

# City of Stamford Engineering Department

## FY 2018-19 Budget Presentation



# Department Introduction & Brief History

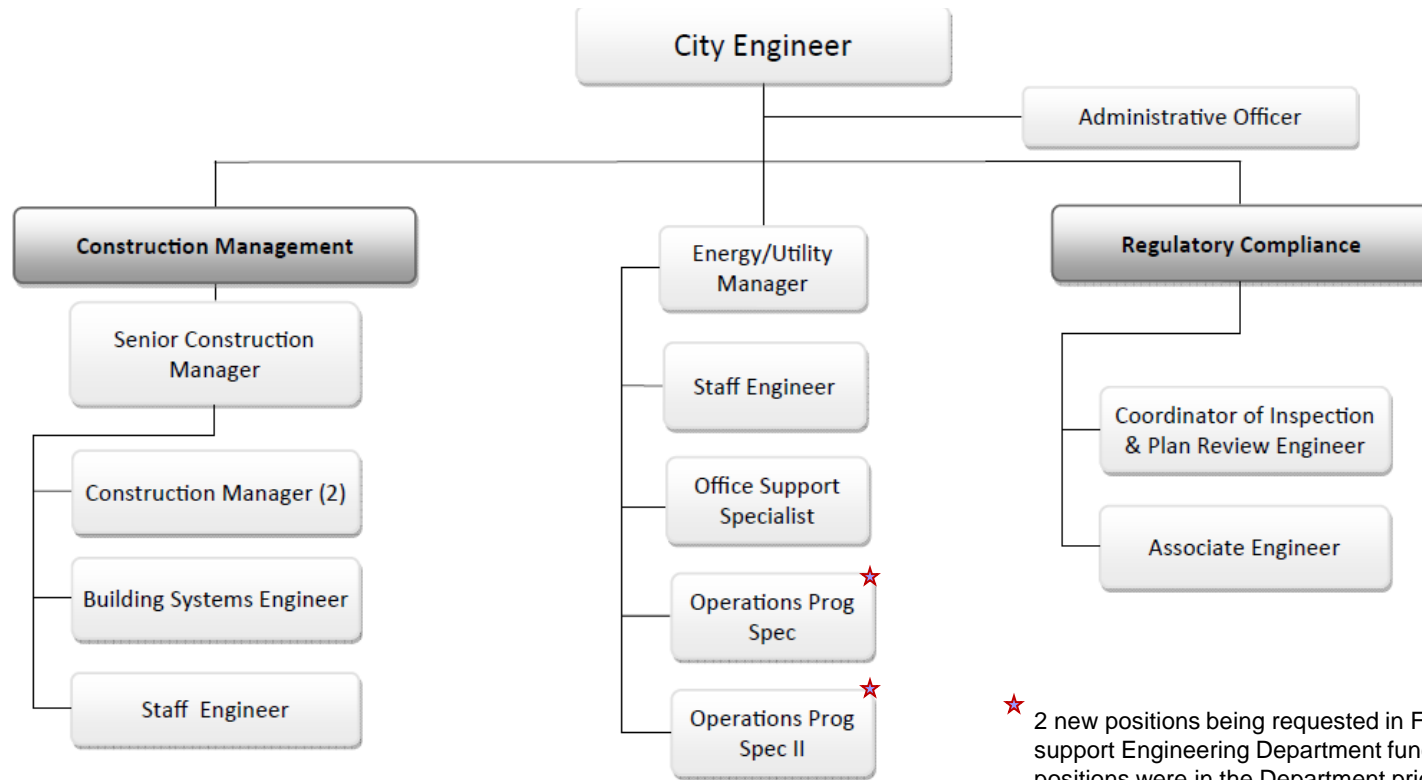
**Department's Mission:** To deliver the City's substantial volume of design and construction projects in an expeditious, cost-effective manner while maintaining the high quality of architectural, engineering, and construction.

Program	Services Provided during FY16/17 (include Volume - if applicable)
Engineering Admin.	Completed 957 roadway light repairs; consisting of 574 standard repairs, 377 light fixture replacements, and 6 bracket replacements.
	Received \$319,178 in rebates and Eversource energy efficiency incentive programs on energy management projects, resulting in \$173,586/year of energy savings.
	Received and responded to 1,510 walk-in inquiries.
	Investigated 165 Engineering Requests and responded to Citizens Service Center.
Construction Mgmt.	Prepared and Issued 5 RFPs/RFQs and 22 Construction bids. Perform on-site representation and project admin. during construction.
	Support other departments and outside agencies with technical support & evaluation of project needs.
	Assist Law Department with contract preparations, depositions, mediation and legal research.

# ***Department Introduction & Brief History***

<b>Program</b>	<b>Services Provided during FY16/17 (include Volume - if applicable)</b>
Regulatory	Issued 682 street opening permits, generating \$166,000 in revenue. Issued 217 street use permits, generating \$66,000 in revenue.
	Reviewed 304 site plans for other agencies, i.e. EPB, Zoning Board and ZBA and performed 134 as-built construction inspections.
	Signed off 120 building permits and signed off 110 Certificate of Occupancies.
	Issued 60 new house numbers.
	Assigned 55 new addresses to all City's Park.

# Department Introduction & Brief History



Staffing Level	09/10	10/11	11/12	12/13	13/14	14/15	15/16	16/17	17/18
Engineering	15	9 <sup>1</sup>	9	10 <sup>2</sup>	10	11 <sup>3</sup>	11	12 <sup>4</sup>	12

- 6 positions were eliminated in FY10/11. Those positions were Deputy City Engineer, Construction Manager, 2 Staff Engineers, Operation Program Specialist I, and Office Support Specialist.
- Coordinator of Inspection & Plan Review. Position was added to the department in FY12/13.
- Staff Engineer position was added in FY14/15.
- Office Support Specialist was added in FY16/17.

# Summary of Operating Budget

Refer to Page 141 – 149 of Mayor's Proposed Operating Budget Book

Line Category	FY17/18 Projected				FY18/19 Mayor's Proposed				Variance 17/18 Projected VS Mayor's				
	Admin.	C.M.	Reg.	Total	Admin.	C.M.	Reg.	Total	Admin.	C.M.	Reg.	Total	%
Full Time Salary	532,952	573,023	207,799	1,313,774	686,181	575,845	207,799	1,469,825	153,229	2,822	-	156,051	12%
Other Salary	13,000	-	-	13,000	13,000	-	-	13,000	-	-	-	-	0%
Overtime	1,500	10,670	600	12,770	1,500	8,500	600	10,600	-	(2,170)	-	(2,170)	-17%
Employee Benefits	151,638	191,510	47,089	390,237	157,131	189,751	45,724	392,606	5,493	(1,759)	(1,365)	2,369	1%
Retirement Benefits	67,659	100,760	16,597	185,016	61,941	77,880	20,162	159,983	(5,718)	(22,880)	3,565	(25,033)	-14%
Payments to Insurance Fund	14,128	14,128	5,653	33,909	17,643	17,643	7,058	42,344	3,515	3,515	1,405	8,435	25%
Purchased Other Services	500	490	165	1,155	500	300	100	900	-	(190)	(65)	(255)	-22%
Purchased Property Services	67,956	3,854	1,170	72,980	68,116	3,854	1,270	73,240	160	-	100	260	0%
Utilities & Commodities	791,925	9,255	1,270	802,450	794,775	6,514	1,100	802,389	2,850	(2,741)	(170)	(61)	0%
Supplies	5,300	4,850	1,611	11,761	5,300	4,850	1,600	11,750	-	-	(11)	(11)	0%
Other	1,030	1,420	460	2,910	1,000	1,420	285	2,705	(30)	-	(175)	(205)	-7%
Grand Total	1,647,588	909,960	282,414	2,839,962	1,807,087	886,557	285,698	2,979,342	159,499	(23,403)	3,284	139,380	5%

Overall **\$139K or 5% increase** in FY18/19 Mayor's Proposed Budget versus FY17/18 Projected Budget

## Increases

- \$156K increase in Full Time Salary due to 2 new MAA positions (OPS I and OPS II) being requested. Step increases for OSS and Staff Engineer positions, and increases in longevity pay.
- \$2,369 increase in employee benefits as a result of added positions
- \$8,435 increase in payment to insurance funds
- \$260 increase due to AutoCAD maintenance plan renewal prices increased
- \$857 increase in Dues and Fees

## Decreases

- \$2,170 reduction in overtime
- \$25K reduction in retiree benefits such as OPEB and Pension Fund
- \$255 reduction in postage
- \$61 reduction in gasoline
- \$11 reduction in copying and printing
- \$205 reduction in dues and fees

# Summary of Capital Budget

Refer to Page 95 – 105 of Mayor's Proposed Capital Budget Book

Project No.	Project Name	H.T.E. Balance as of 3/2/18	Bond Authorization as of 2/9/18	Dept Request	Planning Board	Mayor's Proposed	City Bonds	Capital Non Recurring	Grants
C16012	CITY WIDE STORM DRAINS	302,212.87	2,329.06	1,100,000	530,000	250,000	250,000		
CP3220	MAJOR BRIDGE REPLACEMENT	2,498,702.80	1,250,702.80	2,845,000	2,845,000	2,845,000			2,845,000
CP0093	SCOFIELDTOWN PARK DESIGN AND REMEDIATION	302,708.59	-29,131.41	220,000	220,000	160,000		160,000	
CP2220	MAJOR BRIDGE REPAIRS AND DESIGN	681,551.80	561,551.80	710,000	710,000	710,000			710,000
C56119	CITYWIDE ROADWAY CORRECTION	168,910.08	168,982.37	250,000	100,000	100,000	100,000		
CP0114	STREET LIGHTING INFRASTRUCTURE UPGRADE	343,566.71	343,566.71	900,000	900,000	0	0		
CP5222	SUT-MYRTLE AVENUE RECONSTRUCTION	1,130,002.22	1,127,597.53	2,000,000	1,000,000	1,000,000	1,000,000		
NEW	STRAWBERRY HILL AVENUE IMPROVEMENTS			750,000	750,000	750,000	750,000		
CP1074	PINE HILL DRAINAGE	261,441.76	261,441.76	0	0	0	0		
<b>TOTAL</b>				<b>8,775,000</b>	<b>7,055,000</b>	<b>5,815,000</b>	<b>2,100,000</b>	<b>160,000</b>	<b>3,555,000</b>

- ☐ C16012 : Current balance being applied to on-going drainage design projects. Future proposed project priorities being reassessed based upon budget reduction from funds requested.
- ☐ CP3220 : Current balance is for the construction and inspection of Hunting Ridge Road Bridge and Riverbank Road Bridge (No.135011) replacements. FY18/19 is for the construction and inspection of Riverbank Road Bridge (No.04071). Hunting Ridge Road is tentatively scheduled for construction Spring 2019 as there are no longer 2018 State funds available. 2018 state funds were put on hold in January 2018.
- ☐ CP0093 : As a result of \$60K budget reduction, picnic shelter will not be implemented in this project.
- ☐ CP2220 : The current balance is being utilized for the design and rights-of-way for the Riverbank Road (ConnDOT Br. No. 04071) and Hunting Ridge Road Bridges. FY18/19 is for design and rights-of-way for Cedar Heights Road and W. Main Street Bridges.
- ☐ CP0114 : As a result of the budget reduction, the City cannot replace the high pressure sodium street lights (outside of downtown) with longer lasting, more energy efficient LED street lights – more frequent calls from residents that their lights are out, higher maintenance costs to keep repairing the lights, higher energy cost to the City.
- ☐ CP5222 : The current balance is for completion of the construction (such as landscaping, ITS, and crosswalks). FY18/19 is for additional construction claims.



## ■ *Five Year History of Major Department Improvements*

### ■ How the department is delivering better service

- ✓ Develop and manage project schedules. Manage multiple priorities at the same time. Balance priorities.
- ✓ Coordinate with Highways Department to inspect final patches on every excavation permits in order to ensure the final restorations been completed to specifications.
- ✓ Turn-around plan reviews in a very timely manner.
- ✓ Hold parties accountable.



## ■ *Five Year History of Major Department Improvements*

### ■ How the department has reduced costs

- ✓ Value engineering.
- ✓ Seek grants.
- ✓ Recognize issues before they occur for example environmental assessments, and site surveys.
- ✓ Plan review of bid documents with all parties. Recently completed for large value (\$) projects including bridges, parks and schools.
- ✓ Make project more competitive by attracting bidders.
- ✓ LED implementation to increase energy efficiency and reduce operating costs.
- ✓ Perform pre-bid engineering estimates & cost analysis.
- ✓ Negotiate consultant contracts to reduce fees.
- ✓ Negotiate change orders to lower fees.
- ✓ Hold consultants to scope of work expressed in contracts.
- ✓ Fund projects with short term payback to reduce energy costs.
- ✓ Represent the City when lawsuits arise and participate in dispute resolution to mitigate claims.
- ✓ Proactively negotiate infrastructure repairs and improvements at no cost to city with utility companies.





## ■ *Five Year History of Major Department Improvements*

### ■ How the department has increased productivity. How the department is more efficient

- ✓ Combine several projects under one bid to save time and money. Ex. On BOE projects, FOG compliance.
- ✓ Recommend alternative solutions and perform constructability reviews with all A&E firms and stakeholders during design.
- ✓ Perform utility coordination early in design and often.
- ✓ Conduct regular utility coordination meetings.
- ✓ Conduct engr. investigations of citizen complaints by area.
- ✓ Develop new work practices to save time. Ex. Create new document management database.
- ✓ Engage public early and often.
- ✓ Utilize State bid contracts where applicable to complete work more efficiently.
- ✓ Utilize resources of other departments. Ex. Use road maintenance to conduct inspections.



## ■ *Five Year History of Major Department Improvements*

### ■ How the department improved customer service

- ✓ Maintain on-site administration to address questions by public as they arise.
- ✓ Report out to press when questioned.
- ✓ Conduct public information meetings on a regular basis.
- ✓ Meet directly with residents, representatives and community at large to review concerns even during off hours and weekends.
- ✓ Report out on all jobs internally and to the public and elected officials.
- ✓ Serve the community at large during walk-ins.



# 2017-18 Highlights

***What are the most significant accomplishments made & challenges faced by the department in the last FY?***

- Improving service delivery
- Improving customer satisfaction (citizens and/or internal customers)
- New services that were added
- Actions taken to increase productivity and make department more efficient

# 2017-18 Highlights (cont.)

## Ribbon Cutting for Riverbank Road Bridge Replacement – 12/4/2017

Stone and landscaping work to be completed Summer, 2018. Construction costs \$970K.





# 2017-18 Highlights (cont.)

## Ribbon Cutting for Urban Transitway Phase 2 – 10/26/2017

Project costs \$50.2M. Construction costs \$19.8M.



During Construction

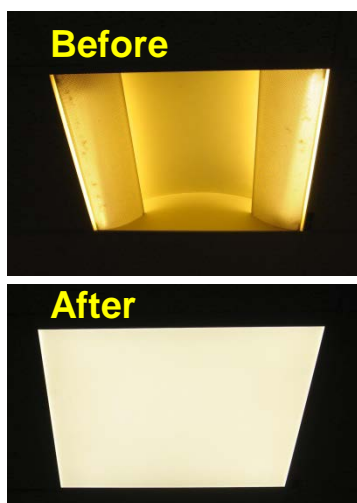


Completed

# 2017-18 Highlights (cont.)

## Energy Conservation – 18 school facilities & Government Center LED Lighting

Est. Completion Date – April 30, 2018. Construction costs \$7.28M.



Global Line no.	Local Line no.	Facility	Location	Current Qty	Current Lighting Description	Proposed Lighting Description	Volts	Amps - pre	Amps - post
4345	113	Stillmeadow E.S.	Portable Class 2	20	*4' FIXTURE, 4-F32/T8 LAMPS, (.88) ELECTRONIC BALLAST	G4 SP 4 FOOT 10.5 NANO W 4000K FROSTED LENS SEP LED TUBE - DLC LISTED	208	0.4	0.1
4236	3	Stillmeadow E.S.	Gym	24	4' FIXTURE, 4-F54/T5/HO/LAMPS, ELECTRONIC BALLAST	UNI-FIT T5 HO 4' BALLAST READY LED TUBE 27 WATT FROSTED 5000K - DLC LISTED	208	1.8	0.9
4336	103	Stillmeadow E.S.	Cafeteria	42	*4' FIXTURE, 4-F32/T8 LAMPS, (.88) ELECTRONIC BALLAST	G4 SP 4 FOOT 10.5 NANO W 4000K FROSTED LENS SEP LED TUBE - DLC LISTED	208	1.6	0.8
4382	149	Stillmeadow E.S.	Ext Door stair front	5	PAR 38 FLOOD 75 WATT	PAR38, E26 BASE, 17 WATT, 120-277V 40", 4000K, HIGH CRI, NON-DIMMABLE	208	0.8	0.3

Direct measurements of circuits show an average of 50% less Amps. used after retrofit with an increase in the lumens.



# 2017-18 Highlights (cont.)

## Two (2) new tennis courts at Scofieldtown Park – Spring 2018

Construction costs \$160K. Surface coatings and nets to be installed Spring 2018.



## Six (6) new tennis courts at Westhill High School - Spring 2018

Construction costs \$355K. Surface coatings and nets to be installed Spring 2018.



# 2017-18 Highlights (cont.)

## Completed 5 refurbished tennis courts at Stamford High School

Construction costs \$67,500.





# 2017-18 Highlights (cont.)

## Completed Stamford High School Addition and Modernization

Construction costs \$3M. Completion Date - Before April break.



During Construction



After



# 2017-18 Highlights (cont.)

## *Completed Elevator Addition at Dolan Middle School*

Construction costs \$1.15M.





# 2017-18 Highlights (cont.)

## Completed boiler plant upgrade at Toquam Elementary School

Construction costs \$606K.



Before



After

# 2017-18 Highlights (cont.)

## Completed Roof Replacement at Stamford Government Center

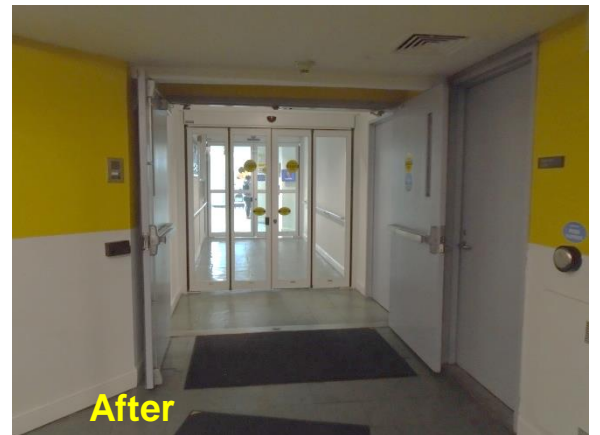
Construction costs \$600K.





# 2017-18 Highlights (cont.)

*Replaced sliding and folding doors and automatic openers at Stamford Government Center* Construction costs \$55,000.



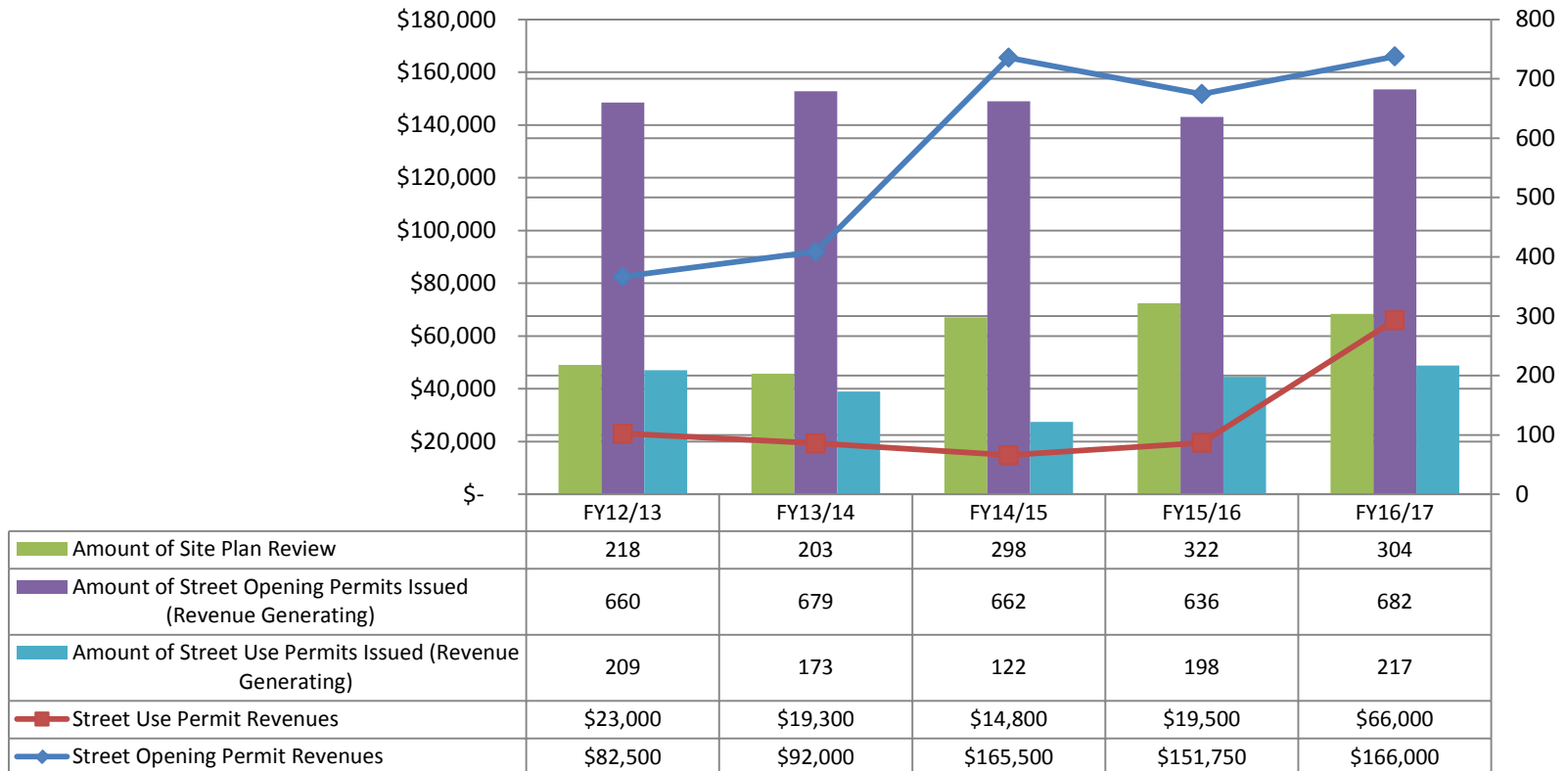


# ***Key Performance Indicators (KPI) Performance Metrics***

- ***Using the appropriate data, explain:***
  - *how well your department is performing*
  - *how it is achieving its mission*
  
- ***Benchmarking Department Performance - How well is your department doing relative to other cities, groups, agencies (in and outside of CT)***

# Performance Metrics

**Amount of Site Plan Review and Permit Issued  
Over Past 5 Years**

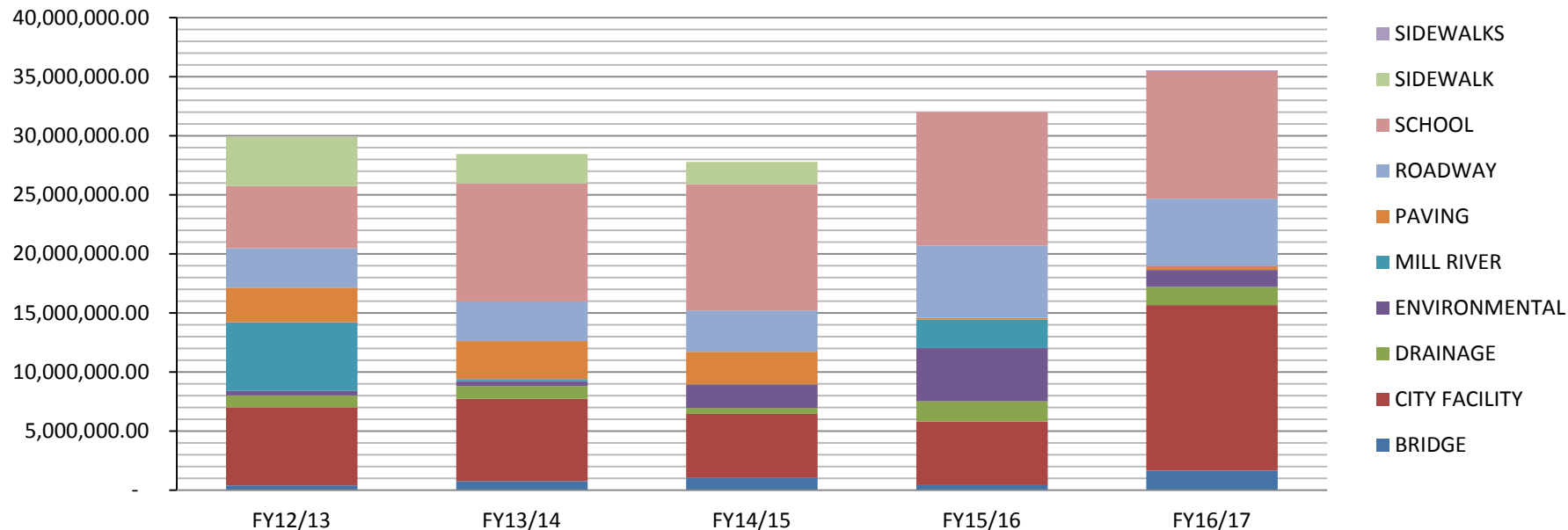


- ✓ Coordinate with Highways Department to inspect final patches on every excavation permits in order to ensure the final restorations been completed to specifications.
- ✓ In the process of updating Ordinance for excavation permit to limit the work within 90 days period.



# Performance Metrics

## Engineering Capital Spending By Category Over 5 Years



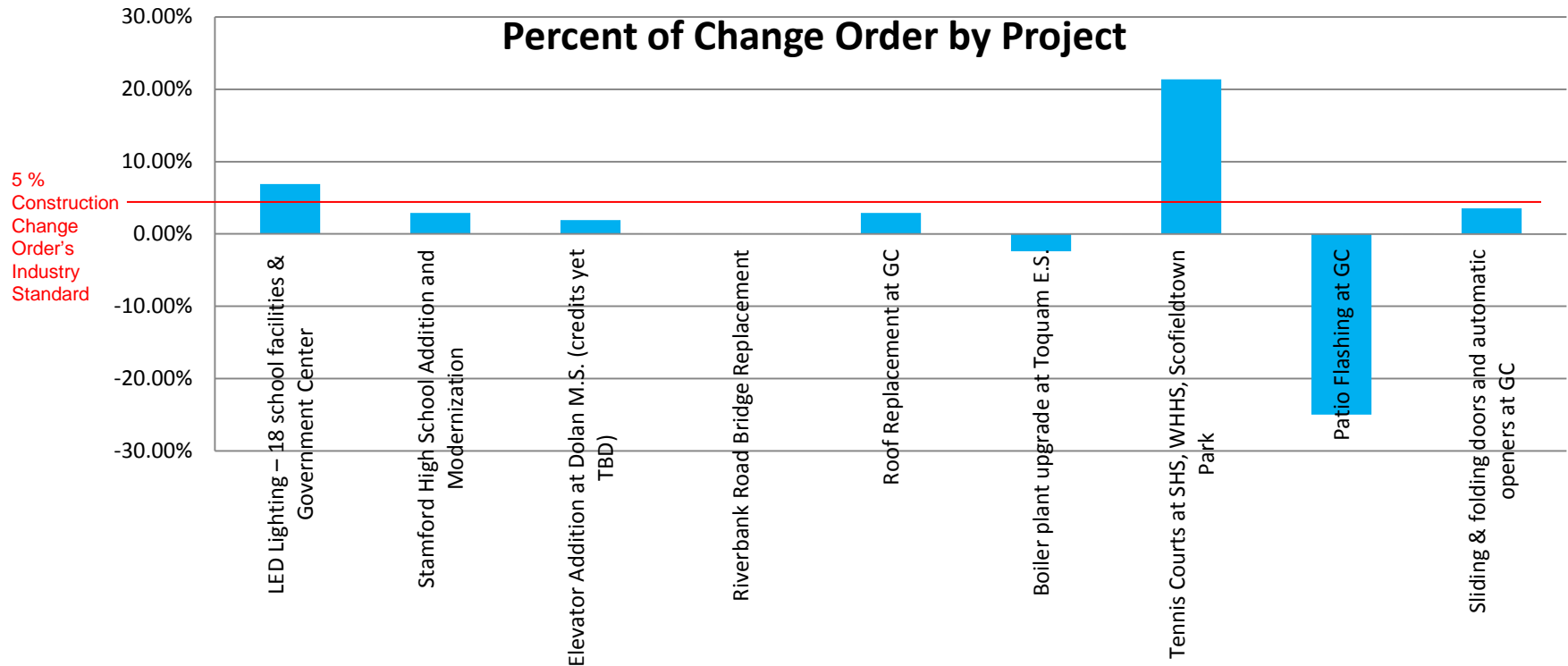
Major spending in FY16/17 are for

- School category - New School at 200 Strawberry Hill Avenue, Northeast School Renovation
- Roadway category – SUT phase 2
- City Facility category - New Police Department, EID energy conservation
- Bridge category - Merriebrook Lane Bridge





# Performance Metrics



- Percent of Construction Change Order in the Industry Standard is 5%.
- Majority of projects' change orders are below the industry standard.
- Tennis Courts added scope before contract was signed to replace existing chain link fence and gates, masonry retaining wall that were in poor conditions.
- EID project change order was a result of 3 additional schools (KT Murphy, Newfield and Hart) to the original scope.
- Change Order credits for Dolan M.S. elevator project are yet to be determined.



# ***Department Management***

## ***Key Program/Department Challenges (exclude the impact of staffing)***

- Include factors that drive program/department costs
  - ✓ Ability to manage workload with available resources.
  
- Include factors that might impact productivity
  - ✓ Lack of available capital to support requested and assessed needs.
  - ✓ Lack of project coordination (consultants and utilities).
  - ✓ Weather
  - ✓ Legal claims



# *Department Management*

## *Budget Scenarios*

- In the event of significant budget reductions describe the impact the reduction would have?
  - ✓ Reduces the amount of projects that can be accomplished.
  - ✓ May lead to greater project costs due to lack of project oversight or delay.
  - ✓ May lead to increased legal claims both on public and private sides.
  - ✓ Delays response rate for investigation in complaint resolution.



# ***Department Management***

## ***Budget Scenarios***

- If additional funding could be realized how would department services be expanded or enriched?
  - ✓ Improves support and increases revenues on recently expanded program e.g. Street Opening review and inspection.
  - ✓ Improves management of projects and programs.
  - ✓ Ability to oversee more projects.
  - ✓ Improves project turnaround time.
  - ✓ Reduces backlog of projects and complaints.
  - ✓ Restores staff to pre-2010 levels.



# ***This is what is coming***

## ***Major changes planned for the department***

- Include new or improved services (or processes) the department will provide to citizens or to other City departments or personnel
  - ✓ Continue with development and improvement of electronic document management system. Enables department to retrieve and share plans / drawings without visiting department and/or mailing large documents to vendors and general public.
  - ✓ Continue to complete projects that improve quality of city's infrastructure i.e. LED lighting reduces maintenance in 22 buildings, new park facilities to improve quality of life, new school to support enrollment needs, new police station to optimize department functions, to support department growth and improve work quality.
  - ✓ Schedule regular meetings with utilities to coordinate utility and city's projects.



# ***This is what is coming***

## ***Major changes planned for the department***

- Describe what management is doing to reduce department costs or eliminate services that are no longer critical
  - ✓ Working to share large format documents electronically to reduce printing costs, and time spent retrieving and exchanging paper documents with consultants and general public.
  - ✓ Utilization of LED street and facility lights reduces operational maintenance costs.
  - ✓ Continue negotiating change orders with contractors.



# **2018-2019 Goals**

***What are your department goals and plans for 2018-19?***

***What is the Department's/Program's budget? (highlight changes)***

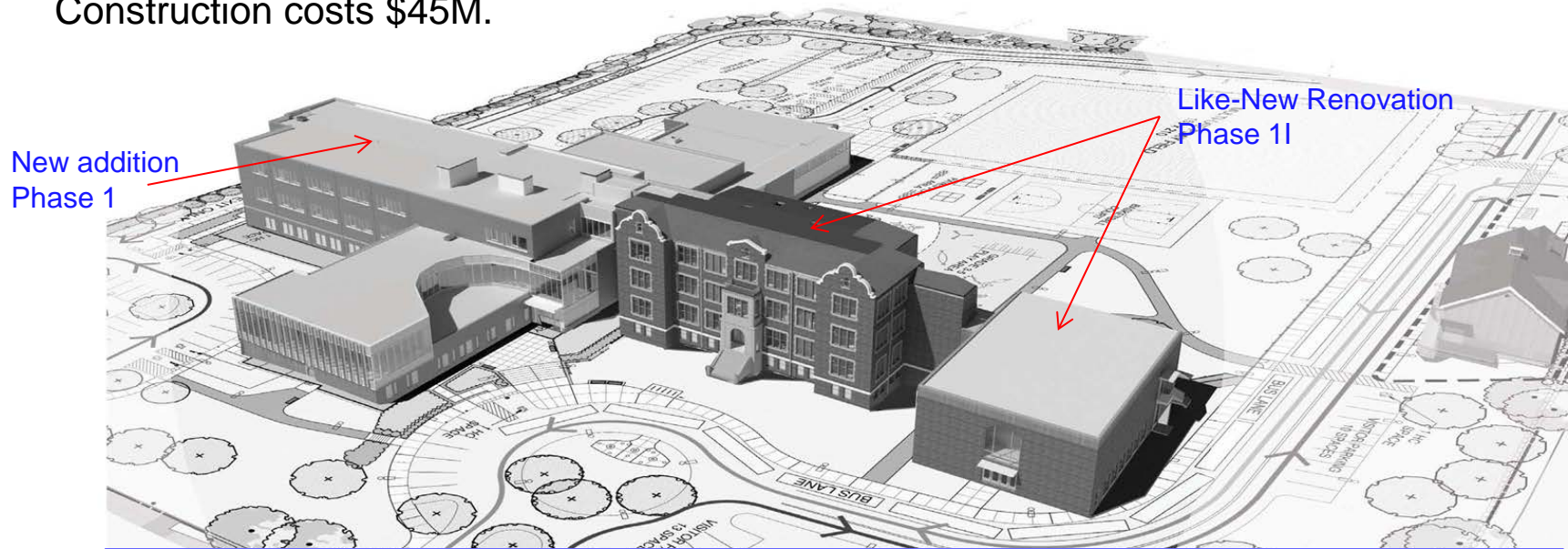
- List goals and priorities for your department in 2018-19
- Describe in detail the plan to achieve them
- What are the obstacles to attaining your goals?
- How will you measure your success?
- Budget highlights

# 2018-2019 Goals (cont.)

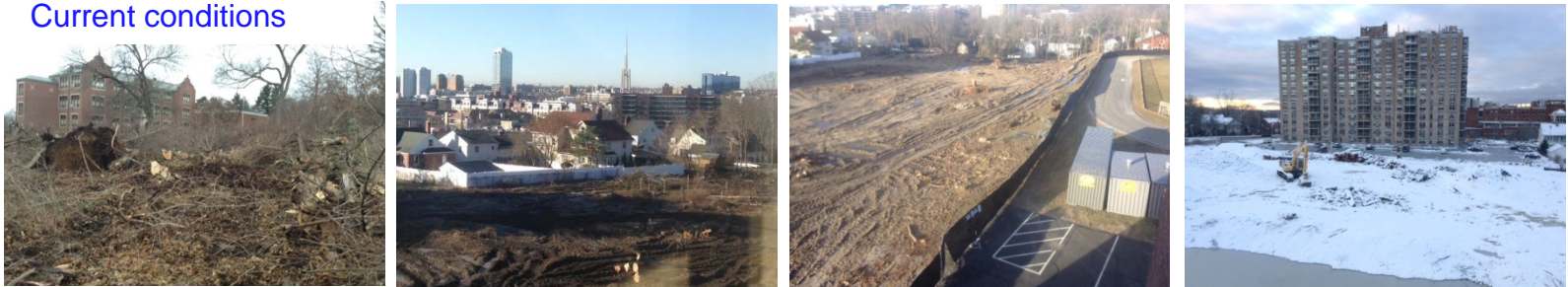
## *Ground Breaking for Rogers Inter-District Magnet Extension at 200 Strawberry Hill Avenue – April 6<sup>th</sup>, 2018*

Phase I to be completed by 7/1/19 (K-4), and Phase II by 7/2020 (K-5).

Construction costs \$45M.



Current conditions





# 2018-2019 Goals (cont.)

*Topping Off for New Police Headquarters was on 9/25/2017*

Est. Completion Date Spring 2019. Construction costs \$44.3M.



During Topping Off Ceremony on 9/25/17



Current condition





# 2018-2019 Goals (cont.)

## *Advertise for Bid for Veterans Memorial Park – Spring 2018*

Est. Completion Date Fall 2019. Construction budget is currently \$4.5M.



# 2018-2019 Goals (cont.)

## *Toquam School Playground Replacement – Fall 2018*

Est. Completion Date before FY18/19 School Year. Construction costs for upper level \$410K.





# 2018-2019 Goals (cont.)

## 911 Generator Augmentation – August 2018

Est. Construction costs \$325K

Adding new generator to support new loads and reliability supported by grant.



Existing condition