

**DEPARTMENT OF PUBLIC WORKS AND  
TRANSPORTATION'S HANDLING OF RESIDENT  
INQUIRIES AND SERVICE REQUESTS**



**OFFICE OF LEGISLATIVE OVERSIGHT**

**REPORT NUMBER 2006-7**

September 19, 2006

Suzanne Langevin  
Kristen Latham  
Aron Trombka

**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION'S**  
**HANDLING OF RESIDENT INQUIRIES AND SERVICE REQUESTS**  
**SUMMARY OF FINDINGS AND RECOMMENDATIONS**

**OFFICE OF LEGISLATIVE OVERSIGHT REPORT 2006-7**  
**SEPTEMBER 19, 2006**

**OVERVIEW**

County residents contact the Department of Public Works (DPWT) seeking information or requesting services regarding the maintenance and repair of the County's transportation infrastructure. DPWT staff estimate that the Department receives well over 10,000 inquiries and service requests each year. The majority of inquiries and service requests relate to the DPWT programs listed in the box below.

- |   |
|---|
| <ul style="list-style-type: none"> <li>❖ Roadway and Related Maintenance (including pothole repair);</li> <li>❖ Snow, Leaf, and Storm Debris Removal;</li> <li>❖ Right-of-Way Tree Maintenance;</li> <li>❖ Streetlight Repair;</li> <li>❖ Traffic and Pedestrian Safety Studies; and</li> <li>❖ Traffic Signing and Marking.</li> </ul> |
|---|

DPWT organizational units have adopted different practices for handling resident inquiries and service requests. While DPWT has undertaken several new initiatives to improve customer service, the Department has not put in place consistent policies or minimum standards governing how to handle inquiries and service requests.

**PROJECT SCOPE**

This report examines the processes and procedures employed by DPWT to handle resident inquiries and service requests. For purposes of this study, OLO defined an "inquiry" as a request for information and a "service request" as a request to have work performed.

OLO's study focused on the two organizational units in the DPWT Division of Operations with primary responsibility for the maintenance and repair of the County's transportation infrastructure: the Highway Maintenance Section and the Traffic Engineering and Operations Section. As shown in the table below, these two sections have a combined FY07 operating budget of almost \$36 million.

DPWT Section	FY07 Operating Budget	Workyears
Highway Maintenance	\$27,202,880	215.6
Traffic Engineering and Operations	\$8,452,360	48.7
TOTAL	\$35,655,240	264.3

Source: Montgomery County FY07 Approved Operating Budget

## **METHODS OF HANDLING INQUIRIES AND SERVICE REQUESTS**

County residents contact DPWT by telephone, e-mail, and letter to make inquiries and service requests regarding all transportation infrastructure programs. Residents may also submit pothole repair, snow removal and streetlight repair service requests through an Internet reporting form. A sample of DPWT service request reports indicates that the majority of residents contact DPWT via telephone.

The DPWT Division of Operations does not have a single method for handling resident service requests. Over the years, DPWT staff have developed different data management, work order management, and reporting practices for specific sections or programs. The differences among how DPWT organizational units handle resident service requests often reflects variations in the type of work performed. Most practices developed before a departmental reorganization in FY03, which consolidated multiple programs into the newly created Division of Operations. As a result, organizational units within the Division handle service requests in different ways, including how they:

- Maintain service request or work order databases;
- Evaluate and prioritize service requests;
- Track and report service request workload and backlogs; and
- Communicate back to residents who make service requests.

## **DPWT CUSTOMER SERVICE INITIATIVES**

DPWT has acted to improve the Department's handling of resident inquiries and service requests. In September 2005, DPWT launched a new Consolidated Customer Service Center to provide residents with a single telephone number to access DPWT transportation services and to standardize the way DPWT handles the receipt of telephone calls. In addition, DPWT is developing a customer service satisfaction survey.

DPWT also is working to implement an automated inventory and asset management system to consolidate the current multiple service request and work order databases. The new system would integrate inquiry and service request records with information about the maintenance history of County right-of-way assets.

## **CUSTOMER SERVICE POLICIES AND STANDARDS**

DPWT has not established policies or standards governing how to handle residents' inquiries and service requests. DPWT does not have policies or standards regarding:

- The types of data to be maintained in an inquiry and service request database;
- The process for handling inquiries and service requests sent directly to staff;
- The method for prioritizing service requests;
- The reporting of data about inquiries and service requests; and
- How and when to report back to residents who initiate a service request.

## **WEB SITE INFORMATION AND SERVICES**

The County Government's web site includes multiple web pages with detailed explanations of the services provided by DPWT. Several pages include answers to frequently asked questions, service area maps, and schedules for seasonal activities.

Few DPWT web pages prominently display contact telephone numbers and e-mail addresses. Most pages include this information in small print at the bottom of the page.

The County Government's web site allows residents to report potholes, streets missed during snow plowing, and streetlight malfunctions. The streetlight maintenance reporting form is more prominently featured on the County's web site than the pothole and snow removal reporting form. The County web site does not have reporting forms for other transportation infrastructure services such as roadway repair, sign replacement, leaf collection, or tree pruning.

The County's web page includes two methods to search for information. When used to find information about transportation infrastructure services, one search function returned relevant results, the other returned unhelpful results.

## **OFFICE OF LEGISLATIVE OVERSIGHT RECOMMENDATIONS**

**Recommendation #1: The Council should support implementation of DPWT's customer service initiatives.** DPWT has taken several steps to improve the way the Department receives and handles resident inquiries and service requests concerning maintenance and repair of the County's transportation infrastructure. The Council should encourage and support DPWT's initiatives to improve how the Department receives and handles resident inquiries and service requests.

**Recommendation #2: The Council should request that the Chief Administrative Officer establish policies and standards for handling transportation infrastructure inquiries and service requests, including standards for upgraded data management and reporting systems.** Specific items for these policies and standards to address include:

- The types of data to be maintained in work order or customer service databases;
- The process for handling and tracking service requests sent via different means of communication (telephone, e-mail, letter, web-reporting form);
- The process for handling and tracking service requests received through different points of contact;
- The method for prioritizing service requests;
- The reporting of data about inquiries and service requests and the use of this data in program management; and
- The criteria for reporting back to residents who initiate a service request.

The establishment of inquiry and service request policies and standards coupled with the development of an improved data management system should result in enhanced customer service and greater operational efficiency, including:

- The ability to identify identical service requests submitted by multiple sources or multiple times;
- The ability to generate automated reports that identify the highest priority outstanding service requests;
- Greater opportunity to consolidate work orders by geographic location;
- The ability to make staffing and resource allocation decisions based on records of actual work orders and service requests; and
- The ability to target public outreach to areas of greatest need, e.g., through the identification of most frequently asked inquiries or service requests.

**Recommendation #3: The Council should request the Chief Administrative Officer to prepare a plan for improving how County residents are informed about programs and services related to maintenance and repair of the County's transportation infrastructure.** OLO recommends that this plan address the following issues:

- **Primary Contact Information.** The plan should identify which telephone numbers and web addresses to publicize as the primary points of contact for residents wishing to make an inquiry or service request.
- **Web Site Presentation, Design, and Functionality.** The County Government should evaluate how easily residents are able to locate program and service information on the County Government web site. With the assistance of the Public Information Office and the Department of Technology Services, DPWT should review how residents search for information on the web site.
- **Web-Reporting Forms.** The County Government should develop criteria to select which types of service requests may be submitted by web-reporting form and how residents find the forms on the web site.

The Council should request an update by March 2007 on the status of ongoing customer service initiatives, the implementation of new customer service policies and standards, and the development of an outreach plan.

**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION'S HANDLING OF  
RESIDENT INQUIRIES AND SERVICE REQUESTS**

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**DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION'S HANDLING OF  
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## Chapter I. Authority, Scope, and Organization of Report

### A. Authority

Council Resolution 15-1092, *FY 2006 Work Program of the Office of Legislative Oversight*, adopted July 26, 2005.

### B. Purpose and Scope of Review

This report examines how the County Government manages inquiries and service requests from residents concerning maintenance and repair of the County's transportation infrastructure. The scope includes a review of inquiries and service requests related to the following specific functions, all of which the County Government's Department of Public Works (DPWT) performs:

- **Roadway and Related Maintenance.** DPWT maintains County-owned roadways and rights-of-way by performing road resurfacing, pothole repair, drainage work, sidewalk repair, right-of-way mowing, and other related activities.
- **Snow, Leaf and Storm Debris Removal.** DPWT plows and removes snow from roadways, vacuums leaves, and removes debris following storms.
- **Tree Maintenance.** DPWT prunes, removes, and plants trees in County rights-of-way.
- **Streetlight Repair.** DPWT maintains and repairs County-owned streetlights.
- **Traffic and Pedestrian Safety Studies.** DPWT conducts engineering studies to evaluate and address concerns about traffic and pedestrian safety.
- **Traffic Signing and Marking.** DPWT installs and maintains traffic and pedestrian signs and pavement markings.

OLO's study focused on the two organizational units in DPWT with primary responsibility for the maintenance and repair of the County's transportation infrastructure: the Highway Maintenance Section; and the Traffic Engineering and Operations Section. For each Section, the report reviews:

- Data on the volume and type of inquiries and service requests received;
- How DPWT prioritizes and manages service requests;
- How DPWT tracks and reports data on inquiries and service requests; and
- How DPWT interacts with residents who have made a service request.



For purposes of this study, OLO defined “inquiry” and “service request” as follows:

An **inquiry** is a request for information. Examples of inquiries include:

- Questions about the schedule for resurfacing a road;
- Questions about who to call to report unsafe road conditions; and
- Requests for updated information about the status of a traffic study.

A **service request** is a request to have work performed. Examples of service requests include:

- Requests to fill a pothole;
- Requests to repair a malfunctioning streetlight; and
- Requests to study the need for traffic calming in a neighborhood.

### **C. Organization of Report**

**Chapter II, Organizational Structure**, describes the Department of Public Works and Transportation's (DPWT or “Department”) organizational structure and identifies the operational units within the Department that are the focus of this report.

**Chapter III, Inquiry and Service Request Initiatives**, summarizes three DPWT initiatives designed to improve the handling of resident inquiries and service requests.

**Chapter IV, Accessing Information and Services**, provides information on different methods used by County residents to contact DPWT; describes how residents may access information about DPWT programs and service through the County Government web site.

**Chapter V, Highway Maintenance Section**, describes how the Highway Maintenance Section of DPWT receives and manages inquiries and service requests.

**Chapter VI, Traffic Engineering and Operations Section**, describes how the Traffic Engineering and Operations Section of DPWT receives and manages inquiries and service requests.

**Chapters VII and VIII present OLO's Findings and Recommendations.**

#### **D. Methodology and Acknowledgements**

Office of Legislative Oversight staff members Suzanne Langevin, Kristen Latham, and Aron Trombka conducted this study. OLO gathered information through document reviews, general research, and interviews.

OLO received a high level of cooperation from everyone involved in this study. OLO appreciates extensive assistance provided by the Department of Works and Transportation, especially the following staff members: Al Roshdieh, Chief of the Division of Operations; Stephen Nash, Section Chief, Engineering and Management Services; John DiGiovanni,<sup>1</sup> Section Chief, Highway Maintenance; Keith Compton, Section Chief, Highway Maintenance; Jim Hawkes, Field Services Manager; Emil Wolanin, Section Chief, Traffic Engineering and Operations; Dory Hackey, Consolidated Customer Service Center Manager; James Simkins, Information Technology Manager; and Bett Notter, Inspector.

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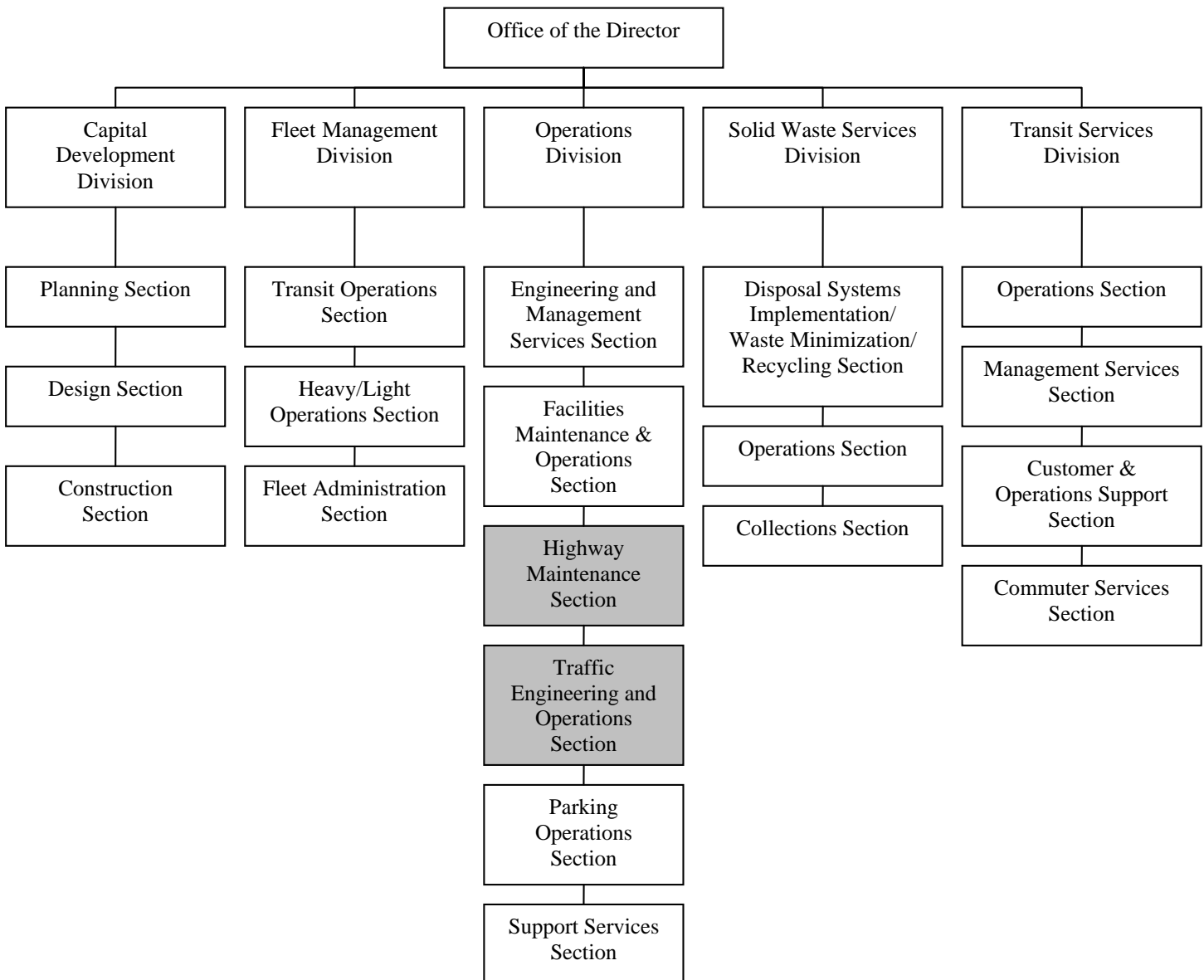
<sup>1</sup> John DiGiovanni retired as Chief of the Highway Maintenance Section in July 2006.

## Chapter II. Organizational Structure

This chapter describes the organizational structure of the Department of Public Works and Transportation (DPWT or "Department") and identifies the two Department sections that are the focus of this report.

DPWT is responsible for a wide range of functions, including management of the County's transportation systems, solid waste collection and disposal, and construction and maintenance of public buildings. Chart 1 (below) depicts DPWT's organizational structure.

**Chart 1: DPWT Organizational Structure**



Source: OLO and DPWT, July 2006

DPWT consists of five divisions. As indicated earlier, OLO's focus of review is on the management of inquiries and service requests concerning maintenance and repair of the County's transportation infrastructure. DPWT's Division of Operations is the organizational unit most directly involved in transportation infrastructure maintenance and repair. In FY03, DPWT created the Division of Operations as part of a departmental reorganization that consolidated multiple programs into a single division.

The Division of Operations is responsible for planning, engineering, and maintaining County-owned roadways and rights-of-way; it consists of six sections. Division staff report that the Highway Maintenance Section and the Traffic Engineering and Operations Sections receive nearly all of the resident inquiries and requests for service concerning maintenance and repair of the County's transportation infrastructure sent to the Division. These two sections are shaded gray on Chart 1 (page 4).

The **Highway Maintenance Section** maintains County roadways including resurfacing roads; repairing and replacing curbs, gutters, and sidewalks; and performing mowing and tree maintenance in County rights-of-way. The Council approved a FY07 operating budget of \$27.2 million for the Highway Maintenance Section.<sup>2</sup> Table 1 (below) breaks down the FY07 appropriation by program.

**Table 1: Highway Maintenance Section  
FY07 Operating Budget and Workyears**

<b>Program</b>	<b>Operating Budget</b>	<b>Workyears</b>
Bridge Maintenance	\$189,420	1.3
Resurfacing	\$2,225,330	4.9
Roadway and Related Maintenance	\$17,546,420	166.5
Snow/Storm Debris Removal	\$3,297,530	26.9
Tree Maintenance	\$3,944,180	16.0
<b>Total Operating</b>	<b>\$27,202,880</b>	<b>215.6</b>

Source: Montgomery County FY07 Approved Operating Budget

Chapter V (begins on page 15) describes how the Highway Maintenance Section receives and manages service requests.

The **Traffic Engineering and Operations Section** is responsible for providing and maintaining a safe and efficient traveling environment for pedestrians, bicyclists, and motorists who use County roadways. The Council approved a FY07 operating budget of \$8.4 million for the Traffic Engineering and Operations Section. Table 2 (page 6) breaks down the FY07 appropriation by program.

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<sup>2</sup> The Highway Maintenance Section performs the County's leaf collection activity. However, funding for this program is located within the budget for the Division of Solid Waste Services. The FY07 approved operating budget for the leaf collection program is \$4,979,690 and 52.8 workyears.

**Table 2: Traffic Engineering and Operations Section  
FY07 Operating Budget and Workyears**

<b>Program</b>	<b>Operating Budget</b>	<b>Workyears</b>
Streetlighting	\$428,580	0.6
Traffic Planning	\$282,620	3.5
Traffic and Pedestrian Safety	\$1,067,010	6.5
Traffic Sign and Marking	\$2,316,100	15.7
Traffic Signals and ATMS	\$2,299,400	14.5
Transportation Management and Operations	\$1,350,890	6.4
Parking Outside Parking Districts	\$707,760	1.5
<b>Total Operating</b>	<b>\$8,452,360</b>	<b>48.7</b>

Source: Montgomery County FY07 Approved Operating Budget

Chapter VI (begins on page 22) describes how the Traffic Engineering and Operations Section receives and manages service requests.

### **Chapter III. DPWT Inquiry and Service Request Initiatives**

This chapter summarizes several Department initiatives related to receiving and managing resident inquiries and service requests.

- **Section A, Consolidated Customer Service Center**, describes the purpose and workload of the new DPWT Consolidated Customer Service Call Center;
- **Section B, Inventory and Asset Management** describes DPWT's plans to create a new automated system to collect, manage, and analyze data related to the maintenance of transportation system infrastructure; and
- **Section C, Customer Service Satisfaction Survey**, describes a current DPWT effort to measure resident satisfaction with Department services.

#### **A. Consolidated Customer Service Center (Call Center)**

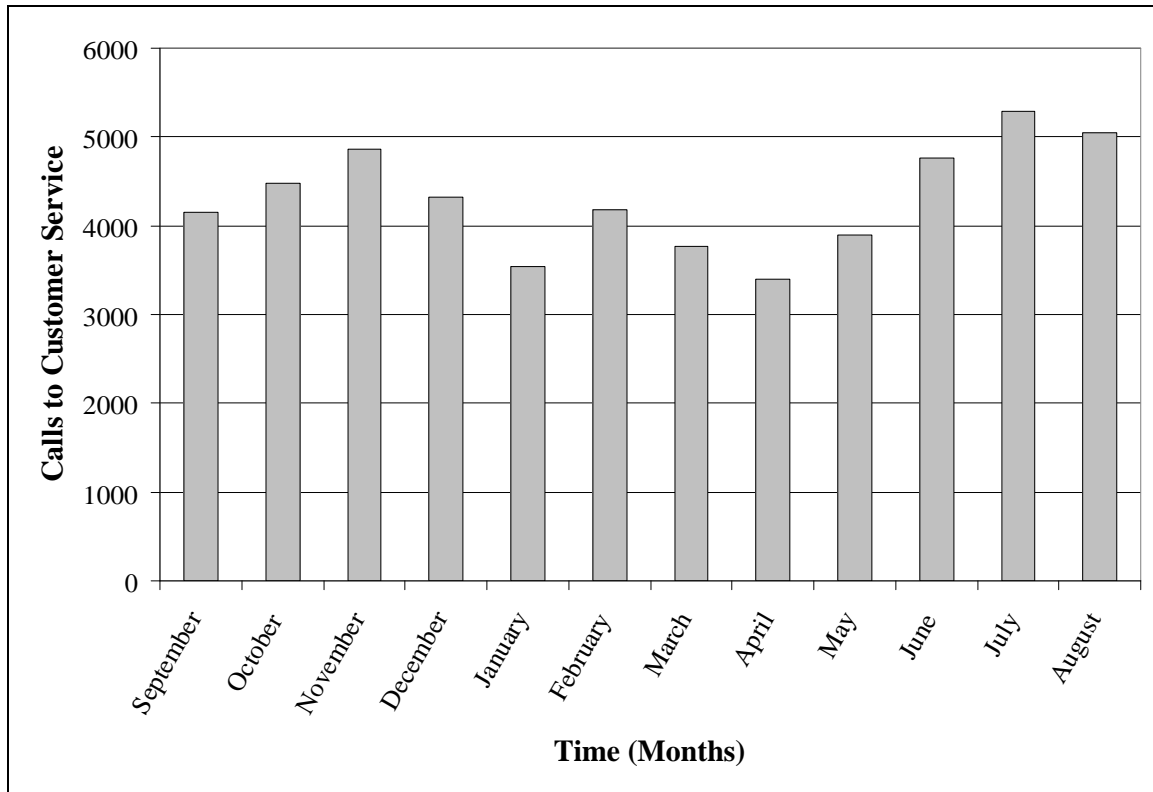
In September 2005, the Department launched a new Consolidated Customer Service Center (the "Call Center"). The Call Center provides residents with a single telephone number to access DPWT transportation services. DPWT staffed the Call Center by re-assigning five positions (one Supervisor and four Administrative Aides) within the Division of Operations.

When receiving an inquiry or service request, Call Center staff:

- Answer questions about DPWT's programs and services and provide status updates on ongoing work items;
- Inform residents about roadway, right-of-way, and traffic rules/regulations; and
- Initiate work requests for: roadway and right-of-way maintenance; snow, leaf, and storm debris removal; roadway signing and marking; streetlight repair; and traffic studies.

DPWT reports that in its first twelve months of operation, the Call Center handled 51,695 phone calls, an average of 4,307 calls per month. Chart 2 (page 8) shows the number of calls received by the Call Center per month between September 2005 and August 2006.

**Chart 2: Number of Calls Per Month to the Customer Service Center, September 2005 – August 2006**



Source: DPWT, September 2006

Table 3 (below) contains data on the volume of calls received on a weekly basis by the Call Center between September 2005 and August 2006. The data show that, during this time period, the Call Center experienced its highest volume of calls (1,862) during the second week of February and its lowest (670) during the last week of December. On average, the Call Center received 966 calls per week during its first ten months of operation.

**Table 3: Number of Calls Per Week to the Customer Service Center September 2005 – August 2006**

Week in Month	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.
1	753	960	1,132	1,151	744	820	892	818	837	948	1,392	1,078
2	990	1,162	1,055	1,046	801	1,349	793	749	832	978	1,254	989
3	983	1,039	1,355	948	812	1,862	872	836	947	978	1,155	1,096
4	1,100	1,063	734	670	844	694	794	996	874	930	1,193	1,195
5	--	--	1,264	--	--	--	807	--	808	1,504	--	--
<b>TOTAL</b>	<b>3,826</b>	<b>4,224</b>	<b>5,540</b>	<b>3,815</b>	<b>3,201</b>	<b>4,725</b>	<b>4,158</b>	<b>3,399</b>	<b>4,298</b>	<b>5,338</b>	<b>4,358</b>	<b>4,994</b>

Source: DPWT, September 2006

The Call Center Manager uses a computer system to track and manage call volume. With the aid of this automation, the Call Center Manager is able to monitor the number of call takers available and the number of calls waiting in the queue.

Call Center staff are able to access the daily schedule of work for each of the seven Highway Maintenance depots. This enables Call Center staff to respond to residents' inquiries about the status of DPWT work in specific neighborhoods.

However, the Call Center computer system does not currently have the capability of reporting the number of calls by section (e.g., Highway Maintenance Services, Traffic Engineering and Operations) or work type (e.g., pothole, streetlight repair). While Call Center staff are able to initiate maintenance work requests, no system presently exists that routinely collects data on the number, type, or geographic location of work requests generated by the Call Center.

## **B. Inventory and Asset Management System**

In March 2005, the Council-sponsored Infrastructure Maintenance Task Force issued a report that addressed the lack of a comprehensive inventory and analysis of the County's outstanding infrastructure maintenance needs. The Task Force recommended that the "County Government needs a comprehensive and complete asset management database for both its building and transportation infrastructures."<sup>3</sup>

In FY06, the Council appropriated \$100,000 for the first phase of an automated DPWT inventory and asset management system. Among other functions, the new system would allow DPWT to integrate separate databases for recording resident requests with its databases that record the work planned and performed. The new system would record inquiries and service requests received via telephone, e-mail, or letter. DPWT further intends to develop a system capable of locating right-of-way assets (such as pavement, markings, storm drains, etc.) and listing each asset's complete maintenance history.

DPWT estimates that development of a transportation inventory and asset management system for the Department including creation of a right-of-way asset inventory would cost about \$725,000. DPWT further estimates ongoing annual maintenance costs for a fully implemented inventory and asset management system would be \$85,000.

The County's Department of Environmental Protection (DEP) has contracted with a vendor to implement an environmental infrastructure inventory and data management system.<sup>4</sup> DPWT is exploring the opportunities to develop its inventory and data management system through the existing DEP procurement.

Communities such as Baltimore, New York City, Los Angeles, and Chicago have developed inventory and asset management systems as a building block for a

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<sup>3</sup> *Report of the Infrastructure Maintenance Task Force*, March 2005, page 5.

<sup>4</sup> DEP has selected a maintenance management and inventory control software produced by Datastream Systems Inc.



comprehensive 311 system.<sup>5</sup> DPWT hopes to build a inventory and data management system that would be compatible with other databases should the County decide to implement a 311 system.

### **C. Customer Service Satisfaction Survey**

Call Center staff currently is working with staff in the Division of Operations to develop a customer service satisfaction survey. Staff report that they are in the process of drafting the survey questions, using a similar survey created by Anne Arundel County as a model.

Through the survey, the Department hopes to receive customer feedback on Call Center employee performance. DPWT intends to use the survey findings to help shape future employee training requirements.

The Department also seeks to solicit customer feedback on the call taking and the inquiry and request handling process. DPWT hopes that this information will be helpful in designing the customer service components of the new inventory and asset management system.

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<sup>5</sup> A 311 system provides residents with an easy to remember telephone number to call to make inquiries and non-emergency service requests for all government services.

## **Chapter IV. Accessing DPWT Information and Services**

This chapter provides information on different methods used by County residents to contact DPWT with an inquiry or service request, and describes how residents may access information about DPWT programs and service through the County Government's web site.

- **Section A, How Residents Contact DPWT**, describes how residents contact the Department to make an inquiry or service request; and
- **Section B, Using the County Web Site to Find Information and to Contact DPWT**, describes informational pages, contact information, reporting forms, and search functions accessible through the County Government's web site.

### **A. How Residents Contact DPWT**

Several methods exist for County residents to contact DPWT with an inquiry or service request. These different methods (summarized below) include various telephone, written correspondence, and e-mail options.

- **Consolidated Customer Service Center.** As reviewed in the previous chapter, in September 2005, DPWT merged several internal customer service units into a Consolidated Customer Service Center (the "Call Center"). Residents may call 240-777-6000 (the Division of Operations' general telephone number) or 240-777-ROAD (the soon-to-be-phased-out Highway Maintenance Section customer service number) to register a range of transportation infrastructure inquiries and service requests. Residents may find the Call Center telephone number through the County Government's web site or in the Government section of the telephone book.

Call Center staff attempt to answer most inquiries while on the telephone with the resident. The Call Center directs more complex questions and all service requests to the appropriate staff in the Highway Maintenance and Traffic Engineering Sections. As discussed in Chapter III, the Call Center currently does not have the capability of measuring the number or types of calls it forwards to specific Sections of DPWT.

- **Calls and Correspondence to Department, Divisions, and Sections.** The County Government web site includes telephone numbers, e-mail addresses, and mailing addresses for DPWT, the Division of Operations, the Highway Maintenance Section, and the Traffic Engineering and Operations Section. The Government section of the telephone book also lists several general telephone numbers for organizational units within DPWT. Residents can use these numbers and addresses to call or write inquiries and service requests. DPWT staff forward these calls and correspondence to the appropriate staff in the Highway Maintenance and Traffic Engineering Sections. DPWT does not have an estimate of the number of calls, letters, and/or e-mail messages it handles each year.

- **Direct Calls and Correspondence to DPWT Staff.** Occasionally, residents telephone, e-mail, and send written correspondence directly to DPWT staff. Data are not available on the number of telephone calls, letters, or e-mail messages received directly by staff in the Division of Operations.
- **Direct Calls and Correspondence to Elected and Appointed Officials.** Staff in the Highway Maintenance and Traffic Engineering Sections receive inquiries and service requests forwarded from the DPWT Director, the County Executive, Councilmembers, and other elected and appointed officials. DPWT does not have an estimate of the number of service requests received annually from elected and appointed officials.
- **Web-Based Reporting.** DPWT maintains a web-based system for residents to request pothole repairs or to report streets missed during snow removal. A second separate web-based system allows residents to report streetlight malfunctions. DPWT staff also enters some service requests using web reporting forms. The Department does not currently have the capability of quantifying the number of web-reported service requests generated from residents.
- **Transfers from the 911-System.** On occasion, residents call the County's 911-system to report dangerous conditions on County roadways. DPWT and the staff of the Emergency Communications Center have established procedures to forward these reports to the Division of Operations. DPWT estimates that it receives approximately 200 emergency service requests per year via transfers from the 911-system.

OLO reviewed a sample of 455 Highway Maintenance Section service requests reports from July 2005. These reports document resident service requests received by telephone, e-mail, letter, and fax. The reports do not include service requests made through the web reporting forms. Eleven percent of the service request reports did not indicate the method of contact. As illustrated in Table 4, the Highway Maintenance Section received the vast majority of (non-web reported) service requests via telephone call.

**Table 4: Distribution of Service Requests by Method of Contact:  
Sample of Highway Maintenance Section Service Request Reports, July 2005  
(excludes service requests by web-reporting form)**

<b>Method of Contact</b>	<b>Percent of Total</b>
Telephone Call	85%
E-Mail	4%
Letter/Fax	1%
Method Not Recorded	11%

n = 455

Source: DPWT, July 2006

DPWT staff report that the Department often receives multiple service requests regarding the same work item.

## **B. Using the County's Web Site to Find Information and to Contact DPWT**

The County Government web site contains a wealth of useful information related to the operation and maintenance of the County's transportation infrastructure. However, for reasons described below, web site users may have difficulty finding relevant web pages for some DPWT programs.

**Information for Residents.** The County Government's web site includes multiple pages explaining the services provided by DPWT. Many of these pages have detailed information about how DPWT performs its services and what residents can expect from the Department. Several pages also include answers to frequently asked questions, service area maps, and schedules for seasonal activities.

Web site users can locate a directory of links to these informational pages by clicking on "Resident Services" on the "Residents" section of the web page. Alternatively, users can click on the "Services (A-Z)" link located on the left frame of each page of the County's web site.

**Telephone Numbers and E-Mail Addresses.** Few DPWT informational web pages prominently display telephone numbers and e-mail addresses. Most pages include contact information in small print at the bottom of the page. Generally, these pages list the general telephone number for the Division of Operations and the general e-mail address for either the Highway Maintenance Section or the Traffic Engineering and Operations Section. None of the web pages regarding a specific DPWT service lists the Call Center telephone number, 240-777-ROAD.

Instead, the County web site lists the Call Center telephone number in the "Phone Book" and the "Contacting DPWT" web pages. In both pages, the Call Center telephone number is listed under the entry for Highway Maintenance. The Traffic Engineering and Operations entry on both pages lists the Section's general telephone number.

**Web-Based Reporting.** As mentioned above, the County Government's web site provides residents an opportunity to report potholes, streets missed during snow plowing, and streetlight malfunctions. However, the streetlight maintenance reporting form is more prominently featured on the County's web site than the reporting form for potholes and snow removal.

From the County's web site home page, users may click on the "Residents" tab to learn about government programs and services. The "Residents" page has a direct link to the streetlight reporting form in a list of "Online Services". There is no direct link from the "Residents" page to the pothole and snow removal reporting form. Moreover, a user that clicks to find more "Online Services" will not find any mention of the pothole and snow removal reporting form.

The DPWT home page also has a direct link to the streetlight reporting form. The DPWT home page has a link for residents to learn more information about pothole repair. From that link, the resident may access the pothole reporting form.

Residents may also find the pothole, snow removal, and streetlight reporting forms by clicking on the “Services (A-Z)” link. Alternatively, from the “Residents” page, a user may click on the “Resident Services” link and then scroll through an alphabetical list to find a link to all of the reporting forms.

The County web site does not have reporting forms for other DPWT services such as roadway repair, sign replacement, leaf collection, or tree pruning.

**Search Functions.** The County web page includes two methods to search for information. The left frame of each web page includes a space for users to search by keyword(s). OLO tested this function by searching by the keywords “pothole,” “streetlight,” and “tree.” In each case, the search function returned relevant results including direct links to information pages and reporting forms.

The County web site also features a search function that users may access through the “How Do I ...?” page. The link to the “How Do I ...?” page appears in the left frame of each web page. OLO tested this function by searching for the keywords “pothole,” “streetlight,” and “tree.” As illustrated in Table 5, this search function did not produce helpful or relevant results.

**Table 5: Montgomery County Government Web Site Results from the “How Do I ...?” Search Function**

<b>A search by keyword:</b>	<b>Returns the following result:</b>
“pothole”	<p><i>“How do I ...</i></p> <ul style="list-style-type: none"> <li>• <i>Find information about snow removal?”</i></li> </ul>
“streetlight”	<p><i>“No questions found in our database matching your search! Please try again.”</i></p>
“tree”	<p><i>“How do I ...</i></p> <ul style="list-style-type: none"> <li>• <i>Find information about Montgomery County through the Maryland State site?</i></li> <li>• <i>Find information about snow removal?</i></li> <li>• <i>Find out Snow removal information?</i></li> <li>• <i>Locate a dump to take my trash to?”</i></li> </ul>

Source: OLO (test conducted on August 18, 2006)

## **Chapter V. Highway Maintenance Section**

This chapter describes how the Highway Maintenance Section (HMS) manages resident inquiries and service requests. HMS is responsible for maintaining County roadways including resurfacing roads; repairing and replacing curbs, gutters, and sidewalks; and performing mowing and tree maintenance in County rights-of-way.

- **Section A, Service Request Workload and Management**, identifies the Highway Maintenance Section programs that receive the most inquiries and service requests, describes how the Section manages service requests, and provides information about the monthly and geographic distribution of service requests;
- **Section B, Data Management and Tracking**, describes how the Highway Maintenance Section maintains and tracks inquiry and service request data; and
- **Section C, Communication to Residents**, describes how the Highway Maintenance Section communicates with residents who make an inquiry or service request.

### **A. Service Request Workload and Management**

HMS reports that resident service requests most frequently concern three program areas:

- Roadway and related maintenance;
- Snow, leaf, and storm debris removal; and
- Tree maintenance.

The workload and management of HMS service requests vary by program. This section describes the service request workload management approach for three programs listed above.

**Roadway and Related Maintenance.** HMS is responsible for maintaining County roadways and rights-of-way. HMS duties include pothole filling, road resurfacing, shoulder and storm drain maintenance, right-of-way grass mowing, guardrail replacement, street cleaning, curb and gutter maintenance, and sidewalk repair.

In FY05, DPWT entered more than 5,100 roadway and related maintenance service requests into the Highway Maintenance Section database. The database currently does not track pothole service requests submitted through web reporting forms. Table 6 (page 16) contains data on the number of different types of requests received during FY05. The data show that requests for pothole repair, drainage work, and road repair (excluding potholes) accounted for almost two-thirds of the HMS program service requests entered into the database.

**Table 6: FY05 Roadway and Related Maintenance Service Requests by Type  
(excludes service requests made through web-reporting forms)**

Work Type	Number of Requests	Percent of Requests
Pothole Repair	1,402	27%
Drainage Work	1,113	22%
Road Repair (excluding potholes)	815	16%
Sidewalk Repair	223	4%
Curb & Gutter Repair	218	4%
Litter Pick Up	217	4%
Sink Hole Repair	138	3%
Right-of-Way Mowing	136	3%
Unspecified Service	650	13%
Miscellaneous Other Service <sup>1</sup>	242	5%
<b>TOTAL</b>	<b>5,154</b>	

Source: DPWT, July 2006

<sup>1</sup>Includes guardrail repairs, removal of storm debris, and other types of work

HMS usually handles service requests in the order in which they are received. Section staff report that they assign priority status to some service requests based on hazard level, date of request, and the geographic location of the requested service.

The amount of time needed to complete a service request varies by type of work. Table 7 shows DPWT's estimates of the approximate number of days needed (during FY05) to complete different types of service requests.

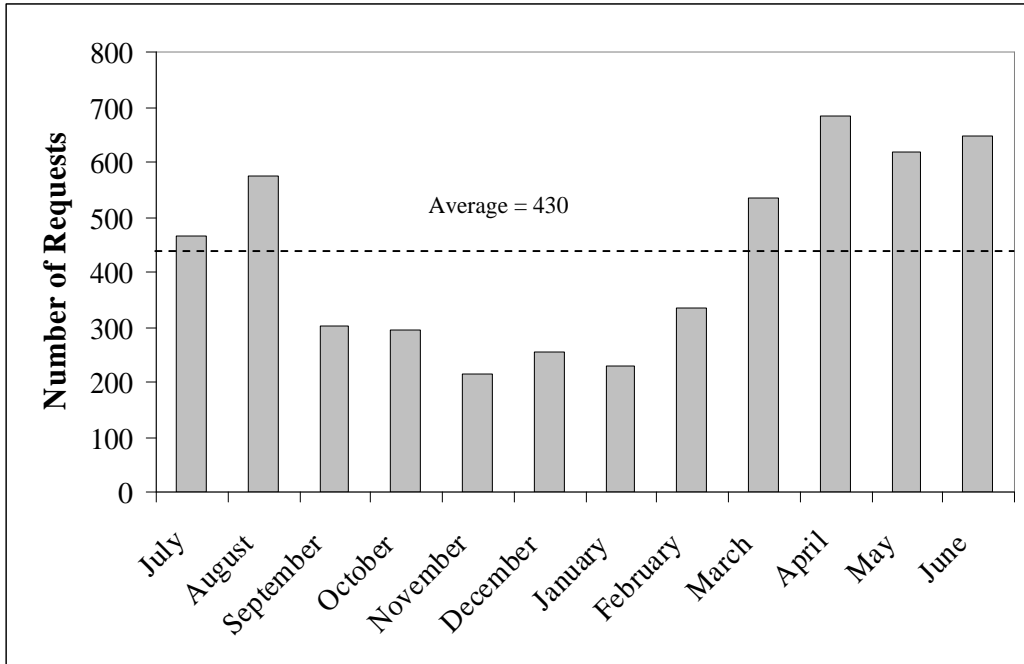
**Table 7: Estimated Number of Days to Complete Work  
FY05 Roadway and Related Maintenance Service Requests**

Type of Work	Number	Estimated Average Days to Close
Pothole Repair	1,402	10 to 20 days
Drainage Work	1,113	More than 60 days
Road Repair (excluding potholes)	815	More than 60 days
Sidewalk Repair	223	40 to 50 days
Curb & Gutter Repair	218	40 to 50 days
Litter Pick Up	217	10 to 20 days
Sink Hole Repair	138	20 to 30 days
Right-of-Way Mowing	136	10 to 20 days

Source: DPWT, 2006

Chart 3 (below) shows the number of roadway and related maintenance service requests received by the Highway Maintenance Section by month during FY05 (excluding requests received by web-reporting forms). On average, HMS received 430 requests per month.

**Chart 3: Number of Service Requests by Month, FY05  
(excludes service requests made through web-reporting forms)**

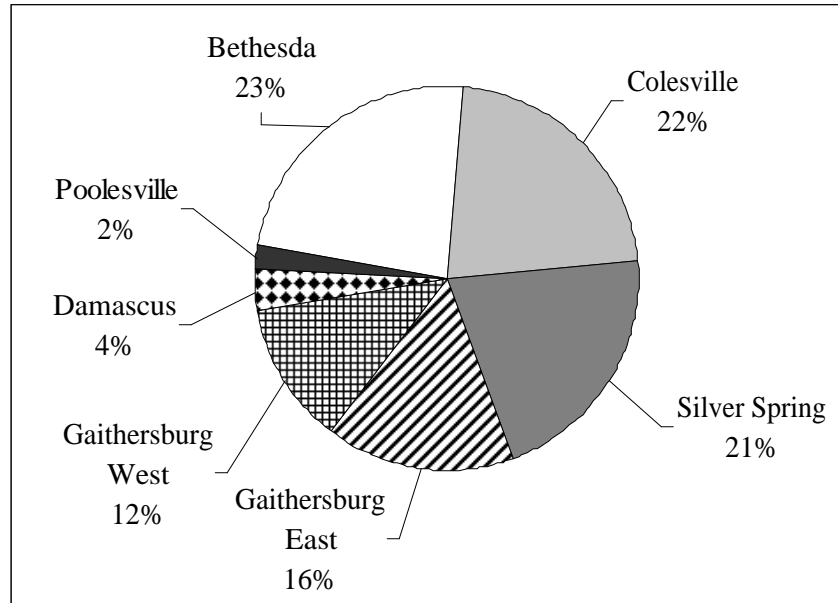


Source: DPWT, July 2006



DPWT staff based at seven service depots perform roadway and right-of-way maintenance tasks. As illustrated in Chart 4 (below), the Bethesda, Colesville, and Silver Spring depots received the largest number of service requests during FY05, collectively accounting for two-thirds of all HMS service requests.

**Chart 4: Percent of Service Requests by Depot, FY05**



Source: DPWT, July 2006

**Snow, Leaf, and Storm Debris Removal.** HMS is responsible for plowing and removing snow from 4,759 lane miles of County-maintained roadways. Twice a year, HMS personnel vacuum leaves placed at the curbsides of roads in the Leaf Vacuuming District. In addition, HMS cleans debris from County roadways and rights-of-way following major snow, ice, rain, and wind storms.

HMS deploys up to 200 employees and 175 pieces of equipment during snow and storm events. While HMS staff report receiving a significant number of requests concerning snow, leaf, and storm debris removal, no data are available on the volume of residents' requests received for these services.

**Tree Maintenance.** HMS staff prune and remove trees to preserve roadway clearance and to maintain roadway and sign visibility. The Section also removes tree stumps and plants new trees in County rights-of-way.

HMS staff estimate that they receive more than 4,000 tree maintenance requests annually. Upon receiving a tree maintenance request, HMS staff assess whether the request concerns a serious safety hazard. This assessment may involve a visual inspection of the tree(s) in question.

Following the assessment, HMS categorizes any needed work into one of four priority levels, based on the potential hazard the tree poses to residents. DPWT categorizes tree maintenance priority levels by optimal response time. Tree conditions that present the most serious imminent safety concerns receive the highest priority level, a “0-to-10 day” response time.

Table 8 lists that four tree maintenance priority levels and shows the actual average response time for each level. The data show that the current backlog of requests results in actual response times for most service requests that exceed the optimal level.

**Table 8: Tree Maintenance Priority Levels and Current Actual Average Response Times, Summer 2006**

	<b>Priority Level</b>	<b>Actual Average Response Time</b>
<i>Most Serious</i> ↓ <i>Least Serious</i>	0 – 10 Day	Within 10 days
	10 Day	6 – 8 months
	30 Day	15 - 16 months
	60-90 Day	2 ½ years

Source: DPWT, July 2006

Unless an emergency situation is indicated, HMS assesses trees as part of their routine inspection in neighborhoods. For most non-emergency work, HMS tree crews travel specific routes and perform work based on the location rather than on the date of the request.

At the request of residents, HMS occasionally performs preventive maintenance by pruning a collection of trees located along the same block. While this “block pruning” program had been dormant for several years, the Council appropriated FY07 funds for DPWT to resume block pruning in approximately 25 neighborhoods.

HMS performs tree maintenance in County rights-of-way under a permit granted by the Maryland State Forester's Office. Upon determining that it must remove a living tree from a right-of-way, HMS submits an application for a removal permit to the State Forester. If the State Forester approves the permit application, HMS removes the tree and prepares a work order for the subsequent removal of the stump.

## **B. Data Management and Tracking**

The Highway Maintenance Section maintains three databases that record service request information. The main HMS database includes requests for all types of service except for tree maintenance and for pothole service requests submitted through a web-based form.

**Main HMS Database.** The main HMS database includes the following information for tracking service requests:

- Date service request was received;
- Call taker ID;
- Description and location of work type;
- Name, address, and contact information of resident requesting work;
- Depot and map grid location of work to be done;
- Investigation status and date;
- Planning status and date; and
- Action date, status, and completion date.

The database includes all resident service requests made by telephone, e-mail, or letter. However, the database does not currently include information about service requests submitted through web-based reporting forms.

**Web-Report Pothole Database.** While the main HMS database includes service requests for pothole work, HMS also maintains a separate database that records pothole service requests received through the web-based reporting form. This database includes fields listing the date of the report, the location and description of the pothole, and contact information for resident reporting the pothole.

**Tree Maintenance Database.** HMS maintains a separate service request database for tree maintenance. The tree maintenance database includes different types of information than the Highway Maintenance database such as fields on the tree type, diameter, age, and pruning history. Only tree program staff may access the tree database to enter new service requests or to extract data reports.

## **C. Communication to Residents**

HMS has no established policy regarding sending a reply to residents who make a service request by e-mail or by letter. The staff member that handles a written service request decides whether or not to send a reply to the resident acknowledging receipt of the request.

HMS has established an automatic acknowledgement system for residents that use the web-based pothole and snow removal reporting form. Upon submitting a report via web form, residents are presented with a screen that confirms the details of the report. The web-based system also sends an e-mail to the resident acknowledging receipt of their submission.

In some cases, HMS staff send a follow-up communication to inform a resident about the status of a service request. The Section has no policy concerning when or under what circumstances a resident should receive a service status update. Residents who have requested a service may call the Consolidated Customer Service Center to receive information about the status of a specific work order.

## **Chapter VI. Traffic Engineering and Operations Section**

This chapter describes how the Traffic Engineering and Operations Section (TEOS) manages inquiries and service requests. TEOS is responsible for providing and maintaining a safe and efficient traveling environment for pedestrians, bicyclists and motorists in the County. The Section installs and maintains traffic signs and pavement markings; oversees the installation and maintenance of streetlights; completes neighborhood traffic calming plans and roadway safety investigations; and oversees traffic controls for work zone activity and special events.

- **Section A, Service Request Workload and Management**, identifies the Traffic Engineering and Operations Section programs that receive the most inquiries and service requests; provides information on the amount of service requests made by residents; and describes how the Section manages these requests;
- **Section B, Data Management and Tracking**, describes how the Traffic Engineering and Operations Section maintains and tracks inquiry and service request data; and
- **Section C, Communication with Residents**, describes how the Traffic Engineering and Operations Section communicates with residents who make an inquiry or service request.

### **A. Service Request Workload and Management**

The Traffic Engineering and Operations Section reports that resident service requests most frequently concern the following programs:

- Streetlighting;
- Traffic and Pedestrian Safety Studies; and
- Traffic Signing and Marking.

The workload and management of TEOS service requests vary by program. This section describes the service request workload management approach for the three programs listed above.

**Streetlighting.** TEOS staff investigate resident requests for new or upgraded streetlights; coordinate and inspect streetlight installations and maintenance performed by utility companies; arrange for maintenance of County-owned streetlights; and inspect contractual maintenance and repair work.

TEOS uses contract crews assigned to specific geographic areas to respond to reports of malfunctioning streetlights. TEOS has established a service standard of repairing most streetlight malfunctions within five working days.

TEOS performs about 6,000 streetlight repairs in a year. TEOS generates streetlight work orders based on information from residents, DPWT staff, and contractors. No data are available on how many streetlight repairs are performed as a result of a request from a resident.

DPWT owns and maintains approximately half of the 55,000 streetlights in the County. Public utilities own and maintain the remaining streetlights. When a resident reports a problem with a streetlight that is not owned by the County, TEOS refers the service request to the appropriate public utility.<sup>6</sup> In such a case, the utility is responsible for repairing the malfunction and making any necessary contact with the resident who requested the service.

TEOS also notifies a public utility when a County-owned streetlight experiences a power outage. TEOS staff report that it is not unusual for a public utility to take several weeks to repair a power outage to a streetlight.

**Traffic and Pedestrian Safety Studies.** TEOS conducts engineering studies to evaluate and address concerns about traffic, pedestrian safety, and parking. Based on these engineering studies, DPWT makes decisions on whether to install or modify traffic control devices (e.g., stop signs, traffic signals, crosswalks, speed limits, etc). In evaluating resident study and service requests, DPWT must conform to the Manual on Uniform Traffic Control Devices as set forth the Maryland Vehicle Law and Chapter 31 of the County Code.

DPWT uses County Government staff as well as contractors to conduct traffic and pedestrian studies. TEOS staff report that the Section completes approximately 400 studies per year with many of the simplest studies completed in less than 30 days and with the most complex studies continuing for more than 90 days. TEOS gives priority status to studies that concern school safety, result from a fatal or near-fatal accident, or otherwise are assessed as a serious safety concern. The status of ongoing capital projects and seasonal variations in traffic volumes also influence when TEOS starts certain studies and how long it takes the Section to complete these studies.

According to TEOS staff, the demand for traffic studies exceeds the capabilities of existing resources. The Section reports that it completes a traffic study, on average, 12 to 14 months after receipt of a request. As of July 2006, TEOS had a backlog of 360 pending traffic studies. Table 9 (page 24) displays the current backlog of traffic studies by type and by number of years in the queue.

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<sup>6</sup> The Potomac Electric Power Company (PEPCO), Baltimore Gas and Electric (BGE), and Allegheny Power own streetlights in the County.

**Table 9: Traffic Study Backlog by Type and Length of Time in Queue  
(as of July 2006)**

Study Type	Length of Time in Queue					Total Number of Studies in Queue
	< 1 Year	1-2 Years	2-3 Years	3-4 Years	> 4 Years	
Access Restrictions	1	4	3	4	3	15
Arterial Traffic Safety/Calming	1	2	6	8	6	23
Business District Parking	1	1	2	0	0	4
CBD Street Safety	0	1	0	1	1	3
Intersection Safety	11	11	8	12	1	43
Uncategorized Issues	7	3	1	6	2	19
Pedestrian/Bike Safety	4	0	2	5	2	13
Permit Parking	0	3	2	0	1	6
Residential Parking	20	29	7	6	0	62
Residential Traffic Safety/Calming	6	4	7	20	14	51
Sight Distance Investigations	2	0	0	0	0	2
Speed Hump Studies	1	2	2	4	1	10
Speed Limit Review	2	0	2	0	1	5
Residential Stop Signs	14	6	4	9	9	42
School Zone Safety	19	6	2	0	0	27
Traffic Signal Request	1	4	4	3	1	13
Crosswalks	0	3	2	8	8	21
Other	1	0	0	0	0	1
<b>TOTAL</b>	<b>91</b>	<b>79</b>	<b>54</b>	<b>86</b>	<b>50</b>	<b>360</b>

Source: DPWT, July 2006

More than half of the backlogged traffic studies have been in the queue for longer than two years. TEOS reports that it has also recently initiated a review of the oldest traffic study requests to determine why they remain outstanding and whether they are still needed.

In FY05, the Council provided DPWT with additional funding to address the traffic study backlog. TEOS used that funding to hire a staff person to assess whether resident requests warrant conducting a traffic study. TEOS' goal was to reduce the number of lower-priority studies accepted.

Recently, TEOS began assigning traffic studies based on three geographic areas: Bethesda, Silver Spring, and the Up-County. TEOS assigns a traffic engineer and supporting staff in each of these areas. The traffic engineer for each area determines the relative priority of new traffic study requests.

**Traffic Signing and Marking.** TEOS staff conduct engineering investigations of residents' complaints about traffic signs, street names signs, pavement markings, and inadequate visibility at intersections. The program includes fabrication and/or purchase of signs; installation and maintenance of all traffic and pedestrian signs; installation and maintenance of all pavement markings; and safety-related trimming of roadside foliage obstructing traffic control devices.

TEOS generates traffic signing and marking work orders based on residents' requests and internal needs assessments. Staff report that in FY06, the TEOS completed over 3,100 traffic signing and marking work orders. As a work order may include more than a single work item, DPWT cannot determine the exact number or type of work items completed. TEOS does not track the number of traffic signing and marking work orders generated as a result of resident requests.

## **B. Data Management and Tracking**

The Traffic Engineering and Operations Section maintains databases that record streetlight, traffic study, and street signing/ marking service request information.

**Streetlight Database.** TEOS maintains a database of streetlight work orders. The database is populated by means of a reporting form accessed through the DPWT web site. Residents may enter streetlight service requests directly into the database from their personal computer. DPWT staff members who receive streetlight service requests via telephone, e-mail, or letter also enter the information into the database using the web-reporting form. In addition, staff may identify a streetlight repair and create a service request via the web form. The streetlight maintenance database currently does not track how many service requests are submitted directly by residents and how many are submitted by staff.

The streetlight database includes location, equipment type, and service history information for the County-owned streetlights. In addition, the database is capable of generating management reports including reports on average repair time, the number of daily streetlight outages, and capital project cost tracking.

**Traffic and Pedestrian Safety Study Database.** TEOS maintains a database of traffic and pedestrian safety studies. The database includes information about the type of study requested, the reason for the request, the location of the requested study, the current status of the request, and the findings and recommendations of TEOS staff. This database also is capable of generating summary reports listing active studies by study type, by date assigned, and by staff member.

**Traffic Signing and Marking Database.** TEOS maintains a database of traffic signing and marking work orders that includes information on when DPWT created the work order, the staff member(s) assigned to the work order, "Miss Utility" clearance, and work status. This database generates reports summarizing incomplete work orders. The traffic



signing and marking database includes both service requests submitted by residents as well as those initiated by staff. The database is not capable of generating reports that distinguish between work orders requested by residents and those initiated by staff.

### **C. Communication with Residents**

Traffic Engineering and Operations Section staff report that they often send a return e-mail or letter to residents acknowledging the receipt of a service request. For traffic study requests, the response to the resident indicates whether DPWT will undertake the requested study and, in some cases, includes a target date for completion of the traffic study.

As mentioned above, TEOS frequently forwards streetlight service requests to the public utility that owns the streetlight, or is responsible for underground wiring to a County owned streetlight. When a resident makes a telephone call to report a malfunction of a streetlight owned by a utility company, staff advises the resident that DPWT will forward the request to the utility company. TEOS does not notify residents who e-mail, write a letter, or use the web reporting whether DPWT or a utility company is responsible for repairing a specific streetlight. In addition, TEOS generally does not notify residents that a problem with a County owned streetlight has been forwarded to a utility company when the problem involves the utility company's wiring to the streetlight.

For streetlight and sign/markings repairs, TEOS staff infrequently contact the requester when the work on a service request is completed. DPWT staff note that a resident often is able to determine whether the work has been completed simply by observing the location. TEOS managers require staff to inform residents of the outcome of a requested traffic study and the expected timeframe to implement recommended actions. TEOS does not track staff compliance with this standard.

## **Chapter VII. Findings**

This chapter summarizes the Office of Legislative Oversight's findings on how the Department of Public Works and Transportation (DPWT) handles inquiries and service requests received from residents concerning maintenance and repair of the County's transportation infrastructure.

**Finding #1: Two Sections within the DPWT Division of Operations are responsible for most transportation infrastructure maintenance and repair functions.**

Of the five DPWT Divisions, the Division of Operations is most directly involved in transportation infrastructure maintenance and repair. The Division of Operations consists of six sections. The Division reports that the Highway Maintenance Section and the Traffic Engineering and Operations Sections receive nearly all of the resident inquiries and requests for service sent to the Division.

The Highway Maintenance Section maintains County roadways including resurfacing roads; repairing and replacing curbs, gutters, and sidewalks; and performing mowing and tree maintenance in County rights-of-way. The Council approved a FY07 operating budget of \$27.2 million for the Highway Maintenance Section.

The Traffic Engineering and Operations Section is responsible for providing a safe and efficient traveling environment for pedestrians, bicyclists, and motorists who use County roadways. The Council approved a FY07 operating budget of \$8.4 million for the Traffic Engineering and Operations Section.

**Finding #2: DPWT receives thousands of inquiries and service requests annually from residents concerning the maintenance and repair of the County's transportation infrastructure.**

County residents contact DPWT seeking information or requesting services regarding the maintenance and repair of the County's transportation infrastructure. DPWT staff estimate that the Department receives well over 10,000 inquiries and service requests each year. The majority of inquiries and service requests relate to:

- Roadway and Related Maintenance (including pothole repair);
- Snow, Leaf, and Storm Debris Removal;
- Right-of-Way Tree Maintenance;
- Streetlight Repair;
- Traffic and Pedestrian Safety Studies; and
- Traffic Signing and Marking.

DPWT staff report that the Department often receives multiple service requests regarding the same work item.

**Finding #3: Multiple methods exist for residents to contact DPWT.**

County residents contact DPWT by telephone, e-mail, and letter to make inquiries and service requests regarding all Department programs. Residents may also submit pothole repair, snow removal and streetlight repair service requests via Internet reporting form. A review of a sample of DPWT service request reports indicates that the majority of residents contact DPWT via telephone.

**Finding #4: The DPWT Division of Operations does not have a single method for handling resident service requests. In general, separate organizational units have developed different approaches based on their own workload, management focus, and resources.**

Over many years, DPWT staff has developed different data management, work order management, and reporting practices for specific sections or programs. The variation in practices often reflects the different responsibilities and needs of different organizational units. In addition, most practices developed prior to a departmental reorganization in FY03 which consolidated multiple programs into the newly created Division of Operations.

As a result, organizational units within the Division handle service requests in different ways, including how they:

- **Maintain service request or work order databases.** Organizational units within the Division of Operations maintain no fewer than six separate work order databases. For example, the Highway Maintenance Section maintains three databases that record service request information. The main Section database includes requests for all types of service except for tree maintenance and for pothole service requests submitted through a web-based form. Tree program staff developed a separate and unique database for tree maintenance work.

Pothole service requests received via telephone and e-mail are inputted into the main Section database while service requests received via web-reporting form are stored in a second database. The two databases cannot share or combine their information.

- **Evaluate and prioritize service requests.** All DPWT transportation infrastructure programs give top priority to service requests that involve immediate and pressing safety concerns. However, for non-emergency items, some programs attend to work in the order received while other programs geographically group work orders.
- **Track and report service request workload and backlogs.** Several organizational units track workload data in databases that are capable of producing management reports. Other organizational units maintain databases with extremely limited reporting capabilities.

- **Communicate back to residents who have made service requests.** The different organizational units in the Division of Operations have different practices regarding when and how to notify residents about the status of a service request. In some cases, a resident will receive an acknowledgement indicating that DPWT received a service request sent by e-mail or letter. In other cases, the resident does not receive any acknowledgement. Similarly, some programs inform residents of the status of work performed as a result of a service request; other programs do not contact residents after receipt of a service request.

**Finding #5: DPWT transportation infrastructure programs have developed methods for handling service requests that reflect the type of work performed by the program.**

The differences among how DPWT organizational units handle resident service requests often reflects variations in the type of work performed. For example, the separate tree maintenance database includes fields on the tree type, diameter, age, and pruning history – information that is not relevant to other highway maintenance functions.

**Finding #6: DPWT has not established policies or standards governing how to handle residents' inquiries and service requests.**

Individual organizational units have developed their own practices for handling resident inquiries and service requests. For example, DPWT does not have policies or standards regarding:

- The types of data to be maintained in an inquiry and service request database;
- The process for handling inquiries and service requests sent directly to staff;
- The method for prioritizing service requests;
- The reporting of data about inquiries and service requests; and
- How and when to report back to residents who initiate a service request.

**Finding #7: DPWT is developing new tools to manage inquiries and service requests.**

DPWT has taken several steps to improve the way the Department receives and handles resident inquiries and service requests. In September 2005, DPWT launched a new Consolidated Customer Service Center to provide residents with a single telephone number to access DPWT transportation services. The Consolidated Customer Service Center allows DPWT to standardize the way it handles the receipt of telephone calls.

DPWT is also working to implement an automated inventory and asset management system that will allow DPWT to integrate separate databases for recording resident requests with its databases that record the work performed and planned. DPWT estimates that development of a transportation inventory and asset management system for the

Department including creation of a right-of-way asset inventory would cost about \$725,000. DPWT further estimates ongoing annual maintenance costs for a fully implemented inventory and asset management system would be \$85,000.

DPWT is working to develop a customer service satisfaction survey to solicit customer feedback that may be helpful in the design of employee training requirements and the customer service components of the new inventory and asset management system.

**Finding #8: DPWT has taken advantage of emerging technologies to provide residents new ways to communicate with the Department. However, DPWT has not yet modified data management systems to fully integrate information received through new technology.**

DPWT provides County residents the opportunity to make inquiries and service requests via e-mail. In addition, residents may submit certain types of service request through the Internet. However, DPWT has not yet modified its data management, tracking, and reporting systems to fully integrate information received through e-mail and the Internet. For example, DPWT maintains separate databases for service requests submitted through web reporting forms and those sent by other means. Current data management systems are not capable of consolidating data from these parallel databases.

**Finding #9: The County Government web site contains a wealth of useful information related to the operation and maintenance of the County's transportation infrastructure. However, web site users may have difficulty finding relevant web pages for some DPWT programs.**

The County Government web site includes multiple pages explaining the services provided by DPWT. Many of these pages have detailed information about how DPWT performs its services and what residents should expect from the Department. Several pages also include answers to frequently asked questions, service area maps, and schedules for seasonal activities.

Few DPWT informational web pages prominently display telephone numbers and e-mail addresses. Most pages include contact information in the small print at the bottom of the page.

The County Government web site provides residents an opportunity to report potholes, streets missed during snow plowing, and streetlight malfunctions. The streetlight maintenance reporting form is more prominently featured on the County's web site than the potholes and snow removal reporting form. The County web site does not have reporting forms for other DPWT services such as roadway repair, sign replacement, leaf collection, or tree pruning.

The County web page includes two methods to search for information. When used to find information about transportation infrastructure, one search function returned relevant results, the other returned unhelpful results.

## Chapter VIII. Recommendations

Based on the findings of this report, the Office of Legislative Oversight offers three recommendations to the County Council concerning the handling of resident inquiries and service requests by the Department of Public Works and Transportation (DPWT). In sum, OLO recommends that the Council:

- Support implementation of DPWT's customer service initiatives.
- Request that the Chief Administrative Officer (CAO) establish policies for how the County Government handles resident inquiries and service requests related to maintenance and repair of the County's transportation infrastructure, including standards for upgraded data management and reporting systems.
- Request the CAO prepare a plan for improving how residents are informed about accessing program information and services related to maintenance and repair of the County's transportation infrastructure.

The details for each of these recommendations are outlined below.

### **Recommendation #1: Support implementation of DPWT's customer service initiatives.**

DPWT has taken several steps to improve the way the Department receives and handles resident inquiries and service requests concerning maintenance and repair of the County's transportation infrastructure. Last year, DPWT launched a new Consolidated Customer Service Center that allows for standardization of the handling of resident telephone calls. DPWT is also working to implement an automated inventory and asset management system that will allow DPWT to integrate databases that record resident requests with other databases that record work orders planned and performed. Finally, DPWT is developing a customer service satisfaction survey to solicit customer feedback that may be helpful in the design of employee training requirements and the customer service components of the new inventory and asset management system.

The Council should encourage and support DPWT initiatives to improve how the Department receives and handles resident inquiries and service requests.

**Recommendation #2: Request that the CAO establish policies for how the County Government handles resident inquiries and service requests related to maintenance and repair of the County's transportation infrastructure, including standards for upgraded data management and reporting systems.**

Specific items for these policies to address include:

- The types of data to be maintained in work order or customer service databases;
- The process for handling and tracking service requests sent via different means of communication (telephone, e-mail, letter, web-reporting form);
- The process for handling and tracking service requests received through different points of contact (including requests sent to elected officials and those sent directly to staff);
- The method for prioritizing service requests;
- The reporting of data about inquiries and service requests and the use of this data in program management; and
- The criteria for reporting back to residents who initiate a service request.

As different organizational units perform varied types of work, customer service policies likely will vary among the sections and programs of the DPWT Division of Operations. It would be unrealistic to expect identical policies throughout the Division. Rather, each organizational unit should have defined standards tailored to its specific program characteristics. Nonetheless, OLO recommends that the County establish certain minimum customer service, data management, and reporting standards applicable to all sections and programs in the Department.

Current DPWT information systems are incapable of providing the data that are needed to effectively track and report on program performance. Improvement of data management systems is essential for DPWT to successfully implement new customer service and work load management standards. DPWT has begun to address data management deficiencies through its work to develop an automated inventory and asset management system. In developing this new system, DPWT should consider what types of data fields and reports would be needed to adequately measure program performance.

The establishment of inquiry and service request policies and standards coupled with the development of an improved data managements system should result in enhanced customer service and greater operational efficiency, including:

- The ability to identify identical service requests submitted by multiple sources or multiple times;
- The ability to consolidate information about service requests received through all means of contact (telephone, e-mail, letter, and web-reporting form);

- The ability to generate automated reports that identify the highest priority outstanding service requests;
- Greater opportunity to consolidate of work orders by geographic location;
- The ability to make staffing and resource allocation decisions based on records of actual work orders and service requests;
- The availability of data needed to conduct performance evaluations of different programs; and
- The ability to target public outreach to areas of greatest need (for example, through the identification of most frequently asked inquiries or service requests).

**Recommendation #3: Request the CAO to prepare a plan for improving how County residents are informed about programs and services related to maintenance and repair of the County's transportation infrastructure.**

The Council should request the CAO to prepare a plan describing preferred strategies to inform residents about DPWT program information and services. OLO would expect that the involved departments/offices include, at minimum, DPWT, the Public Information Office (PIO) and the Department of Technology Services (DTS),

OLO recommends that the plan address the following issues:

- **Primary Contact Information.** The plan should identify which telephone numbers and web addresses to publicize as the primary points of contact for residents wishing to make an inquiry or service request. A single telephone number and web address should be associated with each DPWT program in all on-line and printed directories as well as in all DPWT publications. By designating preferred points of contact, DPWT may more effectively assign staff and design data systems to respond to resident inquiries and service requests.
- **Web Site Presentation, Design, and Functionality.** The County Government should evaluate how easily residents are able to locate program and service information on the County Government web site. With the assistance of DTS, DPWT should review how residents search for information on the web site. Residents that easily find relevant information on the web are likely to be more satisfied customers and less likely to submit inquiries or misdirected service requests.
- **Web-Reporting Forms.** DPWT and the PIO should develop criteria to select which types of service requests may be submitted by web-reporting form and how residents find the forms on the County Government web site.



OLO recommends that the Council monitor the progress made in the handling of resident inquiries and service requests regarding the maintenance of the County's transportation infrastructure. The Council should request an update by March 2007 on the status of ongoing customer service initiatives, the implementation of new customer service policies and standards, and the development of an outreach plan.

## **Chapter IX. Agency Comments**

The Office of Legislative Oversight circulated a final draft of this report to the Chief Administrative Officer and the Directors of the Department of Public Works and Transportation, the Public Information Office, and the Department of Technology Services. OLO appreciates the time taken by Executive Branch representatives to review the draft report and provide feedback.

OLO's final report incorporates technical comments and corrections provided by the Chief Administrative Officer. The written comments from the Chief Administrative Officer on the final draft report appear on the following page.