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Survey Report

TRANSPORTATION SPENDING

September 2002

**Office of the City Auditor
Austin, Texas**

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On September 24, 2002, the Office of the City Auditor presented this audit report to the City Council Audit and Finance Committee. The Committee accepted the audit report.

This report is also available at our website, <http://www.ci.austin.tx.us/auditor>, in pdf format. You may also request additional hard copies through the website or by email at oca_auditor@ci.austin.tx.us. Please request Audit No. AU02306.



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City of Austin



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September 24, 2002

To: Mayor and Council Members

From: Stephen L. Morgan, City Auditor

Subject: Transportation Spending Audit Survey Report

I am pleased to present this survey report on transportation spending in the City. The purpose of this audit was to review transportation-related spending by the City. We assessed how transportation projects are planned, where spending occurred geographically, how projects are monitored, and performance results for transportation programs.

Although from a five-year perspective we identified some opportunities for improvement, we concluded that management was already seeking to address the majority of the issues identified and that the largest risks associated with transportation infrastructure spending are being adequately addressed. As a result, we recommend that audit work end at this point.

We appreciate the cooperation and assistance from Transportation, Planning, and Sustainability Department and Public Works Department staff during this audit.

Stephen L. Morgan, CIA, CGAP, CFE, CGFM
City Auditor

TRANSPORTATION SPENDING COUNCIL SUMMARY

This report presents information and findings from our audit survey work on transportation spending in Austin.

From our work in the “survey” phase of the audit, we noted that the Transportation, Planning, and Sustainability Department (TPSD) and the Public Works Department (PWD) had adequate methods in place for planning transportation spending projects, which contributed to an equitable distribution of transportation spending throughout the City. In addition, most transportation-related programs met or exceeded performance targets for the period reviewed, and monitoring was in place for transportation projects.

We also noted some areas that we felt could be strengthened. For example, some departmental procedures should be documented to help guide consistent decision-making. Also, the Bicycle and Pedestrian program stood out as not meeting performance targets. Specifically, only a small portion of the bicycle plan has been implemented. As a result, resource levels or performance targets may need to be adjusted.

During this survey work, we recognized that there are several efforts currently underway to improve information available regarding transportation projects. In future years, these tools can be used to strengthen Citywide planning and monitoring of transportation spending.

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BACKGROUND

One important aspect of the identification and implementation of transportation improvements is addressing geographic equity. The number of parties with input into transportation planning provides a variety of perspectives when identifying and selecting transportation improvements. Once projects are selected, a number of City programs are responsible for implementing transportation infrastructure improvements.

Addressing equity is an important aspect of the identification and implementation of transportation projects. For any city, distributing resources in an equitable manner is an important component of city services. Equitable distribution implies that resources are allocated in a fair and impartial manner. It is important to note that a strict geographical split of transportation spending is neither required nor desirable. Instead, fair and impartial allocation of transportation resources requires attention to the relative need for transportation improvements in each area of the city.

As a result, a review of spending equity requires looking at other factors in addition to the amount of money spent in an area. Factors such as the condition of infrastructure, the volume of traffic, and the impact of projects on safety are also considered when determining whether projects are equitably distributed to address transportation needs. Likewise, different needs require different amounts of investment. For example, the construction of new streets is much more costly than maintenance and repair, and the construction of new off-street bicycle and pedestrian facilities is more costly than the addition of bicycle and pedestrian facilities to the current street network.

Multiple agencies provide different perspectives in selecting, planning, and implementing transportation projects. The number of parties with input into transportation planning provides a variety of perspectives when selecting and implementing transportation projects.

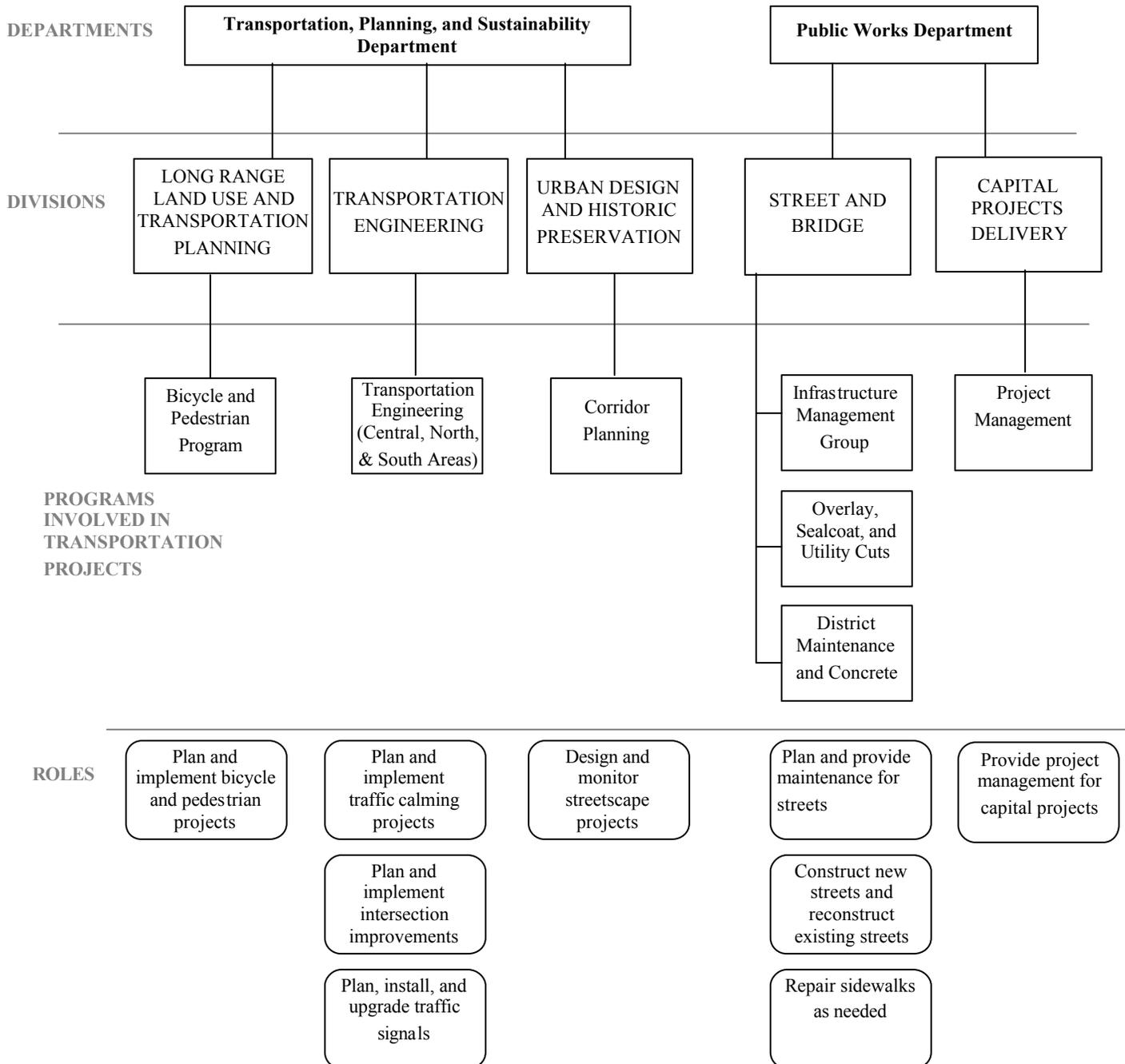
The Transportation, Planning, and Sustainability Department (TPSD) and the Public Works Department (PWD) plan and implement transportation infrastructure improvements in conjunction with other agencies including the Capital Area Metropolitan Planning Organization (CAMPO), the Texas Department of Transportation (TxDOT), and the Capital Metropolitan Transportation Authority (CapMetro). Within the City of Austin, TPSD, PWD, the City Council, and several boards and commissions have input into the planning of infrastructure improvements. Each entity listed above and its role in addressing Austin's transportation infrastructure needs is shown in the table on the following page.

EXHIBIT B.1
Austin Area Entities with Roles in Public Transportation Spending

Entity	Roles
CAMPO	<ul style="list-style-type: none"> ▪ Coordinate regional transportation planning with the state, counties, cities, and transit agencies in the Austin area ▪ Prepare short-term and long-term planning documents to identify regional transportation projects ▪ Approve uses of federal transportation funds in Austin
TxDOT	<ul style="list-style-type: none"> ▪ Reconcile state transportation plans with local transportation plans to ensure connectivity ▪ Review projects obtaining federal grant funds from CAMPO ▪ Administer federal grant funding approved by CAMPO
CapMetro	<ul style="list-style-type: none"> ▪ Annually reimburse spending for select City transportation projects
City Council	<ul style="list-style-type: none"> ▪ Approve the City’s capital budget ▪ Approve grant submissions ▪ Approve bond ballot language ▪ Approve policies to distribute transportation funds
City Commissions – <ul style="list-style-type: none"> ▪ Planning ▪ Urban Transportation ▪ Bond Oversight 	<ul style="list-style-type: none"> ▪ Serve as advisory bodies to Council in matters concerning transportation projects and funding ▪ Review and provide feedback on CAMPO plans ▪ Review and make recommendations regarding transportation projects in the capital budget and five-year capital project plan ▪ Review the implementation of transportation projects (Bond Oversight reviews bond-funded projects only) ▪ Receive citizen comments and suggestions related to transportation
Citizens	<ul style="list-style-type: none"> ▪ Approve bonds through voting ▪ Provide input on transportation projects to entities above through public hearings ▪ Suggest transportation projects through neighborhood planning initiatives, complaints, and requests
Budget Office	<ul style="list-style-type: none"> ▪ Compile the Citywide five-year capital project plan ▪ Monitor annual spending by departments
TPSD and PWD	<ul style="list-style-type: none"> ▪ Prepare and submit transportation spending estimates for capital projects ▪ Prepare bond projects and submit applications for grant funding ▪ Identify and prioritize transportation projects to be carried out with available funds ▪ Implement identified transportation projects ▪ Monitor transportation projects in progress

A number of City programs are responsible for implementing transportation infrastructure improvements. Programs in the City of Austin’s Transportation, Planning, and Sustainability Department (TPSD) and the Public Works Department (PWD) plan, implement, and monitor transportation infrastructure improvements. These programs and their roles in implementing transportation improvements are shown in the following diagram.

**EXHIBIT B.2
City Programs Responsible for Transportation Projects**



We categorized transportation infrastructure projects as three types: street improvements, street maintenance, or neighborhood improvements. Street improvement projects involve repairing or adding capacity to the current Austin infrastructure network, while street maintenance projects involve ongoing preventative maintenance to extend the life of streets in the network and street repairs such as pothole filling to improve street drivability. Neighborhood improvement projects are projects that improve the safety and mobility of neighborhood residents. Descriptions of the project types in each of these categories are shown below.

Street Improvements

- Construction of new streets and bridges
- Reconstruction/rebuilding of current streets and bridges
- Streetscape projects to create multi-modal corridors
- Intersection improvements, like adding turn lanes, to reduce congestion
- Installation or replacement of signals at intersections

Street Maintenance

- Overlaying asphalt to level, waterproof, and restore the original street shape and ride
- Replacing the asphalt surface of a street to address extensive cracking, roughness, or surface rutting
- Sealing streets with various techniques to block out moisture
- Repairing street surfaces through patching, level-up, and surface replacement

Neighborhood Improvements

- Construction of bicycle and pedestrian facilities such as bridges or hike and bike trails
- Installation of traffic-calming devices
- Construction and repair of sidewalks
- Installation of bicycle lanes

OBJECTIVES, SCOPE, AND METHODOLOGY

Objective. The survey objective for this audit was to summarize the risks and vulnerabilities associated with implementation of transportation infrastructure. This included reviewing transportation practices to see if:

- Transportation policies and procedures guide equitable decision-making for transportation projects.
- Transportation infrastructure projects are properly monitored to achieve desired results.
- Transportation policies, planning and process are in line with best practices.
- Transportation-related performance targets are met by departments.

Scope. The scope of this audit included conducting audit work in two departments: the Transportation, Planning, and Sustainability Department (TPSD) and the Public Works Department (PWD). We reviewed transportation spending data for the past five years (FY97 to FY01) for transportation infrastructure improvements including maintenance, construction, and reconstruction projects occurring on City streets, bridges, and sidewalks.

Per the advice of the City Attorney, the original scope of our work was amended to exclude revenue data due to ongoing legal issues.

Methodologies. In order to satisfy our survey objectives, we did the following:

To determine planning and monitoring in place, we interviewed City staff involved in implementing and managing transportation projects and reviewed Citywide and department level documents related to transportation planning and monitoring processes.

To assess how spending was distributed throughout the City during the study period, we extracted five years of performance information from the City's financial system (AFS2). To determine where spending occurred, we traced financial data to the eCAPRIS system. For projects that did not have location information in eCAPRIS, we obtained necessary information from department staff. We then used collected information to map projects using Geographic Information System (GIS) software. To separate spending among areas, we used the City police sectors, which break out downtown from other areas of the City.

To determine how Austin compared to best practices, we conducted a survey of the seven largest Texas cities (excluding Austin), which included questions related to transportation infrastructure practices. Six of the seven cities surveyed responded. In addition, we reviewed industry literature, best

practices, and national benchmarks related to transportation infrastructure. We also reviewed and spot checked performance data for measures related to planning, implementing, and monitoring transportation infrastructure.

This audit survey work was conducted in accordance with generally accepted government auditing standards.

AUDIT SURVEY RESULTS

From our work in the “survey” phase of the audit, we noted that the Transportation, Planning, and Sustainability Department (TPSD) and the Public Works Department (PWD) were actively strengthening their planning and decision-making processes. Further, the departments had adequate methods to identify and prioritize transportation projects, which resulted in a fair distribution of spending throughout the City. Based on the information collected and reviewed, we concluded that the largest risks associated with transportation infrastructure spending are being adequately addressed.

We also noted that Citywide project monitoring was in place, but can be strengthened to provide feedback on planning of transportation projects. At the department level, project monitoring was in place to ensure that performance targets were met, and most transportation programs were meeting their performance targets. However, one program, the Bicycle and Pedestrian program, stood out as not meeting performance targets. For this area, resource levels or performance targets may need to be adjusted.

City Departments had adequate methods to identify and prioritize transportation projects, and spending flowed fairly from planning methods.

For some types of projects, department staff used written policies and procedures to guide the identification and prioritization of transportation projects. In situations where a City department did not have an official policy or procedure, planning tools were in place to identify and prioritize infrastructure projects. However, the processes guiding application of these planning tools should be formally documented to ensure consistent application. During our survey of other cities, we noted that Austin had more in the way of written policies and procedures to guide transportation project selection than other Texas cities surveyed. Planning processes in place led to a fair distribution of transportation spending around the City for the period reviewed.

Both the Transportation, Planning, and Sustainability Department and the Public Works Department had adequate methods in place to identify and prioritize infrastructure improvements. The departments’ processes for identifying and prioritizing projects ranged from documented policies to the application of planning tools. In order to identify and prioritize projects, TPSD and PWD staff followed a three-step process: first taking inventory of what infrastructure needs should be addressed, then deciding what could be fixed

with engineering solutions, and then analyzing which projects would have the most return on investment in terms of traffic flow, safety, and other variables.

Street Improvements

At TPSD, a formal tool was used to identify and prioritize street improvement projects funded by bond monies. This matrix tool incorporated traffic volume, number of accidents, traffic delay information, and other factors. Using the information in this matrix, TPSD compiled a score for each individual project and rated it for selection and prioritization. For other street improvement projects planned by TPSD, such as intersection improvements, TPSD used similar criteria to identify and prioritize projects. However, the process for non-bond projects was not documented by the department.

Street Maintenance

For street maintenance projects, the Pavement Quality Index (PQI) was the main criterion used by the Street and Bridge division to assess street condition. Data for determining the PQI was collected by a third-party engineering firm, that used riding roughness and surface distress measurements to assess the condition of streets. Division staff then used the Pavement Management Information System (PMIS) to categorize streets into condition classes (Excellent, Good, Fair, Poor, or Failed). Condition is determined approximately once every two years. The frequent assessment of streets helps ensure that data used to prioritize maintenance projects is current.

Once the condition of each street was determined, the division generated a prioritized list that took into account condition as well as other factors such as the cost/benefit ratio, volume of traffic, safety, customer requests, workflow efficiency, and coordination with other projects.

Neighborhood Improvements

Identification of bicycle and pedestrian projects followed written policies contained in the Bicycle Plan and in the Pedestrian Plan. Once projects were identified, departmental procedures were used to prioritize projects.

The Bicycle Plan includes requirements to create both on-street and off-street bicycle networks. This plan also contains a list of existing and recommended facilities for the street segments comprising the planned bicycle network. Implementing bicycle projects often requires coordination with TxDOT, because TxDOT approves City projects prior to releasing funding for projects. This coordination can affect the prioritization of projects. Prioritization of bike projects followed an undocumented process, but staff used variables such as bicycle traffic, proximity to common destinations, and citizen input. In some cases, projects were prioritized to coincide with street maintenance or reconstruction projects.

The Pedestrian Plan encourages walking as a viable means of transportation for citizens, inventories high pedestrian traffic areas, and describes the process for project selection. The first part of this plan lists areas with high pedestrian traffic and details factors such as pedestrian safety, network completion, and proximity to common destinations, that should be used to determine which projects should have higher priority in the construction schedule. Program staff are in the process of developing a second part of the plan, which contains guidance for implementation of pedestrian projects.

For planning purposes, pedestrian projects were divided into three categories: downtown sidewalks, sidewalks on arterial streets (those with 2 or more lanes in one direction), and sidewalks identified by neighborhoods. Projects were prioritized differently depending on the project category. In the downtown area, all sidewalks will eventually be built or repaired. At the time of review, there were no formal methods in place to determine which downtown sidewalks should be completed first. On arterial streets, sidewalk projects were prioritized using two factors: average daily traffic and the density of the area. For neighborhood street projects, a sidewalk matrix was used to prioritize projects. These projects were identified mainly through the neighborhood planning process, then Bicycle and Pedestrian Program staff rated projects using specified measures of density, proximity to transit and other attractors, safety, and equity.

For traffic-calming projects, TPSD identified potential projects by evaluating the following factors: ratio of requests per acre, speed, and traffic volume. Traffic Calming Program staff divided the city into geographic sections (southwest, southeast, northwest, northeast, and central) and determined several project areas within each geographic section based on the factors above. Once potential projects were identified, resident response was used to determine whether or not a project would go forward. Sixty percent of ballots returned by residents had to indicate approval in order for a traffic-calming project to be implemented. Once traffic-calming projects were approved, the time it took to design and contract each project influenced the order of project implementation.

Methods for identifying and prioritizing projects were not all documented to help guide consistent decision-making. The TPSD indicated that there were not many written policies used to guide the identification and prioritization of infrastructure improvement projects. Although tools were in place for identifying and prioritizing projects, the process for applying these tools was not documented in written policies or procedures. The development of more formal policies and procedures for identifying and prioritizing projects could assist the City in ensuring that an equitable selection of projects takes place. The responsible Assistant City Manager has recently recognized the need for documenting project selection methods and encouraged departments to formalize and document these methods.

Austin’s planning processes compare favorably to other Texas cities surveyed. To ascertain how Austin compares with other Texas cities in terms of transportation planning and implementation, we surveyed five of the largest cities in Texas: Houston, Dallas, Fort Worth, El Paso, Arlington, and Corpus Christi.

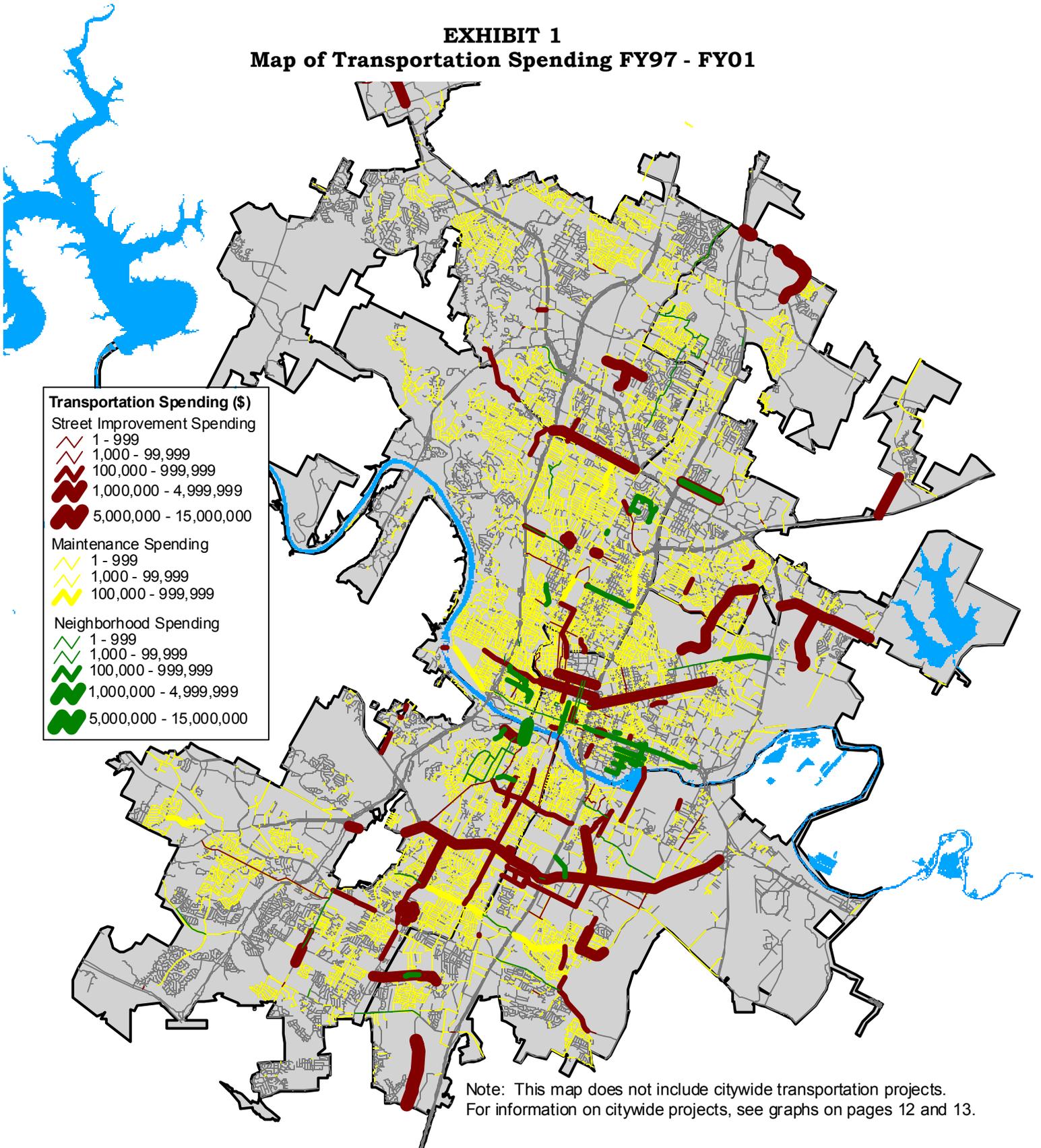
Only one of the five Texas cities surveyed, Dallas, reported that they had written policies in place to guide identification or prioritization of construction and maintenance projects. Although the other cities did not have documented processes to guide identification and prioritization of projects, the factors used to select projects in the other cities surveyed were similar to those used in Austin. These factors include funding availability, street condition, Council input, and citizen input and requests.

Three of the cities surveyed, El Paso, Corpus Christi and Dallas, had written policies to guide bicycle and pedestrian improvements. Corpus Christi used adopted area plans to identify projects, while Dallas and El Paso used Bicycle Plans. The City of Fort Worth is currently in the process of adopting a Bicycle Plan to assist in project identification. Whether or not they had formal policies in place, the cities surveyed indicated that factors such as availability of right-of-way, connectivity with the existing network, demand for infrastructure, funding, and safety concerns influenced the identification and prioritization of bicycle and pedestrian projects.

Spending for transportation projects around the City was congruent with the planning process. Based on our review, spending for the last five years was distributed across the City and not concentrated in any one area. The exhibits on the following pages indicate the distribution of transportation spending among areas of the City. The geographic areas shown were determined using current police sectors, which divide the City into six areas, including a downtown area separate from other central areas.

Specific spending information by location was unavailable for some projects and we categorized these projects as Citywide. For some older projects (e.g. sidewalk projects), the actual location of work was not tracked. For other types of projects, locations were tracked but spending was not necessarily captured by location. For example, spending on traffic signal improvements was only captured by location for new signal installations.

EXHIBIT 1
Map of Transportation Spending FY97 - FY01

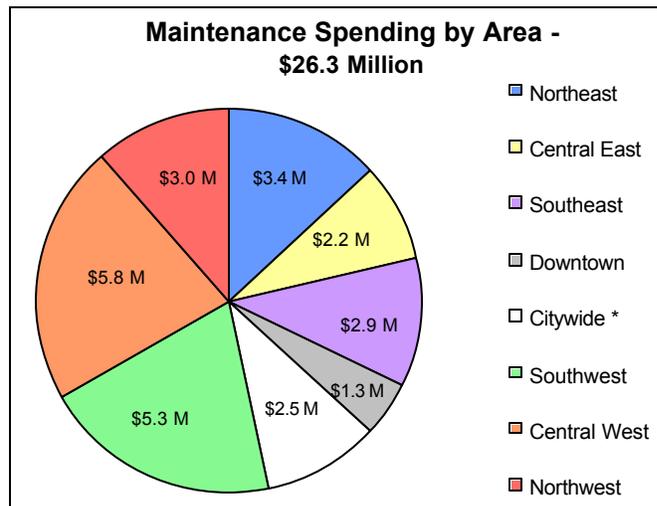
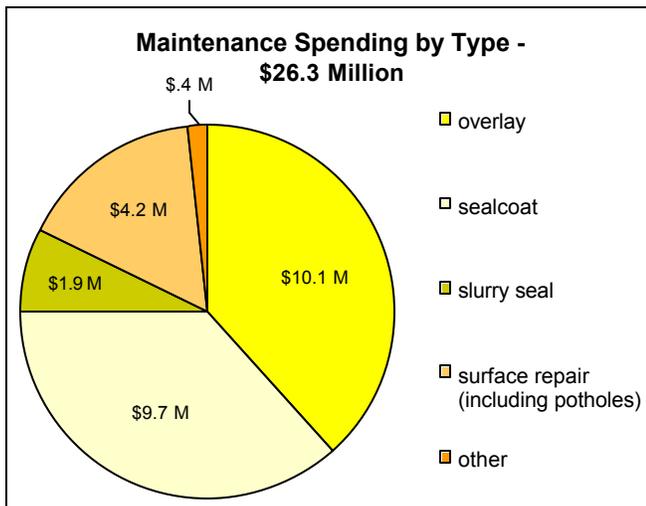
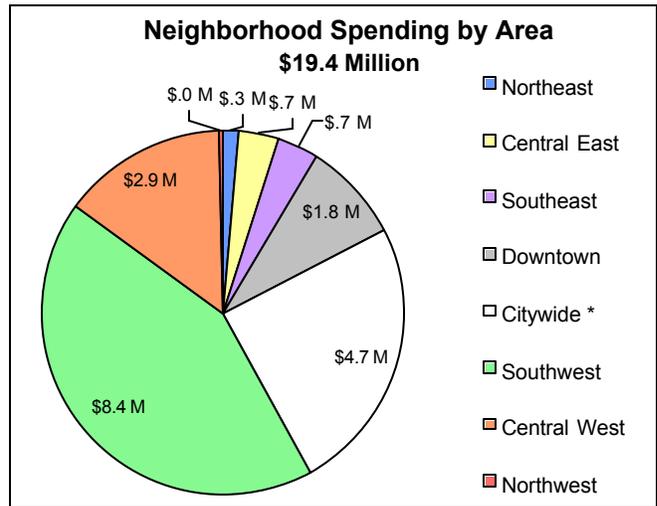
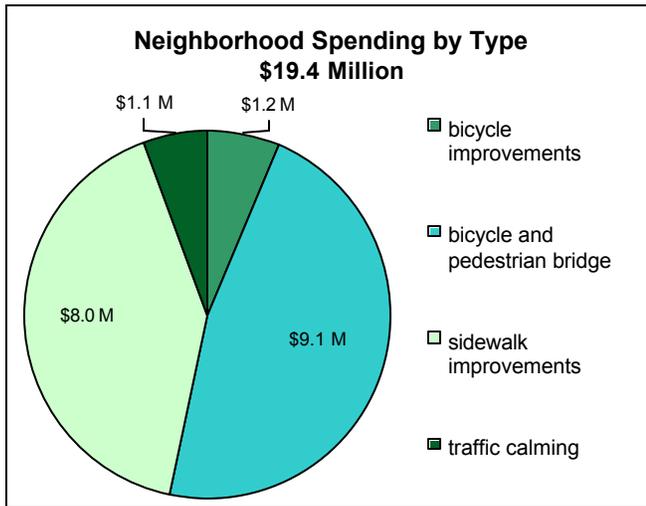
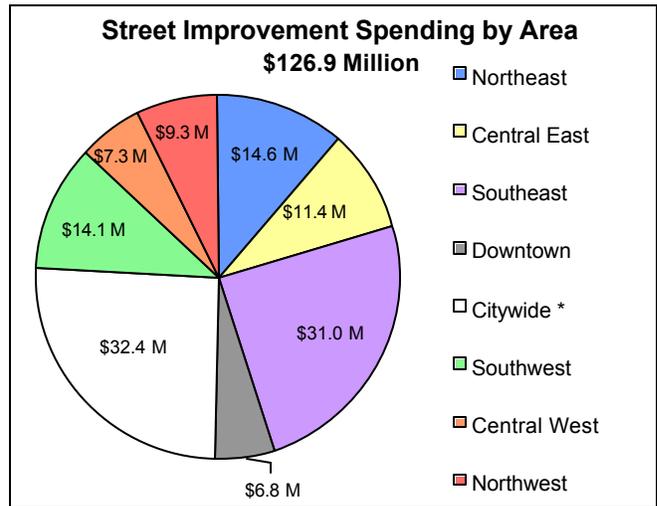
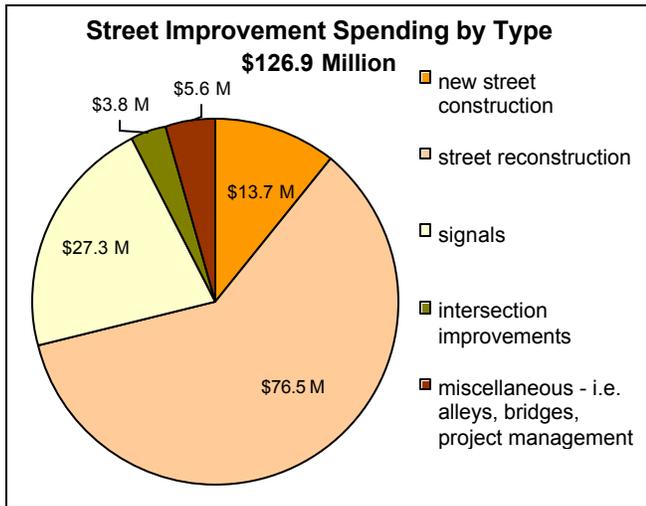


Note: This map does not include citywide transportation projects. For information on citywide projects, see graphs on pages 12 and 13.

	Street Improvement Spending includes street construction and reconstruction, bridge and alley work, right of way acquisition, intersection improvements, and signals installations.
	Neighborhood Spending includes traffic calming and bicycle and pedestrian improvements.
	Maintenance Spending includes overlay, sealcoat, slurry seal, and surface repair projects.

EXHIBIT 2

Breakdown of Transportation Spending By Type and Area FY97 - FY01

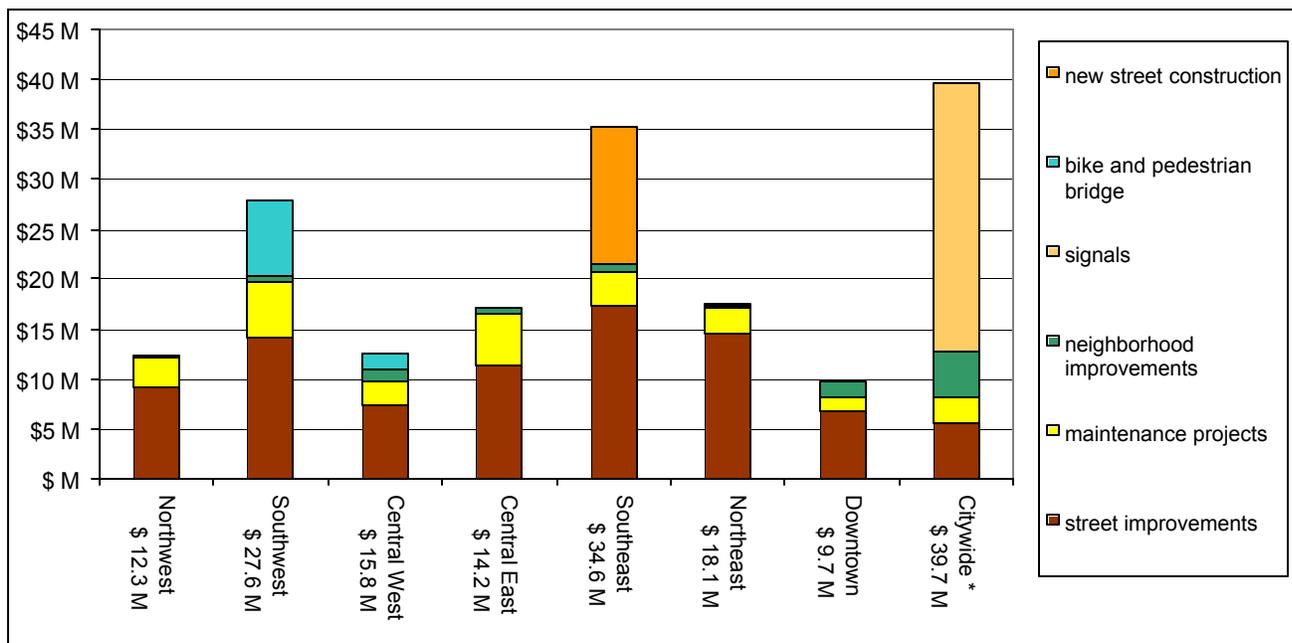


SOURCE: OCA analysis of financial data for transportation projects.

* The Citywide category contains projects for which spending information by location was not available or not tracked.

As shown on the preceding pages, spending occurred in every area of the City, but the majority of location-specific spending occurred in Southeast Austin. Transportation spending in Southeast was higher than the other areas in part because of the construction of a new extension to South First Street. Southwest Austin also had a greater amount of spending because the southwest area included the City’s construction of a bicycle and pedestrian bridge over Town Lake. Because the cost of constructing new infrastructure is typically greater than the cost of maintaining or improving current infrastructure, the exhibit below shows spending for these large projects separated from other projects. After accounting for new construction projects, other transportation spending was spread relatively evenly between areas.

EXHIBIT 3
Comparison of Transportation Spending With Major Projects Highlighted
FY97 - FY01



SOURCE: OCA analysis of data from AFS2 and eCAPRIS using Geographic Information System (GIS) software.

* The Citywide category contains types of projects for which spending information by location was not available or tracked.

When differences do exist between areas, numerous factors may account for the difference. Newer areas of the City may require less spending than others because the street infrastructure is less deteriorated and the sidewalk network is more complete, consistent with new design guidelines. In addition, the condition of the soil, type of work performed, size of the area, and direction of City growth all affect the amount of money spent in an area.

Most transportation programs met their performance targets and results compared favorably with other Texas cities; however, one program did not meet performance targets for the period reviewed.

We noted that Austin generally met or exceeded performance expectations and compared favorably with data obtained from other cities. We also noted that one program, the Bicycle and Pedestrian program, did not meet performance goals for several bicycle-related measures in the period reviewed (FY97 to FY01).

Overall, transportation programs met their performance goals and performance results compared favorably with other Texas cities surveyed. Our review and spot check of performance data for programs involved with transportation projects indicated that Austin often met and sometimes exceeded goals related to transportation infrastructure. For example, the Street and Bridge division exceeded its performance goals for lane miles of sealcoat and crack seal maintenance. Likewise, the Capital Projects Delivery program met targets for the number of projects completed, as well as for achieving projects within budget.

The achievement of performance targets can be tied in part to the linkage of department performance measures to individual project monitoring and to ongoing monitoring of performance. The Capital Projects Delivery program directly linked performance appraisals for project managers to on-budget and on-schedule results. The Street and Bridge division monitored performance data on an ongoing basis in order to verify crew performance, correct paperwork deficiencies, and ultimately ensure that performance targets are met.

Also, Austin performance results were comparable to those of other Texas cities surveyed. The International City/County Manager's Association (ICMA) only tracked one measure related to the condition of street infrastructure—"percentage of streets assessed in satisfactory condition". Of the cities nationwide reporting to ICMA in FY 00, less than half assessed their full inventory of streets. Of those assessing street condition for their full inventory, the average percent of inventory in satisfactory condition was 76 percent. Austin's percent of the street network in satisfactory condition is 72 percent. Exhibit 4 shows that compared to the four other Texas cities reporting for their full inventory to ICMA, Austin's result fell in the middle. In addition, Austin exceeded the performance target for this measure, which was 70 percent. Austin's goal for FY 02 is slightly higher at 73 percent.

EXHIBIT 4
FY 00 Percent of Street Network in Satisfactory Condition
for Texas Cities Reporting to ICMA

Bryan	41 %
Fort Worth	69 %
Austin	72 %
San Antonio	82 %
Grand Prairie	98 %

SOURCE: ICMA Survey of Other Cities for FY 00.

One program, the Bicycle and Pedestrian program, did not meet performance goals for several measures for the years reviewed. Although the Bicycle and Pedestrian program met or exceeded most pedestrian-related measures, such as square feet of sidewalk constructed, the program lagged behind on bicycle-related measures. The program did not meet targets for the number of bicycle route miles analyzed or implemented for most of the period reviewed. In addition, targets for performance have remained fairly consistent over time even though performance has not met targets. The targets and results for measures related to bicycle plan implementation are shown below in Exhibit 5.

EXHIBIT 5
Bicycle-Related Performance Measures FY99 - FY03

	FY99 Actual*	FY00 Target	FY00 Actual	FY01 Target	FY01 Actual	FY02 Target	FY02 CYE	FY03 Proposed
Route Miles Analyzed	45	195	167	170	79	170	40	40
Route Miles Implemented	22	146	9	116	5	116	25	30
% of Analyzed Route Miles Implemented	49%	75%	5%	68%	6%	68%	63%	75%

SOURCE: City of Austin budget documents and department reports FY99 - FY03.

* Target information was not available for FY99.

These program targets were initially set based on a fully staffed program and little knowledge of how much time was necessary to analyze and implement bicycle route miles. In addition, program staff cited delays in grant coordination with TxDOT, staff vacancies, and unrealistic goal setting by the program when measures were established.

If TPS is unable to improve staffing or the processes for analyzing and implementing bicycle route miles, the department may need to modify their performance targets. In fact, the FY03 targets (shown above) proposed by the department have been lowered for the number of route miles analyzed and implemented based on FY02 results. Although reducing targets provides more realistic expectations for the program, this reduction may extend the amount of time needed to implement the bicycle plan. Since the adoption of the bicycle

plan in 1999, only about ten percent of the 652 route miles identified in the bicycle plan have been implemented.

Monitoring was in place for transportation projects, and existing tools can be used to strengthen Citywide planning for transportation spending.

For individual projects, processes for monitoring projects were documented and in place. Monitoring of the Citywide annual spending plan for projects was also in place. In addition, we noted that Citywide monitoring was being strengthened through project management databases and, in the future, should be able to provide improved feedback to planning for transportation spending.

For individual transportation projects, monitoring was in place. Program policies and procedures were used in conjunction with database tools to ensure consistent monitoring of individual transportation projects.

For street maintenance projects such as sealcoat and overlay projects, monitoring and reporting was the responsibility of the Street and Bridge division at Public Works, and was tracked using the computerized Pavement Management Information System (PMIS). The system was used to track, among other things, when and where maintenance was performed, what materials were used for the project, and which individuals performed the work. Tracking this information allowed Street and Bridge employees to monitor projects and link project information directly to performance measures.

For non-maintenance projects such as street reconstruction and bicycle and pedestrian projects, the Capital Project Management group at PWD managed and reported on projects. (Smaller bicycle and pedestrian projects were managed by the Bicycle and Pedestrian program). The Capital Project Management group had detailed policies and procedures to direct project management, and used these in conjunction with eCAPRIS, the City's on-line database for project management. The eCAPRIS database was used to collect project budget and schedule information, and project managers and supervisors could review this information to assess project progress. Beginning last fiscal year, the eCAPRIS system has been used to calculate performance results for on-schedule and on-budget measures.

Spot checks of information from the PMIS database and more extensive review of information in the eCAPRIS database did not reveal any serious data problems. The eCAPRIS system is relatively new and thus does not contain enough information on previous years' projects to allow for comparisons with planning documents. However, as discussed in the following sections,

eCAPRIS should be more useful in the future for performing these comparisons.

Citywide monitoring of the one-year capital spending plan is also in place.

Council requires a five-year Capital Improvement Program (CIP) Plan that outlines future spending for current and new capital projects. Following development of the five-year plan, a one-year capital spending plan is approved. We noted that monitoring of the one-year plan was in place. The City's Budget Office monitored the one-year plan to gauge departments' performance, and this information was available in the eCAPRIS system. In addition, the plan was tied to the performance appraisals of department directors.

The one-year plan also serves as a tool for monitoring the five-year CIP plan. For the period reviewed (FY97 through FY01), the five-year plan was not updated to reflect approved project budgets or monitored against actuals. On a related note, we had difficulty linking projects in the five-year plan to expenditures in the financial system. As a result, we were unable to compare the projections in the five-year plan to actual spending for the same period to gauge the effectiveness of the planning tool. However, it is important to note that information in eCAPRIS is now being tracked in a manner that should allow for future such comparisons to the five-year CIP plan.

As more data is added to the eCAPRIS system, the City should be able to provide more meaningful feedback to transportation spending plans. For future years, monitoring of five-year project spending should be facilitated by the eCAPRIS system. In addition, location information can be tracked and geographically displayed for monitoring purposes using the system.

At the time of our review, project spending estimates for future years were recorded in the system by project, and reports were available to compare actual spending to estimates. This means that within the next few years, a full five-year set of data will be available for comparisons of the five-year CIP Plan to actual spending in order to begin assessing the usefulness of five-year planning.

Mechanisms to geographically display transportation projects and spending can also serve as a Citywide monitoring tool. Currently, maintenance projects can already be geographically displayed using data from the Pavement Management Information System (PMIS).

While the eCAPRIS system had the functionality to display project locations for transportation projects, the system did not contain all location data for this purpose. For some project types, spending would need to be tracked by location in order to assess where money is distributed around the City. Although it may not be worthwhile to enter location and spending information

for past projects, as the eCAPRIS database matures the ability to provide perspective on past, present, and future transportation projects should be valuable to future planning efforts.