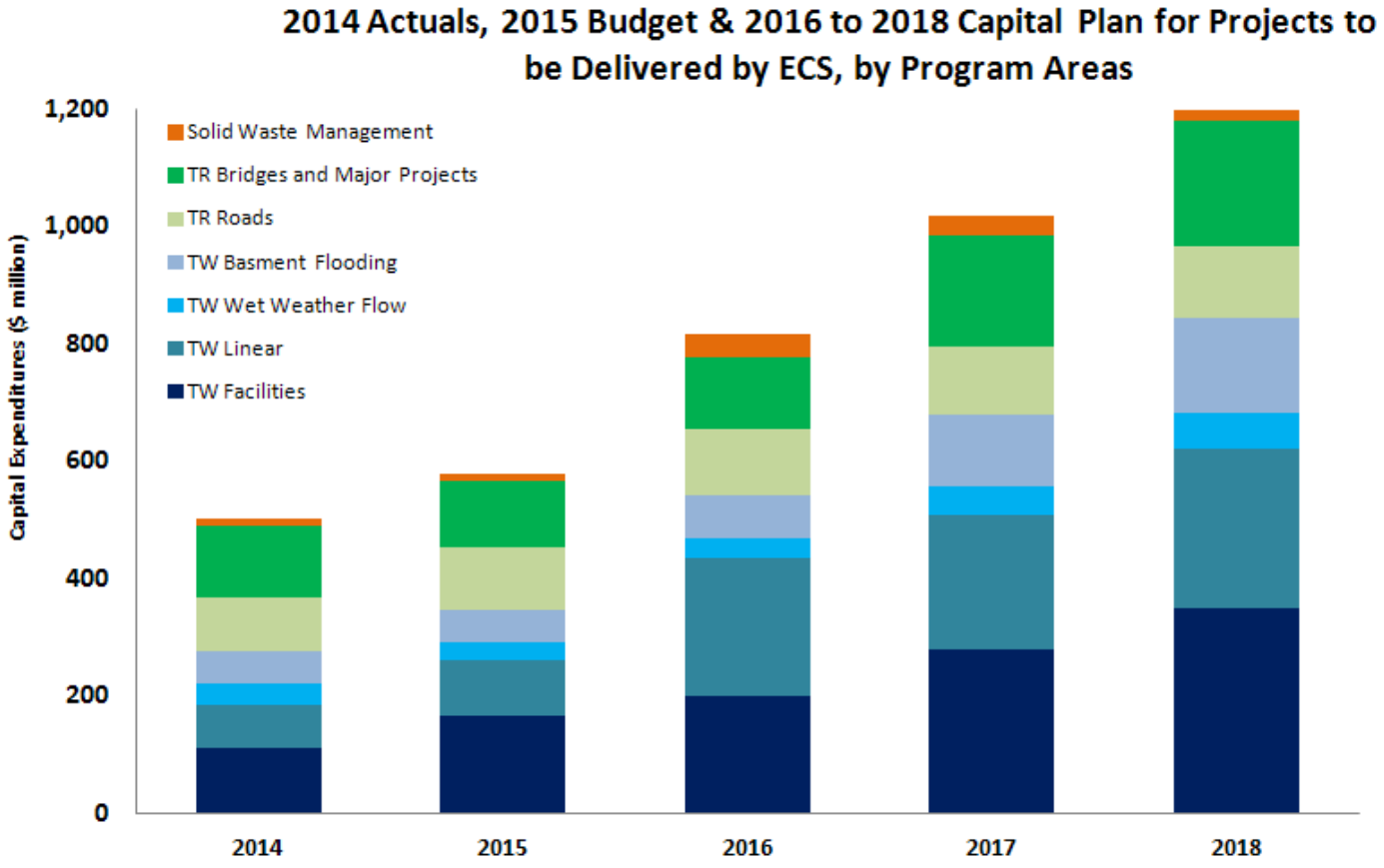
	2012 Actual	2013 Actual	2014 Actual	2015 Target	2016 Plan	2017 Plan
Development Applications and Revisions Reviewed within STAR Timelines	61%	85%	95%	75%	75%	75%

Development Applications:

- In 2014, 95% of development applications and revisions by ECS were completed within STAR timelines .
- This high level of achievement continues the trend set in 2013, when 85% of applications were reviewed within STAR timelines.
- ECS will continue to target compliance with STAR timelines in 2015 and future years.

Municipal Infrastructure Construction

Service Challenges & Opportunities



TOTAL	$501M	$579M	$817M	$1,019M	$1,211M

Service Challenges & Opportunities

- Challenges
  - ✓ Value of capital program delivered by ECS continues to escalate – expected to surpass $1 billion by 2017, double the value of the 2014 capital program
  - ✓ Construction-related disruption to pedestrians, cyclists, transit and motorists
  - ✓ Filling vacancies - limited supply of top calibre talent in key business areas (e.g., TTC track, bridge engineers) combined with a lack of salary competitiveness is impeding recruitment efforts

- Opportunities
  - ✓ Continue to enhance planning and coordination of Multi-year Capital Coordination process with internal and external stakeholders
  - ✓ Manage construction disruption at project planning and during construction
  - ✓ Improve communication and relations with the public and businesses before, during and after construction

Strategies to Address Challenges & Opportunities:
Priority Actions Taken or Underway

Strategic Action/Service Objective:	
Actions	**Results / Progress**
Increase the delivery capacity of the Basement Flooding Protection Program over the next 10 years through a new consultant program management assignment to ensure there is no interruption in the construction of infrastructure upgrades as scheduled and made public in Toronto Water's 2015 Capital Budget.	Contract Award report to be considered by Public Works & Infrastructure Committee on June 17, 2015.
> Extend construction working hours to shorten project duration; > Improve public awareness and education about City-led construction projects; > Explore the use of incentive-based contracts in construction contracts; > Improve work zone management; and, > Work to improve the utility locate process with utility companies and the Province of Ontario – Ministry of Consumer Services.	> Tested an overnight project on Finch Avenue: work was completed overnight and lanes re-opened every morning for traffic > Worked with TTC so watermain connections, concrete repairs, new track and overhead wire installation in major intersections could be completed on a 24/7 schedule resulting in shorter intersection closure times at Queen & Broadview, Dundas & Spadina, Dundas & Bathurst, and College & Spadina > Combined and scheduled three separate projects on the west portion of the Gardiner Expressway to minimize lane restrictions and staging

Engineering Review & Acceptance

Service Challenges & Opportunities

- Challenges
  - ✓ Ability to respond to workload peaks and troughs related to Third Party and Utility engineering reviews
  - ✓ Regulatory requirement to ensure City-owned property that may contain contaminated soil is appropriately managed

- Opportunities
  - ✓ Negotiate agreements with Third Parties to ensure staff resources are appropriate and review responses are timely
  - ✓ Provide subject matter expertise to asset owning divisions (e.g., Park, Forestry & Recreation) and Legal Services to ensure compliance on property use and conveyance of contaminated lands

Strategies to Address Challenges & Opportunities:
Priority Actions Taken or Underway

Strategic Action/Service Objective:	
Actions	**Results / Progress**
Agreement with Metrolinx provides dedicated funding for ECS staff to undertake work needed to ensure the integrity of City infrastructure is maintained	Funding has been used to dedicate surveying staff to Metrolinx projects so that information can be provided in a timely way ensuring Metrolinx meets project milestones
Through the 2015 Budget process, PFR provided funding to ECS for a Senior Environmental Project Manager to manage Certificates of Property Use on parkland	> Senior Environmental Project Manager is in place and ECS is delivering the service to PFR > Discussions are underway with other asset-owning divisions to determine how ECS can provide similar services

Engineering Information

Service Challenges & Opportunities

- Challenges
  - ✓ Comply with requirement to inspect Transportation Services bridges every 2 years in accordance with regulatory requirement
  - ✓ Differentiating roles and responsibilities for inspection of other City division-, third party-, and privately-owned bridges

- Opportunities
  - ✓ Develop complete asset management system for bridges inspected by ECS to include a SOGR backlog analysis and prioritization of rehabilitation needs, for inclusion in Capital Budget planning

Strategies to Address Challenges & Opportunities:
Priority Actions Taken or Underway

Strategic Action/Service Objective:	
Actions	**Results / Progress**
> Inspect 279 Transportation Services bridges in 2015, to maintain compliance with the provincially-legislated 2-year bridge condition inspection cycle > F.G. Gardiner bridge spans inspected in 2014 = 330 > Other Transportation Services bridges inspected in 2014 = 319 > Transportation Services bridge spans to be inspected in 2015 = 279 > Total number of Transportation Services bridge spans inspected every 2 years = 928	> Condition inspections on Transportation Services bridges is underway. > Launch of an interactive, web-based map showing location and condition of Transportation Services bridges is planned for 2015.

Thank You