

City of Baltimore Department of Transportation

Quadrennial Performance Audit for Fiscal Years 2010, 2011, 2012 and 2013

Prepared by:



CONSULTANTS AND CERTIFIED PUBLIC ACCOUNTANTS

November 20, 2015

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Submitted to:

City of Baltimore via email

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Cc: Lindsay Wines, Deputy Director, Department of Transportation (lindsay.wines@baltimorecity.gov)



TRANSMITTAL LETTER

To: Yoanna Moisides, Principal Program Assessment Analyst

Cc: Lindsay Wines, Deputy Director, Department of Transportation

Baltimore City Council

Date: November 20, 2015

Subject: Performance Audit of the Department of Transportation

This letter transmits Hamilton Enterprises, LLC's ("Hamilton") final report detailing the results of our performance audit of the Department of Transportation for the fiscal years (FY) 2010, 2011, 2012 and 2013. The final report contains our audit findings and recommendations for the five performance measures selected. In addition, the final report includes DOT's responses to the findings and Hamilton's reply to those responses.

We would like to take this opportunity to express our appreciation for the courtesy and cooperation the Department of Transportation extended to our auditors.

Sincerely,

Hamilton Enterprises LLC



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I. Executive Summary

November 2015

Audit Report Highlights

Why We Did This Audit

This audit was conducted as part of the Council Bill 12-0053, which amended the City Charter to require "Principal Agencies" to undergo a performance audit once every four years.

What We Recommend

The Department of
Transportation needs to
reevaluate the processes
and controls
surrounding the
performance
measurement process
and implement the
appropriate controls,
accountability, and
oversight to ensure that
the measurements are
useful and accurate.

Background

Hamilton Enterprises, LLC ("Hamilton"), an independent public accounting firm, was contracted by the City of Baltimore to conduct a performance audit of five Department of Transportation management performance measures.

This report is intended solely for the information and use of the Department of Transportation and those charged with Baltimore City governance and is not intended and should not be used by anyone other than those specified parties.

Our work was conducted in accordance with Generally Accepted Governmental Auditing Standards (GAGAS) issued by the U.S. Government Accountability Office (GAO). Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Objectives and Scope

The objectives of this audit were to assess the reliability, validity, or relevance of five performance measures concerning program effectiveness and efficiency for the Department of Transportation for the fiscal years ending June 30, 2010 through June 30, 2013.

What We Found

We found instances where the Department of Transportation was unable to provide supporting documentation to substantiate the amounts reported for the target and/or actual performance measures reviewed within the scope of this audit.

During the period of our audit, the Department of Transportation did not maintain adequate policies, procedures, and internal controls relating to the measurement, evaluation and reporting of performance measures. Further, the Department did not demonstrate a system of accountability and oversight for the estimating, measuring, or reporting of the performance measures.

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Greenbelt, Maryland November 20, 2015 City of Baltimore Department of Transportation Quadrennial Performance Audit for FY 2010-2013 Independent Auditor's Report



II. Background

Beginning with fiscal year (FY) 2011, the City implemented outcome budgeting to align resources with results by incorporating agency performance into the budgeting process. Each Principal Agency's actual performance is tracked against a set of performance measurement targets. These metrics are tracked in CitiStat¹ based on citizen service requests into the City's non-emergency service request line (311) and statistical reports, called templates, prepared by the agencies on a bi-weekly basis.

In August of 2012, the City of Baltimore enacted Council Bill 12-0053. This Bill amended the City Charter to include Article VII, Section 4.5 "Agency Audits". The Amendment was approved in November 2012 through a publicly balloted vote. Article VII, Section 4.5 requires Principal Agencies to undergo a financial statement and performance audit once every four years. The scope of these audits would encompass the preceding four years. The 13 Principal Agencies are identified in **Figure 1**.

The process by which to complete these audits is detailed in the Department of Budget and Finance policy AM 404-5 "Quadrennial Audits Policy". These audits are to be performed in accordance with generally accepted government auditing standards (GAGAS) and federal and state law. Hamilton was selected to perform the performance audit of the Department of Transportation (DOT).

¹ A city-wide data management system that collects and tracks agency performance for use in budgeting and by City management to monitor and improve performance across all City services.



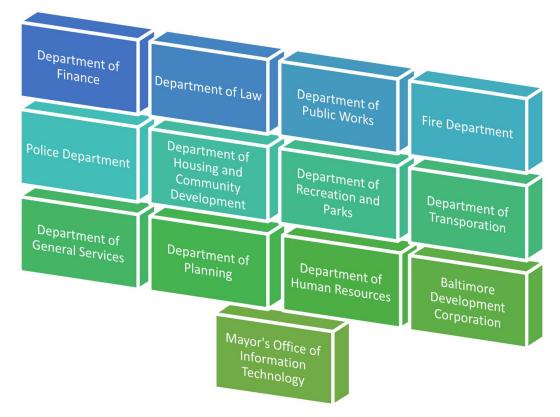


Figure 1 - 13 Principal Agencies

The DOT is responsible for the construction, reconstruction and maintenance of public streets, bridges and highways and the maintenance of streetlights, alleys and footways and the conduit system. Other duties include: the management of traffic movement, the inspection and management of City construction projects including testing and inspection of construction materials; and the preparation of surveys. Capital and federal funds are allocated for engineering, design, construction and inspection of streets and bridges in the City of Baltimore. The DOT's FY 2013 budget was \$168,697,220 with 1,459 positions.

The DOT maintains nearly 4,300 miles of roadways, including 305 bridges and culverts. The City's road network is composed of 540 miles 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 DOT maintains 3,600 miles of sidewalks, 1,100 miles of alleys, and 80,000 roadway and pedestrian lights throughout the City.

The Agency is responsible for maintenance of the orderly and safe flow of traffic; conducting studies affecting pedestrian and vehicular safety; and providing and maintaining traffic signals, signs, and pavement markings. The Agency maintains about 1,300 signalized intersections, over 250,000 traffic and informational signs, and over 4.5 million linear feet of lane markings.

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The DOT maintains and repairs all open air malls across the city; operates a vehicle storage facility; conducts the sale of abandoned and/or unclaimed vehicles at public auctions; and is responsible for the removal and impounding of illegally parked abandoned or disabled vehicles.²

III. Objectives, Scope and Methodology

Audit Objective

This audit was conducted to assess the reliability, validity, or relevance of five performance measures "to determine whether the agency is operating economically and efficiently and whether corrective actions for improving its performance are appropriate."³

Scope

The scope of this audit was to select five performance measures from the measures maintained by the DOT during the FYs ending June 30, 2010 through June 30, 2013. We were provided a listing of ninety-two (92) performance measures related to sixteen services offered by the DOT. No performance measure targets were available for FY 2010 as the City had not yet implemented outcome budgeting.

Methodology

To select the five performance measures for evaluation, we performed a risk assessment of the DOT's services and the related performance measures. The risk assessment began with gaining an understanding of each of the services by meeting with the DOT administration. We then developed risk categories and provided a risk rating to each category to calculate an overall risk rating of the service, see **Figure 2**.

² Source: 2013 City of Baltimore Budget, page 231

³ Source: Quadrennial Audits Policy, page 2



= Low Risk

				Risk (Category			
Service Number	Service Name	Operational	Financial	Audit Benefit	Compliance/ Liability	Public Perception	Public Safety	Overall Rating
500	Street and Park Lighting	2.00	3.00	2.00	2.00	3.00	3.00	2.50
548	Conduits	3.00	2.00	3.00	1.00	1.00	1.00	1.83
683	Street Management	3.00	3.00	2.00	1.00	3.00	2.00	2.33
684	Traffic Management	3.00	3.00	2.00	2.00	2.00	2.00	2.33
685	Special Events Support	1.00	1.00	1.00	1.00	1.00	1.00	1.00
687	Inner Harbor Services - Transportation	1.00	1.00	1.00	1.00	2.00	2.00	1.33
688	Snow and Ice Control	2.00	2.00	1.00	1.00	3.00	2.00	1.83
689	Vehicle Impounding and Disposal	2.00	2.00	3.00	3.00	3.00	1.00	2.3 3
690	Complete Streets and Sustainable Transportation	1.00	2.00	1.00	1.00	2.00	1.00	1.33
691	Public Rights-of-Way Landscape Management	1.00	2.00	1.00	1.00	1.00	1.00	1.17
692	Bridge and Culvert Management	2.00	2.00	2.00	3.00	3.00	3.00	2.50
693	Parking Enforcement	2.00	2.00	1.00	2.00	3.00	2.00	2.00
694	Survey Control	2.00	1.00	1.00	1.00	1.00	1.00	1.17
695	Dock Master	1.00	1.00	1.00	1.00	1.00	1.00	1.00
696	Street Cuts Management	1.00	1.00	2.00	1.00	2.00	2.00	1.50
697	Traffic Safety	3.00	3.00	1.00	2.00	2.00	2.00	2.17

Figure 2 - DOT Service Risk Assessment

The risk categories included:

- Operational Risk: relates to the size and complexity of the operations within the service and whether the service is new to the Agency or experienced significant changes in funding, authority, practices or procedures.
- **Financial Risk**: relates to the amount of funds allocated by the City/Department to the service.
- **Audit Benefit**: relates to the value added in performing audit procedures within this service. This category utilizes our professional judgment to determine areas that we believe would benefit from our evaluation.
- Compliance/Liability: considers the risks with maintaining laws and regulations surrounding the service and the associated legal liability that could potentially affect the City/Department.
- **Public Perception**: considers the interests of the people within the City of Baltimore. Highly visible or important issues facing the City are perceived to have a higher risk.
- Public Safety: considers the risk of the safety of the citizens of the City of Baltimore.

Once an overall risk rating was assigned to each service we inspected the performance measures within the highest risk service areas. Each service contains three to five measures focusing on effectiveness, efficiency, outcome, and output. During the time of our assessment, the DOT was



in the process of enhancing and improving their performance measures, so many of the measures used during the years under audit were no longer in use for FY 2016 and forward. We did not find value in reviewing measures that the DOT has deemed no longer relevant, and we excluded these measures from our selection process. We evaluated the relevance and usefulness of the remaining performance measures and used our professional judgment to suggest five performance measures for evaluation.

We solicited feedback from the DOT, Bureau of Budget and Management Research, City Council, and the Director of Finance on our five suggested performance measures. In an effort to provide the City of Baltimore and the DOT with the highest audit value, we incorporated this additional feedback and insight into our selection.

The following measures were selected for evaluation:

1. Street and Park Lighting - Service 500

- a. "% of inspected streets meeting City roadway lighting standards"
- b. Measure Type: Effectiveness

2. Street Management - Service 683

- a. "% of streets meeting acceptable pavement condition standard"
- b. Measure Type: Effectiveness

3. Traffic Management - Service 684

- a. "Cost per traffic control sign installed"
- b. Measure Type: Efficiency

4. Vehicle Impounding and Disposal - Service 689

- a. "# of property damage claims filed"
- b. Measure Type: Effectiveness

5. Bridge and Culvert Management - Service 692

- a. "% of bridges more than 50 years old with Bridge Sufficiency Rating below 50"
- b. Measure Type: Effectiveness

For each measure identified above, we were provided the contact information for the Division Chief or Operations Bureau Chief. We performed a walkthrough with the appropriate City representatives to gain an understanding of the measure and the process and internal controls surrounding its measurement and reporting. For each performance measure, we requested supporting documentation for the target and actual amounts reported.



IV. Audit Results

1. Service: 500 – Street and Park Lighting

Performance measure	FY11	FY11	FY12	FY12	FY13	FY13
	Target	Actual	Target	Actual	Target	Actual
% of inspected streets meeting City roadway lighting standards	80%	80%	80%	85%	90%	90%

Figure 3: Actual and Target Performance Measures in the Budget

Performance Measure Background

This was a new measure in FY 2010 so there was no actual performance reported for that year. From discussions with DOT representatives, the purpose of this measure is to provide the percentage of all inspected Baltimore City streets meeting roadway lighting standards. This performance measure is designed to aid in the measurement and the improvement of lighting conditions and to evaluate the effectiveness of the replacement of traditional lighting systems with new LED lighting systems.

The current practice performed by the DOT is as follows:

The DOT receives calls into the 311 system for a street light with a condition of "too bright/too dark". These calls drive the measure noted above. Once a call is received, the DOT will dispatch an inspection group to the location.

Upon arrival the inspection group will locate the light and perform a visual inspection. In addition to the visual inspection, a light meter reading is taken by measuring the foot candle power (fcp) next to the light and halfway between the inspected light and the next closest light as shown in **Figure 4**. These two readings are then averaged and compared to the roadway lighting standards. The appropriate light meter reading depends on the location and purpose of the light.

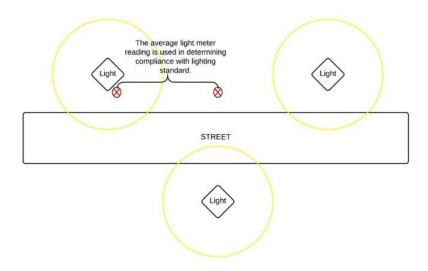


Figure 4 - Light Meter Reading Method

Findings

No supporting documentation for target performance measurements

The DOT was unable to provide any documentation related to the budgeted targets for this measure. The target amount contained in the City budget has been rolled forward throughout the years and arbitrarily increased in FY 2013.

Incomplete and unsupported data relating to actual performance measurements

The DOT was unable to provide data to support the actual performance measurements reported for FY 2011 to FY 2013, shown in **Figure 3**. CitiStat did not track data for this performance measure in FY 2011 and we are unaware of any mechanism to do so. We calculated the actuals based on data tracked in CitiStat from 311 calls for FY 2012 and 2013 and found significant differences from the reported actuals, see **Figure 5**. Based on our calculations it appears that only 60% and 65% in FY 2012 and FY 2013, respectively, of inspected streets met roadway lighting standards versus the 85% and 90% reported.



Performance Measurement		FY 2010	FY 2011	FY 2012	FY 2013
# of streets inspected for roadway lighting standards	1	X	X	149	179
# of streets inspected that met roadway lighting standards	1	X	X	90	116
% of inspected streets meeting roadway lighting standard - Actual	С	X	X	60%	65%
% of inspected streets meeting roadway lighting standard - Reported Actual	2	X	80%	85%	90%
% of inspected streets meeting roadway lighting standard - Target	2	X	80%	80%	90%

- 1 Source: CitiStat
- 2 Source: Baltimore City budget documents
- C Calculated field

Figure 5 - Street Lighting Performance Measurement Analysis

Actual performance is not accurately reported in the budget document

The actual method and the amount recorded are only driven by calls from residents that are received by the 311 system reporting that lights are "too bright" or "too dark". The entirety of the City's street lights are not evaluated, only those reported to have an issue.

The actual performance measured is a reactive procedure, not a proactive one. There is no practice currently performed to measure the percentage of all the street lights within the City meeting the roadway lighting standards as required by the measure.

Lack of internal controls/policy for maintaining performance measurements

The DOT provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting the performance measure.



2. Service: 683 – Street Management

Performance	FY10	FY11	FY11	FY12	FY12	FY13	FY13
measure	Actual	Target	Actual	Target	Actual	Target	Actual
% of streets meeting acceptable pavement condition standard	63%	59%	58%	58%	58%	59%	62%

Figure 6: Actual and Target Performance Measures in the Budget

Performance Measure Background

The City of Baltimore receives federal funds related to the maintenance of street pavement conditions in addition to local funding from the City. The DOT's budget for street repair and maintenance is comprised of approximately 80% federal funding and 20% local funding. Federal Highway Administration funds can be used only on the Federal routes. For local or neighborhood streets 100 percent is local funding.

The DOT contracts an outside company to perform the evaluation of city street conditions periodically and issue a Pavement System Preservation Report. This Report is a city-wide evaluation of pavement conditions within the City of Baltimore. Currently, the City is responsible for approximately 5,000 individual lane miles.

Typically, this evaluation is performed every three to four years. DOT's last two evaluations took place in 2009 for 2008 and 2014 for 2013. These evaluations are conducted in accordance with the standards used by the Federal Highway Administration and Army Corp of Engineers.

The Pavement System Preservation Reports rate the pavement conditions based on the Pavement Condition Index (PCI) as shown below in **Figure 7**.



Figure 7 - Street Maintenance Pavement Condition Index

This measure is useful in the planning and maintenance of City streets. Each evaluation provides the DOT with the condition of each street and allows them to determine maintenance schedules to improve the condition where necessary.



FY 2010 Lane Mile Distribution by Condition State

655 Lane Miles
(13%)

1,048 Lane Miles
(22%)

1,158 Lane Miles
(24%)

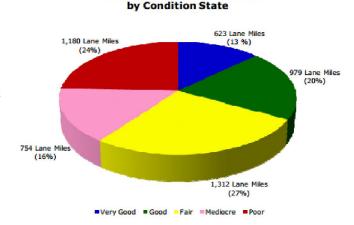
1,158 Lane Miles
(24%)

1,158 Lane Miles
(24%)

The 2009 Pavement System Preservation Report provided estimated pavement conditions in FY 2010 if all FY 2009 projects were completed. **Figure 8** illustrates that an estimated 59% of city roadways would meet the acceptable pavement standard.

Figure 8 - Estimated FY 2010 Pavement Condition

The 2009 Pavement System Preservation Report also provided estimated pavement conditions in FY 2011. **Figure 9** illustrates that an estimated 60% of city roadways would meet the acceptable pavement standard.



FY 2011 Lane Mile Distribution

Figure 9 - Estimated FY 2011 Pavement Condition

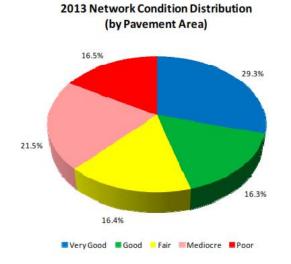


Figure 10 - Actual FY 2013 Pavement Condition

The 2013 Pavement System Preservation Report provides the actual pavement conditions in FY 2013. **Figure 10** shows that 62% of city roadways met acceptable pavement conditions.



Findings

Budgeted target reported differed from supporting documentation

Other than reducing the target to 58% in FY 2012, the budgeted target has remained at 59%, which represents the actual pavement conditions in FY 2009. This is inconsistent with the FY 2012 budget which describes an increase in the number of lane miles resurfaced and the Pavement System Preservation Report issued for 2009 which detailed estimates of subsequent year's conditions if certain repairs were made of 59% in FY 2010 and 60% in FY 2011. The DOT representatives were unable to provide any documentation to support the reported targets.

Incomplete and unsupported data relating to actual performance measurements

CitiStat did not track any data for this performance measurement and we are unaware of any mechanism in place to do so. No evidence was provided to support the actual performance measures reported except for FY 2013.

Performance Measurement		FY 2010	FY 2011	FY 2012	FY 2013
% of streets meeting acceptable pavement condition standard - CitiStat	1	X	X	X	X
% of streets meeting acceptable pavement condition standard - Actual	2	X	X	X	62%
% of streets meeting acceptable pavement condition standard - Reported Actual	3	63%	58%	58%	62%
% of streets meeting acceptable pavement condition standard - Reported Target	3	X	59%	58%	59%

^{1 -} Source: CitiStat

Figure 11 - Street Management Performance Measurements

Lack of internal controls/policy for maintaining performance measurements

The DOT provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting of the performance measure.

²⁻ Source: Final System Preservation Report - 2009 & 2013

^{3 -} Source: Baltimore City budget documents



3. Service: 684 – Traffic Management

Performance	FY11	<u>FY12</u>	FY12	<u>FY13</u>	FY13
measure	Actual	Target	Actual	Target	Actual
Cost per traffic control sign installed	\$665.75	\$665.75	\$776.06	\$686.00	\$700.00

Figure 12: Actual and Target Performance Measures in the Budget

Performance Measure Background

This was a new measure for FY 2012, so there were no targets set in FY 2010 or FY 2011. From discussions with DOT representatives, this measure is designed to monitor the costs associated with producing and installing traffic control signs. Traffic control signs include signage fabricated and installed such as speed limit, street, and other related signs. The costs associated with the signage include materials, time to produce, and time to install.

DOT representatives related that these figures are calculated and reported using a "template" produced by a previous employee and has not been evaluated or updated since its creation. Representatives were unable to provide the "template" for our review.

According to DOT representatives, the information is forwarded from the Traffic Division, entered into the "template" by an administrator and then reported to the CitiStat system. During our discussions of the reported data within CitiStat, DOT representatives described these figures to be grossly overstated and include other signage categories inappropriate to this performance measure, i.e. countdown pedestrian signals. The inclusion of these inappropriate costs would materially skew the data of the intended measure due to their higher cost.

Representatives confirmed that this measure is not used by the department in decision making and there is no oversight in its reporting.

Findings

No supporting documentation for actual performance or budgeted target amounts

The DOT representatives were unable to provide any documentation to support the actual measures reported in CitiStat or budget documents. Hamilton also did not receive supporting documentation to substantiate the target amounts.

Lack of internal controls/policy for maintaining performance measurements

The DOT provided no evidence of policies, procedures, internal controls, or accountability for the measure including the recording, reviewing, and reporting of this performance measure.



4. Service: 689 – Vehicle Impounding and Disposal

Performance	FY10	FY11	FY11	FY12	FY12	FY13	FY13
measure	Actual	Target	Actual	Target	Actual	Target	Actual
# of property damage claims filed	36	30	18	24	21	25	12

Figure 13: Actual and Target Performance Measures in the Budget

Performance Measure Background

Damage claims typically are seeking monetary payout for damage to vehicles towed by the department. These legal cases and settlement costs are paid by the City of Baltimore.

When a claim is filed with the Towing Department, it is handled by their investigator. To determine if the claim is valid, the investigator will evaluate the claim by reviewing the cameras on the premises as well as the pictures taken of the vehicle upon arrival to the impound lot. If the claim is determined to be valid, it is submitted to the legal department for processing. If the investigator determines the claim is invalid, the claimant will be notified that no further action will be taken, hence the claim is denied.

A typist within the Towing Department will retrieve case information from the legal department's systems, compile the information, and enter it into CitiStat for reporting purposes.

Management indicated that this measure is not utilized widely within the department.

Findings

No supporting documentation for actual performance or budgeted target amounts

The DOT representatives were unable to provide any documentation to support the actual measures reported in CitiStat or budget documents. Hamilton also did not receive supporting documentation to substantiate the target amounts.

Lack of internal controls/policy for maintaining performance measurements

The DOT provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting of the performance measure.



5. Service: 692 – Bridge and Culvert Management

Performance	FY10	FY11	FY11	FY12	FY12	FY13	FY13
measure	Actual	Target	Actual	Target	Actual	Target	Actual
% of bridges more than 50 years old with a Bridge Sufficiency Rating below 50	14.60%	14.30%	14.60%	14.30%	14.30%	13.50%	14.00%

Figure 14: Actual and Target Performance Measures in the Budget

Performance Measure Background

The City of Baltimore receives federal funds related to bridges and their maintenance. If the DOT does not meet the eligibility requirements of the Federal Highway Administration (FHA) it could potentially lose this funding.

The FHA requires that all bridges over twenty feet in length be inspected every two years. In cases where there is noted substantial concern, a bridge will be required to have an inspection every year. Bridges that are fewer than 20 feet in length are required to be inspected every four years. Pedestrian bridges are not subject to the Sufficiency Rating Standards but are inspected every 6 years.

All bridge inspections are performed according to the Bridge Inspectors Reference Manual issued by the FHA. The DOT utilizes qualified contractors to perform bridge inspections.

Each bridge inspection is logged into the InspectTech system. InspectTech is a provider of mobile inspection and asset management solutions, which allows the City to more effectively collect, analyze and manage inspection data. This software allows the City to perform inspections electronically and generate Bridge Inspection Reports (BIR). It also allows the DOT to store prior reports for future reference.

Each Bridge Inspection Report is reviewed, signed and stamped with a seal to ensure that it meets the Department's standards.

Findings

No supporting documentation for actual performance or budgeted target amounts

The DOT representatives were unable to provide any documentation to support the actual measures reported in CitiStat or budget documents. Hamilton also did not receive supporting documentation to substantiate the target amounts.

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Lack of internal controls/policy for maintaining performance measurements

The DOT provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting of the performance measure.

V. Recommendations

The lack of oversight, accountability, and internal controls surrounding the measurement of performance within the DOT undermines the intent of the performance measurement process as a whole. To achieve the full benefits of outcome budgeting, significant changes are needed. A system of accountability and oversight at the DOT level needs to be implemented that requires all measures be valid, reliable, and verifiable. The reliability and validity of the performance measures are critical to their usefulness in budgeting and measuring performance to achieve strategic goals.

The DOT should develop procedures in coordination with each service to link the performance measurement to its mission and strategic goals, and confirm its usefulness in measuring achievement of those goals. Performance targets should be defined with funding and resource availability in mind. The methods and reporting mechanisms needed to capture each performance measure and the frequency in which that data will be captured should be defined with the understanding that the cost and effort of obtaining the performance data should not exceed the value of the data so obtained. For example, in the case of street maintenance, obtaining an actual PCI every 3 years may be sufficient to plan street maintenance, set performance targets, and estimate actual PCI (based on the completion of planned maintenance) during the convening years. The procedures should also include how the measures will be verified for data validity and reliability.

To enhance the evaluation of performance measures that capture actual costs, the DOT would benefit by creating a total cost comparison approach. Measuring only direct material and labor cost does not provide a complete picture of the amount of expenditures incurred in completing each performance measure in a cost efficient manner. By developing an enhanced timekeeping system, a direct charge methodology of directly associated costs, and an indirect cost allocation method, the DOT could make logical comparisons between budget and actual cost associated with each performance measure. Consistent development of budget and actual cost will improve the validity of the cost data for reliable performance comparisons.

Each measure should have a service representative (with the appropriate knowledge, experience, and/or training) responsible for the measurement, recording, and reporting of budgeted and actual performance. The representative should be required to document all supporting information in a manner that could be evaluated by a third-party for accuracy, validity, and correctness.

The DOT should consider implementing quarterly reviews with the services to provide oversight into the performance measurement process and accountability for the achievement of

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performance objectives. Quarterly reviews would allow the DOT to identify problems early, take necessary corrective action, and adjust strategies and resource allocations accordingly.

VI. Audit Responses

Please see attached DOT's detailed response to the audit results. We have provided a summarized version below with our responses.

DOT provided four general recommendations to improve the Performance Measurement Process on a city-wide basis:

- Institute an annual process to allow agencies to justify why a measure may no longer be relevant and propose a replacement measure early in the calendar year.
- Allow agencies the final determination on what measures should be reflected in budgetary documents if they will be held responsible through the audit process.
- Provide training for agencies staff in proper calculation and documentation.
- Reduce the number of performance measures tracked between CitiStat and the outcome budgeting process. DOT currently tracks over 330 measures for CitiStat in addition to the measures tracked for the budget process (though some overlap). If the data cannot be utilized to make decisions about operations or is useful in budgetary decisions, it should be eliminated or consolidated with other measures.

DOT is undergoing a full scale assessment of all performance measures in its budget documents and that it reports to CitiStat to determine if the measures are relevant to operations and worthwhile to budgetary decisions. Additionally, it is working to implement Performance Measure Review Procedures (copy provided with comment responses) which will require Divisions to source all data and provide documentation for how data is calculated, tracked and/or collected. A point of contact responsible for each measure will be designated. As referenced in the audit, DOT has already eliminated a number of performance measures that could not be properly documented or were irrelevant to operations and budgetary management.

<u>Hamilton's response</u>: DOT is taking significant actions to improve the relevancy, validity and reliability of its performance measures, through training, documentation and accountability. Adding a review of the target and actual measures, by someone other than the individual who prepared them, such as the Division Chief, to confirm the accuracy of the calculations and review the interrelationships for reasonableness would strengthen the reliability and usefulness of the measures



1. Service: 500 – Street and Park Lighting

No supporting documentation for target performance measurements

<u>DOT's response</u>: DOT did not have a baseline of data when developing the targets as this measure was not tracked prior to the implementation of outcome budgeting and believes the FY 2013 target was increased due to the planned installation of approximately 11,000 LED fixtures, however this cannot be confirm as the person responsible for the target is no longer with DOT.

Hamilton's response: Hamilton considers this a concurrence with the finding.

Incomplete and unsupported data relating to actual performance measurements

<u>DOT's response</u>: DOT agrees that the data in the CitiStat template does not match data recorded in the budget documents. DOT recommends altering the performance measure to reflect actual data collection in CitiStat and using this data to report actual performance in the budget.

Hamilton's response: Hamilton agrees this action is sufficient to address the finding.

Actual performance is not accurately reported in the budget document

<u>DOT's response</u>: DOT agrees that there is no practice to proactively measure the percentage of all street lights that meet the lighting standards. DOT proposes a change to clarify that the performance measure relates only to streets inspected in response to 311 calls.

<u>Hamilton's response</u>: Hamilton agrees this action will clarify what the measure is capturing and in combination with reporting actual performance based on streets inspected in response to 311 calls is sufficient to address the finding.

Lack of internal controls/policy for maintaining performance measurements

<u>DOT's response</u>: DOT agrees that additional steps can be taken to improve internal controls and accountability for this and other performance measures. DOT will maintain a spreadsheet of the data used to calculate the target and actuals beginning with FY 2017 targets and FY 2015 actuals.

<u>Hamilton's response</u>: Hamilton urges DOT to maintain detailed backup to support the amounts reflected in the spreadsheet, and develop procedures to address our recommendations.



2. Service: 683 – Street Management

Budgeted target reported differed from supporting documentation

<u>DOT's response</u>: DOT believes that based on a significant reduction in state Highway User Revenue (HUR) funding (a primary fund source for resurfacing), improvements to roadways were not expected to improve from the levels reported in the 2009 report. They agree that the target for "# of lane miles resurfaced" increased for FY 2012, but that actual performance was well below their target. DOT believes the targets are justified.

<u>Hamilton's response</u>: Hamilton agrees that DOT can set the performance target based on the actual result of a prior FY, but the justification for this should be documented and maintained with its budget support. Additionally, if the target varies from this percentage, as it did in FY12, DOT should document the assumptions and calculations used to derive the target percentage. Finally, assumptions should be applied consistently across the performance measures, and any cross-impacts evaluated to avoid unrealistic performance targets, such as the FY 2012 "# of lane miles resurfaced".

Incomplete and unsupported data relating to actual performance measurements

<u>DOT's response</u>: The attached 2013 Pavement Systems Preservation Report reflects a condition level of 62% not 64%.

<u>Hamilton's response</u>: Based on the additional evidence provided, Hamilton concurs that the FY 2013 actual amount is supported by the 2013 Pavement Systems Preservation Report. We have incorporated the result from this report and revised our finding to clarify that FY 2013 was the only year in which supporting documentation was provided. No documentation was provided to support how the FY 2010 through FY 2012 actual performance measurements reported were calculated.

Lack of internal controls/policy for maintaining performance measurements

<u>DOT's response</u>: DOT uses consultants to calculate the Network Condition and recommend funding levels required to maintain an acceptable pavement condition. These firms use proprietary software to perform their analysis and DOT is unable to provide Hamilton a copy for review.

DOT monitors roadway work performed weekly. An "Operation Orange Cone List" is developed bi-weekly to record resurfacing locations, schedule, date completed, and lane miles achieved. This data is used by the consultants to prepare a new condition report.

<u>Hamilton's response</u>: The use of proprietary software to develop funding recommendations does not preclude DOT from developing performance measurement controls and procedures as described in our recommendations. DOT is tracking resurfacing locations, schedule, and lane



miles achieved; these metrics can be utilized to estimate the overall pavement condition for use in the reporting of actual and any needed adjustment to target performance measurements. The Pavement Management surveys should be reviewed by DOT for reasonableness and consistency with underlying data points for use as a comparison between target and achieved amounts, and a tool for setting future year targets.

Service: 684 – Traffic Management

No supporting documentation for actual performance or budgeted target amounts

<u>DOT's response</u>: DOT agrees that there was not proper documentation to support the underlying data that is recorded in the CitiStat template.

Hamilton's response: Hamilton concurs.

Lack of internal controls/policy for maintaining performance measurements

<u>DOT's response</u>: DOT agrees that there was no internal control review for this performance measure. In addition, this measure does not accurately reflect cost savings, and should be eliminated and replaced.

<u>Hamilton's response</u>: Hamilton recommends that DOT incorporate the recommendations made in this report as it improves and tracks this measure going forward.

3. Service: 689 – Vehicle Impounding and Disposal

No supporting documentation for actual performance or budgeted target amounts

<u>DOT's response</u>: DOT agrees. With the departure of the previous Chief of Towing, DOT is unsure how previous targets were determined, and recommends Hamilton interview the new Chief to gain insight on how this measure will be tracked moving forward.

<u>Hamilton's response</u>: Future years are not within the scope of this audit. Hamilton recommends that DOT incorporate the recommendations made in this report as it tracks this measure going forward

Lack of internal controls/policy for maintaining performance measurements

<u>DOT's response</u>: DOT agrees. DOT will maintain a spreadsheet data used to calculate the target and actuals beginning with FY 2017 targets and FY 2015 actuals.

<u>Hamilton's response</u>: Hamilton urges DOT to maintain detailed backup to support the amounts reflected in the spreadsheet, and develop procedures to address our recommendations.



4. Service: 692 – Bridge and Culvert Management

No supporting documentation for actual performance or budgeted target amounts

<u>DOT's response</u>: DOT disagrees that no support was made available, as the bridge inspection reports were provided, but states that the support for the targets and actual calculations would need to be recreated. DOT commits to maintain a spreadsheet of the data used to calculate the target and actuals beginning with FY 2017 targets and FY 2015 actuals.

<u>Hamilton's response</u>: Hamilton confirms that lack of documentation supporting the calculation of actual and target performance measures is the cause of this finding, and agrees with DOT's decision to maintain spreadsheets supporting the calculations going forward. It is expected that these spreadsheets would be supported by and consistent with the underlying bridge inspection reports.

Lack of internal controls/policy for maintaining performance measurements

<u>DOT's response</u>: DOT will maintain a spreadsheet of the data used to calculate the target and actuals beginning with FY 2017 targets and FY 2015 actuals.

<u>Hamilton's response</u>: DOT should also develop internal controls and procedures to address our recommendations.

ATTACHMENTS

Agency's full response is attached

CITY OF BALTIMORE STEPHANIE RAWLINGS-BLAKE, Mayor



DEPARTMENT OF TRANSPORTATION William M. Johnson, Director 417 E. Fayette Street Baltimore, Maryland 21202

The Department of Transportation (DOT) has received the draft Quadrennial Performance Audit for FY 2010, 2011, 2012 and 2013 from Hamilton Enterprises, LLC. DOT has responded to the findings of the audit below.

General Comments on Performance Targets and Actuals Development

Since Outcome Budgeting's implementation in the City of Baltimore in Fiscal 2011, agencies were required to submit performance measurement targets and actuals for each service. Fiscal 2010 performance targets were not available for audit review as they were not required part of the budget process and had not yet been created. After the implementation of outcome budgeting, DOT shifted its Citistat template to align with the Outcome Budgeting process for Fiscal 2012. During the Fiscal 2011 budget process, DOT worked with the Bureau of the Budget and Management Research (BBMR) to develop output, efficiency, effectiveness and outcome measures for each of its services. A number of these measures were being recording in some way through Citistat while for others the measures were newly created and the documentation process may not have been determined when they were developed.

Although DOT was unable to provide documentation specifically backing up the determined target in some cases, DOT does not believe that the target did not have some level of support and justification when it was created. Targets are developed early in the budget planning process, limiting the data available to use as a baseline during the early years of Outcome Budgeting submissions. For example, when building the target for Fiscal 2013 (compiled in fall 2011), the most recent data available to an agency would be data from Fiscal 2011. For Fiscal 2011 and Fiscal 2012, insufficient actuals data would have existed, and target development was in many cases based on supervisors' knowledge of operations. As previously stated, Fiscal 2010 targets were not developed as Outcome Budgeting had yet to be implemented.

The quadriennial audit requirement did not exist during the time Fiscal 2011 – Fiscal 2013 targets and actuals were recorded and there was no policy as part of the budget submission to retain documentation for submitted data. In some cases, measures and targets may have been developed that have now been determined to be irrelevant to current operations.

Internal Control and Review Process

Since Fiscal 2013, DOT's administration has changed and internal controls, documentation retention and performance management have become a priority. DOT is working on a number of internal control reviews to improve efficiencies and identify potential weaknesses across the agency. Specifically in relation to the scope of this audit, DOT is undergoing a full scale assessment of all performance measures it has in its budget documents and that it reports to Citistat to determine if the measures are relevant to operations and worthwhile to budgetary decisions. A copy of the procedure that will be followed is attached to this response. Divisions will be required to source all data and provide documentation for how data is calculated, tracked and/or collected. A point of contact responsible for each measure will be designated. As referenced in the audit, DOT has already eliminated a number of performance measures that could not be properly documented or were irrelevant to operations and

budgetary management. DOT worked with Hamilton Enterprises, LLC in determining which measures should be reviewed for this audit as part of its overall performance measurement assessment.

1. Service: 500 – Street and Park Lighting

Findings

No supporting documentation for target performance measurements

The Department of Transportation was unable to provide any documentation related to the budgeted target for this measure. The target amount contained in the City budget has been rolled forward throughout the years and arbitrarily increased. Hamilton Enterprises, LLC noted no documentation to substantiate the targeted estimates.

DOT RESPONSE

DOT began tracking this measure for Citistat in Fiscal 2012 when it realigned its template with the services breakdown for Outcome Budgeting. The measure was created during the implementation of Outcome Budgeting for Fiscal 2011. DOT does not have record as to why the measure was selected. DOT did not have a baseline of data when developing the target for Fiscal 2011. As evidenced by Hamilton's review, this measure was not tracked for Citistat in Fiscal 2011 or in years prior.

Had this measure been tracked prior to the development of Outcome Budgeting, data would have been available to use as a basis for the Fiscal 2012 and Fiscal 2013 performance targets. DOT believes that the Fiscal 2013 target was increased due to the planned installation of approximately 11,000 LED fixtures, however this cannot be confirmed as the person responsible for the target is no longer with DOT.

The charts below reflect the data that was required for submission to BBMR for Fiscal 2012 and Fiscal 2013 performance measures.

Performance Measurements as reflected in Fiscal 2012 Budget Agency Detail Volume II

Performance Measures

Туре	Measure	FY10 Actual	FY11 Target	FY12 Target
Output	# of street light outage service requests completed	1,120	1,080	1,050
Efficiency	Operating and maintenance cost per street light	\$288.12	\$257.28	\$255.22
	% of street light outage service requests completed on			
Effectiveness	time	73%	74%	85%
	% of inspected streets meeting City roadway lighting			
Effectiveness	standards	New Measure	80%	80%
	% of citizens rating street lighting services good or			
Outcome	excellent	59.5%	54%	59%

Performance Measurements as reflected in Fiscal 2013 Budget Agency Detail Volume II

Performance Measures

Type	Measure	FY11 Actual	FY12 Target	FY13 Target
Output	# of street light outage service requests completed	361	1,050	1,000
Efficiency	Operating and maintenance cost per street light	\$297.14	\$250.00	\$250.00
	% of street light outage service requests completed on			
Effectiveness	time	95%	85%	95%
	% of inspected streets meeting City roadway lighting			
Effectiveness	standards	80%	80%	90%
	% of citizens rating street lighting services good or			
Outcome	excellent	59.0%	59%	59%

The Citistat template only records data from the 311 system (citizen complaints). DOT also inspects all City gateways weekly and primary routes bi-weekly. Data is tracked internally. When the prior DOT administration developed the targets and reported actuals it may have included this data along with the 311 data tracked in the Citistat template. DOT cannot confirm this at this time.

Incomplete and unsupported data relating to actual performance measurements

The Department of Transportation was unable to provide data to support the actual performance measurements reported for FY2011 to FY2013, shown in Figure 2. CitiStat did not track data for this performance measure in FY2011 and we are unaware of any mechanism to do so. We calculated the actuals based on data tracked in CitiStat for FY 2012 and 2013 and found significant differences from the reported actuals. It would appear that of the streets inspected, only 60% and 65% in FY 2012 and FY 2013, respectively, met roadway lighting standards versus the 85% and 90% reported.

Figure 6 - Street Lighting Performance Measurement Analysis

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Performance Measurement		FY 2010	FY 2011	FY 2012	FY 2013
# of streets inspected for roadway lighting standards	1	Х	Х	149	179
# of streets inspected that met roadway lighting standards	1	Х	Х	90	116
% of inspected streets meeting roadway lighting standard - Actual	С	Х	Х	60%	65%
% of inspected streets meeting roadway lighting standard - Reported Actual	2	Х	80%	85%	90%
% of inspected streets meeting roadway lighting standard - Target	2	Х	80%	80%	90%

^{1 -} Source: CitiStat
2 - Source: Baltimo

DOT RESPONSE

DOT agrees with the finding that data recorded in the Citistat template does not match data recorded in the budget documents. If the measure needs to continue to be tracked in the budgetary documents, DOT recommends altering the narrative of the performance measure to better reflect actual data collection. The proposed change is "% of inspected streets in response to 311 calls meeting City roadway lighting standards." Data that is recorded in the Citistat template from the 311 system will then be used for outcome budgeting reporting.

Actual performance is not accurately reported in the budget document

The actual practice and the amount recorded are only driven by calls from residents that are received by the 311 system reporting that lights are "too bright" or "too dark". The entirety of the City's street lights are not evaluated, only those reported to have an issue. The actual performance measured is a reactive procedure, not a proactive one. There is no practice currently performed to measure the percentage of all the street lights within the City meeting the roadway lighting standards as required by the measure.

DOT RESPONSE

DOT agrees that there is currently no practice to proactively measure the percentage of all street lights throughout the City meeting lighting standards. The measure does not state that it is tracking all City streets, but rather inspected streets. The proposed alteration above will clarify that the measure is specifically discussing those inspected in response to 311 calls. DOT does not have the manpower to inspect all City streets on an annual basis at this time.

Lack of internal controls/policy for maintaining performance measurements

The City of Baltimore and the Department of Transportation provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting of the performance measure.

^{2 -} Source: Baltimore City budget documents

C - Calculated field

DOT RESPONSE

Although service requests utilized for this measure are tracked in the 311 system and reported on the Citistat template, DOT agrees that additional steps can be taking to improve internal controls and accountability for this and other performance measures. In response to the audit, and understanding future reporting requirements, DOT will maintain a spreadsheet of the data used to calculate the target and actuals beginning with Fiscal 2017 targets and Fiscal 2015 actuals to better track data in a format that is more easily accessible.

2. Service: 683 - Street Management

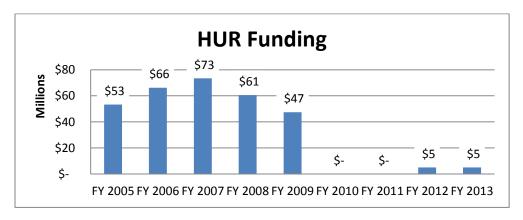
Findings

Budgeted target reported different than supporting documentation

Other than reducing the target to 58% in FY 2012, the budgeted target has remained at 59%, which represents the actual pavement conditions in FY 2009. This is inconsistent with the FY 2012 budget which describes an increase in the number of lane miles resurfaced and the Pavement System Preservation Report issued for 2009 which detailed estimates of subsequent year's conditions if certain repairs were made of 59% in FY 2010 and 60% in FY 2011. The Department of Transportation representatives were unable to provide any documentation to support the reported targets.

DOT RESPONSE

Since Fiscal 2009, capital support for resurfacing declined significantly. The 2009 report did not account for the significant reduction in State Highway User Revenue (HUR) (a primary fund source for resurfacing). HUR funding was zeroed out in Fiscal 2010 and Fiscal 2011. Based on the reduced level of funding, improvements to roadways were not expected to improve from the levels reported in the 2009 report. Although the target increased for Fiscal 2012 for "# of lane miles resurfaced", the actual performance was 188 lane miles, well below the target of 235. DOT believes that based on HUR funding and the 2009 report, its targets are justified.



Incomplete and unsupported data relating to actual performance measurements

CitiStat did not track any data for this performance measurement and we are unaware of any mechanism in place to do so. No evidence was provided to support the actual performance measures reported. The Pavement System Preservation Report issued for 2013 reported actual condition levels of 64%, while the Department of Transportation reported 62%.

DOT RESPONSE

Citistat does not track this data since it's done on an annual basis versus a bi-weekly basis. The 2013 report reflects a condition level of 62% not 64%. See attached Pavement System Preservation Report. Chart below is from referenced report. The report has been provided to Hamilton Enterprises, LLC.

2013 Network Condition Distribution (by Pavement Area)

70.0%
60.0%
50.0%
40.0%
20.0%
10.0%
Acceptable Substandard

Figure ES.4: Network Condition (2013)

Source: City of Baltimore PMS 2013: Pavement System Preservation Report - Volume I

Lack of internal controls/policy for maintaining performance measurements

The City of Baltimore and the Department of Transportation provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting of the performance measure.

DOT RESPONSE

Axiom Engineering performed the Pavement Management survey in 2008/09, while DOT used Amec Foster Wheeler consulting company in 2013/14. Both firms have recommended the funding level much higher than the annual allocation to maintain the roadway network condition level reported on respective reports. Based on the actual lane mile completed (construction performed) the consulting company will provide DOT a new Network Condition, which will help us establishing next year's goal. Budget process for the upcoming fiscal year begins early in previous fiscal year so at times there is a delay in data that is available. Consulting company uses proprietary software for analysis so DOT is unable to maintain a copy in-house of the software and is unable to provide a copy to Hamilton Enterprises, LLC for their review.

In terms of controls of monitoring working on roadways, DOT holds a weekly resurfacing meeting with employees responsible for resurfacing work and the progress is monitored. DOT keeps a bi-weekly record of resurfacing list called "Operation Orange Cone List" where resurfacing locations, schedule, date completed, lane miles achieved are recorded. This database is used by the Consulting Company to prepare a new condition report for DOT. Operation Orange Cone list of one of the reporting periods is attached, and all weekly resurfacing meeting minutes are also available.

3. Service: 684 – Traffic Management

Findings

No supporting documentation for actual performance or budgeted target amounts

The Department of Transportation representatives were unable to provide any documentation to support the actual measures reported in CitiStat or budget documents. Hamilton Enterprises, LLC noted no documentation to substantiate the targeted estimates as well.

DOT RESPONSE

The Citistat template reflects the data that was utilized for the performance measure actuals, however DOT agrees that there was not proper documentation to support the underlying data that is recorded in the Citistat template.

Lack of internal controls/policy for maintaining performance measurements

The City of Baltimore and the Department of Transportation provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting of the performance measure.

DOT RESPONSE

DOT agrees that there was no internal control review for this performance measure. Due to turnover in management in the Traffic Division, there is no record of how the targets published in the budget documents were determined. During the audit, DOT Administration and Traffic determined what items were included for the calculation of the actuals on the Citistat template (which was the source document used to report actuals for the budget documents) but came to the conclusion that it was an improper measure to demonstrate the value of the Traffic Management service. The measure includes the cost of a number of different items, which in turn does not provide an adequate measure for any of the items since some are more costly than others. The chart below is a list of all components included in creating the "Cost per traffic control sign installed."

Signals Installed	Handboxes Installed
Signals Removed	Handboxes Removed
Signals Repaired	Handboxes Repaired
Poles Installed	Control Boxes Replaced
Poles Removed	Control Boxes Repaired
Poles Painted	Control Boxes Painted
Pole Bases Installed	Cables Installed
Pole Bases Removed	Cables Removed
Pole Bases Repaired	Cables Repaired
Conduit Installed	Detectors Installed
Conduit Removed	Detectors Repaired
Conduit Repaired	Push Buttons Installed
Miscellaneous	Push Buttons Repaired

Combining all of these items together does not result in a worthwhile measure that can inform decision making or accurately reflect measures for cost savings. DOT believes that this measure should be eliminated and replaced with a measure that more accurately demonstrates the work done in Traffic Management.

4. Service: 689 - Vehicle Impounding and Disposal

No supporting documentation for actual performance or budgeted target amounts

The Department of Transportation representatives were unable to provide any documentation to support the actual measures reported in CitiStat or budget documents. Hamilton Enterprises, LLC noted no documentation to substantiate the targeted estimates as well.

DOT RESPONSE

During the audit process, Hamilton Enterprises, LLC interviewed the Chief of Towing. The Chief resigned shortly after the interviews and DOT had difficult tracking down documentation after his departure.

DOT is unsure how the previous chief determined targets for the given fiscal years.

DOT recommends Hamilton Enterprises, LLC interviews the new Chief of Towing Operations to gain insight on how this measure will be tracked moving forward.

Lack of internal controls/policy for maintaining performance measurements

The City of Baltimore and the Department of Transportation provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting of the performance measure.

DOT RESPONSE

DOT agrees that improvements must be made in terms of internal controls for performance measures. In response to the audit, and understanding future reporting requirements, DOT will maintain a spreadsheet of the data used to calculate the target and actuals beginning with Fiscal 2017 targets and Fiscal 2015 actuals to better track data in a format that is more easily accessible.

5. Service: 692 – Bridge and Culvert Management

No supporting documentation for actual performance or budgeted target amounts

The Department of Transportation representatives were unable to provide any documentation to support the actual measures reported in CitiStat or budget documents. Hamilton Enterprises, LLC noted no documentation to substantiate the targeted estimates as well.

DOT RESPONSE

DOT disagrees that no documentation was provided to Hamilton Enterprises, LLC. During the conducted interview, the location of bridge inspection report hard copies (which include bridge sufficiency ratings) were shown to the interviewer who was informed that all reports are available daily during normal business hours for review. According to staff interviewed, these records were not reviewed by Hamilton Enterprises, LLC.

In order to calculate the actuals data each year, the following procedure is followed:

- 1. Obtain all of the current Bridge Sufficiency Ratings (BSR) for the targeted year (records are available for review)
- 2. Count up the number of bridges with a BSR that is less than 50.
- 3. Divide that number by the total number of bridges with a BSR and multiply by 100.

In order to calculate the target for each year, the following procedure is followed

4. Obtain all of the current Bridge Sufficiency Ratings (BSR) for the current year (records are available)

- 5. Count up the number of bridges with a BSR that is less than 50.
- 6. Determine which of those bridges were recently replaced or rehabilitated. This would cause the BSR to increase during the next inspection to a number greater than 50.
- 7. Subtract the number of bridges that were recently replaced or rehabilitated from the number of bridges with a BSR that is less than 50.
- 8. Divide that number by the total number of bridges with a BSR and multiply by 100.

DOT does not currently have the manpower to go back and recreate four years' worth of targets and actuals. There are hundreds of bridges in the city and each report would need to be reviewed and the BSR recorded for each year in order to recreate the procedure that was done each year when determining targets and actuals. In response to the audit, and understanding future reporting requirements, DOT will maintain a spreadsheet of the data used to calculate the target and actuals beginning with Fiscal 2017 targets and Fiscal 2015 actuals to better track data in a format that is more easily accessible.

Lack of internal controls/policy for maintaining performance measurements

The City of Baltimore and the Department of Transportation provided no evidence of policies, procedures, internal controls, or accountability for the measure including recording, reviewing, and reporting of the performance measure.

DOT RESPONSE

As stated previously, DOT will maintain a spreadsheet of the data used to calculate the target and actuals beginning with Fiscal 2017 targets and Fiscal 2015 actuals to better track data in a format that is more easily accessible.

General Recommendations for Performance Measurement Process Improvement

- As the quadriennal audit process continues and agencies continue to review performance measures, there needs to be an annual process in place where agencies can justify why a measure may no longer be relevant and propose a new measure. The process should begin earlier in the calendar year versus when the budget documents are being put together.
- Agencies should have final determination on what measures should be reflected in budgetary documents if they will be held responsible through the audit process.
- Training for agencies should be provided for agencies on how to better calculate and document measures. Many staff members have been told to record data but without additional skills in how to do so.
- DOT recommends reducing the number of performance measures tracked between Citistat and the Outcome Budgeting process. DOT currently tracks over 330 measures for Citistat in addition to the measures tracked for the budget process (though some overlap). If the data cannot be utilized to make decisions about operations or is useful in budgetary decisions, it should be eliminated or consolidated with other measures.



PERFORMANCE MEASURE REVIEW PROCEDURES

Objective: Determine the supporting methodology and documentation for each DOT performance measure that are reported in the annual budget submissions and on the Citistat template.

Background: DOT a preliminary review of all performance measures in summer 2014. This aligned with the beginning of its first quadrennial audit being conducted by Hamilton Enterprises, LLC (Hamilton) to review five performance measures from Fiscal 2010 to Fiscal 2013. DOT worked with Hamilton to identify five measures that needed in depth analysis to determine source documentation and data validity. Based on a high-level preliminary assessment done by DOT, a number of performance measures reported on for DOT services state their documentation as "the Citistat template." However, when divisions have been questioned about the underlying data, how it was calculated or to produce records to support figures, they were unable to provide details.

The following outlines the steps that are either in progress or will be taken as part of the performance measure review.

- 1. Create a database of all performance measures for DOT (both Citistat and outcome budgeting) including all known data points.
- 2. Determine any discrepancies in reported data, focusing on those data points that overlap between Citistat and the budget process.
- 3. Identify who is responsible for collecting data for each measure and determine the performance driver for that measure (person responsible for ensuring targets are met or explaining any shortfalls in performance). The person collecting data may or may not be the same person who is responsible for driving performance.
- 4. Determine if there is a procedure or formula for measures currently being collected.

a. If YES

- i. Determine if the process or formula is accurate and the best way to measure said data
- ii. Determine if process is up to date (for example if reliant on budgetary data, is that formula updated annually?)
- iii. Determine how long it takes to collect data

b. If NO

- i. Determine how data was being recorded previously?
- ii. Can a procedure be developed?
- 5. If no documentation exists and no procedure can be determined, develop suggestions for replacement measure.
- 6. Determine if existing measures are relevant to budgetary decisions or operational decisions
 - a. Does its existence help managers better manage operations?
 - b. Does it properly measure the goals of the service and/or staff performance

Requirements Fiscal 2017 and beyond

- 1) Each year when targets and actuals are reported to administration for incorporation into outcome budgeting submissions the following will be required:
 - a) Source of actual data
 - b) Documentation to back up actual being reported
 - c) Justification for target being recommended



Department of Transportation ORANGE CONE LIST - Projects To Be Under Construction





		DEPARTMENT OF P	PUBLIC WORKS	ORANGE CO		oring, Summer &			uctio	•			Nor Stepha	anie Rawlings Black	Service of the servic	OF TRANSCORPED	
	Number of Sites		ted		122	Remaining No. of Sites To Be Cost of Remaining Sites To be	Under Co	nst in 2011		147 \$149,914,980	_						_
otal	Lane Miles Co	ompleted (E			69.26	Remaining LM To Be Under C Remaining LM To Be Under C	Constructio	n in 2011	ce)	\$149,914,980 55.36 47.97							
otal	Number of Sites	tes under C	Construction		38	Total Lane Miles Resurfaced by Total Bike Markings Lane Mile	by DPW in		 	3.50							
			r Construction		67.13				Proj.						Lane	Contract	
_		Acct	Project Name	From	Blk#	То	Blk#	Туре	Days	Status	PM	CPS	CD	LD	Miles	No.	•
	CIP		32nd St. E. Argonne Drive Bridge	Harford Rd. O/ Herring Run (3401-49.1)	2200	Erdman Ave	+	RESURF - LOC BR. REHAB - FED	744	Under Construction Completed 8/05/11	Kevin Tony	Bruce Gene	14		0.73	TR11010 TR02398	
1	LOC		Banger St	Hollins Ferry Rd		Dead End		RECON - 3 rd \$30M		Completed 5/27/11	Shahid	Allan	10		0.49	TR08028	+
	CIP	514-788	Boston/Odonell	Gusryan Ave	6300	Travel Plaza	5700	RESURF- FED	120	Completed 4/18/11	Uttam	Roshan	1	46	1.50	TR10307	1
1	CIP		Charles St N.	Northern Pkwy		City Line	+	RESURF- FED		Completed 6/10/11	Uttam	Emory	4,5	· ·	2.90	TR10305	+
1	CIP	514-788 506-818	Conkling St S. Downtown Roadway Infrastructure	Dillon St Pratt, Light St, Coneway st, Hove		Bank St.		RESURF- FED RESURF- FED		Completed 7/08/11 Completed 7/22/11	Uttam	Roshan Emory	1 11		2.51 6.99	TR10307 TR10324	\dashv
	CIP		Improvements E 36th St	Ellesrlie Ave		The Alameda	1	RESURF- FED	0.10	Completed 8/19/11	Uttam	R. Fields	14	43	1.49	TR11304	+
)	CIP	514-785	Echodale Ave	Corse Ave	3900	Herring Run Br.	2100	RESURF- FED	120	Completed 8/26/11	Kevin	Bruce	2,3	43,45	6.40	TR10304	\downarrow
7	JOC Emergen.	1	Fayette St	Broadway		Washington St	+	RESURF - LOC		Completed 7/21/11	Kevin	Bruce		,	1.00	TR09010R	+
9	CIP		Frankford Ave Harford Rd	Radecke Ave 25th St		Corse Ave 32nd St	+	RESURF- FED RESURF - FED		Completed 8/26/11 Completed 8/19/11	Kevin Uttam	Bruce Roshan	12,1		3.95 5.70	TR10304 TR04303	+
4	CIP	 	Harford Rd	North Ave		25th St	+	RESURF - FED		Completed 8/05/11	Uttam	Roshan	12.1		1.83	TR04303	+
	CIP	514-789	Holabird Ave	Broening Highway	6200	Dundalk Ave	6600	RESURF- FED	210	Completed 4/08/11	Kevin	Bruce	1	46	3.90	TR10308	\Box
)	CIP			Along Aliceanna St	5000	Damas Ct	+	STSCP - LOC	100	Completed 6/22/11	Shahid	Andy	1	46	0.20	TR09011	\dashv
9 4	CIP		Interstate Ave Intersection of Mt. Royal Ave	Odonell St Cut off At Lafayette Ave and McMeche		Ponca St	+	RESURF- FED Geometric Improv		Completed 5/05/11 Completed 8/19/11	Uttam Jamie	Roshan Allan	11 &	46	0.20	TR10307 TR04308R	+
9	JOC	 	Intersection, Wyman Park	Charles St at 29th St			+	Geometric Improv		Completed 7/18/11	Shahid	John	12 12,1 4	40	0.20	TR09029	+
5	CIP	508-365	Key Hwy Phase I	Lawerence St	1400	I-95	1800	STSCP - FED		Completed 8/26/11	Manmohan		10	46	1.60	TR05045	\bot
)	CIP	-	Lee St, Downtown Infrastruct.	Russell St		Camden Station		RESURF- FED RECON/STSCP -		Completed 6/6/11	Idris	Emory	11		0.50	TR10324	+
;	LOC		Lexington St Little Italy, Fawn St	Park Avenue President St	800	Liberty St Central Ave		LOC STSCP - Sidewalk		Completed 6/24/11 Completed 6/24/11	Manmohan Jamie	Andy Andy	11	44	0.28	TR09011 TR08062	+
	LOC	+	Little Italy, High St	E. Pratt St		Eastern Ave	+	STSCP - Sidewalk		Completed 6/24/11	Jamie	Andy	1	46	0.49	TR08062	\dashv
	CIP	-	Loch Raven Drive Bridge	Dulaney Valley Branch			+	BR. RECON - LOC		Completed 6/20/11	Scott	Gene				TR10002	\dashv
	CIP	+	Longwood/3200 Powhatan	Hilton St		Gwynnsfalls Pkwy	+	RESURF- FED		Completed 4/29/11	Uttam	Emory	7	40	1.60	TR10305	\dashv
) :	LOC	<u> </u>	Monroe St Newbury St. Br	Gwynns Falls Pkwy Sulgrave Ave.	2500	North Ave Smith Ave	+	RESURF- FED BR. RECON - FED		Completed 5/06/11 Completed 5/14/11	Uttam Omar	Emory	7 5	40	2.51	TR10305 TR10012	\dashv
	DPW	+	Nicodemus Rd Br	Liberty Reser. (6513, 37.5)			+	BR. RECON - FED		Completed 6/21/11	Omar	Gene			0.42	TR02057	\dashv
	CIP		Northern Parkway East Slab repair	Falls Rd		Roland Ave	+	SLAB REPAIR		Completed 8/31/11	Idris	Satinder	5,6	41	1.85	TR11008	+
	CIP	-	Orleans St	Central Ave		Wolfe St	+	STSCP - FED		Completed 6/24/11	Shahid	John	12	44	2.40	TR00045	\dashv
	JOC Emergen.		Orleans St Roland Ave	Central Ave Lake Ave.	1200 5800	N. Exeter St Northern Pkwy	+	RESURF - LOC RESURF- FED		Completed 7/08/11 Completed 5/27/11	Kevin Uttam	Bruce Emory	12 5	44	2.16 3.07	TR09010R TR10305	\dashv
	CIP	1	Rosedale	Liberty Heights Av.		Sequoia	+	RESURF - LOC	.20	Completed 9/02/11	Kevin	Bruce	7	40	0.75	TR11010	\dashv
	CIP		Russell St Downtown Infrastruct.	Lee St		Pratt St	+	RESURF- FED		Completed 6/6/11	Idris	Emory	11	44	1.20	TR10324	\dashv
	CIP	527-175	Improvement	Area	400	Eollo D.	+	Bike Markings	120		Idris	Bruce	4,6	40	0.70	TR08056	+
4	CIP		W 36th St Walther Ave NB	Elm Ave Harford Ave		Falls Rd Moravia Ave	300 4500	RESURF- FED RESURF- FED	120	Completed 9/02/11 Completed 7/08/11	Uttam Kevin	R. Fields Bruce	14 3	40	0.79	TR11304 TR10304	+
	CIP		Washington Blvd	MLK Blvd		Monroe St	+ +	RESURF- FED		Completed 5/26/11	Kevin	Bruce	9	44	4.24	TR10304	\dashv
	CIP		Winston Ave	The Alameda		Loch Raven Blvd.	+	RESURF- FED		Completed 5/12/11	Kevin	Bruce	4	43	1.78	TR10304	\dashv
			21st St. E.	Homewood Ave		Barclay St.	+	RESURF -InHouse		Comp. 6/27/2011	R. Branch		12	43	0.63		\int
		-	24th St. E.	Greenmount Ave.		Barclay St.	400 1800	RESURF -InHouse RESURF -InHouse		Comp. 7/5/2011	R. Branch		12	40	0.21		4
			30th Street 31th Street	The Alameda The Alameda		Hillen Rd. Hillen Rd.	+	RESURF -InHouse RESURF -InHouse		Comp. 7/5/2011 Comp. 6/30/2011	R. Branch		14 14	43	0.5		+
			32nd St. E.	Fenwick Ave.		Hillen Rd.		RESURF -InHouse		Comp. 3/25/2011	R. Branch		14	43	0.2		\dagger
	_		Appleby-Asbury-alley	Asbury Rd.	1300	Appleby Ave.	1300	RESURF -InHouse		Comp. 8/4/2011	R. Branch		5	41	0.2		\rfloor
			Arden Rd.	Crest Rd.		Ridgedale Rd.	2200	RESURF InHouse		Comp. 4/6/2011	R. Branch	1	5	41	0.3		4
			Audrey Ave. Barclay St.	6th St. 21st. St.		Ruth St. 23rd St.	+	RESURF -InHouse RESURF -InHouse		Comp. 7/14/2011 Comp. 7/20/2011	R. Branch R. Branch		10 12	46	0.53		+
			Barrington Rd.	Garrison Blvd.		Granada Ave.		RESURF -InHouse		Comp. 6/15/2011	R. Branch		6	41	0.47		+
			Bateman Ave.	Lyndhurst Ave.	4000	Lawina Rd.	4100	RESURF -InHouse		Comp. 6/20/2011	R. Branch		6	41	0.36		力
			Bayonne Ave.	Cedonia Ave.		Dead End	4800	RESURF -InHouse		Comp. 5/13/2011	R. Branch		2	45	1.12		\int
			Belnord Ave. S Benninghaus Rd.	Hudson St.		Dead End York Rd.	+	RESURF -InHouse		Comp. 8/5/11 Comp. 6/6/2011	R. Branch R. Branch		4	46	0.12		+
 			Bond St.	Govane Ave. Federal St.		York Rd. North Ave.	+	RESURF -InHouse RESURF -InHouse		Comp. 6/6/2011 Comp. 7/20/2011	R. Branch		12	43	0.2		+
			Bond St. N.	Preston St.		Federal St.	+ +	RESURF -InHouse		Comp. 3/24/2011	R. Branch		12	45	0.8		\dagger
			Boston St. Yard	East Ave.		Inner Harbor facility	3200	RESURF -InHouse		Comp. 3/19/2011	R. Branch		1	46	1.11		1
			Boulder Lane	Hillside Rd.		Dead End	+	RESURF -InHouse		Comp. 6/24/2011	R. Branch		6	41	0.1		4
			Brentwood Ave. Burnwood Ave.	24th. St. Loch Raven Blvd.		25th St. Perring Pkwy.		RESURF -InHouse RESURF -InHouse		Comp. 6/24/2011 Comp. 9/21/2011	R. Branch	1	12 3	43	0.36		+
			Carmine Ave.	Forest Park Ave.		Beechwood Ave.	+	RESURF -InHouse		Comp. 8/17/11	R. Branch		8	41	0.7		\dagger
			Carsdale Ave.	Liberty Heights Av.		Barrington Rd.	+	RESURF -InHouse		Comp. 6/17/2011	R. Branch		6	41	0.5		1
_		-	Changingto Gate Lp. N	Oakley Ave.		Spaulding Ave.	+	RESURF -InHouse		Comp. 5/27/2011	R. Branch		6 8	41	0.31		4
			Chapelgate Gate Ln. N. Chemical Rd.	Balto. Natl. Pike Hawkins Point Rd.		Lindsay Rd. Chemical Rd.	+	RESURF -InHouse RESURF -InHouse		comp. 8/19/2011 Comp. 7/29/2011	R. Branch R. Branch		8 10	41	0.7		+
			Clearview Ave.	Harford Rd.		Glenoaks Ave.	+	RESURF -InHouse		Comp. 5/9/2011	R. Branch		3	45	0.52		+
			Clement St. E.	Lowman St.		Hull St.	1300	RESURF -InHouse		Comp. 8/3/11	R. Branch		10	46	0.4		1
			Dallas St. S.	Eastern Ave.		Fleet St.	+	RESURF InHouse		Comp. 8/11/2011	R. Branch		1	46	0.1		4
			Decatur St. Denison Rd.	Clement St. E. Dorchester Rd.		Beason St. Sequoia Ave.	+	RESURF -InHouse RESURF -InHouse		Comp. 8/4/11 Comp. 7/30/11	R. Branch R. Branch		10 6	46	0.21		+
			Duncan St. N.	Madison Ave.		Ashland Ave.	+	RESURF -InHouse		Comp. 3/24/2011	R. Branch		13	44	0.1		+
			Edenvale Rd.	Ivymount Rd.		Green Meadow Pkwy.	6400	RESURF -InHouse		Comp. 4/27/11	R. Branch		5	41	0.16		1
			Edgewood Rd.	Dorchester Rd.		Dolfield Ave.	+	RESURF InHouse		Comp. 7/29/2011	R. Branch	1	6	41	0.7		4
1			Elgin Ave. Esther Pl.	Ellamont St. Highland Ave.		Garrison Blvd. Conkling St.	3400 3400	RESURF -InHouse RESURF -InHouse		Comp. 6/10/2011 Comp. 7/26/2011	R. Branch R. Branch		1	41	0.63	 I	+
			Everton Rd.	Greenspring Ave.		Rockspring Rd.	+	RESURF -InHouse		Comp. 4/18/2011	R. Branch		5	41	0.24		+
1			Fallstaff Rd.	Cross Country Blvd.		Labyrinth Rd.	+	RESURF -InHouse	_	Comp. 4/15/2011	R. Branch		5	41	0.9		1
4			Fenwick Ave.	Sherwood Ave.		Wadsworth Way		RESURF -InHouse		Comp. 7/6/2011	R. Branch		4	43	0.32		4
			Filbert St. Garrett St. E.	Pennington Ave. Hanover St.		Curtis Ave. 2nd St.	+	RESURF -InHouse RESURF -InHouse		comp. 7/9/2011 Comp. 7/18/2011	R. Branch R. Branch		10 10	46 46	0.2		+
			Gilman Terr.	33rd St.		34th St.	+	RESURF -InHouse		Comp. 7/18/2011	R. Branch		7		0.14		\dashv
			Glendale Ave.	Harford Rd.		Moyer Ave.	+	RESURF -InHouse		Comp. 5/5/2011	R. Branch		3		0.84		+
			Gleneagle Rd.	Loch Raven Blvd.		Welbourne Rd.	+	RESURF -InHouse		Comp. 7/8/2011	R. Branch		4	43	0.77		\rfloor
		-	Glenhunt Rd.	Lyndhurst Ave.		Augusta Ave.		RESURF -InHouse		Cpomp. 8/23/2011	R. Branch	1	8	41	0.5		4
			Glenoaks Ave. Green Meadow Pkwy.	Harview Ave. Edenvale Rd.		Rosalie Ave. Baythorne Rd.	+	RESURF -InHouse RESURF -InHouse		Comp. 5/11/2011 Comp. 4/30/11	R. Branch R. Branch	1	3 5	45	0.2		+
4			Greenspring Ave.	Sulgrave Ave.		South Rd.		RESURF -InHouse		Comp. 4/7/2011	R. Branch		5	41	0.55		+
			Guilford Ave.	22nd St.	2200	23rd St.	2200	RESURF -InHouse		Comp. 6/28/2011	R. Branch		12	40	0.2		1
		 				I	1			•			. 7	1 _	7		ľ
4			Harview Ave. Haubert St.	Harford Rd. Fort Ave.		Glenoaks Ave. Clement St. E.	1	RESURF -InHouse		Comp. 5/11/2011 Comp. 8/3/2011	R. Branch R. Branch		3 10	45 46	0.52		+



Department of Transportation ORANGE CONE LIST - Projects To Be Under Construction Spring, Summer & Fall 2011





		DEPARTMENT OF PI	UBLIC WORKS	ORANGE C		<mark>IST</mark> - Projects To pring, Summer &)II			Nor Steph	Panie Rawlings	Hard State S	OF TRANSPORTUS	
	Number of Sit				12	2 Remaining No. of Sites To Be 9 Cost of Remaining Sites To be	Under Co	onst in 2011	147 \$149,914,980							1
Γotal Γotal	Lane Miles Co	ompleted (Dompleted (D	OOT-Maintenance)		69.2 42.4	6 Remaining LM To Be Under C 0 Remaining LM To Be Under C	Construction Constructi	on in 2011 on in 2011 (Maintenance)	55.36 47.97							
Γotal	Number of Sit	under Cons	truction		\$80,520,04	Total Lane Miles Resurfaced I Total Bike Markings Lane Mile		n 2011	3.50							
etal FY	Lane Miles of	Acct	Project Name	From	67.11 Blk #	То	Blk#	Type Proj. Days	Status	РМ	CPS	CD	LD	Lane Miles	Contract No.	Se
11			Hazelwood Ave.	Hamilton Ave.	4500	White Ave.	4600	RESURF -InHouse	Comp. 5/19/2011	R. Branch		2	45	1.1	740.	#
11			Hull St.	Highland Ave. Haubert St.	3400 1000	Conkling St. Fort Ave.	3500 1400	RESURF -InHouse RESURF -InHouse	Comp. 7/26/11 Comp. 8/2/2011	R. Branch		10	46 46	0.3		+
11			Kingwood Sq.	Williamson Ave.	3700	Fieldcrest Rd.	3700	RESURF -InHouse	Comp. 9/2/2011	R. Branch		5	41	0.3		土
11			Levindale Av. Lindsay Rd.	Sunset Rd. Cooks Lane	5000 4900	Cylburn Ave. Dead End	5100 5000	RESURF -InHouse RESURF -InHouse	Comp. 6/22/2011 Comp. 8/22/2011	R. Branch	+	6 8	40 41	0.44		+
11			Lochwood Rd.	Loch Raven Blvd.	1500	Welbourne Rd.	1600	RESURF -InHouse	Comp. 8/25/2011	R. Branch		3	43	0.6		土
11			Maderia St S Maisel St.	Pratt St Dead End	200 2700	Gough St Nevada St.	200	RESURF -InHouse RESURF -InHouse	Comp. 8/5/2011	R. Branch		10	46 46	0.11		lacksquare
11			Milton Ave. S.	Eastern Ave.	500	Fleet St.	500	RESURF -InHouse	Comp. 7/6/2011 7/26/2011	R. Branch		10	46	0.27		+
11			Nevada St.	Maisel St.	2400	Waterview Ave.	2400	RESURF -InHouse	Comp. 7/7/2011	R. Branch		10	46	0.34		$oxed{\bot}$
11			Newholme Ave. Northbourne Rd.	Onnen Rd. Hillens Rd.	5700 1700	Hamilton Ave. Perring Pkwy.	5700 2000	RESURF -InHouse RESURF -InHouse	Comp. 5/24/2011 Comp. 8/26/2011	R. Branch R. Branch		3	45	0.52		+
11			Oakley Ave.	Park Heights Ave.	2900	Pimlico Rd.	3100	RESURF -InHouse	6/1/2011	R. Branch		6	41	0.63		1
11			Oakshire Rd. Oldham Street	Cross Country Bd Oldham loop	5700 200	Arden Rd Gough St.	5700 200	RESURF -InHouse RESURF -InHouse	Comp. 4/4/2011 Comp. 8/9/2011	R. Branch R. Branch		5 2	41 46	0.65		+
11			Oldham Street	Gough St.	300	Bank St.	300	RESURF -InHouse	Comp. 8/9/2011	R. Branch		2	46	0.25		土
11 11			Parkwood Av. Pinkney Rd.	Fulton Ave. Biltmore Ave.	2700 3700	Whittier Ave. Hopeton Ave.	2900 3800	RESURF -InHouse RESURF -InHouse	Comp. 8/12/2011 Comp. 4/20/2011	R. Branch		7 5	40 41	0.41		+
11			Queensbury Ave.	Oakley Ave.	4900	Spaulding Ave.	5000	RESURF -InHouse	Comp. 5/25/2011	R. Branch		6	41	0.32		土
11			Ramblewood Rd. Renwick Ave.	Loch Raven Blvd. White Ave.	1500 4700	Welbourne Rd. Onnen Rd.	1600 4700	RESURF -InHouse RESURF -InHouse	Comp. 7/15/2011 Comp. 5/21/2011	R. Branch	-	2	43 45	0.8		+
11			Ridgedale Rd.	Sulgrave Ave.	5700	Crest Rd.	5700	RESURF -InHouse	Comp. 3/29/2011	R. Branch		5	43	0.2		\pm
11			Rockspring Rd.	Everton Rd.	5600	Brambleton Rd.	5700	RESURF -InHouse	Comp. 4/6/2011	R. Branch		5	41	0.21		+
11			Rogene Dr. Saint Martin Rd.	Bonnieview Dr. Greenway	2200 100	Ivymount Rd. St. Paul St.	100	RESURF -InHouse RESURF -InHouse	Comp. 4/27/2011 Comp. 3/17/2011	R. Branch R. Branch		5 14	41	0.91		_
11			Sareva Dr.	Northcliff Dr.	6200	Dead End	6200	RESURF InHouse	comp. 4/21/2011	R. Branch		5	41	0.4		\prod
11 11			Shadowlawn Ave. Sidney Ave.	Dead End Kent St.	7200 2300	Glendale Ave. Maisel St.	7400 2300	RESURF -InHouse RESURF -InHouse	Comp. 5/7/2011 Comp. 7/9/2011	R. Branch		10	45 46	0.33		+
11			Singer Av.	Keswick Rd.	700	Chestnut Ave.	700	RESURF -InHouse	Comp. 8/12/2011	R. Branch	1	7	40	0.12		
11			Spaulding Ave. St. Thomas Ave.	Queensbury Ave. Kavon Ave.	3000 4300	Park Heights Ave. Moravia Rd.	3100 4500	RESURF -InHouse RESURF -InHouse	Comp. 5/25/2011 Comp. 8/10/11	R. Branch R. Branch		6 2	41 45	0.5		+
11			Strathmore	Western Run Dr.	3000	Benhurst Ave.	3000	RESURF -InHouse	Comp. 4/15/2011	R. Branch		5	41	0.2		
11			Sulgrave Ave. Townsend Ave.	Cross Country Bd 6th St.	2300 4100	Greenspring Ave. Ruth St.	2300 4200	RESURF -InHouse RESURF -InHouse	Comp. 3/30/2011 Comp. 7/18/2011	R. Branch		5 10	41 46	0.3		+
11			Trinity St.	Albemarle St.	900	Exeter St.	900	RESURF -InHouse	Comp. 8/6/2011	R. Branch		4	46	0.2		
11			Van Lill St. Wadsworth Way	Essex St. Loch Raven Blvd.	700 1500	Boston St. Hillen Rd.	700 1600	RESURF -InHouse RESURF -InHouse	Comp. 7/27/2011 Comp. 6/4/2011	R. Branch		4	46 43	0.1 1.4		\perp
11			Wesley Ave.	Rogers Ave.	5500	Silver Hill Ave.	5500	RESURF -InHouse	Comp. 4/11/2011	R. Branch		5	41	0.35		
11			Westway	Waterview Ave. Millbrook Rd.	2400	Maisel St.	2400	RESURF -InHouse RESURF -InHouse	Comp. 7/2/2011	R. Branch		10	46	0.34		\perp
11			White Ave.	Hazelwood Ave.	200 5600	Kerneway Hamilton Ave.	5700	RESURF -InHouse	Comp. 6/7/2011 Comp. 5/21/2011	R. Branch		2	43 45	0.25		+
11	QID.	544.700	Woodcrest Ave.	Whitney Ave.	5700	Rockwood Ave.	5800	RESURF -InHouse	Comp. 4/13/2011	R. Branch	D	5	41	0.3	TD44040	\bot
11	CIP		4th St The Alameda	Patapsco Ave 33rd	3500 3400	City Line 35th	3400 3300	RESURF - LOC	Under Construction Under Construction	Kevin Kevin	Bruce Bruce	10	43	0.91	TR11010 TR11010	
09	CIP	514-788	Boston/Odonell	Travel Plaza	5700	Interstate Ave	5300	RESURF- FED 12	Under Construction	Uttam	Roshan	1	46	0.50	TR10307	
11	CIP		Calvert St Charles St	Baltimore St North Ave	Unit 1900	Mt. Royal Ave 25th St	1300 2400	RESURF- FED RESURF- FED	Under Construction Const 2011 08	Uttam Kevin	R. Fields R. Fields	11,1 2 12	40,44 .46 40	3.84 1.65	TR11304 TR11300	+
11	CIP		Charles St	Lombard St	200	Lexington St	100	RESURF- FED	Under Construction	Uttam	R. Fields	11	46	1.01	TR11304	\dagger
11	CIP	514-789	Cedargarden Rd	Yale Ave	4300	Beechfield Ave.	4600	RESURF - LOC	Under Construction	Kevin	Bruce			0.90	TR11010	
11	CIP		Chelsea Rd	Winterbourne Rd	1800	Clifton Rd	1900	RESURF - LOC	Under Construction	Kevin	Bruce			0.47	TR11010	\perp
09	CIP	512-053	Signais	City wide					Under Construction	Tennile	R. Fields				TR08316	+
09 11	CIP		Construction of Traffic signal Edgewood Rd.	City wide Dorchester	3400	Liberty Heights Av.	3400	TRAFFIC- FED 720 RESURF - LOC	Under Construction Under Construction	Tennile Kevin	Roshan Bruce	6	41	0.30	TR09302 TR11010	+
09	CIP	508-101	Fairfield Ecological Industrial Park- Fairfield Rd	Chesapeake Ave	3200	Patapsco Ave	3300	RECON - FED	Under Construction	Lok	Andy	10	46	0.90	TR09305	1
09 09	CIP	508-101	Fairfield Ecological Industrial Park- Shell Rd Fairfield Ecological Industrial -	Chesapeake Ave Chesapeake Ave	3200 3300	Patapsco Ave Dead end	3300 3200	RECON - FED RECON - FED	Under Construction Under Construction	Lok Lok	Andy Andy	10	46 46	1.15 0.39	TR09305 TR09305	+
09	CIP	508-101	Sun St Fairfield Ecological Industrial Vera St	Chesapeake Ave	3100	Frankfurst Ave	3100	RECON - FED	Under Construction	Lok	Andy	10	46	0.56	TR09305	<u></u>
11	CIP		Falls Rd Fort Ave Bridge	Cold Spring Ln Over CSX	4500 120	The City Line	6000	RESURF- FED BR. RECON - FED	Const 2011 08 Under Construction	Kirk Dave	R. Fields Gene	5,6 10	41 46	6.82 0.15	TR11301 TR10302	+
11	CIP		Frankford Ave	Sinclair Ln	5200	Radecke Ave	5300	RESURF- FED	Under Construction	Kevin	Bruce	2	45	1.47	TR11010	
11	CIP CIP		Franklin St Georges Creek Road Bridge	St. Paul St Over Georges Run	300	Park Ave	700	RESURF- FED BR. RECON - LOC	Under Construction Under Construction	Uttam Scott	R. Fields Gene	11	44	0.86	TR11304 TR10001	+
10	CIP	514-784	Greater Edmondson Village Street Lighting	Edmondson Village		Edmondson Village			Under Construction Under Construction	Micah	Roshan	8	41		TR10001 TR10313	+
11	CIP		Greenspring Ave Guilford Ave	Cross Country Blvd	5900 1600	The City Line	6300	RESURF- FED RESURF- FED	Const 2011 08	Kirk	R. Fields	5	41	3.14	TR11301	\int
04	CIP		Guilford Ave Harford Rd	Federal St 32nd	1600 3200	Lafayette Ave Chesterfield Ave.	1700 3600		Under Construction Under Construction	Uttam Uttam	R. Fields Roshan	12 12,1 4	40 43,45	2.30	TR11304 TR04303	+
11	CIP	514-842		Wabash Ave	4000	Sequoia Ave	3900	RESURF- FED	Const 2011 08	Kirk	R. Fields	6	40	1.05	TR11301	\top
09	CIP		Installation of Fibre Optic & Copper Communication system Installation of Vehicle Detection						Under Construction	Tennile	Bruce			-	TR08318R	1
09 09	CIP	512-062	Device Installation of VMS	City wide City wide					Under Construction Under Construction	Tennile Tennile	Emory Bruce				TR08314 TR09301R	+
11	CIP	514-841	Loch Raven Blvd	The Alemeda	3800	Woodbourne Ave	5300	RESURF- FED	Under Construction	Kevin	R. Fields	3,14	43	7.32	TR11300	‡
11 11	CIP		McClean Blvd McCulloh St/ Auchentoroly Ter	Westfield Ave Cloverdale Rd	6400 2600	Northern Pkwy Reisterstown Rd	6600 3500	RESURF- FED RESURF- FED	Under Construction Under Construction	Kevin Kevin	R. Fields R. Fields	7	43 40	0.87 6.89	TR11300 TR11300	+
07	CIP	527-624	Mt. Auburn Cemetery	Hollins Ferry Rd	2500	Waterview-Annapolis Rd	2600	STSCP - LOC	Under Construction	Kirin	John	10	46		TR07025	1
05 07	CIP		Newkirk St Pennington Ave Bridge	Boston St Over Curtis Creek	1400 6200	New Gate St	2400 6200	RECON - FED 640	Under Construction Under Construction	Kirin Tony	John Gene	10	46 46	2.47	TR05032 TR04311	+
11	CIP		Tivoly Ave	35th St	3500	Tunlaw Rd	3800	RESURF - LOC	Under Construction	Kevin	Bruce		-⊤∪	1.16	TR04311	\pm
11 08	CIP		University Pkwy	33rd St	300	St. Paul St	100	RESURF- FED Infrastructure	Under Construction	Kevin	R. Fields	14 8	43	1.18	TR11300	\perp
08 09	CIP		Uplands Re-Development Walther Ave SB	N. Athol Ave, Edmondson Ave Harford Ave	e, Old Frederic	Moravia Ave	4500	Development 73	Under Construction Under Construction	Kirk Kevin	Roy Bruce	3	44 45	7.70 1.10	TR10005 TR10304	+
03	CIP	508-321	Washington Blvd	I-95	2100	Monroe St	1800	STSCP - FED 61:	3 Under Construction	Shahid	Allan	9	44	3.65	TR03313	\perp
11			Fieldcrest Rd.	King Wood Sq.	7000	Glengyle Ave.	7000	RESURF InHouse	Under Construction	R. Branch	-	5	41	0.4		+
11			Harlem Ave.	Fulton Ave.	1800	Pulaski St.	2000	RESURF -InHouse RESURF -InHouse	Under Construction Under Construction	R. Branch R. Branch	+	9	44	0.8		+
			Lanvale St. W.	Stricker St. N.	1500	Gilmor St.	1500			. 51011	1	9	44	0.3		+
11			Pualski Hwy. Yard	Front	6400	Rear	6400	RESURF -InHouse	Under Construction	R. Branch		2	46	3.12		



Department of Transportation ORANGE CONE LIST - Projects To Be Under Construction Spring, Summer & Fall 2011





		ALFRED H. ACTING DIR	FOXX ECTOR		•	oring, Summer &					· <u>-</u>		Tor Stepi	Panie Rawling	Blan Straigh	OF TRANSPORT	
otal	Number of Site Cost of Sites C Lane Miles Co	Completed			\$47,703,489	Remaining No. of Sites To Be Cost of Remaining Sites To be Remaining LM To Be Under C	e Under (Const in 2011		147 \$149,914,980 55.36							
otal otal	Lane Miles Co Number of Site	ompleted (D es under C	OOT-Maintenance) construction		42.40 38	Remaining LM To Be Under C Total Lane Miles Resurfaced b	Construct by DPW i	ion in 2011 (Maintenan	ce)	47.97							
otal	Cost of Sites L Lane Miles of	Sites unde	r Construction	<u>_</u>	67.13	Total Bike Markings Lane Mile			Proj.	3.50		0.70			Lane	Contract	
Y	CIP	Acct 527-301	Project Name Broening Hwy	From Holabird Ave	Blk # 1800	To Colgate Creek	BIK # 3000	Type RECON - FED	Days	Status Const 2011 11	PM Shahid	CPS	CD	LD 46	Miles 6.26	No. TR08046	S
3	CIP		Central Ave Phase I Charles St	Baltimore St 25th St		Madison St University Pkwy	700 N	RECON/STSCP - FED RECON - FED		Const 2011 10 Const 2011 12	Scott Lok	Allan Andy	1,12 12,1	44	3.50 6.00	TR08310 TR10301	+
1	CIP	514-844	Eastern Ave	Broadway	1600	Haven St	4000	RESURF- FED		Const 2011 09	Kevin	Emory	1	46	6.40	TR10301	\pm
1	CIP		Frederick Ave Br(2206, 48.7	Over Gwynns Falls & CSX	3600	N. Highland Ave	3500	RESURF- FED BR. RECON - FED		Const 2011 09 Const 2011 10	Kevin Greg	Emory Gene	9	45 44	1.38 0.23	TR11303 TR02350	+
1 9	CIP CIP		Hilton Pkwy Howard Street Arch Bridge	Monastery Ave	300	North Ave	1700	RESURF- FED BR. REHAB - LOC		Const 2011 09 Const 2011 11	Uttam Scott	Roshan Gene	7,8	40,44	7.82	TR11302 TR09028	\mp
9	CIP	507-416	I-83	Union Ave		Madison St		BR. REHAB - LOC		Const 2011 10	Scott	Gene	11			TR10004	‡
9 8	CIP		Inner Harbor East - Parcel D Ph III Intersection Caton Ave	Along Aliceanna St at Wilkens Ave				Bulkhead STSCP Geometric Improv		Const 2011 10 Const 2011 10	Shahid Lok	Andy R. Fields	10	46	0.20	TR10314 TR09030	+
8	CIP		Intersection 41st St Intersections SE	at Falls Rd Boston @ Clinton, Boston @	Ponca, O'Donn	ell St @ Cut-Off, O'Donnell@P	onca, O'	Geometric Improv		Const 2011 10 Const 2011 09	Lok Kirin		7	40 46	0.10	TR09031 TR08017	-
)4	CIP	527-176	Jones Falls Trail II	Maryland Ave		Lee St		Bike Trail		Const 2011 09	Nafisi	John		40,44		TR04318	<u></u>
1	CIP	514-843	Key Hwy Phase II Light St	Lawerence St Key Highway		I-95 Wells St	1800 1100	STSCP - FED RESURF- FED		Const 2011 12 Const 2011 09	Manmohan Uttam	Roy Roshan	10	46 46	3.36	TR05045 TR11302	\pm
1	CIP		Maryland Ave/ Cathedral St Monument St	North Ave Haven St		Monument St Pulaski Hwy	700 4900	RESURF- FED RESURF- FED		Const 2011 09 Const 2011 09	Uttam Kevin	Roshan Emory	11,1 2 2	40 45	3.22 2.15	TR11302 TR11303	+
1	CIP		Moravia Park Dr Oakdale Rd.	Pulaski Hwy		Amberwood Rd	6000 300	RESURF- FED		Const 2011 09 Const 2011 10	Kevin	Emory	13	46	2.93	TR11303 TR11018	+
9	CIP		Orchard Ridge Phase II	Hawthorne Rd. Arbor View, Strawberrty Field		Ridgewood Rd	300	RESURF - LOC Infrastructure Development		Const 2011 10	Kevin Lozano	Bruce Roy	6 13	45	1.28	TR11018	
3	CIP		Reisterstown Rd Sinclair Lane Br	Northern Pkwy Over CSX	1900	City Line		STSCP - FED BR. REHAB - FED		Const 2011 11 Const 2011 10	Manmohan Tony	Gene	5 13	41 45	5.61	TR05309 TR03333	+
9	CIP		West Baltimore Stscp Poject	Bentalou, Pulaski St -		Oald Oad Art To Ta	4=	STSCP - FED		Const 2011 09	Nafisi		9			TR09303	1
8 1	CIP		York Rd 42nd Street	Glenwood Ave Hickory Ave.		Cold Spring La/43rd St Falls Rd.	4700 1100	REHAB- FED		Const 2011 10	Lok R. Branch	Roshan	4,14	43	4.50 0.18	TR08047	+
1			Abell Ave. Aikens St.	E.33rd St. Lafayette Ave.		University Pkwy. North Ave.	3300 1800				R. Branch R. Branch		14 12	43 45	0.12 0.24		+
1			Airy Hill Ave.	Bethnal Rd.	500	Beechfield Ave.	600				R. Branch		8	44	0.32		+
1			Aisquith St. Alson Dr.	Montpelier St. Cooks Ln.		Friendship St. Chapel Gate Ln.	2600 4900				R. Branch R. Branch		14 8	45 41	0.16 0.25		+
1			Barney St. Beason St.	Webster St. Lowman St.		Covington St. Hull St.	600 1400				R. Branch R. Branch		10	46 46	0.4		+
1			Belt St.	Fort Ave.	1500	Randall St.	1500				R. Branch		10	46	0.17		Ŧ
1			Bentalou St. S. Benton Hgts. Ave.	Wilkens Ave. Hamilton Ave.		Eagle St. Montana Ave.	600 5600				R. Branch		3	44	0.14		\pm
1			Bloom St. Brookfield Ave.	Druid Hill Ave. Lennox St.		Mc Culloh St. Whitelock St.	400 2200				R. Branch		11 7	44	0.13 0.76		+
1			Bruce St. N.	Lexington St.	200	Mulberry St.	300				R. Branch		9	44	0.15		\mp
1			Brunt St. Buena Vista	Laurens St. Clipper Hgts.		Robert St. 36th St.	1800 3500				R. Branch		7	44	0.08		‡
1			Callow Ave. Cedargarden Rd	Reservoir St. Long Island Ave.		Druid Pk. Lake Dr. Wickham Rd.	2400 4900				R. Branch R. Branch		7 8	40	0.89		+
1			Chase St. E. Chesterfield Ave.	Charles St Cliftmont Ave.		St. Paul Street Ravenwood Ave.	Unit 3900				R. Branch R. Branch		11	40 45	0.26 0.71		
1			Chinquapin Pkwy.	Gleneagle Rd.	5800	Northern Pkwy.	6000				R. Branch		4	43	0.54		#
1			Chinquapin Pkwy. Clendenin St.	Lake Ave. Madison Ave.		Cedarcroft Rd. Druid Hill Ave.	6100 1200				R. Branch R. Branch		11	43	0.65 0.26		\pm
1			Colborne Rd. Cottage Ave.	Wildwood Pkwy. Springhill Ave.		Woodington Rd. Shirley Ave.	4100 3900				R. Branch R. Branch		8	41	0.23 0.38		$\frac{1}{1}$
1			Covington St.	Randall St.	1600	Dead End	1800				R. Branch		10	46	0.74		$^{+}$
1			Decker Ave. N. Derby Manor Dr.	Hoffman St. Springhill Ave.		Federal St. Keyworth Ave.	1500 3800				R. Branch R. Branch		13 6	45	0.33		\pm
1			DeSoto Rd. Dillon St.	Wilkens Ave.		Cowan Ave. Ellwood Ave.	1000 3000				R. Branch R. Branch		8	44	0.38 0.47		+
1			Dolfield Ave.	Sequoia Av/Hilton St		Belle Ave.	3400				R. Branch		6	41	1.2		‡
1			Druid Pk. Lake Dr. E. Lanvale St.	Mt. Royal Terr./Park Av. Patterson Pk. Av.		Lakeview Ave. Milton Ave.	700 2400				R. Branch R. Branch		7 13	40	0.41		\pm
1			East Ave. S. Ellamont St. S.	O'Donnell St. Georgetown Rd.		Elliott St. Herkimer St.	1100 1600				R. Branch R. Branch		10	46 44	0.2 0.21		+
1			Ellwood Ave. N.	Hoffman St.	1400	Federal St.	1500				R. Branch		13	45	0.33		+
1			Elmhurst Rd. W. Elmley Ave.	Roland Ave Erdman Ave.		Club Rd. Chesterfield Ave.	Unit 3800				R. Branch		6 13	41 45	0.24 0.91		‡
			Elmora Ave. Etting St.	Erdman Ave. Robert St.		Chesterfield Ave. Bloom St.	3800 2000				R. Branch R. Branch		13 11	45 44	0.91 0.19		+
			Exeter St.	Low St	300	Gay St.	300				R. Branch		12	44	0.15		+
l I			Fagley St. S. Fait Ave.	Lombard St. Kenwood Ave.		Chestle Pl. Lakewood Ave.	300 2700				R. Branch		1	46 46	0.31 0.27		1
l			Fayette St. W. Ferndale Ave.	Gilmor St. California Blvd.		Monroe St. Gwynn Oak Ave.	1800 3200				R. Branch R. Branch		9 5	44	0.72		+
1			Foster Ave.	Essex St.	2300	Milton Ave.	2400				R. Branch		1	46	0.42		#
			Glover St. S. Goodwood Garden	Fleet St. Hillside Rd.		Hudson St. Club Rd.	300				R. Branch		6	46	0.38		‡
 			Gorsuch Ave. Gough St.	Loch Raven Rd. Ellwood Ave.		Kirk Ave. East Ave.	1400 3100				R. Branch R. Branch		14 1	43 46	0.59 0.19		
			Gough St.	East Ave.	3200	Highland Ave.	3300				R. Branch		1	46	0.32		7
			Gough St. Guilford Ave.	Eaton St. E.33rd St.	3300	Haven St. University Pkwy.	3300				R. Branch		14	46	0.41		‡
			Heath St. Henry St.	Boyle St. Fort Ave.		Covington St. Randall St.	700 1500				R. Branch R. Branch		10 10	46 46	0.52 0.22		_
1			Herkimer St.	Forest Hill Ave.	2900	Dead End	3100				R. Branch		10	44	0.66		#
1			Hickory Ave. Hign St. N.	41st. Street Low St		42nd Street Gay St.	300				R. Branch		12	40	0.2		+
1			Homewood Ave. Hope St.	Kirk Ave. Lafayette Ave.		22nd Street North Ave.	2100 1800				R. Branch R. Branch		12 12	43 45	0.24		+
1			Howard Pk. Ave.	Hampshire Ave.	3200	Gwynn Oak Ave.	3200				R. Branch		5	41	0.48		‡
			Ingram Rd. /rear Inverness Ave.	Hillen Rd. Georgetown Rd.		Fenwick Ave. Washington Blvd.	1600 1800				R. Branch		10	43	0.18		‡
			Jackson St.	Fort Ave.	1500	Barney St.	1700	1			R. Branch		10	46	0.49	<u> </u>	+
1			James St.	Inverness Ave.	2900	Parkman Ave.	3000				R. Branch		10	44	0.31		J



Department of Transportation ORANGE CONE LIST - Projects To Be Under Construction Spring, Summer & Fall 2011





122 Remaining No. of Sites To Be Under Const in 2011 147 Total Number of Sites Completed Total Cost of Sites Completed \$149,914,980 55.36 \$47,703,489 Cost of Remaining Sites To be Under Const in 2011 Total Lane Miles Completed (DOT - TEC) 69.26 Remaining LM To Be Under Construction in 2011 Total Lane Miles Completed (DOT-Maintenance) 42.40 Remaining LM To Be Under Construction in 2011 (Maintenance) 47.97 Total Number of Sites under Construction 38 Total Lane Miles Resurfaced by DPW in 2011 Total Cost of Sites under Construction **\$80,520,044** Total Bike Markings Lane Miles **67.13** 3.50 Total Lane Miles of Sites under Construction

Tota	al Lane Miles of S	Sites under Construction	67.13		Broi								•	•	<u> </u>	
FY	'	Acct Project Name	From	Blk#	То	Blk#	Type	Proj. Days	Status	PM	CPS	CD	LD	Lane Miles	Contract No.	Sector
1 1		Lakewood Av. N.	Ashland Ave.	900	Eager St.	900				R. Branch		13	45	0.19		4
1 1		Laurens St.	Pennsylvania Ave.	600	Fremont Ave.	600				R. Branch		11	44	0.28		3
11		Lexington St. W.	Gilmor St.		Monroe St.	1800				R. Branch		9	44	0.72		3
11		Linwood Ave. S.	Fait Ave.		Dillon St.	900				R. Branch		1	46	0.37		4
1 1		Madison Av.	Bloom St.	2100	North Ave.	2100				R. Branch		11	44	0.21		3
11		Midvale Rd.	Longwood Rd.	0	Cul-De-Sac	0				R. Branch		6	41	0.29		2
11		Milford Av.	Liberty Heights Av.		Belle Ave.	3700				R. Branch		5	41	0.61		2
11		Milford Av.	Belle Ave.	3800	Post Rd.	3900				R. Branch		5	41	0.59		2
11		Milton Ave. N.	Eager St.		Chase St.	1000				R. Branch		13	46	0.44		4
<u> </u>		Montford Ave. S.	Fait Ave.		Boston St.	800				R. Branch		1	46	0.16		4
<u> </u>		Moore Ave.	Arion Ave.		Old Harford Rd.	2600				R. Branch		3	43	0.53		1
11		Newington Ave.	Park Ave.	700	Brookfield Ave.	900				R. Branch		7	40	0.79		2
11		Norwood Ave.	Howard Pk. Ave.	4700	Hillsdale Rd.	4800				R. Branch		5	41	0.47		2
11	+	Oakdale Rd.	Hawthorne Rd.		Wilmslow Rd	100				R. Branch		6	41	0.47		2
11		Oliver St. E.	Patterson Pk. Av.		Milton St.	2400				R. Branch		13	45	0.52		4
11	+	Oliver St. W.	Mt. Royal Ave.		Maryland Ave.	1				R. Branch		11	40	0.28		3
	† †	Pall Mall Rd.	Springhill Ave.		Keyworth Ave.	3800				R. Branch		6	40	0.20		2
	† †	Park Place	Moore Ave.		Glencoe Rd.	7100				R. Branch		3	43	0.12		1
11		Parkin St.	Hollins St.		Mc Henry St.	200				R. Branch		11	44-46	0.57		3
11		Parkman Ave.	Georgetown Rd.		Washington Blvd.	1800				R. Branch		10		0.76		3
11		Piedmont Ave.	Ellamont St.	3000	Longwood St.	3100				R. Branch		7	40	0.44		2
11		Poole St.	Clipper Hgts.		36th St.	3500				R. Branch		7	40	0.28		2
11		Port St. S.	Fait Ave.		Hudson St.	800				R. Branch		1	46	0.13		4
11		Potomac St. N.	Hoffman St.		Oliver St.	1400				R. Branch		13	45	0.13		4
11		Pualski St. S.	Wilkens Ave.		Eagle St.	500				R. Branch		9	44	0.13		3
11		Regester St.	Lafayette Ave.		North Ave.	1800				R. Branch		12	45	0.19		1
11		Reservoir St.	Mt. Royal Terr.	600	Brookfield Ave.	800				R. Branch		7	40	1.07		2
11		Robb St.	Montpelier St.		Gorsuch Ave.	2500				R. Branch		14	45	0.16		1
11		Roland View Ave.	Springhill Ave.		Keyworth Ave.	3800				R. Branch		6	40	0.16		2
11		Rose St. S.	Eastern Ave.		Hudson St.	800				R. Branch		1	46	0.53		4
11		Rosebanks Ave.	Bellona Ave.		York Rd.	400				R. Branch		4	43	0.33		1
11		Rosedale St.	Piedmont Ave.	2500	Hanlon Ave.	2500				R. Branch		7	40	0.33		2
11		Rosedale St. S.	Lohrs Lane		Baltimore St.	2500				R. Branch		8	44	0.13		3
11		Rutland Ave.	Lanvale St.	1700	Lafayette Ave.	1700				R. Branch		12	45	0.17		3
11		Sheffield Rd.	Loch Raven Blvd.		Fenwick Ave.	1500				R. Branch		3	43	0.48		1
11		Springhill Ave.				2600				R. Branch				0.48		
11		St. Gemma Rd.	Greenspring Ave. Cooks Ln.		Park Heights Ave. Dead End	4900				R. Branch		8	40	0.58		3
11			Roland Ave.		West Dead End	700				R. Branch		5	41	0.4		2
11		St. George's Rd Stafford St.		4900		4900				R. Branch		8		0.17		3
11		Stamford Rd.	Beechfield Ave. Lindsay Rd.	800	Long Island Ave. County Line	1100				R. Branch		8	44	0.58		3
11		Stonewood Rd.	Loch Raven Blvd.		Fenwick Ave.	1500				R. Branch		3		0.45		1
11		Taylor Ave.	Frederick Ave.			400				R. Branch		8	43	0.45		
11		The Alameda	33rd St.		County Line/alley					R. Branch			44			3
11					35th St.	3400				R. Branch		14	43	0.74		
11		Underwood Rd.	Stratford Rd		Old Cold Spring La.	4400				R. Branch		4	43	0.4		2
11		Valleybrook Rd.	Cooks Ln.		County Line	1300				R. Branch		8	41	0.52		3
11	+ +	Walker Ave.	York Rd.		Weidner Ave.	500				R. Branch		4	43	0.62		1
11	+ +	Wedgewood Rd.	St. Gemma Rd.		County Line	1100				R. Branch		8	41	0.52		3
11		Weldon Ave.	Hickory Ave.		Falls Rd.	1100				R. Branch		7	40	0.14		2
11		Westwood Ave	Mount St.		Fulton Ave.	1700				R. Branch			40	0.22		3
11	+ +	Westwood Ave	Fulton Ave.		Monroe St.	1800				R. Branch		7	40	0.23		3
11	+ +	Westwood Ave.	Monroe St.		Smallwood St.	2100				R. Branch		7	40	0.7		3
11		Wheeler Ave.	Edmondson Ave.	600	Lafayette Ave.	800				R. Branch		9	40	0.7		3
<u> </u>	+	Wickham Rd. S.	Stafford St.		Williston St.	400				R. Branch		8	44	0.51		3
11	+ +	Williston St.	Chapelgate Rd.		Random Rd.	5100				R. Branch		8	44	0.23		3
<u> </u>		Wilson St.	Druid Hill Ave.	•	Mc Culloh St.	400		<u> </u>		Dianon		11	44	0.12		3

Construction Completed in 2011

Sites Under Construction

CY 2011 Projects