



# **CITY OF BALTIMORE**

Bernard C. “Jack” Young

Office of the City Council President

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## **FISCAL REPORT: City Council Bill 17-0102** *Complete Streets*

*Research and Analysis by the Fiscal Legislative Analyst on  
Complete Streets Policy in Baltimore, MD*

Updated on

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*The Fiscal Legislative Analyst to the Baltimore City Council provides independent research on  
fiscal issues that appear before the Council.*

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## Executive Summary

The purpose of this report is to provide a fiscal analysis of City Council Bill 17-0102 *Complete Streets* which was introduced to the Baltimore City Council on July 17, 2017, and sent to the Land Use and Transportation (LUT) Committee for consideration. This report is being provided to the LUT committee in advanced of the scheduled April 25, 2018 hearing on Complete Streets.

A “complete street” is one designed to meet the multi-modal transportation needs of a community. Community needs may include economic, health, equity and safety goals or concerns. To successfully accomplish complete streets priorities, a city may pass legislation, adopt a street design guide, identify external funding sources, implement low cost short-term complete street elements, budget for more expensive permanent complete street elements, track relevant data, and apply accountability procedures. As written, Bill 17-0102 intends to provide a framework for accomplishing these goals.

However, agency reports submitted by Baltimore executive agencies signal cost and time frame concerns. Although many departments are supportive of complete streets in principle, they believe amendments are necessary to gain their full support.

The Fiscal Legislative Analyst (FLA) has respectfully taken the executive agency reports into advisement during the review of Bill 17-0102. The FLA issues a score of: **Amendments Recommended (Positive)**. This score indicates that the bill is viewed positively; however, changes are recommended.

Numerous city documents strongly indicate that complete streets is a policy topic that aligns to city economic, and quality of life goals. Past complete streets legislation, Mayor and City Council Resolution 10-27 (Bill 09-0433), requires complete street elements as a part of city planning. Bill 17-0102 would strengthen past legislation through the addition of complete streets stipulations to city code. Furthermore, the bill requires adoption of a comprehensive complete streets design guide and accountability procedures.

Despite these merits, amendments are recommended to align the current bill to city financial goals which include identifying funding sources for all short- and long-term expenditures. Additionally, adjustments are recommended to ensure that the impact of Bill 17-0102 is limited to the policy topic under consideration. Potential amendments include: removing language that stipulates lane widths, providing an additional description of an equity gap analysis, and replacing the Complete Streets coordinating council with a different accountability mechanism.

The adoption of such amendments would lead the FLA to re-evaluate Bill 17-0102. Please see the full report for a comprehensive scoring explanation and list of recommendations.

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Section End

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## Section 1: Introduction and Overview

### Purpose

The purpose of this report is to provide a fiscal analysis of City Council Bill 17-0102 *Complete Streets* which was introduced to the Baltimore City Council on July 17, 2017, and then sent to the Land Use and Transportation (LUT) Committee. The Fiscal Legislative Analyst began researching Complete Streets the week of Monday, March 12, 2018 with the purpose of providing this report to the LUT Committee in advance of the scheduled April 25, 2018 hearing on Complete Streets. This report is divided into 7 Sections.

### Section Summaries

**Section 2: Policy Topic – Complete Streets** briefly describes “complete streets” policies, with the intention of providing all readers with a general understanding of the topic covered in this document. A “complete street” is a street designed to meet the present and future multi-modal transportation needs of a community. Furthermore, complete streets designs can be used to further the health, safety, economic, and equity goals of a community. Cities often develop a “complete streets design guide” to align future street projects to the policy priorities of the city and individual neighborhoods.

**Section 3: Baltimore Complete Streets Policy and History** provides a brief account of complete streets in Baltimore. Many Baltimore City documents call for the implementation of complete streets. In 2010, City Council Bill 09-0433 *Street and Transportation Projects – Complete Streets* was passed and signed as Mayor and City Council Resolution 10-27. The resolution directs the Department of Transportation to develop multi-modal streets and to track relevant data. Although Baltimore does have complete streets guides for some neighborhoods, it neither has a citywide design guide, nor comprehensive plans for short- and long-term implementation, nor adequate data collection and accountability procedures.

**Section 4: Transportation Budget and Complete Streets Costs** provides a short overview of the DOT budget and the expenditures associated with complete streets implementation. The adopted FY18 budget allocates \$206 million to DOT, and directs \$32 million towards *Service 683: Street Management*. Money allocated to service 683 provides for street maintenance and resurfacing. It is difficult to provide a simple answer to the question, “How much do complete streets costs?” However, this section attempts to provide an initial estimated answer to this question. Using a more conservative cost estimate that BBMR, the FLA finds that implementing low-cost complete street elements would increase the street management budget by around 6%, and the overall DOT budget by around 1.4%.

**Section 5: Bill 17-0102** is a summary of City Council Bill 17-0102 *Complete Streets*

**Section 6: Fiscal Notes on Agency Reports** provides a summary of each agency report submitted by a Baltimore municipal director in regards to Bill 17-0102. The summaries are accompanied by Fiscal Notes. Agency reports signal cost and time frame concerns. Although many departments are supportive of complete streets in principle, many amendments are necessary to gain full support.

**Section 7: Fiscal Notes on Bill 17-0102** reports that the Fiscal Legislative Analyst has respectfully taken the executive agency reports into advisement in its review of Bill 17-0102. The office issues a score of: **Amendments Recommended (Positive)**. This score indicates that the bill is viewed positively; however, changes are recommended. Numerous city documents strongly indicate that complete streets is a policy topic that aligns to city economic, and quality of life goals. Furthermore, previous legislation, Mayor and City Council Resolution 10-27 (Bill 09-0433), requires complete street elements as a part of city planning. Bill 17-0102 would strengthen previous legislation by adding complete streets stipulations to the city code. Additionally, the Bill 17-0102 calls for funding a Comprehensive Complete Streets Design Guide, which would satisfy the demands of many city plans.

Despite these merits, amendments are recommended to align the current bill to city financial goals which include identifying funding sources for all short- and long-term expenditures. Additionally, adjustments are recommended to ensure that the impact of Bill 17-0102 is limited to the policy topic under consideration. Please see the score explanation and recommendations for further details.

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Section End

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## Section 2: Policy Topic – Complete Streets

### Section Summary

This section briefly describes “complete streets” policies, with the intention of providing all readers with a general understanding of the topic covered in this document. A “complete street” is a street designed to meet the present and future multi-modal transportation needs of a community. Furthermore, complete streets designs can be used to further the health, safety, economic, and equity goals of a community. Cities often develop a complete streets design guide to align future street projects to the policy priorities of the city and individual neighborhoods.

### Complete Streets

To date, Baltimore does not have a citywide complete streets design guide. However, the city has developed complete street plans for Southeast Baltimore, and [South Baltimore Gateway](#).<sup>1</sup> These plans describe complete streets priorities in the context of Baltimore neighborhoods and give insight into how complete street design practices could impact the city at large. This section uses the plan for Southeast Baltimore, which covers 20 neighborhoods in the region, to provide an overview of complete street goals, policy questions, challenges, and complete street concepts.

#### Southeast Baltimore Complete Streets Plan (2012)

##### Complete Street Goals, Policy Questions, and Challenges

In 2012, the Baltimore City Department of Transportation and the communities of Southeast Baltimore produced the [Southeast Baltimore Complete Streets Plan](#), with the purpose of implementing street “improvements which can have a positive effect on the livability of Southeast Baltimore neighborhoods while creating vibrant and attractive public spaces.”<sup>2</sup> Table 1 lists Southeast Baltimore’s complete street goals.

**Table 1:** Complete Street Goals for Southeast Baltimore

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Complete streets...

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- A. Are designed for people of all ages and physical abilities whether they walk, bicycle, ride transit or drive.
- B. Integrate connectivity and traffic calming with pedestrian-oriented site and building design to create safe and inviting places.
- C. Connect people through everyday interaction.
- D. Involve local people to share the responsibility for designing their streets
- E. Are inviting places with engaging architecture, street furniture, landscaping, and public art that reflect
- F. the diversity and cultures of the neighborhood
- G. Foster healthy commerce

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<sup>1</sup> South Baltimore Gateway Complete Streets Plan (2017)

<sup>2</sup> Southeast Baltimore Complete Streets Plan (2012)

**Table 1:** Complete Street Goals for Southeast Baltimore

Complete streets...
H. Strengthen and enhance neighborhoods as envisioned by community members without displacing current residents
I. Encourage active and healthy lifestyles
J. Integrate environmental stewardship, water management, energy conservation, and preservation of plant life.

In considering complete streets, the southeast plan identified six issues that were important to community members. Table 2 lists policy questions associated with each issue.

**Table 2:** Southeast Baltimore Complete Street Issues and Policy Questions

Issues	Questions
Multi-modalism	A. How can we strike a balance between the need to maintain traffic flow and making streets more inviting for pedestrians, bicyclist, and transit users?
Green Streets / Beautification	A. Where can we add trees and new planting areas? B. How can we make our streets more attractive to encourage new residents and business to invest in our communities? C. How can we beautify our streets to improve property values and create a sense of place?
Traffic Calming	A. Which neighborhood roads act as highways for through traffic? B. How can we slow cars down without putting speed bumps everywhere?
Outdoor Spaces / Shared Spaces	A. Are there opportunities for pocket parks on neighborhood streets? B. Are there places where good design can encourage the sharing of space between automobiles, cyclist, and pedestrians?
Urban Greenway / Wayfinding	A. How can we better connect the major community assets of southeast Baltimore through the use of visible cues and designated streets?
Parking	A. In what neighborhoods do parking shortages affect resident’s quality of life? B. What re the ways we can better manage parking while reducing the need to drive or own a car? C. How can we integrate angled parking into complete street designs?

To answer the above policy questions, residents and city officials identified existing conditions and challenges across neighborhoods. Although the challenges listed in the below Table 3 are tailored to Southeast Baltimore, the topics provide a framework for considering challenges across all neighborhoods in Baltimore.

**Table 3:** Existing Conditions and Challenges in Southeast Baltimore

Topic	Existing Conditions and Challenges
Street Network	Existing road design and street classification prioritizes automobiles and discourages pedestrians, cyclists, and transit patrons from using the streets.
Automobile Accidents	High crash rates along certain corridors indicate the need for safety improvements and traffic calming methods
Bicycle and Pedestrian Accidents	While major through streets need to accommodate high volumes of traffic, high accident rates indicate a need for increased pedestrian/bicyclist safety measures and traffic calming on these corridors.
Truck Routes	Truck routes may influence where curb extensions, bicycle lanes, and other street infrastructure upgrades can be installed.
Parking	Reducing the number of automobile trips per household by creating a more walkable and bicycle-friendly environment for local errands can reduce parking shortage inconveniences.  Angle parking can also be included in complete street designs. Angle parking conversions in the Patterson Park neighborhood created a 40 to 50 percent increase in the number of parking spaces per block.
Bicycle Infrastructure	A contraflow bicycle lane was installed on Lancaster St. allowing westbound cyclist to divert to quieter neighborhood streets. Adding green treatment to bike lanes improves visibility along high traffic roads.
Pedestrian Network	Most streets in Southeast Baltimore are ADA compliant; however, there are numerous intersections that need crosswalks or repainting.
Transit Network	Southeast Baltimore is well served by buses. No resident lives more than 5 blocks from a bus stop.
Schools	About 70% of the Southeast's roadway network is within 2500 feet of a school, creating a need for slower, more livable streets which are safe for children.
Parks and Open Space	No resident in southeast Baltimore lives further than a mile from a park. Complete streets can connect the region's park infrastructure and promote physical activity by proving safe modes of travel for children.

### Complete Street Concepts

Complete streets infrastructure varies by street type, neighborhood needs, and degree of permanence. Often low-cost complete street elements are incorporated as part of regular street repaving projects. More costly and permanent solutions may be implemented as part of large redevelopment projects or after low-cost elements have proven successful.

Table 4 provides a summary of complete street elements covered in the Southeast Baltimore Complete Streets Plan. Readers should use Table 4 as a list of elements and practices that can be adapted to meet the needs of neighborhoods across the Baltimore area. Such concepts would appear frequently throughout any future citywide complete streets design guide.

**Table 4:** Southeast Baltimore Complete Street Concepts

Concept	Examples and Descriptions
Pedestrian Crossings	<ul style="list-style-type: none"> <li>A. Real and perceived safety must be considered when designing crosswalks.</li> <li>B. Safety designs must accommodate vulnerable groups such as children, the elderly, and those with disabilities.</li> <li>C. Safety designs must accommodate vulnerable modes of transit such as walking and bicycling.</li> </ul>
Design Speed	<ul style="list-style-type: none"> <li>A. High speeds discourage street life and greatly increase the frequency and severity of traffic accidents especially those involving pedestrians and bicyclists.</li> <li>B. Slower speeds allow the use of features that enhance the walking environment, such as small curb radii, narrower sections, trees, on-street parking, curb extensions, and street furniture, which in turn also slow traffic.</li> </ul>
Travel Lanes	<p>In order for drivers to understand how fast they should drive, lane widths have to create some level of driver discomfort when driving too fast.</p>
Corner Radii	<ul style="list-style-type: none"> <li>A. Smaller, more pedestrian-scale intersections result in shorter crossing distances.</li> <li>B. Smaller turn radii slow vehicular turning speeds.</li> </ul>
Placemaking for Streets	<ul style="list-style-type: none"> <li>A. <b>To be places, streets must</b> augment destinations such as parks and plazas, reflect a community’s identity, invite physical activity, support social connectivity promote social and economic equity and prioritize the lowest speed users over the fastest.</li> <li>B. <b>When streets are places, people can</b> walk in comfort, sit in comfortable spaces, meet and talk by chance and by design, reel safe in a public environment, look at attractive things during their walk.</li> </ul>
Traffic Calming Devices	<ul style="list-style-type: none"> <li>A. <b>Bumpouts</b> – Widening the sidewalk and reducing roadway width at intersections. Designs can include additional vegetation and stormwater management facilities.</li> <li>B. <b>Chicanes/Lateral Shifts</b> – Are curb extension installed in mid-block locations and act as roadway narrowing and traffic slowing devices.</li> <li>C. <b>Mini Roundabouts</b> – Small traffic circles that slow traffic and can be vegetated.</li> <li>D. <b>Textured Pavement</b> – Surface material often stamped with a decorative design which slows traffic and creates a more inviting environment for pedestrians.</li> <li>E. <b>Full and Half Street Closures</b> – Diverters can consist of temporary planters or full landscaped areas which can be used as neighborhood parks and gathering places.</li> <li>F. <b>Raised Crosswalks</b> – Crosswalks which are flush with the sidewalk with a slight vertical shift from the roadway.</li> </ul>
Shared Spaces	<p>Streets where pedestrians and cyclists have priority over automobiles. They are often installed in commercial or mixed use districts to encourage local businesses and create a social atmosphere on important neighborhood streets.</p>
Green Streets	<p>The benefit of adding vegetation to city streets includes,</p> <ul style="list-style-type: none"> <li>A. Reduce polluted stormwater from entering the Patapsco, the sewer system, and basements. Also reduces sewer backups.</li> <li>B. Improve pedestrian and bicycle safety.</li> <li>C. Reduce impervious surfaces so stromwater can infiltrate to recharge groundwater and surface water.</li> <li>D. Address requirements of federal and state regulations.</li> </ul>
Enhanced Bicycle Facilities	<ul style="list-style-type: none"> <li>A. <b>Traditional bike lanes</b> - striped adjacent to parking lanes and 5’ wide. Needs sufficient street width (usually more than 40’ curb to curb) for two lane roads.</li> </ul>

**Table 4:** Southeast Baltimore Complete Street Concepts

Concept	Examples and Descriptions
	<ul style="list-style-type: none"> <li>B. <b>Bicycle Boulevards</b> – A low-speed, low-traffic street optimized for bicycles where cyclist are encouraged to ride with traffic. Often includes traffic calming devices. Usually bicycle boulevards are not wide enough to stripe full bike lanes.</li> <li>C. <b>Cycle Track</b> – Separated or protected bike lanes adjacent to the curb. Often accommodates bidirectional bike traffic if the street is wide enough. A parking lane often serves as a buffer between the bike lanes and the auto traffic.</li> </ul>
Enhanced Pedestrian Facilities	<ul style="list-style-type: none"> <li>A. Sidewalk widening for streets with high pedestrian volumes and commercial districts.</li> <li>B. Extended red signals for automobile traffic to provide a protected walk phase for pedestrians.</li> <li>C. Additional lighting, ADA compliant curb ramps, and landscaping.</li> </ul>
Urban Greenways	<p>An urban greenway is a collection of streets which creates a continuous, multi-neighborhood walking path and which incorporates way finding signs, kiosks, historical markers and other information devices. These paths often link employment centers, commercial districts, parks, and other major community assets.</p>
Enhanced Transit Facilities	<ul style="list-style-type: none"> <li>A. <b>Real time arrival kiosks</b> – allows riders to see arrival time of next bus</li> <li>B. <b>Bus bump outs</b> – curb extensions at bus stops which allow boarding of passengers without the bus having to pullout of the travel lane.</li> <li>C. <b>Enhanced passenger waiting facilities</b> - investing in attractive street furniture and other amenities such as interesting shelters, seating, and public art can help create a transit-friendly neighborhood character.</li> </ul>
One Way to Two Way Street Conversions	<p>Conversion to two way operation can support neighborhood retail, calm traffic, and simplify neighborhood circulation patterns.</p>

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Section End

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## Section 3: Baltimore Complete Streets Policy History

### Section Summary

This section provides a brief account of complete streets in Baltimore. Many Baltimore City documents call for the implementation of complete streets. In 2010, City Council Bill 09-0433 *Street and Transportation Projects – Complete Streets* was passed and signed as Mayor and City Council Resolution 10-27. The resolution directs the Department of Transportation to develop multi-modal streets and to track relevant data. Although Baltimore does have complete streets guides for some neighborhoods, it neither has a citywide design guide, nor comprehensive plans for short- and long-term implementation, nor adequate data collection and accountability procedures.

### Introduction

Developing multi-modal streets has been a long term policy goal for the Baltimore City government and its residents. The desire to find a balance between automobiles and other modes of transit traces back decades and is found throughout city documents, reports, and compressive plans. In 1978, the city developed its first bike development plan which was an early step in rethinking how Baltimore uses its streets, public rights-of-way, and public spaces.

Since the 1970s, residents, policy makers, and transportation officials both in Baltimore and around the country have developed the view that streets and public right-of-way design can help achieve goals in a wide variety of policy spheres. As evidence, multi-modal transportation priorities are written into Baltimore sustainability, climate action, and economic development documents. Furthermore, these reports cite the positive impact that the shared use of public rights-of-way can have on user accessibility, public safety, and public health.

In April 2009, Baltimore adopted The Baltimore Sustainability Plan, the city’s first plan to address current environmental, social, and economic needs without compromising the needs of future generations. Although the plan does not explicitly mention “complete streets,” it defines many multi-modal transportation goals that directly align to, are now commonly referred to, as complete street priorities. These goals include improving transit service, making the city more bicycle and pedestrian friendly, measuring and improving the equity of transportation, and increasing funding for sustainable modes of travel.

Later, in December 2009, Council Bill 09-0433 *Street and Transportation Projects – Complete Streets* was introduced to the Baltimore City Council. With the support of the Department of Planning and the Department of Transportation, Bill 09-0433 was approved by the Council and signed by the Mayor of Baltimore on November 22, 2010 as Mayor and City Council Resolution 10-27.

Since 2010, the City of Baltimore has published many additional documents either calling for complete streets or implementing various projects with complete street components. The below Table 5, provides a selection of these documents and short description of their relevance to complete streets. The remainder of Section 3 includes a description of these selected reports.

**Table 5:** Selected Policy Documents

Document	Year	Relevance to Complete Streets
The Baltimore Sustainability Plan	2009	The Department of Planning states Bill 17-0102 addresses 11 strategies across four of the plan's five transportations goals. <sup>(1)</sup>
Resolution 10-27 (Council Bill 09-0433) <i>Street and Transportation Projects Complete Streets</i>	2010	Resolution calls for new transportation improvement projects to serve multiple modes of transit. It also directs DOT to present an annual report on complete streets implementation.
Baltimore Downtown Open Space Plan	2010	Report indicates developing public open spaces is necessary for economic development. Many complete street design elements are needed for creating successful open spaces.
Southeast Baltimore Complete Streets Plan	2012	The plan identifies how complete streets priorities should be implemented in 20 neighborhoods in Southeast Baltimore.
Baltimore Climate Action Plan	2013	The Climate Action Plan lists implementation of complete streets as a policy lever for reducing greenhouse gas emissions.
DOT Complete Streets Policy	2013	The Department of Transportation internal policy document outlines DOT's commitment to multi-modal street projects and to measuring complete street implementation through data metrics.
Bill 14-0152 <i>Revisiting Mayor and City Council Resolution 09-0433</i>	2014	The bill calls executive agencies to report on complete street implementation progress.
Baltimore City Bike Master Plan	2015	Report calls for a Complete Streets guidance manual and training program for DOT staff and consultants.
Mayor Catherine E. Pugh Transition Report	2017	Report calls for strengthening the 2010 Complete Streets Resolution and the 2013 DOT Complete Streets Policy by passing a detailed Complete Streets Ordinance.
The Baltimore Sustainability Plan	2018	The plan calls for a Complete Streets Design manual in addition to a comprehensive transportation plan for the city.

## Description of Selected Reports

### The Baltimore Sustainability Plan (2009)

In April 2009, the City of Baltimore published the first version of [The Baltimore Sustainability Plan](#).<sup>3</sup> The 134 page document identifies 29 priority goals across 7 chapter topics including Transportation. The transportation chapter is significantly focused on using multiple-modes of transportation to decrease the city's greenhouse gas emissions and provide safe means of travel for residents. Nearly 200,000

<sup>3</sup> The Baltimore Sustainability Plan (2009)

Baltimoreans, that is nearly one third of all residents, did not have access to a car in 2006. The report states that Baltimore’s transportation system is,

“economically, environmentally, and socially unsustainable. Shifting away from our reliance on single occupancy vehicles will reduce greenhouse gas emissions, improve air and water quality, reduce our dependence on foreign oil, alleviate traffic congestions and improve public health and equity. In doing so, we can also improve our overall quality of life.”

The report’s transportation goals are reproduced in the below Table 6.

**Table 6:** Transportation Goals and Strategies

Goals	Strategies
Improve public transit services	<ul style="list-style-type: none"> <li>A. Make software upgrades to allow for transit signal priority.</li> <li>B. Implement an integrate system of downtown shuttle and trolley routes.</li> <li>C. Work with the MTA to expand QuickBuses to more high-volume transit corridors.</li> <li>D. Bring the Red Line Transit project to Baltimore.</li> <li>E. Work with the MTA to develop and implement an ideal transit service profile for MTA routes.</li> </ul>
Make Baltimore bicycle and pedestrian friendly	<ul style="list-style-type: none"> <li>A. Implement the Baltimore Bicycle Master Plan.</li> <li>B. Develop a Bike to work program for Baltimore.</li> <li>C. Evaluate the creation of a bicycle sharing service.</li> <li>D. Expand the Safe Routes to Schools program.</li> <li>E. Implement “Sunday Streets” recreational street closure program.</li> <li>F. Improve public infrastructure for cyclists and pedestrians.</li> </ul>
Facilitate shared-vehicle usage	<ul style="list-style-type: none"> <li>A. Establish Baltimore CarShare program.</li> <li>B. Expand the CityCommute Rideshare program.</li> <li>C. Leverage new Baltimore Green Building Standards to increase shared-vehicle use.</li> </ul>
Measure and improve the equity of transportation	<ul style="list-style-type: none"> <li>C. Track the disparity of transportation costs by neighborhood relative to income.</li> <li>D. Identify strategies to reduce the disparity in cost of transportation relative to income.</li> <li>E. Work with the MTA to measure the quality of transit service in Baltimore neighborhoods.</li> </ul>
Increase transportation funding for sustainable modes of travel	<ul style="list-style-type: none"> <li>A. Advocate for more funding for transit and sustainable transportation.</li> <li>B. Implement goals of Mayor’s Transportation Investment Commission (ITC) report.</li> <li>C. Explore options for a new regional transit funding source and a larger local role in managing the MTA.</li> <li>D. Expand eligible expenses under sustainable transportation programs.</li> <li>E. Advocate shifting funding from roadway capacity expansion to transit, bicycling, and walking projects.</li> </ul>

For more notes on The Baltimore Sustainability Plan, please see the discussion on the Department of Planning’s agency report in *Section 6*, or the published sustainability plan.

Bill 09-0433 Street and Transportation Projects – Complete Streets

On December 10, 2009, Bill 09-0433 *Street and Transportation Projects – Complete Streets* was introduced to the Baltimore City Council.<sup>4</sup> The bill, which was later passed and signed by the Mayor of Baltimore on November 22, 2010, directs the Department of Transportation and the Department of Planning to:

“plan for, design, and construct all new city transportation improvement projects to provide appropriate accommodations for pedestrians, bicyclists, transit riders, motorists, and persons of all abilities, while promoting safe operation for all users.”

The bill states the above goals can be accomplished through the incorporation of construction elements such as those listed in the below Table 7.

**Table 7:** Bill 09-0433 Street Elements

Special bus lanes	Median islands	Sidewalks
Transit stops	Accessible pedestrian signals	ADA compliant ramps
Improved pedestrian street crossing	Curb Extensions	Bike lanes

Furthermore, the bill calls on the Department of Transportation to annually report to the Mayor and City Council on DOT’s progress towards implementing complete streets throughout the city. The bill states that reports should incorporate performance measures established to gauge how well streets are serving all users and include information such as what is listed in Table 8.

**Table 8:** Bill 09-0433 Performance Measures

Crash data	Complaints	Bike lanes created
Uses of new project by mode	Number of ADA compliant ramps built	Exemptions granted from application of Complete Streets principles
Linear feet of sidewalk built	Number of overall paved lane miles	Yearly change in paved lane miles

Baltimore Downtown Open Space Plan (2010)

On December 15, 2010, the Downtown Partnership of Baltimore, the Baltimore City Department of Planning and the Baltimore Development Corporation jointly published the [Baltimore Downtown Open Space Plan](#). The plan was published with the purpose of reviewing Baltimore’s open spaces and strategically developing new public open spaces that increase economic development in the city.

To accomplish this goal, the report identified four guiding concepts necessary for developing urban open spaces: Networks, Sustainability, Transportation, and Placemaking. The Transportation guiding concept stated,

“The value and stewardship of public space is closely related to the nature and form of the transportation network. Transportation planning must, therefore, not be viewed solely in context of efficiently moving people and goods from place to place, and the public rights-of-way solely as

<sup>4</sup> Bill 09-0433 Street and Transportation Projects – Complete Streets (2010)

a conduit for rapidly funneling various modes of travel through the city. Rather, Downtown streets should be viewed as destinations in their own right.”<sup>5</sup>

The below Table 9 outlines the transportation goals identified in the open space plan.

**Table 9:** Transportation and Street Related Recommendations

Goals	Strategies
Mode-Sharing	<ul style="list-style-type: none"> <li>A. Accommodate bicyclists in all spaces and consider both short and long-term bike parking.</li> <li>B. Continue exploring options to convert downtown non-arterials to two-way traffic flow to improve pedestrian environment and circulation options for motorists.</li> </ul>
Sustainable Practices	<ul style="list-style-type: none"> <li>A. Utilize best management practices for downtown street tree plantings.</li> <li>B. Capture urban stormwater runoff at or near the source using a variety of techniques.</li> </ul>
Streetscape Enhancements	<ul style="list-style-type: none"> <li>A. Apply “road diets” whenever possible.</li> <li>B. Utilize “shared space” where it is important to maintain vehicular traffic but emphasize the pedestrian environment.</li> <li>C. Follow the Downton Baltimore Streetscape Design Guidelines.</li> <li>D. Explore creative ways of introducing scale, shade, and color where street trees are not possible.</li> </ul>
Temporary Enhancements	<ul style="list-style-type: none"> <li>A. Utilize pavement striping as a way to experiment with changes in street configurations before investing in permanent solutions.</li> <li>B. Utilize pots and planters that can be moved to different locations.</li> <li>C. Utilize “pop-up-cafes” where sidewalks are too narrow for outdoor dining.</li> </ul>

The above strategies in Table 9 are often included in complete streets design guides.

Southeast Baltimore Complete Streets Plan (2012)

In summer 2012, the Baltimore Department of Transportation and the communities of Southeast Baltimore produced the Southeast Baltimore Complete Streets Plan. The document applies to the below neighborhoods. A more detailed description of the Southeast plan is available in *Section 2*.<sup>6</sup>

**Table 10:** Southeast Baltimore Neighborhoods

Fells Point	Upper Fells Point	Bucher’s Hill	Riverside
Canton	Patterson Park	Linwood	Medford
Brewers Hill	Highlandtown	McElderry Park	O’Donnel Heights
Little Italy	Jonestown	Baltimore Highlands	Broening Manor
Perkins Homes	Washington Hill	Greektown	Graceland

<sup>5</sup> Baltimore Downtown Open Space Plan (2010)

<sup>6</sup> Southeast Baltimore Complete Streets Plan (2012)

Baltimore Climate Action Plan (2013)

On January 15, 2013, the City of Baltimore published the [Baltimore Climate Action Plan \(CAP\)](#), with the goal of developing programs and strategies for reducing greenhouse gas emissions 15% by 2020.<sup>7</sup> Without any policy actions, researchers found that Baltimore was expected to reach 7,838,996 metric tons (MT) of greenhouse gas emissions by 2020. Achievement of the 15% reduction goal would return Baltimore to emissions levels lower than 2010 baseline emissions of 7,678,144 MT CO<sub>2</sub>e/yr.

The plan lists Land Use and Transportation (LUT) strategies as one of the policy spaces for reducing greenhouse gas emissions. Specifically, the report states,

“Emissions from the transportation sector makes up 15.6 percent of Baltimore City’s GHG inventory (approximately 1,183,046 MT CO<sub>2</sub>e/year in 2010). The vast majority of these emissions come from the use of the privately-owned car (referred to as ‘vehicle miles traveled’ or VMT), followed by emissions from the port, metro, bus and light rail systems ... The density of development, mix of uses, proximity to transit, and street design, as well as the availability, affordability, ease of alternative modes of travel, and other factors influence how far residents and employees travel to meet daily needs, and whether they choose to walk, bike, use public transit or drive.”

Implementing Complete Streets is listed under two of CAP LUT strategies.

**Table 11:** Land Use and Transportation Strategies

<b>Strategy 1: Promote Mixed-use development near transit</b>
<b>1. A:</b> Create high-quality pedestrian- and transit-oriented neighborhoods.
<b>Action 1:</b> Continue to incorporate Complete Streets design guidelines into neighborhood planning and design.
<b>Strategy 4: Increase walking and biking</b>
<b>4. A:</b> Develop a pedestrian master plan
Development of the plan will occur in coordination with the Americans with Disabilities Act (ADA) Transition Plan, the pedestrian safety committee and Complete Streets legislation with a focus on pedestrian safety provisions, such as crosswalks, countdowns and ADA compliance, in addition to sidewalk expansion opportunities. After the plan is developed, the city will work to ensure implementation.

As a final note, the 2018 Baltimore Sustainability Plan found that the city was not on track for addressing the 2020 emissions reduction goal. Rather, “Despite efforts begun under the City’s Climate Action Plan, emissions have increased by 8 percent.”<sup>8</sup>

<sup>7</sup> Baltimore Climate Action Plan (2013)

<sup>8</sup> The Baltimore Sustainability Plan (2018)

Baltimore Department of Transportation Complete Streets Policy

In November of 2013, the Baltimore Department of Transportation finalized its [Complete Streets Policy document](#), which requires all DOT staff and partners to “consider and incorporate Complete Street planning and design criteria.”

DOT stresses the importance of complete streets by stating,

“Streets comprise a majority of public space in Baltimore City, but have often failed to provide surrounding communities with space where people can safely walk, bicycle, drive, take transit, and socialize. They must not only facilitate traffic, but also should be safe, sustainable, vibrant, connected, multi-modal, and support economic development.”

Furthermore, DOT states its commitment to the below policy objectives.

**Table 12:** DOT Complete Street Policy Objectives

DOT is committed to:	
Shared Prioritization	Prioritizing pedestrians, transit riders, and bicyclists, and thereby maximizing opportunities to activate streets as public spaces for their use and convenience.
Multi-Modal Transportation	Developing a multi-modal transportation network in Baltimore City that accommodates the safety, access, and mobility needs of transit riders, school children, bicyclists, and pedestrians within the public right-of-way.
Balancing Needs	Balancing the needs and wants of all transportation system users through data-driven decision making.
Partnerships	Partnerships with State agencies, transit providers, businesses, stakeholders and communities to plan, design, construct, operate and maintain the Complete Streets network in the City.
Measuring performance	Measuring its performance against goals including but not limited to: A. Increasing mode share for transit ridership and bicycling. B. Reducing single occupancy vehicle trips. C. Increasing opportunities to enhance transit, rideshare, carshare, and bikeshare services. D. Requests for traffic calming, street design and intersection improvements addressed through Complete Streets treatments.

Bill 14-0152R Revisiting Mayor and City Council Resolution 09-0433

On March 10, 2014, Bill 14-0152R *Revisiting Mayor and City Council Resolution 09-0433 – Street and Transportation Projects – Complete Streets* was introduced to the City Council.<sup>9</sup> The [bill](#) was used to call city agencies before the City Council to report on complete streets progress.

<sup>9</sup> Bill 14-0152R Revisiting Mayor and City Council Resolution 09-0433 – Street and Transportation Projects – Complete Streets (2014)

### Baltimore City Bike Master Plan

In March 2015, the Baltimore City Department of Transportation published the [Baltimore City Bike Master Plan](#) which builds upon previous city bike plans and treats bicycling as “an important piece of a multi-modal urban transportation network.”<sup>10</sup>

To effectively adapt city streets to meet Baltimore’s biking needs, the report called for DOT to implement three objectives by March 2016. The FLA was unable to determine the status of these policy actions.

**Table 13:** Bike Master Plan Complete Street Objectives

Policy Action	Status
Develop a Complete Streets guide and training for DOT staff and consultants.	Unconfirmed
Prepare a Complete Streets Checklist for DOT project planners and designers.	Unconfirmed
Prepare a Complete Streets Scorecard for DOT completed projects.	Unconfirmed

### Mayor Catherine E. Pugh Transition Report

On February 24, 2017, Mayor Catherine E. Pugh released her [Transition Report](#) which identified policy priorities across eight categories including Transportation.<sup>11</sup> The report calls on the Mayor to develop a five-year Comprehensive Transportation Strategic Plan that focuses on safety, equity, inclusivity and accessibility for Baltimore residents.

Furthermore, the Mayor’s report states, “The plan should include a commitment to adhere to and strengthen the City’s 2010 Complete Streets Resolution and the 2013 DOT Complete Streets Policy by passing a detailed Complete Streets Ordinance, with best-practice design guidelines, that mandate compliance and contain real accountability.”

### The Baltimore Sustainability Plan (2018)

On Wednesday, April 11, 2018, the Baltimore Office of Sustainability released the final draft [of The 2018 Baltimore Sustainability Plan](#), which identifies sustainability strategies and actions essential to the topics of Climate & Resiliency, Community, Economy, Health, Human-Made Systems, and Nature in the City.<sup>12</sup>

A well-crafted complete streets manual and system of accountability can have policy impacts across a number of the above overarching topics. Additionally, the 2018 sustainability plan twice calls for complete streets under the *Active Living and Healthy Lifestyles* goal and the *Transportation* goal which respectively fall under Health and Human-Made Systems. The below Table 14 highlights policy topics mentioned in the report that are related to complete streets.

<sup>10</sup> Baltimore City Bike Master Plan (2015)

<sup>11</sup> Mayor Catherine E. Pugh Transition Report (2017)

<sup>12</sup> The Baltimore Sustainability Plan (2018)

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**Table 14:** Sustainability Goals

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**Health:** Active Living and Healthy Lifestyles

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**Strategy 2:** Provide Safe access to recreation programming, especially ensuring that walking and biking is safe.

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**Action 1: Enact Complete Streets** including traffic calming measures, to encourage walking and bicycling.

**Action 2: Implement the Baltimore Green Network** to improve, expand, and better connect neighborhoods to existing trail systems, bike networks, parks, and open spaces.

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**Human-Made Systems:** Transportation

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**Strategy 2:** Establish a comprehensive Transportation Strategic Plan

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**Action 1: Ensure early and extensive resident input, and ensure equity considerations** are built into the hierarchy of recommendations and how capital projects are prioritized.

**Action 2: Include and implement a Pedestrian Master Plan** that includes a “sidewalk inventory” to identify areas of high density with poor connectivity and walkability, with the long-term goal of providing widened sidewalks, shorter crossings, improved streetscapes, and traffic calming, and complies with the Americans with Disabilities Act standards.

**Action 3: Include a “Complete Streets” component** that focuses on developing streets and corridors that serve pedestrians first, followed by transit, cycling, freight, and single occupancy vehicles. Improve availability of transportation for residents without cars.

**Action 4: Continue to implement the Bike Master Plan** to improve safety and accessibility for cyclists, ensuring equitable distribution of bike infrastructure.

**Action 5: Create a design manual** of design and construction details to guide government in redeveloping spaces that are sustainable and that prioritize pedestrians.

**Action 6: Alter traffic signal timing citywide to shorten cycle lengths** in order to lower traffic speeds and shorten wait-times for pedestrians and cyclists.

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**Strategy 3:** Improve reliability, accessibility, safety, and efficiency of transit

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**Action 5: Become a “Vision Zero” city** by developing a plan to eliminate all traffic-related fatalities by a defined timeline.

**Action 6: Encourage “green” commutes** by enacting legislation requiring employers to provide employees with transit, biking, and walking benefits equivalent to parking benefits offered to employees who drive to work.

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## Note from the Fiscal Legislative Analyst

Although the above selected documents emphasize the implementation of complete streets, Baltimore neither has a comprehensive complete streets design manual nor a document that outlines the steps for achieving comprehensive short- and long-term complete streets projects. As such, the city risks continued spending on infrastructure projects that are not aligned to design best practices and long-term goals.

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Section End

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## Section 4: Transportation Budget and Complete Streets Cost

### Section Summary

This section provides a short overview of the DOT budget and the expenditures associated with complete streets implementation. The adopted FY18 budget allocates \$206 million to DOT, and directs \$32 million towards *Service 683: Street Management*. Money allocated to service 683 provides for street maintenance and resurfacing. It is difficult to provide a simple answer to the question, “How much do complete streets costs?” However, this section attempts to provide an initial estimated answer to this question. Using a more conservative cost estimate that BBMR, the FLA finds that implementing low-cost complete street elements would increase the street management budget by around 6%, and the overall DOT budget by around 1.4%.

### Department of Transportation Budget Discussion

In 2017, the Baltimore City Council adopted a Department of Transportation (DOT) budget of \$206,380,997 for Fiscal Year 2018. The 2018 budget includes revenue from 7 fund sources that are then allocated across 19 service categories. Please see the below Table 15 for appropriated funds by funding source. The largest single source of funding for DOT is the General Fund. For FY18, general fund allocations stand at \$119.7 million and comprise 58% of the DOT budget.<sup>13</sup>

**Table 15:** DOT Budget Fund Sources (Adopted Budget)

Fund Names	FY14 Adopted	FY15 Adopted	FY16 Adopted	FY17 Adopted	FY18 Adopted
General	\$96,476,798	\$97,680,265	\$100,338,643	\$104,550,672	\$119,713,419
Federal	\$1,604,068	\$3,647,766	\$1,447,485	\$1,615,412	\$1,642,698
State	\$448,647	\$3,278,014	\$2,914,662	\$4,072,617	\$4,071,216
Special	\$10,776,278	\$9,561,677	\$9,398,357	\$17,403,971	\$10,341,885
Conduit Enterprise	\$7,843,083	\$7,847,381	\$7,894,757	\$16,000,000	\$11,746,671
Parking Enterprise	\$35,445,338	\$29,053,457	\$28,750,780	\$31,780,518	\$33,222,138
Parking Management	\$20,293,483	\$22,197,956	\$24,443,494	\$24,775,005	\$25,642,970
<b>Total</b>	<b>\$172,887,695</b>	<b>\$173,266,516</b>	<b>\$175,188,178</b>	<b>\$200,198,195</b>	<b>\$206,380,997</b>

**Notes:** Data Source: BBMR Seven Year Actuals (2018)

Funds allocated to DOT are used for construction and maintenance of public streets, bridges, and highways, and maintenance of streetlights, alleys and footways and the conduit system.

“The Department of Transportation maintenance profile includes nearly 4,800 lane miles of roadways, including 288 bridges and culverts. The City’s road network is composed of 540 miles

<sup>13</sup> BBMR Seven Year Actuals (2018)

of collector streets and 1,460 miles of local streets. About 8.1% of statewide vehicle miles traveled occur on City roadways. This amounts to 3.5 billion vehicle miles per year. The Department of Transportation maintains 3,600 miles of sidewalks, 1,200 miles of alleys and 80,000 roadway and pedestrian lights throughout the City.”<sup>14</sup>

For a complete breakdown of DOT spending across service categories, please see Appendix Tables 5-8. The below Table 16 reports allocated funds across the four service categories that are closely related to complete streets policy: Parking Management, Street Management, Sustainable Transportation, and Public Rights-of-Ways Landscape Management. The table is followed by BBMR service descriptions and budget notes located in the [FY18 Agency Detail budget books](#).

**Table 16:** DOT Budget Service Allocations  
(Selected Services from the Adopted Budget)

ID	Service Name	FY14 Adopted	FY15 Adopted	FY16 Adopted	FY17 Adopted	FY18 Adopted
682	Parking Management	\$43,035,035	\$38,028,829	\$38,562,934	\$41,854,893	\$43,935,182
683	Street Management	\$27,222,944	\$31,442,086	\$28,675,601	\$31,736,764	\$32,208,573
690	Sustainable Transportation	\$8,509,416	\$12,555,238	\$13,293,010	\$19,554,062	\$19,562,708
691	Public Rights-of-Way Landscape Management	\$2,553,953	\$2,997,925	\$3,856,516	\$3,402,284	\$4,096,306

Notes: Data Source: BBMR Seven Year Actuals (2018)

682 Parking Management<sup>15</sup>

“This service manages City-owned off-street garages and lots with more than 10,000 parking spaces and two million parkers annually; manages and maintains over 922 multi-space, 2,442 single-space parking meters that accept credit cards and debit cards, and 1,976 single-space parking meters that accept only coins; administers Residential Permit and Residential Reserved Handicapped parking programs; develops parking plan and identifies and implements parking demand management strategies such as car sharing.”

BBMR Note

“Revenue generated from parking garages, meters, permits, citations, and taxes is collected in the Parking Funds. After deducting the expenses incurred in debt service to build the garages for garage debt service and the Parking Management and Enforcement services, any remaining revenue is transferred to the General Fund. The estimated transfer for Fiscal 2018 is \$36,301,547.”

683 Street Management<sup>16</sup>

“This service provides the preventative maintenance, resurfacing, reconstruction, and streetscaping of more than 4,745 lane miles of City roadways, 3,600 miles of sidewalks, and more than 1,100 lane miles of alleys throughout the City.”

<sup>14</sup> FY 2018 Agency Detail (2017)

<sup>15</sup> FY 2018 Agency Detail (2017)

<sup>16</sup> FY 2018 Agency Detail (2017)

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BBMR Note

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An increase in funding of \$1,119,499 for maintenance and repair of operating equipment was included in FY18.

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690 Sustainable Transportation <sup>17</sup>

“This service encourages and provides cleaner forms of transportation to reduce citizen dependence on single-occupant vehicles. This service includes installation of bicycle facilities marketing and development of ridesharing programs, and the operation of the Charm City Circulator and the water taxi “Harbor Connector” commuter service.”

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BBMR Note

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“In Fiscal 2017 DOT had assumed an increase in the parking tax that could contribute to the Charm City Circulator. This increase did not happen. As a result the Fiscal 2018 budget includes \$6 million in general funds going to the circulator for bus replacement and pay down on accumulated deficit in the special fund.”

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691 Public Rights-of-Way Landscape Management <sup>18</sup>

“This service provides for the mowing and maintenance of 870 median strips in City roadways; mulching and cleaning of tree pits; mowing of certain City owned lots; removal and cleaning of trash, debris and illegal signs; and installation of street banners and hanging baskets in commercial areas throughout the city.”

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BBMR Note

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“Funding for mowing has gone up for Fiscal 2018. This is because in previous years DOT was underfunded base on the level of required mowing that came from initiatives such as Crime and Grime. The budget reflects the actual costs DOT has been spending on providing this service since those initiatives went into effect.”

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## FLA Complete Streets Cost Discussion

The cost of complete streets projects varies significantly with the degree of project permanence. Low-cost complete streets projects such as road diets can be crafted with limited to no impact on existing parking, and as such may only affect the Street Management Service budget. However, as projects increase in complexity and the degree of permanence, complete street projects have increased costs since they may impact parking, bus routes, curb lanes, and medians. As such, it is difficult to provide a simple answer to the question, “How much do complete streets costs?” However to shed some light on implementation costs, the FLA reviewed available city documentation on street repaving and a federal report on road diets.

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<sup>17</sup> FY 2018 Agency Detail (2017)

<sup>18</sup> FY 2018 Agency Detail (2017)

Road diets are low-costs projects that adapt existing roadways to better serve the needs of multiple modes of transportation. For example, a common road diet project involves repainting a four-lane vehicle street as a three-lane vehicle street with an additional dedicated bicycle lane. Simpler “lane-diet” projects can accommodate added bike lanes on existing streets through the repainting of roadways with narrower vehicle lanes.

Complete street projects such as road diets are either implemented as stand-alone projects or at a lower cost they may be incorporated as part of regularly scheduled resurfacing work. The U.S. Department of Transportation and the Federal Highway Administration (FHWA) provides detailed descriptions reports on road diets. The below Table 17 contains four-lane to three-lane conversion costs provided by 2016 US DOT and FHWA [research](#) on road diets.<sup>19</sup>

**Table 17:** 4-lane to 3-lane Conversion Costs  
(Stand-Alone vs. During Resurfacing Project)

Item	Unit & Quantity <sup>(1)</sup>	Unit Cost <sup>(2)</sup>	Total Cost / Mile		Comments
			No Resurfacing	Resurfacing	
Land Line Eradication	LF 15,000	\$1.50	\$22,500	\$0	<b>No Resurfacing:</b> Assume three lines entire length. <b>Resurfacing:</b> Not necessary.
Bike Lane Lines Thermoplastic (6")	LF 10,000	\$1.50	\$15,000	\$15,000	Assume two solid lines entire length
Travel Lines Thermoplastic (4")	LF 15,000	\$1.00	\$15,000	\$0	<b>No Resurfacing:</b> Assume two solid lines entire length and two striped lines at 50% coverage entire length <b>Resurfacing:</b> Included in base project
Bike Lane Thermoplastic Pavement Marking	EA 40	\$300	\$12,000	\$12,000	Assume one symbol every 250ft each side of road (bike lane)
Bike Lane Sign	EA 20	\$250	\$5,000	\$5,000	Assume one sign every 500ft
Left-Turn Thermoplastic Pavement Marking	EA 20	\$300	\$6,000	\$6,000	Assume one symbol every 250ft (left-turn arrows).
Maintenance of Traffic (10%)	LS 1.00	\$7,500	\$7,500	\$0	Included in base project
<b>Subtotal:</b>			\$83,000	\$38,000	
<b>20% Contingency:</b>			\$17,000	\$8,000	
<b>Total Estimated Cost:</b>			\$100,000	\$46,000	

(1) LF = Linear Foot, EA = Each, LS = Lump Sum

(2) 2015 Estimates

<sup>19</sup> Road Diet (2016)

To gain a rough estimate of how road diet projects would affect Baltimore DOT operating costs, the FLA consulted data available in the FY18 Agency Detail budget books, and the 2014 *City of Baltimore BBMR Management Research Report: Street Repaving – A Full Cost and Activity Based Cost Analysis of the In-House Street Repaving Operation in Baltimore*. The BBMR report is valuable for two reasons. First it provides an assessment of existing road replacement schedules. Secondly, the BBMR report led to a more accurate account of DOT in-house street repaving costs starting in FY15.<sup>20</sup>

### Assessment of Road Replacement Schedules

When BBMR conducted its analysis of street repaving, it found that DOT was unable to maintain a street repaving schedule that kept pace with the projected life span of city streets.<sup>21</sup> Roads repaved by contractors and in-house crews have an 8-12 year life span. In 2014, the city had over 4,300 lane miles of roadways and over 1,000 miles of alleyways to maintain. As such, DOT would have to repave over 400 lane miles per year to keep pace with projected road lifespans. However during the study period of 2004-2013, contractors and in-house crews were collectively only able to exceed 200 lane miles of repaving in FY08 with 212 lane miles. Furthermore, the DOT target listed in the FY18 budget books do not seem to put Baltimore on track to meet the city’s street resurfacing needs. The additional reporting of lane miles resurfaced by contractors would confirm how far the city is from the necessary 400 lanes miles per year.

### Account of DOT Repaving Costs

Table 18 summarizes in-house street repaving performance metrics available in the FY18 budget books.<sup>22</sup> Note however, that FY13 and FY14 use a less accurate method for assessing the cost per lane mile.<sup>23</sup>

**Table 18:** Street Management Performance Measures

Type	Measure	FY 13 Actual	FY14 Actual	FY15 Actual	FY16 Target	FY16 Actual	FY17 Target	FY18 Target
Output	Total # of lane miles resurfaced by internal crews	84	54	61	60	45	60	60
Efficiency (Thousands)	Cost per lane mile resurfaced by internal crews	\$82	\$85	\$131	\$131	\$131	\$122	\$128
Effectiveness	% of streets meeting acceptable pavement condition standards	62%	62%	62%	62%	65%	64%	65%

**Notes:** FY 2018 Agency Detail (2017)

### Estimated Road Diet Cost Impact

The FLA considered budget data available for FY15 and the road diet cost information from Table 17 to produce a rough conservative cost estimate of including road diets in regularly scheduled Baltimore street resurfacing projects. Taking these numbers as given, we can produce a total projected cost of \$10.8 million for including road diet elements on all 61 lane miles of in-house street projects in FY15.

<sup>20</sup> In-House Street Repaving (2014)

<sup>21</sup> In-House Street Repaving (2014)

<sup>22</sup> FY 2018 Agency Detail (2017)

<sup>23</sup> In-House Street Repaving (2014)

**Table 19:** Estimated Impact of Road Diet Implementation

	Lane Miles	Cost Per Lane Mile	Total Resurfacing Costs
Existing FY15 Costs	61	\$131,371	\$8,013,631
Road Diet Costs	61	\$45,000	\$2,745,000
<b>Total Costs</b>	<b>61</b>	<b>\$176,371</b>	<b>\$10,758,631</b>

The additional \$2.7 million in road resurfacing cost for including road diet elements is equivalent to a 6.0% increase in the FY15 Street Management (BAPS Actuals) budget of \$45,788,090, and is equivalent to a 1.4% increase in the FY15 DOT (BAPS Actuals) budget of \$192,712,487. (See Appendix Table 7 for the BAPS Actuals).

It is important to note that the estimated average cost per lane mile of \$176,371 is likely an overestimation. First, it is unlikely that every FY15 DOT resurfacing project was suitable for a road diet. Second, numerous federal subsidies exist for incorporating complete street projects such as road diets into regular street resurfacing. For reference see the linked [Pedestrian and Bicycle Funding Opportunities document](#), which was provided to the FLA by the National Complete Streets Coalition.<sup>24</sup> Third, if any FY15 road resurfacing project included complete streets elements, then the above projection overestimates the cost of implementing complete street elements on those specific projects.

Finally, implementing projects such as road diets is likely to produce some long-term cost savings to the city. Converting a vehicle lane to a bike lane reduces the number of lanes subject to vehicle wear and tear. Furthermore, slowing traffic speeds along road diet street segments also likely decreases average street wear and tear.

Ultimately, however, the FLA wants to stress that the above estimates are loose estimates. It is difficult to provide an accurate estimate of low-cost complete street style projects without more time for analysis and increased access to DOT project cost data. Readers should treat the above road diet projection as more of a cost increase upper bound rather than an expected average cost increase. Lastly, the FLA did not have access to expenditures on road miles resurfaced by contractors. There city should expect an increase to contracting work that includes complete street elements. However, opportunities to exist to offset cost increases with federal dollars.

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Section End  
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<sup>24</sup> (National Complete Streets Coalition 2016)

## Section 5: Bill 17-0102

### Bill Summary

Bill 17-0102 *Complete Streets* calls for adding “Subtitle 40. Complete Streets” to Article 26 – Survey, Streets, and Highways of the Baltimore City Code. The full text of the bill can be found on [Legistar](#), the Baltimore City Council’s legislative website.<sup>25</sup> Bill 17-0102 does the following:

- Requires the Department of Transportation to construct and operate a comprehensive Complete Streets Transportation System (*Section 1 Part II Complete Streets Transportation System: §40-6 to §40-15*).
- Creates a complete streets coordinating council to certain recommendations and oversee certain activities regarding the Complete Streets Transportation System (*Sec. 1 Part III Complete Streets Coordinating Council: §40-16 to §40-25*).
- Establishes certain design standards and requires the Department of Transportation to use the latest and best design<sup>2</sup> standards in constructing and operating the Complete Streets Transportation System (*Sec 1. Part IV. Design Standards §40-26 to §40-30*).
- Requires the Transportation Department, in consultation with the Coordinating Council and after public notice and a public comment period, to adopt a Complete Streets Manual to carry out the Ordinance. (*Sec. 1 Part V. Complete Streets Manual §40-36 to §40-45*).
- Requires that the Transportation Director, in consultation with the Coordinating Council, prepare an Annual Complete Streets Report, assess the status of the Complete Streets Transportation System, and conduct public meetings and other community engagement and outreach activities to present the Complete Streets Annual Report to the public and to solicit input (*Sec. 1 Part VI Annual Report and Public Accountability §40-46 to §40-50*).
- Specifies that the requirements of the Ordinance apply to all project phases undertaken by, under the authority of, or subject to the supervision of the Transportation Department for the improvement of any street, subject to certain exceptions (*Section 3-5*).
- Defines certain terms; providing for special effective dates; and generally relating to the construction and operation of a transportation system, accommodating all travel modes, that ensures the safety, security, comfort, and convenience of all users. (*Throughout*).

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Section End

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<sup>25</sup> Legistar: Bill 17-0102 Complete Streets (2017)

## Section 6: Fiscal Notes on Agency Reports

### Section Summary

This section provides a summary of each agency report submitted by a Baltimore municipal director in regards to Bill 17-0102. The summaries are accompanied by Fiscal Notes. Agency reports signal cost and time frame concerns. Although many departments are supportive of complete streets in principle, many amendments are necessary to gain full support.

### Introduction

Seven municipal agencies submitted “agency reports” on Bill 17-0102 in advance of the April 25, 2018 hearing. Each report is an internal assessment of how the bill is expected to impact the respective agency as well as the city government and Baltimore residents. A copy of each agency report is located on [Legistar](#), the Baltimore City Council’s legislative website.<sup>26</sup>

This section contains a summary of each report and relevant *Fiscal Notes* issued by the Fiscal Legislative Analyst. Department assessments of the bill as currently written are mixed. For convenience, the below table lists the reporting agencies and their final assessment of the bill. Please see the subsequent summaries for further details.

**Table 20:** Agency Report Assessments

Agency	Assessment
Finance Department: Bureau of Budget and Management Research (BBMR)	<b>Oppose:</b> “Expected implementation costs of the legislation do not have a dedicated funding source; so the Department of Finance opposes this bill.”
The Baltimore City Health Department (BCHD)	<b>Defers:</b> “the Health Department defers to the Department of Transportation.”
The Department of Housing and Community Development (HCD)	<b>Supports with Amendments:</b> HCD “supports the concept of the Complete Streets Bill, however, HCD would like to see amendments to the bill to make it less prescriptive and encourage flexibility to guide the transition to safe streets in the City...”
The Parking Authority of Baltimore City (PABC)	<b>Requests Delay:</b> “PABC believes the passage of Council Bill 17-0102 should be deferred to allow more time to fully assess the impacts of this legislation.”
The Department of Planning (Planning)	<b>Supports:</b> “The Office of Sustainability therefore supports the framework and intent of City Council Bill #17-0102/COMPLETE STREETS.”
The Department of Public Works (DPW)	<b>Requests Amendments:</b> DPW “respectfully requests that the points raised in this report be taken into consideration during the deliberations surrounding City Council Bill 17-0102.”

<sup>26</sup> Legistar: Bill 17-0102 Complete Streets (2017)

**Table 20:** Agency Report Assessments

Agency	Assessment
The Department of Transportation (DOT)	<b>Support with Amendments:</b> DOT “respectfully favors City Council Bill 17-01-02; however, with amendments to be further discussed...” Furthermore, DOT states that “this legislation, as written, will put significant constraints on daily operations.”

## Agency Reports with Fiscal Notes

### 1. Finance Department: Bureau of the Budget and Management Research

**Department Assessment:** “Expected implementation costs of the legislation do not have a dedicated funding source; so the Department of Finance opposes this bill.”<sup>27</sup>

**Report Summary:** In its research, BBMR focused on both the implementation and ongoing costs of complete streets policy. BBMR determined that Bill 17-0102 would have significant fiscal impact for both the City’s operating and capital budgets and provided the estimated costs found in the below Table 21: BBMR Complete Streets Cost Estimates.

**Table 21:** BBMR Complete Streets Cost Estimates

Budget	Expense	Costs	Notes
Operating	Complete Streets (CS) Manual	\$500,000 <i>One-time</i>	For DOT to hire a professional consultant.
Operating	2 Full Time DOT CS Staff	\$200,000 <i>On-going</i>	Positions would staff the Interagency Coordinating Council, analyze data, and monitor CS Compliance.
Operating	Staff and Supplies <sup>ℓ</sup>	\$200,000 <i>On-going</i>	Positions would support interagency cooperation, public engagement, CS project analysis.
Capital	CS Compliance <sup>†</sup>	\$1,500,000 <i>On-going</i>	BBMR cites a Charlotte, NC <a href="#">report</a> <sup>‡</sup> which suggest increased costs of 5%.
Capital	CS Compliance	Unspecified <i>One-time</i>	Retroactively applying CS policy to current projects will increase costs.

Notes:  
<sup>ℓ</sup> Follow up conversation indicated that staffing would include 3-4 support and engagement staff members.  
<sup>†</sup> The BBMR report states DOT provided an estimate of 15-20% for an increased cost of \$4,500,000.  
<sup>‡</sup> Shapard, James, and Mark Cole. 2013. “Do Complete Streets Cost More than Incomplete Streets?” *Journal of the Transportation Research Board*. 2393, 134-138 <https://doi.org/10.3141/2393-15>

BBMR also cited indirect costs and benefits. An indirect cost includes a potential loss of metered parking revenue. Indirect benefits include reduced wear-and-tear on roadways, public health improvement, and expanded access to business districts.

<sup>27</sup> Memo RE: City Council Bill 17-0102 – Complete Streets (Cenname 2018)

The BBMR report did caution estimates are preliminary, and actual costs are dependent Complete Street Manual final guidelines.

**Table 22:** Fiscal Notes on the BBMR Agency Report

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**Complete Streets Manual**

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The Fiscal Legislative Analyst was able to confirm \$500,000 as an accurate estimate for the consulting costs associated with a Complete Streets Manual.

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**Staffing Costs**

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BBMR suggests total staffing costs of \$400,000, with \$200,000 for two DOT positions, and \$200,000 for three to four support and engagement staff to coordinate across agencies. The FLA defers to BBMR on the expected cost for four new employees. Please refer to the “Fiscal Notes on Bill 17-0102” section for further staffing comments.

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**Complete Streets Compliance Costs**

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The FLA respectfully suggests that the US DOT and FHWA road diet report may provide a better estimate of the marginal cost of low-cost project such as road diets. However the FLA notes that without access to better data provided by Baltimore DOT, any estimate is preliminary.

Since many complete streets projects are eligible for significant grant dollars, the FLA does not view the expected increase in ongoing cost as prohibitive to implementing complete streets. Furthermore in the absence of grant dollars, the benefits of implementing complete street elements across a smaller portfolio of street repaving projects may outweigh the costs of continuing street repaving across a portfolio of projects consistent with previous years.

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## 2. Baltimore City Health Department

**Department Assessment:** “the Health Department defers to the Department of Transportation.”<sup>28</sup>

**Summary:** BCHD references a Smart Growth America [report](#) that states pedestrian collisions disproportionately affect communities of color, elderly citizens and areas with high incidences of poverty. The department acknowledges, complete streets “may mitigate compounded harm to marginalized communities by addressing dangerous pedestrian conditions.”<sup>29</sup>

**Table 23:** Fiscal Notes on the BCHD Agency Report

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Health and Safety

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BCHD’s comments on safety and equity are important consideration of complete streets policy. For reference, Smart Growth America publishes an interactive version of their [2016 report](#) where site visitors can see geotagged locations of pedestrian deaths within the Baltimore City limits.<sup>30</sup> The [report](#) shows that the Baltimore-Columbia-Towson, MD metro area recorded 470 pedestrian deaths between 2005 and 2014 and currently stands at 17 out of the 104 largest metro areas for pedestrian deaths. Please refer to [Section 3: Assessing the Need – The City of Baltimore](#) for more health and safety information.

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<sup>28</sup> Agency Report: 17-0102 – Land Use and Transportation – Complete Streets (Wen 2018)

<sup>29</sup> Dangerous by Design 2016 (Atherton, et al. 2017)

<sup>30</sup> Web: Dangerous by Design 2016 (2017)

### 3. The Department of Housing and Community Development

**Department Assessment:** HCD “supports the concept of the Complete Streets Bill, however, HCD would like to see amendments to the bill to make it less prescriptive and encourage flexibility to guide the transition to safe streets in the City...”<sup>31</sup>

**Summary:** HCD supports the intent of the Bill 17-0102, but offers changes found in the below Table 24. For reader convenience, the Fiscal Analyst has categorized the offered changes and included Fiscal Notes after each of HCD’s points.

**Table 24:** HCD Comments Fiscal Notes on the HCD Agency Report

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**Topic 1:** Planning Process

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DHCD Comment:

Clarify that Complete Streets should be part of the comprehensive transportation planning process with recognition that certain federal and state requirements will have precedence.

Fiscal Note:

The Fiscal Legislative Analyst concurs with HCD’s assessment that Complete Streets should be part of the comprehensive transportation planning process with recognition that certain federal and state requirements will have precedence.

The FLA adds the additional concern regarding the vague language of “Section 1. Part II. Complete Streets Transportation System.” It is the understanding of the FLA that the broad intent of Bill 17-0102 is to align existing statute, and long-term planning to complete street industry design standards. As written, “Section 1. Part II. Complete Streets Transportation System” seems to leave the city financially exposed to the requirement of creating a new transportation system, akin to a “bus system” or a “train system.”

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**Topic 2:** Project Exclusion

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DHCD Comment:

Broaden the types of projects that are eligible for exclusion to include projects that are at a certain point in pre-development or are part of prescribed approved/awarded federal redevelopment initiatives (§40-2 (C)).

Fiscal Note:

The FLA concurs with HCD’s suggestion. However, only to the extent that is in not practical to impose complete street related design changes to a pre-development project. The FLA defers to department experts for determining the appropriate pre-development stage.

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**Topic 3:** Community Engagement

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DHCD Comment:

Broaden community engagement requirements so they are more compatible with equity policy and planning, i.e. requiring hard copies to be provided in public locations such as public libraries or community centers and be bi-lingual.

Fiscal Note:

The FLA concurs with HCD’s suggestion.

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**Topic 4:** Manual Flexibility

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DHCD Comment:

Ensure that the bill allows the manual to be a flexible planning and policy tool and is incorporated as part of other citywide transit initiatives or mandates.

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<sup>31</sup> Memorandum: City Council Bill 17-0102 – Complete Streets (Braverman 2018)

**Table 24:** HCD Comments Fiscal Notes on the HCD Agency Report

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Fiscal Note:

Developing a complete streets manual with the input of multiple city departments does provide an opportunity for a holistic review of how each department interacts with complete streets issues.

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**Topic 5:** Representation

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DHCD Comment:

Add a representative from the City Department of Housing and Community Development and the Housing Authority of Baltimore City (HABC) to the Complete Streets Coordinating Council because of their respective involvements with major redevelopment initiatives.

Fiscal Note:

Please see [Section 6: Fiscal Notes on Bill 17-0102](#) for detailed comments on the Complete Streets Coordinating Council. In the event that a coordinating council is established, the FLA does not oppose HCD's recommendation for adding a representative from the City Department of Housing and Community Development and the Housing Authority of Baltimore City (HABC).

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**Topic 6:** Prioritization and Delivery

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DHCD Comment:

Modify the project prioritization and project delivery processes to be less prescriptive and more flexible to insure they stay current and viable.

Fiscal Note:

The FLA concurs with HCD's suggestions regarding the prescriptive nature of the bill's text. Please see [Section 6: Fiscal Notes on Bill 17-0102](#) for additional comments.

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## 4. Parking Authority of Baltimore City

Department Assessment: "PABC believes the passage of Council Bill 17-0102 should be deferred to allow more time to fully assess the impacts of this legislation." <sup>32</sup>

Summary: PABC indicates general support for improved transportation planning but withheld detailed analysis on Bill 17-0102 due to a lack of complete streets information as of March 19, 2018. PABC states that it is difficult to understand the impact of the bill without a Complete Streets Manual. Furthermore, the agency expressed the following sentiments which are listed in the below table along with Fiscal Notes.

**Table 25:** PABC Comments and Fiscal Notes on the PABC Agency Report

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**Topic 1:** Parking Removal

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PABC Comment:

- A. Caution against removing neighborhood parking too quickly.
- B. Concern regarding loss of revenue from parking removal. PABC further notes that if street parking is offset with off-street facilities, such facilities would require cost subsidization.

Fiscal Note:

- A. Bill 17-0102 calls for community input in designing Complete Streets design guide. A quality Complete Streets design guide and implementation strategy should have the flexibility to phase in different street design elements overtime and respect an area's residential and commercial needs.
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<sup>32</sup> Transmittal Memo RE: Council Bill 17-0102 (Little 2018)

**Table 25:** PABC Comments and Fiscal Notes on the PABC Agency Report

Furthermore, as discussed in *Section 2, Policy Topic – Complete Streets*, complete streets projects do not necessitate the removal of street parking. Rather depending on the type of project, parking may remain constant or be adjusted up or down dependent on a respective area’s residential and commercial needs.

- B. The FLA recognizes that the city receives significant revenue from managed street parking. Furthermore, it is difficult to evaluate the impact of complete streets policy on parking revenue in specific areas without further detail on individual projects. However, a quality comprehensive plan should identify zones where increased pricing may mitigate revenue loss due to parking removal.

Coupling complete street policies with mass transit improvements implies that, holding all else equal, the city should see reductions in the long run per capita demand for both automobiles and per capita demand for street parking or off-street facilities.

Lastly, it is important to note that publicly owned off-street parking facilities in the downtown area subsidize automobile travel for Baltimore and non-Baltimore residents. If the city commits to complete streets implementation, the city should strongly consider leaving the construction of additional off street facilities to the private market.

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**Topic 2: Expenses**

PABC Comment:

- A. Concern regarding parking study costs needed for complete streets implementation.
- B. Concern regarding expenses for additional equipment.

Fiscal Note:

- A. PABC did not provide information regarding the current cost of parking studies or how often they are undertaken. However, it is important to note that developing a complete streets design guide for the entire city provides an opportunity to evaluate the impact of complete streets on municipal parking revenue.
- B. PABC did not specify what additional equipment may be necessary. Therefore, the FLA has no further comment

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**Topic 3: Typologies and Zone Restrictions**

PABC Comment:

- A. Stated “parking should be affirmatively referenced under considerations in §40-38 STREET TYPOLOGIES.
- B. Concern about limiting loading zone restrictions. Loading zones are administered by PABC and are essential for both businesses and public gathering operations.

Fiscal Note:

- A. The FLA concurs with PABC’s suggestion.
  - B. Loading zones are listed in §40-38 STREET TYPOLOGIES of Bill 17-0102. Therefore, it is the expectation of the FLA that a quality complete streets design manual would account for need loading zones.
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5. Department of Planning

Department Assessment: “The Office of Sustainability therefore supports the framework and intent of City Council Bill #17-0102/COMPLETE STREETS.”<sup>33</sup>

Summary: Planning calls attention to [The Baltimore Sustainability Plan](#) as approved by the City Council on March 2, 2009.<sup>34</sup> The Department of Planning states that the intent of Bill 17-0102 addresses strategies from four of the five “Transportation Goals” in the Sustainability Plan. Those goals and strategies are found in the below Table 26. Furthermore, Planning states that the intent of the bill meets transportation goals outlined in the 2018 sustainability plan.

**Table 26:** Transportation Goals and Strategies

Goals	Strategies
Improve public transit services	<ul style="list-style-type: none"> <li>C. Work with the MTA to expand QuickBuses to more high-volume transit corridors.</li> <li>E. Work with the MTA to develop and implement an ideal transit service profile for MTA routes.</li> </ul>
Make Baltimore bicycle and pedestrian friendly	<ul style="list-style-type: none"> <li>A. Implement the Baltimore Bicycle Master Plan.</li> <li>F. Improve public infrastructure for cyclists and pedestrians.</li> </ul>
Measure and improve the equity of transportation	<ul style="list-style-type: none"> <li>A. Track the disparity of transportation costs by neighborhood relative to income.</li> <li>B. Identify strategies to reduce the disparity in cost of transportation relative to income.</li> </ul>
Increase transportation funding for sustainable modes of travel	<ul style="list-style-type: none"> <li>A. Advocate for more funding for transit and sustainable transportation.</li> <li>B. Implement goals of Mayor’s Transportation Investment Commission (ITC) report.</li> <li>C. Explore options for a new regional transit funding source and a larger local role in managing the MTA.</li> <li>D. Expand eligible expenses under sustainable transportation programs.</li> <li>E. Advocate shifting funding from roadway capacity expansion to transit, bicycling, and walking projects.</li> </ul>

**Table 27:** Fiscal Notes on the Planning Agency Report

Accountability
<p>The Fiscal Legislative Analyst concurs that the intent of a quality complete streets policy guide would address above listed strategies. However, the degree to which any of these transportation goals is achieved is dependent on the level of departmental coordination, policy implementation, and institutional accountability. Please see <i>Section 7: Fiscal Notes on Bill 17-0102</i> for further comments.</p>

<sup>33</sup> Memo RE: City Council Bill #17-0102/Complete Streets (McNeilly 2018)

<sup>34</sup> The Baltimore Sustainability Plan (2009)

## 6. The Department of Public Works

**Department Assessment:** DPW “respectfully requests that the points raised in this report be taken into consideration during the deliberations surrounding City Council Bill 17-0102.”<sup>35</sup>

**Summary:** DPW is responsible for planning, constructing and maintaining the city’s transportation infrastructure and is supportive of interagency cooperation project prioritization and equitable community engagement. However, DPW raises the points found in the below Table 28. For reader convenience, the Fiscal Analyst has categorized DPW remarks and included Fiscal Notes.

**Table 28:** PDW Comments and Fiscal Notes on the PDW Agency Report

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**Topic 1:** Right-of-Way Access

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DPW Comment:

Complete Street guidelines will impact rights-of-way, as such, any adopted design guide should allow DPW to retain access to its water, wastewater and stormwater utilities in order to perform its maintenance, repair, and replacement functions

Fiscal Note:

The Fiscal Legislative Analyst concurs with DPW’s comments that a design guide should allow the department to retain access to the above mentioned utilities.

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**Topic 2:** Stormwater and Green Infrastructure

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DPW Comment:

DPW supports §40-38.B.9 and B.10 separate treatment of stormwater management and green infrastructure. Furthermore, DPW notes the importance of considering both above- and below- ground stormwater management facilities when designing complete streets.

Fiscal Note:

The FLA has no additional comments.

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**Topic 3:** Stormwater Guide

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DPW Comment:

DPW suggests including the “Urban Street Stormwater Guide” produced by the National Association of City Transportation Officials as a reference document in §40-30.1.

Fiscal Note:

The FLA concurs and has no additional comments.

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**Topic 4:** Street Sweeping

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DPW Comment:

DPW states that street sweeping is essential to city cleanliness and compliance with its Municipal Separate Storm Sewer System (MS4) permit (For more information see the [EPA’s website](#) on the topic).<sup>36</sup> Therefore, DPW requests the inclusion of street sweeping routes in §40-38 STREET TYPOLOGIES.

Fiscal Note:

The FLA concurs with DOT that street sweeping routes be included in §40-38 STREET TYPOLOGIES.

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**Topic 4:** Turn Radii

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DPW Comment:

DPW calls attention to the fact that street and alley width as well as turn radii are important for the operation of solid waste collection vehicles, snow plows and other utility vehicles.

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<sup>35</sup> RE: City Council Bill 17-0102 (Chow 2018)

<sup>36</sup> Stormwater Discharges from Municipal Sources (2018)

**Table 28:** PDW Comments and Fiscal Notes on the PDW Agency Report

Fiscal Note:

The FLA as no comment on turn radii policy, and instead defers to DPW and industry experts.

**Topic 5: Trash and Recycling**

DPW Comment:

For collection purposes, DPW requests that sidewalk width restrictions include exemptions for trash and recycling receptacles.

Fiscal Note:

The FLA does not take a position on the above trash and recycling comments. Therefore, it defers to DPW, DOT, Planning and relevant experts for determining and implementing best practices.

**Topic 6: Clarity**

DPW Comment:

DPW expresses concern over the lack of definition of “infrastructure” in §40-47. Without clearly defining infrastructure data, DPW is uncertain about its data reporting responsibilities.

Fiscal Note:

The FLA concurs with DOT’s assessment of bill clarity as it relates to the definition of “infrastructure.” Please see Section 7: Fiscal Notes on Bill 17-0102 for further comments on bill text clarity.

## 7. The Department of Transportation

Department Assessment: DOT “respectfully favors City Council Bill 17-0102; however, with amendments to be further discussed...” Furthermore, DOT states that “this legislation, as written, will put significant constraints on daily operations.”<sup>37</sup>

Summary: DOT expressed strong support for the “Complete Streets concept” and remains committed to developing a robust multi-modal transportation network that safely and efficiently serves pedestrians, bicyclists, transit users, freight, and cars. To provide context to the department’s position on Bill 17-0102, DOT discussed recent initiatives, ongoing projects, and future plans. This information is presented in the below Table 29.

Despite support of complete streets policy, the department expressed concerns regarding the financial impact of Bill 17-0102 to DOT and partnering agency’s operations and capital budgets. Specifically, DOT raised multiple concerns regarding costs and funding. Please see the below Table 30. For reader convenience, the Fiscal Analyst has categorized DPW remarks and included Fiscal Notes.

**Table 29:** DOT Projects

Topic	Actions
	Recent Projects (Multi-Modal Transportation Network)
Improved transit access	A. Construction of new priority bus lanes and transit signal priority B. Installation of 200 improved bus pads in the past 2 years C. Coordination with MTA on various projects that will improve transit access

<sup>37</sup> Memo RE: City Council Bill Report 17-0102 (Pourciau 2018)

**Table 29:** DOT Projects

Topic	Actions
Recent Projects (Multi-Modal Transportation Network)	
Improved freight access	Construction of a new Broening Highway using TIGER grant funding. Project included a complete streets component to ensure trucks are not traveling through residential areas.
Improved pedestrian Access	Completion of 16 intersection improvements designed to enhance safety for pedestrians by narrowing travel lanes, slowing turning vehicles and shortening crossing distances for pedestrians.
Ongoing Work (Maintenance)	
Streets	A. Street resurfacing
Public Right-of-way	A. Sidewalk and curb ramp repairs B. Identifying scheduled projects where there may be an opportunity to implement complete street elements such as bike lanes.
Future Work (Comprehensive Transportation Plan)	
Public Space and Rights-of-way	A. Analyze the city's public space and rights-of-ways. B. Evaluate opportunities for public space investments.
Safety	Address pressing safety issues.
Infrastructure	A. Identifying the needs of decaying infrastructure and technology. B. Examining financial constraints to aid in the prioritization of investment dollars.
Evaluation	A. Establish performance measurements. B. Create recommendations on a multimodal transportation network

**Table 30:** DOT Comments and Fiscal Notes on the DOT Agency Report**Topic 1: Consultant Costs**DOT Comment:

The bill requires hiring consultants for technical expertise.

Fiscal Note:

The Fiscal Legislative Analyst concurs that producing a complete streets manual will require hiring outside consultants. As stated in above, both BBMR and the FLA expect such a report to cost around \$500,000.

**Topic 2: Staffing Costs**DOT Comment:

The bill requires new full-time staff to coordinate and facilitate the proposed coordinating council as well as manage all associated reporting and programmatic requirements.

Fiscal Note:

Please see [Section 7: Fiscal Notes on Bill 17-0102](#) for further comments on staffing. The FLA is not convinced that a coordinating council is the optimal method of ensuring complete streets accountability.

**Table 30:** DOT Comments and Fiscal Notes on the DOT Agency Report

**Topic 3: Project Costs**

DPW Comment:

- A. Efforts will have a significant impact on existing and future infrastructure projects resulting in estimated additional ongoing costs of over 5-25% of project costs, or \$5 million annually, due to adding features that may require relocation of existing utilities or requiring changes to existing designs.
- B. The Department is committed to implementing Complete Streets; however, this legislation as written will require more than standard funding to be expensed, taking away from regular, essential maintenance demands and critical infrastructure improvements that typically take precedence.

Fiscal Note:

The FLA acknowledges that some complete street projects can be costly. However, many projects are relatively inexpensive, especially when coupled with Federal grant dollars. Furthermore, less expensive projects such as road or lane diets do not require the significant expense of relocating existing utilities or curb lanes.

The FLA is currently unconvinced by DOT's projected costs, especially since projections are not presented with accompanying research. DOT currently has two active Complete Streets Plans, (1) The Southeast Baltimore Complete Streets Plan, and (2) The South Baltimore Complete Streets Plan. The FLA respectfully believes that DOT could be more forthcoming about the current costs of complete street projects.

Lastly, the FLA acknowledges that some portions of Bill 17-0102 may be over prescriptive in some aspects. However, current legislation, Mayor and City Council Resolution 10-27, and the internal DOT Complete Streets Policy already require DOT to implement Complete Streets projects. To promote equity, the FLA believes that the city should not limit complete streets planning to two regions of the city.

**Topic 4: Funding**

DPW Comment:

- A. While infrastructure repair demands have been consistent or increasing, federal and state funding for such improvements have decreased over the years.
- B. The legislation does not propose any additional funding sources to be added for Complete Streets improvements, which will impact existing limited and dwindling resources.
- C. New Sources of funding are needed to ensure enhanced Complete Streets implementation.

Fiscal Note:

Although there have been changes to federal and state funding, the Adopted DOT budget has increased each of the last five fiscal years (See Table 21). Additionally, the adopted budget allocation for Service 683: Street Management has increased by nearly \$5 million over the last five years. Although, there are competing interests for project funding, DOT has not presented a compelling argument as to why complete streets implementation, which is currently mandated by existing legislation, is not feasible.

DOT has not recently provided data regarding complete streets implementation as is required by Mayor and City Council Resolution 10-27. Furthermore, the department has not provided examples of grants applied for yet not received. Although additional funds may ultimately be needed for complete street implementation, it is important to note that DOT is currently overseeing the implementation of complete streets in two regions of the city. Fiscal fairness and equity requires that all residents receive an opportunity to consider complete street elements in their respective neighborhoods.

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Section End

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## Section 7: Fiscal Notes on Bill 17-0102

### Section Summary

#### **Fiscal Score: Amendments Recommended (*Positive*)**

The Fiscal Legislative Analyst has respectfully taken the executive agency reports into advisement in its review of Bill 17-0102. The office issues a score of: **Amendments Recommended** (*Positive*). This score indicates that the bill is viewed positively; however, changes are recommended. Numerous city documents strongly indicate that complete streets is a policy topic that aligns to city economic, and quality of life goals. Furthermore, previous legislation, Mayor and City Council Resolution 10-27 (Bill 09-0433), requires complete street elements as a part of city planning. Bill 17-0102 would strengthen previous legislation by adding complete streets stipulations to the city code. Additionally, the Bill 17-0102 calls for funding a Comprehensive Complete Streets Design Guide, which would satisfy the demands of many city plans.

Despite these merits, amendments are recommended to align the current bill to city financial goals which include identifying funding sources for all short- and long-term expenditures. Additionally, adjustments are recommended to ensure that the impact of Bill 17-0102 is limited to the policy topic under consideration. Please see the score explanation and recommendations for further details.

**Table 31:** Fiscal Legislative Analyst Scoring Rubric

Score	Policy Topic	Fiscal Impact	Budget Analysis	
			Short Term	Long Term
Favorable	Policy topic furthers city economic, equity, financial and quality of life goals.	Precise language. Fiscal impacts are limited to policy topic under consideration.	All one-time expenses have an identified funding source.	All recurring expenses have identified funding sources.
Amendments Recommended ( <i>Positive</i> )	Policy topic aligns to city economic, equity, financial and quality of life goals.	Clarity needed to limit fiscal impacts to policy topic under consideration.	Funding sources for one-time expenses have not yet been identified.	Funding sources for recurring expenses have not yet been identified.
Amendments Recommended ( <i>Negative</i> )	Policy topic does not align to city goals.	Imprecise language. Bill has significant fiscal impacts outside policy topic in consideration.	Funding sources for one-time expenses are unlikely to be identified.	Funding sources for recurring expenses are unlikely to be identified.
Oppose	Policy topic is in opposition to city goals.	Imprecise language. Bill has negative fiscal impacts outside policy topic in consideration.	There are no funding sources that should be used for recurring expenses.	There are no funding sources that should be used for recurring expenses.

**Note:** Table from Fiscal Legislative Analyst Review Document Updated: April 23, 2018

## Score Explanation

### Policy Topic

Adopting a complete streets design guide, implementing complete streets elements in the city, and developing accountability mechanisms are policy goals that align to numerous Baltimore priorities and are outlined in many city documents. A quality complete streets design manual and clear implementation guidelines have the strong potential to further the economic, financial, equity, and quality of life goals for the City of Baltimore.

**Table 32:** Fiscal Note: Policy Topic

Score: Policy topic aligns to city economic, equity, financial, and quality of life goals.

Topic	Reasoning
Economic	Complete streets projects make communities more walkable and amendable for commerce in urban areas and help recruit new residents. The Baltimore Downtown Open Space Plan, The Southeast Baltimore Complete Streets Plan cite complete streets as furthering business development. Additionally, implementing complete streets projects keeps Baltimore competitive with other Eastern Seaboard cities that are investing in the walkability of their urban areas.
Equity	Complete streets elements facilitate transportation in low-income areas as well as neighborhoods historically disadvantaged by discriminatory urban planning. Furthermore, complete streets adapt public spaces to serve the needs of people of all ages and all physical abilities.
Financial	Complete streets policies invest municipal dollars effectively by putting tax revenue toward projects that improve short- and long-term social welfare for all transit users. Furthermore, it is less costly to incorporate complete street projects as part of ongoing maintenance rather than as stand-alone projects. Despite these strong points, there are still fiscal impacts and cost concerns that need to be addressed. It is not clear that a coordinating council is the best expenditure for accountability and complete streets implementation. Additionally, short- and long-term expenditures do not yet have funding sources identified.
Quality of Life	Complete streets provide residents with more public spaces and safe access between existing public infrastructure.

### Fiscal Impact

The Fiscal Legislative Analyst separates Fiscal Impact from Budget Analysis to highlight the fact that a bill may contain imprecise language that might subject the city to unknown financial obligations. The below table list the concerns of the FLA by section.

**Table 32:** Fiscal Note: Fiscal Impact

Score: Clarity needed to limit fiscal impacts to policy topic under consideration

Section	Concern
Part II. Complete Streets Transportation System § 40-29 to § 40-15	The FLA is concerned that instructing the DOT to “construct and operate a comprehensive complete streets transportation system” is vague and could potentially suggest the city must create and fund a second, separately administered transportation system.

**Table 32:** Fiscal Note: Fiscal Impact

Score: Clarity needed to limit fiscal impacts to policy topic under consideration

Section	Concern
	Rather, more precise language might state, "DOT must incorporate complete streets priorities into relevant transportation system projects." Similarly, language could state that DOT must, "Construct a comprehensive complete streets network."
§ 40-29 Lane Widths	The FLA is concerned about the inclusion of language that prescribes lane widths in city code. It seems more appropriate to adopt a comprehensive complete street design guide that categorizes all city streets and flexibly considers the needs of neighborhoods. The FLA believes adoption of a rigorous design guide can effectively utilize a variety of complete street design practices including narrow vehicle lanes to achieve shared multi-modal transit without a one size fits all road prescription in city code. The FLA is concerned with unforeseen costs associated with a one size fits all road prescription.
§ 40-39 (B) Equity Gap Analysis	The FLA is concerned by the lack of definition of "Equity Gap Analysis." The FLA strongly concurs that equity should be an important consideration in the allocation of infrastructure dollars. However, the current text does not stipulate which factors should be considered in the equity gap analysis. Also, the bill's text neither states whether an analysis is required for each project or only during regularly time intervals when the complete streets design guide is updated. Lastly, the bill does not state how the equity gap analysis must be used or how an equity measure will be compared to other measures during decision making.
§ 40-47 (c) Commute Times	The FLA notes that the America Community Survey data is not released contemporaneously with Fiscal Years. As such, the ACS is unlikely to provide current estimates about community times.
§ 40-47 (E) (1) In General The annual Report Must Measure:	The FLA is concerned that "the amount of infrastructure" is vague as transportation infrastructure is very broad. To maximize employee productiveness, it may be best to limit infrastructure reporting to topics relative directly complete street projects.
§ 40-47 (F) Business Vacancy	The FLA is not currently aware of whether this data is collected and stored for easy consumption by the city. Obtaining such data may require an additional allocation of funding.

### **Budget Analysis – Short Term**

Relying on both independent research and the Finance Department Agency Report, the FLA agrees that a \$500,000.00 consulting contract will be necessary to complete a complete streets design manual. As mentioned, a funding source for this consulting fee has not yet been identified. However, the FLA views such a one-time expenditure as a much needed and necessary expenditure. Currently two regions of the city have complete street plans. To promote equitable growth and fair allocation of infrastructure dollars, Baltimore should identify funds to develop a comprehensive complete streets design guide for all city streets.

### **Budget Analysis – Long Term**

*Increased Operating Costs* - It is evident that implementing complete streets elements will increase the total cost of annual street projects. However, it is not clear that such cost increases will necessitate a reduction of service to maintain a balanced budget or an increase in tax revenue to maintain the current

level of service. The degree to which low-cost, high-impact projects, such as road diets, would affect the street management budget is dependent on the DOT's ability to obtain Federal transportation grant dollars.

Furthermore in the absence of Federal dollars, the FLA believes that reducing the quantity of transportation projects to accommodate complete street projects may be worth the investment. In addition to health, safety, and quality of life advantages, complete streets make urban areas more attractive to live, they encourage people to spend more time in local business districts, and may decrease the average wear and tear on new infrastructure.

Lastly, the city does not currently seem to be fairly implementing complete streets priorities. Complete streets investment can have positive impacts on health, safety, and quality of life as well as on private property values. If Baltimore is going to allocate tax payer dollars to complete streets projects in two portions of the city, it has an obligation to adopt a comprehensive complete street design manual and expand such projects to other neighborhoods. If not, current complete streets policy implementation has the potential to increase inequality across the city rather than address historical inequities.

*Increased Employment Costs* – The FLA concurs with both BBMR and DOT's findings that the establishment of a complete streets coordinating council will require additional full time staffing. The FLA defers to BBMR's cost estimates for these positions, and believes that such expenditures are not the best use of city funds. The FLA believes that the coordinating council creates an additional unnecessary layer of bureaucracy without significant planning or accountability gains. Currently, major capital projects must be approved by the Planning Commission, the Board of Estimates, and the City Council. Each of these voting bodies provide ample opportunity for public accountability.

If funds could be identified, the FLA would support the creation of a "Director of Complete Streets" and a "Complete Streets Policy and Data Analyst." Such positions could be responsible for assessing community priorities, securing grant money, and compiling the annual complete streets report required by Resolution 10-27 and Bill 17-0102. However before such positions are considered, the FLA is interested in whether the responsibilities can be allocated across existing Planning and DOT staff.

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Section End

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## Section 8: Appendix

Appendix Table 1: Seven Year Fiscal Analysis – DOT Budget Fund Sources (Adopted Budget)

**Appendix Table 1:** DOT Budget Fund Sources (Adopted Budget)

Fund Names	FY12 Adopted	FY13 Adopted	FY14 Adopted	FY15 Adopted	FY16 Adopted	FY17 Adopted	FY18 Adopted
Conduit Enterprise	\$5,868,339	\$7,656,506	\$7,843,083	\$7,847,381	\$7,894,757	\$16,000,000	\$11,746,671
Federal	\$5,013,401	\$5,400,202	\$1,604,068	\$3,647,766	\$1,447,485	\$1,615,412	\$1,642,698
General	\$13,198,614	\$90,932,000	\$96,476,798	\$97,680,265	\$100,338,643	\$104,550,672	\$119,713,419
Internal Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Motor Vehicle	\$79,722,321	\$0	\$0	\$0	\$0	\$0	\$0
Parking Enterprise	\$33,740,204	\$33,565,983	\$35,445,338	\$29,053,457	\$28,750,780	\$31,780,518	\$33,222,138
Parking Management	\$17,721,906	\$20,017,664	\$20,293,483	\$22,197,956	\$24,443,494	\$24,775,005	\$25,642,970
Special	\$10,641,260	\$10,885,193	\$10,776,278	\$9,561,677	\$9,398,357	\$17,403,971	\$10,341,885
State	\$80,000	\$239,672	\$448,647	\$3,278,014	\$2,914,662	\$4,072,617	\$4,071,216
<b>Total</b>	<b>\$165,986,045</b>	<b>\$168,697,220</b>	<b>\$172,887,695</b>	<b>\$173,266,516</b>	<b>\$175,188,178</b>	<b>\$200,198,195</b>	<b>\$206,380,997</b>

Notes:

- Adopted Budget = Budget as adopted by the City Council
- Adjusted Budget = New budget after any appropriation adjustment orders or transfer bills
- BAPS Actuals Budget = Raw accounting data
- Net Actuals Budget = BAPS Actuals budget net any encumbrances

Appendix Table 2: Seven Year Fiscal Analysis – DOT Budget Fund Sources (Adjusted Budget)

**Appendix Table 2:** DOT Budget Fund Sources (Adjusted Budget)

Fund Names	FY12 Adjusted	FY13 Adjusted	FY14 Adjusted	FY15 Adjusted	FY16 Adjusted	FY17 Adjusted	FY18 Adopted
Conduit Enterprise	\$5,868,339	\$7,656,506	\$7,843,083	\$7,847,381	\$7,894,757	\$16,000,000	\$11,746,671
Federal	\$5,013,401	\$5,400,202	\$1,604,068	\$3,647,766	\$1,447,485	\$1,615,412	\$1,642,698
General	\$13,198,614	\$90,932,000	\$130,782,659	\$104,180,265	\$140,338,643	\$104,350,672	\$119,713,419
Internal Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Motor Vehicle	\$81,367,321	\$0	\$0	\$0	\$0	\$0	\$0
Parking Enterprise	\$33,740,204	\$33,565,983	\$35,445,338	\$29,053,457	\$28,750,780	\$31,780,518	\$33,222,138
Parking Management	\$17,721,906	\$20,017,664	\$20,293,483	\$22,197,956	\$24,443,494	\$24,775,005	\$25,642,970
Special	\$10,641,260	\$10,885,193	\$10,776,278	\$9,561,677	\$9,398,357	\$17,403,971	\$10,341,885
State	\$80,000	\$239,672	\$448,647	\$3,278,014	\$2,914,662	\$4,072,617	\$4,071,216
<b>Total</b>	<b>\$167,631,045</b>	<b>\$168,697,220</b>	<b>\$207,193,556</b>	<b>\$179,766,516</b>	<b>\$215,188,178</b>	<b>\$199,998,195</b>	<b>\$206,380,997</b>

## Notes:

Adopted Budget = Budget as adopted by the City Council  
 Adjusted Budget = New budget after any appropriation adjustment orders or transfer bills  
 BAPS Actuals Budget = Raw accounting data  
 Net Actuals Budget = BAPS Actuals budget net any encumbrances

Appendix Table 3: Seven Year Fiscal Analysis – DOT Budget Fund Sources (BAPS Actuals Budget)

**Appendix Table 3:** DOT Budget Fund Sources (BAPS Actual Budget)

Fund Names	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	FY18 Adopted
Conduit Enterprise	\$7,674,463	\$7,615,500	\$7,433,546	\$8,214,634	\$11,017,799	\$11,916,831	\$11,746,671
Federal	\$3,420,965	\$3,257,104	\$997,641	\$226,660	\$501,719	\$578,239	\$1,642,698
General	\$13,348,871	\$92,273,992	\$111,666,345	\$121,914,445	\$138,845,959	\$103,604,081	\$119,713,419
Internal Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Motor Vehicle	\$83,708,740	(\$29,861)	\$0	\$0	\$0	\$0	\$0
Parking Enterprise	\$28,328,599	\$28,830,752	\$30,586,478	\$27,542,889	\$28,375,391	\$34,616,955	\$33,222,138
Parking Management	\$16,729,905	\$19,715,328	\$21,099,183	\$22,447,866	\$23,365,336	\$22,783,379	\$25,642,970
Special	\$16,379,299	\$8,902,000	\$9,345,061	\$11,936,382	\$5,905,112	\$5,481,849	\$10,341,885
State	\$44,272	\$80,879	(\$240,542)	\$429,611	\$68,598	\$559,273	\$4,071,216
<b>Total</b>	<b>\$169,635,114</b>	<b>\$160,645,694</b>	<b>\$180,887,712</b>	<b>\$192,712,487</b>	<b>\$208,079,914</b>	<b>\$179,540,607</b>	<b>\$206,380,997</b>

Notes:

- Adopted Budget = Budget as adopted by the City Council
- Adjusted Budget = New budget after any appropriation adjustment orders or transfer bills
- BAPS Actuals Budget = Raw accounting data
- Net Actuals Budget = BAPS Actuals budget net any encumbrances

Appendix Table 4: Seven Year Fiscal Analysis – DOT Budget Fund Sources (Net Actuals Budget)

Appendix Table 4: DOT Budget Fund Sources (Net Actual Budget)

Fund Names	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	FY18 Adopted
Conduit Enterprise	\$8,739,357	\$7,678,179	\$7,293,091	\$8,155,558	\$9,254,913	\$11,916,831	\$11,746,671
Federal	\$3,434,687	\$3,260,492	\$919,325	\$316,466	\$375,351	\$578,239	\$1,642,698
General	\$13,020,645	\$91,300,096	\$130,780,127	\$102,318,319	\$139,245,960	\$104,563,717	\$119,713,419
Internal Service	\$0	\$0	\$0	\$0	\$1,250,000	(\$1,250,000)	\$0
Motor Vehicle	\$81,364,277	\$589,746	(\$619,607)	(\$1,189,110)	\$235,713	\$0	\$0
Parking Enterprise	\$28,963,100	\$28,653,356	\$30,599,303	\$31,269,945	\$14,515,346	\$34,647,080	\$33,222,138
Parking Management	\$18,419,578	\$17,981,891	\$20,578,226	\$24,345,390	\$20,504,363	\$22,783,379	\$25,642,970
Special	\$16,289,420	\$8,375,971	\$9,406,755	\$12,912,641	\$3,744,775	\$5,481,849	\$10,341,885
State	\$49,668	\$82,128	(\$242,457)	\$430,499	\$57,930	\$559,273	\$4,071,216
<b>Total</b>	<b>\$170,280,732</b>	<b>\$157,921,859</b>	<b>\$198,714,763</b>	<b>\$178,559,708</b>	<b>\$189,184,351</b>	<b>\$179,280,368</b>	<b>\$206,380,997</b>

## Notes:

Adopted Budget = Budget as adopted by the City Council  
 Adjusted Budget = New budget after any appropriation adjustment orders or transfer bills  
 BAPS Actuals Budget = Raw accounting data  
 Net Actuals Budget = BAPS Actuals budget net any encumbrances

Appendix Table 5: Seven Year Fiscal Analysis – DOT Budget Service Allocations (Adopted Budget)

Appendix Table 5: DOT Budget Service Allocations (Adopted Budget)

ID	Service Name	FY12 Adopted	FY13 Adopted	FY14 Adopted	FY15 Adopted	FY16 Adopted	FY17 Adopted	FY18 Adopted
195	Towing	\$0	\$0	\$0	\$0	\$0	\$0	\$0
230	Administration	\$0	\$0	\$0	\$0	\$0	\$0	\$0
231	Traffic Engineering	\$0	\$0	\$0	\$0	\$0	\$0	\$0
232	Parking	\$0	\$0	\$0	\$0	\$0	\$0	\$0
233	Traffic Signals	\$0	\$0	\$0	\$0	\$0	\$0	\$0
234	Transit and Marine Services	\$0	0\$0	\$0	\$0	\$0	\$0	\$0
235	Parking Enforcement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
238	School Crossing Guards	\$0	\$0	\$0	\$0	\$0	\$0	\$0
239	Traffic Safety	\$0	\$0	\$0	\$0	\$0	\$0	\$0
500	Street Lighting	\$20,799,626	\$17,244,964	\$17,254,463	\$16,555,147	\$18,100,320	\$19,187,612	\$23,173,562
501	Highway Maintenance	\$0	\$0	\$0	\$0	\$0	\$0	\$0
503	Engineering and Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0
548	Conduits	\$5,868,339	\$7,539,639	\$7,843,083	\$7,778,357	\$7,894,757	\$16,000,000	\$11,746,671
580	Parking Enterprise Facilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0
681	Administration - DOT	\$7,166,556	\$8,143,104	\$10,638,034	\$11,128,413	\$8,789,396	\$9,449,950	\$10,491,856
682	Parking Management	\$39,603,427	\$40,846,544	\$43,035,035	\$38,028,829	\$38,562,934	\$41,854,893	\$43,935,182
683	Street Management	\$26,817,861	\$29,025,668	\$27,222,944	\$31,442,086	\$28,675,601	\$31,736,764	\$32,208,573
684	Traffic Management	\$13,030,490	\$13,033,777	\$13,640,901	\$13,396,578	\$12,280,239	\$12,425,870	\$12,039,183
685	Special Events	\$501,707	\$526,859	\$522,741	\$526,330	\$471,977	\$1,352,974	\$1,359,799
687	Inner Harbor Services - Transportation	\$1,181,798	\$856,272	\$873,906	\$860,612	\$925,027	\$1,352,622	\$1,414,649
688	Snow and Ice Control	\$3,000,000	\$2,703,772	\$2,751,330	\$2,793,249	\$2,864,399	\$6,341,931	\$6,550,000
689	Vehicle Impounding and Disposal	\$8,193,981	\$7,742,560	\$7,850,007	\$7,755,227	\$7,634,293	\$7,600,611	\$7,721,493
690	Sustainable Transportation	\$7,599,012	\$8,317,040	\$8,509,416	\$12,555,238	\$13,293,010	\$19,554,062	\$19,562,708
691	Public Rights-of-Way Landscape Management	\$1,909,945	\$2,714,770	\$2,553,953	\$2,997,925	\$3,856,516	\$3,402,284	\$4,096,306

**Appendix Table 5:** DOT Budget Service Allocations (Adopted Budget)

ID	Service Name	FY12 Adopted	FY13 Adopted	FY14 Adopted	FY15 Adopted	FY16 Adopted	FY17 Adopted	FY18 Adopted
692	Bridge and Culvert Management	\$1,995,418	\$2,435,276	\$3,026,198	\$2,799,441	\$3,321,075	\$3,159,212	\$3,349,772
693	Parking Enforcement	\$11,858,683	\$12,373,590	\$12,340,365	\$12,842,545	\$14,631,340	\$14,784,630	\$14,974,926
694	Survey Control	\$0	\$92,065	\$796,619	\$666,657	\$744,881	\$528,866	\$515,245
695	Dock Master	\$259,089	\$265,420	\$246,947	\$257,288	\$264,661	\$280,783	\$259,329
696	Street Cuts Management	\$715,252	\$919,005	\$871,656	\$885,450	\$891,633	\$940,355	\$965,832
697	Traffic Safety	\$15,484,861	\$13,916,895	\$12,910,097	\$6,525,286	\$8,675,068	\$7,849,908	\$9,477,031
727	Real Property Management	\$0	\$0	\$0	\$2,704,344	\$1,668,245	\$2,394,868	\$2,538,880
729	Real Property Database Management	\$0	\$0	\$0	\$767,514	\$725,266	\$0	\$0
735	Special Events	\$0	\$0	\$0	\$0	\$917,540	\$0	\$0
	<b>Total</b>	<b>\$165,986,045</b>	<b>\$168,697,220</b>	<b>\$172,887,695</b>	<b>\$173,266,516</b>	<b>\$175,188,178</b>	<b>\$200,198,195</b>	<b>\$206,380,997</b>

## Notes:

Adopted Budget = Budget as adopted by the City Council  
 Adjusted Budget = New budget after any appropriation adjustment orders or transfer bills  
 BAPS Actuals Budget = Raw accounting data  
 Net Actuals Budget = BAPS Actuals budget net any encumbrances

Appendix Table 6: Seven Year Fiscal Analysis – DOT Budget Service Allocations (Adjusted Budget)

Appendix Table 6: DOT Budget Service Allocations (Adjusted Budget)

ID	Service Name	FY12 Adjusted	FY13 Adjusted	FY14 Adjusted	FY15 Adjusted	FY16 Adjusted	FY17 Adjusted	FY18 Adopted
195	Towing	\$0	\$0	\$0	\$0	\$0	\$0	\$0
230	Administration	\$0	\$0	\$0	\$0	\$0	\$0	\$0
231	Traffic Engineering	\$0	\$0	\$0	\$0	\$0	\$0	\$0
232	Parking	\$0	\$0	\$0	\$0	\$0	\$0	\$0
233	Traffic Signals	\$0	\$0	\$0	\$0	\$0	\$0	\$0
234	Transit and Marine Services	\$0	\$0	\$0	\$0	\$0	\$0	\$0
235	Parking Enforcement	\$0	\$0	\$0	\$0	\$0	\$0	\$0
238	School Crossing Guards	\$0	\$0	\$0	\$0	\$0	\$0	\$0
239	Traffic Safety	\$0	\$0	\$0	\$0	\$0	\$0	\$0
500	Street Lighting	\$20,799,626	\$17,244,964	\$19,754,463	\$16,555,147	\$18,100,320	\$19,187,612	\$23,173,562
501	Highway Maintenance	\$0	\$0	\$0	\$0	\$0	\$0	\$0
503	Engineering and Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0
548	Conduits	\$5,868,339	\$7,539,639	\$7,843,083	\$7,778,357	\$7,894,757	\$16,000,000	\$11,746,671
580	Parking Enterprise Facilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0
681	Administration - DOT	\$7,166,556	\$8,143,104	\$10,561,571	\$11,128,413	\$8,789,396	\$9,419,950	\$10,491,856
682	Parking Management	\$39,603,427	\$40,846,544	\$43,035,035	\$38,028,829	\$38,562,934	\$41,854,893	\$43,935,182
683	Street Management	\$26,817,861	\$29,025,668	\$46,605,268	\$31,442,086	\$28,675,601	\$31,736,764	\$32,208,573
684	Traffic Management	\$13,030,490	\$13,033,777	\$13,640,901	\$13,396,578	\$12,280,239	\$12,425,870	\$12,039,183
685	Special Events	\$2,146,707	\$526,859	\$522,741	\$526,330	\$471,977	\$1,352,974	\$1,359,799
687	Inner Harbor Services - Transportation	\$1,181,798	\$856,272	\$873,906	\$860,612	\$925,027	\$1,352,622	\$1,414,649
688	Snow and Ice Control	\$3,000,000	\$2,703,772	\$15,251,330	\$9,293,249	\$42,864,399	\$6,341,931	\$6,550,000
689	Vehicle Impounding and Disposal	\$8,193,981	\$7,742,560	\$7,850,007	\$7,755,227	\$7,634,293	\$7,600,611	\$7,721,493
690	Sustainable Transportation	\$7,599,012	\$8,317,040	\$8,509,416	\$12,555,238	\$13,293,010	\$19,554,062	\$19,562,708

**Appendix Table 6:** DOT Budget Service Allocations (Adjusted Budget)

ID	Service Name	FY12 Adjusted	FY13 Adjusted	FY14 Adjusted	FY15 Adjusted	FY16 Adjusted	FY17 Adjusted	FY18 Adopted
691	Public Rights-of-Way Landscape Management	\$1,909,945	\$2,714,770	\$2,553,953	\$2,997,925	\$3,856,516	\$3,402,284	\$4,096,306
692	Bridge and Culvert Management	\$1,995,418	\$2,435,276	\$3,026,198	\$2,799,441	\$3,321,075	\$2,989,212	\$3,349,772
693	Parking Enforcement	\$11,858,683	\$12,373,590	\$12,340,365	\$12,842,545	\$14,631,340	\$14,784,630	\$14,974,926
694	Survey Control	\$0	\$92,065	\$796,619	\$666,657	\$744,881	\$528,866	\$515,245
695	Dock Master	\$259,089	\$265,420	\$246,947	\$257,288	\$264,661	\$280,783	\$259,329
696	Street Cuts Management	\$715,252	\$919,005	\$871,656	\$885,450	\$891,633	\$940,355	\$965,832
697	Traffic Safety	\$15,484,861	\$13,916,895	\$12,910,097	\$6,525,286	\$8,675,068	\$7,849,908	\$9,477,031
727	Real Property Management	\$0	\$0	\$0	\$2,704,344	\$1,668,245	\$2,394,868	\$2,538,880
729	Real Property Database Management	\$0	\$0	\$0	\$767,514	\$725,266	\$0	\$0
735	Special Events	\$0	\$0	\$0	\$0	\$917,540	\$0	\$0
	<b>Total</b>	<b>\$167,631,045</b>	<b>\$168,697,220</b>	<b>\$207,193,556</b>	<b>\$179,766,516</b>	<b>\$215,188,178</b>	<b>\$199,998,195</b>	<b>\$206,380,997</b>

## Notes:

Adopted Budget = Budget as adopted by the City Council  
 Adjusted Budget = New budget after any appropriation adjustment orders or transfer bills  
 BAPS Actuals Budget = Raw accounting data  
 Net Actuals Budget = BAPS Actuals budget net any encumbrances

Appendix Table 7: Seven Year Fiscal Analysis – DOT Budget Service Allocations (BAPS Actuals Budget)

Appendix Table 7: DOT Budget Service Allocations (BAPS Actuals Budget)

ID	Service Name	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	FY18 Adopted
195	Towing	\$0	\$0	\$0	\$0	\$0	\$0	\$0
230	Administration	\$344,186	\$15,651	\$1,896	\$1,442	\$7,007	(\$17,540)	\$0
231	Traffic Engineering	\$56,311	\$56,986	\$5,304	(\$4,399)	\$1,575	(\$22,183)	\$0
232	Parking	\$101,808	\$157,470	\$177,080	\$115,388	\$874,781	(\$603,534)	\$0
233	Traffic Signals	\$521,474	\$963,933	\$31,241	\$1,058,628	\$2,179,914	\$1,356,517	\$0
234	Transit and Marine Services	\$588,637	\$571,648	\$54	\$573,800	\$573,794	\$367	\$0
235	Parking Enforcement	\$109,430	\$8,468	\$10	\$2,757	(\$107)	(\$272)	\$0
238	School Crossing Guards	\$0	\$0	\$0	\$0	\$92	\$0	\$0
239	Traffic Safety	\$45,322	\$439	\$0	\$0	(\$800)	\$0	\$0
500	Street Lighting	\$21,807,118	\$20,679,362	\$20,502,314	\$19,731,591	\$23,148,325	\$22,969,218	\$23,173,562
501	Highway Maintenance	\$153,085	\$355,292	\$42,094	\$113,513	\$397,591	\$420,675	\$0
503	Engineering and Construction	\$14,858	\$16,652	\$1,237	\$959	\$3,044	\$3,226	\$0
548	Conduits	\$7,674,463	\$7,498,633	\$7,433,546	\$8,214,634	\$11,017,799	\$11,916,831	\$11,746,671
580	Parking Enterprise Facilities	\$228,734	\$852,347	\$1,694,882	(\$1,889,186)	(\$765,882)	\$553,599	\$0
681	Administration - DOT	\$7,548,717	\$7,315,072	\$7,674,689	\$8,497,137	\$8,043,874	\$9,016,489	\$10,491,856
682	Parking Management	\$34,517,343	\$35,526,084	\$37,015,744	\$37,933,781	\$38,249,430	\$44,326,947	\$43,935,182
683	Street Management	\$27,606,706	\$26,519,916	\$28,688,963	\$45,788,090	\$28,884,815	\$32,926,262	\$32,208,573
684	Traffic Management	\$12,300,473	\$5,174,984	\$13,706,027	\$10,440,166	\$8,989,140	\$9,921,890	\$12,039,183
685	Special Events	\$949,413	\$925,204	\$1,210,381	\$1,223,269	\$695,206	\$195,339	\$1,359,799
687	Inner Harbor Services - Transportation	\$2,949,811	\$1,631,590	\$1,502,663	\$1,199,175	\$1,023,342	\$980,896	\$1,414,649
688	Snow and Ice Control	\$1,510,833	\$3,023,253	\$13,953,116	\$13,909,982	\$39,488,991	\$6,662,653	\$6,550,000
689	Vehicle Impounding and Disposal	\$7,449,053	\$7,300,670	\$7,289,486	\$6,891,353	\$7,208,059	\$7,457,058	\$7,721,493
690	Sustainable Transportation	\$13,708,099	\$12,764,031	\$7,042,354	\$9,957,978	\$9,556,056	\$6,197,906	\$19,562,708
691	Public Rights-of-Way Landscape Management	\$3,808,381	\$3,509,470	\$4,559,484	\$3,516,477	\$4,125,788	\$4,161,629	\$4,096,306

**Appendix Table 7:** DOT Budget Service Allocations (BAPS Actuals Budget)

ID	Service Name	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	FY18 Adopted
692	Bridge and Culvert Management	\$1,669,184	\$2,566,418	\$2,691,636	\$3,376,087	\$2,933,908	\$3,365,279	\$3,349,772
693	Parking Enforcement	\$10,101,189	\$11,638,198	\$12,434,524	\$13,447,976	\$13,382,505	\$13,123,594	\$14,974,926
694	Survey Control	\$778,586	\$666,520	\$499,089	\$748,937	\$606,346	\$498,660	\$515,245
695	Dock Master	\$182,548	\$232,454	\$235,731	(\$643,694)	(\$77,441)	\$135,078	\$259,329
696	Street Cuts Management	\$528,640	\$605,352	\$503,367	\$262,295	\$292,872	(\$269,691)	\$965,832
697	Traffic Safety	\$12,380,712	\$10,069,597	\$11,990,800	\$5,875,873	\$4,944,826	\$2,143,916	\$9,477,031
727	Real Property Management	\$0	\$0	\$0	\$1,771,346	\$1,521,653	\$2,088,411	\$2,538,880
729	Real Property Database Management	\$0	\$0	\$0	\$597,132	\$598,996	\$22,334	\$0
735	Special Events	\$0	\$0	\$0	\$0	\$174,415	\$9,053	\$0
	<b>Total</b>	<b>\$169,635,114</b>	<b>\$160,645,694</b>	<b>\$180,887,712</b>	<b>\$192,712,487</b>	<b>\$208,079,914</b>	<b>\$179,540,607</b>	<b>\$206,380,997</b>

## Notes:

Adopted Budget = Budget as adopted by the City Council  
 Adjusted Budget = New budget after any appropriation adjustment orders or transfer bills  
 BAPS Actuals Budget = Raw accounting data  
 Net Actuals Budget = BAPS Actuals budget net any encumbrances

Appendix Table 8: Seven Year Fiscal Analysis – DOT Budget Fund Sources (Net Actuals Budget)

Appendix Table 8: DOT Budget Service Allocations (Net Actuals Budget)

ID	Service Name	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	FY18 Adopted
195	Towing	(\$33,090)	\$0	(\$2,619)	\$0	\$0	\$0	\$0
230	Administration	\$266,128	(\$10,613)	\$2,073	\$912	(\$46,925)	(\$17,540)	\$0
231	Traffic Engineering	\$56,186	\$56,986	\$1,574	(\$4,399)	\$1,575	(\$22,183)	\$0
232	Parking	\$101,808	\$158,670	\$175,880	\$453,866	\$419,433	(\$603,534)	\$0
233	Traffic Signals	\$521,608	\$963,799	\$31,241	\$1,058,479	\$2,180,063	\$1,356,517	\$0
234	Transit and Marine Services	\$588,637	\$571,648	\$54	\$573,800	\$508,653	\$367	\$0
235	Parking Enforcement	\$105,069	\$7,726	(\$3,295)	\$3,169	(\$76,024)	(\$272)	\$0
238	School Crossing Guards	\$0	\$0	\$0	\$0	\$92	\$0	\$0
239	Traffic Safety	\$6,775	(\$1,662)	(\$15)	\$1	(\$31,558)	\$0	\$0
500	Street Lighting	\$19,017,242	\$20,561,736	\$20,596,773	\$19,430,708	\$21,722,202	\$24,906,077	\$23,173,562
501	Highway Maintenance	\$37,219	\$346,080	\$37,245	\$109,762	\$397,591	\$420,675	\$0
503	Engineering and Construction	\$14,858	\$17,140	\$993	(\$38,172)	\$42,173	\$3,226	\$0
548	Conduits	\$8,739,357	\$7,561,312	\$7,293,091	\$8,155,558	\$9,254,913	\$11,916,831	\$11,746,671
580	Parking Enterprise Facilities	\$263,734	\$1,163,147	\$1,786,767	(\$1,093,560)	(\$10,180,862)	\$553,599	\$0
681	Administration - DOT	\$7,819,482	\$6,894,070	\$7,695,842	\$8,621,737	\$8,043,874	\$9,040,088	\$10,491,856
682	Parking Management	\$35,622,131	\$34,791,884	\$36,647,721	\$42,439,924	\$33,057,669	\$43,107,072	\$43,935,182
683	Street Management	\$27,254,922	\$27,019,928	\$47,498,005	\$26,450,757	\$30,549,688	\$32,025,287	\$32,208,573
684	Traffic Management	\$11,560,339	\$4,853,634	\$13,636,271	\$10,663,940	\$8,790,030	\$9,934,414	\$12,039,183
685	Special Events	\$928,614	\$943,088	\$1,216,795	\$1,194,469	\$695,206	\$196,069	\$1,359,799
687	Inner Harbor Services - Transportation	\$2,840,972	\$1,330,671	\$1,493,303	\$1,207,396	\$1,023,342	\$981,626	\$1,414,649
688	Snow and Ice Control	\$2,010,055	\$2,138,658	\$14,562,582	\$13,822,280	\$40,488,991	\$5,879,495	\$6,550,000
689	Vehicle Impounding and Disposal	\$7,061,235	\$8,335,107	\$6,953,636	\$7,067,113	\$6,464,188	\$7,460,007	\$7,721,493
690	Sustainable Transportation	\$13,409,119	\$12,355,714	\$7,139,862	\$10,909,873	\$7,716,568	\$6,202,324	\$19,562,708

**Appendix Table 8:** DOT Budget Service Allocations (Net Actuals Budget)

ID	Service Name	FY12 Actual	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Actual	FY17 Actual	FY18 Adopted
691	Public Rights-of-Way Landscape Management	\$3,802,155	\$3,461,217	\$4,551,988	\$3,515,807	\$4,125,788	\$4,161,629	\$4,096,306
692	Bridge and Culvert Management	\$1,710,483	\$2,582,555	\$2,761,639	\$3,316,644	\$2,935,197	\$3,473,572	\$3,349,772
693	Parking Enforcement	\$11,289,936	\$10,150,307	\$12,207,035	\$13,431,897	\$13,047,693	\$13,123,594	\$14,974,926
694	Survey Control	\$796,626	\$650,050	\$499,943	\$751,433	\$606,346	\$500,129	\$515,245
695	Dock Master	\$182,629	\$232,273	\$236,248	(\$637,877)	(\$84,312)	\$135,078	\$259,329
696	Street Cuts Management	\$680,784	\$531,602	\$504,664	\$264,533	\$292,872	(\$192,788)	\$965,832
697	Traffic Safety	\$13,625,719	\$10,255,132	\$11,189,467	\$4,491,643	\$4,944,821	\$2,616,273	\$9,477,031
727	Real Property Management	\$0	\$0	\$0	\$1,781,788	\$1,521,653	\$2,091,349	\$2,538,880
729	Real Property Database Management	\$0	\$0	\$0	\$616,227	\$598,996	\$22,334	\$0
735	Special Events	\$0	\$0	\$0	\$0	\$174,415	\$9,053	\$0
	<b>Total</b>	<b>\$170,280,732</b>	<b>\$157,921,859</b>	<b>\$198,714,763</b>	<b>\$178,559,708</b>	<b>\$189,184,351</b>	<b>\$179,280,368</b>	<b>\$206,380,997</b>

## Notes:

Adopted Budget = Budget as adopted by the City Council  
 Adjusted Budget = New budget after any appropriation adjustment orders or transfer bills  
 BAPS Actuals Budget = Raw accounting data  
 Net Actuals Budget = BAPS Actuals budget net any encumbrances

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