City of Charlottesville
Efficiency Study

Report

January 2017

January 11, 2017

Maurice Jones
City Manager
City of Charlottesville
605 East Main Street
Charlottesville, VA 22902

Dear Mr. Jones:

We are pleased to provide you with our report relative to the Efficiency Study for the City of Charlottesville. This draft report includes recommendations designed to improve the overall effectiveness and efficiency of City services.

The recommendations contained in this report are based on our analysis of input and information provided by City staff and informed by industry standards and best practices applicable to Charlottesville. The City is staffed by thoughtful, dedicated employees who sincerely strive to do their best for the community and serve the organization. They are doing so by implementing many best practices we see in other high performing organizations across the country. We believe the recommendations in this report will augment staff's ability to perform with increased efficiency and effectiveness.

Thank you for the opportunity to serve the City of Charlottesville.

Sincerely,

Julia D. Novak
President

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Executive Summary

Charlottesville finds itself in an enviable position. For many communities across the country, the Great Recession resulted in negative growth and a deteriorating economic climate. The City of Charlottesville, however, was able to weather the period without significant impact to service delivery or organizational structure – critical services remained fully funded and no layoffs or furloughs of City staff were implemented. This is due, in large part, to a history of sound fiscal management and prudent operational planning.

Today, Charlottesville is thriving and is simultaneously working to support people in the community who find themselves living in poverty. A proactive City government cares about services for all its residents and Charlottesville has made this a priority.

All major sources of revenue show positive growth, including sales tax, meals tax and lodging tax. Both residential and commercial real estate assessments continue to increase in value. Once again, the City was awarded a AAA/aaa bond rating on its latest issuance in May 2016 by both Moody's Investor Services and Standard & Poor's, respectively.

On the economic development front, the City's downtown continues to be a destination for the region. Vacancy rates are at an all-time low, and significant private investment continues to flood into the market. The value of commercial construction across the City in 2015 totaled more than $63 million.

Throughout the community, the University of Virginia remains a positive presence. Its strong academic position contributes to a growing student population. The University, as the City's major employer, also avoided layoffs and expects increases in student enrollment over the next decade.

Charlottesville residents overall enjoy a high quality of life, according to the recently released results of the City's 2016 citizen survey. They have come to expect, and appreciate, the City's strong economic position. Maintaining this environment, and continuing to provide for a safe community, were identified as top priorities.

It is with this backdrop that the City engaged in this Efficiency Study. Supporting and managing this thriving community is critical for the City organization, and not without its challenges. The City has invested in the organization and is building a culture of responsiveness and rooted in customer service. It is also an organization that continues to look for and implement best practices in all areas of municipal operations. As evidenced by this study, the City of Charlottesville is, by most accounts, a high performing, and efficient organization.

However, the community and the City leadership continue to push the bar higher for the organization. These increasing expectations, without resources or redesigned processes to support them, have created a stressful organizational climate that is often complicated by changing priorities.

The recommendations in this report are intended to help the organization more effectively meet this challenging environment and continue to provide the high quality of life that the community expects. Some of these recommendations will seem minor; others will challenge the organization by redesigning processes, procedures, and structures. Some can be implemented quickly; others will be an evolutionary process.

By implementing these recommendations and focusing on prioritizing those services that are most important to the community, the City will enhance the services already provided by this high quality organization and further support the tremendous community atmosphere that exists throughout Charlottesville.

Summary of Recommendations

The following is a list of recommendations contained in this report.

Management
1. Develop a prioritized annual work plan to strategically guide organizational efforts.
2. Implement a Budget Development system.
3. Utilize the results of the Employee Satisfaction Survey to prioritize organizational improvement initiatives.
4. Update the City's employee recognition program to align with the City's values and goals.
5. Conduct a survey to assess satisfaction with internal City services.
6. Automate the City's agenda development process through the use of an agenda management software system.
7. Track workload in the Office of the General Registrar to determine most efficient allocation of personnel resources.

Internal and Financial Services
8. Create a dedicated SAP Support Center.
9. Create a centralized risk management training program focused on reducing workplace injury.
10. Create an additional centralized Buyer position in Procurement.
11. Create turnaround time goals and track time associated with each stage of the procurement process.
12. Increase available training opportunities for City personnel involved in procurement.
13. Convert the annual property assessment process to a biennial assessment process.
14. Adjust existing cost allocation model to more equitably distribute IT service costs among departments.
15. Create a Public Safety Business Analyst position to coordinate help desk and business process issues with the Police and Fire Departments.
16. Evaluate Help Desk staffing and workload.
17. Enhance the capacity and role of departmental HR liaisons through a dedicated ongoing training program.
18. Require mandatory management and supervisory training for Charlottesville managers and supervisors.
19. Develop a formal organizational development policy and program for the Human Resources Department.
20. Create a centralized workforce planning strategy and assign implementation responsibilities to departments.
21. Implement employee retention best practices as part of workforce planning efforts.
22. Implement recruitment process improvements and cycle time targets.
23. Revise recruitment and hiring process to eliminate final HR Director approval of all hires.
24. Implement the practice of conducting employee performance reviews annually.
25. Conduct a classification and compensation study.

Healthy Families and Community

26. Engage the development community in a process to identify development review reforms.
27. Designate an Assistant City Manager as the owner of the City's development review process and Chair of the Pre Development Meeting.
28. Implement a new development services software system.
29. Begin tracking workload data in order to make informed staffing adjustments.
30. Establish a practice and process for annually reviewing and adjusting the fee structure for Neighborhood Development Services.
31. Create a Parks and Recreation Master Plan.
32. Expand time tracking activities related to horticulture and mowing maintenance.
33. Establish service levels and maintenance schedules for custodial staff.
34. Formalize recreation program utilization goals and track utilization rates.
35. Establish annual cost recovery goals for golf operations and subsidize shortfalls in golf course revenue.

Infrastructure and Transportation

36. Create an Operations Division in the Department of Public Works.
37. Create an Asset Management Division in the Department of Public Works.
38. Create an Engineering Division in the Public Works Department.
39. Create a Traffic function within the Engineering Division of the Department of Public Works.
40. Consolidate stormwater utility management in the Department of Public Works.
41. Locate the Environmental Sustainability Division in the Department of Public Works.
42. Transfer one Safety and Training Coordinator position from the Utilities Department to the Public Works Department.
43. Create a Gas Division of the Utilities Department.
44. Create a Water/Wastewater Division of the Utilities Department.
45. Create an Administration Division of the Utilities Department.
46. Create a comprehensive asset management plan for all Public Works Department assets.
47. Implement a work order system.
48. Include yard waste collection in the refuse collection contract.
49. Improve efficiency of leaf collection by utilizing the refuse contractor.
50. Shift maintenance responsibility for select Fire Department fleet to Fleet Management Division.
51. Staff the Facilities Maintenance Division to ensure staffing matches service level expectations.
52. Include annual facility maintenance and repair needs in the City CIP.
53. Review Enterprise Fund cost allocation methodology.
54. Minimize water system loss by enhancing residential and large meter testing program.
55. Resume annual transit customer surveys.
56. Approach UVA about increased ridership.

Public Safety and Justice

57. Adopt the proposed organizational restructuring creating three functional divisions within the Police Department.
58. Implement a 12-hour shift schedule to create staff capacity for proactive policing efforts.
59. Track investigative caseload and clearance statistics.
60. Implement a process for review of patrol investigations by the Investigations Bureau and a quality assurance program for all investigations.
61. Establish standards for timeliness of investigations.

62. Update the Police Department Strategic Plan; track performance measures.
63. Implement an information-led, proactive policing strategy.
64. Review District boundaries.
65. Add financial review to spending approval process.
66. Streamline the reporting process.
67. Implement a vehicle replacement policy.
68. Periodically evaluate the Department's take-home vehicle policy.
69. Review the impact of the Career Development Program.
70. Conduct a space needs assessment for Police Headquarters.
71. Install appropriate security measures in remote locker rooms and the parking area.
72. Develop a comprehensive false alarm reduction program.
73. Implement competency-based evaluations of firefighting, HAZMAT, and technical rescue skills.
74. Adopt validated physical agility test for use during the hiring process.
75. Partner with CARS to review medical calls for service and evaluate schedule.
76. Ensure adopted EMS service level standard for the City of Charlottesville is met.
77. Conduct a community risk assessment to inform the work plan of the Fire Prevention Division.
78. Establish accurate occupancy inventory and adopt inspection schedule.
79. Use collected data to determine appropriate staffing level for the Fire Prevention Division.
80. Adopt a preplan maintenance schedule.
81. Transfer maintenance responsibility for select Fire Department fleet to Fleet Maintenance Division.
82. Clarify Emergency Management responsibilities.
83. Civilianize the planning function of the Administration Division.

Methodology

In June 2016, the City of Charlottesville retained the services of The Novak Consulting Group to conduct an Efficiency Study of the City's organization. The purpose of this study was to analyze the organizational structures and operational efficiencies of key City departments.

To complete this study, The Novak Consulting Group conducted extensive field work, meeting with elected officials, staff from each City department, and interested members of the community. In total, over 200 City staff participated in individual interviews or focus group sessions. Individual interviews were conducted with members of the City Council, and a meeting with representatives of the Charlottesville Area Development Roundtable was also held. Additionally, The Novak Consulting Group hosted two public community forums. A summary of the comments received at those two sessions is included in the appendix.

The Novak Consulting Group also requested and analyzed background information provided by staff from each City department. Evaluation of budgetary information, workload measures, performance indicators, and other data resulted in a review of key departments' core functions.

The City of Charlottesville, through its budgeting process, has organized City services into primary Functional Areas: Management; Internal and Financial Services[1]; Healthy Families and Community; Infrastructure and Transportation; and Public Safety and Justice. Each City department falls under one of these Functional Areas, as noted in the following figure.
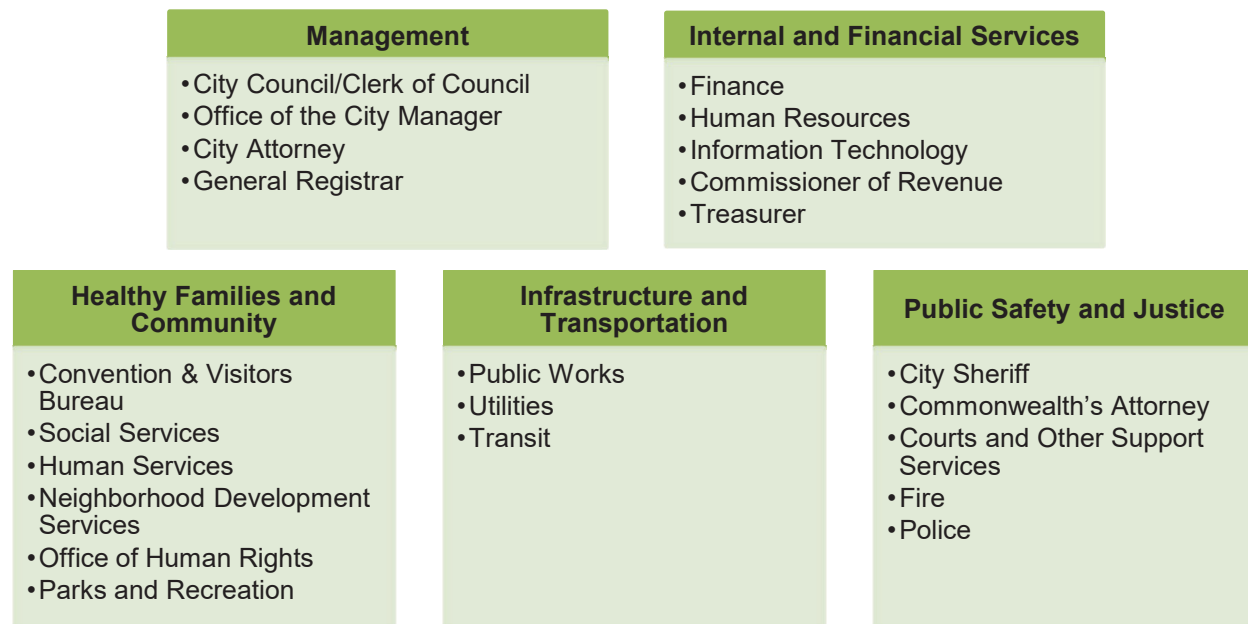
Management	Internal and Financial Services
• City Council/Clerk of Council • Office of the City Manager • City Attorney • General Registrar	• Finance • Human Resources • Information Technology • Commissioner of Revenue • Treasurer

Healthy Families and Community	Infrastructure and Transportation	Public Safety and Justice
• Convention & Visitors Bureau • Social Services • Human Services • Neighborhood Development Services • Office of Human Rights • Parks and Recreation	• Public Works • Utilities • Transit	• City Sheriff • Commonwealth's Attorney • Courts and Other Support Services • Fire • Police

Figure 1: Overview of City's Functional Area Structure

This report is organized to align with the Functional Area structure of the organization, although it should be noted that the responsibilities of City departments often cross functional areas. Each Functional Area chapter includes a high-level overview of the departments within it. Key operating departments are then analyzed in greater detail.

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[1] Within the City's budget, Internal Services and Financial Services are separate Functional Areas. For purposes of this study, these two Functional Areas have been combined.

About the Charlottesville Community

The City of Charlottesville has a population of approximately 45,000 residents. The City of Charlottesville is the county seat of Albemarle County, which surrounds the City. According to the 2010 Census, the City encompasses 10.24 square miles. The following figure shows the location of the City within the Commonwealth of Virginia.

Figure 2: Location Map of the City of Charlottesville

Population

The City's population has grown 16% since 2000. During this same period, the median age has increased from 26 to 29 years. The following table shows the population and median age according to the Census Bureau from 2000 through 2014.

Table 1: Population and Median Age, City of Charlottesville, 2000-2014

Population	2000	2010	2014	Percent Change
Total Population	40,099	43,475	46,597	16%
Median Age (years)	26	28	29	14%

Nearly half of the City of Charlottesville's population is between the ages of 15 and 34. This median age is in part attributable to the presence of the University of Virginia (UVA) which draws in a population that may then stay in the area after graduation. The following figure shows the age distribution of the City's population.
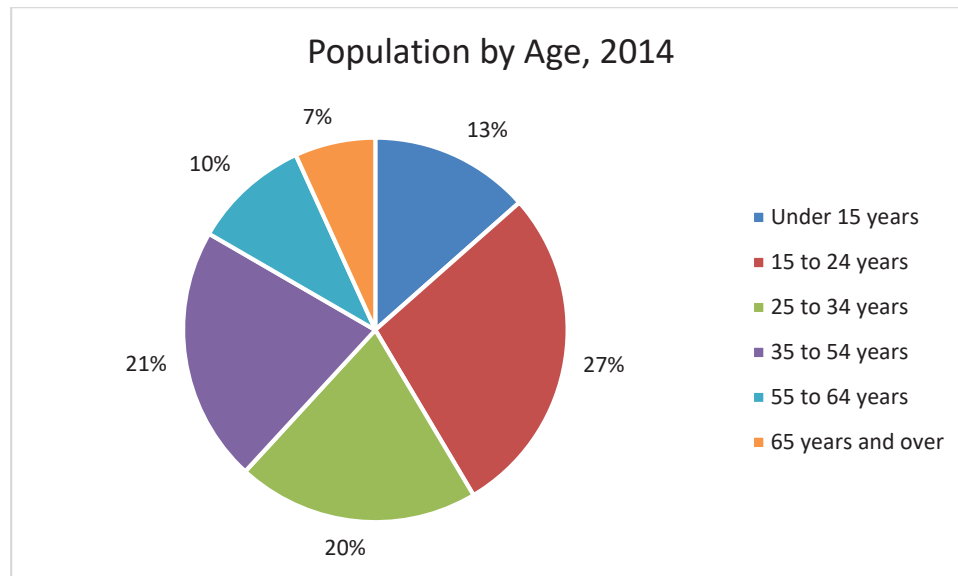
Population by Age, 2014

Figure 3: Population Composition by Age, City of Charlottesville, 2014

The majority (70%) of residents in the City of Charlottesville classify themselves as White. A total of 19% of the City's population classifies themselves as Black or African American. The following figure shows the racial composition of the City of Charlottesville.

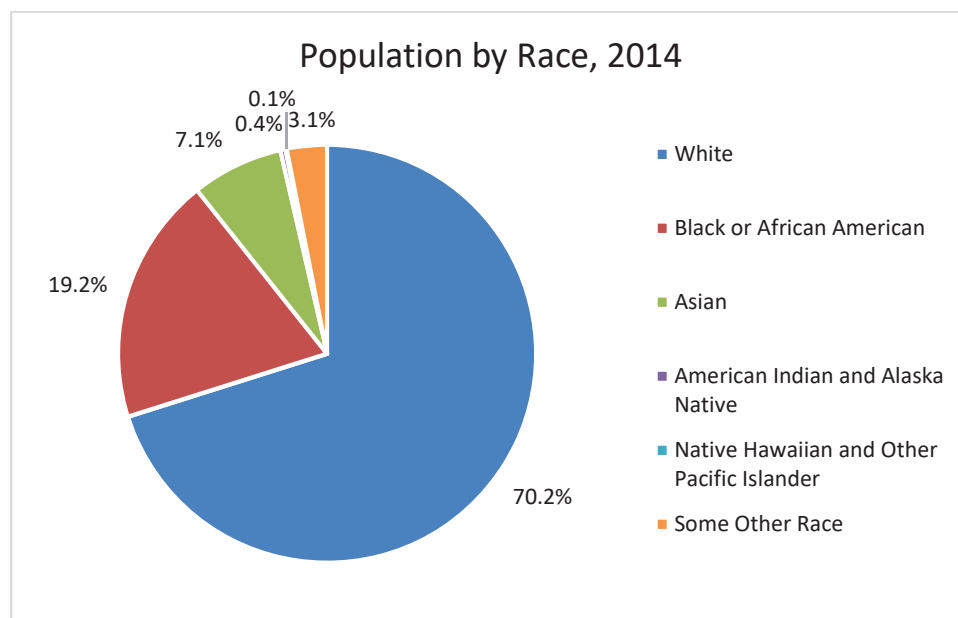## Population by Race, 2014

Figure 4: Population Composition by Race, City of Charlottesville, 2014

Economy

The City of Charlottesville's economy is healthy, and slowly growing. According to the City's FY2017 Budget, the metropolitan area's unemployment rate has consistently been one of the lowest in the country, 3.5% in March 2016 as compared to the national average of 5.1% in that month.

In 2014, the median household income in the United States was $53,482, compared to $47,218 in the City of Charlottesville.

The largest employer in the City is UVA, which employs approximately 15,000 University employees and 6,000 hospital employees. Other major employers in the area include Albemarle County, the Federal Government, Martha Jefferson Hospital, State Farm Insurance, and Northrup Grumman-Sperry Marine. The area also boasts a thriving wine touring and tasting business, with over 30 local vineyards. Tourism also plays an important role in the City's economy, with approximately two million area visitors each year.[2]

Nearly 40% of the City of Charlottesville's employed population works in the educational services, and health care and social assistance industry. The following figure illustrates the leading employment industries in the City.

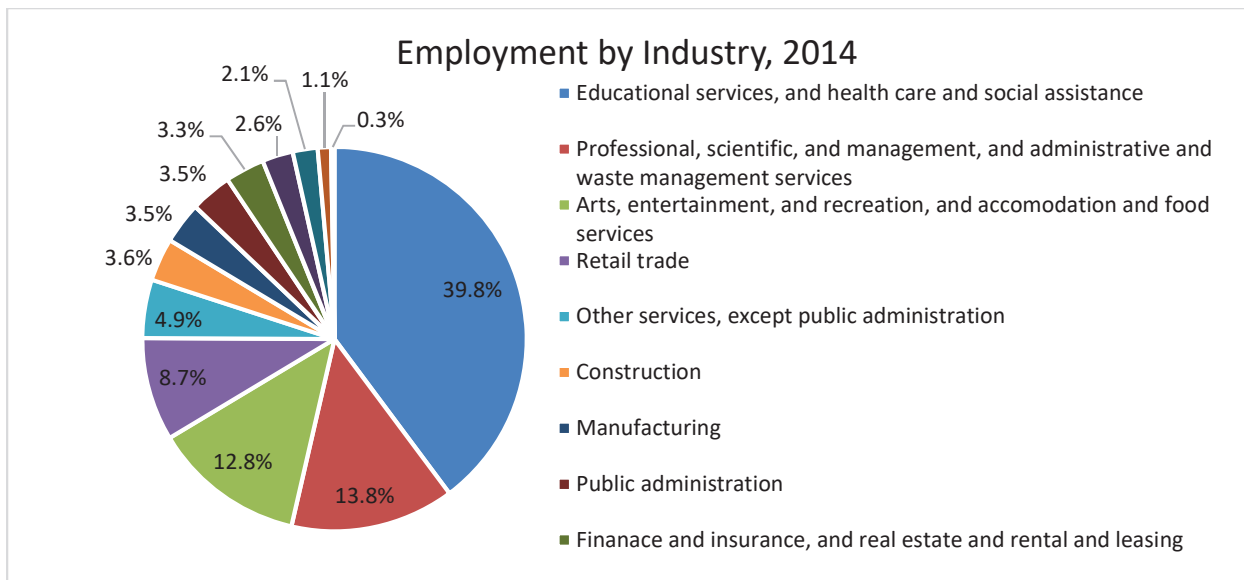**Figure 5: Employment by Industry, City of Charlottesville, 2014**

Average annual unemployment in the City peaked in 2011 at 7.1% and has been declining since. In fact, unemployment has almost returned to pre-Great Recession levels. The following figure summarizes the average annual unemployment rate in the City of Charlottesville over the last 10 years.

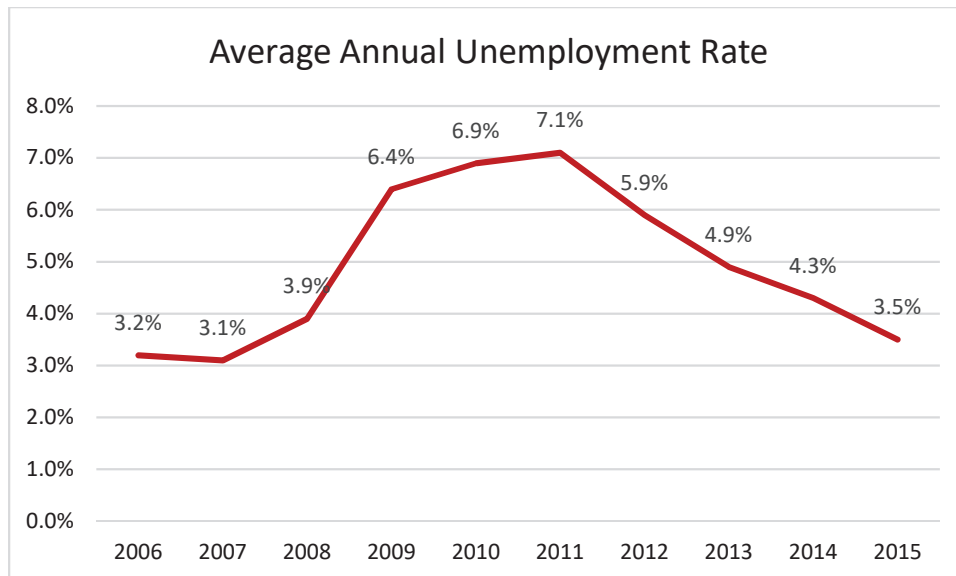[2] Charlottesville's 2015 Annual Fire Report, pg. 13.

Figure 6: Average Annual Unemployment Rate, City of Charlottesville, 2006-2015

About the City Organization

The City of Charlottesville operates under the Council-Manager form of government with legislative powers vested in a five-member Council. City Councilors are elected at large for four-year, staggered terms, with the Mayor and Vice-Mayor being elected from within the Council for two-year terms.

Within the Commonwealth of Virginia, governmental jurisdictions do not overlap. The City of Charlottesville is independent of all other political subdivisions, including Albemarle County. As such, Charlottesville is responsible for services typically provided by counties, as well as cities, in other states, and maintains a number of departments that are managed by elected constitutional officers.

The Council is responsible for appointing a City Manager to oversee staff and the professional administration of City functions not under the purview of the constitutional officers. This is evident in the City's organizational structure as depicted in the following figure. While the constitutional officers were participants in this Efficiency Study, the majority of the analysis and recommendations in this report focuses on the operational departments under the authority of the City Manager.
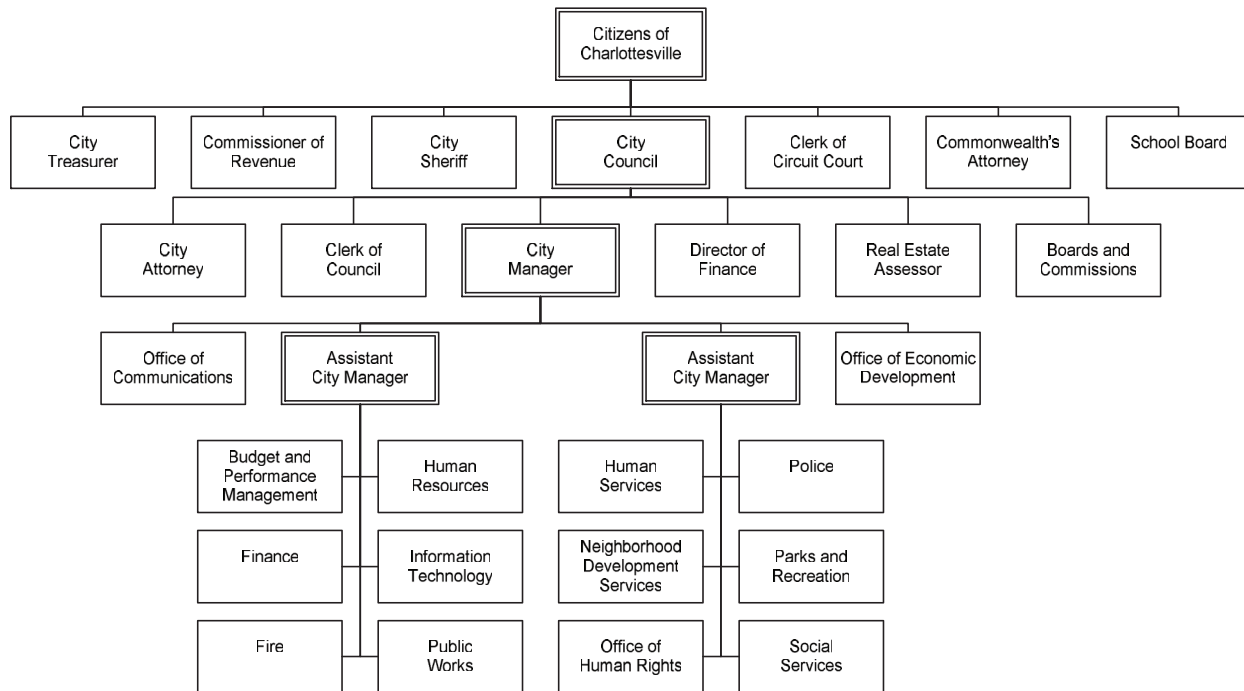
Figure 7: City of Charlottesville Organizational Chart, 2016

Budget Summary

The City of Charlottesville has several different funds, including the General Fund, Enterprise Funds, a Capital Improvement Program Fund, Internal Service Funds, and other Non-General Funds. The breakdown between the General Fund, Enterprise Funds, and Other Non-General Funds is listed below.

General Fund revenues increased by over $15 million in the past five years to $162,018,737 in FY2017, primarily due to a 17% increase in revenues from taxes. During this period, City/County Revenue Sharing revenues actually decreased by $2,229,028. The following table breaks down General Fund revenues by source and percentage change in revenue since FY2013.

Table 2: City Budget Revenues by Fund, FY2013 - FY2017

Revenue Source	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Taxes	$86,883,944	$90,308,313	$93,004,599	$96,739,283	$101,650,460	17%
Licenses and Permits	$9,345,830	$8,409,280	$8,722,170	$8,603,371	$9,080,523	-3%
Intergovernmental Revenue	$11,477,700	$12,368,027	$12,181,877	$12,337,927	$12,473,267	9%
Charges for Services	$11,706,280	$12,098,985	$12,298,815	$12,065,992	$12,187,131	4%
Parking Fines	$365,808	$349,090	$473,536	$450,000	$450,000	23%
Miscellaneous Revenue	$778,035	$1,127,023	$1,081,554	$928,000	$943,000	21%
Carryover Funds	$0	$0	$0	$141,659	$332,727	-
Transfers from Other Funds	$292,600	$250,000	$575,000	$675,000	$500,000	71%

Revenue Source	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
City/County Revenue Sharing	$12,720,948	$12,063,833	$11,467,895	$10,908,668	$10,491,920	-18%
County Fire Service Fees	$526,856	$691,711	$0	$0	$0	-100%
Designated Revenue	$12,554,634	$12,531,493	$13,176,170	$13,541,535	$13,909,709	11%
TOTAL	$146,652,635	$150,197,755	$152,981,616	$156,391,435	$162,018,737	10%

The revenue generated by Enterprise Funds increased by less than 1% – primarily due to a decrease in Gas revenue – while other non-General Fund revenues increased by 4% over the last five years. The following table details historical Enterprise and Non-General Fund revenues between FY2013 and FY2017 and percentage change in revenue since FY2013.

Table 3: City Budget Non-General Fund Revenues by Fund, FY2013 - FY2017

Fund	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Enterprise Funds						
Golf Course	$842,786	$840,067	$888,893	$862,940	$884,340	5%
Water	$10,579,479	$10,717,243	$11,612,453	$11,753,839	$12,054,575	14%
Wastewater	$12,474,709	$13,348,466	$14,395,303	$19,325,436	$16,506,900	32%
Gas	$30,925,276	$34,751,748	$31,749,679	$26,818,699	$22,626,397	-27%
Stormwater	$0	$1,180,143	$2,281,038	$2,155,830	$2,936,080	-
Other Non-General Funds						
Department of Social Services	$11,714,527	$11,799,863	$11,882,016	$13,666,681	$14,039,006	20%
Human Services Fund	$4,481,630	$4,772,580	$5,314,050	$5,484,310	$5,908,462	32%
Transit Fund[3]	$7,863,130	$10,165,082	$8,460,874	$8,874,614	$7,690,243	-2%
Warehouse Fund	$849,306	$835,975	$809,241	$168,390	$168,390	-80%
Visitor's Center Fund	$1,263,457	$1,397,732	$1,496,617	$1,508,453	$1,569,955	24%
Fleet Management Fund	$2,817,899	$2,805,123	$2,370,226	$1,045,320	$1,052,000	-63%
IT Fund	$4,122,371	$4,333,769	$3,972,202	$3,947,352	$4,129,052	0%
HVAC Fund	$569,013	$556,809	$524,477	$0	$0	-100%
City Schools (non-GF)	$13,855,366	$13,298,235	$13,516,041	$14,671,526	$14,914,382	8%
TOTAL	$102,358,949	$110,802,835	$109,273,110	$110,283,390	$104,479,782	2%

For FY2017, the City of Charlottesville's total budget is approximately $254 million. The largest percentage increase in expenditures was in the Local Contribution to Schools, followed by Healthy Families and Community and Public Safety and Justice. The following table summarizes the historical expenditures and the percentage change in expenditures from FY2013 in all funds by Functional Area.

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[3] Annual fluctuations are the result of capital needs and are impacted by State and Federal funds.

Table 4: Total City Budget Expenditures (General and Non-General Fund) by Functional Area, FY2013- FY2017

Functional Area	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Management	$3,783,380	$3,688,461	$3,728,151	$4,040,976	$4,243,274	12%
Internal and Financial Services	$14,290,174	$14,050,553	$13,609,360	$14,728,237	$14,806,974	4%
Healthy Families and Community	$46,681,282	$45,642,677	$46,161,786	$50,559,691	$50,960,772	9%
Infrastructure and Transportation	$75,945,455	$93,287,975	$88,771,401	$86,272,738	$79,789,166	5%
Public Safety and Justice	$34,353,937	$35,015,555	$35,355,197	$36,061,317	$37,509,717	9%
Local Contribution to Schools	$43,106,198	$44,067,826	$45,632,399	$47,342,848	$49,330,604	14%
Other Designated Expenditures	$10,194,792	$8,723,199	$8,712,159	$7,292,000	$7,535,164	-26%
Non-Departmental Expenditures	$298,771	$187,377	$874,723	$460,415	$608,415	104%
Debt Service Payment	$7,050,000	$6,550,000	$6,465,000	$7,018,000	$7,468,000	6%
Fund Balance Target Adjustment	$0	$302,000	$0	$390,159	$494,611	-
Employee Compensation and Training	$226,655	$929,151	$1,005,284	$959,105	$1,035,000	357%

Staffing Summary

Over the last five years, the total number of City employees has increased by 3% to 943.7 full-time equivalents (FTEs). The Management Functional Area saw the largest increase in FTEs (20%), followed by the Public Safety Functional Area (4%). Meanwhile, staffing levels in the Internal Services and Financial Services Functional Areas have not changed in the last five years and the number of FTEs in the Infrastructure and Transportation and Healthy Families and Community Functional Areas has increased by 2% and 1% respectively. The following table shows the historical staffing levels for each Functional Area percentage change in staffing since FY2013.

Table 5: Historical Staffing levels by Functional Area, FY2013-FY2017

Functional Area	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Management	23.0	23.0	24.5	25.0	27.5	20%
Internal Services	33.0	33.0	33.0	33.0	33.0	0%
Financial Services	60.0	60.0	60.0	60.0	60.0	0%
Healthy Families and Community[4]	244.0	241.8	243.8	247.5	247.0	1%
Infrastructure and Transportation	288.5	288.0	289.5	295.7	295.7	2%
Public Safety and Justice	270.5	270.5	280.5	280.5	280.5	4%
TOTAL	919.0	916.3	931.3	941.7	943.7	3%

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[4] Does not include Convention and Visitor's Bureau staff

Management

The City's Management Functional Area is responsible for providing leadership and direction for City government. Departments under the Management umbrella include the City Council/Clerk of Council, City Manager, City Attorney, and General Registrar, as well as the Offices of Communications and Economic Development. In addition to the individual departmental budgets, funding for the Council's Strategic Initiatives, Organizational Memberships, and Workforce Development Agencies are included in this area.

While all City staff are expected to provide a high level of customer service to both internal and external customers, the Management Functional Area consists of highly visible functions which work directly with members of the public, government agencies, the media, and the business community. This area is responsible for guiding and directing the operations of the City and interacts daily with City staff and elected officials. Additionally, staff is responsible for implementing the City Council's policies and decisions, providing legal advice, community engagement and communication efforts as well as driving the community's economic development efforts and ensuring the integrity of the election process.

The following is a general overview of each of these departments.

City Council/Clerk of Council

The Charlottesville City Council is the City's legislative and governing body and is made up of five Councilors who are elected at large. The Councilors serve four year terms, and as a body they elect one Councilor to serve as Mayor and one as Vice Mayor (each serving a two year term). Councilors have staggered terms – three are elected in one year and two are elected two years later.

The Council serves as the policy making arm of the City and has the responsibility for adopting the City budget, setting ordinances, levying taxes and collecting revenues. The Council is responsible for appointing the City Manager, the Director of Finance, the City Assessor, the Clerk of the Council, and numerous Board and Commission members.

The Council has a designated Clerk of Council and a part-time Administrative Assistant who provide administrative support for the Councilors. The Clerk of Council is responsible for maintaining Council items such as agendas, minutes, actions, and correspondence. In addition, the Clerk serves as a liaison between Council and the public, provides customer service to the public, interacts with City staff, and coordinates Council meetings and appointments to boards and commissions. As of FY2017 the City Council Office includes 1.5 FTEs; Councilors are part-time positions and not included in the City's FTE count.

Office of the City Manager

The City Manager serves as Charlottesville's Chief Executive Officer. The City Manager's Office is responsible for the daily operations of the City, including the implementation of the City Council's policies and directives.

The City Manager is supported by two Assistant City Managers who are responsible for the development of the City's operating and capital budgets and the implementation of the City's strategic plan; they also have direct oversight of departments under the City Manager's purview. The City Manager's Office also includes the functions of Communications and Economic Development.

The Office of Communications serves as a liaison between the City and the public. Communications staff works directly with the media, engages in public relations efforts, and is responsible for coordinating citizen engagement and education activities. Communications is responsible for disseminating City information to the media and the public through press releases, the City's quarterly newsletter, programming on City Public/Educational/Government Access channels, social media platforms, and the City's website. In addition, Communications staff coordinates public appearances and City events. The Office is also responsible for internal communication efforts between City management and staff and produces an employee newsletter.

The Office of Economic Development is the City's primary vehicle for economic development activities and workforce development initiatives. Staff in Economic Development are responsible for the City's business recruitment, expansion, and retention efforts and is tasked with creating a vibrant and sustainable economy by creating quality jobs and increasing the community's per capita income.

The Office of Economic Development coordinates and administers the functions of the Charlottesville Economic Development Authority as well as a number of programs including Workforce Development (Downtown Job Center), the Business Visitation Program, and the Advancing Charlottesville Entrepreneur (ACE) Program. The Downtown Job Center assists area job seekers by offering assistance with job searches including the completion of applications, resume development, mock interviews, and administering six Growing Opportunity workforce development training programs.

As of FY2017, the City Manager's Office has 17 FTEs, including two new positions allocated during the budget process - a Redevelopment Specialist and a Communications Specialist (previously long-term temporary).

City Attorney's Office

The City Attorney's Office provides legal assistance, support, and advice to the organization and City Council. Staff issues formal and informal opinions, drafts reports, ordinances and resolutions. The legal staff drafts, reviews and negotiates City contracts. In addition, matters related to zoning, procurement, insurance, and Freedom of Information Act (FOIA) are handled by the City Attorney's Office. Staff provides assistance regarding personnel issues, coordinating with Human Resources staff, department directors, and supervisors. As of FY2017, the City Attorney's Office has six FTEs; four attorneys and two paralegal positions.

Office of the General Registrar

The General Registrar is appointed for a four-year term by the City of Charlottesville Electoral Board. The Electoral Board is a three-member board appointed by the Charlottesville Circuit Court Judges. The Electoral Board is charged with conducting elections in Charlottesville and certifying the results. The Office of the General Registrar is responsible for facilitating voter registration, maintaining voter registration files, and working with the State Board of Elections.

The General Registrar is responsible for the certification of candidate declarations, campaign finance management, ballot development, and the administration of absentee voting. In addition, the Office recruits and trains election workers as well as maintains and prepares voting equipment and supplies. Staff is responsible for polling place management, media relations related to the election process, and the effective implementation of all legislative mandates and policy directives relating to elections.

As of FY2017, the Office of the General Registrar has three FTEs and utilizes one long-term-temporary employee in addition to nine temporary employees to complete election related activity.

Management Staffing and Budget

The following table illustrates the Functional Area's staffing levels over the last five fiscal periods, along with the percentage change in staffing since FY2013.

Table 6: Management Staffing Trends (FTEs), FY2013-FY2017

Management	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
City Council/Clerk of Council	1.0	1.0	1.0	1.0	1.5	50%
Office of the City Manager	13.0	13.0	14.5	15.0	17.0	31%
City Attorney	6.0	6.0	6.0	6.0	6.0	0%
General Registrar	3.0	3.0	3.0	3.0	3.0	0%
Total	23.0	23.0	24.5	25.0	27.5	20%

The Management Functional area has seen an increase in staffing from FY2013 to FY2017. Specifically, in FY2015 1.5 FTEs were approved to operate the City's Downtown Job Center. In FY2017 the budget included funding for a Redevelopment Specialist, a part-time Administrative Assistant for the Clerk of Council, and the conversion of a long-term temporary position to regular full-time in the Office of Communications.

The following table illustrates trends in the Management Functional Area's expenditures over the last five fiscal periods, along with the percentage change since FY2013.

Table 7: Management Expenditures, FY2013-FY2017

Management	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Council Strategic Initiatives	$172,778	$94,204	$23,065	$127,860	$50,000	-71%
City Council/Clerk of Council	$226,453	$229,141	$241,467	$251,323	$296,262	31%
Office of the City Manager	$1,943,135	$1,951,286	$2,028,758	$2,122,645	$2,207,554	14%
City Attorney	$719,119	$793,354	$821,828	$836,821	$859,509	20%
General Registrar	$580,726	$442,223	$430,100	$509,375	$636,417	10%
Organizational Memberships, Workforce Development Agencies	$141,169	$178,253	$182,933	$192,952	$193,532	37%
Total	$3,783,380	$3,688,461	$3,728,151	$4,040,976	$4,243,274	12%

Budget increases in the Management Functional Area can be attributed to the addition of staff (Office of the City Manager, Clerk of Council) and increases in salaries, health care, and retirement costs. Offices in this Functional Area also saw an increase in Information Technology charges.

While the Office of the General Registrar was impacted by the same increases in costs, additional increases are a result of funding allocated for temporary employees to help meet the operational needs of the office related to the 2016 Presidential Election.

The funding allocated to City Council Strategic Initiatives is used to initiate, develop or expand programs that address the City Council's priorities in alignment with the City's goals and/or strategic plan or to fund requests from nonprofit and outside agencies for programs and events. The reduction in funding in FY2017 is due to less monies being available in the budget for this purpose.

Analysis and Recommendations

In addition to overseeing the operations of the organization, this Functional Area is responsible for the implementation of the City's strategic plan and the City Council's policy decisions as well as interacting with and providing information to the public and business community. The following recommendations focus on ways to provide more strategic direction to the organization and further develop a culture of continuous improvement in the City.

Prioritization
RECOMMENDATON 1: Develop a prioritized annual work plan to strategically guide organizational efforts.
In 2008, under the direction of the City Manager, the organization implemented the Plan, Perform, Perfect Process (P3) process, with the goal of developing a performance management system. P3 focused on developing departmental strategic business plans, a performance measurement and management system, and a reporting mechanism. An outcome of P3 was the development and adoption of a three-year strategic plan in June 2014.

Following the adoption of the strategic plan, an Implementation Team made up of City staff was established with the intent to lead the implementation of the plan and to keep staff and elected officials informed of the plan's progress as well as any changes or updates. Currently, staff is updating the plan and will bring proposed changes to the City Council at their Fall retreat.

The City's strategic plan is intended to serve as a guide for the organization and assist in the allocation of City resources. The plan was developed with input from City management, department directors, staff members, and the City Council. In addition, over 60 City reports and documents were reviewed and used to assist in its development. The strategic plan includes the City's vision and mission statement and establishes organizational values, goals and objectives as well as 60 strategic initiatives.

In addition to P3 and the strategic plan, the City has undertaken numerous other initiatives over the past few years with the intent of guiding the organization. Additionally, to varying degrees, staff has been tasked with implementing existing plans and major initiatives including, but not limited to:

- Council Vision 2025; Charlottesville Comprehensive Plan; Strategic Investment Areas; Street that Work; Zoning Code/Ordinance Audit; Urban Forest Management Plan; Bicycle & Pedestrian Master Plan; Pedestrian Safety Initiatives; Neighborhood Plans; Neighborhood Commercial Corridors; Redevelopment & Housing Authority Annual Plan; Capital Improvement Plan; Community Water Supply Plan; Sister Cities Commission Strategic Plan; Planning Commission Work Plan; Water Resources Protection Program;

Charlottesville-Albemarle Regional Transportation Plan; Stormwater Pollution Prevention Plan; Parking Master Plan; Water Resource's Protection Initiative; Community Climate Protection Initiatives; Business First Visitation Program; Workforce programs; and a number of master plans for City parks.

In addition to these large initiatives, most departments have their own work plans, long-range plans, and projects in support of their departmental missions. The aforementioned list does not include the ongoing responsibilities of each department or new initiatives or priorities that are routinely developed.

Individually, implementation of each of these plans or initiatives represents a significant investment of staff resources, as well as in some cases capital resources. Collectively, implementation of all of these represents more than the organization realistically has capacity to successfully complete.

Inherently, implementation of these plans is intended to take place over several years. However, when the plans (and their specific initiatives) are not prioritized and thoughtfully incorporated into an organization's ongoing responsibilities as a City government, timely and successful progress is rarely achieved. Rather, frustration and disappointment develop – on the part of elected officials, staff, and the community. This was evident in the interviews conducted throughout this Efficiency Study.

To address this issue, the City Council, with support from City management, must provide intentional guidance regarding its strategic priorities. In order to do so, it is recommended that the City Council develop an annual work plan.

An annual work plan allows the governing body to respond to the changing needs of the community while not supplanting the City's existing planning efforts. It provides a vehicle for the Council to identify, collectively, those initiatives within the various plans that are to be prioritized by City staff in the coming year. Further, it established clear guidance and accountability to City staff.

The City of Boulder is a progressive, high performing, leading edge organization with an active and engaged community, similar to Charlottesville. Last year, Boulder faced a similar situation – multiple planning efforts, developed by extensive public involvement, with high expectations for implementation, and limited staff capacity.

Recognizing the potential for conflict, the Boulder City Council decided to participate in a priority setting retreat. Prior to the retreat, Council members completed a survey outlining their priorities for the 2016 work plan. Staff also provided the Council with a handout which organized their existing tasks/plans/projects by departments and included valuable information such as the time involved, staffing needs, public interest/participation requirements, and funding requirements. After reviewing this information, the Council had a question-and-answer session with the necessary staff and department directors. Once the Council had a better understanding of all the plans, projects and initiatives facing the City, the Council was able to make informed choices about their priorities and to subsequently develop a work plan for the coming year.

After completing the work plan, the Boulder City Council discussed what should be done if new projects arise, particularly those that emerge from emergencies, strong community concern or unique opportunities. Council suggested the following measures to keep the workload manageable for themselves and for staff:

- Develop criteria for when and how new items are added to the work plan in the future
- Ensure staff checks with Council before adding anything to the agenda
- Set a threshold for new and innovative topics
- Clarify decision space on the agenda to ensure efficiency in public comment
- Encourage staff to feel comfortable reminding Council how full the work plan already is
- Encourage Council members to hold themselves accountable for not overloading the staff with new work items

In Charlottesville, there is the perception that every inquiry and new project discussed by the City Council should be given the highest priority, which can result in confusion and inefficiency. This confusion results in staff members having difficulty determining what should be completed first and what truly is the most important. In addition, many new programs and initiatives may not be in alignment with existing plans, create duplicate work or result in adopted plans not being followed or implemented appropriately. It is important for decision makers to recognize and understand the impact that new programs and initiatives may have on staff's existing workload and the work environment.

An annual work plan would ensure the Council's priorities receive the attention they expect, while providing clear guidance to the organization.

Budget Development
RECOMMENDATION 2: Implement a Budget Development system.
The Novak Consulting Group reviewed the operating and capital budgeting processes utilized by the City of Charlottesville and compared them to budgeting best practices identified by the Government Finance Officers Association (GFOA). It is clear from that review that the City has implemented a number of budget process best practices. In the area of operating budget development, the City has developed a collaborative revenue development process that relies upon a committee of revenue officers, including the City's elected constitutional officers, to develop reasonable revenue estimates for the upcoming year. These projections serve as the basis for the City's departmental budget instructions and departmental budget request processes. Departments submit budget requests for evaluation by a Budget Development Committee. This committee supports the City Manager's Office in the effort to analyze and evaluate those budget requests and compile a recommended budget for consideration by the Mayor and City Council. The budget is presented in a detailed format organized by functional service area, strategic plan priorities, and individual departments. The recommended budget is presented in several public sessions and deliberated upon during City Council work sessions.

The Budget Office is led by the Assistant City Manager, who also serves as the Budget Director, and is staffed with two additional Budget Analyst positions. These positions provide analytical and development support during the budget process, ongoing budget monitoring processes, and the position control process. They also provide support to departments on budget related matters.

Though the budget process meets many best practice standards for budget development and presentation, there are opportunities to enhance the analytical capacity of the Budget Office through system improvements.

Like many departments in the City, the Budget Office has had to develop significant process work arounds to accommodate SAP restrictions. The City has not implemented the SAP budget module and, as a result, the budget is primarily developed on spreadsheets. Budget Office staff spend much time pulling personnel cost data from the Human Resources Information System (HRIS) and manually manipulating this data into spreadsheets that can be used in the budget

process. Once adopted, the budget is manually loaded into the SAP financial system. This creates two fundamental challenges.

First, it increases the likelihood of data entry error which then increases the number of budget adjustments that need to occur throughout the year. Second, and most importantly, it requires that important analytical capacity be dedicated to transactional efforts. This represents a lost opportunity to provide greater "think tank" analytical support to departments and drive special projects to completion.

While the existing budget staff are able to meet the needs of the organization in terms of budget development, there are opportunities to provide enhanced analytical capacity to both City departments and elected officials by creating efficiencies in the internal budget development process. This can only be accomplished by decreasing the level and duration of transactional work required by the City's budget analysts by implementing a budget development system that is integrated with the City's HRIS and financial management systems.

The City has two primary options available to meet this objective. The first option is to issue an RFP for development of a stand-alone budget development and reporting system that integrates with SAP through technology cross-walks. There are several benefits to this approach. First, it expands the City's system implementation options beyond the limitations of SAP and will allow the City to select a budget development solution that best meets the City's specific needs. Second, it will allow the City to concurrently implement reporting and performance measurement dashboard tools – which are common in most modern budget development systems. Another major benefit to this approach is that it provides a mechanism to reassess and revise the budget development and budget book production process. Most modern budget development systems include a budget document development feature. The process of implementing a new budget system will provide the dedicated project capacity (in the form of consulting support) to revisit and revise the budget presentation to improve transparency and readability for major stakeholder groups. The primary weakness of a stand-alone budget system is that it would not easily integrate with SAP without the development, and later maintenance, of technology cross-walks that integrate the human resource and financial accounting systems to the budget system. These can be expensive to develop and difficult to maintain.

The second option available to the City is to fully implement the SAP budget module and to utilize the module for budget development purposes. However, as illustrated later in this report, there are a number of higher priority SAP improvements needed before the City can reasonably be expected to pursue budget module development. The primary benefit of implementing the SAP module is that the City is currently heavily invested in SAP.

Regardless of past investment, the most important consideration is whether the system creates efficiencies and/or improves the budget development and reporting processes. With a disciplined implementation, a budget system has the capability to improve access to information, streamline decision making, and gain staffing efficiencies that provide enhanced analytical capacity in the organization.

Continuous Improvement Culture
RECOMMENDATION 3: Utilize the results of the Employee Satisfaction Survey to prioritize organizational improvement initiatives.
The City of Charlottesville completes a regular Employee Satisfaction Survey which is designed to assess organizational climate and employee satisfaction with their work environment. The survey provides participants with an opportunity to offer ideas and suggestions on how to improve the workplace. The survey is administered by the University of Virginia's Center for Survey Research and was conducted in 2006, 2010, 2012 and most recently in 2014. The survey includes topics such as understanding the City's vision and values and perceptions on such things as the work environment, pay, benefits and their supervisor.

By utilizing the same survey instrument, the City is able to assess changes in employee satisfaction levels over time. The results of the 2014 survey were positive overall and showed significant improvements in employee satisfaction when compared to the 2012 survey. The areas identified as needing the greatest attention were pay, benefits, performance appraisals, communication, dignity and worth as well as employee training and development.[5]

The organization should be commended for initiating the survey. Further, it is a best practice that should be repeated on a routine basis. Given that the most recent results are nearly four years old, it is appropriate to resurvey the organization. During interviews conducted for this study, staff reported feeling disconnected from City leadership and articulated questions and concerns about the organization's priorities and how their individual department objectives, policies, plans and practices fit into the organizational vision. The survey provides a useful tool to objectively measure the areas of concern in the organization; more importantly, the survey results provide a mechanism to develop meaningful changes that will positively impact the employee experience in Charlottesville.

To make the survey a more useful and valuable tool, the City must review the survey findings, discuss trends and issues, and develop action plans to address any areas of concerns – either organization-wide or in specific departments/divisions of the organization. If used effectively, the survey results can guide change within the organization and provide opportunities for continuous improvement. To engage staff in the improvement process, teams should be developed and tasked with helping to identify solutions to address issues raised in the survey.

Allowing staff not only the chance to comment on their work environment, but also the opportunity to help improve it and become a part of the solution, encourages employee engagement, fosters creativity and communicates a message that City leadership values and trusts its employees. In addition, demonstrating that City leadership is taking steps to address the survey results indicates that the organization is dedicated to continuous improvement.

RECOMMENDATON 4: Update the City's employee recognition program to align with the City's values and goals.
Recognizing employees is an important way to improve morale and communicate that employees are valued, and appreciated. In 2005, the City adopted its current Employee Recognition Program. Recognizing that the program is now nearly twelve years old, it is appropriate for the City to review and update the existing program to ensure it is meeting its designed intent, the needs of today's workforce, and the goals of the organization.

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[5]Adapted from the Executive Summary of the 2014 Employee Satisfaction Survey

Employee recognition programs can positively impact an organization's culture as well as boost morale, increase productivity, and reduce turnover. It is recommended that the City establish an employee recognition program aligned with the City's values and goals to reward outstanding performance.

Employees can be recognized in many ways such as through verbal recognition, certificates, plaques, gift certificates, and time off. Other ways to recognize employees can be through newsletters, on social media, on television, and publicly at meetings. The employee survey would be an ideal way to solicit feedback from employees about how they would like to be recognized.

Forbes[6] identified the following five best practices of employee recognition programs:

- Recognize employees based on specific results and behaviors
- Allow peer to peer recognition
- Share recognition stories
- Make recognition easy and frequent
- Tie recognition to the organization's value and goals

The City's existing program includes some of the elements listed above such as recognizing exemplary behavior, and it includes non-cash awards which allow department director's to recognize staff and teams for outstanding work. Areas that should be addressed in an update of the City's Employee Recognition Program include the ability for peers to nominate one another; mechanisms for sharing the stories of those staff who have been recognized; ensuring that recognition is taking place regularly (in the current program monetary awards are only given out at the end of the year), and tying the program to the City of Charlottesville's values and goals. Most importantly, the program needs to be communicated to employees regularly and to become part of the ongoing conversations within departments in order for the City to experience the benefit of such a program.

When an effective and modern recognition program is implemented and people start thanking each other, trust and engagement increase – improving employee morale, quality, and customer service.[7] Sample employee recognition programs are included in the Appendix B.

RECOMMENDATION 5: Conduct a survey to assess satisfaction with internal City services.
As noted, the City of Charlottesville completes an Employee Satisfaction Survey. The City also recently completed the National Citizen Survey™. In addition, some City departments such as Information Technology and Public Works (Facilities Maintenance) conduct their own internal customer service surveys. The employee survey measures satisfaction levels throughout the organization, while the citizen survey gathers resident opinions across a range of City service issues.

While the current surveys are useful tools, neither provides data related to the City's internal services and the performance of individual departments whose customers are City employees. Oftentimes organizations forget that many of their most important and valuable customers are those inside the organization. For example, areas like Human Resources, Information Technology, Purchasing, Communications, the City Attorney, Finance, Facilities Maintenance

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[6] Adapted from – *"New Research Unlocks the Secret of Employee Recognition,"* Forbes, June 2012
[7] Adapted from – *"New Research Unlocks the Secret of Employee Recognition,"* Forbes, June 2012

and Risk Management all provide critical support, develop programs, and allocate resources that enable other City departments to provide service to the public.

It is recommended that the City conduct a survey that assesses internal services. The survey should be similar in nature to that of the National Citizen Survey, but instead of asking outside customers for feedback, it should focus on measuring internal customer service delivery. Measuring and gauging the performance and satisfaction of the City's internal services will help the organization identify current issues or problems (what is and what is not working well), recognize needs that are not currently being met and assist in resource allocation.

An internal services survey can assist in the City's performance measurement efforts and can ultimately be tied to the City's strategic plan. Individual departments will no longer have to complete their own customer service/satisfaction surveys, which will reduce duplication of work and streamline the process.

The City could use existing staff and minimal resources to conduct an Internal Services Survey through the use of an online survey tool – such as Survey Monkey.™ However, the City could also choose to incorporate internal service delivery questions into the existing Employee Satisfaction Survey.

Agenda Management
RECOMMENDATION 6: Automate the City's agenda development process through the use of an agenda management software system.
The Clerk of Council is responsible for developing the agendas for the City Council meetings. Since joining the City in 2010, the Clerk has updated and streamlined a number of processes, including the agenda process. Before her arrival the City's agenda process was paper based; those submitting agenda items were required to submit paper copies (including attachments) and copies of the agenda were printed for each meeting. Today the City is utilizing a more electronic process and Departments are no longer submitting or receiving paper documents.

Today, to place an item on the agenda, the responsible staff member submits one electronic document via email to the Clerk of Council. Before submitting to the Clerk, staff is responsible for ensuring that the documents have gone through the appropriate approval and review process. From those electronic submittals, the Clerk creates one master agenda document. Once merged, the final agenda is posted online. The Councilors, staff and the public can view the electronic agenda via their iPad (or similar device) in preparation for and during the meeting. However, there is still the capability to print paper versions if needed.

While the current process is a significant improvement to the previous paper process, there are still areas that are difficult to manage. Currently staff is responsible for having their agenda memos reviewed by the appropriate staff (supervisor, department director, Assistant City Manager) before submitting to the Clerk's Office. This review process can be cumbersome and at times creates confusion as multiple versions of the memo are often circulating. In addition, specific staff members are required to approve and/or sign off on Council Agenda Memos before they can be submitted. The Clerk has no way to determine if the appropriate approvals/reviews have taken place and must assume that the documents submitted to the office are final and appropriately reviewed.

In order to improve efficiencies and streamline the agenda process, the City of Charlottesville should automate the process through the use of an agenda management software system. There are a number of systems on the market which can be used to develop a comprehensive and

automated agenda process as well as specifically address the issues related to review and approval.

Benefits of an agenda management software system include the ability to:

- Auto-create, assemble and update packets instantly
- Track submissions using workflow automation
- Identify and address bottlenecks in the process
- Track agenda items after a meeting

Agenda management software systems allow for the paperless submission of agenda items and attachments and have the ability to electronically route agenda items for approvals. The user has the ability to create an automated approval sequence and let the system manage the work. Selected approvers will be notified when the item is ready for their review. Approvers can review all item detail, supporting documents, make edits, as well as approve or deny the request through the system. The Clerk will no longer be receiving emails, instead would only need to access one system/site to develop the agenda.

The City currently uses Granicus™ to stream City Council meetings and publish minutes; staff may want to review their agenda management module which could be added to their existing contract. The cost of an agenda management software system can vary and is dependent on a number of factors. The size of the organization, location, desired capabilities, application needs can all impact price. Additionally, the decision to house the software on the City's server or use a web based or cloud application can also directly impact the price. The City may want to consider issuing a Request for Proposal when considering and comparing vendors and participate in demonstrations in order to determine which tools and modules best meet the organization's needs.

Registrar Workload
RECOMMENDATION 7: Track workload in the Office of the General Registrar to determine most efficient allocation of personnel resources.
The General Registrar is responsible for facilitating voter registration, maintaining voter registration files, working with the State Board of Elections, and carrying out other duties assigned by the Charlottesville Electoral Board. The current General Registrar took office in February 2015, and is currently in the process of administering her first Presidential Election.

The Office of the General Registrar has three FTEs who are responsible for ensuring the integrity of the City's electoral process. However, depending on the time of the year and type of election, temporary employees are used to meet workload needs. Currently, the Office is using one long-term temporary employee and upwards of 10 temporary employees. Temporary employees are used to provide office support (voter registration, forms, coordinating election details), community outreach (getting information about voter registration, election deadlines) and election equipment maintenance.

The hours the temporary employees work can range from a full-time schedule to a few hours a week, depending on needs and time of year. Prior to the 2016 Presidential Election, temporary employees were used frequently in order to prepare for the election and provide office coverage during extended and weekend hours.

While there appears to be a need for additional staffing (based on the use of a long-term temporary employee) in the Office of the General Registrar, it is difficult to quantify exactly what type or how many positions may be necessary. The FY2017 Budget allocated $51,000 to assist with additional salary and benefit costs as well as $24,000 for other expenses in order to properly staff and run the 2016 Presidential Election.

Due to the fact that the General Registrar is relatively new to the position, the uniqueness of this Presidential Election and that detailed historical staffing data was not available to review, it is recommended that the Office of the General Registrar begin tracking temporary employee workload data to determine if there is a need for additional full-time and/or part-time employees.

Tracking workload data can help provide decision makers with a complete picture of the type of work being completed, identify high need areas, and determine the true cost of an activity. Staff should begin capturing the following information:

- Hours worked (by day)
- Tasks/Projects completed
- Time involved with each task

Staff should work with HR and the Budget Office to develop a detailed picture of the hourly cost of each temporary employee and be able to determine the total cost attributed to temporary labor and each position for the Office. This data should provide a better understanding of needs throughout the year, and then be applied and adjusted during high traffic or busier times, such as a Presidential Election. Ultimately, the goal of capturing this workload data is to determine if it is more cost effective to hire full-time or part-time regular employees rather than continue using temporary staff indefinitely.

There is a concern that the only individuals who know how to maintain and service voter election equipment are temporary employees. Temporary employees are more apt to leave, not return the next year or take another job. It could create issues within the organization if no one else knows how to maintain or operate the election equipment and the temporary employees were no longer available to work. The Registrar should look at this particular work area first and ensure the appropriate data is being collected.

There may always be a need for the use of some temporary employees in the Office of the General Registrar due to the cyclical nature of the work. However, the data may indicate that it is more cost effective, and assist in managing the workload better, to augment temporary employees with additional full-time or part-time employees.

Internal and Financial Services

The Internal and Financial Services Functional Area is composed of five departments: Human Resources, Information Technology, Finance, Commissioner of the Revenue, and City Treasurer.

Human Resources Department

The mission of the Charlottesville Human Resources (HR) Department is to "foster an environment that attracts, develops, motivates, and retains a diverse high performing workforce so the City is successful in its mission." HR is responsible for recruitment, retention, employee benefits, wellness programming, and employee relations activities including resolving disciplinary issues, employee/supervisor conflicts, and employee development programming. As an internal services department, HR staff work closely with all other City departments and rely on Human Resources liaisons in each department to coordinate HR issues and process HR-related paperwork. These liaisons are not members of the HR Department, but work closely with members of HR to provide quality customer service to the City's employees. This Department does not have formal divisions and most staff (7 FTEs in addition to the Director) report directly to the Human Resources Director.

Information Technology Department

The City's Information Technology (IT) Department provides "quality public services through the strategic use of information technology." The IT Department serves all other City departments and divisions and is divided into two operational divisions: Operations and Applications. The Operations division provides network, systems, and technical support to other departments primarily through the use of a centralized Help Desk. These staff respond to support calls and technical service inquiries generated from internal City customers. The Applications division includes software engineering, SAP support, and Geographic Information Systems (GIS) support for City departments. This division primarily focuses on creating custom software applications and specialized programs to assist departments with their particular needs. As of FY2017, IT is staffed with 19 FTEs.

Finance Department

The Finance Department includes six divisions: Administration, the City Assessor's Office, the Office of Utility Billing, Procurement, Risk Management, and Warehouse. According to the City's budget document, these divisions comprise two groups: Internal Services and Financial Services.

Internal Services divisions include Procurement, Risk Management, and Warehouse Operations. The Procurement division consists of centralized Buyers who provide procurement support for all City departments. These Buyers shepherd the procurement process for all initiatives exceeding $5,000, as well as formal invitations to bid. The Risk Management division procures insurance policies for covering City facilities and provides a limited amount of risk management training to other City staff. Finally, the Warehouse Operations division operates the Central Warehouse at the City Yard and provides guidance and advice to departments who have their own warehouse operations. The City's Central Warehouse serves as a central shipping and receiving point for goods, and warehouse staff are responsible for properly disposing of surplus property.

Financial Services divisions include Administration, the City Assessor's Office, and the Utility Billing Office. The Administration division provides management of the Department, accounting, and financial reporting services to City departments and staff, including accounts payable and receivable and debt management services. Additionally, this division is responsible for

administering credit card programs and creating a variety of financial reports, such as utility rate studies, debt prospectuses, and annual financial reports.

The City Assessor's Office is responsible for assessing the City's taxable property parcels. Assessments are currently performed on an annual basis and involve more than 15,000 property parcels in the City. In addition to assessing properties, this division administers the City's tax abatement and supplemental assessment programs.

The Utility Billing Office issues bills for water, wastewater, and gas (stormwater is a utility included on property tax bills). This office monitors accounts, processes requests to start and stop service, answers customer inquiries, issues disconnect and connection orders for customers, and works with a third-party provider to create and distribute utility bills. The Utility Billing Office also coordinates a variety of assistance and special programs, including the Gas Assistance Program; rebate programs for efficient toilets, water heaters, thermostats, and rain barrels; and assistance programs for water and wastewater services.

Commissioner of the Revenue

The Commissioner of the Revenue is an elected office which exists to "responsibly administer tax assessment and relief" for the City. In FY2017, it is staffed with 13 FTEs. This office primarily administers tax programs concerning personal property; business, professional, and occupational licensing; meals, transient occupancy, and consumption taxes; consumer utility tax; short-term rental taxes, vehicle license fees; public service corporation taxes; and bank stock taxes.

In addition to overseeing these taxes, the Commissioner of the Revenue coordinates three special assistance programs, including Real Estate Relief for the Elderly and Disabled, Rental Relief for the Elderly and Disabled, and a Housing Affordability Grant Program. While the former two programs are primarily targeted towards elderly and disabled residents of Charlottesville, the Housing Affordability Grant Program provides grants to offset real estate taxes based on an applicant's Federal Adjusted Gross Income and property values.

City Treasurer

The City Treasurer is an elected office with a mission to "promote the financial health of the City through professional collection, processing, and investment of revenue." This office is the primary collection point for processing tax, utility, and other payments. This office also balances cash reserves and reconciles bank accounts on a daily basis. In addition to collecting and processing payments, the Treasurer's Office is responsible for collecting delinquent revenues. The Treasurer's Office also invests City reserves, bond funds, and school funds to maximize investment yield while minimizing risk to the City's financial assets. The City Treasurer's Office is comprised of 13 FTEs (in FY2017).

Internal and Financial Services Staffing and Budget

Authorized staffing levels across all of these Departments have remained constant since FY2013. The following table illustrates each Functional Area's FTE staffing levels over the last five fiscal periods, along with the percentage change in staffing since FY2013.

Table 8: Internal and Financial Services Staffing Trends (FTEs), FY2013-FY2017

Functional Area Staffing	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Finance Department (Internal Services)	6.0	6.0	6.0	6.0	6.0	0%
HR	8.0	8.0	8.0	8.0	8.0	0%
IT	19.0	19.0	19.0	19.0	19.0	0%
Internal Services Total	**33.0**	**33.0**	**33.0**	**33.0**	**33.0**	**0%**
Commissioner of Revenue	13.0	13.0	13.0	13.0	13.0	0%
Finance Department (Financial Services)	34.0	34.0	34.0	34.0	34.0	0%
Treasurer	13.0	13.0	13.0	13.0	13.0	0%
Financial Services Total	**60.0**	**60.0**	**60.0**	**60.0**	**60.0**	**0%**

The following table illustrates trends in Internal and Financial Services expenditures over the last five fiscal periods, along with the percentage change since FY2013.

Table 9: Internal and Financial Services Expenditures, FY2013-FY2017

Functional Area Budget	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Finance Department (Internal Services)	$3,395,456	$3,241,815	$3,467,416	$3,530,434	$3,281,615	-3%
HR	$955,371	$1,024,792	$1,037,495	$1,057,733	$1,058,979	11%
IT	$4,639,202	$3,990,428	$3,265,545	$3,947,352	$4,129,052	-11%
Internal Services Total	**$8,990,029**	**$8,257,035**	**$7,770,456**	**$8,535,519**	**$8,469,646**	**-6%**
Commissioner of Revenue	$1,092,251	$1,058,331	$1,061,762	$1,202,989	$1,253,938	15%
Finance Department (Financial Services)	$3,131,717	$3,582,833	$3,609,342	$3,765,290	$3,832,991	22%
Treasurer	$1,076,177	$1,152,354	$1,167,800	$1,224,439	$1,250,399	16%
Financial Services Total	**$5,300,145**	**$5,793,518**	**$5,838,904**	**$6,192,718**	**$6,337,328**	**20%**

Increases over this period were largely driven by rising healthcare costs, as well as budgeted salary increases. These were offset in Finance Internal Services by the elimination of a $325,000 transfer from Risk Management to the General Fund. Other increases driving expenditures include rising IT costs related to services and contractual software.

Analysis and Recommendations

The City's Internal and Financial Services Departments each play a unique role in providing, processing, and accounting for specialized services critical to City operations. Staff in these departments possess a great deal of knowledge and experience and display a high level of dedication and commitment to their work. This dedication is notable on several fronts, including effectively organized utility billing and procurement operations, responsive customer service interactions, and genuinely supportive relationships among staff in each department.

While these departments currently interact well and are oriented toward maximizing service delivery in their individual areas, there are opportunities to further augment practices and procedures in order to create staff capacity and achieve more efficient operations. The following sections detail specific actions the City can take to eliminate productivity roadblocks and create more productive, robust operations within these departments.

SAP
RECOMMENDATION 8: Create a dedicated SAP Support Center.
The City implemented its current enterprise resource planning (ERP) software, SAP, in 2005. Responsibility for City-wide SAP administration is currently divided between the Finance and Information Technology Departments. The Finance Department's authorized staffing includes two SAP Business Applications Specialists and a Program Specialist, and the IT Department is authorized with a Senior SAP Software Engineer and an SAP Software Engineer. At the time of this review, the Business Applications Specialist and SAP Software Engineer positions are filled, while the Program Specialist and Senior SAP Software Engineer positions were vacant. In addition to these dedicated resources, staff in various departments are responsible for some aspects of SAP administration in addition to their regular job duties. These staff are known as SAP "Team Leads" and are responsible for content and department-specific interface changes in the SAP system.

Currently, the Business Applications Specialists assist City staff with diagnosing and troubleshooting SAP issues, testing SAP modules and system updates, reporting potential software problems to SAP Engineers, configuring SAP to better meet user needs, and developing training materials to teach SAP processes to City employees. If the nature of this work becomes technical or requires additional expertise, these staff work with the SAP Engineering positions in IT to effect changes. While the Business Applications Specialists are largely dedicated to Utility Billing, SAP Team Leads perform similar functions in other City departments. The Senior SAP Software Engineer and SAP Software Engineer are responsible for analyzing the root causes of SAP software issues and designing, developing, and implementing SAP system enhancements. If IT staff lack sufficient expertise to accomplish the requested changes, the IT Department contracts with a qualified vendor to adjust the SAP system.

Given the City's size and the complexity of SAP, it is likely each department will always need to be staffed with some personnel who are familiar with SAP and its administration, similar to the current Team Lead system. This is especially true for departments which utilize specialized modules, such as Human Resources, and for departments which perform complex tasks in SAP, such as Finance.

However, while the current deployment of SAP resources creates a functional pipeline for diagnosing and troubleshooting issues, there is a systemic inability to implement systems and modules which would benefit the City, its residents, and its staff. For example, the City's current

SAP implementation does not utilize the software's General Ledger accounting system, and the adoption of additional SAP modules, such as the HR Compensation module, is inhibited by the system's current configuration. As a result, SAP solutions which could enhance staff capabilities and create capacity within the organization have not been implemented, and staff report using workarounds for processes which should properly occur in SAP.

The bifurcated structure of SAP support functions has resulted in a lack of clear responsibility for SAP-related issues. Troubleshooting significant issues or creating modifications to the SAP system requires the input of staff from two departments (Finance and IT) with no centralized oversight. This can create accountability gaps between staff with SAP responsibilities due to a lack of supervisory coordination amid pressure to attend to other daily responsibilities. This observation has also been reported by other third-party consultants: in January 2016, the City received a report from Phoenix Business Consulting which outlined various challenges and opportunities associated with the current SAP deployment. While much of the report points to a need to begin utilizing SAP's General Ledger system, the report also indicates that "there is no clear business owner for the system, nor has a dedicated functional support team been established to enhance and manage the SAP system."[8]

Interviews and focus groups conducted by The Novak Consulting Group confirmed these observations. Staff reported an unwillingness to engage in SAP-related projects and cited technical as well as administrative challenges associated with providing robust support services. This issue was particularly noticeable in IT. The IT Department features an extremely robust application development team, with a proven record of creating in-house software solutions to better accommodate departmental needs. The dedication and expertise of staff in this unit is commendable and a rare occurrence in local government. However, while these staff are exceptionally talented and perform their jobs well, they avoid customization in SAP for several reasons, including a lack of in-house knowledge about SAP processes, the perception that SAP is too difficult to work with, and past experiences with SAP development that were perceived negatively by staff.

In summary, the City's challenge regarding SAP is twofold: first, staff with SAP responsibilities are not centralized, and additional coordination is required in order to effectively apply these resources to the City's SAP deployment. Secondly, the City does not have sufficient resources to implement needed changes that will result in more effective SAP implementation and utilization, including the adoption of the General Ledger system and creating complex system customizations for internal customers.

As a result of these challenges, the City finds itself in a situation where its central ERP program is not well-utilized by many staff, even 10 years after its initial implementation. The City currently pays approximately $458,000 per year in SAP user fees and spent over $110,000 contracting for SAP-related services in the last year. While these investments are significant, the overall benefit of SAP has not been fully realized due to the challenges described above. In order to maximize past and future investments in its ERP system, the City is faced with three options:

- **Continue with the present SAP deployment and configuration**. This option perpetuates and potentially complicates current problems experienced by staff regarding SAP. In short, the challenges created by the present system will not disappear over the long term and will only become more intractable over time. As staff continue to utilize SAP in an ad-hoc manner and create independent workload processes outside SAP, the City's

[8] SAP System Review for Charlottesville Virginia. Phoenix Business Consulting. January 2016.

approach to data collection will become more fragmented and difficult to pull together. This option requires staff to devote time to working around the SAP system as opposed to within it in order to achieve their goals and objectives.

- **Abandon SAP in favor of an alternative Enterprise Resource Planning program.** This option presents several significant challenges to the City. First, while switching to a new ERP may present a "clean start" for the organization, the transition will not be easy for all departments. The City will incur significant monetary and time costs due to the need to draft and distribute a new RFP for ERP services, select a vendor, determine costs, create an implementation plan, and teach employees to use a new system. Additionally, data conversion costs associated with migrating existing SAP data to a new system could involve a significant amount of time, which will increase costs. While this option is a possibility, it is not recommended given the extent to which departments such as Utility Billing already utilize SAP.

- **More fully embrace SAP through the creation of a dedicated SAP Support Center.** While this option will require restructuring staff and possibly recruiting additional staff with SAP experience, it presents significant advantages over the other options. First, this option will help ensure continuity in the City's existing datasets. This is particularly important for City operations which are heavily invested in SAP, such as Utility Billing. Second, this approach will create a core SAP knowledge base with sufficient technical and business knowledge to recommend adapting current business practices, as appropriate. Finally, a dedicated Support Center will provide the City with options to more effectively utilize SAP, such as through the implementation of sophisticated system customizations, the creation of advanced reporting tools, and the deployment of more robust training and customer support services.

Given the City's history and continued monetary and data investment in SAP, it is recommended that the City pursue the third option and create a dedicated Support Center for SAP-related issues. This Support Center should provide not only basic SAP troubleshooting and process improvement capabilities, but include a complete process improvement methodology that is seamless within the organization. This will require intimate knowledge of customer business processes and needs, as well as significant application development skills and the ability to enhance SAP's interoperability with existing software systems. As an end goal, the Support Center should be tasked with transforming the City's existing relationship with SAP into one where City staff are continually utilizing, refining, and improving the SAP experience.

There are two staffing options which the City can utilize to staff the proposed Support Center. The most direct and effective option is to hire additional personnel who are fully devoted to SAP tasks. While this option presents the clearest way to ensure staffing is sufficient to carry out SAP Support Center functions, it will also present the City with significant additional personnel costs.

An alternative option is to reallocate SAP-related staff in the Finance and IT Departments to the SAP Support Center. Personnel assigned to the Support Center should be supervised by the existing Applications Manager. The following figure illustrates the composition of the SAP Support Center; positions transferred from the Finance Department are highlighted in green.
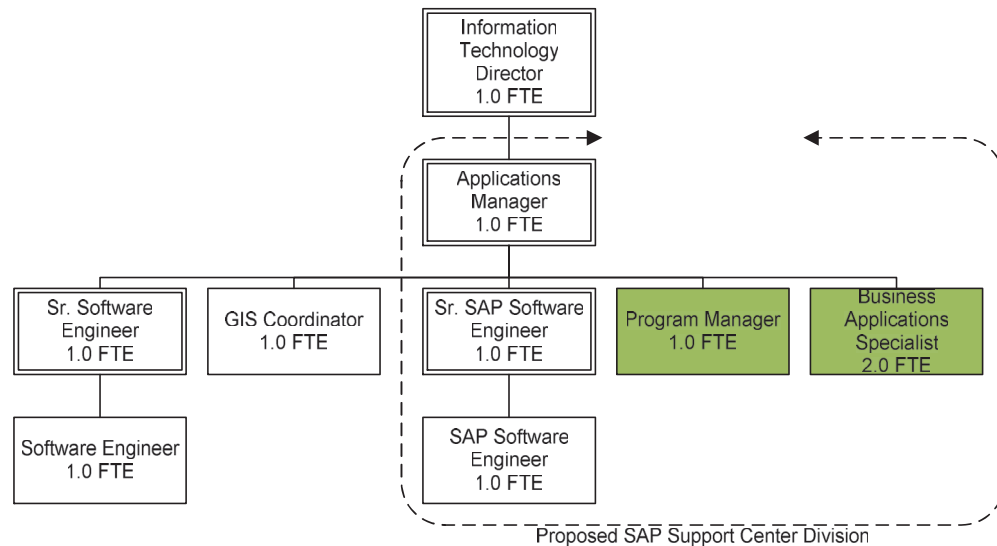
Figure 8: Proposed SAP Support Division Organizational Structure, 2016

This transition will result in an SAP Support Center with five SAP staff, including two Business Applications Specialists, two SAP Software Engineers, and a Project Manager, all reporting to a common supervisor. While the City will be able to leverage this structure to provide more coordinated SAP services to its departments, this staffing model will require transferring non-SAP functions from the Program Manager and Business Applications Specialists to existing department staff. This in turn will cause stresses among existing staff as new responsibilities are absorbed.

It is also important to consider future staffing needs in the Support Center. As the Support Center matures, total staffing will change and is likely to be affected by a variety of factors. According to the Phoenix Business Consulting report, the Support Center should be sufficiently staffed so that each functional area in SAP has a dedicated staff member. More generally speaking, an accepted practice in SAP staffing is to balance help desk and general troubleshooting requests with business process requests so that individual SAP support staff can effectively and efficiently accomplish their workloads. Determining an appropriate staffing number is consequently dependent on the specific projects to be accomplished by SAP staff, the volume of SAP-related complaints and issues, the number of customers served, and the experience level of existing staff. It is not uncommon for organizations to provide functional business SAP support to internal clients while contracting for most technical SAP work. This is a practice currently utilized by the City which could be expanded in the future.

After determining an appropriate staffing level for the Support Center, Deloitte recommends that SAP staff should measure a minimum of four performance indicators: SAP system uptime, the status of open and closed fixes, time and budget milestones for enhancements, and business requirements being met. These measures should be shared with the Support Center's internal customers to enable more effective analysis of customer service and to identify potential process improvements in the Support Center itself. Additionally, Deloitte recommends that SAP staff attend SAP-focused training events designed to augment existing skills and teach new skills to Support Center workers. Training will help ensure staff remain current with the latest SAP developments in order to provide accurate, timely, and productive services to internal clients.

Finally, it is important to prioritize the work of the Support Center to maximize the efficiency and effectiveness of its staff. Per the Phoenix Business Consulting report, SAP support will need to focus on several functions, including:

- Prioritize enhancements through close collaboration with departments
- Perform business process analysis
- Configure and document the system
- Collaborate with system developers
- Maintain security roles and authorizations
- Perform functional testing
- Create web-based business process documentation
- Provide formal role-based end-user training
- Troubleshoot functional and technical issues reported by end users
- Documentation of processes and procedures

By placing greater organizational emphasis on the need to effectively utilize SAP and restructuring SAP functions to enable more focused and coordinated responses, the City will create additional institutional capacity to address SAP issues and concerns. This will position the organization to more effectively utilize SAP as a resource and continue making strategic investments in the SAP system to maximize value to the City and its staff.

In particular, these strategic investments should focus on fully implementing the General Ledger system in SAP to increase the City's capacity to effectively utilize the software. The next step is to determine appropriate SAP module implementations which will have the greatest effect on the City's operations and budget. For example, personnel costs comprise a significant portion of the City's annual expenditures – salary and benefits account for 30% of budgeted FY2017 expenditures in the General Fund alone – and it is appropriate to prioritize procuring and implementing Human Resource-related SAP modules as the Support Center matures. As stated previously, it will be necessary for staff in each department to provide business expertise regarding SAP systems; however, the level of complexity regarding module implementation will likely require contracting for outside assistance to support SAP Support Center and Department-level staff.

Risk Management
RECOMMENDATION 9: Create a centralized risk management training program focused on reducing workplace injury.
Risk management activities are currently coordinated in the Finance Department, and are assigned to the Risk Management Specialist. This position reports to the Procurement Manager and is responsible for procuring insurance policies, including insurance for the City's storage tank systems, fiduciary liability (retirement plan) insurance, volunteer insurance, general liability and property coverage, transit bus liability and property coverage, workers' compensation excess insurance, workers' compensation excess insurance audit, and line of duty insurance.

In addition to these procurement responsibilities, this position is responsible for processing risk-related claims against the City (except workers' compensation claims, which are processed by the Human Resources Department), and serves as a staff liaison to the City's Safety Committee. The Safety Committee is composed of representatives from several departments and divisions, including Community Attention, Fire, Human Resources, Neighborhood Development Services, Parks Operations, Public Works (Public Services, Public Utilities, Transit, and School Bus), Recreation, Sheriff, and Social Services. The Committee responds to safety complaints and

inquiries from City staff and receives regular updates regarding workers' compensation claims and injuries from the Risk Management Specialist.

The City's Safety Committee does not provide or coordinate safety training opportunities for City staff, and responsibility for these training efforts falls largely to the Risk Management Specialist. These training opportunities include driver training for approximately 700 authorized City drivers on a biennial basis, as well as information sessions to communicate where City employees can access training resources provided by the City's insurers. Outside of these opportunities, there is a lack of centralized safety and risk-oriented training provided to City staff on a regular basis.

Notably, the Risk Management Specialist was recently tasked with creating a centralized training plan in conjunction with the City's third-party administrator for workers' compensation. The purpose of this effort is to identify gaps in training currently provided and to develop a more centralized training regimen for City staff. Some examples of these gaps include cardiopulmonary resuscitation (CPR) training, general occupational hazard and workplace safety training, as well as procedural training associated with workers' compensation claims and other safety-related processes.

The effort to augment and centralize risk management training opportunities is commendable and should be expedited as quickly as possible. Safety training is a critical component of educating staff and reducing the likelihood of workers' compensation incidents. For example, during interviews, City staff reported that the most common cause of workplace injury is related to slip and fall accidents. In order to more effectively address the root causes of workers' compensation claims and reduce risks to the City and its employees, the Risk Management staff should create and deploy an annual training program designed to mitigate the primary causes of injury and risk. This training program should be enacted in consultation with the HR Department.

The goal of the centralized training program is to provide training which is applicable and useful to all City staff. At a minimum, this training program should consist of an injury prevention course designed to teach City employees about common injuries they may be exposed to in their lines of work. This training should be provided by the Risk Management specialist on a regular basis with support from Human Resources staff to discuss workers' compensation issues, as appropriate. Other risk-related training may be provided by the City's third-party administrator for workers' compensation. As part of its existing contract with the third-party administrator, the City receives 60 hours of consultant time each year which may be applied to providing training for City employees. These hours should be dedicated to regular workers' compensation training each year.

It is appropriate for departments to offer targeted safety training which concerns highly specialized processes, activities, and environments that fall outside the scope of generally applicable risk management training. For example, it is not recommended that the Risk Management Specialist provide training regarding the use of specialized Public Works equipment, because this training is highly specific to one department. Rather, department managers should determine specialized training needs for their staff and provide access to such training independent from Risk Management's centralized training program.

In order to successfully provide this training to City staff, it is critical for supervisors and managers in all departments to recognize the importance of regular risk management training, and to make their staff available to attend such training on a regular basis. It will be necessary for the Risk Management Specialist to closely coordinate the timing and format of training events with each department in order to maximize attendance at risk-related trainings.

Procurement

RECOMMENDATION 10: Create an additional centralized Buyer position in Procurement.

Procurement in the City of Charlottesville is currently handled in a decentralized manner. Each department has authorized personnel who may make purchases of $5,000 or less (or $3,000 or less if the purchase is made with Federal funds). In total, there are approximately 90 City personnel who can place these small procurement orders. These staff utilize SAP to complete purchase orders and interface directly with Accounts Payable to finalize purchases.

Purchases over these amounts are processed by three central Buyers in the Finance Department who report to the Procurement Manager. Each Buyer is responsible for assisting approximately 11 departments and/or department divisions with procurement efforts, as illustrated in the following table.

Table 10: Central Buyers and Assigned Departments/Divisions, 2016

Central Buyer	Assigned Department/Division
Buyer 1	Budget and Performance Management
	City Attorney's Office
	Economic Development
	Fire Department
	Human Resources
	Information Technology
	Neighborhood Development Services
	Police Department
	Public Works/Administration
	Public Works/Public Service
	Public Works/Public Utilities
Buyer 2	City Courts
	Commissioner of Revenue
	Commonwealth Attorney
	Jefferson Madison Regional Library
	Public Works/Fleet
	Public Works/School Bus-Pupil Transportation
	Public Works/Traffic
	Public Works/Transit
	Sheriff
	Social Services
	Voter Registration and Elections
Buyer 3	City Manager's Office
	Community Attention
	Convention and Visitors Bureau
	Finance Department (Administration, Assessor, Procurement, Risk Management, Utility Billing, Warehouse)
	Human Rights
	Parks and Recreation/Parks
	Parks and Recreation/Recreation

Central Buyer	Assigned Department/Division
	Public Works/Facilities Development
	Public Works/Facilities Maintenance
	Treasurer

Central Buyers are responsible for providing these departments with support for large procurements, invitations for bid (IFB), requests for proposals (RFP), requests for quotation (RFQ), and sole source purchases. Central Buyers are solely responsible for the IFB and RFP processes. In addition to coordinating the procurement process, central Buyers draft contracts for all IFB and RFP efforts. If the procurement amount is greater than $100,000, central Buyers forward the contract to the City's Attorney for review and approval. Central Buyers also provide drafting and review support for RFQs, although department staff are responsible for collecting quotes from vendors. In all procurement efforts, central Buyers are responsible for reviewing documentation and making awards.

Additionally, central Buyer staff are responsible for term contract renewals and collectively process approximately 78 contract renewals each year. The following table illustrates the total workload assigned to these Buyers over the last several years.

Table 11: Central Buyer Procurement Workload, FY2012-FY2016

Description	FY2012	FY2013	FY2014	FY2015	FY2016
Invitations for Bid	69	79	89	78	52
Request for Proposals	28	23	36	21	25
Small Purchases - Reviewed/Approved by Procurement (RFQ)	1,865	1,967	1,941	1,971	1,151
Sole Source Procurements	14	17	37	15	26
Contract Renewals	78	78	78	78	78
Total Procurement Projects	2,054	2,164	2,181	2,163	1,332
Average per Central Buyer	685	721	727	721	444

The decline in average workload from FY2015 to FY2016 is attributable to a reduction in the number of small purchase/RFQ efforts requiring attention from central Buyers. This reduction is due to increasing the City's purchasing threshold for single quotes and small purchases from $2,499.99 to $5,000.00. Even though the overall average declined in FY2016, this volume of procurement activity is significant. While not all procurements occur simultaneously and require different investments of staff time depending on type, it is not reasonable to expect that Buyers will be able to provide sufficiently detailed oversight of procurement activity while carrying this workload level.

In 2012, the National Institute for Governmental Purchasing (NIGP) conducted a benchmarking study which included information on the average number of transactions performed by procurement staff. NIGP's "Public Procurement Benchmark 2012 Survey Report" includes responses from over 200 government agencies across the country regarding procurement-related activities. Many of these agencies supplied data regarding the amount of workload allocated to each Buyer. The following table compares these benchmark figures to those performed by Charlottesville Buyers.

Table 12: NIGP Buyer Workload Benchmarking, 2012

Transactions	NIGP Benchmark per Buyer	City of Charlottesville FY2012-FY2016 Average per Buyer
Request for Quotes (small purchases)	28.2	593.0
Competitive Sealed Bidding - IFBs Issued	7.3	24.5
Competitive Negotiation - RFPs Issued	3.0	8.9
Sole Source Contracts Awarded	123.3	7.3
Total Transactions per Buyer	**161.8**	**633.7**

It is important to emphasize that the NIGP benchmarking survey does not provide extensive insights into the processes and methodologies of the communities who responded to the survey, but rather indicates only a high-level caseload amount. While Charlottesville's RFQ average per Buyer is significantly higher than NIGP averages, these efforts consist largely of administrative review because department staff solicit quotes themselves. This reduces the impact of the caseload on the Buyer's available time.

Because IFB and RFP activity requires more stringent compliance processes in public-sector agencies, these indicators provide the most accurate comparison of workloads between NIGP benchmark communities and the City of Charlottesville. In both cases, Charlottesville staff are responsible for more of these transactions on average than peer staff who responded to the NIGP survey. As stated above, in addition to the procurement efforts themselves, Charlottesville central Buyers are also expected to draft contract language for each of these procurements, which adds time to the procurement process. Additionally, the number of departments assigned to each Buyer is significant and challenges the ability of Buyers to know and understand the depth of each department's operations and needs in detail.

In order to alleviate the workload burden on Buyers and to provide departments with more dedicated and personalized procurement support, it is recommended that the City add one additional central Buyer position to the Procurement division. This will allow the City to reduce each assigned Buyer's departmental workload from 11 departments to eight departments, and reduce the annual procurement workload from an average of 660 procurements per Buyer to 495 procurements per Buyer.

Adding another Buyer to the centralized Procurement staff will also create additional staff capacity to attend professional development training. As a best practice, NIGP recommends that professional procurement staff receive at least 20 hours of dedicated professional development training each year. According to the latest estimates provided by Charlottesville Procurement staff, each Buyer devotes approximately 24-40 hours each year to non-procurement related activities each year, including training provided to other City staff as well as professional development training. The additional Buyer will provide Procurement staff with an opportunity to achieve 20 hours of professional development training each year, as well as create additional capacity to engage in training efforts for other City staff, as discussed in the next recommendation.

The estimated salary for an entry-level Buyer II position in the City of Charlottesville is approximately $47,500. Assuming additional overhead of 35% associated with benefits and other employee costs, the total cost to create an additional Buyer position is estimated at approximately $64,100 per year.

RECOMMENDATION 11: Create turnaround time goals and track time associated with each stage of the procurement process.

The Department does not currently track cycle times or turnaround times associated with major procurement efforts, such as IFB and RFP processes. While the Department provided estimates regarding the number of days between the start of these processes and when a contract was awarded, there is currently no system in place to determine average turnaround times for various procurement types.

It is important to set goals and targets regarding the number of days a typical IFB and RFP process should take. The target time should be based on the minimum amount of days required to make a procurement award given the City's code requirements and current policies. Formalizing a target procurement time is important for several reasons. First, a formal goal creates service level expectations for central Buyers as well as internal customers regarding the average amount of time involved in significant procurements. These goals also serve as useful indicators of staff performance and allow the Department to set reasonable expectations regarding its ability to provide service given current staffing levels.

In order to effectively measure its ability to meet deadlines and analyze factors that create delays in the procurement process, it is necessary to track data related to each phase of procurement. At a minimum, the Department should begin tracking timeframes associated with the following phases:

- Calendar days from department request to solicitation posted
- Calendar days solicitation was active
- Calendar days from solicitation end to bid opening
- Calendar days from bid opening to vendor selection
- Calendar days from vendor selection to contract finalization and award
- Percent of projects completed on time

Collecting and reviewing this data will allow procurement staff to identify factors that increase procurement times and recommend adjustments to ensure procurements are conducted as speedily as possible while remaining legally compliant.

RECOMMENDATION 12: Increase available training opportunities for City personnel involved in procurement.

The decentralized procurement model utilized in Charlottesville is commendable in many respects. First, it provides departments with flexibility to meet immediate, low-cost procurement needs on their own without having to consult centralized procurement staff for approval. This expedites business processes in each department and empowers authorized purchasers to make appropriate procurement decisions. Additionally, the current system provides professional, centralized oversight where it is most needed, regarding high-value procurements and large procurement efforts involving the formal bidding process.

However, a central challenge associated with any decentralized procurement model is the need to adequately inform staff of professional procurement standards and ethics, as well as keep all authorized Buyers current with the latest processes, procedures, and expectations for conducting procurements in an ethical and legal manner. To accomplish this, the Procurement Manager and various Buyers currently provide a number of training opportunities for other City staff, including courses on procurement ethics, small purchases, cooperative purchasing, sole source purchases,

emergency purchasing, competitive sealed bidding, and competitive negotiation. However, these training opportunities are offered only on an annual or biennial basis.

In addition to providing employee training, the Procurement Manager has created training materials (Easy Guides) to help inform staff about proper procurement practices and procedures. While the current efforts made by City staff are commendable and represent good-faith efforts to engage and educate Charlottesville employees, under the current model it is difficult to ensure that all of the City's 90 authorized purchasers are sufficiently trained and kept up-to-date.

In order to provide decentralized Buyers with current information on procurement practices and expectations, it is important to increase the amount of procurement training provided to staff by utilizing a defined procurement training calendar. This training should be provided by the Procurement Manager and centralized Buyers to authorized purchasers in each City department. At a minimum, training should be provided on a quarterly basis, and persons who are given procurement authority should receive an orientation training to familiarize them with the legal and professional requirements associated with those responsibilities.

Importantly, creating a comprehensive training program of this nature will require significant staff time and attention. Given the current distribution of departments and divisions among centralized Buyers, there are 32 organizational customers for central Buyers to support. Assuming a quarterly training program will be provided for each customer and consist of one-hour long training sessions, this will require 128 hours of staff time dedicated solely to conducting internal training events, with additional time required for preparation. This is approximately 43 hours per central Buyer under the current model, and 32 hours per central Buyer if an additional Buyer position is created as described previously.

Finally, it is important to coordinate these training activities with other departments and staff that provide regular training to City employees, such as the SAP Support Center, Human Resources staff, and Risk Management staff. Offering collaborative training events, where applicable and appropriate, will help maximize staff time associated with providing training as well as represent a potential time savings for staff who attend training events.

Assessments
RECOMMENDATION 13: Convert the annual property assessment process to a biennial assessment process.
The Assessor's Office in the Finance Department is currently staffed by the City Assessor, a position appointed by City Council. This position oversees three residential Appraisers and a Commercial Appraiser, along with an Administrative Assistant, a Transfer Clerk, and a Data Analyst. These staff are currently responsible for conducting property appraisals and maintaining assessment records for all properties in the City.

Currently, Section 30-64 of the City Code requires that all taxable real estate property in the City be appraised annually for the purposes of assessing taxes. This process follows a regular pattern over the course of a year. Each January, the Assessor's Office mails valuation notices to all property owners in the City describing their reappraised property values and assessments. Property owners then have until then end of February to appeal these assessments, and staff are largely occupied processing appeals through June. In August and September, Appraisers collect information necessary to perform reassessments and begin constructing reassessment models for properties assigned to them. This process continues through December, when reassessments are finalized and notices are prepared for January mailing. Throughout this period, Appraisers

work with Neighborhood Development Services to provide appraisals for additions, remodels, and new construction.

The actual task of calculating reassessment values is performed using a Computer Aided Mass Appraisal (CAMA) system. This system creates a statistical model of properties in a given neighborhood and computes a per square foot value given factors that affect a property's marketability. In 2015, the Assessor's Office replaced its previous system with VISION, and is in the process of migrating and cleaning data from the prior assessment system to the current system. During the conversion process to the CAMA system, errors in the City's existing property appraisal dataset were discovered and require correction. Correcting these errors is largely the responsibility of the Data Analyst working collaboratively with the Assessors.

Importantly, the Commercial Appraiser is solely responsible for appraisals, assessments, and appeals related to commercial and industrial properties in the City. While all Appraisers utilize the CAMA system to assess properties, commercial and industrial property appraisals and assessments rely on a different methodology and unique factors that do not apply to other property types, such as evaluating business income and expense information as well as working with industry investors. The other Appraiser positions share responsibility for evaluating residential and other taxable properties.

According to the latest data provided by the Assessor's Office, the number of taxable properties subject to assessment has increased in recent years, as has the number of tax exempt properties. The following table illustrates the total number of properties to be assessed each year by type, along with the number of parcels allocated to each Appraiser by type.

Table 13: Appraisal Workload, FY2012-FY2016

Parcel Type	FY2012	FY2013	FY2014	FY2015	FY2016
Exempt	521	551	571	573	576
Commercial/Industrial	1,815	1,685	1,701	1,678	1,669
Other Taxable	12,885	13,032	13,065	13,134	13,191
Total Taxable	14,700	14,717	14,766	14,812	14,860
Parcels per Commercial Appraiser	1,815	1,685	1,701	1,678	1,669
Parcels per Appraiser	4,295	4,344	4,355	4,378	4,397

The current practice of annual reassessments is a major workload driver for the Assessor's Office, and presents two primary challenges for staff. First, the volume of appraisals creates a significant annual workload burden for Appraisers. As a best practice, the Assessor's Office should reassess all properties simultaneously in order to provide a clear and accurate picture of property values in the City. This comprehensive assessment should include tax exempt properties as well; however, the Assessor's Office has not been able to accomplish appraisals of tax exempt parcels due to the volume of taxable parcels. Second, the rapid annual assessment and appeals cycle leaves staff with limited time to resolve quality control issues regarding existing property records. This results in a backlog of parcels which have not been evaluated and parcel-related data which needs correction.

While annual assessments provide more recent information on market trends and price fluctuations, the Assessor's Office is currently unable to comprehensively assess all City parcels on an annual basis and lacks capacity to evaluate the quality of parcel information. In order to create sufficient capacity for staff to properly coordinate the assessment process, it is recommended that the City adopt a biennial appraisal period for City parcels. A biennial cycle is used by many Virginia jurisdictions, including the cities of Hopewell, Lynchburg, and Waynesboro.

Moving to a biennial system will effectively spread the existing workload assigned to Assessors over a two-year period, and facilitate a more streamlined approach to assessment over a longer timeframe using existing staff. Assessing half of the City's properties each year will create a longer timeframe in which to accomplish appraisals, including appraisals for tax exempt properties, and enable staff to devote additional attention to quality control regarding parcel information.

Moving from an annual assessment to a biennial process will have impacts on the City's property tax revenues. The primary disadvantage of a biennial process is that in active, high-value markets, the City's assessments will lag actual market prices, meaning less revenue will be collected per parcel than would be collected under an annual assessment process. Conversely, an advantage of a biennial assessment process is that in a declining market where valuations are falling, the City will continue to receive revenue based on higher estimated property values.

As an alternative to implementing a biennial assessment process, the City should consider augmenting staffing in the Assessor's Office with the addition of at least one part-time position to help process assessments, particularly for tax-exempt properties, and to assist with quality control evaluations. Whether the City chooses to amend its process or add staff, there is also an opportunity to create capacity among existing Appraisers by implementing cross-training practices. For example, residential Appraisers could assume responsibility for a portion of commercial appraisals in order to develop new skills, which will deepen the capacity of the Assessor's Office to address appraisals, increasing the depth of staff's existing knowledge, and widen the pool of employees available to help process appraisals.

Technology Cost Allocation
RECOMMENDATION 14: Adjust existing cost allocation model to more equitably distribute IT service costs among departments.
The IT Department currently charges for internal services provided to other departments using a straightforward user allocation model. In effect, the total cost for providing various IT services, such as IT operations, GIS operations, computer and infrastructure replacement, and telephone services, is divided by the total number of users who subscribe or benefit from the service. For example, the total cost of IT Operations for FY2018 is estimated at approximately $2.7 million. Given an estimated user base of 852.4 employees (including part-time employees) who are able to access the City's network, this yields a total per-user fee of $3,137.45. Consequently, IT charges departments this fee for each full-time staff person with City network privileges, and prorates this amount for part-time staff. This approach is replicated for all services provided by IT, as shown in the following table.

Table 14: Current IT Cost Allocation Model, FY2018 Estimate

IT FY2018 Budget Allocation	Total Budget Amount	Total Amount per User
IT Operations	$2,674,373.00	$3,137.45
GIS Operations	$64,155.00	$1,166.45
Computer Replacement	$0.00	$0.00

IT FY2018 Budget Allocation	Total Budget Amount	Total Amount per User
Infrastructure Replacement	$250,000.00	$299.15
Telephone	$223,765.00	$315.16
Total	**$3,212,293.00**	**$4,918.21**

IT Operations includes salaries for IT staff, hardware/software licensing, and contractual services. GIS Operations includes Geographic Information Systems software licenses and contractual services related to GIS. GIS personnel salaries, server space costs, and other operational costs are covered under the IT Operations fee. Information Technology is not charging other departments fees for computer replacement in FY2018, but is charging an Infrastructure Replacement fee to maintain and replace servers, file storage, and other network infrastructure devices. Finally, IT also levies a fee for telephone services based on the number of extensions (including telephones, fax machines, credit card machines, paging systems, etc.) provided to each department.

This cost allocation model blends fixed costs, such as software licensing fees, network access fees, and telecom utility fees, with non-fixed costs such as overhead associated with providing technical support assistance, application development services, and SAP-related support. While this model effectively allocates IT costs across City departments, it results in higher IT service fees for departments with large staffs (such as Police, Fire, and Public Works) without accounting for actual services rendered to each of these departments. While these departments may have larger numbers of users, those users may not account for a greater percentage of technical support and other requests made to the IT Department. This creates perceived inequities between the amount a department pays for IT services compared to the amount those services are actually utilized in practice.

According to a 2013 publication titled "Pricing Internal Services" by GFOA, there are several models for selecting a basis of allocation for internal service costs. These include[9]:

- **Cause-and-effect relationship:** Allocate costs based on usage or causal factors relating to costs incurred by a service provider.
- **Benefit received:** The basis for allocation should bear a relationship to the benefit the customer receives from the service.
- **Fairness:** The method of cost allocation that will be used must be seen as fair and legitimate by the users of the costing system. The fee should be charged equitably based on use and other considerations.
- **Legal constraints:** State laws may place constraints on how charges are developed.

Many technology costs are hidden to end users because they involve annual licensing and maintenance fees, hardware and infrastructure replacement costs, and other charges common to all users in the organization. These costs generally fall into one of two categories: infrastructure-related fees and service-related fees. In a broad sense, infrastructure-related fees are assessed for hardware and software costs which comprise the backbone of the City's technology systems, whereas service fees are related primarily to staff services such as project management, help desk troubleshooting, an application development.

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[9] Pricing Internal Services. Government Finance Officers Association. February 2013. http://www.gfoa.org/pricing-internal-services

In order to improve fee allocations, the Department should proportionally allocate infrastructure-related fees to the greatest extent possible based on specific services indicators, such as the number of licensed software users for a given program, the proportion of available storage space utilized by each department, and the number of physical network connections available to each department. Once each Department's proportional allocation has been determined for specific IT costs, these allocations should be utilized for future budgets. Proportional costs should be revisited and recalculated on a regular basis to ensure that changes in IT infrastructure, departmental staffing, and technology deployment are recalibrated to match the City's technology environment. At a minimum, this reapportionment of costs should occur every three years.

This methodology more equitably distributes IT infrastructure costs among large and small departments, and will help the City ensure that departments are responsible for a commensurate amount of these costs. A sample methodology is included as Appendix C.

Information Technology Staffing

RECOMMENDATION 15: Create a Public Safety Business Analyst position to coordinate help desk and business process issues with the Police and Fire Departments.

While the IT Department provides technology services for all City departments and personnel, staff in public safety departments reported gaps in available IT service coverage and staff availability. As a consequence, both the Police and Fire Departments utilize their own department staff to coordinate some information technology functions and assets independently from the IT Department. In the Police Department, a Lieutenant oversees technology assets including mobile data terminals (MDTs), body-worn cameras, portable radios, cellular phones, and other technology assets. In the Fire Department, a Battalion Chief maintains the Telestaff personnel scheduling system as well as the Department's records management system (RMS).

While allocating responsibilities for these IT functions to department-level staff resolves the immediate needs of these departments in the short run, this practice is not recommended over the long term. Splitting public safety functions away from the IT Department introduces fragmentation in functional responsibilities and blurs the line between IT responsibilities and departmental responsibilities. This in turn complicates the relationship between these departments regarding technical support. For example, if Police and Fire staff act independently to acquire and configure software applications without including IT, it may be necessary for these departments to rely on additional contracted technical support rather than relying directly on IT staff. Over the long term, this is more expensive for the City and creates information gaps between IT and public safety departments.

Given the evolving nature of Police and Fire operations with respect to technology assets and deployment, it is recommended that the IT Department create a Public Safety Liaison position specifically tasked with understanding the business operations of the Police and Fire Departments and the technology needs associated with these operations. This position should fulfill both a business process and technical support role for Police and Fire by providing insights into modern public safety technology practices as well as supporting each department's existing technology assets. This position should be responsible for coordinating closely with the operations, application development, and SAP Support Center elements in the IT Department in order to maximize service delivery to public safety units while minimizing functional overlaps between public safety staff and IT staff. In short, the Public Safety Liaison position will serve as an effective bridge to link public safety technology needs to the City's overall technology efforts, while troubleshooting and supporting technology assets already in place.

The creation of this position presents several advantages to the Police, Fire, and IT Departments. First, it represents an opportunity for the Police and Fire Departments to offload technology responsibilities to another City department with field expertise. This in turn will free up staff capacity in Police and Fire for personnel who are currently occupied with technology needs. Secondly, this position will provide IT with a full picture of each public safety department's technical requirements and desired assets. Knowing this information will allow IT to plan more effectively in order to meet these needs while maximizing available funding and staff resources. Over the long term, this position will allow IT to become more familiar with public safety business practices and to identify technology synergies that will effectively serve both departments, saving the City time and money while reducing the need to rely on outside contractors for specific departmental support.

The Public Safety Liaison position should report to the IT Operations Manager and work closely with other Technical Support Specialist positions to provide business process and technical support services for Police and Fire. Assuming an average hourly wage of $18.00, annual salary costs for this position are estimated at $37,400 per year. Applying an estimated benefits rate of 35% yields an estimated total compensation of $50,500 per year to support this position. This cost can be offset through attrition as public safety personnel devoted to technology leave the organization.

RECOMMENDATION 16: Evaluate Help Desk staffing and workload.
The IT Department currently tracks some Help Desk-related activity using a ticket system through SAP. This system is primarily utilized to track projects and issues which cannot be immediately addressed in a short timeframe. As a result, information in this system does not represent the entire workload of the IT Department, but rather only workload for which a ticket was created. Due to concerns by the Department about completeness and accuracy of the data entered into SAP, a specific breakdown of tickets could not be provided.

There are a significant number of ticket cases addressed by IT staff on an annual basis, averaging over 3,500 each year. While the Information Technology Department generates the most overall workload, these tickets comprise a mixture of IT-specific projects as well as projects for other departments which were charged to IT cost centers (such as the procurement of new equipment or other miscellaneous tasks).

Excluding calls generated by the IT Department, the Finance Department is responsible for the largest proportion of overall Help Desk ticket volume, followed by Public Works, the Department of Social Services, Police, the Treasurer's Office, and the Parks and Recreation Department. Collectively, these departments account for 52% of tickets generated over the last three years, based on the numbers generated from SAP.

In addition to the substantial number of cases addressed by IT staff, it is important to examine the cycle time associated with each ticket. Currently, the IT Department tracks the date a ticket is opened as well as the date it is closed. However, accurate information about cycle time was not available from the Department.

The IT Department currently has three authorized positions to process Help Desk tickets and requests: a Senior Technical Support Specialist (currently vacant) and two Technical Support Specialist. While these staff serve as a front line of technical support, escalated requests are forwarded to other staff for review and resolution.

The preliminary information provided regarding the volume of tickets and the significant amount of time each ticket requires appears to justify filling the currently vacant Senior Technical Support Specialist position as quickly as possible. Other recommended staffing changes will help to shift the burden for this technical workload, including the recommended Public Safety Business Analyst position in IT and the SAP Support Center. However, once data regarding the volume of tickets and the time needed to close them is verified, the City may consider adding another Technical Support Specialist position to further reduce impacts to other IT staff.

Human Resources - Organizational Capacity Building

Human Recourse management is a critical function of any organization. Highly functioning human resources departments provide a balance between professional human resources support to managers and employees and compliance management to ensure consistency and limit liability to the organization. There are two primary models of human resources service delivery – centralized and decentralized.

Under centralized models, an organization is staffed with a robust central human resources professional staff who provide a single conduit for the resolution of personnel issues or the coordination of human resources services such as recruitment, organizational development and training, classification and compensation, performance management, recruitment and retention. The major benefit of a highly centralized model is that it creates the structure to ensure consistent interpretation and application of personnel policies and procedures. The primary negative attribute of a centralized model is that the process of filtering all personnel issues through a single department can inhibit responsiveness and negatively impact operating departments seeking to address personnel issues that impact daily operations.

A decentralized model primarily relies on operating departments to manage human resource issues at the department level. Under this model, a small central human resources staff provides the policy structure and guidance for HR procedures and policies and offers support in the resolution of HR issues, but each operating department is responsible for individually interpreting and applying the organization's HR practices. The benefit of this model is that it is responsive and flexible. It allows operating departments to act quickly to address personnel issues that impact service delivery. The primary negative attribute of this model is that it can result in the inconsistent interpretation of policies from one department to another.

The most effective human resource departments are those that provide a balance between centralized and decentralized service, providing professional Human Resources support and guidance when needed while also creating the structure and support system necessary to enable departments to effectively and consistently manage personnel issues.

The City of Charlottesville Human Resources Department attempts to provide that balance, but primarily utilizes a centralized approach. Staff interviews with Human Resources Department team indicate that the Department is a cohesive work unit. Staff seeks to support the work of peers and indicated a genuine effort to provide quality and responsible support to their customers in other City departments. This was verified in stakeholder interviews which largely indicated a high level of satisfaction with the responsiveness of HR personnel on day-to-day HR issues, such a recruitment questions, benefit changes or inquiries, the City wellness program, and the like. This a positive indicator for the Department and one that deserves commendation. However, there are also opportunities that deserve attention relating to process and organizational support.

The Department has attempted to strike a balance between providing strong centralized oversight and support to operating departments, but primarily functions as a strong central HR department.

Though some processes and procedures are designed to primarily be managed at the department level, most require final oversight and approval from the Human Resources Department. For example, the recruitment and hiring process is primarily driven by hiring managers, but final hiring approval resides with the Human Resources Department, Budget Office, and the City Manager in cases when the job offer exceeds mid-point of salary range (a common occurrence). While largely decentralized, this process creates a bottleneck at the conclusion of some recruitments, which detracts from any efficiency gained through the decentralized approach and prolongs the hiring process. This has in turn led to some departments losing candidates who accept other positions.

Though the City has attempted to create decentralized HR management capacity, professional development and training opportunities for managers and department appointed HR liaisons is limited. This in turn limits the ability of the HR Department to fully decentralize HR processes.

In addition, though the department stakeholders are broadly satisfied with day-to-day HR services, there is a perception that major projects and initiatives, such as process of policy revisions, are difficult to initiate and carry forward to conclusion. For example, the HR Department has been leading an initiative to revise HR policies and procedures and the performance appraisal system for nearly a year, but has been unable to finalize and implement system changes. This creates dissatisfaction among employees who experience issues in existing processes but do not see a dedicated effort to address those issues.

The Novak Consulting Group's review of major HR projects and initiatives indicates that this issue is attributable to three key factors. First, the aforementioned difficulty in fully decentralizing HR decisions (e.g., recruitment decisions, hiring decisions) has created workload pressures at the executive level of HR. In addition, the HR Director has served as the City's classification and compensation manager due to a vacancy. This has further limited the capacity to fully implement major policy or process initiatives in HR. Lastly, and most importantly, there is a need to prioritize the work of HR based on the City's adopted service delivery approach and to build professional capacity within the entire organization to support that approach.

Ultimately, the process of enhancing decentralized, departmental HR capacity will require a phased and thoughtful approach. The first and most important step in that process is to specifically define what functions will continue to be primarily performed at the central Human Resources Department level and which will be further decentralized to the department level. Typically, core centralized functions of Human Resources include policy and procedure development and oversight, workforce planning (e.g., retirement and succession planning), classification and compensation program management, and organizational development. It is then necessary to develop a specific training program designed to enhance, over time, the capacity of departmental HR liaisons. Doing so will create capacity in central HR to provide greater focus on strategic HR improvements.

Specifically, there is need in the City of Charlottesville to develop more robust workforce planning and organizational development/training programs, and to carry forward major policy and procedure reforms that are currently underway. The following recommendations are designed to begin addressing those issues.

RECOMMENDATION 17: Enhance the capacity and role of departmental HR liaisons through a dedicated ongoing training program.

Currently, each operating department has designated individuals who serve as the point of contact or "HR liaison" for their departments. Typically, the individuals who are assigned that role are administrative support positions. Their primary HR related responsibilities include payroll, benefits questions and answers, benefits adjustments, new hire paperwork support, and other transactional HR duties.

Though these positions serve as valuable resources to their departments and HR, there is little dedicated training to establish or enhance core foundational knowledge in HR practices, policies and procedures. As a result, the capacity of that staff to carry forward decentralized responsibilities consistently, and without onerous oversight from HR, is limited. This in turn impacts the HR Department's capacity to carry forward broader strategic initiatives.

Ideally, departmental HR liaisons should provide more enhanced HR service to their departments. For example, in highly functional liaison models, the positions will:

- Serve as the initial contact person for all HR related questions
- Coordinate the hiring process and new hire orientation
- Manage the performance appraisal process
- Complete all initial HRIS data entry
- Serve as training coordinator and track training requirements for all employees
- Write/review all job descriptions and reclassifications before submittal to HR Department for approval; and
- Meet and communicate regularly with HR Department staff and other liaisons to stay abreast of current issues and policy changes

If the current decentralized HR liaison model is to work effectively, each department or agency must have their own internal HR resource who is knowledgeable about their business and central HR roles and responsibilities. This model is valuable in that it provides departments and agencies with more control and flexibility in the delivery of HR services. While HR Department staff serve as a resource to each of the liaisons, the liaisons need to have a working knowledge of all HR service areas. For this to occur, it is necessary for the HR Department to provide proper training to each liaison generalist and to work closely with each liaison generalist to ensure correct and consistent application of HR policies and procedures.

With more responsibility for day-to-day HR tasks shifting to the departments and agencies, the HR Department would then have the opportunity to reshape its role as a central service department. In a strategic, centralized role, HR will be able to provide dedicated attention to broad policy development, process improvement initiatives, and core service areas including compensation and classification, employment, organizational learning and development, workforce planning, and employee relations. Additionally, with less emphasis on tactical and transactional responsibilities, the HR Department will be better positioned to take on more strategic issues, such as leadership development, performance management, and other policy issues impacting the organization.

Under a decentralized model, the current HR Department budgeted staffing level and organization structure would continue to be appropriate. Each HR employee would serve as the subject matter expert for their business area (e.g., benefits management, employee relations and discipline) and would provide support and consultative services to departmental HR liaisons. Those liaisons

would take on greater responsibility for the management of day to day transactional HR issues, thereby creating capacity for each HR Department subject matter expert to serve as project lead for strategic initiatives in their areas of expertise. Currently, this role and responsibility is largely managed by one person – the HR Director – which limits the time that can be effectively dedicated toward these issues and impacts the timeliness with which such initiatives can be completed.

It is important to note that the initial step in this process is to assess the capacity of existing liaisons to take on additional responsibilities. In the event that current HR liaisons are not well equipped, or interested, to take on the role, it will be necessary to evaluate the capacity within each operating department to reassign the role and responsibilities. Once HR liaison assignments are clarified and skills are assessed, a comprehensive training program should be developed by HR staff. The curriculum should be jointly developed by each of the HR Departments' subject matter experts, who would be responsible for delivering each training module. In addition, refresher training courses should be conducted on an annual basis to ensure that changes are effectively communicated and that issues are identified and resolved as departmental capacity increases.

RECOMMENDATION 18: Require mandatory management and supervisory training for Charlottesville managers and supervisors.
In addition to building capacity at the HR liaison level to take on a greater role in transactional HR management duties, it is also important to build supervisory and management capacity to consistently and effectively manage employee relations and professional development in their departments and divisions. The most effective mechanism to ensure that central HR has sufficient capacity to focus on broader strategic improvements is to limit the number and frequency of personnel issues that require central HR intervention. This is best accomplished through a proactive supervisory and management capacity development program.

Though the City's organizational development and training policy is not formerly articulated, the HR Department provides a variety of training opportunities to City staff, including employee onboarding, computer training, and quarterly training to other departments on various topics. While the Human Resources Department offers management and supervisory training on specialized topics (e.g., EEO) through a third-party contractor, Department staff reported varying levels of participation due to the voluntary nature of the training.

It is essential that managers and supervisors be exposed to training and best practices that educate them about their oversight role and responsibilities and equip them to be effective supervisors. As a best practice, good management training provides supervisors with a better understanding of their relationship to employees in the context of the work environment, the ethical considerations associated with supervising employees, strategies for understanding and effectively managing employee behaviors, and best practices for equitably evaluating employee performance. This training is a vital component of developing competent, informed managers who can build effective relationships with their employees, and must be tailored to fit specific considerations that affect different departments.

To ensure managers and supervisory staff are continually apprised of best practices, legal issues, effective strategies, and other information associated with employee oversight, it is recommended that the City require all management and supervisory staff to attend training at least once per year.

The City should continue its practice of utilizing a third party to offer management and supervisory training to all Charlottesville managers and supervisory employees. Offering this training through

a reputable outside consultant helps ensure that all departments and supervisory employees receive instruction that is current, consistent, and tailored to their specific needs. Additionally, outsourcing this training to a third party provides a timely method to develop a training curriculum and approach that can then be carried forward on a recurring basis by Human Resources staff.

It is not unusual for organizations to outsource supervisory training. According to industry surveys conducted by the Society of Human Resources Management (SHRM), approximately 46% of organizations outsource training and development programs partially or completely. Many organizations base decisions to outsource on available expertise and service level expectations. Given the considerations described above, it is important to more effectively utilize training provided by the existing third party contractor by requiring management and supervisory staff to attend training sessions.

RECOMMENDATION 19: Develop a formal organizational development policy and program for the Human Resources Department.

Training and organizational development is a shared responsibility in the Human Resources Department. Different HR employees are responsible for managing different portions of the training program, but there is no dedicated universal point of contact or central coordinating authority. The Employee Relations Manager serves as the Department's training coordinator and provides training related to diversity, ethics, cultural competency, hiring practices, and supervisory training. Additionally, a substantial amount of training coordinated by this position focuses on issues pertaining to employee relations and equal opportunity employment, and the work of the position is primarily dedicated to employee relations investigations and disciplinary process oversight.

Though the department offers a number of training programs throughout the year, there is no central training calendar that can be accessed by employees. More importantly, there is no broader organizational development policy and priority guidelines that determine what training is offered, when it is offered, and the expected outcomes.

Organizational and workforce development is one of the most important functions of a central human resources department. The role of the Human Resources Department is to provide training and development support that allows each employee to thrive in their position and grow within the organization. To that end, it is appropriate to develop a proactive program to meet this need.

The proposed policy should address the purpose and goals of the organizational development program. Additionally, it should clearly articulate the role of the HR Department, as well as the role of departments and agencies, in providing training and development opportunities. The types of training and development to be offered should be outlined, including leadership development, professional development, customer service training, and other behavioral and skill based-training.

The policy should also establish minimum training requirements for all employees. Currently, departments and agencies track their own training participation. There is no centralized oversight. Once a policy has been established about the roles and responsibilities for training and development, it will be necessary to develop an effective curriculum and training calendar. The Department should continue the process of utilizing multiple staff for training delivery and, where possible, tap personnel from other departments to deliver training. However, the prioritized intent of the program and the anticipated outcomes should be clear.

Workforce Development and Employee Retention

RECOMMENDATION 20: Create a centralized workforce planning strategy and assign implementation responsibilities to departments.

It is anticipated that the City will experience a significant amount of turnover in the coming years. Approximately 10% of the City's current workforce is eligible to retire with benefits. This number is likely to grow in future years as staff who have built up tenure become eligible to take retirement. Given these trends, it is important for the City to develop a comprehensive workforce planning strategy which will effectively meet its employment needs in future years. In best practice organizations, workforce planning is a strategic effort targeted toward meeting the long-range needs of the organization as well as the specific needs of each department. This is commonly achieved through several common practices, including:

- Meeting annually or biennially with departments to discuss staffing issues – succession planning, upcoming retirements, organizational changes, etc.
- Developing a classification system which provides for succession planning; e.g., a cadet program, internships.
- Developing strategies to enhance the image of a career in government such as telecommuting, life cycle planning, and flexible schedules.

To address gaps in its current workforce planning efforts, the City should create a centralized workforce planning strategy and assign implementation responsibilities to individual departments. The central component of a workforce planning strategy should be the responsibility of the Human Resources Department. HR's role is to analyze staffing trends, recruitment patterns, and the organization's future needs. This should be accomplished through the creation of an annual workforce planning report designed to provide a thorough overview of the City's existing workforce. At a minimum, this report should include recruitment and retention trends, compensation information, personnel statistics, and other data which provides contextual information about the City's workforce and sheds light on potential gaps in workforce capacity.

Upon completing this report, HR staff should meet with individual departments to review the report's findings and discuss how the findings apply to the department's specific tasks and staffing needs. This meeting will set the stage for decentralized workforce planning work to begin. After meeting with HR to discuss trends, each department should be responsible for formulating specific workforce development plans in consultation with Human Resources. Departmental plans should include specific recommendations for addressing capacity, morale, and other needs which are high priorities for that department.

This system positions Human Resources as a central evaluator of workforce trends that impact the entire organization, as well as a specialized internal services consultant for departments. Utilizing this structure to create a formal workforce planning process preserves and capitalizes on the decentralized role of many HR-related functions, while creating accountability mechanisms to address workforce development needs.

Workforce planning should become a regular part of Human Resources responsibilities, and the Department should update its workforce report on an annual basis in order to stay abreast of employee trends. Departments should meet with HR staff each year after the workforce report has been updated and reviewed to update their individual workforce plans and respond to any changes that may have occurred during the last year. By routinely engaging in workforce planning efforts in this way, the City will create capacity for departments to effectively address their

workforce needs, cultivate institutional knowledge, and identify patterns that threaten the stability of the City's workforce.

RECOMMENDATION 21: Implement employee retention best practices as part of workforce planning efforts.

The City's employee retention efforts are a second critical area in need of focus and attention. In recent years, the City's vacancy rates have increased from approximately 29% to nearly 37% due to high turnover. The vacancy rate is the percentage of City positions which experience turnover, and is computed by dividing the number of recruitment efforts by the number of authorized staff each year, as illustrated in the following table.

Table 15: City-Wide Vacancy Rate, FY2014 to FY2016

Vacancy Rate	FY2014	FY2015	FY2016
Recruitment Efforts	263	286	347
Total Authorized City Staffing (FTEs)	915.11	931.24	941.64
City-Wide Vacancy Rate	28.7%	30.7%	36.9%

High turnover was also reported during employee interviews and focus groups. Some staff indicated that high turnover prompts personnel in their department to "place bets" on how long new hires will stay before leaving the organization. These anecdotes, in conjunction with the vacancy rates illustrated in the table above, paint a picture of an organization that struggles to retain new employees.

In addition to wearing on employee morale, high turnover rates are costly for the organization and create additional burdens for Human Resources staff, particularly through additional recruitments and time to properly train and orient new employees. Reduced employee longevity also contributes to decreased institutional knowledge and presents obstacles to building lasting rapport among staff members.

Appropriately addressing high turnover and vacancies requires a thorough analysis of factors contributing to employee dissatisfaction. There are several best practices and strategies organizations can utilize to identify retention issues, address employee concerns, and foster a culture which welcomes and supports new personnel. For example, Loudoun County, Virginia recently developed a five-year workforce development plan which specifically identifies goals, strategies, and action steps designed to improve the County's retention efforts. The County's plan identifies actions which should be performed by Central Human Resources as well as individual departments, as outlined below:[10]

- Centralized (through HR)
  - Make employee engagement and retention a County-wide strategic goal
  - Specifically assess the effects generational differences, gender, and minority status are having on the County's retention through focus groups and random micro-surveying
  - As part of the diversity taskforce, create retention and engagement circles to discuss key retention issues related to generations, gender, and minority status
  - Provide retention tips as a supervisor tool on the intranet ("9 minutes on Monday")
  - Review exit data quarterly to proactively address challenges
- Decentralized (occurring in each department)

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[10] Five Year Workforce Plan Recommendations. Human Resources Taskforce. Loudoun County, Virginia. July 2016.

- o Break down turnover data to provide departments with more detailed information on who has left their department in the last five years
- o Require departments to develop retention plans based on results and as part of their yearly workforce planning goals. Yearly retention strategies should include:
    - Department onboarding efforts
    - Mentoring/Partnerships
    - Training and development efforts
    - Potential areas for succession planning career development
    - Communication strategies (give meaning to employees' work)
    - Employee feedback mechanisms (interviews, feedback sessions)
    - Change management considerations
    - Supervisor focus (efforts supervisors will make this year to further engage employees – 98% of employees don't leave an organization, they leave a supervisor)

Other core components of Loudoun County's workforce planning effort include emphasizing the importance of supervisory training, enhancing work-life balance for employees, more effectively communicating each employee's total compensation, promoting dialog on employee satisfaction, and improving the County's exit process.

Implementing similar best practices will significantly aid the City of Charlottesville's efforts to reduce turnover and improve morale. As part of the annual workforce planning process, Human Resources staff should provide departments with some insight regarding turnover trends and work with departments to devise and implement effective employee communications strategies. This includes leveraging existing employee satisfaction surveys and acting upon the results to proactively address problems in the organization. Other strategies are more fully discussed in this report, including expanding supervisory and other training opportunities, providing effective annual performance reviews, and expanding cultural surveys of employees.

By collecting this information and utilizing it to inform employee retention decisions, Human Resources staff will add value to the organization by assisting departments with individualized retention plans and suggesting strategies for more effectively addressing retention issues.

Recruitment Process Improvements
RECOMMENDATION 22: Implement recruitment process improvements and cycle time targets.
As an internal services function, one of the most important roles of the HR Department is to ensure departments in the organization have qualified staff to fill each of its authorized positions. This includes helping departments minimize the time a position remains vacant. The need to enhance the timeliness of recruitment efforts was one of the key themes identified in conversations with HR's stakeholder departments and hiring managers. In response to this concern, The Novak Consulting Group reviewed recruitment process time data from the City's NeoGov recruiting system. Over the past three fiscal years, it has taken an average of 70 days, or just over two months, to fill a vacant position from the point the vacancy was created in the NeoGov system to selected candidate's start date. In the most recent fiscal year (July 2015 through June 2016), the Human Resources Department aided departments with 347 discrete recruitments. The average cycle time for each major phase of the recruitment process is summarized below:

Table 16: FY 2015 Recruitment Process Cycle Time Summary

Recruitment Process Step	Average Days to Complete
Department creates recruitment record in NeoGov	Process Start
Human Resources issues job posting	13 days from process start
Position advertisement period	25 days from position positing
Application minimum qualification review and referral to hiring manager	2 days from position closing
Hiring manager review and selection process employee start date	29 days from referral of applications
Total Process Time	**69 Days**

The Novak Consulting Group's review of the key steps in the process indicates that the recruitment process cycle time is generally reasonable to advertise for a position, conduct application screenings, conduct interviews, select a candidate, extend and negotiate a job offer, and address all new hire processing requirements (background checks, physicals, etc.). However, there are two clear opportunities to potentially reduce cycle time.

The first opportunity relates to the requisition process. When a department wishes to fill a vacancy they must first complete a requisition in NeoGov which is submitted to the Budget Office and Human Resources Department for authorization to fill the position. The request is reviewed within the context of financial constraints, personnel policy limitations, and assessments about whether the job description and duties remain relevant and appropriate. Once authorization is granted, departments are then permitted to initiate the hiring process. Though process time data regarding this phase of the recruitment process was not available, it is important to emphasize that this step lengthens the amount of time that departments are required to absorb vacancies and, as a result, is an operational and administrative burden. Though the review process is necessary and appropriate, it should also be conducted as quickly as possible to limit any negative impact on operating departments. As a result, it is appropriate to establish a process time target of one week from the point of department request to final determination by Human Resources and the Budget Office. The Human Resources Department should periodically evaluate the number of days this stage of the requisition process actually takes in order to identify whether departments make consistent errors which contribute to lengthy process times.

The second opportunity relates to the average time that elapses from the point departments receive approval from Budget and HR to the point the position is advertised. Currently, departments are not permitted to complete the record until the initial Budget Office and HR Department review is finalized. It then takes HR an average of 13 days to post and advertise the position. In order to reduce this process time, the Department should adopt a cycle time performance target of five business days from the HR and Budget office approval to job posting and advertisement. This would fundamentally improve total process cycle time, reducing it by an average of one week. HR should also periodically review cases where performance targets are not met to identify common process impediments and address them.

RECOMMENDATION 23: Revise recruitment and hiring process to eliminate final HR Director approval of all hires.
The Human Resources Department is responsible for supporting the recruitment and retention efforts of City departments. In that role, Human Resources serves as the subject matter expert for the City's electronic recruitment software, NeoGov. The recruitment process is similar to that of other jurisdictions that utilize such software.

When a hiring manager desires to fill a position, they submit a request through the NeoGov system. That request is approved by the appropriate department director and is also reviewed by the Budget Manager and the Human Resources Director to ensure that there are necessary funds for the position and to ensure that amendments to the job description are not warranted.

The Human Resources Department then supports the hiring manager in drafting and issuing the job posting as well as completing the necessary job advertisements, according to both City policy and the industry specific marketing needs.

Applicants submit applications the NeoGov system and, once the posting period is closed, the Human Resources Department reviews applications and conducts a screening process to filter those applicants that do not meet the basic minimum qualifications of the position. Hiring managers then conduct their own screening process for skills and experience and initiate the interview process with select candidates.

Following the interview process, the hiring manager selects a candidate and develops an offer, which is entered into the NeoGov system for final review and approval by the Human Resources Director.

Under the current process, hires are reviewed and approved at three levels. The first level is during the budget process. At this phase, departments identify the number of positions they intend to staff by classification. Hires are then reviewed and approved by the Budget Director and the Human Resources Director early in the recruitment process, before job advertisements are issued. The final approval step rests with the Human Resources Director who then approves the hiring manager's candidate selection and offer.

The first two hiring stages described above are entirely appropriate. However, the final stage, whereby the Human Resources Department approves the final selection, presents limitations. First, the primary responsibility of the Human Resources Department, from a screening perspective, is to ensure that applicants meet minimum qualifications. Once that process has taken place, however, it is most appropriate for the hiring manager, with approval of their department director, to make the final determination as to a job offer. It is the hiring manager who is most familiar with the needs of the position and the responsibility of position. The process of requiring an additional HR approval at the conclusion of the recruitment process unnecessarily prolongs the deliberation process and runs the risk of losing good candidates. As a result, it is appropriate to revise the recruitment process to exclude final gateway approval of each job offer, after equity and other employee relations issues are recognized.

Employee Accountability

One of the prevailing issues expressed by both managers and front-line employees was the perception of a low expectation of accountability in the organization. Specifically, City staff experience this issue in one of two ways. First, there is a belief that poor performers are not held accountable through normal disciplinary mechanisms or the employee performance review process. Second, there is a perception that the City's compensation system is not structured to reward high performers, but rather treats strong and poor performers the same. This is a broad organizational issue that is the responsibility of the Human Resources Department and operating departments to address.

RECOMMENDATION 24: Implement the practice of conducting employee performance reviews annually.

One of the common concerns expressed by City staff was the lack of a consistent performance appraisal process. Managers and supervisors are not held accountable to ensure that they complete reviews in a timely manner, and reviews are not utilized to manage performance and guide professional development of employees.

The City of Charlottesville utilizes a standard employee performance appraisal form that supervisors can use when evaluating employees. However, supervisors are not completing reviews consistently throughout the organization, with some employees not receiving a review for many years.

The employee performance review process is a structured mechanism to ensure that supervisors and staff communicate about performance, expectations, and aspirations. The conversations that take place during the review process can strengthen management and employee relationships. The most effective performance review processes are those that are used as a professional development tool which supports employee development and organizational accountability.

The review process can be stressful for both the employee and supervisor. To eliminate some of the stress, best practices indicate that performance discussions should take place frequently. When this is done, the more formal review can be a summary of what has occurred throughout the reporting period.

Recognizing that employee performance reviews can serve as an essential professional development and communication tool, it is recommended that the City of Charlottesville require supervisors to complete annual employee performance reviews. To reinforce the organization's commitment to the completion of annual performance reviews, it will be important for executive leadership to communicate their importance and explain that it is management's expectation that all supervisors complete reviews for those they supervise. In addition, it is appropriate for the Human Resources Department to take on the responsibility of tracking performance review deadlines for each department and communicating with department directors when appraisals are overdue.

It is important to note that the HR Department, and the organization at large, recognize this is an issue. The City initiated a multi-departmental study committee in late 2015 to review the performance review and appraisal process and offer recommendations to improve the functionality of the system. The City anticipates that recommendations will be offered in January 2017. It is appropriate that those recommendations be converted into an actionable implementation plan for completion by June 2017. The study process offers a unique opportunity to make timely headway on this issue and to generate greater utility in the performance review process.

RECOMMENDATION 25: Conduct a classification and compensation study.

One of the prevailing justifications for limited use of the performance evaluation process or system in the City is that performance reviews, or more specifically employee performance, have no direct bearing on pay increases. If pay raises are enacted, they are typically cost of living adjustments that are applied to all employees regardless of performance. In addition, there is a perception among City employees that the pay structure is low and inequitable compared to other governments.

To begin assessing this issue the City contracted with the Titan Group in 2015 to conduct a market based salary survey and compensation study comparing the pay schedules of 62 jobs against other public sector organizations within the State of Virginia. The study indicated that overall, the City pay scales for jobs are 91% of market and pay for the incumbents is, on average, 96% of market. However, there are a number of public safety and non-public safety positions whose pay scales and the salaries for incumbent positions are between 70% and 80% of the market survey data. Though in aggregate, the City is close to market, there is wide variation among job titles.

This, coupled with the absence of performance-based pay incentive, has resulted in dissatisfaction with the current compensation structure among employee and managers. Given these issues it is appropriate for the City to consider conducting a full classification and compensation study to realign all positions with the market and the City's compensation philosophy. It is also appropriate to evaluate pay and benefits systems that permit pay for performance incentives within the framework of the classification system so as to begin building the systematic tools necessary to reward and retain the City's top performers, through rigorous and disciplined use of an enhanced performance appraisal system.

Healthy Families and Community

The Healthy Families and Community Functional Area consists of the Social Services, Human Services, Neighborhood Development Services (NDS) and Parks and Recreation Departments. In addition, this area includes the Charlottesville Albemarle Convention and Visitors Bureau and the Office of Human Rights.

The budget for Healthy Families and Community also includes funding for various community services and programs such as the Children's Services Act, Community Events and Festivals, Contributions to Children, Youth and Family Programs, Contributions to Education and the Arts and the City's Housing Programs.

Staff in these departments are responsible for numerous programs and services including managed development, code enforcement, and visitor services as well as ensuring the community has quality parks and recreational opportunities. In addition, the Healthy Families and Community Functional Area provides many valuable assistance programs that are designed to help residents find permanent solutions to life's challenges and to aid self-sufficiency.

Department of Social Services
The City of Charlottesville Department of Social Services (CDSS) is supervised by the State, but locally administers federal, state, and local public assistance and social work service programs. CDSS provides state/federal income support and social work services to alleviate poverty and other social issues in the community. Staff assists the most vulnerable in the community, including children, the elderly, and low income families. In FY 2015, approximately 22% of the City's population (10,251 residents) received assistance from one or more of the three largest benefit programs administered by Social Services (SNAP, Medicaid and TANF).[11]

As of FY2017, the CDSS has 102 FTEs, including a Director and Assistant Director. The Department is organized into three divisions - Benefit Programs, Family Services Programs, and Administration. The Benefits Division is responsible for managing benefit programs that help low income families and individuals meet basic needs for food, shelter and medical care. Staff in the

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[11] CDSS Advisory Board Annual Report to the City Council (FY 2015 Census Bureau) – June 2016

Benefits Division administer programs such as Medicaid, Supplemental Nutrition Assistance Program (SNAP) and Temporary Assistance to Needy Families (TANF).

The Family Services Program Division supports the development of healthy families and protects children and adults from abuse and neglect. Staff in Family Services administer programs such as adoption services, adult protective services, and foster care.

The Administration Division handles the customer service needs of the Department. Administrative staff manage the phones, screen applicants, and assist walk-in customers. Administrative staff manage the Department's budget and accounts payable functions in addition to processing all personnel requests. Staff also assists with program coordination and evaluation as well as required statistical reporting.

Department of Human Services

The Department of Human Services (DHS) administers a variety human services programs and initiatives for at risk children and their families. DHS ensures the investments made by City Council in human service organizations meet their vision, values, and expected outcomes. DHS staff provide direct oversight and management of programs such as the Youth Council, City of Promise, and the Black Male Achievement initiative. As of FY2017, the Department has 35.5 FTEs and is organized into three divisions – Community Attention, Human Services and Administrative Services.

The Community Attention Division assists in providing residential and community-based support programs. Programs include residential services such as the Community Attention Home (group home) and foster families and community-based services like Teens Give Service Learning, internship programs, and life skills training.

The Human Services Division provides assistance and programs in the areas of juvenile justice and detention, adult offender re-entry, public housing, human rights, homelessness, mental health, community health, workforce development, and aging.

The Administrative Services Division provides administrative support and manages the Department's budget and account payable activities.

In FY2016, the Community Services Program served 352 children through a variety of programs such as summer internship programs, community service programs, one-on-one skill building and mentoring.[12]

The Community Attention Foster Families (CAFF) Program serves approximately 110 children on any given day and the length of stay in foster care is approximately 12 months. In FY2016, 40 new families were approved as foster care placements and 86 foster families were supported by the CAFF program. In FY2016, the Attention Home served 56 children; and the length of stay ranged from two weeks to six months.

Department of Neighborhood Development Services

NDS was created in 1999 by combining staff from Planning and Community Development, the Public Works Engineering Division, and Building and Life Safety. The driving force behind merging staff from the different departments and divisions into one area was to create a single department

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[12] Fiscal Year reporting data provided by staff in DHS

that would serve all development activities. Today, NDS is responsible for implementing high-quality design and development standards, ensuring that new development and construction in the City complies with building and code regulations, and that existing structures and properties are properly maintained according to City standards. NDS also manages the City's U.S. Department of Housing and Urban Development (HUD) Entitlement Programs, including oversight of the Charlottesville Affordable Housing Fund (CAHF).

As of FY2017, NDS has 37.5 FTEs and is divided into functional areas - Customer Service Administration, Engineering, Inspections and Code Enforcement, and Planning. Since FY2014, 3.5 FTEs have been added to the Department including an Urban Designer, Bike-Ped Coordinator, GIS Analyst, and a half-time Preservation Assistant.

The Customer Service Administration functional area is the first point of contact many applicants, developers, and residents have with NDS. Staff answer the phone, direct questions to the appropriate individuals, and assist customers. Administrative staff manage the front desk, schedule inspections, accept plans, issue permits and are responsible for the Department's accounts payable functions.

The Engineering functional area includes both City Engineering and Traffic Engineering. Staff is responsible for administering and providing project management for portions of the CIP and provides support with planning and CIP/ operational budget efforts such as Computer Aided Design technology and Geographical Information Systems (GIS). Staff also provides pre-and-post construction inspections, citywide survey services, site development plan review and completes grant applications. Traffic Engineering staff are responsible for conducting traffic studies, neighborhood traffic management and bike and pedestrian master plan implementation. In addition, Traffic Engineering staff conduct site development review, traffic signal studies and traffic modeling.

The Inspections and Code Enforcement functional area is responsible for interpreting the City's Building Codes and enforcing the City's Property Maintenance Code. Property Code Enforcement staff conduct inspections of existing structures for hazardous conditions and issue warnings and stop work orders for code related issues. Building Code Enforcement staff conduct combination residential and commercial building inspections, review building plans and site plans, provide permit application information, inspect buildings during construction, and issue certificates of occupancy.

The Planning functional area is responsible for regulating land use within the City and for ensuring that approved development complies with adopted land use plans. To accomplish this, Planning staff utilize the City's Development Review Team to provide feedback to applicants and developers. In addition to project and plan review, Planning coordinates long-range comprehensive planning projects and provides technical advice, reports, and assistance to the City Council, staff, departments, boards, and commissions. Several functions are contained within Planning such as: general planning, urban design, American's With Disabilities (ADA) coordination, management of boards and commissions, development review, GIS analysis and mapping, long range planning, historic preservation and design, and regulation development and enforcement.

Parks and Recreation Department

The Parks and Recreation Department is responsible for the protection and maintenance of the City's park system and for providing recreational activities and facilities for the community. The City's park system includes parks, as well as the City's trail system, thoroughfares, school

grounds/playgrounds, the Downtown Mall, and cemeteries. There are currently 70.5 FTEs in the Department (FY2017).

Staff oversees the City's Aquatics Program which includes one indoor pool, two outdoor pools and three spray grounds. In addition, Parks and Recreation offers sports leagues, classes, and camps throughout the year. Parks and Recreation operates and manages the Carver Recreation Center which provides over 33,000 square feet of recreational space including a fitness center, fitness classes, a gym, and over 600 art, enrichment, fitness, dance and gymnastics classes each year. Staff operates the City's market programs, which includes the City Market, Farmers in the Park, and the Holiday Market, in addition to coordinating a variety of other annual special events.

Office of Human Rights

The Office of Human Rights is responsible for the Human Rights Commission, which is a volunteer group charged with promoting and enforcing the Human Rights Ordinance for the City of Charlottesville. The Commission serves as a forum for the discussion of human rights issues, and is responsible for conducting ongoing efforts to engage community members in an open dialogue regarding issues of equity and opportunity.

This office and Commission are responsible for working with the public and private sector to provide awareness, education, and guidance on methods to prevent and eliminate discrimination City-wide. In addition, the Office of Human rights identifies and reviews City policies and practices and assists individuals who believe they are the victim of an act of unlawful discrimination within the City.

Convention & Visitors Bureau

The Charlottesville Albemarle County Convention and Visitors Bureau (CACVB) provides visitor information about the area and customer service assistance to tour operators, meeting planners, weddings, reunions, and other groups. Staff at the CACVB assist customers in finding local attractions, restaurants, and hotels. The goal of the CACVB is to enhance the economic prosperity of the City and County by promoting, selling and marketing the City of Charlottesville and County of Albemarle as a tourist destination. Staff is responsible for pitching stories to the media, providing visitor relations, soliciting group/meeting business, and creative ad placement.

The CACVB has an Operating Agreement with the City of Charlottesville and Albemarle County, which stipulates that the CACVB will receive 30% of the first 5% of the Transit Occupancy Tax (TOT). The funding provided from the TOT makes up the CACVB's entire budget. The Operating Agreement sets a target return on investment (ROI) goal of 7 to 1; in FY2016 the CACVB's ROI was 8.06 to 1.[13] The methodology for determining the ROI is outlined in detail within the agreement and includes factors such as room nights booked for meeting and conference groups, group tour bookings, leisure travel expenditures, and destination awareness.

The CACVB Director reports to an 11-member board of directors, and as of FY2017, the CACVB has 6 FTEs. A new position, a Sales and Marketing Project Assistant was added in FY2017. CACVB staff manage two Visitor Centers, one located in the City (open every day of the year except Thanksgiving and Christmas), and the other in Crozet (Albemarle County), open Tuesday through Saturday, and closed Thanksgiving and Christmas. In FY2016, the downtown Visitor

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[13] FY2016 CACVB End of Year ROA Report Card

Center had 35,924 visitors and the County Visitor Center saw 3,822 visitors (October 2015 – June 2016).[14] Additionally, staff responded to 40,102 lodging referrals.

Healthy Families and Community Staffing and Budget

The following table illustrates the Healthy Families and Community staffing levels over the last five fiscal periods, along with the percentage change in staffing since FY2013.

Table 17: Healthy Families and Community Staffing Trends (FTEs), FY2013-FY2017

Healthy Families and Community	FY2013 Actual	FY 2014 Actual	FY 2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Department of Social Services	100.9	99.9	100.0	102.0	102.0	1%
Department of Human Services	35.3	35.3	35.3	35.5	35.5	1%
Neighborhood Development Services	34.0	34.0	37.0	37.5	37.5	10%
Office of Human Rights	0.0	2.0	2.0	2.0	1.5	-
Parks and Recreation	73.8	70.6	69.5	70.5	70.5	-4%
Charlottesville Albemarle Convention & Visitors Bureau	6.0	6.0	6.0	6.0	7.0	17%
Total	**250.0**	**247.8**	**249.8**	**253.5**	**254**	**2%**

Staffing levels have remained relatively consistent over the past five fiscal years, with an increase of four FTEs from FY2013 to FY2017. Increases in staffing were made in Social Services, Neighborhood Development Services, and the CACVB; while Parks and Recreation saw a slight reduction in staffing.

The following table illustrates trends in the Healthy Families and Community expenditures over the last five fiscal periods, along with the percentage change since FY2013.

Table 18: Healthy Families and Community Expenditures, FY2013-FY2017

Healthy Families and Community	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Department of Social Services	$11,899,321	$11,801,241	$12,096,376	$13,666,681	$14,039,006	18%
Department of Human Services	$5,057,546	$4,852,280	$5,141,537	$5,484,310	$5,908,462	17%
Neighborhood Development Services	$3,127,724	$3,211,856	$3,143,748	$3,459,496	$3,505,736	12%
Office of Human Rights	$0	$194,047	$206,793	$233,492	$191,918	-
Parks and Recreation Department	$10,065,996	$10,462,258	$10,288,886	$10,467,522	$10,685,540	6%
Charlottesville Albemarle Convention & Visitors Bureau	$1,680,679	$1,407,784	$1,455,497	$1,508,453	$1,569,955	-7%
Children's Services Act	$8,366,890	$7,620,829	$7,637,883	$6,904,273	$8,234,256	-2%
Community Events and Festivals	$139,125	$67,954	$67,508	$110,675	$85,425	-39%
Contributions to Children, Youth and Family Programs	$3,350,486	$3,204,429	$3,191,724	$3,318,134	$3,451,267	3%
Contributions to Education & Arts	$1,669,785	$1,643,333	$1,702,199	$1,886,269	$1,970,646	18%
Housing Programs and Tax Relief	$1,351,914	$1,319,158	$1,229,635	$1,347,561	$1,318,561	-2%
Total	**$46,709,466**	**$45,785,169**	**$46,161,786**	**$48,386,866**	**$50,960,772**	**9%**

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[14] Visitor Center in the County began operation in October 2015

Increases in the Healthy Families and Community budget can be attributed to the addition of staff and increases in salaries, health care and retirement costs. Departments in this Functional Area also saw an increase in IT charges and a decrease in fuel costs.

In addition, Human Services saw an increase in payments to foster parents (recoverable through the Children's Services Act fund's revenues).

Reductions in the CAVB budget are a result of five-year reductions in office supplies, rent, and website development as well as converting a vacant part-time Regular position to Long-Term temporary status.

The departments included in the Healthy Families and Community Functional Area each play a vital role in the Charlottesville community. These departments are charged with enhancing and improving the community through the implementation of successful programs and services.

Social Services and Human Services continue to provide service assistance to the most vulnerable in the community. Each department manages a high case load while maintaining communication with the other as well as outside agencies. In addition, staff is constantly looking at developing new programs and services to benefit their clients and the community. Staff is performing difficult and challenging work – which is constantly evolving due to State and Federal mandates, technology and changes taking place in the realm of social services. The services, programs and benefits these two Departments are responsible for delivering directly impact the community's children, elderly, and low income residents.

The recommendations in this chapter focus specifically on the Department of Neighborhood Development Services (NDS) and the Parks and Recreation Department.

Neighborhood and Development Services Analysis and Recommendations

As previously noted, NDS was created in 1999 through the merging of several key development related functions – planning, engineering, zoning, codes, and building inspection. The goal was to streamline the development process and improve communication with neighborhoods and applicants. The responsibilities for NDS continue to grow and expand.

NDS has 37.5 FTEs (FY2017) and is currently organized into functional areas - Customer Service Administration, Engineering, Inspections and Code Enforcement and Planning. The Director, and the management team, provide oversight and leadership of the Department's activities, budget development and personnel. The Assistant Director serves as the Planning Manager, oversees the Planning and Customer Service functional areas, and provides staff support for the Planning Commission. The Development Services Manager supervises staff in the Engineering and Inspection and Code Enforcement functional areas as well as the VDOT Coordinator and serves as staff contact/manager for multiple construction projects. The following figure illustrates the Department's current organizational structure.
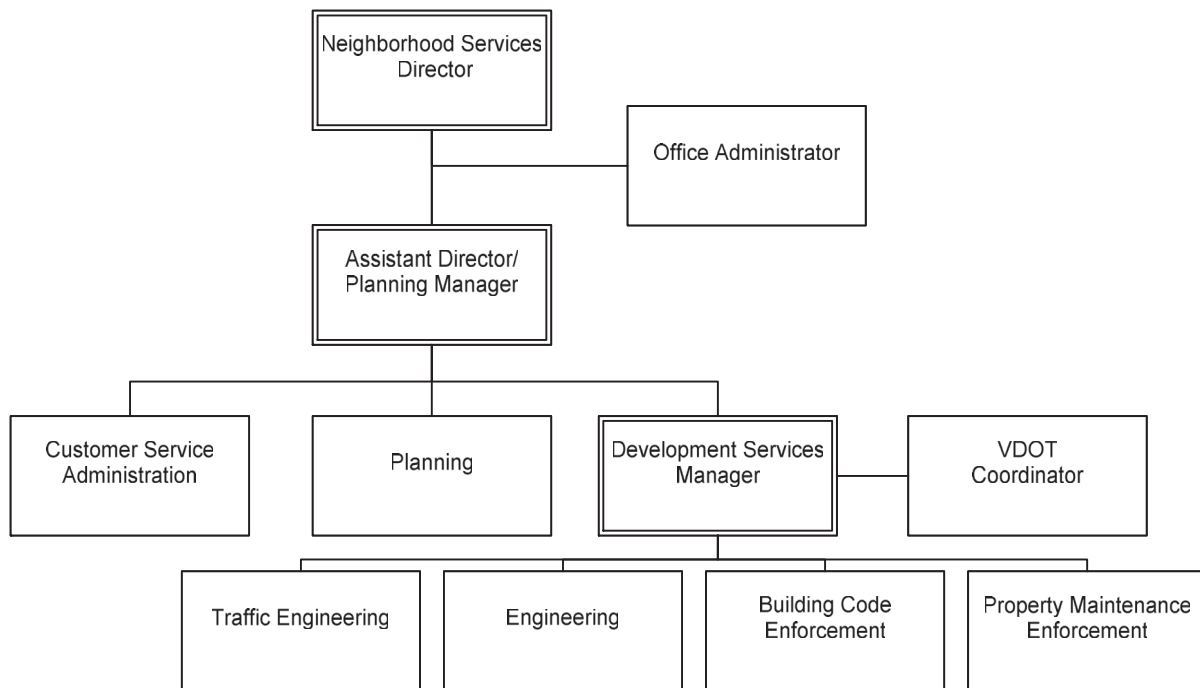
Figure 9: Neighborhood Development Services Organizational Chart, FY2017

The Customer Service Administration functional area is responsible for providing administrative support for the Department and is often the first point of contact many applicants, developers, and residents have with NDS. Staff is responsible for managing the front desk which includes scheduling inspections, accepting plans, issuing permits, accounts payable functions and answering the phone. Staff also provide administrative support for a number of boards and commissions and assist with minutes and meeting logistics.

The Engineering functional area is responsible for administering portions of the Capital Improvement Program (CIP) and providing engineering support on other CIP projects in various departments. These programs / projects relate to Erosion and Sediment Control, Virginia Stormwater Management Program (VSMP), Neighborhood Drainage Program, Floodplain Management Program, Citywide Bridge Inspections and Minor Repair programs, Citywide New Sidewalk Priority List, Small Area Plan projects, some Strategic Investment Area SIA projects, Streetscape Projects and under grounding overhead utilities projects. These projects require coordination with multiple agencies and project management of the design, right-of-way acquisition and construction phases.

Engineering also provides support with planning and CIP/ operational budget efforts like: Form Base Code restructuring, Computer Aided Design technology, Geographical Information Systems (GIS), Standards and Design Manual rewrite and updates. Staff also assist with the Urban Construction Initiative Program, departmental customer service activities, pre-and-post construction inspections, citywide survey services, site development plan review process, grant applications and coordinate projects with City Council, and other local agencies and community groups.

Engineering also includes Traffic Engineering, which shares with the Department of Public Works responsibility for the installation of traffic signage/signals and making intersection improvements to enhance traffic and pedestrian safety. Traffic Engineering staff provide neighborhood traffic management plans, are responsible for the implementation of the Bike and Pedestrian Master Plan, conduct traffic signal studies, capacity analysis, traffic studies, complete site development plan review, and issue temporary street closure permits.

The Department has a Virginia Department of Transportation (VDOT) Coordinator who works closely with staff in Engineering and Traffic Engineering. This position handles the Locally Administered Program (LAP) projects, which involve multimillion dollar transportation projects like the 250 Interchange, Belmont Bridge Replacement and High Street Streetscape.

The Inspections and Code Enforcement functional area consists of staff in both Building Code and Property Maintenance Code Enforcement.   Property Code Enforcement staff investigate building and site complaints, conduct inspections of existing structures, issue warnings and stop work orders for code non-compliance. Building Code Enforcement staff serve as combination residential and commercial building inspectors, review building plans and site plans, provide permit application information and inspect buildings during construction (alteration or repair) for compliance with building code requirements.

The Planning functional area ensures the health, safety, and welfare of citizens and property by regulating land use within the City of Charlottesville. Planning staff is responsible for ensuring that approved development complies with the City's adopted land use plans. This area includes several functions - general planning, long-range planning, urban design, ADA coordination, the management of boards and commissions, zoning enforcement, historic preservation and design, housing, regulation and development, as well as GIS and mapping. Staff oversee land use activities, conduct design review of subdivision and site plans, meet with the public, review building plans and respond to zoning issues/complaints. Staff also manage the City's affordable housing efforts which includes the management of City sponsored housing assistance programs.

Staff within NDS also work closely with a number of Boards and Commissions – Board of Architectural Review, Board of Zoning Appeals, Board of Building Code Appeals, City Planning Commission, Community Developmentt Block Grant, Entrance Corridor Review Board, Historic Resource Committee, and the Housing Advisory Committee.

The current NDS Director has been with the City for just over a year and has been working with staff to identify strengths, challenges, and areas of opportunity for the Department. NDS has experienced a backlog of projects, and the Director has been focused on working with staff to move projects forward – such as the West Main Project, Strategic Investment Areas (SIA), and Market Plaza. In addition, the NDS Director identified a need for a Redevelopment Specialist position to help coordinate and lead the City's redevelopment efforts. According to the Budget description, this position will coordinate and manage housing and redevelopment projects in the City and manage implementation of the (SIA) Plan, including programs and activities to attract and retain businesses in the SIA, workforce development, citizen engagement, neighborhood revitalization, and human services.

During interviews staff shared that the Department had recently implemented or will be making process improvements in the coming months. The Department's Standard Operating Procedures Manual was revised and updated in 2016 to better reflect current procedures and processes. Staff has also been working diligently to improve communication with the community and internal departments as well as build trust with the neighborhood associations. Through targeted

community outreach efforts (such as attending neighborhood meetings, additional public meetings for applications, and an NDS newsletter) staff has become more involved in the community and developed a better process for addressing complaints. Staff has also initiated changes to ordinances and updated fees. According to NDS staff, there is an improved relationship with the neighborhood associations and the number of complaints has decreased.

Currently, the City of Charlottesville's engineering functions are split between the Utilities Division and the NDS Department. The Engineering function of the NDS Department is responsible for both development review and municipal engineering (e.g., roadway projects, environmental control, and traffic engineering) activities of the City. Municipal engineering activities make up most the workload of the NDS engineering function.

While the goal of the NDS restructuring in 1999 was appropriate, several structural challenges exist that hinder the organization's ability to truly achieve the goal. For example, engineering staff in NDS are responsible for engineering services as they relate to both development review and municipal projects associated primarily with the City's CIP. While this arrangement is not uncommon in local government, it does present challenges that can impact service delivery. It can be difficult to establish priorities (municipal vs. private development), it can also result in high workloads, and can create a disconnect between NDS and Public Works.

Once a CIP project is completed by NDS Engineering staff, it is turned over to Public Works to maintain; this creates a loss of efficiency and can impact the quality of the City's capital projects. Costly errors in design, timing, and policy have reportedly occurred in the past. In the Public Works section of this report, Recommendation 38, discusses creating an Engineering Division in the Department of Public Works focused on capital projects only. While, engineering staff in NDS would focus primarily on development review. Restructuring the engineering functions will institutionalize the relationship between the engineering and maintenance functions and create a feedback loop that will incorporate the input of operations personnel into future designs.

Currently the City's Traffic Engineering functions are housed in NDS, while the traffic signal and sign shop are located in Public Works. This has created difficulties for staff as each has a different funding stream, priorities and supervisors. The Public Works section in this report specifically addresses these concerns, and includes the recommendation to create a Traffic function within the Engineering Division of the Department of Public Works to increase the connection between design and maintenance of capital projects and traffic engineering. The structure recommended would maintain an engineering function within NDS dedicated to development review activities only.

While NDS is comprised of dedicated and hardworking staff members, who are willing to work long hours and put aside other priorities to meet established turnaround times, staff indicated that they are experiencing extremely high workloads. Staff expressed a concern that they do not have the capacity to take on more projects in addition to their regular work and felt that every area within NDS was at capacity in terms of workload - planning, front desk operations, housing, zoning, inspection and engineering. This has created an environment where staff is constantly reacting or responding to issues rather than being able to plan and proactively manage the work. The sentiments expressed by staff are supported by the Department's workload data. The Department has experienced an increase in activity in several areas:

- Building/Inspection activity increased 47% (Calendar Year 2011 to 2015)
- Zoning activity increased 19% (Calendar Year 2013-2015)
- Planning activity increased 12% (FY2012 to FY2016)

- Board of Architectural Review activity increased 63% (FY2012-FY2015)

The following tables illustrate the Department's activity levels along with the percentage change.

Table 19: Building/Inspection Activity, Calendar Years 2011-2015

Building/Inspection Activity	2011	2012	2013	2014	2015	Percent Change 2011-2015
New Construction Inspections	3,940	4,523	5,716	5,529	5,832	48%
Building Plans Reviewed	432	544	605	673	1,183	174%
Demo Permits Issued	22	26	25	12	22	0%
Site Plan Review	40	32	27	53	48	20%
Building Permits Issued	1,742	1,881	2,130	1,887	1,992	14%
TOTAL	**6,176**	**7,006**	**8,503**	**8,154**	**9,077**	**47%**

Table 20: Zoning Activity, Calendar Year 2013-2015

Zoning Activity	2013	2014	2015	Percent Change 2013-2015
Zoning Enforcement Activities (letters & Zoning Notice of Violation)	81	100	96	19%

Table 21: Planning Activity, FY 2012 - FY 2016

Planning Activity	FY2012	FY2013	FY2014	FY2015	FY2016	Percent Change 2012-2016
Planned Unit Development	3	4	1	3	2	-33%
Slope Waiver	1	3	1	2	0	-100%
Entrance Corridor	5	1	4	1	3	-40%
Site Plans *(Plans that went to Planning Commission)*	2	2	2	8	6	200%
Subdivisions	2	2	2	4	3	50%
Ordinance Amendments	5	5	4	6	6	20%
Special Use Permits	6	8	7	9	6	0%
Rezoning	1	1	1	3	3	200%
Zoning Initiation	1	4	1	5	0	-100%
Total	**26**	**30**	**23**	**41**	**29**	**12%**

Table 22: Board of Architecture Activity, FY 2012 - FY 2015

Board of Architecture Activity	FY2012	FY2013	FY2014	FY2015	Percent Change 2012-2015
Board of Architecture Cases	120	73	80	100	-17%
Entrance Corridor Board Cases - New Construction	5	2	6	2	-60%
BAR Administrative Actions	Not tracked	21	20	27	100%
Number of Entrance Corridor Administrative Review - Non-New Construction	3	8	12	3	0%
Number of Signs in Architectural Design Control Areas	Not tracked	21	36	50	100%
Number of Signs in Entrance Corridor Areas	Not tracked	21	24	27	100%
Total	**128**	**146**	**178**	**209**	**63%**

Oftentimes, as workload levels increase, staffing levels may need to be adjusted to keep up with activity. NDS staffing has increased 10% from FY2014 - FY2017, from 34 to 37.5 FTEs. The Department added an Urban Designer, Bike-Ped Coordinator, GIS Analyst and a .5 Preservation Assistant. In most cases, these staff members were added as NDS programs/responsibilities increased. These new positions have allowed NDS the ability to better meet the goals of the organization, City Council and the Community.

The NDS activity data is merely a snapshot of the work being completed by staff. Many activities are not being tracked or recorded in the same manner as those described previously. Without additional data to quantify the staff time involved with each activity or the impact on turnaround times, it is difficult to analytically determine staff's workload capacity. However, the data does show that workload has been increasing throughout the Department. Capturing additional workload data can help determine staff's actual capacity and more accurately quantify additional staffing needs.

It is with this context, that the following recommendations for NDS are provided.

Development Review
RECOMMENDATION 26: Engage the development community in a process to identify development review reforms.
As noted, NDS under its current Director has made concerted efforts to engage more directly with neighborhoods as well as the development community (process improvements, community outreach efforts, communication efforts). Through some of these efforts a group known as the Charlottesville Area Development Roundtable (CADRE) was formed. CADRE is comprised of over 120 development community stakeholders (such as land owners, architects, engineers, builders, developers) with interest in the Charlottesville community. The group was formed in large part due to a common sense of frustration about the City's development approval process.

To learn more about these issues, The Novak Consulting Group met with CADRE's steering committee. The group discussed a series of key issues that they are working to address with the City generally, and NDS specifically:
- Disconnect between Council, Planning Commission, and Staff regarding vision and administration
- Need for strategic planning and urban design

- Poor interdepartmental communication and coordination
- Lack of decision-making authority among staff

It is evident by the stakeholder feedback as well as staff interviews, that the current relationship with the development community is strained. In order to improve the relationship and most importantly identify needed reforms in the development process, it is recommended that the City and the development community engage in an improvement exercise.

Many local governments have found success in the use of a facilitated process with both staff and stakeholders working collectively to identify improvements. In such a process, a representative group of key stakeholders and select staff members from throughout the development review process would be charged with developing specific ways to realize the improvement goals established by the City. They would do so in a facilitated multi-day session, working through the issues and requirements leading to decisions about the actions required. Each of the business processes and the key elements that affect them will be examined in detail and improvement plans developed.

At the conclusion of the workshop, the teams present recommendations to the City for approval. The process decisions and the initial components of an action plan are created immediately following the conclusion of the workshop. This plan contains the specific improvement actions with milestones and timelines, with accountability clearly designated.

A process such as this is a powerful and meaningful way to involve all parties in the problem solving process. It enables all stakeholders to better understand each other's issues, constraints, and opportunities, and collectively develop mutually supportive actions to realize the shared vision for the Charlottesville community.

RECOMMENDATION 27: Designate an Assistant City Manager as the owner of the City's development review process and Chair of the Pre Development Meeting.
Currently all development related applications are processed and managed by staff within NDS. Front desk staff perform intake, and then an application is assigned to appropriate Planning staff. The Planner assigned to the case reviews the application and sends hard copies of the plans to the appropriate department – such as Public Works, Parks - for comment. All comments are then sent back to the Planner who compiles them and provides them to the applicant. Then it is the responsibility of the applicant to address all comments.

Unfortunately, this process does not provide an opportunity to resolve issues among comments. When there is disagreement or conflict between comments, the applicant is often put in the position of mediating the resolution between departments or disciplines.

The development review process in Charlottesville needs a designated owner. The owner needs to be in a position of authority in order to provide clear and consistent direction to all development review staff, regardless of their department. This position should also be the face of the process to the development community. It is recommended that an Assistant City Manager serve in this role.

In addition to providing leadership to the process, the owner of the process should chair the City's Pre Development Meetings and be responsible for helping resolve issues or conflicts that arise among disciplines or with an applicant. These meetings should provide an opportunity for staff to share their comments based on their initial review of an application and for an applicant to ask questions.

In order for these meetings to be productive, representatives from all departments and disciplines must be present in order to provide comments to applicants. Representatives (sometimes more than one) from the following departments are invited to attend the meetings: NDS, Police, Fire, Parks and Recreation, Utilities, Transit, and Public Works. Currently, one employees from the Environmental Sustainability Division and the Stormwater Administrator represent the Department of Public Works.

The owner should work with staff to ensure all disciplines are represented and develop a protocol for reviewing and addressing potentially conflicting comments before they are transferred to the applicant. This level of review will ensure that the review comments are clear and do not present contradictory or confusing directives to the applicant.

RECOMMENDATION 28: Implement a new development services software system.
Since 2008, the City has been using a development services software program called ADEPT, which was custom designed to assist in issuing permits. The system was envisioned to serve as a tracking tool which could aid in the management of all applications from receipt to construction. However, today most staff members are not using ADEPT and have reverted to a manual/paper process because it is not easy to use and has limited capabilities.

The front desk staff are responsible for intake of submittals and inputting them into ADEPT. The system is also used as NDS' accounting software and can be used to calculate fees and create end of day reports for Finance. However, due its limited abilities, it does not always calculate fees correctly, and staff is required to assign fees and create reports manually.

Once inputted into the system, an application is turned over to Planning staff, who utilizes ADEPT to update and track the status of the application as it progresses through the review process. While the ADEPT system is used to log the intake of development applications and record the fee, it does little more than track the status of the application. Planners are not using ADEPT to manage workload - once an application is submitted, the Planner reviews it for completeness and then sends the paper plans to the internal reviewers.

ADEPT is not used by other departments, and therefore comments on plans cannot be shared electronically or collected through the system. Comments are sent back to the Planner on the physical plans and the Planner compiles a comment letter for the applicant. Planners either mail or email a copy of the comments to the applicant. The applicant re-submits the plan, and the comment process is repeated until all reviewers are satisfied with the plans and changes. Once the review process is complete, the Planner is responsible for updating and/or changing the application status in ADEPT. This does not always happen, as the Planner must remember to update the information.

ADEPT is used during the building review and inspection processes. The reviewers for building permits are tracked in the program, and the reviewers can go into the system to "sign off" on plans. While ADEPT is used for the building inspection process, it requires the printing of inspection tickets on carbon paper (triplicate form). The building inspectors must physically pick up the inspection tickets each morning before heading out into the field and then write their notes on the tickets. Additionally, there is no mobile integration and the inspectors cannot access the system while in the field. This means staff must complete research and enter their inspection notes when they come back to the office.

The ADEPT software is not intuitive to use. As such it is currently easier for staff to process/distribute/track site plans manually than to use ADEPT. Querying and creating reports

is difficult, and staff feels that it is easier to create reports manually than trying to figure out how to use the system. Staff explained that the current software program often lengthens the time involved in permit intake and review tracking.

Recognizing issues with the current system, NDS leadership tasked a group of staff in November 2015 to review the development services software needs of the department and develop a recommendation. This team identified the current deficiencies with ADEPT and identified several items that should be included in any future software purchase such as an easy to use interface, the ability for other departments to use the system for commenting purposes and the capability to accept electronic submissions.[15] An NDS staff member was sent to the National Planning Conference in Phoenix this past April and reviewed the development services software products on display and spoke with eight vendors; since that time the staff has had demos with two of them.

It is recommended that NDS upgrade its existing development services software to better meet the needs of the development process. An upgraded development services software system will provide staff and applicants with a more consistent process, improve efficiency and reduce duplication and errors. An upgraded development services software system will provide many benefits including:

- Improved record keeping, reporting and archiving
- Workflow tracking and the ability to capture workload data
- Improved communication with applicants, departments and other staff members
- Improved efficiency and reduce duplication of work
- Concurrent review of applications and/or site plans by appropriate staff, which may serve to reduce and streamline development review and permitting time
- Capability to submit plans and pay appropriate fees electronically
- Ability to use a mobile interface

As NDS staff compares and reviews development services software they should identify systems that are flexible and allow for customization. This will ensure the system can be tailored to Charlottesville's development process and meet the needs identified by staff as essential. Because development review includes users outside of NDS, representatives from other key departments should be included in this process – including IT, Public Works, Parks and Recreation, and Finance.

The cost for development services software can vary and is dependent on several factors. The size of the organization, location, desired capabilities and application needs can all impact price. The City should issue a Request for Proposal when considering and comparing new development services software.

Staffing
RECOMMENDATION 29: Begin tracking workload data in order to make informed staffing adjustments.
NDS is currently tracking the Department's activity levels for inspections, engineering and planning but does not track the specific time dedicated to each activity or in regards to special projects. In addition, NDS activity/project data is captured through a variety of means. Some staff members are using ADEPT, while others are using a more manual or paper process such as Excel spreadsheets.

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[15] Adapted from the NDS Permitting Software Review Progress Memo – January 2016

Today, in order to develop progress reports and review activity data, the information must be gathered from various places and individuals; which creates confusion, increases the possibility of errors and can result in a duplication of work. In addition, staff in various areas of the Department are collecting data based on different time frames (calendar year versus fiscal year) and using their own format for recording and capturing data.

NDS staff should begin tracking workload data in a consistent and accurate manner, which will help in making informed staffing decisions. Employees should record the amount of time spent accomplishing each task, such as the time a task started and the time it was completed as well as turnaround times and the amount of time spent out of normal business hours to complete the activity.

Staff shared that the City's adopted turnaround times are being met, but in order to meet the deadlines, staff must often work outside of their normal business hours or re-prioritize tasks. Today, this data is not being captured or accounted for. It is critical that employees track and log all time spent performing activities in a consistent manner to ensure the validity of the data.

As referenced in the previous recommendation, new development services software will assist in workload tracking as it will provide data in a format that is easily accessible and easy to manipulate and/or use. Having project information, status reports, and other associated data in one place that is easily accessible will be beneficial for the organization and will make responding to customer requests and inquiries much easier. However, it is important that staff start tracking data as soon as possible, and not wait for the implementation of new software.

Workload data can help determine if a Department is appropriately staffed to achieve its service levels and assist in determining the cost recovery of specific tasks in relation to the associated fees. As indicated in the following recommendation, when reviewing the Department's fee structure, staff should understand the true cost of an activity (e.g., a staff member's hourly wage multiplied by the time involved); this data is then used to set cost recovery goals for various activities. Without tracked time data, the Department cannot accurately determine the cost of a given activity and establish cost recovery goals.

Having access to accurate and complete workload data will allow staff to more accurately assess activity levels and staffing needs throughout the Department and assist in making informed decisions in regards to staffing, work assignments as well as help determine if staff has the capacity to take on additional special projects.

Fees
RECOMMENDATION 30: Establish a practice and process for annually reviewing and adjusting the fee structure for Neighborhood Development Services.
The NDS Department is not reviewing or evaluating its fee schedule on a regular basis, and the Department does not currently have a written policy outlining the rationale for computing development fees. In January 2016, changes were made to the schedule but only for regulatory and clarification purposes. Staff did not complete a comprehensive review of the entire schedule. Most of the fees have not been reviewed or adjusted since 2006 or 2008.

To help facilitate and encourage development that complies with the City's Strategic Plan, the Department should regularly assess its fee structure and determine cost recovery goals for NDS. As previously mentioned, understanding cost recovery is important, and to quantify cost recovery staff must be capturing the appropriate data.

The Government Finance Officer Association explains that well-designed charges and fees not only reduce the need for additional revenue sources, but promote service efficiency. GFOA provides the following recommendations when considering government fees:

- Consider applicable laws and statutes before the implementation of specific fees and charges.
- Adopt formal policies regarding charges and fees. The policy should: Identify the factors to be considered when developing fees (affordability, pricing history, inflation, service delivery alternatives, and available efficiencies).
- Calculate the full cost of providing a service to provide a basis for setting the charge or fee. Determine cost recovery goals for the Department.
- Review and update charges and fees periodically based on factors such as the impact of inflation, other cost increases, adequacy of cost recovery, use of services, and the competitiveness of current rates.
- Utilize long-term forecasting to ensure that charges and fees anticipate future costs in providing the service.
- Provide information on charges and fees to the public.[16]

Consistent and regular review of fees will allow the Department to gauge its competitiveness in the local market, and provide opportunities to adjust fees in the event of changing market conditions or Department priorities. For example, the Department may wish to adjust fees if certain project types become more relevant, if a greater number of larger projects are occurring or to ensure cost recovery goals are being met. It is important to note that setting fees and identifying cost recovery goals are policy decisions. However, recognizing that most of NDS' fees have not been adjusted in at least eight years it may be appropriate for the City to implement a multi-year phased approach to fee increases, to mitigate the negative impact on applicants.

Parks and Recreation Analysis and Recommendations

Organizational Management
RECOMMENDATION 31: Create a Parks and Recreation Master Plan.
The Parks and Recreation Department has historically engaged in strategic planning with respect to individual parks and assets, including the City's trail system. For example, in 2015 the Department completed a planning process for McIntire Park which contemplates improvements to the park's amenities and infrastructure. Additionally, Park Master Plans have been developed for a number of City parks including the west side of McIntire Park, Rives Park, Forest Hills Park, Meade Park, the Meadow Creek Valley (which includes Greenbrier Park and Meadowcreek Gardens) and Azalea Park.

While these planning efforts are commendable, each plan was formulated independently and does not represent a comprehensive, unified approach to planning for both parks and recreation activities in the Department. The last comprehensive planning effort which examined all City parks was the "City as a Park" study completed in 1998; however, this study examined only the park system and did not contemplate recreation issues. More recently, the City completed a parks and recreation needs assessment in 2006 which identified needs across the Department and informed decisions to renovate recreation centers and improve other park amenities. The assessment was

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[16] Adapted from the Government Finance Officers Association, Best Practice on Establishing Government Charges and Fees, February 2014

also used to inform an extensive land acquisition program which has been successful in adding over 150 acres to the City park system and provided for connective elements called for in the City's Bike/Ped plan.

The City's commitment to ongoing park planning and the provision of quality recreation services is a primary driver behind the health and robust condition of its parks and recreation programming. However, as the Department continues to evolve and grow toward providing fully accredited services, it is important to create a comprehensive Parks and Recreation Master Plan which considers the entirety of the Department's assets and operations.

Park and Recreation organizations are accredited by the Commission for Accreditation of Park and Recreation Agencies (CAPRA), an organization sponsored by the National Recreation and Park Association (NRPA). CAPRA awards accreditation based on an agency's compliance with 151 standards; of these, 37 are classified as "fundamental standards" which are required to be met by the agency before accreditation can be awarded. One of these fundamental standards is Standard 2.4 – Park and Recreation System Master Plan, which reads:

> *The agency shall have a comprehensive park and recreation system plan that provides recommendations for provision of facilities, programs and services; parkland acquisition and development; maintenance and operations; and administration and management. The plan shall be officially adopted by the policy-making body, updated periodically and linked with a capital improvement budget and a phased development program. The system master plan shall implement policies adopted in the comprehensive plan for the jurisdiction. Interested and affected agencies, organizations, and groups shall be engaged in the planning process.*[17]

Core components of the master plan required by CAPRA include agency mission and objectives statements, an analysis of recreation and leisure trends, a needs assessment, a community inventory, and formalized level of service standards. It is important to acknowledge that the Charlottesville Parks and Recreation Department has laid an excellent foundation for creating a comprehensive master plan by engaging in a number of these activities over the past several years. In order to complete the master planning process, it is essential to unify various existing plans, needs analyses, inventories, and service standards into a single document and to formally adopt the master plan. Additionally, it is not uncommon for departments to engage in community-wide surveys to determine the values, desires, and needs residents perceive regarding the parks and recreation system. As a result of the master planning process, the Department will be able to describe how its resources will be deployed to most effectively meet the City's overall strategic goals.

The creation of a comprehensive master plan for Parks and Recreation accomplishes several goals for the City. Most importantly, it establishes a broad framework for examining the Parks and Recreation Department's infrastructure, offerings, and service levels. As the City's needs and priorities change, the Parks and Recreation Master Plan should be updated to reflect community priorities related to infrastructure and recreational opportunities in the community. Utilized in this capacity, the Parks and Recreation Master Plan can serve as an effective roadmap to guide the Parks and Recreation Department's budgetary and strategic decisions.

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[17] CAPRA 2015 Accreditation Standards

This is particularly important when balancing service level decisions against infrastructure priorities. The Master Plan serves as an effective tool to create an appropriate mix of parks and recreation services, such as programs, classes, and events, and align these with strategic investment decisions in park infrastructure. Without relying on a Master Plan to coordinate these investments and priorities, the City runs the risk of over-emphasizing certain elements of Parks and Recreation (such as park amenities) to the detriment of other services (such as programs targeting underserved City residents). Because this balance is largely rooted in policy decisions about what programs to provide, what investments to make, and what level of service the community should expect, it is appropriate for the Master Planning process to contemplate these issues and to provide clear direction regarding the City's Parks and Recreation priorities.

Additionally, the Parks and Recreation Master Plan serves as a cornerstone of the Department's accreditation efforts. The master planning process will present the Department with additional opportunities to fulfill additional CAPRA fundamental standards, such as the creation of a strategic plan to implement the master plan, the creation of a recreation programming plan, and the creation of maintenance and operations management standards. Through this process, the Parks and Recreation Department will be able to identify policies, practices, and procedures that support its accreditation efforts and begin taking more formal steps toward accreditation.

Parks Operations
RECOMMENDATION 32: Expand time tracking activities related to horticulture and mowing maintenance.

The Parks and Recreation Department's Landscape Division is led by the Landscape Manager, who supervises mowing/maintenance crews as well as landscape horticulturalists and gardeners. These crews utilize several industry best practices to schedule and accomplish their work, including an extensive inventory of areas to be mowed and regular maintenance management plans. For example, all parcels to be mowed are organized into three service level groups: Group A parcels are mowed weekly, Group B parcels are mowed biweekly, and Group C parcels are mowed on a monthly basis during the growing season.

These parcels are organized into two mowing routes, with two crews assigned to mow each route. Each year, crews track and record time spent mowing specific parcels each year in order to inform the Department's time estimates and scheduling processes. The result is an informed understanding of sites to be mowed, what service level is expected at each site, the total number of crew hours needed to mow the site, and the frequency of mowing.

The following table illustrates an excerpt of mowing schedules utilized by the Department's mowing crews.

Table 23: Sample Information from Parks and Recreation Department Mowing Schedule, 2016

Site	Service Level	Acreage	Time (Crew Hours)	Frequency
Walker School	B	7.44	4.5	1st/3rd Monday
Walker Soccer Field	A	1.25	2	Weekly - Friday
McIntire Park	B	16.66	8	1st/3rd Monday
McIntire Park (5 fields)	A	Unavailable	2.5	Weekly - Friday
McIntire Pool	B	1.68	1	1st/3rd Thursday
McIntire East (Golf)	C	Unavailable	Unavailable	1st/3rd Thursday
Bypass North Linear	B	10.48	6.5	1st/3rd Tuesday
Interchange Banks	C	Unavailable	Unavailable	1st/3rd Tuesday

In total, the Department's current mowing inventory and maintenance plan encompasses approximately 122 distinct mowing sites. While acreage and mowing time information is available for most of these sites, some lack information related to acreage and/or the amount of time necessary to mow the site. The following table summarizes these information gaps related to the Department's existing mowing inventory.

Table 24: Information Gaps in Existing Mowing Inventory, 2016

Service Level	Number of Sites to be Mowed	Sites Missing Acreage Information	Sites Missing Crew Hours Information
A	20	8	2
B	53	7	5
C	49	36	22
Total	**122**	**51**	**29**

It must be emphasized that this inventory gives the Department exceptional insight into its present mowing obligations, particularly with respect to high-priority sites (service level A and B sites). While much of the acreage and time information associated with these sites has been captured, there is a need to complete collecting this information for these service levels and to expand the collection of information related to service level C sites.

The Landscape Division has also created a particularly useful modeling tool to capture the total amount of estimated work hours associated with horticulture and gardening activities. The Division maintains a comprehensive inventory of parks-related assets including trees, shrubs, flower beds, and the square footages associated with each maintenance area. This represents an industry best practice which has been effectively adopted and utilized by the Department. The following table presents an excerpt of inventory data collected for horticulture purposes.

Table 25: Sample Information from Parks and Recreation Department Landscape Inventory, 2016

Belmont/5th St. Sector	Square Feet	Ground Cover/Herbaceous Square Feet	Number of Shrubs	Trees Up to 6" Caliper
Annual Beds				
Avon Twins	557	Not Applicable	Not Applicable	Not Applicable
5th and Tonsler	592	Not Applicable	Not Applicable	Not Applicable
Cherry and Ridge	200	Not Applicable	Not Applicable	Not Applicable
Tonsler Park	115	Not Applicable	Not Applicable	Not Applicable
Parks				
Rives Park	1,885	319	45	35
Quarry Park	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Jordan Park	Not Applicable	Not Applicable	Not Applicable	4
Belmont Park	2,995	2,309	Not Applicable	13
Tonsler Park	6,347	Not Applicable	222	16
Fifeville Park	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Forest Hills Park	14,531	6,132	369	52

Information in the landscape inventory is organized according to sector, and relevant features in each sector are recorded on the inventory. For example, in the sample above, Forest Hills Park in the Belmont/5th Street Sector includes 14,531 acres of park land, including 6,132 acres of ground cover, 369 shrubs, and 52 trees. While not all areas have all features, this inventory captures the relevant assets that must be maintained by the City's horticulturists and gardeners.

The information collected on the landscape inventory serves as the backbone of a workload model built by the Landscape Division. This model is an excellent forecasting tool which estimates workload needs using national landscaping standards to estimate the time required to care for each landscaping asset. Specific maintenance activities associated with landscaping, such as pruning, fertilization, mulching, and cut-backs are scheduled on an annual and weekly basis and assigned to crews for completion.

However, while the Division's model accurately estimates workload requirements using national standards, the Department has relatively little information on the actual amount of time associated with horticulture and gardening activities. In order to build upon the robust foundation of tools and data already collected by the Division, it is important to begin tracking activity time associated with key landscaping activities in a similar manner to tracking time associated with mowing activities. This information can be easily captured using the Department's current inventory and applied to determine actual cycle times and associated labor costs with providing landscaping service. In effect, this will allow the Department to more accurately forecast the time it takes Charlottesville crews to accomplish tasks and the total costs associated with those tasks, which will in turn strengthen the Department's ability to articulate how changes in service levels will impact employees, costs, and overall service delivery.

It should be noted that Parks and Recreation staff have begun work on a database system that will provide for scalable and relational analyses of all maintenance functions within the Department. It is important to populate this database with enhanced task time data as described in this recommendation in order to accurately capture the Department's workload.

RECOMMENDATION 33: Establish service levels and maintenance schedules for custodial staff.
While the Landscape Division has robust inventories and has initiated detailed time tracking procedures, a similarly detailed maintenance management plan does not exist for custodial activities. Custodial crews are responsible for emptying trash and recycling cans in the Downtown Mall area as well as in the City's parks. In addition, Custodial Division staff clean public restrooms and park shelters, pick up trash along designated streets and thoroughfares, and perform seasonal work such as snow removal. While these tasks are currently accomplished according to a frequency schedule, custodial staff do not utilize formal service levels or track the time associated with work tasks in a similar manner to the Landscape Division.

The use of service level standards and tracking task times associated with achieving those standards is essential for accurately estimating a function's total workload. Without this knowledge, it is difficult to determine whether services are meeting public expectations and whether staffing is appropriate to meet service levels. In order to effectively gauge the performance of custodial crews and estimate the true staffing needs associated with custodial services, it is recommended that custodial workers adopt a service level and maintenance plan model that closely mirrors the model utilized by the Landscape Division.

To accomplish this, the Custodial Division should define service levels by grouping specific tasks that must occur in a particular timeframe. For example, restrooms to be cleaned at service level "A" might require the following tasks to be completed on a daily basis:

- Emptying waste containers
- Cleaning and disinfecting toilets and urinals
- Cleaning mirrors
- Cleaning partitions and doors
- Restocking paper products
- Sweeping/dusting
- Mopping/scrubbing floors
- Clearing dust/air vents
- Collecting litter and other refuse

Restrooms to be cleaned at service level B may feature less intensive tasks or less frequent cleaning.

After tasks associated with each service level are defined, the Custodial Division should assign a service level standard to each area and asset under its control. Locations that require many tasks to be performed on a frequent basis should be categorized at a higher service level than locations that require less intense and less frequent attention. By prioritizing workload in this manner, custodial crews will have a better sense of which areas are community priorities requiring a high level of service throughout the year, which will inform where work should be prioritized.

Additionally, custodial crews should capture data associated with task times. For most custodial work, it is sufficient to capture the total time associated with cleaning an asset rather than the time to complete individual tasks. In other words, rather than track the time spent cleaning toilets and mopping floors in each restroom facility, it is appropriate to document the total time spent cleaning each individual restroom. Connecting this overall task time with the restroom's service level will help the Department paint a more accurate picture about the time needed to achieve service standards in each restroom.

By establishing clear service level expectations and recording task times associated with achieving these service levels, the Custodial Division will be able to more effectively distribute workload among staff members and quantify costs associated with cleaning activities. As this dataset is further refined and expanded, the Department will gain insight into the overall cost of its custodial operations and estimate how changes in workload will affect employees and the City's costs.

Recreation Programming
RECOMMENDATION 34: Formalize recreation program utilization goals and track utilization rates.
The Parks and Recreation Department currently offers a wide variety of recreation programming, including aquatics, adult and youth sports, therapeutic recreation programming, and various classes including after school programs, arts, dance, fitness, gymnastics, and martial arts. Recreation programs are typically renewed and offered in future years based on historic utilization patterns. If program attendance falls, the Department will determine whether to eliminate or renew the program. Achieving cost recovery also factors into the Department's decision to renew programs; for example, most class offerings are expected to earn 125% of costs in order to be renewed for the following year, which generally requires at least four class participants.

While the practice of continually evaluating programs based on metrics like attendance and cost recovery is commendable, the Department should adopt a more strategic approach to recreation program service delivery and establish formal utilization and cost recovery goals for each type of program. The advantage of formalizing utilization and cost recovery policies is that it allows the Department to operate with known, acceptable limits for subsidizing programs. As a best practice, communities that formalize cost recovery goals typically create subsidy categories and categorize programs based on their perceived value to the community. For example, the City of Boise, Idaho breaks cost recovery goals into the following tiers:

- Full Direct Cost Recovery = 90-100%
    – Adult classes
    – Adult team sports
    – Indoor facility rentals
    – Idaho IceWorld
    – Warm Springs Golf Course
    – Adult sports field rental and preparation

- Mid-Range Direct Cost Recovery = 40-89%
    – Cemetery
    – Day care services
    – Junior golf
    – Learn-to-skate
    – Outdoor facility reservations
    – Swim team
    – Youth classes and camps
    – Zoo Boise
    – Youth sports field rental and preparation

- Low-Range Direct Cost Recovery = 0-39%
    – Youth outreach
    – Youth sports and fitness
    – Teen services
    – Senior services
    – Community forestry education and reforestation
    – Accessibility and recreation adaptive services
    – Outdoor pool admissions
    – Environmental education classes
    – Directive programs from the Mayor and City Council, the Mayor's Council on Children and Youth, and the City Strategic Plan objectives (i.e., serving youth and youth in need, addressing community gaps in service in geographic areas of need)[18]

Utilizing a tiered approach allows the City of Boise to price programs based on the expectations and priorities of the governing body. Where the governing body is willing to subsidize some programs and activities, the City can adjust prices so they are lower for the community.

Adopting a tiered approach for the City of Charlottesville will prove useful for the Parks and Recreation Department in several respects. While achieving 125% cost recovery and eliminating programs with low attendance shows a commitment to efficiently allocating resources, this

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[18] City of Boise, "Fees and Charges Policy Final Revision"

approach may not adequately reflect the needs and goals of all recreational programs. In particular, this practice could inadvertently exclude members of underserved communities in Charlottesville from recreational opportunities. This is particularly important for programs and activities provided by the City that are not provided by the private sector, or that are out of reach for low-income residents in the private sector market.

Second, establishing utilization goals for each program will require the Department to inventory all of its current offerings and compare them to programs offered by the private sector. This will provide the City with insights about which programs may have achieved market saturation and inform the goal-setting process for each program. Additionally, comparing program offerings will allow the Department to identify private sector gaps which could be filled with Parks and Recreation programs.

This program inventory should be conducted as part of a comprehensive Parks and Recreation Master Plan described previously. As a result of this process, the City may choose to offer programs which are not self-sustaining and serve small, targeted audiences not served by private sector institutions. Importantly, this inventory (and establishing cost recovery standards) are also critical components of the national accreditation process and will enhance the Department's ability to achieve accreditation.

It is important to note that the Charlottesville Parks and Recreation Department currently offers a scholarship program to subsidize recreation costs. Prior to the opening of the Smith Aquatic and Fitness Center in 2010, the City's scholarship program only provided for a 50% discount on the price of classes and did not provide any mechanism for facility access. The program's offerings have since expanded to include recreation center and pool passes, as well as camps, classes, and programs. At the time of this writing, there are currently 607 City resident households enrolled in the program. Collectively, these resident households received over $130,000 in scholarship value in FY2016.

While the scholarship program is commendable and undoubtedly provides a benefit to City residents, the program's application process may represent an additional hurdle for low-income residents and could constitute a disincentive to apply for assistance for some residents. Creating known subsidy thresholds and subsidizing programs which target low-income residents could incentivize greater participation by eliminating the need to apply for scholarships.

After determining which programs to offer, which programs should be subsidized (and at what level), and which programs should target small constituencies, it is important to accurately track attendance for each recreational program. These attendance figures should be evaluated on an annual basis to determine whether trends are increasing, decreasing, or remaining flat. Programs should not be eliminated until they no longer consistently meet their assigned utilization goal.

Golf Operations
RECOMMENDATION 35: Establish annual cost recovery goals for golf operations and subsidize shortfalls in golf course revenue.
The City owns and operates Meadowcreek Golf Course, a 155-acre golf course constructed in 1974. Golf operations are funded through the Golf Enterprise Fund, and the golf operation does not currently rely on the General Fund for support.

The City operates the golf course with four full-time staff, including a Golf Course Manager, an Assistant Clubhouse Manager, a Golf Course supervisor, and a Maintenance Crew Supervisor. The Golf Course Manager is responsible for coordinating overall golf operations, including

contracted services (such as concessions and lesson instructors) and other course activities. The Assistant Clubhouse Manager is responsible for overseeing the operations of the clubhouse, while the Golf Course Supervisor and Maintenance Supervisor are responsible for maintaining and tending to courses and greens.

Over the last several fiscal periods, total rounds of golf played at Meadowcreek have declined. This trend is illustrated in the following figure.
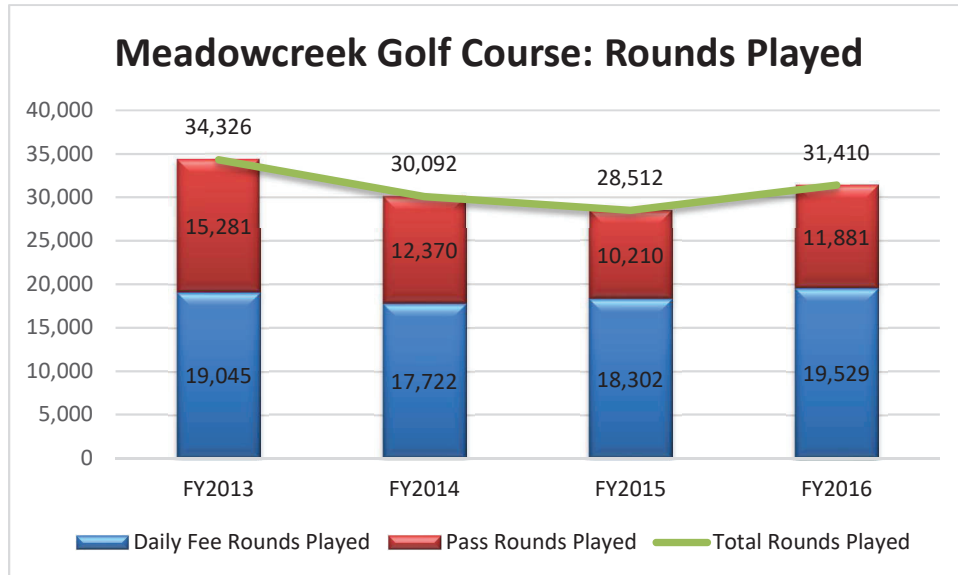

Figure 10: Meadowcreek Golf Course Rounds Played, FY2013-FY2016

While daily fee rounds rebounded somewhat from FY2015 to FY2016, total rounds played have fallen 8.5% over this period, led by a decline in pass rounds played. In FY2016, greens fees accounted for nearly half of the golf course's revenue stream, followed by motor cart rentals, as illustrated in the following table.

Table 26: Meadowcreek Golf Course Total Revenues, FY2016

Revenue Category	FY2016 Revenue	Percent of Total
Meadowcreek Greens Fees	$359,608.94	46.8%
Motor Cart Rentals	$208,480.29	27.1%
Multi Round Pass	$50,080.97	6.5%
Retail Sales	$42,410.23	5.5%
Golf Annual Memberships	$37,727.00	4.9%
Driving Range Fees	$34,587.58	4.5%
Golf Instruction Fees	$18,273.00	2.4%
Concession Receipts	$8,379.62	1.1%
Special Assessments	$6,940.00	0.9%
Sales Tax	$1,107.11	0.1%
Hand Cart Rentals	$927.00	0.1%
Other Misc. Revenue	$0.00	0.0%
Warehouse Outlet Sales	$0.00	0.0%
Total Revenue	**$768,521.74**	**100.0%**

As rounds played and revenues have decreased, operations costs have increased over this period compared to FY2013. In FY2016, salary and benefits account for approximately 52% of golf course operational costs, followed by other operating expenses and fixed costs. The following table illustrates the trend between revenues and expenses for golf operations over the last several fiscal periods.

Table 27: Meadowcreek Golf Course Revenues and Expenditures, FY2013-FY2016

	FY2013	FY2014	FY2015	FY2016
Total Revenue	$842,785.68	$836,502.73	$888,893.43	$768,521.74
Total Expenses	$833,087.00	$870,065.00	$865,148.24	$839,850.63
Net Profit/(Loss)	$9,698.68	($33,562.27)	$23,745.19	($71,328.89)
Cost Recovery	101.2%	96.1%	102.7%	91.5%

Notably, the decline in revenue from FY2013 to FY2016 is approximately 8.8%, similar to the overall decline in rounds played over the same timeframe. While the golf course has recovered its costs in two of the last four fiscal years, the decrease in profitability experienced in FY2016 is reflective of a larger, nationwide decline in the number of golf rounds being played.

This national trend is influenced by several factors, including a smaller player base, the relative expense of golf compared to other sports, the amount of skill required to play successfully, and increased competition among courses. The City's Meadowcreek course competes against six privately held courses in the Charlottesville region, including:

- Birdwood Golf at the UVA campus
- Old Trail Golf Club, 18 miles west of Charlottesville
- Wintergreen Resort, 44 miles southwest of Charlottesville
- Spring Creek Golf Club, 19 miles east of Charlottesville
- Lake Monticello Golf Course, 21 miles southeast of Charlottesville

- Greene Hills Country Club, 25 miles north of Charlottesville

Meadowcreek staff have implemented several cost recovery efforts in order to maximize competitiveness in the local golf market, including reviewing annual fees every winter, benchmarking competitor offerings, partnering with other Parks and Recreation programs for marketing, and engaging the community on social media. In addition to these efforts, the City currently contracts for concessions and golf instruction lessons, and utilizes volunteers to collect range balls and perform other miscellaneous services. These efforts are commendable and represent a commitment to running a cost-effective operation; however, there are few remaining opportunities to decrease overhead costs without eliminating staff positions or impairing golf course operations.

In short, the golf course's current fiscal trajectory is unsustainable over the long term without subsidy support from the City. In addition to operating costs, the City will need to make capital investments in the golf course including irrigation line replacements, additional drainage in bunkers, cart path maintenance, and additional drainage on older greens. These expenditures will be necessary to preserve the golf course as a community asset and ensure sufficient funding is available to provide quality golf services. It is therefore recommended that the City formalize a cost recovery goal for golf and commit to regularly subsidizing golf operations in order to support the golf course and ensure services can be provided at an acceptable level.

It is not uncommon for municipally-owned golf courses and other cash-intensive operations, such as outdoor swimming facilities, to be subsidized by municipalities. These operations require significant annual operating investments and feature facilities with intensive maintenance requirements. Under-funding maintenance efforts will rapidly result in a facility that is incapable of providing quality services, and under-funding operating costs will result in too few staff, supplies, and materials to effectively provide service. Without adequately funding both operations and maintenance, it is impossible to provide golf services at an acceptable service level. The use of subsidies to fund these services represents a deliberate policy choice by the community's governing body to support the costs of an operation desired by the community.

Additionally, it is important to consider the differences between public and private owners with respect to golf course ownership. The City currently pays a minimum wage of $11.00/hour, which exceeds the present federal and state minimum wage of $7.25/hour by 52%. This creates correspondingly higher personnel-related costs for the City's golf course workers. While the City's policy decision to pay higher hourly wages is wholly appropriate, it creates less competitive conditions for running Meadowcreek Golf Course compared to private-sector companies. Subsidizing the golf course therefore represents a mechanism for achieving the City's wage priorities while providing the golf operation with flexibility to remain price competitive in the local market.

Establishing formal cost recovery goals for the golf course will provide the City with an opportunity to articulate a maximum amount of subsidy it is willing to provide in support of golf operations. This subsidy support will enable the golf course to set competitive fees and make appropriate investments in the course's facilities and amenities. As a best practice, the City's subsidy and the course's cost recovery goals should be reevaluated on a periodic basis and adjusted as necessary in order to meet the City's policy goals while maximizing available support to the golf course.

As an alternative to subsidizing the golf operation, the City may also evaluate contracting for golf course operations. The City recently issued an RFP to evaluate options for contracting out golf maintenance services; however, a major obstacle to proceeding in this direction was the potential harm it could cause to the City's existing golf staff. While it is appropriate to consider contracting for golf operations, consideration should be made for existing golf employees, such as providing these staff with the opportunity to continue in their current jobs under the private golf course operator.

Infrastructure and Transportation

Infrastructure and Transportation is the only Functional Area that has historically been comprised of just one department - the Public Works Department. The mission of the Public Works Department is "to responsibly manage public infrastructure, transportation, and natural resources for our community." In order to carry out its mission, the Public Works Department consists of eight divisions and is staffed with 295.7 FTEs, as detailed in the FY2017 budget:

- Administration
- Facilities Development
- Facilities Maintenance
- Public Service
- Fleet Management
- Utilities
- Environmental Sustainability
- Transit

The **Administration Division** is responsible for the planning, organization, direction, and budgetary/financial control of the eight divisions of Public Works. The goal of the division is to foster the safe, reliable, responsive, and cost-effective provision of services to both the citizens of Charlottesville and internal customers. The Administration Division is staffed by the Public Works Director and an Administrative Assistant.

The **Facilities Development Division** is responsible for planning, designing and managing construction projects related to City-owned facilities, Charlottesville City School campuses and a number of facilities co-owned by Albemarle County, including new construction and development, facility renovations, expansions of facilities, and major repairs. Capital program development is coordinated with members of City staff, Schools staff and Board members, and representatives of Albemarle County and Albemarle County Schools. The Division is led by the Facilities Development Manager, and is staffed by three Project Managers, a Construction Manager, and an Administrative Assistant shared with the Environmental Sustainability Division.

The **Facilities Maintenance Division** provides routine repair, preventive maintenance, and custodial services to buildings either owned or leased by the City, including schools. As such, the Division is responsible for all heating, ventilation, and air conditioning (HVAC), electrical, and solar photovoltaic systems. The Division is led by the Public Service Director. Employees are specialized, working in either the Custodial Services unit, Structural Maintenance unit, or HVAC/Electrical unit. For FY2017, a total of 9.0 FTEs provide custodial services. A total of 24.36 FTEs provide building maintenance services to both municipal and city school buildings.

The **Public Service Division** is responsible for maintaining the following infrastructure: streets, sidewalks, streetlights, stormwater conveyance systems, traffic signs and signals, and parking meters. The Division also provides the following services: large item pickup, leaf collection, and emergency weather response. Staff from this Division also administer the refuse and recycling collection contracts as well as providing direct service to high-density business districts. The 49.0 FTEs included in the Division's FY2017 budget are led by the Public Service Director.

The **Fleet Management Division** is responsible for maintaining the City's vehicles and equipment and providing recommendations on the purchase of replacement vehicles and equipment. The

Division is led by the Fleet Manager and is staffed by seven Auto Mechanic III's, one Auto Mechanic I, and an Auto Service Coordinator that coordinates the daily activities of the Division.

The **Utilities Division** is responsible for operating and maintaining the water, wastewater, and natural gas distribution systems in addition to managing the City's stormwater infrastructure. In addition, the Utilities division is responsible for the capital improvement program regarding the water, wastewater, natural gas, and stormwater utilities that includes planning, rehabilitation and replacement of the utility infrastructure. The Utilities Division is led by the Utilities Division Director and has 92.0 authorized FTEs in FY2017.

The **Environmental Sustainability Division** provides services related to environmental compliance and regulatory programs, climate change, resource conservation, and water resources protection. The Division is led by the Environmental Sustainability Division Manager and staffed by a Water Resources Specialist, Climate Protection Coordinator, Water Conservation Coordinator, and an Administrative Assistant shared with the Facilities Development Division..

The **Transit Division** of Public Works includes Charlottesville Area Transit (CAT) and Pupil Transportation functions. CAT provides public transportation services to the greater Charlottesville area and is jointly funded by the City, Albemarle County, and the University of Virginia. Under a pre-paid arrangement with the University, UVA IDs are accepted as fare on all buses. CAT also operates the Free Trolley, connecting the University and Downtown, and staffs the Downtown Transit Station, offering information to area travelers, restrooms, and a comfortable place between bus trips. In addition to local funds and passenger fares, CAT operating expenses are covered by Federal and State grants. The Pupil Transportation function provides services under contract with the County. The Transit Division is led by the Transit Manager. In FY2017, total of 68.0 authorized FTEs staff the Transit Division.

The Public Works Department provides Facility Maintenance and Pupil Transportation services to City of Charlottesville Schools. In return, City Schools funds a portion of these operations.

Infrastructure and Transportation Staffing and Budget

The Department's staffing level has increased by 2% over the last five fiscal years, with the Administration, Facilities Development, and Facilities Maintenance budget function being responsible for the largest increase (of 39%) as the result of a decision to insource previously outsourced custodial services and the addition of a Facilities Development Project Manager position.

The staffing level in the Public Service and Fleet Management and Transit budget functions decreased by 2% and 4% respectively between FY2013 and FY2017. The following table illustrates the department's FTE staffing levels over the last five fiscal periods, along with the percentage change in staffing since FY2013.

Table 28: Infrastructure and Transportation Staffing Trends (FTEs), FY2013-FY2017

	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Administration, Facilities Development, and Facilities Maintenance	15.7	15.7	16.7	21.9	21.9	39%
Public Service and Fleet Management	63.0	62.0	62.0	62.0	62.0	-2%

	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Transit	71.0	68.0	68.0	68.0	68.0	-4%
Utilities and Environmental Sustainability	93.0	96.0	96.0	96.0	96.0	3%
City/School Contracted Services	45.8	46.3	46.8	47.8	47.8	4%
Total	**288.5**	**288.0**	**289.5**	**295.7**	**295.7**	**2%**

The Infrastructure and Transportation budget makes up 9% of the City's total General Fund operating budget. In addition to the General Fund, the operations of the Infrastructure and Transportation Functional Area are supported by the following funds: Water, Wastewater, Gas, Stormwater, Transit, Fleet Management, and HVAC. The Infrastructure and Transportation Functional Area's total budget increased by 3% over the last five fiscal years. Expenditures have steadily decreased after peaking in FY2014 when the Transit Division invested in the replacement of many of its buses and the Utilities Division invested in system rehabilitation and replacement work.

While the budget for the Administration, Facilities Development, and Facilities Maintenance service area increased by 6.2 FTEs between FY2013 and FY2017, non-personnel expenditures decreased by more than personnel expenditures increased, resulting in an overall decrease in expenditures of 8%. The budget for the Public Service and Fleet Management service area decreased by 15% during the same period. Meanwhile, expenditures in the City/School Contracted Services and Utilities and Environmental Sustainability service areas have increased by 12% and 8% respectively. The Transit Division's budget has remained constant overall, with a peak in FY2014. The following table illustrates trends in the Department's expenditures over the last five fiscal years, along with the percentage change since FY2013.

Table 29: Infrastructure and Transportation Expenditures, FY2013-FY2017

	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
Administration, Facilities Development, and Facilities Maintenance	$3,228,315	$2,791,452	$2,953,677	$2,905,797	$2,960,051	-8%
Public Service and Fleet Management	$10,363,165	$10,759,472	$9,790,315	$8,732,767	$8,813,996	-15%
Transit	$8,755,892	$10,966,004	$9,261,796	$9,810,893	$8,764,251	0%
Utilities and Environmental Sustainability	$49,119,607	$63,664,478	$61,061,416	$58,573,746	$52,876,323	8%
City/School Contracted Services	$5,706,289	$5,924,606	$5,704,198	$6,249,535	$6,374,545	12%
Total	**$77,173,268**	**$94,106,012**	**$88,771,402**	**$86,272,738**	**$79,789,166**	**3%**

Analysis and Recommendations

As this study was being conducted, the City Manager announced a restructuring of the Public Works Department into three separate departments: Public Works, Utilities, and Transit. The following figure illustrates the functional structure of the Public Works Department prior to the restructure.
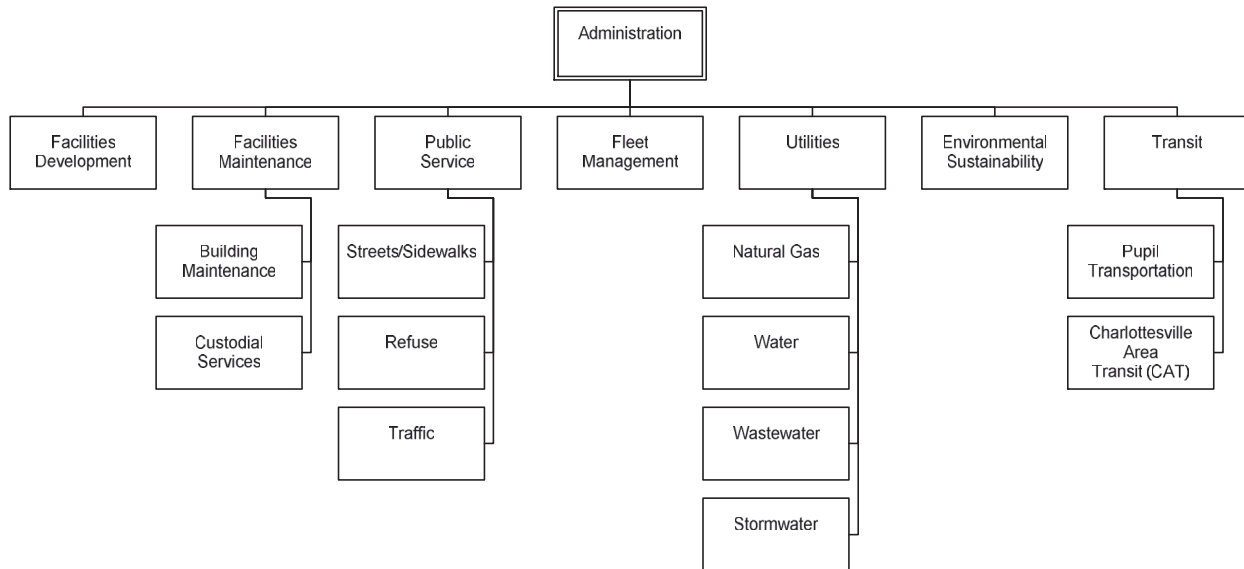

Figure 11: Infrastructure and Transportation Functional Area Organizational Chart, Prior to October 2016

This time of transition, in addition to this efficiency study, offers a unique opportunity for the new departments to review their organizational structures and clarify their individual purposes and plans for the future.

While the functions previously housed within Public Works will be restructured into new departments, close coordination among the new departments is imperative. The functions of the newly formed Public Works, Utilities, and Transit Departments cannot be performed in isolation; overlaps exist, particularly between the Public Works and Utilities Departments.

These departments will need to continue to work together, particularly in the areas of pavement management, engineering, environmental sustainability, stormwater, and equipment sharing for snow response. For example, to access underground infrastructure, utilities necessarily cut into City streets and sidewalks. Despite best efforts and instituted practices, there are instances when utility maintenance and street maintenance activities are not coordinated to prevent freshly resurfaced City streets and sidewalks from being subject to utility cuts. Sidewalk repair or construction around large universities, such as UVA, can be extremely disruptive. Annual street maintenance and utility maintenance work plans are communicated, but improvements could be made. For example, the condition of each infrastructure type should be mapped by GIS and shared so that if a water main is not up for replacement in a given year, but is known to be nearing the time when repair/replacement is imminent, the Public Works Department should postpone repairing that street, knowing that the street is likely to be disturbed in the near term. By meeting to discuss work plans on a routine basis, new departments will avoid contradictory efforts and prolong the lifespan of infrastructure. It should be noted that the condition of gas, water, wastewater, and stormwater infrastructure is currently captured in GIS.

Throughout Public Works, the commitment of staff to serving their customers and the community was apparent, with many functions providing high levels of service. However, persistent vacancies have increased the workload of remaining employees and affected morale. The recommendations included in this section aim to support the recent organizational restructuring and ensure that the Public Works, Utilities, and Transit Departments emerge even more efficient and effective than before, particularly in the areas of infrastructure asset management and deployment of resources.

Organizational Structure – Public Works

Over the years, the Department, in an effort to save money and be more efficient, has combined many positions through attrition. For example, when the Public Service Manager position became vacant, those responsibilities were assigned to the Facilities Maintenance Manager. While the Department should be commended for its financial stewardship, the result of years of this approach is an organizational structure that is based not on design, but on opportunity.

This piecemeal approach to restructuring the organization has resulted in individuals taking on additional responsibilities when they may not have the capacity or skillset to adequately perform in both roles. The additional workload without a corresponding position reclassification over time has impacted employee morale. Also, combining functions that are not closely related has not led to efficiency gains.

The recommendations in this section move the organization toward a more intentional organizational structure that consists of four divisions: Operations, Asset Management, Engineering, and Environmental Sustainability. Structuring the Public Works Department in this manner will increase communication and coordination while also enabling the Department to make the other changes recommended in this report to improve operations.

RECOMMENDATION 36: Create an Operations Division in the Department of Public Works.
After the Utilities Department and the Transit Department become independent, the Public Works Department will be comprised of five divisions: Facilities Development, Facilities Maintenance, Public Service, Fleet Management, and Environmental Sustainability. The following figure shows the existing organizational structure of the functions remaining in the Department of Public Works.
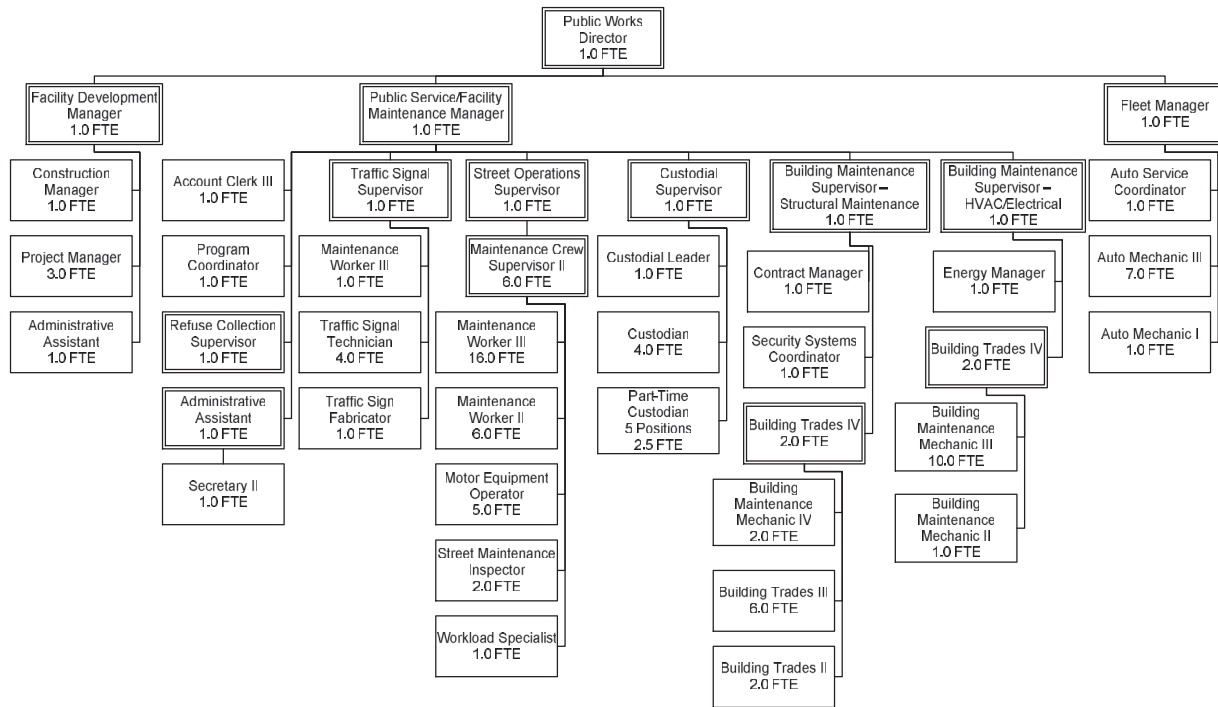
Figure 12: Current Public Works Department Organizational Chart[19][20]

It is recommended that the operational functions (facilities development, facilities maintenance, street operations, refuse, and fleet management) be combined into an Operations Division with three units: Facilities, Public Service, and Fleet. The following figure shows all the proposed changes to the organizational chart of the new Operations Division.

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[19] Environmental Sustainability Division not shown since that Division is not part of the recommended Operations Division
[20] Traffic function is moved to the Engineering Division as discussed in Recommendation 39

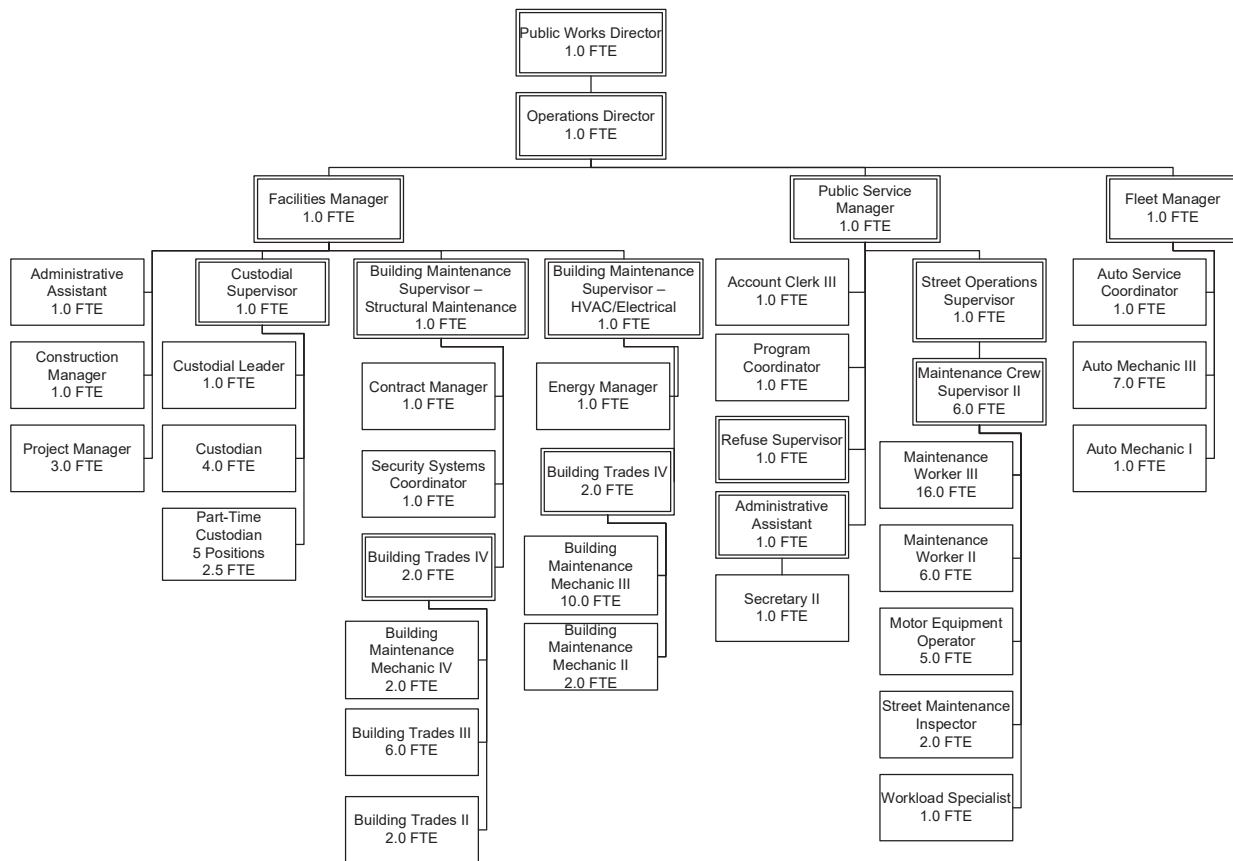**Figure 13: Proposed Operations Division Organizational Chart[21]**

Presently, the various divisions of the Public Works Department operate in a siloed manner. Siloed organizations often struggle with communication. During the interviews and focus groups The Novak Consulting Group completed with employees, communication was repeatedly mentioned as an issue for the organization. Employees provided examples of inefficiencies that resulted from interrelated functions not communicating and also expressed concern over the lack of communication from the Department's leadership team.

In order to enhance the coordination, communication, and efficiency of the new Public Works Department, it is recommended that an Operations Division be created through the following organizational changes:

- Reclassify the Public Services Manager[22] to an Operations Director position reporting to the Public Works Director;
- Move the Fleet Manager and the Fleet Management function to the Operations Division reporting to the Operations Director;
- Move the Facility Maintenance and Facility Development functions to the Operations Division under the leadership of a Facility Manager reporting to the Operations Director.

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[21] Restructuring of Facilities Maintenance and Facilities Development Divisions discussed in Recommendation 36
[22] The Public Services Manager position (position 3699) has been vacant since 2014.

The creation of an Operations Division will combine all of the operations functions under one position – the Operations Director – to increase coordination, communication, and efficiency. In addition to being responsible for managing the operations functions, the Operations Director will serve as an assistant to the Public Works Director. This employee will have experience managing the operational aspects of the Department, and therefore will be able to provide overall management support to the Department as needed. The person in this role must understand the various functions of each section and must also have strong communications and management abilities. Having a strong second-in-command will increase continuity within the organization, free up the Director to focus on higher-level management issues, and increase communication within the organization.

Under the current structure, the Public Works Director is responsible for a wide variety of functions within the department as well as: 1) the day-to-day management associated with running a large department, 2) strategic leadership and planning, 3) engagement with City leadership and active participation on the City's Leadership Team, and 4) the high level of external communication and engagement required of an organization that frequently interacts with the public. The Operations Director would allow the Public Works Director more capacity to focus on high priority issues as well as strategic leadership of the Department.

The Facilities Development Division is responsible for all facility capital projects, including new construction, expansions, renovations, and major repairs. Meanwhile, the Facilities Maintenance Division is responsible for routine facility maintenance activities. As was previously mentioned, the Public Service Manager position has been vacant for over a year, and the Facility Maintenance Manager has since assumed responsibility for the Public Service Division. Currently, these two Divisions operate independently, but the functions they provide are closely related and will benefit from increased coordination in the following ways. First, future maintenance will become a consideration in all facility development decisions. Second, the Facilities Maintenance Division will be aware of upcoming capital projects so as not to invest valuable resources into maintaining facilities that are up for replacement or major capital repair. Finally, the Facilities Development Division's long-term approach to planning would benefit the Facilities Maintenance Division as it seeks to replace equipment as it nears the end of its lifecycle.

RECOMMENDATION 37: Create an Asset Management Division in the Department of Public Works.
Asset management is the knowledge of what assets (such as infrastructure, buildings, and vehicles) are under the City's control, where they are located, what condition they are in, and what regular maintenance is needed on each asset in order to extend its operational life. This knowledge directly informs both the work planning and capital improvement processes. Asset management guides work planning as it involves assigning regular asset maintenance tasks to crews as efficiently as possible to maximize asset life. Asset management also informs the capital improvement process when data about assets is used to prioritize capital improvement projects.

The value of the City's infrastructure assets is significant. According to the City's 2015 CAFR,[23] the assets for which Public Works is responsible for maintaining (less accumulated depreciation) are valued at nearly $118 million.[24] However, the City's infrastructure is aging and the risks posed by this aging infrastructure are significant.

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[23] The CAFR approach does not represent the replacement value of the assets maintained by the Department. A current inventory using replacement values would likely yield a much higher valuation.
[24] $25 million in Utilities Department infrastructure not included

Unfortunately, with the exception of utilities, the City does not have a current, comprehensive asset inventory or repair and replacement plan for the assets maintained by the City. Rather, asset information is managed in a decentralized way. For example, the Utilities Division has (in recent years) begun inventorying and assessing the condition of its infrastructure in order to inform the repair and maintenance choices included in the Long Range Capital Improvement Program. The Public Service Division also has an inventory of City streets and uses a standard condition assessment tool, the Pavement Condition Index (PCI), to monitor the condition of these assets and plan repair and replacement efforts.

While the City has a Capital Improvement Plan (CIP) in place, the lack of asset management information limits the City's ability to strategically invest in its infrastructure. The City needs to have inventories and condition assessments of all City infrastructure that are then used to prioritize projects based on criticality. Not being strategic when it comes to infrastructure maintenance and replacement may result in the City investing in deteriorating infrastructure in a less than optimal manner. As such, it is recommended that the Department put processes in place to sustain its infrastructure assets.

It is recommended that an Asset Management Division be created through the following organizational changes:

- Reclassify the Administrative Assistant[25] position to an Asset Manager position reporting to the Director of Public Works
- Move the Senior GIS Analyst and two GIS Technicians into the Asset Management Division reporting to the Asset Manager

The Asset Manager position will first be charged with supervising the creation of a comprehensive inventory and condition assessment of all City infrastructure assets (not just those in the Public Works Department). This process of identifying and assessing existing assets will create an accurate inventory, condition assessment, and valuation of the City's infrastructure. As the inventory and condition assessment are being created, the Asset Manager will also be responsible for 1) putting systems in place that will keep the inventory and condition assessment up-to-date so that infrastructure condition will be monitored and accurately inform investment decisions with live data and 2) developing and managing the City's infrastructure repair and replacement plan from this information. Fundamentally, the Asset Manager will be responsible for turning inventory and condition assessment data into information that will inform the City's CIP priorities.

The following figure illustrates the proposed organizational structure of the new Asset Management Division of the Department of Public Works.

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[25] The Administrative Assistant position (position 5622) has been vacant since 2014.
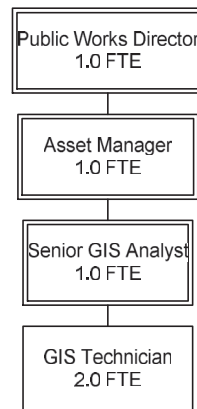
Figure 14: Proposed Asset Management Division Organizational Structure

RECOMMENDATION 38: Create an Engineering Division in the Public Works Department.
The true cost of infrastructure projects consists of both initial construction costs and long-term maintenance costs. The cost of maintaining infrastructure is affected by initial design, materials, construction quality, usage, environmental factors, and the level of preventative maintenance. According to the American Public Works Association (APWA) Public Works Management Practices Manual, effective feedback from maintenance and operations produces more efficient and effective designs. Considering the maintenance and operations implications of infrastructure projects can minimize lifecycle costs. Since public works professionals in any organization typically have significant experience maintaining infrastructure assets, their input should be considered during the design process and should be used to forecast the long-term costs of capital infrastructure projects. Therefore, the infrastructure engineering and operations functions must be very closely linked.

Currently, the City of Charlottesville's engineering functions are split between the Utilities Division and the NDS Department. The Utilities Division currently has an engineering function that consists of two Utilities Engineers (one position is currently vacant), one Project Manager, and one Construction Inspector (currently vacant) and is responsible for overseeing the planning, design, and inspection of engineering projects related to the water, wastewater, and gas utilities. After the restructuring of the Public Works Department (announced by the City Manager in October 2016), the new Public Works Department will have limited engineering expertise, as those functions are proposed to be located in the new Utilities Department.

The engineering function of the NDS Department is responsible for both development review and municipal engineering (e.g., roadway projects, environmental control, and traffic engineering) activities of the City. According to NDS staff, municipal engineering activities make up the majority of the workload of the NDS engineering function. The City Engineer leads the NDS engineering function, which consists of one Assistant City Engineer, one Civil Engineer, one Erosion and Sediment Control/VSMP Administrator, one Engineering Tech, one Tech Supervisor, one Survey Tech, and one Project Inspector. The VDOT Coordinator, who serves as the City's liaison with the Virginia Department of Transportation on road infrastructure projects, is also part of the NDS Department.

The result of the current location of engineering expertise within the City organization is a potential loss of efficiency and quality of capital projects. According to staff, costly errors in design, timing, and policy have reportedly occurred in the recent past. Therefore, the City may benefit from creating a stronger linkage between the infrastructure engineering and maintenance functions.

Given that most of the workload of the NDS engineering staff involves municipal engineering, rather than development engineering, it is appropriate to separate the development review and municipal engineering functions and move the municipal engineering functions to the Public Works Department. Restructuring the engineering functions in this manner will institutionalize the relationship between the engineering and maintenance functions and create a feedback loop that will incorporate the input of operations personnel into future designs.

It is recommended that an Engineering Division be created through the following organizational changes:

- Move the City Engineer position from NDS to the Department of Public Works reporting to the Public Works Director
- Move the Assistant City Engineer position from NDS into the new Engineering Division of the Department of Public Works reporting to the City Engineer
- Move the VDOT Coordinator position from NDS into the new Engineering Division of the Department of Public Works reporting to the City Engineer
- Move the Erosion and Sediment Control/VSMP Administrator, Tech Supervisor, Survey Tech, and Project Inspector positions from NDS into the new Engineering Division of the Department of Public Works, reporting to the Assistant City Engineer
- Move the two Utilities Engineer, one Project Manager, and one Construction Inspector positions into the new Engineering Division of the Department of Public Works, reporting to the Assistant City Engineer

This recommendation strengthens the engineering function of the Department. The new Engineering Division will be responsible for capital projects, such as bridge inspections and repairs, street maintenance, sidewalk maintenance, water, wastewater, erosion control, and stormwater management. The Engineering Division will also be responsible for updating roadway and construction specifications. Meanwhile, the NDS engineering function will continue to be responsible for development review engineering activities. Having two employees dedicated to development review will ensure that private applicant needs are met and that applicants continue to receive a high level of service from the City.

RECOMMENDATION 39: Create a Traffic function within the Engineering Division of the Department of Public Works.
The Traffic unit of the Public Service Division is led by the Traffic Signal Supervisor and is staffed by one Maintenance Worker III, four Traffic Signal Technicians, and one Traffic Sign Fabricator. The Traffic Signal Supervisor reports to the Public Service Director. The Traffic unit is responsible for the operations of the City's signal and sign infrastructure.

The Traffic Engineer is responsible for overseeing the planning and design of traffic engineering improvements and the installation and maintenance of traffic signals and control devices. The Traffic Engineer conducts traffic studies and also responds to requests, including signal timing issues, signal requests, stop sign requests, traffic calming requests,[26] and sight distance issues. This position reports to the Development Services Manager in the NDS Department.

Separating the traffic design and operations functions is not the most effective or efficient structure. Splitting the Traffic Engineer, who is responsible for setting the direction of the City's traffic program, and the traffic operations unit, which is responsible for carrying out the City's traffic program, can result in a misalignment between the plan and the implementation. Because the

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[26] The Traffic Engineer receives approximately 20 traffic calming requests each year. The other request types are not tracked.

Traffic Engineer (who is located in NDS) does not control the budget of the traffic operations team (located in Public Works), the Traffic Engineer is unable to effectively balance the demands of ongoing maintenance with necessary new improvements.

It is recommended that a traffic function of the Engineering Division be created through the following organizational changes:

- Move the Traffic Engineer into the new Engineering Division of the Department of Public Works reporting to the City Engineer
- Move the Assistant Traffic Engineer and Bike & Ped Coordinator into the new Engineering Division of the Department of Public Works reporting to the Traffic Engineer
- Move the Traffic Signal Supervisor into the new Engineering Division of the Department of Public Works reporting to the Traffic Engineer
- Move the Maintenance Worker III, four Traffic Signal Technicians, and Traffic Sign Fabricator into the new Engineering Division of the Department of Public Works reporting to the Traffic Signal Supervisor

The Traffic Engineer must continue to collaborate with NDS through participation in the development review committee and by reviewing site plans[27] for compliance with traffic system design standards.

RECOMMENDATION 40: Consolidate stormwater utility management in the Department of Public Works.
After separating the Transit and Utilities functions from Public Works, the stormwater utility program will involve individuals from three separate departments: Utilities, NDS, and Public Works. In the Utilities Department, the Stormwater Utility Administrator is responsible for administering the stormwater utility billing system, responding to citizen inquiries and complaints, managing the implementation of the Water Resources Protection Program, including the Water Resources Master Plan (WRPP) and the associated CIPs for drainage and water quality. In addition, the Stormwater Utility Administrator facilitates the WRPP Advisory Committee and works closely with the City Attorney's office and the Utility Director to refine and advance City drainage policy, particularly as it relates to private drainage issues. The Stormwater Technician provides asset management functions within the GIS environment and supports the Stormwater Utility Administrator in a range of functions and roles. Both positions work closely with the Utilities Engineer to manage the $1 million stormwater system rehabilitation contract. The engineers in the NDS Department review and approve designs, accept stormwater management and conveyance system improvements, and also develop the City's construction standards for stormwater infrastructure. The NDS Department's Stormwater Inspector is then responsible for inspecting completed stormwater infrastructure construction. In the Public Works Department, the stormwater maintenance crew, which is part of the Public Service Division, is responsible for cleaning and flushing stormwater systems and also for performing routine repairs. The Environmental Sustainability Division of the Public Works Department manages the City's municipal separate storm sewer system (MS4) permit in collaboration with the Stormwater Utility Administrator and grant-funded Best Management Practice (BMP) implementation projects. While all of the employees involved in the stormwater utility have done a good job of coordinating and building relationships, their jobs are made more difficult by the current organizational structure.

While stormwater is a utility and operates as an enterprise fund, it has some functional differences versus the gas and water/wastewater utilities. For example, two-thirds of the stormwater

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[27] NDS completed 48 site plan reviews in 2015.

conveyance system is located on private property and largely privately owned and comingled with the one-third of the stormwater conveyance system that is publicly owned. In addition, unlike the other three utilities that are separate but co-located within the improved right-of-way, the stormwater conveyance system is integrated into the improved right-of-way as it serves to drain the streets. A third important distinction is that the stormwater utility includes work related to structural stormwater management facilities and not just pipes and structures. Engineering is responsible for new construction design while operations is responsible for maintenance.

Given the structure of the new Public Works Department, most of the functions with which the stormwater utility administration staff (the Stormwater Administrator and the Stormwater Technician) interact are in the new Public Works Department (environmental sustainability, NDS engineering, Utilities engineering, and maintenance). As such, the stormwater utility administration staff should be relocated to the new Engineering Division of the Department of Public Works reporting to the City Engineer.

While the stormwater utility management team should be commended for its best practice approaches to assessing fees and billing, the stormwater utility is still in something of a startup mode. Most of the attention up to this point has been devoted to asset management. However, the stormwater utility is beginning to shift its focus toward surface water quality and the construction of additional stormwater BMPs. As this report was being written, the stormwater utility was planning to begin implementing the drainage and water quality projects included in the Water Resources Master Plan. It is important for the stormwater management team to continue to focus on ensuring the infrastructure is maintained. Locating the stormwater utility administration staff in the Public Works Department will make collaboration with the Public Service, Environmental Sustainability, and Engineering Divisions of the Public Works Department more efficient.

The following figure illustrates the organizational structure recommended in the three recommendations related to the engineering functions in the NDS, Public Works, and Utilities Departments.
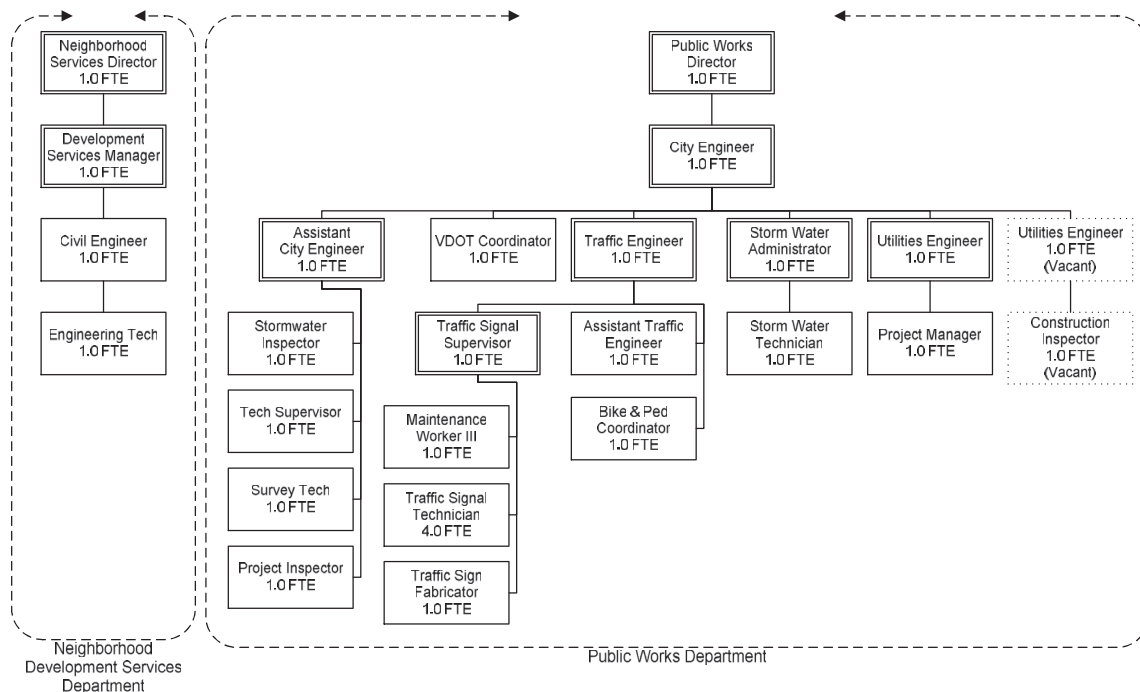

Figure 15: Proposed Engineering Functions Organizational Structure

RECOMMENDATION 41: Locate the Environmental Sustainability Division in the Department of Public Works.

The Environmental Sustainability Division performs a unique set of functions. Sustainability is a City-wide priority for the progressive community of Charlottesville. The Environmental Sustainability Division works with both the Utilities and Public Works Departments as sustainability affects many aspects of each Department's work: environmental compliance, resource conservation, waste management, environmental impacts of infrastructure development and operations, building design and maintenance, and water resources (stormwater) planning. Similar coordination efforts are conducted with all other City operational departments.

It is recommended the Environmental Sustainability Division remain in the Public Works Department. The Division will need to coordinate with multiple functions in the Public Works Department (facilities development, facilities maintenance, streets, and stormwater). Additionally, the Division has been successful, as part of the Public Works Department's structure, in advancing the City's sustainability goals. It is further recommended the Environmental Sustainability Division Manager report directly to the Public Works Director in order to maintain organizational visibility and emphasize the policy importance of this work.

RECOMMENDATION 42: Transfer one Safety and Training Coordinator position from the Utilities Department to the Public Works Department.

Historically, the City of Charlottesville has taken a primarily decentralized approach to employee safety. Responsibility for most safety and training activities rests with individual departments, but select safety activities are centrally managed: workers' compensation is managed by the HR Department; insurance is purchased by the Finance Department; and a City Safety Committee meets on a quarterly basis to review injury and accident trends and to investigate safety complaints made by employees.

The Utilities Division has two Training and Safety Coordinator positions. While both of these positions were previously vacant, one has recently been filled. The Public Works Department has two safety committees that operate separate from the City Safety Committee: one for large equipment and one for smaller vehicles. Each committee meets as necessary to review all accidents, determine preventability, and make recommendations on additional training. Currently the committees are led by the Safety and Training Officers in the Utilities Division. However, due to vacancies and a lack of clarity, these committees have become inactive.

One of the Safety and Training Officer positions should be transferred from the newly formed Utilities Department to the Operations Division of the Public Works Department. This position will serve as the Department's City Safety Committee representative and will have responsibility for implementing all Public Works Department-specific guidance coming from the City Safety Committee. In addition, this position will be responsible for ensuring Public Works Department employees routinely receive the training necessary to safely do their jobs.

The following figure summarizes all of the recommended changes to the functional structure of the new Public Works Department.
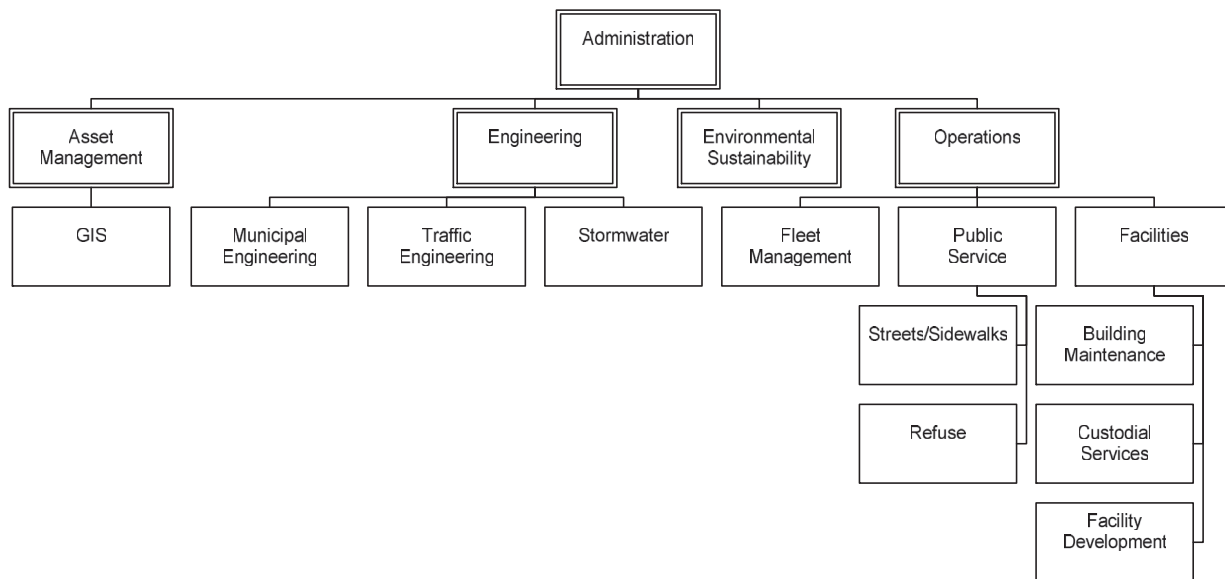
Figure 16: Proposed Department of Public Works Functional Organizational Chart

Organizational Structure – Utilities

As in the Department of Public Works, the organizational structure of the Utilities Division has been created over time, as the responsibilities of vacant roles were transitioned to other positions. Presently, water, wastewater, and gas operations and maintenance are combined under the Utilities Operations Supervisor who reports to the Director. The Assistant Gas Superintendent/ Chief Gas Engineer manages regulatory compliance, dispatch, GIS, and training and safety – functions that support water, wastewater, and gas operations and also reports to the Director. The remaining functions (marketing, utilities program coordination, engineering, and regulatory compliance) also report directly to the Utilities Director. Combining the water and wastewater maintenance and operations units is understandable because these functions operate very similarly, so efficiencies can be gained. However, combining maintenance and operations of the water/wastewater and gas utilities does not result in any efficiencies because these utilities operate very differently, with specialized employees. Dispersing the support functions in this manner throughout the Division results in the Utilities Director having nine direct reports. Opportunities exist for the current organizational structure of the Utilities Division to be streamlined and for the Director to have an optimal number of direct reports.

The following figure shows the current structure of the Utilities Division, color-coded by the primary funding source; gas-funded positions are shown in orange, water/wastewater-funded are positions shown in blue, and stormwater-funded positions are shown in purple.
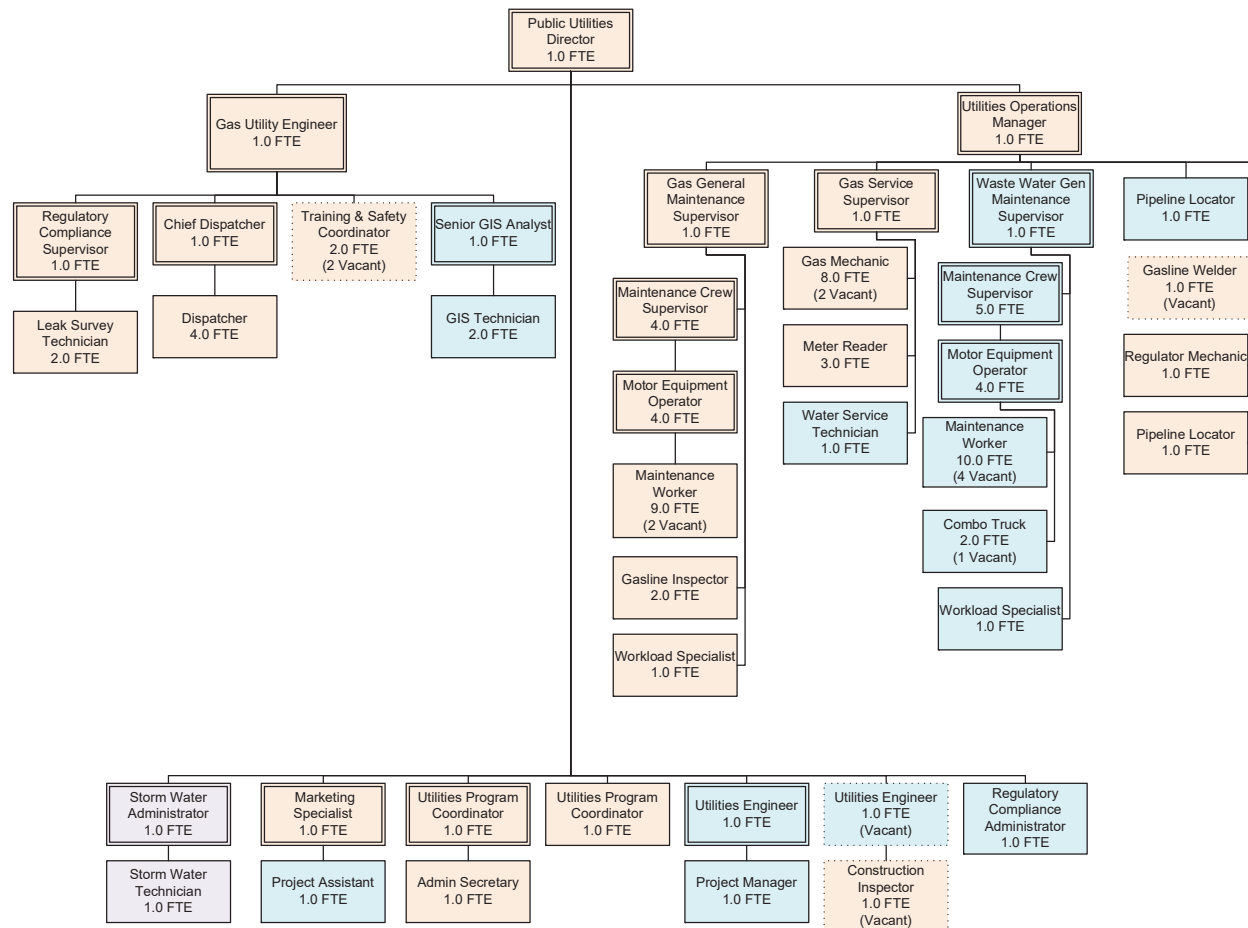
Figure 17: Current Utilities Department Organizational Chart

The restructuring of Public Works and the creation of a Utilities Department presents an opportunity to review and revise the structure of the Utilities Department. It is recommended that the operations and maintenance of the water/wastewater and gas utilities be separated and the functions that support all utilities be grouped, resulting in three divisions: Gas, Water/Wastewater, and Administration. The following figure summarizes the changes recommended in this section.
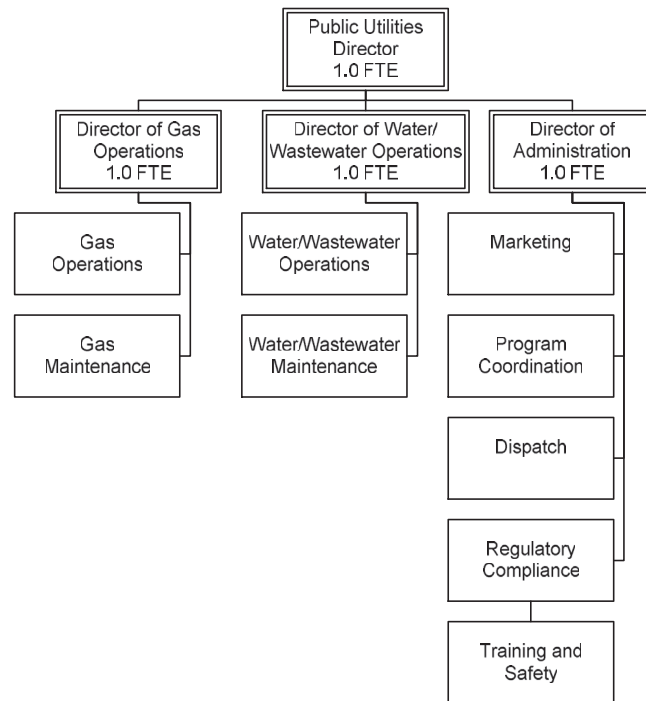
Figure 18: Proposed Utilities Department Functional Organizational Chart

RECOMMENDATION 43: Create a Gas Division of the Utilities Department.

Historically, gas, water, and wastewater operations were supervised by three separate Maintenance Supervisors who were managed by a Gas Operations Manager and Water/ Wastewater Operation Manager. In recent years, as positions have become vacant, these positions have been consolidated. Now the Gas General Maintenance Supervisor and Water/ Wastewater General Maintenance Supervisor run daily operations and are managed by the Utilities Operations Manager. Currently, utility operations are currently managed by three positions when they used to be managed by five positions.

The nature of gas utility work is unique from other utilities. Gas utilities are subject to strict regulations and employees receive specialized training and certification to safely work with the infrastructure that distributes natural gas. As such, consolidating gas and water/wastewater operations does not provide operational efficiencies. The specialized nature of the work warrants an organizational structure that groups gas-specific maintenance and operations functions.

It is recommended that a Gas Division be created through the following organizational changes:
- Reclassify the Gas Utilities Engineer as Director of Gas Operations reporting to the Utilities Director
- Move gas general maintenance unit into the Gas Division reporting to the Director of Gas Operations
- Move gas service unit into the Gas Division reporting to the Director of Gas Operations
- Move the Gasline Welder, Regulator Mechanic, and Pipeline Locator into the Gas Division reporting to the Director of Gas Operations

The reclassified Director of Gas Operations position will be responsible for managing the day-to-day operations of the gas utility. This will enable the Utilities Director to take on the expanded responsibilities associated with being a department director, including actively participating in the

City's Leadership Team, developing and executing a strategic direction for the Department, and managing relationships with external stakeholders.

As was previously mentioned, employees that work specifically for the gas utility are spread throughout the Department. The gas general maintenance unit is responsible for all things related to the gas distribution system. The gas service unit is responsible for turning gas service on and off and for servicing customers' gas meters. Additional positions are dedicated to the gas utility, but are not located in the service or general maintenance units. The Gasline Welder, Regulator Mechanic, and one Pipeline Locator positions are specialized gas positions and should be part of the Gas Division.

The following figure shows the recommended structure of the Gas Division.
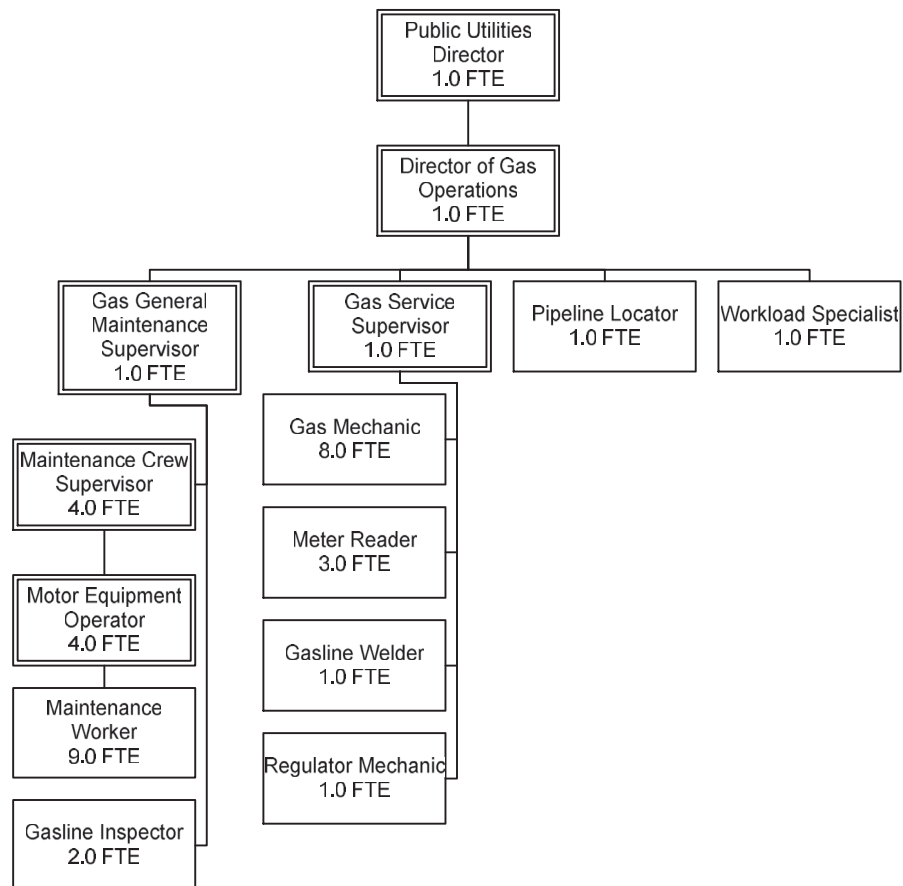
Figure 19: Proposed Gas Division Organizational Chart

RECOMMENDATION 44: Create a Water/Wastewater Division of the Utilities Department.
While the gas utility is unique from other utilities and should therefore operate independent of them, water and wastewater utility operations are quite similar to one another. As such, it is reasonable that the City has merged these two functions over time. It is recommended that water utility and wastewater utility operations remain combined, and that the organizational structure be amended accordingly. Specifically, it is recommended that a Water/Wastewater Division be created by reclassifying the Utilities Operations Manager position as Director of Water/ Wastewater Operations reporting to the Utilities Director.
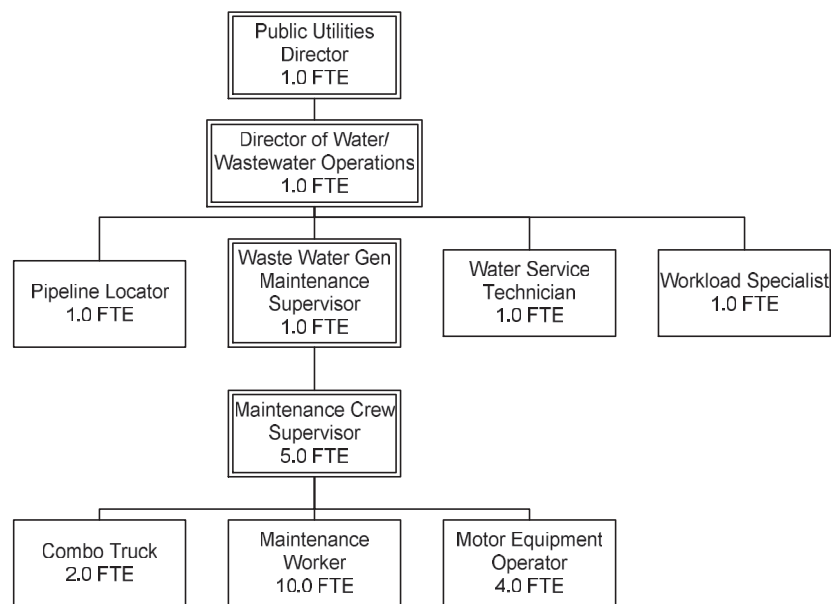
Figure 20: Proposed Water/Wastewater Division Organizational Chart

RECOMMENDATION 45: Create an Administration Division of the Utilities Department.

In the Utilities Department, some positions are dedicated to the gas utility, some are dedicated to the water and wastewater utilities, and some provide support to all three utilities. Many of those positions that currently provide services to all three utilities report directly to the Utilities Director while others report to the Gas Utilities Engineer or the Utilities Operations Manager.

Having shared support positions located throughout the organization makes it difficult to manage workload and results in too high of a span of control for the Utilities Director. When the organizational restructuring is complete, the Utilities Director will have additional responsibilities, making it even more difficult to manage nine direct reports. Grouping shared support functions will create capacity so that the Director can take on the additional responsibilities associated with leading a department.

It is recommended that these functions be consolidated into a new Administration Division of the Utilities Department. Creating an Administration Division includes the following organizational changes:

- Reclassify the Gas Pipeline Locator[28] to a Director of Administration position in the Utilities Department reporting to the Utilities Director
- Move the marketing, program coordination, dispatch, regulatory compliance, and training and safety functions to the Administration Division reporting to the Director of Administration

The following figure shows the recommended structure of the Administration Division.

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[28] The Gas Pipeline Locator position (position 3584) has been vacant since 2014.
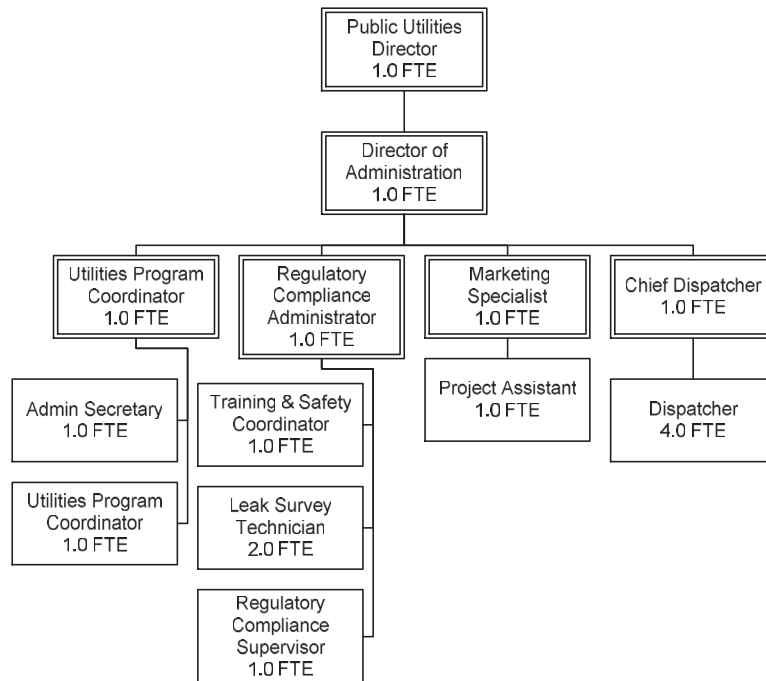
Figure 21: Proposed Administration Division Organizational Chart

The following figure shows the organizational structure of the Utilities Department as discussed in the previous recommendations.
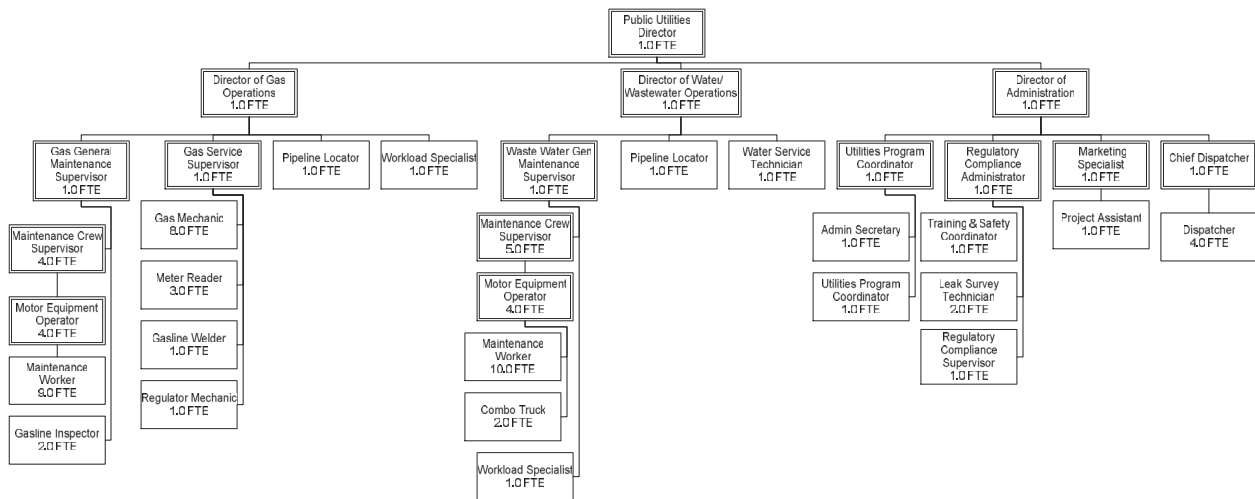
Figure 22: Proposed Utilities Department Organizational Chart

Work Planning and Tracking

The recommendations in this section involve establishing systems and leveraging technology to deliver services more efficiently and effectively. The identified needs must be prioritized and linked with the overall IT plan for the City as, it should be noted, these recommendations will impact the service demands the Infrastructure and Transportation Functional Areas place on the City's IT Department.

RECOMMENDATION 46: Create a comprehensive asset management plan for all Public Works Department assets.

As a best practice, the APWA Public Works Management Practices manual recommends that public works organizations conduct asset inventories and condition assessments as part of an asset management program. However, the City's Infrastructure and Transportation Functional Area lacks a comprehensive approach to asset management planning. It is therefore recommended that the Department create a comprehensive asset management plan, which covers the full scope of the Functional Area and operations. This comprehensive asset management plan will include all major assets, such as gas, water, wastewater, equipment, facilities, streets, and stormwater infrastructure. It should be noted that asset information for water, wastewater, stormwater, and gas infrastructure already exists.

Although the assets maintained in each of these categories vary widely and involve unique maintenance procedures, asset management plans across these functions share the same common elements: an asset inventory, a condition assessment, a predicted deterioration function, the likelihood of failure, the consequences of failure, and a preventative maintenance work plan.

Asset inventories are the cornerstone of asset management planning. The inventory provides basic information about each asset, including an identifying number, the asset's location, its age, when the asset was acquired/installed, its initial cost, and estimated replacement cost. Where possible, the City should utilize software to track asset inventory data in a consistent manner. While it is possible to organize this information using paper records, the use of electronic databases and asset management software will greatly expedite the process of creating, updating, and accessing asset records as well as provide more accurate and up-to-date information. These systems also provide interoperability with other software packages, such as GIS, to provide expansive locating and records management capabilities.

After completing an asset inventory, the Department will have a clear list of all assets under its control, from infrastructure to vehicles to facilities. As this inventory is developed, it is important to develop systems that keep the inventory and condition assessment current. As assets are added, such systems must automatically incorporate these into the inventory as being in new condition. As infrastructure elements are repaired or updated, their condition must be recorded into the condition analysis. In this manner, the inventory and condition analysis will be kept current and not allowed to become dated and less than useful.

Another integral part of asset management planning is determining the overall condition of each asset. A condition assessment provides a quantitative baseline for rating the qualitative aspects of an asset, such as its overall functionality, wear and tear, and likelihood of failure. Where possible, the Department should rely on industry standard assessment tools, as it already does with the PCI for rating City streets, in order to minimize subjective condition ratings. Life cycles, deterioration rates, and unique issues and factors such as traffic, loading or, in the case of underground utilities, the presence of corrosive or reactive soils in which these infrastructure elements are located must be factored into a "deterioration curve," thus providing a predictive element to the asset management plan.

Condition assessments are important for two reasons. First, they highlight assets which are nearing failure or expected end of life, which in turn informs the CIP and asset replacement process. Second, they provide guidance for the work planning schedule by identifying City assets that are in most need of immediate attention. This helps upper management prioritize when work should occur in order to maximize staff efficiency and ensure maintenance funding is utilized effectively.

A comprehensive asset management plan will allow each Department to create an annual work plan. Such a work plan will describe the regular maintenance activities that must occur in order to extend the useful life of that asset. The purpose of a Department-wide work plan is threefold: it serves as a master schedule of preventative maintenance tasks, it provides a tool for scheduling projects that involve multiple divisions, and it allows management to prioritize complex or time-intensive projects effectively. An asset management plan will also provide the framework for multi-year capital and maintenance budgeting.

To create the work plan, each Department should determine when regular maintenance activities for each asset need to occur in order to preserve the asset's functionality and minimize the risk of asset failure. This will generate a list of tasks that should occur at regular intervals, which should then be scheduled on an annual basis. The resulting work plan will serve as a calendar of required maintenance tasks. As divisions assume responsibilities for their portion of the comprehensive work plan, managers and supervisors will in turn be able to create individual work plans for their staff. This will allow meaningful goal-setting and provide objective measures.

Without an effective work plan, City staff will be more frequently pulled into reactive maintenance tasks without knowing what preventative maintenance has been missed or delayed. This creates deferred maintenance of assets, decreasing their useful life, which ultimately increases the City's costs by requiring asset replacement on a faster schedule. The Asset Management Division recommended previously will be responsible for driving the creation and implementation of an asset management plan for each department in the Infrastructure and Transportation Functional Area.

RECOMMENDATION 47: Implement a work order system.
An electronic work order system enables an organization to streamline the distribution of assignments based on the annual work plans developed as part of the asset management plan and reactive maintenance needs. From these annual work plans, work orders can be generated. A work order system will enable the Department to track what work is being completed, how quickly crews are completing that work, and the usage of resources. Tracking hours and costs will enable alternative service delivery methods to be evaluated. In addition, emergency work orders should be tracked, giving the organization a full picture of its activities. Additionally, such a system can also provide real-time data to the asset management system, proving updates and keeping the inventory and condition assessment current. This will allow the tracking of planned maintenance as well as reactive maintenance. Reactive maintenance is generally more costly than planned maintenance, thus the ratio of planned maintenance to reactive maintenance should be maximized. A work order system will allow these ratios to be tracked as a measure of efficiency.

Public Works currently uses the SAP Plant Maintenance module to assign and track work. However, this system is not designed to be used as a work order system, resulting in a very cumbersome and inefficient process. Under the existing process, work orders are printed out, crews then write notes directly on the work order while out in the field, and then dispatchers or a workload specialist enter the data into SAP when crews return to the office. Sometimes crews are sent out with a work order to assess an issue and then have to come back to the office so another work order can be issued for the completion of that work. A major downside of this process is there is no data available regarding the cycle time required to complete specific tasks and, as a result, management cannot analyze whether service level and timeliness expectations are being met. This lack of data also makes it difficult for management to justify resource requests during the budget development process or objectively examine the cost of alternative service delivery options.

Electronic work order systems that include both inventory assets and programmed preventative maintenance work plans are one of the best practices that are considered part of the APWA accreditation process.

Ideally, the Public Works and Utilities Departments should purchase a work order system that can interface with the utility billing module of SAP. However, if that is not financially feasible, the City can continue to work with the IT Department to develop workarounds for the SAP system and integrate it with asset management. The first step involves data collection. City staff need the tools to consistently record the work being completed, time and materials costs, and the location of the work, all while in the field. For example, crews would have to record more than just "pothole patching" and the street name. They would enter how much cold patch was used, how long the job took, the precise street segment, and the members of the crew. Even this simple approach would provide the City with a detailed repair history and cost information, which will help pinpoint problems.

It should be noted that fleet maintenance activities are unique and may require a separate module of a work order system or a separate system altogether. The Fleet Management Division uses SAP to monitor and plan maintenance activities as well as assess maintenance history and costs per vehicle. However, SAP is not designed specifically for fleet management and, as such, lacks some capabilities. For example, a vehicle's preventive maintenance schedule has to be manually updated, only a limited number of fields relating to each vehicle can be tracked, and data from the Department's fuel tracking software must be imported into SAP (rather than automatically being pulled). Fleet management systems are generally not very expensive - some work order systems even offer specific fleet management modules. The Public Works Department should purchase software specifically designed to meet the needs of its fleet maintenance operation.

Public Works Operations
RECOMMENDATION 48: Include yard waste collection in the refuse collection contract.
The City contracts for refuse and recycling collection to County Waste. Residents are charged volume-based user fees for curbside refuse collection and disposal. The following table summarizes the current refuse and recycling fee schedule.

Table 30: Refuse and Recycling Fee Schedule, 2016

Type/Volume	Fee Amount
Individual Trash Collection Sticker	
13 gallon	$1.05 each
32 gallon	$2.10 each
Annual Trash Collection Sticker	
32 gallon	$94.50
50 gallon	$147.00
64 gallon	$189.00
96 gallon	$283.50
Recycling	Free

In 2015, a total of 5,881 tons of the refuse collected through the curbside collection program went to the landfill and an estimated[29] 4,115 tons was recycled, resulting in an estimated diversion rate of 41%. The City's diversion rate is impressive given that the average diversion rate for permitted solid waste management facilities in the Commonwealth of Virginia is approximately 10%.

While the City has contracted for refuse collection since 1993, yard waste collection and large item pickup have never been included in the contract. The Public Works Department provides large item pickup, but yard waste collection services are not available to residents (except during leaf collection season). Currently, yard waste is collected by the contractor along with refuse and deposited in the landfill, which is a poor use of limited landfill space and does not align with the City's focus on sustainability. Best practice in the region is to collect bagged/bundled yard waste on a weekly or biweekly basis and transport this waste to composting facilities for ultimate reuse. Yard waste that is bagged is placed in containers such as paper yard waste bags that can be composted with the yard waste. The cities of Harrisonburg and Danville and the Town of Leesburg all collect bagged/bundled yard waste on either a weekly or biweekly basis.

The City should, depending on costs, include yard waste collection in the next refuse collection contract and cause such waste to be transported to a composting facility.

RECOMMENDATION 49: Improve efficiency of leaf collection by utilizing the refuse contractor.
Every year, between November 1 and January 31, Public Service employees collect leaves. Residents may either bag up their leaves (using plastic bags distributed by the City) for weekly pickup or may rake leaves to the curb for vacuum pickup, which is guaranteed twice during the three-month leaf collection period. City employees then take the collected leaves to a nearby farm and debag them for composting.

This is a very labor intensive (and therefore costly) approach to leaf collection. According to the Department, it spends approximately $272,000 per year collecting leaves. In addition to the direct and indirect costs of providing this service, there are opportunity costs associated with using Public Service staff to provide leaf collection services. For example, because of this activity, the City does not crack seal in the fall, which is the ideal time to do crack sealing.

Amongst other similarly-sized communities in the Commonwealth, loose leaf collection in November and December and bagged (in compostable bags) leaf collection the rest of the year are common practice. The cities of Harrisonburg and Danville and the Town of Leesburg collect loose leaves during peak leaf season and bagged (in compostable bags) leaves outside of this period. The Town of Leesburg collects loose and bagged leaves for six weeks in the fall, but does not collect bagged leaves the rest of the year.

It is recommended that the City expand its loose leaf collection operation during the months of November and December and have the refuse contractor pick up leaves, placed in compostable bags, as part of the yard waste service expansion included in the previous recommendation. This approach eliminates the labor-intensive process of collecting bagged leaves and then emptying those bags at a compost facility. Since the City presently covers the cost of leaf collection at no cost to residents, to continue this service level would require that the Department reimburse the contractor for this aspect of their work.

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[29] Trash is taken to a facility which further separates and diverts recyclables, so while 3,612 tons were collected through curbside recycling, additional material is diverted.

RECOMMENDATION 50: Shift maintenance responsibility for select Fire Department fleet to Fleet Management Division.

Maintaining firefighting apparatus and equipment requires specialized knowledge to ensure emergency response vehicles are available for emergency incidents. However, fire departments also require a fleet of transportation or passenger vehicles that do not require the same level of specialized knowledge. One mechanic currently maintains the Fire Department's fleet of light duty vehicles while maintenance of heavy duty fire apparatus is contracted out to a specialized shop.

The Fleet Management Division is led by the Fleet Manager. The Auto Service Coordinator prioritizes work and handles the administrative activities associated with repair and maintenance activities. A total of eight mechanics (seven Mechanic III's and on Mechanic I) service the City's fleet.

The Fleet Management Division is currently responsible for maintaining 584 City vehicles. The Fleet Management fund currently fully recovers its operating costs by charging for labor ($64/hour) and parts; this labor rate is revisited on a regular basis and was just updated this year. The following table includes the number of vehicles the Division maintains for each Department[30].

Table 31: Number of Vehicles Maintained by Fleet Maintenance Division, by Function

Department/Division	Number of Vehicles
City Manager	2
Court	1
Facilities Development	4
Facilities Maintenance	14
Finance	1
Fleet Management	13
Human Services	1
Library	4
Neighborhood Development Services	16
Parks	77
Police	132
Public Service	96
Schools	32
Sheriff	11
Social Services	15
Transit (Pupil Transportation Vehicles)	42
Utilities	123
TOTAL	**584**

The National Fleet Management Association (NFMA) recommends a target mechanic-to-vehicle ratio of between 1:60 and 1:100, depending on the age, condition, and specialized nature of the fleet. The mechanic-to-vehicle ratio in the Fleet Management Division is 1:73, which is on the lower end of the recommended range, which means some capacity to take on additional responsibilities exists.

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[30] Department also provides administrative support for Transit and Fire vehicles.

The Department of Public Works Fleet Management Division should be responsible for maintaining the Fire Department's 18 light duty vehicles, as discussed in Recommendation 83. Responsibility for managing the contracting out of maintenance of firefighting apparatus and specialized equipment will remain with the Fire Department. The additional vehicles would increase the Fleet Management Division's mechanic-to-vehicle ratio to 1:75, which is within the industry standard range of 1:60 to 1:100.

RECOMMENDATION 51: Staff the Facilities Maintenance Division to ensure staffing matches service level expectations.

The Facility Maintenance Division is responsible for maintaining City facilities. The Division is comprised of two units: structural maintenance and HVAC/electrical services. The Division services nearly 1.7 million square feet of space and nearly 2,500 pieces of building equipment (e.g., HVAC, plumbing, elevators). The Facility Maintenance Division uses a function-based deployment model whereby individual maintenance personnel perform specialized work in multiple locations. This is the most efficient way to deploy skilled labor resources. The following table summarizes the facilities maintained by the Facilities Maintenance Division.

Table 32: Summary of Facilities Maintained by Department

Facility Use	Square Feet
School	844,784
Office	329,375
Parking	174,634
Recreation Center	73,300
Fire Station	59,660
Indoor Pool	45,709
Retail	43,658
Repair Shop	38,431
Storage	19,800
Court	16,148
Other	7,377
Indoor Pool	7,000
Vehicle Wash	1,568

The International Facility Management Association (IFMA) offers benchmark ratios to help organizations determine facility maintenance technician staffing needs. These ratios are based on the criticality of the specific facilities, their age, and the condition and complexity of the systems being maintained. For the type and condition of facilities maintained by Facilities Maintenance Division staff, based on IFMA benchmarking standards, the appropriate ratio is 50,000 square feet per technician. Applying this ratio to the 1.46 million square feet that requires technical maintenance yields a technician requirement of 29 technicians (electrical, plumbing, HVAC, structural), or one technician per 60,000 square feet given that the current FTE count is 23. Adding six more positions would cost an estimated $267,300.[31] It should be noted that facilities maintenance staff are funded through the budgets of both the Public Works Department and City Schools.

The staffing level of the Facilities Maintenance Division should be set at a level that ensures City departments receive services at a level that is acceptable and that all preventive maintenance

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[31] Based on a salary of $33,000 and estimated benefits of 35%.

activities are completed in a timely manner. The Facilities Maintenance Division currently surveys its customers on an annual basis. In the most recent survey, the overall satisfaction level of customers was "somewhat satisfied." Given that it may not be financially feasible for the City to add more staff to the Facilities Maintenance Division, the Department should monitor the level of service being provided to the City and only add staff if the Division is not able to meet the needs of its customers.

RECOMMENDATION 52: Include annual facility maintenance and repair needs in the City CIP.

The Facilities Maintenance Division keeps a thorough inventory of the existing 2,499 pieces of equipment in City-maintained facilities, such as elevators, boilers, and air conditioners.

In addition to keeping an updated inventory, the Division has also developed a replacement schedule for all building equipment. As equipment ages, maintenance costs increase. Thus it is critically important for organizations to stay ahead of equipment replacement needs. In the next 10 years, the Department estimates that the City will need to invest approximately $7.2 million in facility equipment replacement. The following figure shows the forecasted building equipment replacement costs each year.
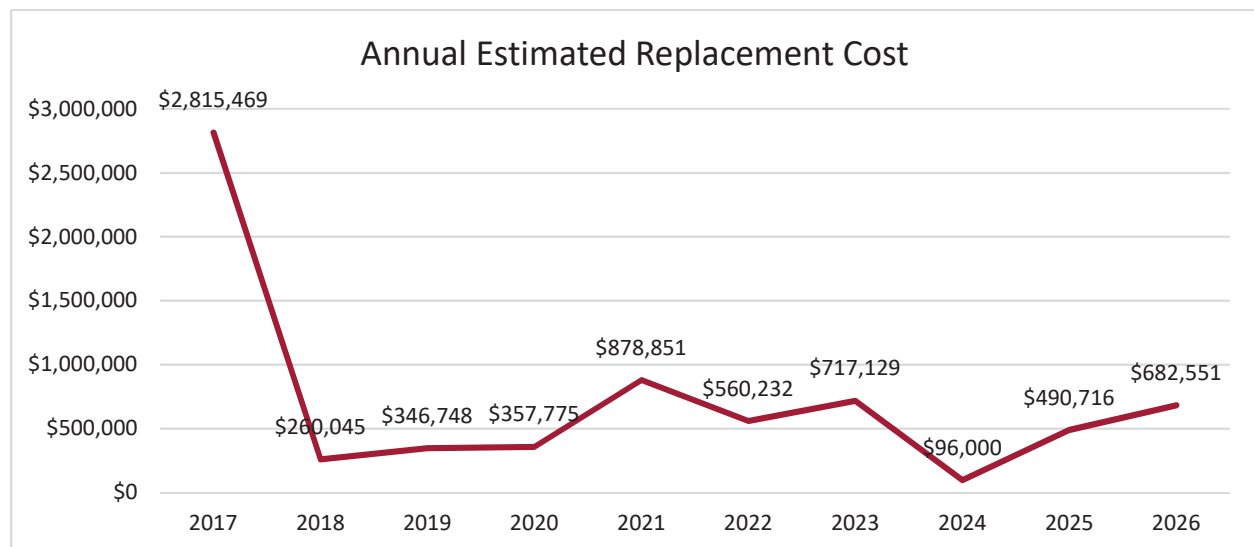
Figure 23: Estimated Replacement Cost

As can be seen in the above figure, the replacement costs associated with facility maintenance equipment can be significant. As such, these ongoing building equipment needs should be included in the City's CIP, and it is the responsibility of the Department to clearly communicate these needs to decision makers. An annual maintenance and repair report, that summarizes at a high level the equipment needs that have been addressed as well as those that are still outstanding, will allow City leaders to understand the impact of not adequately funding the replacement of equipment.

Utilities Operations

RECOMMENDATION 53: Review Enterprise Fund cost allocation methodology.

It is common in local governments for the Enterprise and Special Revenue Funds to pay into the General Fund for services rendered by General Fund personnel in support of those enterprise fund operations. For example, if a General Fund financial management function of a government

provides billing and collection services for a utilities department, then it is reasonable for the utilities department to pay for those services. Similarly, if an IT or HR Department provides support to Enterprise Fund operations, then the time and non-personnel resources dedicated to that support should ideally be reflected in the enterprise fund operation's budget.

The City of Charlottesville employs several approaches to ensure that Enterprise Fund utilities appropriately contribute to general government operating expenses. The first approach the City employs is to budget all or a portion of select support employee salaries in the Enterprise Funds. This is justifiable because those employees contribute a portion of their time administering elements of the fund's management. For example, salaries of employees in the Utility Billing, Budget, and City Attorney Departments are paid for by the Water, Wastewater, and Gas Funds. Custodial functions are paid by the Gas Fund. The second approach the City employs is departments pay for use of services from the IT Department.

Typically, the annual contribution made from Enterprise Funds to the General Fund is derived from a cost allocation study. A cost allocation study is a professional assessment of the personnel and non-personnel support provided to Enterprise Funds from General Fund personnel to determine a defensible and appropriate level of reimbursement.

To ensure that current practices are defensible and represent an accurate account of support provided to enterprise and special revenue fund operations and administration, these cost allocation studies should be used to determine if the current allocations of administrative support salary and benefit expenses to Enterprise Funds are appropriate and if additional salary and benefit expenses should be allocated to those funds.

RECOMMENDATION 54: Minimize water system loss by enhancing residential and large meter testing program.
The City of Charlottesville purchases water and then distributes it to City residents. According to the Utilities Department, approximately 14% of water distributed by the City is unaccounted for. It should be noted that the City of Charlottesville's water system is interconnected with the water systems of Rivanna Water and Sewer Authority (RWSA) and Albemarle County Water and Sewer Authority. RWSA is in the process of installing additional meters so the water loss percentage of the City's water system will soon be known.

Water utilities can incur real losses from pipeline leakage and improper measurement/billing of customers for water consumption. According to the American Water Works Association (AWWA), the national average water loss percentage is 15%. However, that includes large cities, which often have much higher water loss rates. While some of the City's water loss is likely attributable to sewer cleaning activities such as flushing, this is a high percentage for a City the size of Charlottesville. For a City that prioritizes sustainability, water loss of this magnitude is not acceptable. The City should aim to have a water loss percentage of closer to 8%.

Meter age and usage affect meter accuracy. As the water system and the meters age, the City can expect increasing system leakage compounded by loss of meter accuracy affecting customer sales. The current procedure in the City involves an outside consultant surveying the system on an annual basis and addressing issues. However, given the water loss percentage, this arrangement is not sufficient.

In order to minimize water system loss, the City should enhance its meter testing program. The AWWA has established recommended testing frequencies for water meters with increasing frequency for larger meters. If the Department chooses to conduct residential meter testing in-

house, it should start by testing meters in batches, replacing those that do not meet standards. If it becomes clear that many meters do not meet standards, it may be necessary for the City to implement a large-scale meter replacement program. While residential meter testing is not generally expensive, a large-scale replacement program may be cost prohibitive. In that case, the City may want to use a company that will replace meters, keeping the savings until the cost of the meter replacement is paid back.

According to the AWWA, cities that implement testing programs for large water meters tend to see increased revenues. This tendency occurs for a number of reasons. First, large water meter customers often make up a significant portion of a utility's revenue and increasing the accuracy of large meters decreases the amount of unbilled water. Second, meters generally tend to read low as they wear. Third, large meters may not record low flows accurately and as customer demand varies (often through conscious conservation efforts) they may end up with an oversized meter. Large meter testing can be expensive. Testing requires meters be removed from service and sent out for testing, maintenance, and possibly recalibration unless the City purchases the equipment necessary to test in place (or contract with a City that has test-in-place equipment).

As this report was being written, the City was implementing a meter replacement project concentrating on the large meters. As part of this project, the meters are being evaluated to ensure they are the right size to minimize future water loss. This work involves upgrading the meter vault so it meets current standards and installing bypasses and test ports so the meters can be tested efficiently in the future.

Transit Operations

RECOMMENDATION 55: Resume annual transit customer surveys.

Due to the nature of the services provided by CAT the Transit Department is a very visible organization. First, the buses themselves are frequently seen by and interact with the public. Second, since customers pay for the services provided by the Department, there are certain service-level and responsiveness expectations that come into play. The result is that CAT operations are subject to significant public scrutiny. It is not uncommon for residents to contact City Councilmembers to suggest route and other operational changes. In order to ensure that transit operations are not being directed by a vocal minority, many organizations conduct annual customer satisfaction surveys in order to inform leaders' decisions.

CAT conducted annual customer surveys in FY2010, FY2011, and FY2012. However, in FY2013, the Department did not conduct an annual customer survey, instead focusing its efforts on completing a transit study. Resuming the annual customer survey will enable the organization to better meet the needs of the majority of its approximately 2.5 million riders each year.

RECOMMENDATION 56: Approach UVA about increased ridership.

UVA affiliates (students, staff, faculty, medical personnel, and contractors) may ride City transit for free with a valid UVA ID. In exchange, UVA reimburses the City for this service. However, the amount UVA is paying is not keeping pace with ridership. Since 2010, UVA ridership has increased by 65%, while UVA funding has increased by only 16%. The following table includes the funding the Transit Department received from UVA and the UVA ridership each year from 2010 through 2016 as well as the percentage change in funding and ridership since 2010.

Table 33: UVA Ridership and Funding, 2010-2016

	2010	2011	2012	2013	2014	2015	2016	Percent Change
UVA Funding	$202,508	$207,914	$208,785	$212,000	$218,360	$224,911	$234,560	16%
UVA Ridership	311,179	332,294	361,801	383,285	385,871	435,349	514,902	65%

The fact that funding does not proportionately increase with ridership signals that UVA may not be covering the full cost of the reciprocal ridership arrangement with the Transit Department. It is recommended that the City amend its reciprocal ridership funding methodology to reflect actual usage of the service.

Public Safety and Justice

The Charlottesville Public Safety and Justice Functional Area includes five City Departments: the City Sheriff, Commonwealth's Attorney, Courts and Other Support Services, Fire Department, and Police Department.

City Sheriff

The Office of the Sheriff provides several core public safety functions for the Charlottesville community, including courthouse security, prisoner and mental patient transports, extraditions, overseeing evictions, jury duty orientation, and serving civil documents such as summonses and trespass notices. While the City's Police Department is the primary agency responsible for handling criminal and traffic offenses, the Sheriff's Office can provide backup support for these activities as necessary. The main distinction between the Sheriff's Office and the Police Department is that the Sheriff's Office primarily handles civil law and court-related matters, while the Police Department enforces criminal laws.

Commonwealth's Attorney

The Office of the Commonwealth's Attorney is responsible for prosecuting criminal cases in the City's courts, including the Circuit, General District, Juvenile, and Domestic Relations courts. Additionally, the Attorney provides legal advice and support to the City's Police Department as well as other departments involved in law enforcement matters.

The Commonwealth's Attorney administers two grant-funded programs. The Victim-Witness Assistance Program provides crime victims and witnesses with support, resources, and information regarding their case and the criminal process. Domestic Violence Services helps victims of domestic violence and abuse through the court process and provides support for obtaining protective orders and other information designed to safeguard victims.

Courts and Other Support Services

The Courts and Other Support Services area consists of five distinct units: the General District Court, the Circuit Court, the Juvenile and Domestic Relations Court, the Court Services Unit, and the Office of the Magistrate. The General District Court is responsible for enforcing criminal law and adjudicating civil disputes, while the Circuit Court oversees criminal felony cases and civil cases involving large sums. The Circuit Court is also the City's court of record and records real estate titles. The Juvenile and Domestic Relations Court handles family law cases and criminal cases committed by juveniles. The Court Services Unit facilitates rehabilitation and treatment services for persons who have appeared in court by providing case review, probation supervision, and after-care and domestic care for juveniles. Lastly, the Office of the Magistrate issues arrest warrants and oversees the issuance of bail.

Fire Department

The Fire Department provides fire prevention, preparedness, response, and recovery services. The Department consists of six divisions. The Administration division oversees the Department and its operations, while the Fire Fighting division responds to calls for service in the City and at UVA. The Fire Prevention division enforces the fire code, conducts safety inspections, reviews plans for new construction, conducts fire investigations, and engages in community education efforts. The Department's Personnel Support division is responsible for identifying and meeting the training needs of Fire Department staff and oversees special teams such as the Hazardous Materials (HAZMAT) and special rescue teams. The Department Maintenance division maintains the Fire Department fleet including scheduling maintenance and repairs for apparatus, testing

equipment, and procuring replacement equipment. Finally, the Volunteer Fire Department division consists of volunteer firefighters who operate alongside the City's full-time firefighting staff.

Police Department

Police Department Operations consists of three organizational divisions, including the Office of the Police Chief, the Field Operations Division, and the Support Services Division. The Office of the Police Chief includes functions related to Department administration and organizational management, such as the Chief Financial Officer and the Office of Professional Standards. The Field Operations Division coordinates patrol related functions, including each of the Department's patrol shifts, the Crime Prevention Unit, Animal Control, K9 Unit, Special Weapons and Tactics (SWAT) Team, and the Telephone Reporting Unit. The Support Services Division coordinates investigative and administrative activities, and includes the Investigations Bureau, Administrative Services Bureau, School Resource Unit, Forensic Unit, and Traffic Unit.

The Jefferson Area Drug Enforcement Task Force (JADE) is part of the Support Services Division and is supported by the City of Charlottesville, the University of Virginia, Albemarle County, and the Virginia State Police. JADE is a multi-jurisdictional task force with representatives from each of these agencies, which is tasked with reducing the prevalence of drugs and illegal weapons in the community.

Public Safety and Justice Staffing and Budget

The following table illustrates Public Safety and Justice FTE staffing levels over the last five fiscal periods, along with the percentage change in staffing since FY2013.

Table 34: Public Safety and Justice Staffing Trends (FTEs), FY2013-FY2017

Department	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
City Sheriff	11.0	11.0	11.0	11.0	11.0	0%
Commonwealth's Attorney	13.5	13.5	13.5	13.5	13.5	0%
Courts and Other Support Services	11.0	11.0	11.0	11.0	11.0	0%
Fire Department	89.0	89.0	91.0	91.0	91.0	2%
Police Department	146.0	146.0	154.0	154.0	154.0	5%
Total	**270.5**	**270.5**	**280.5**	**280.5**	**280.5**	**4%**

Personnel increases in this section have occurred in the Fire Department and Police Department, while staffing in other departments has remained flat. While sworn staffing in the Police Department has varied in recent years; it is currently at its highest point since 2010.

Table 35: Police Department Sworn Staffing 2010 - 2016

Year	2010	2011	2012	2013	2014	2015	2016
Sworn Staffing	118	117	109	117	120	116	123

The following table illustrates trends in Public Safety and Justice expenditures over the last five fiscal periods, along with the percentage change since FY2013.

Table 36: Public Safety and Justice Expenditures, FY2013-FY2017

Department	FY2013 Actual	FY2014 Actual	FY2015 Actual	FY2016 Budget	FY2017 Budget	Percent Change
City Sheriff	$1,013,367	$1,021,381	$1,042,980	$1,038,684	$1,085,206	7%
Commonwealth's Attorney	$931,236	$850,510	$861,516	$1,127,531	$1,146,248	23%
Courts and Other Support Services	$1,050,028	$1,083,283	$1,211,488	$1,157,519	$1,173,606	12%
Fire Department	$9,352,657	$9,544,771	$9,812,902	$9,771,687	$10,299,950	10%
Police Department	$14,578,453	$14,697,043	$14,777,655	$14,778,701	$15,492,199	6%
Total	**$26,925,741**	**$27,196,988**	**$27,706,541**	**$27,874,122**	**$29,197,209**	**8%**

The Fire and Police Departments account for 35% and 53% of total expenditures in Public Safety and Justice. Recent expenditure increases are largely due to rising personnel costs, including health care costs and retirement rates.

The scope of this organizational efficiency analysis was particularly focused on the City's Police and Fire Departments. While staff from other Public Safety and Justice Departments were interviewed during field work, staff from all levels and divisions of the Police and Fire Departments were interviewed individually or in focus groups. These interviews permitted a more in-depth review of activities, services, policies, and procedures provided in these Departments, which informs the recommendations of this report.

It must be emphasized that all of the City's Public Safety and Justice Departments are staffed by competent personnel who are dedicated to fairly, judiciously, and efficiently discharging their duties and responsibilities to the residents of Charlottesville. The analysis and recommendations that follow are particularly targeted toward helping the City's largest Public Safety Departments achieve even greater process and staffing efficiencies.

Police Department Analysis and Recommendations

The City of Charlottesville Police Department is responsible for all aspects of policing in the City of Charlottesville, including patrol, response to calls for service, and investigation of crimes. The City covers 10.24 square miles, serving a population of 46,597.

The Department's authorized sworn headcount is 127 for FY2016, consisting of one Chief of Police; two Captains; 9 Lieutenants; 18 Sergeants, 19 Detectives; and 78 Police Officers. Nine officers are currently in the Police Academy. The Department is in the process of filling four vacancies: two certified police officers from other agencies are currently in the hiring process; one candidate, currently employed as a Community Service Officer, has been identified to enter the Police Academy in January, 2017; and candidates for one other position are being interviewed. As a result, 114 sworn members are available for duty as of October 2016.

The Department's 38 authorized non-sworn employees include one Administrative Assistant; one Accounts Payable/Accounts Receivable/Payroll Clerk; one Quartermaster; one Information Management Services (Records) Supervisor; ten Police Records Specialists; two Forensic Support Specialists; five Community Service Officers (CSOs) assigned to traffic enforcement; two CSOs assigned to the Downtown Mall; one CSO assigned to the Telephone Reporting Unit; three CSOs assigned as School Resource Officers; one Animal Control Officer; two part-time training

staff; one Crisis Intervention Training Coordinator; and seven part time School Crossing Guards. Three non-sworn positions are vacant at this time: one School Crossing Guard, one CSO, and one Police Records Specialist.

The Department's organization chart is shown in the following figure:
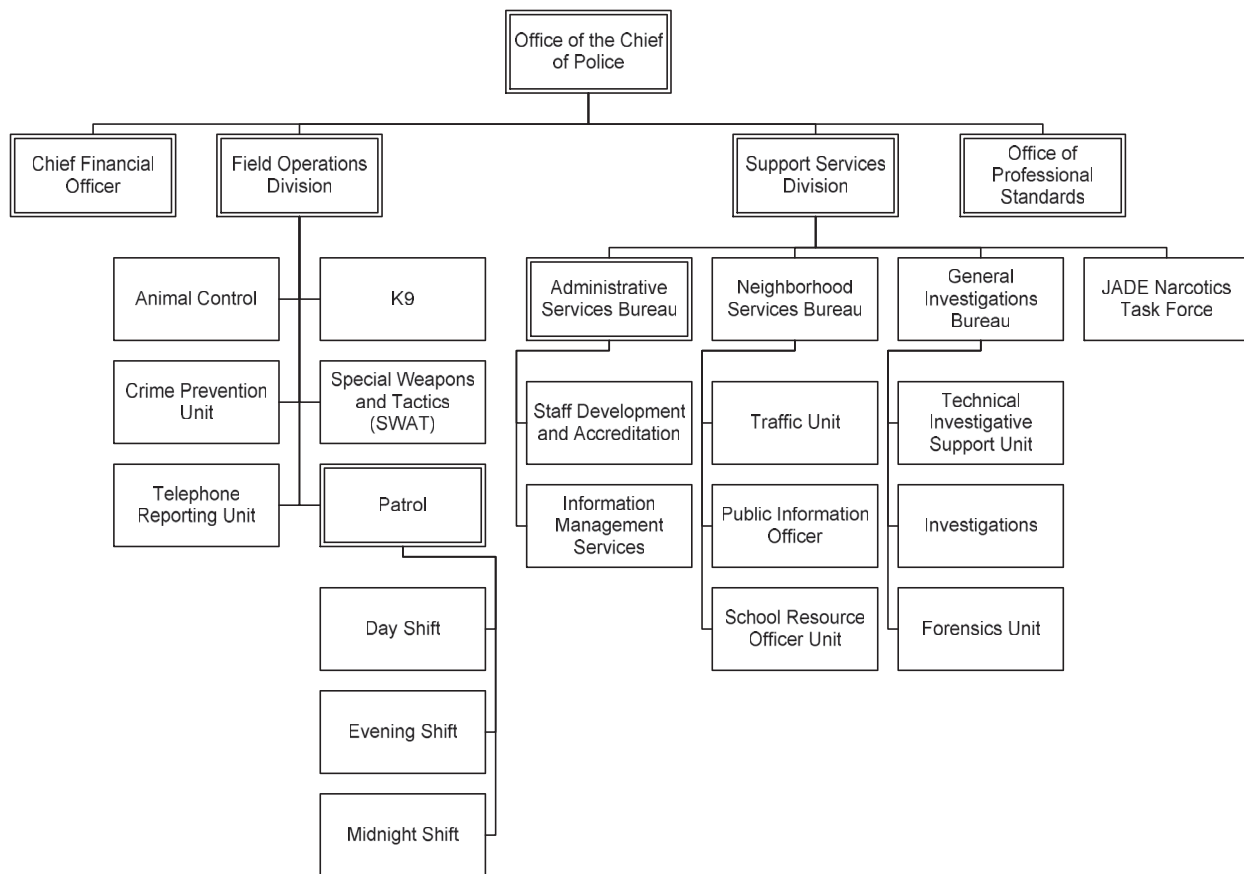
Figure 24: Charlottesville Police Department Organizational Chart, October 2016

The Chief of Police is the chief executive officer of the Department, appointed by the City Manager and subject to the direction of the City Manager and the City Council. The Chief is responsible for the enforcement of laws and ordinances within the City; ensuring that the mission, vision, and values of the Department are advanced; planning, directing, coordinating, controlling and staffing all activities of the Department; and enforcement of the Department's rules and regulations.[32] The Chief has six direct reports: one Captain assigned to the Field Operations Division; one Captain assigned to the Support Services Division;[33] a lieutenant who serves as the Chief Financial Officer (CFO); a sergeant supervising the Office of Professional Standards; an Administrative Assistant; and the Police Chaplain.

Of the Chief's six direct reports, two lead units which report directly to the Chief of Police: the Chief Financial Officer and the Office of Professional Standards.

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[32] General Order No. 44-99
[33] Effective October 10, 2016, one Captain was promoted to the rank of Deputy Chief. One additional Captain position is proposed under the new organization chart, increasing the number of Captains to three.

The Chief Financial Officer, a Lieutenant, is responsible for preparation of the Department's annual budget and Capital Improvement Plan, and overall management of the Department's finances. One sworn and three non-sworn members report to the Lieutenant. A Police Officer is assigned as the Department's Crime Analyst. Civilian staff includes one Quartermaster; one Crisis Intervention Training Coordinator, who manages a largely grant-funded program to provide police officers with training on response to situations involving mental illness or developmental disability; and one person who handles accounts payable, accounts receivable, and payroll.

The Department is functionally divided into two major divisions, in addition to the Office of the Chief of Police: the Field Operations Division and the Support Services Division.

One Captain supervises the **Field Operations Division,** which oversees the Department's patrol functions, including the Crime Prevention Unit, Animal Control, Canine, SWAT and the Telephone Reporting Unit.

Patrol officers perform steady 10 hour shifts. The Daylight Shift works from 7:30 AM to 5:30 PM. The Evening Shift works from 3:00 PM to 1:00 AM. Sunday through Thursday, and 5:00 PM to 3:00 AM Friday and Saturday. The Midnight Shift works from 10:00 PM to 8:00 AM. The duty schedule is a rotation of four days on; two days off; four days on; and four days off. As a result, the evening and midnight shifts overlap from 10:00 PM to 1:00 AM on weekdays, and from 10:00 PM to 3:00 AM on weekends.

One Lieutenant and three Sergeants are assigned to each patrol shift. The Evening Shift and Midnight Shift Lieutenants work 10 hour tours; the Daylight Shift Lieutenant works five eight hour tours, Monday through Friday. Three Sergeants are assigned to each shift to provide coverage on all tours by at least one sergeant.

Two Canine Officers work the Evening Shift, providing scheduled Canine coverage seven days per week. The Animal Control Officer works the Daylight Shift, Monday through Friday, and reports to the Daylight Shift Sergeant.

The Telephone Reporting Unit is normally staffed from 8:00 AM to 4:00 PM Monday through Friday by a CSO. Calls received by the Emergency Communications Center that do not require a response by a sworn officer – i.e., they simply require a report – are referred to the Telephone Reporting Unit during those hours. When the unit is not staffed, officers are dispatched. The Telephone Reporting Unit also reports to the Daylight Shift Supervisor.

SWAT is a part-time assignment; members of the unit are mobilized from their regular assignments when needed. It is commanded by a Lieutenant whose full-time assignment is the Neighborhood Services Bureau, which reports to the Support Services Division. In the SWAT capacity, however, the Lieutenant reports to the Field Operations Division Captain. Authorized strength of the unit is 16 members and a Commanding Officer; currently, 13 are assigned. The unit trains on two eight-hour shifts per month. It is normally mobilized four to five times per year. SWAT activations for planned events such as search warrant executions are guided by a Risk Assessment Matrix designed to evaluate the risk and/or technical/tactical requirements of the operation.[34]

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[34] General Order 108-00.

Table 37: Annual SWAT Callouts

Year	Number of SWAT Callouts
2014	4
2015	5
2016[35]	5

A Lieutenant designated as Patrol Administrator is responsible for the implementation of the Department's body-worn camera program as well as other technology used by patrol personnel, including electronic control devices (TASERs), mobile digital terminals (MDTs), and radios. This position also oversees the Crisis Negotiation Team, the Crime Prevention Unit, and the Fleet Maintenance Officer.

The Crisis Negotiation Team (CNT)[36] comprises three sergeants and seven police officers who are trained to communicate with subjects holding hostages or threatening violence, such as barricaded suspects or emotionally disturbed persons. Like SWAT, the team is a part time assignment, and members are mobilized from their regular assignments when needed. They train monthly. Much of the team's equipment, such as a vehicle used to transport equipment to incident scenes, has been funded through asset forfeiture and Police Foundation money. CNT is typically mobilized two to three times per year.

One police officer is designated as the Fleet Maintenance Officer for patrol vehicles. The officer maintains maintenance records and liaisons with the Public Works Fleet Maintenance operation (City Yard) to coordinate service and repairs.

The Crime Prevention Unit has an authorized strength of one Sergeant and six Police Officers and is currently staffed by one Sergeant and four Police Officers. It has experienced several changes in its mission and focus, as well as in its staffing level, which has ranged from two to six officers. The unit was originally part of the Neighborhood Services Bureau. Members are trained and certified in commercial and residential security surveys, public presentations, and CPTED (Crime Prevention Through Environmental Design). In addition to their community outreach and crime prevention education duties, the unit's officers were assigned to address issues in four distinct geographical areas, generally focused on public housing developments. Officers maintained a neighborhood presence from substations located in the developments, and continued in their secondary public outreach role. The unit was subsequently shifted to address conditions on the Downtown Mall. When staffing shortages depleted resources in the Field Operations Division, the unit was reassigned to patrol and utilized to address conditions as they arose in specific areas. When requests for community presentation duties and crime prevention surveys increased, the unit's focus was redirected more to that. Currently, most of its work centers on responding to requests for special events, community meetings, and crime prevention surveys. The Crime Prevention Unit Sergeant organizes community events and outreach programs, such as the Citizens' Police Academy and the Cops for Kids Program. The Sergeant also handles the assignment of off duty overtime, oversees maintenance of the Department's bicycles, and directly oversees the Fleet Maintenance Officer.

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[35] 2016 callouts reflect activity as of October 2016.

[36] CNT is separate from Crisis Intervention Training (CIT), a training program administered by a non-sworn employee assigned to the Chief Financial Officer.

One Captain supervises the **Support Services Division**,[37] which oversees the Department's investigative and administrative functions, including the Administrative Services Bureau, the Neighborhood Services Bureau, the Public Information Officer (which is actually a dual role for the Commander of the Neighborhood Services Unit), the General Investigations Bureau, and the JADE Narcotics Task Force. Consequently, the Captain has four direct reports: the Lieutenants who command each of those bureaus. Subunits of the bureaus include the School Resource Officer Unit, the Traffic Unit, Staff Development and Accreditation, Information Management Services, the Technical Investigation Support Unit, and the Forensic Unit.

The Administrative Services Bureau is commanded by a Lieutenant who has two direct reports: a sergeant who supervises the Staff Development and Accreditation Unit, and a civilian supervisor who is in charge of the Information Management Services Unit.

The Staff Development and Accreditation Unit, which is supervised by a Sergeant, has two sections: Accreditation and Staff Development. The Department is accredited by the Virginia Law Enforcement Professional Standards Commission; one police officer who is designated as the Accreditation Manager maintains the records required by the accreditation process to ensure that the Department is prepared for the reaccreditation assessment conducted by a team of independent assessors every three years. The Department was re-accredited in October 2016.

Staff Development is responsible for ensuring that members of the Department receive the appropriate level of training. Police Officers are required to complete 40 hours of in-service training biannually.[38] A Police Officer assigned as the Training Manager ensures that all members are in compliance with that requirement and that all certifications or qualifications specific to their positions are maintained.

The unit is also responsible for recruitment and for pre-employment testing of candidates. The Department's testing process consists of a day of testing that includes a physical agility examination, written examination, and mock interview. Examinations are scored by an independent agency. Successful candidates are invited to a formal interview. In addition to the Sergeant and the Training Manager, a part-time sworn officer assists with background investigations, recruitment, and testing, and also serves as an instructor.[39]

The Information Management Services Unit is responsible for records management. It is staffed by one Supervisor and 10 Police Records Specialists (PRS) and operates around the clock. The staff works eight hour shifts, with four PRSs assigned to the Daylight Shift, three to the Evening Shift, and three to the Midnight Shift.[40] The unit is responsible for input of all incident, arrest, and accident reports into the Department's records Management system; warrant, Virginia Criminal Information Network (VCIN) and National Crime Information Center (NCIC) database entries; trespassing notices; conducting warrant checks and clearances; coordinating taxicab license examinations and inspections (which are done by the Traffic Unit); preparing documents needed for court; and handling telephone and walk-in traffic. PRSs monitor two windows for transaction of business: a front window for members of the public and a side window for court personnel,

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[37] The Captain assigned to the Support Services Division was promoted to the rank of Deputy Chief effective October 10, 2016, leaving that position vacant pending promotion of a Captain.

[38] General Order 37-99, referencing Department of Criminal Justice Services requirements.

[39] The officer is the lead instructor for a course entitled "Police and the Teenaged Brain."

[40] Maintaining full staffing has reportedly been challenging. The tenth PRS was recently hired, bringing the unit to full staffing, which has increased Daylight Shift staffing from 3 to 4 and Midnight Shift staffing from 2 to 3.

attorneys, and police officers. They are the first point of contact for visitors to Police Headquarters, 24 hours a day.

Most reports are handwritten by patrol officers and entered into the system by PRSs; paper file copies are maintained. The Department's current records management system, PISTOL 2000, is in the process of being replaced by a new program from New World Systems.

The Neighborhood Services Bureau is commanded by a Lieutenant who serves in the additional roles of Public Information Officer and SWAT Commander. As the Public Information Officer he responds to media inquiries both on and off-duty. A media report generated by the records management system is sent to all local media outlets daily at 6:00 AM listing incidents handled during the preceding day. The Department created a Facebook page in March, 2016, which is used to publicize news, community events and safety tips. As SWAT Commander, the lieutenant reports to the Field Operations Captain; that role was discussed previously. The lieutenant has two direct reports: the School Resource Officer Unit Sergeant and the Traffic Unit Sergeant.

The authorized staffing of the School Resource Officer Unit is one Sergeant, four Police Officers, and three Community Service Officers (CSOs). Three CSOs are currently assigned; the fourth was reassigned to other duties.

The School Board pays a portion of SRO salaries pursuant to a memorandum of understanding that spells out their role: they do not enforce school rules, but maintain a secure environment in the schools and build positive relationships with the students. The School Board funds the positions shown in the table below.

Table 38: School Board School Resource Officer Funding

Position	School Board Funding Amount[41]
SRO Sergeant (1)	50% of pay and benefits
SRO Police Officer (2)	100% of pay and benefits
SRO Police Officer (1)	$20,000 reimbursement
CSO (1)	100% of pay and benefits

Police Officers are assigned to Walker Upper Elementary School (Grades 5 and 6); Buford Middle School (Grades 7 and 8) and two are assigned to Charlottesville High School. CSOs are assigned to Buford Middle School, Charlottesville High School, and Lugo McGinness School, a small, non-traditional academy serving grades seven through twelve. The officer assigned to Walker Upper Elementary School responds to the City's six elementary schools as needed. The unit began a program at the beginning of the current school year known as "Lunch With a Cop," in which SROs visit elementary schools and introduce themselves to students during lunch periods.

The Traffic Unit is responsible for traffic and parking enforcement, school crossings, and special events under the supervision of a Sergeant.

Parking Enforcement is conducted by four CSOs under the supervision of a CSO Corporal, normally working from 7:00 AM to 3:00 PM. They are vehicle-based, patrolling in marked sport utility vehicles, and use portable printers linked to a cell phone application. They assist patrol with vehicle accidents, disabled vehicles, escorts, and special events such as parades, football games,

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[41] Memorandum of understanding with the Charlottesville School Board, July 1, 2015.

basketball games, and concerts. During the last fiscal year, they issued 18,738 citations resulting in revenue to the General Fund of $435,585.00.

The CSO Corporal also supervises part time School Crossing Guards who perform morning and afternoon crossings. Seven School Crossing Guard positions are authorized; six are currently employed. Crossings are covered at Clarke Elementary School; Buford Middle School; Jackson-Via Elementary School; Johnson Elementary School; and Greenbrier Elementary School. The position covering Venable Elementary School is vacant. The Department is seeking approval to add one additional School Crossing Guard at Walker Elementary School.

Two Police Officers are assigned to traffic enforcement. One works from 6:00 AM to 2:00 PM, and the second from 8:00 AM to 4:00 PM. They spend the majority of their patrol time on motorcycles, weather permitting, and much of their deployment is complaint-driven.

The Traffic Unit handles planning for special events, particularly those held at the John Paul Jones Arena and the University of Virginia.

The General Investigations Bureau, commanded by a Lieutenant, consists of three units: Investigations, the Forensic Unit, and the Technical Investigative Support Unit.

The Investigations Bureau is responsible for investigation of crimes. In addition to the Lieutenant, its authorized strength is two Sergeants, 11 Detectives, and one police officer assigned as an Armorer and Fleet Maintenance Officer for Support Services Division vehicles. There is currently one vacancy in the unit.

Four Detectives are assigned to major case investigations. Three are assigned to special victims' cases, particularly investigations involving juveniles. Two Detectives are assigned to Burglary investigations, and one is assigned outside the unit in an FBI Task Force specializing in gang investigations.

The Technical Investigative Support Unit provides technical expertise to support investigations. It performs computer and cell phone forensic examination; obtains and processes video footage; installs cameras and alarms; and assists in surveillance. Although it is intended to be an investigative support unit, its duties have expanded as it has been drawn into many aspects of technical support throughout the Department. The Technical Investigative Support Unit is staffed by two Detectives.

The Forensics Unit is staffed by one Sergeant, two Detectives, and two non-sworn Forensic Support Specialists. The unit serves as the Department's Evidence and Property custodian, processing and storing all property taken into the possession of the agency. It also processes crime scenes. The unit's permanent staff are the lead forensic investigators, processing major crime scenes, assisted by eight Patrol Evidence Technicians who complete a 40 hour in-house training course and process routine scenes. The Unit is housed in a section of the City Hall building removed from the main police facility.

The Jefferson Area Drug Enforcement Task Force – referred to as JADE – is a joint task force commanded by a Charlottesville Police Department Lieutenant, who reports to the Support Services Captain. It is staffed by one Lieutenant, one Sergeant, and four Detectives from the Charlottesville Police Department; one Sergeant and three Detectives from the Albemarle County Police Department; one Detective from the University of Virginia Police Department; and one Special Agent from the Virginia State Police. Although the unit commander reports to the Support

Services Division Captain, the Task Force itself reports to a board made up of representatives of all participating agencies. The board elects a chairperson annually. The unit works from an off-site location conducting narcotics investigations in Charlottesville and the surrounding area. During the past five years, the unit has averaged 290 investigations annually, resulting in an average of 246 arrests, of which 171 were in Charlottesville and 75 in the surrounding areas.

Dispatch and Workload

The Albemarle County Emergency Communications Center (ECC) serves as the City's Public Safety Answering Point for 911 calls and provides dispatch services to the Department.

Members of the Department responded to 41,332 calls for service in 2015, a decrease of approximately seven percent since 2013.

Table 39: Annual Police Department Calls for Service

Year	Number of Calls
2013	44,459
2014	45,308
2015	41,332

While Calls for Service account for a majority of the Department's workload tasks, the Department also provided information regarding arrests, traffic stops, and other activities performed between 2013 and 2015. A table indicating the total number of activities over this timeframe is below, including a yearly average. A breakout of these activities by year was not readily available.

Table 40: Workload Statistics, 2013-2015 Total

Performance Measure	2013-2015 Total	Annual Average
Calls for Service	131,099	43,700
Arrests	6,005	2,002
Traffic Stops	14,681	4,894
Driving Under the Influence (DUI) Stops	225	75
Traffic Citations Issued	8,985	2,995
Criminal Investigations Conducted	10,333	3,444

Crime Trends

The Charlottesville Police Department has made great progress in reducing crime in the City. A review of FBI Crime Statistics from 2006 through 2015[42] indicates that violent crime has decreased in all major categories, and overall has dropped 46%.

Table 41: Violent Crime UCR Data, 2006-2015

Violent Crime Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Percent Change
Murder and Non-negligent Manslaughter	3	3	5	0	3	1	2	1	5	2	-33%
Forcible rape	30	26	23	35	29	27	17	20	16	18	-40%

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[42] FBI Uniform Crime Reports, "Crime in the United States," 2006 - 2015

Violent Crime Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Percent Change
Robbery	77	93	79	88	51	59	50	63	39	48	-38%
Aggravated assault	212	151	112	124	112	96	129	127	131	107	-50%
Violent Crime Total	322	273	219	247	195	183	198	211	191	175	-46%

Likewise, all categories of property crime have decreased, with an overall reduction of 47% during the same period.

Table 42: Property Crime UCR Data, 2006-2015

Property Crime Type	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Percent Change
Burglary	316	278	186	184	163	114	162	200	173	187	-41%
Larceny-theft	1675	1524	1616	1763	1443	1252	1246	1218	1100	918	-45%
Motor vehicle theft	183	136	148	123	87	101	94	53	83	52	-72%
Arson[43]	12	10	13	9	5	5	9	5	1	4	-67%
Property Crime Total	2,186	1,948	1,963	2,079	1,698	1,472	1,511	1,476	1,357	1,161	-47%

It has done so in an environment that extends beyond the City's usually cited population of 46,597. The United States Census figures (2006 – 2010) indicate that the City's daytime population increases by some thirty-seven percent, to 58,069.[44] In addition, Charlottesville is home to the University of Virginia, with a student enrollment of 23,883.[45]

Policing in a college town presents unique challenges. Although the University has its own Police Department, its jurisdiction is limited to University property and a joint patrol area in the vicinity of the University where the University Police Department can take enforcement action. The Department maintains a close working relationship with the UVA Police Department; the two agencies share a firearms training center with the Albemarle County Police Department, they share access to a storefront substation in an area known as "the Corner," which is frequented by large groups of students; and the University Police Department is represented in the JADE Task Force. However, the Charlottesville Police Department is responsible for the safety and security of thousands of young adults, most of whom are new to independent living, using the City's retail, recreational, and cultural facilities and seeking entertainment off campus.

As prior experience has shown, incidents involving students can quickly draw national attention. Policing in a college town involves all of the demands associated with serving any sizeable, culturally and economically diverse community, while being aware of the "town and gown" dynamic and being prepared to respond to major events, critical incidents, social activism, and a large segment of the population that changes every four years. It requires a Police Department that is skilled, well trained, and equipped to handle the rigors of law enforcement in such a complex community.

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[43] While arson incidents are included in property crime totals in this table, the FBI does not typically include arsons in property crime totals because of limited participation and varying collection procedures by local law enforcement agencies.
[44] United States Census Bureau, Commuter Adjusted Daytime Population 2006-2010
[45] *U.S. News and World Report* College Rankings, 2016.

Organizational Structure

To some extent, an organization is a living thing. It expands and contracts as duties and responsibilities are added or as funding shrinks. As positions, units, and titles are added, they may be placed randomly, or their functions may change over time. Twenty-five years ago, the importance of technology and the staff needed to manage it were not even distant thoughts for many Departments. Ten years ago, as police agencies focused on crime reduction, many did not anticipate the current shift to a community service model. The organizational structure of a police department must be re-examined periodically and updated as needed.

In conducting that reassessment, care must be taken to ensure that the structure is lean, effective, and suited to the agency's needs. An organization should not be top heavy and full of silos; conversely, an organization that is too flat may lead to an insufficient chain of command, unequal representation of certain segments, and poor communication. It is important to avoid rank inflation – such as when work can be done by a Sergeant but the position is elevated to a higher rank. In the current climate, the organizational structure must recognize the nationwide shift from an enforcement orientation to a greater emphasis on community policing and outreach. It must acknowledge that the position of Chief of Police is changing as well, as the need to meet community outreach obligations and maintain a high profile outside of police headquarters reduces chiefs' availability for hands-on management of routine matters. That creates a need for greater involvement of a command staff in the daily operations of the Department.

The Charlottesville Police Department's current structure as described previously presents several organizational challenges, including:

- The command structure is flat for a department of the Charlottesville Police Department's size. Two Captains report directly to the Chief of Police, without a Deputy Chief to coordinate their activities and perform tasks that can appropriately be delegated to a Deputy Chief to allow the Chief to function more effectively in a community relations and policy-making role.
- There is some capacity for additional upper management to maximize organizational effectiveness.
- Functional areas can be placed more effectively within the organization. The existing Support Services Division, for example, includes administrative functions, enforcement and outreach functions, and investigations. The Field Operations Division has assumed some technical support responsibilities.
- The Crime Prevention Unit, currently part of the Field Operations Division, has been without a clear mission and focus.
- Duties overlap exists in some areas. As an example, three people oversee aspects of the vehicle fleet: a Police Officer who manages Field Operations Division vehicles, a Police Officer who serves as an armorer and manages Support Services Division vehicles, and a Patrol Sergeant who oversees procurement and installation of vehicle equipment.

While these challenges have affected operations in recent years, the Department is in the midst of a transition which substantially changes the structure of the agency and addresses many of these issues. The current Chief of Police was appointed in May 2016, following the retirement of a chief who had served for 15 years. Effective October 12, 2016, the Department began a major restructuring effort by promoting a Captain to the position of Deputy Chief. Promotional processes have begun for the promotion of a third Captain, as well as a Captain to replace the recently promoted Deputy Chief and lieutenants and sergeants to fill the resulting vacancies in those ranks. Other operational and structural changes are expected to occur effective January 1, 2017,

including shifting supervisory responsibilities for the Field Operations and Support Services Divisions to the Deputy Chief, along with a newly created Criminal Investigations Division.

The proposed organization chart is shown below.
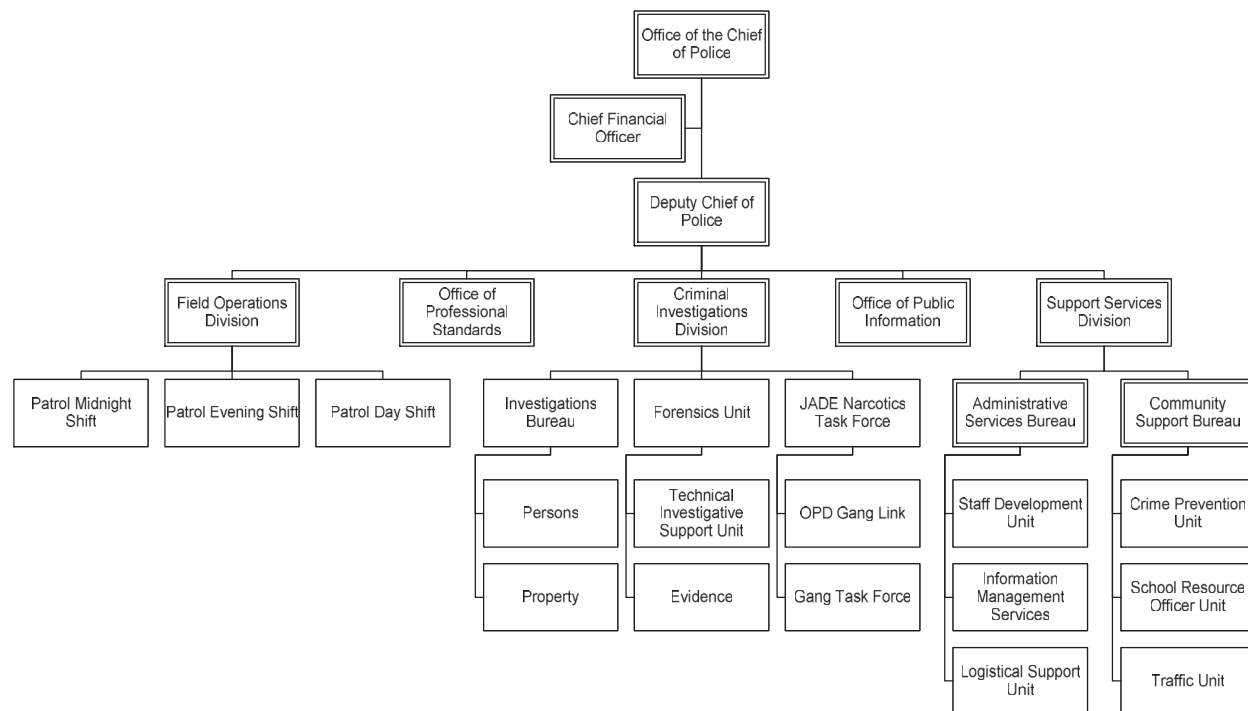
Figure 25: Proposed Organization Chart, effective January 1, 2017

RECOMMENDATION 57: Adopt the proposed organizational restructuring creating three functional divisions within the Police Department.
The proposed restructuring formally creates the new position of Deputy Chief and reorganizes the Department into three functional Divisions, each headed by a Captain.

The Executive Assistant (formerly Administrative Assistant), the Chaplain, and the Chief Financial Officer continue to report to the Chief. The Chief Financial Officer retains oversight of Accounts Payable/Receivable/Payroll and Procurement (formerly Quartermaster).

In addition to three Captains, the following will report to the Deputy Chief: the Crisis Intervention Training (CIT) Coordinator; the Public Information Officer, who formerly reported to the Support Services Division; and the Professional Standards Unit, command of which will be upgraded from a Sergeant to a Lieutenant and which will oversee the Accreditation Manager, previously part of the Staff Development Unit, and the Crime Analyst, previously assigned to the Chief.

The Field Operations Division will consist of the three patrol shifts. The K9 Unit will be part of the Evening Shift, and the Telephone Reporting Unit will continue to be attached to the Daylight Shift.

All investigative functions will be consolidated under a newly created Criminal Investigations Division, commanded by a Captain. The Division will have three bureaus, each commanded by a Lieutenant. The Investigations Bureau will have two subunits: Crimes Against Persons and Property Crimes. The Forensic Bureau will retain Forensics and Evidence/Property management,

and will add the Technical Investigations Unit, which will focus solely on technical investigative support. The JADE Task Force will oversee the Detective assigned to the FBI Gang Task Force, who will move from General Investigations. It should be noted that the Forensic Unit has been supervised by a Sergeant, and the proposed structure creates a new Lieutenant position. However, the Forensic Unit will include the former Technical Investigative Support Unit, and all three investigative bureaus will be equally represented at the rank of Lieutenant.

The Support Services Division will consist of two bureaus. The Administrative Services Bureau will oversee the Staff Development Unit, Information Management Services (Records), and a Logistical Support Unit, which will provide general technical support and will assume many of the duties now performed by the Patrol Administrative Lieutenant, such as body cameras and computers. Fleet management will be consolidated under the Administrative Services Bureau. The Community Services Bureau will essentially replace the former Neighborhood Services Bureau. It will include the Crime Prevention Unit, the School Resource Officer Unit, and the Traffic Unit. The bifurcated event planning process, under which various aspects of event planning were split between the Crime Prevention Unit and the Traffic Unit, will be brought under one umbrella. The Crime Prevention Unit is expected to have a more defined role involving proactive outreach, arranging community outreach meetings, performing crime prevention surveys and public education, and enhancing collaboration between the Police Department and the community.

This reorganization will result in an increase of one Lieutenant; however, that will be an upgrade from a Sergeant position, resulting in no increase in the Department's headcount.

This reorganization plan addresses the observed deficiencies in the existing command structure. It realigns areas of responsibility to function more efficiently, and it eliminates overlap and duplication of duties with minimal impact on the Department's overall staffing level.

Patrol Staffing

Analysis of police patrol staffing levels involves many factors. The most basic element is the volume of calls for service. Staffing levels are impacted by community expectations for enforcement; the level of crime in a community; traffic patterns; community characteristics such as population, density, and socioeconomic character; daytime population increases; the presence of educational, religious, medical, and cultural institutions; and development activities. Although determining appropriate staffing can be a challenge, governing bodies must ensure that public safety agencies can appropriately respond to any contingency, while funding them in a way that ensures the future affordability of services.

The core responsibility of a police department is the work performed by its patrol division, which is generally responsible for basic patrol and response to emergency calls for service, traffic enforcement, preliminary investigation, and suppression of crime. Every community handles these core functions in a slightly different way. There are a wide of variety of shift schedules, minimum staffing goals, and deployment schemes which departments may employ to effectively and efficiently allocate patrol staff.

The goal of a patrol staffing analysis is to identify staffing levels and deployment practices that provide adequate coverage given an agency's workload, as measured by Directed Calls for Service (DCFS). Effective departments balance these workload obligations while also enabling officers to engage in proactive policing. Proactive policing affords an agency the opportunity to identify problem areas or conditions, develop and implement strategies to address those conditions, establish relationships with businesses and members of the community, and gather intelligence. Proactive policing is also known as Community Policing, Problem Solving Policing,

Data-Driven Policing, or by similar labels. Regardless of the term used, it creates opportunities for the department to strategically deploy resources and includes such practices as targeted patrols, narcotics enforcement, traffic enforcement, and community outreach.

While a community's proactive policing standard of service is a policy decision, the International Association of Chiefs of Police recommends that at least 33% of an officer's time be allocated to proactive policing. The remaining two-thirds of the officer's time should be divided equally between response to calls for service and administrative duties. In other words, an officer should spend about 20 minutes of each hour on calls for service, 20 minutes on the resulting administrative tasks (such as preparation of reports), and 20 minutes on proactive policing.

To determine a department's ability to meet the 33% goal for proactive policing, call data must be exported from the Computer Aided Dispatch (CAD) system and then analyzed to determine how much of officers' time is absorbed responding to DCFS by hour of the day and day of the week.

The Charlottesville Police Department relies on Albemarle County for CAD services and provided DCFS data from January 1, 2013 to December 31, 2015. By analyzing this information, it is possible to monitor crime trends, track workload, and inform shift schedule and staffing decisions. In particular, this data directly informs calculations regarding the number of patrol officers necessary to handle the Department's call volume.

It is essential to filter and clean data provided from the CAD system prior to beginning analysis, because this data frequently contains outliers, errors, and other information which may skew results. The CAD data provided by the Charlottesville Police Department contained approximately 128,000 individual call records. Approximately 247 of these records were excluded due to errors in tracking time related to dispatch or arrival, response times in excess of 10 hours (the length of one patrol shift), and/or call completion times in excess of 24 hours.

Additionally, calls which featured responses from sergeants, lieutenants, captains, the Deputy Chief, and the Chief of Police were also excluded from this analysis. These positions are primarily responsible for providing supervision and backup on calls and do not constitute regular first responders to patrol calls. In order to accurately determine the workload attributable to patrol staff, approximately 3,116 records attributable to these staff were excluded.

Finally, calls were categorized as reactive, proactive, or administrative in order to filter out low priority calls and gain a better sense of the Department's reactive calls for service workload (e.g., calls reporting an accident or crime in progress). This categorization was performed in consultation with Department staff and was based on each call's disposition type as recorded by officers. A conservative approach was utilized in order to balance proactive and reactive activity as fairly as possible. Below is a summary of that detail which shows the total number of reactive, proactive, and administrative calls for the purposes of this analysis.

Table 43: Number of Calls Categorized as Reactive, Proactive, or Administrative, January 2013-December 2015

Call Disposition Type	2013	2014	2015
Administrative	972	1,111	1,042
Proactive	12,401	12,089	9,306
Reactive	29,928	31,005	26,581
All Calls Total	43,301	44,205	36,929

Approximately 70% of the Department's calls can be characterized as reactive, while 27% are proactive and 3% are administrative. In total, the Department spent over 5.4 million minutes of officer time responding to calls from 2013 to 2015, and over 76% of this response time was spent reactively responding to calls.

RECOMMENDATION 58: Implement a 12-hour shift schedule to create staff capacity for proactive policing efforts.

By analyzing the average amount of time that is absorbed responding to calls each hour of each day, it is possible to determine how many officers are needed to meet a proactive policing standard of 33%. For example, if officers were to spend an average of 20 minutes responding to calls each hour, then only one officer would need to be on duty because 20 minutes is 33% of 60 minutes. If officers were to spend between 21 and 40 minutes responding to calls each hour, then two officers would need to be on duty to handle the workload. While other factors must be considered, such as the need for an appropriate level of backup for officers on patrol, this staffing guideline is appropriate to determine a baseline for basic staffing. Once these coverage baselines are determined, it is possible to directly compare various staffing and scheduling options to determine the most efficient allocation of staff resources.

The following table shows the average number of minutes Charlottesville officers spend responding to calls each hour of each day of the week. This time is categorized according to when a call was dispatched and includes all time necessary to respond to the call and mark it as cleared.

Table 44: Average Minutes Spent Responding to Calls for Service by Day of the Week

Hour of the Day	Minutes Spent Responding to Calls						
	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
12AM - 1AM	154	270	140	104	75	96	44
1AM - 2AM	116	209	188	79	68	87	94
2AM - 3AM	119	244	230	76	65	97	84
3AM - 4AM	77	155	152	39	43	59	47
4AM - 5AM	43	103	91	31	37	28	37
5AM - 6AM	42	92	55	38	35	32	41
6AM - 7AM	44	62	49	59	68	56	49
7AM - 8AM	122	72	49	136	127	135	100
8AM - 9AM	230	104	89	175	220	271	219
9AM - 10AM	192	128	113	174	196	215	219
10AM - 11AM	244	196	125	225	195	179	222
11AM - 12PM	239	196	154	213	215	199	209
12PM - 1PM	258	205	193	244	195	216	214
1PM - 2PM	255	208	164	227	231	256	218
2PM - 3PM	231	212	169	232	236	215	227
3PM - 4PM	242	216	191	266	251	217	256
4PM - 5PM	248	167	148	240	257	248	240
5PM - 6PM	314	185	163	233	239	250	251
6PM - 7PM	205	145	161	203	197	186	198
7PM - 8PM	177	157	186	164	192	195	174
8PM - 9PM	178	154	153	176	172	181	173

Hour of the Day	Minutes Spent Responding to Calls						
	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
9PM - 10PM	168	163	161	151	172	184	183
10PM - 11PM	187	165	138	166	162	157	176
11PM - 12AM	220	210	119	136	131	110	164

A few notable patterns emerge from this data. Call activity is low from midnight to approximately 7:00 AM during the week (Monday through Thursday), but call activity spikes between 1:00 AM and 3:00 AM on the weekends (Friday through Sunday) before falling off. Department staff attribute this increase to a variety of factors, including the City's nightlife and incidents related to student activities on the weekends.

Secondly, daytime call activity is a significant time obligation for the Department. In general, daytime calls tend to represent a higher time obligation for officers due to the nature of reactive activities that occur in the daytime, such as filing accident reports and other incidents which involve heavier amounts of administrative paperwork, as well as a heavier traffic volume that affects travel time to calls.

In short, weekdays are generally busier for the Department during daylight hours, and weekends are busier after 11:00 PM until approximately 7:00 AM. The following figure illustrates this pattern.
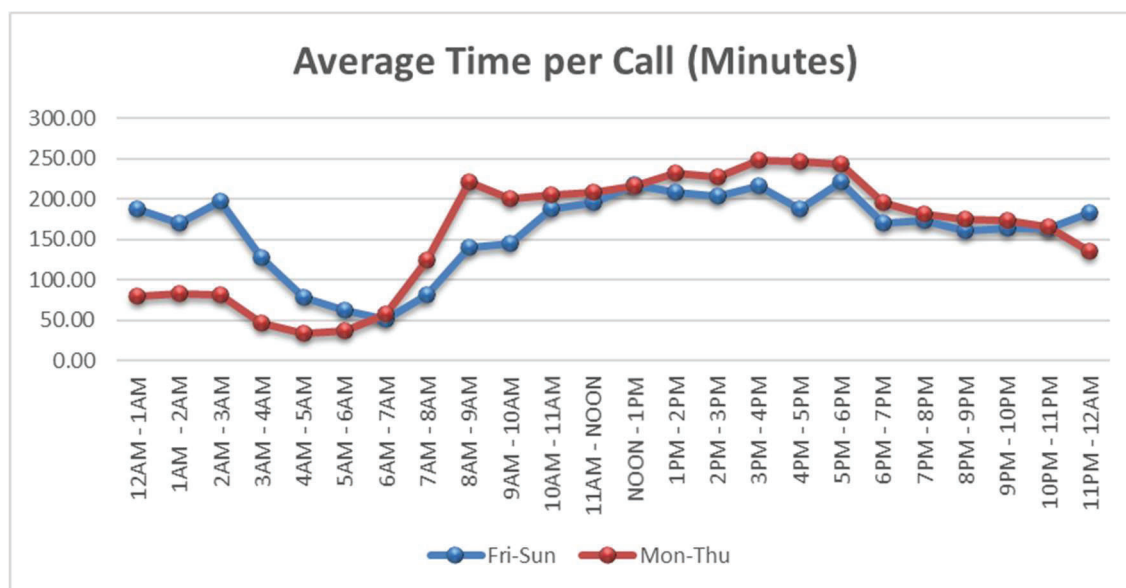
Figure 26: Average Minutes Responding to Calls during the Week and on Weekends, January 2013 – December 2015

Dividing this hourly call workload in the previous table by 20 minutes yields the number of officers needed during that time in order to provide a proactive policing standard of 33%. This calculation is particularly useful for determining whether the Department's current staffing practices appropriately align call volume with scheduled staff. The following table illustrates the minimum number of officers needed to provide proactive policing coverage 33% of the time during each hour of the week.

Table 45: Officers Needed to Provide Proactive Coverage Based on Available Call Data, January 2013 – December 2015

Time Period	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday
12AM - 1AM	8	14	8	6	4	5	3
1AM - 2AM	6	11	10	4	4	5	5
2AM - 3AM	6	13	12	4	4	5	5
3AM - 4AM	4	8	8	2	3	3	3
4AM - 5AM	3	6	5	2	2	2	2
5AM - 6AM	3	5	3	2	2	2	3
6AM - 7AM	3	4	3	3	4	3	3
7AM - 8AM	7	4	3	7	7	7	6
8AM - 9AM	12	6	5	9	12	14	11
9AM - 10AM	10	7	6	9	10	11	11
10AM - 11AM	13	10	7	12	10	9	12
11AM - 12PM	12	10	8	11	11	10	11
12PM - 1PM	13	11	10	13	10	11	11
1PM - 2PM	13	11	9	12	12	13	11
2PM - 3PM	12	11	9	12	12	11	12
3PM - 4PM	13	11	10	14	13	11	13
4PM - 5PM	13	9	8	13	13	13	13
5PM - 6PM	16	10	9	12	12	13	13
6PM - 7PM	11	8	9	11	10	10	10
7PM - 8PM	9	8	10	9	10	10	9
8PM - 9PM	9	8	8	9	9	10	9
9PM - 10PM	9	9	9	8	9	10	10
10PM - 11PM	10	9	7	9	9	8	9
11PM - 12AM	11	11	6	7	7	6	9

As stated previously, the Department currently utilizes three 10-hour shifts with overlapping schedules. Minimum patrol staffing varies by day and shift. Target staffing for sergeants is two per tour, although the minimum is one. The Day shift reports from 7:30 AM to 5:30 PM each day, and the Department's minimum staffing for this shift consists of nine officers. The Midnight shift reports from 10:00 PM to 8:00 AM each day, and the Department's minimum staffing for this shift consists of six officers during the week and eight on weekends. The Department's swing shift, the Evening shift, reports from 3:00 PM to 1:00 AM Sunday through Thursday, and from 5:00 PM to 3:00 AM Friday and Saturday. This offset schedule is intended to help the Department more effectively respond to weekend incidents. The Department's minimum staffing for this shift varies daily, and includes nine officers on Sundays and Thursdays, eight officers Mondays through Wednesdays, and ten officers on Fridays and Saturdays. Currently, the Department is authorized to maintain 20 officers on Day Shift, 21 officers on Evening Shift, and 17 officers on Midnight Shift, for a total of 58 officers.

For deployment purposes, the City is divided into eight Districts. District 4, which is the Downtown Mall, is within the confines of District 3. It is normally covered by two CSOs between 10:00 AM and 6:00 PM Tuesday through Saturday. On Friday and Saturday evening shifts, the additional officer assigned to the shift is assigned to the Mall, and the Midnight Shift also assigns an officer; a police officer is also assigned on the Sunday Evening Shift if resources permit. Two Districts, 7 and 8, are normally combined. Additional officers are assigned to City-wide van posts, traffic and warrant posts during the Evening Shift, "umbrella" posts, or bicycle patrol.

While this deployment schedule provides more than adequate coverage for events occurring between 10:00 PM and 8:00 AM each day, it leaves insufficient coverage from 8:00 AM to 10:00 PM to fully cover proactive policing efforts. To determine this, the number of officers needed to staff proactive policing efforts was compared to the Department's current staffing practices, including shift overlaps. Subtracting the number of officers needed to proactively police from the number of officers scheduled each hour illustrates areas where proactive policing is over or under-scheduled.

The following table illustrates this pattern. Numbers in black represent hours where the Department has adequate coverage to staff proactive policing functions 33% of the time. Numbers in red parentheses indicate hours where the Department's staffing does not allow all shift staff to effectively dedicate 33% of their time to proactive policing efforts.

Table 46: Proactive Policing Availability – Current Schedule, 2016

Proactive Policing Over/(Under) Scheduled	Week 1							Week 2						
	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
12AM - 1AM	12	8	12	11	16	17	15	11	7	10	11	14	16	16
1AM - 2AM	14	11	10	13	16	17	13	13	10	8	13	14	16	14
2AM - 3AM	14	9	(2)	5	6	4	3	13	8	(2)	5	4	4	3
3AM - 4AM	5	3	2	7	7	6	5	4	2	2	7	5	6	5
4AM - 5AM	6	5	5	7	8	7	6	5	4	5	7	6	7	6
5AM - 6AM	6	6	7	7	8	7	5	5	5	7	7	6	7	5
6AM - 7AM	6	7	7	6	6	6	5	5	6	7	6	4	6	5
7AM - 8AM	10	16	17	13	13	13	11	10	16	16	13	12	12	11
8AM - 9AM	(4)	3	5	2	(2)	(3)	(2)	(3)	4	4	2	(1)	(4)	(2)
9AM - 10AM	(2)	2	4	2	0	0	(2)	(1)	3	3	2	1	(1)	(2)
10AM - 11AM	(5)	(1)	3	(1)	0	2	(3)	(4)	0	2	(1)	1	1	(3)
11AM - 12PM	(4)	(1)	2	0	(1)	1	(2)	(3)	0	1	0	0	0	(2)
12PM - 1PM	(5)	(2)	0	(2)	0	0	(2)	(4)	(1)	(1)	(2)	1	(1)	(2)
1PM - 2PM	(5)	(2)	1	(1)	(2)	(2)	(2)	(4)	(1)	0	(1)	(1)	(3)	(2)
2PM - 3PM	(4)	(2)	1	(1)	(2)	0	(3)	(3)	(1)	0	(1)	(1)	(1)	(3)
3PM - 4PM	(5)	(2)	10	5	7	13	6	(4)	(1)	7	5	8	11	7
4PM - 5PM	(5)	0	12	6	7	11	6	(4)	1	9	6	8	9	7
5PM - 6PM	3	10	11	7	8	11	6	4	11	8	7	9	9	7
6PM - 7PM	0	3	1	(3)	0	3	0	0	3	(1)	(3)	0	2	1
7PM - 8PM	2	3	0	(1)	0	3	1	2	3	(2)	(1)	0	2	2
8PM - 9PM	2	3	2	(1)	1	3	1	2	3	0	(1)	1	2	2
9PM - 10PM	2	2	1	0	1	3	0	2	2	(1)	0	1	2	1
10PM - 11PM	10	13	13	8	11	14	9	9	12	11	8	9	13	10
11PM - 12AM	9	11	14	10	13	16	9	8	10	12	10	11	15	10

This table demonstrates that during certain hours of the day, the Department overschedules for proactive policing efforts. In particular, the 10:00 PM to 2:00 AM timeframe features an average of 11-13 excess officers, while the 3:00 AM to 8:00 AM period features an average of five to 13 excess officers. In contrast, the daytime period from 8:00 AM to 5:00 PM is under-scheduled by one to two officers, particularly between 10:00 AM and 3:00 PM. In total, there are 76 under-scheduled hours (represented by negative numbers) in the above schedule.

It is important to emphasize that the Department's officers are able to respond to incidents and calls responsively using the current schedule; however, the current schedule does not provide sufficient capacity for officers to consistently devote 33% of their time to proactive policing during most daylight hours. In other words, the table above illustrates periods of time where officers are too busy to engage in proactive policing, and many of these time periods fall between 9:00 AM and 3:00 PM each day. In order to ensure that staff have capacity to proactively police, staffing during these time periods should be increased in order to better align with the Department's call volume.

There are several options for realigning staffing practices with existing call volumes in order to increase officer capacity for proactive policing. The first option is to realign minimum staffing numbers and adjust timeframes under an alternative 10-hour shift schedule. Rather than schedule the existing shift overlap for late evening and early morning, the Department should implement a shift schedule that more effectively addresses staffing needs during the day. This involves modifying minimum staffing as well as shift times as illustrated in the following table.

Table 47: Current Schedule Compared to Alternative 10-Hour Shift Schedule

Shift	Current Schedule	Current Minimum Staffing	Alternative 10-Hour Schedule	Proposed Minimum Staffing
Day Shift	7:30AM to 5:30PM	9	8:00AM to 6:00PM	12
Evening Shift (Sun-Thu)	3:00PM to 1:00AM	8 to 9	1:00PM to 11:00PM	8
Evening Shift (Fri-Sat)	5:00PM to 3:00AM	10	5:00PM to 3:00AM	8
Midnight Shift	10:00PM to 8:00AM	6 to 8	11:00PM to 9:00AM	6

This schedule eliminates much of the under-scheduling for proactive policing created by the Department's current arrangement, and provides additional coverage for peak call volumes during daytime hours. While call volume will still interfere with scheduled proactive policing during certain periods of each day, the number of officers on each shift will still support adequate capacity to respond to calls for service, and will enable most officers to engage in proactive policing efforts.

The following table illustrates the effect of the alternative 10-hour schedule on the availability of staff to engage in proactive policing efforts. Numbers in red parentheses indicate periods when there are fewer officers scheduled than what would be required to ensure that all officers can engage in 33% proactive policing.

Table 48: Proactive Policing Availability – Alternative 10-Hour Shift Schedule

Proactive Policing Over/(Under) Scheduled	Week 1							Week 2						
	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
12AM - 1AM	(2)	1	9	2	3	1	3	(2)	3	10	2	4	2	3
1AM - 2AM	0	4	7	4	3	1	1	0	6	8	4	4	2	1
2AM - 3AM	0	2	5	4	3	1	1	0	4	6	4	4	2	1
3AM - 4AM	2	(2)	(1)	6	4	3	3	2	(1)	0	6	5	4	3
4AM - 5AM	3	0	2	6	5	4	4	3	1	3	6	6	5	4
5AM - 6AM	3	1	4	6	5	4	3	3	2	5	6	6	5	3
6AM - 7AM	3	2	4	5	3	3	3	3	3	5	5	4	4	3
7AM - 8AM	(1)	2	4	1	0	(1)	0	(1)	3	5	1	1	0	0

Proactive Policing				Week 1							Week 2			
Over/(Under) Scheduled	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
8AM - 9AM	6	12	14	11	7	4	7	7	15	17	13	9	5	7
9AM - 10AM	2	5	6	3	2	1	1	3	7	8	5	3	1	1
10AM - 11AM	(1)	2	5	0	2	3	0	0	4	7	2	3	3	0
11AM - 12PM	0	2	4	1	1	2	1	1	4	6	3	2	2	1
12PM - 1PM	(1)	1	2	(1)	2	1	1	0	3	4	1	3	1	1
1PM - 2PM	(1)	1	13	10	9	7	10	0	3	13	9	8	7	9
2PM - 3PM	0	1	13	10	9	9	9	1	3	13	9	8	9	8
3PM - 4PM	(1)	1	12	8	8	9	8	0	3	12	7	7	9	7
4PM - 5PM	(1)	3	14	9	8	7	8	0	5	14	8	7	7	7
5PM - 6PM	5	12	13	10	9	7	8	7	13	13	9	8	7	7
6PM - 7PM	(2)	2	1	(1)	(1)	(2)	(1)	(1)	2	1	(2)	(2)	(2)	(2)
7PM - 8PM	0	2	0	1	(1)	(2)	0	1	2	0	0	(2)	(2)	(1)
8PM - 9PM	0	2	2	1	0	(2)	0	1	2	2	0	(1)	(2)	(1)
9PM - 10PM	0	1	1	2	0	(2)	(1)	1	1	1	1	(1)	(2)	(2)
10PM - 11PM	(1)	1	3	1	0	0	0	0	1	3	0	(1)	0	(1)
11PM - 12AM	4	5	1	1	0	0	(3)	5	6	2	1	1	1	(3)

This schedule achieves two goals with respect to proactive policing: it eliminates significant overscheduling between 10:00 PM and 3:00 AM that occurs under the current schedule, and it provides increased officer coverage during daytime hours. While this schedule does not eliminate all periods where officers will be too busy to engage in proactive policing 33% of the time, it reduces the impact of busy periods on proactive policing efforts. Under this schedule, Evening Shift officers will be less able to perform proactive policing activities between the hours of 6:00 PM and 11:00 PM. However, the number of under-scheduled periods is reduced from 76 to 43, resulting in increased capacity to perform proactive policing activities.

To achieve the minimum staffing levels described in the alternative 10-hour schedule above, the Day Shift will require 22 officers, the Evening Shift will require 16 officers, and the Midnight shift will require 12 officers, for a total of 50 patrol positions. However, it is also necessary to account for leave taken by officers in order to ensure sufficient staff are available to provide for minimum coverage even when staff are sick, on vacation, or otherwise unavailable. This is known as a staffing factor calculation, and provides a complete estimate of the personnel required to effectively staff patrol operations because it accounts for leave taken by patrol personnel.

Completing a staffing factor calculation requires dividing the total hours an officer is assigned to work by the average number of hours a typical officer actually works, after accounting for leave. A 10-hour schedule consisting of four days on, two days off, four days on, and four days off cycles every two weeks and consists of 80 hours each cycle. Over a yearlong period, officers on this schedule will work approximately 2,080 hours each year. This represents the total assigned hours for a patrol officer.

Police officers in Charlottesville have averaged 239 hours of leave each year over the last several years, after accounting for vacation, sick, and other leave. Subtracting these hours from 2,080 assigned hours means officers are actually available to work 1,841 hours each year, on average.

The final step is to divide 2,080 annual hours by 1,841 available hours, which yields a staffing factor of 1.13. This means that for every position required according to the Department's schedule, the Department must hire 1.13 officers to provide adequate coverage.

Staffing factors are applied to patrol staff on a per-shift basis in order to ensure that each shift is assigned sufficient staff to do its work. This helps to ensure that officers do not have to cross shifts. The number of positions on each shift is multiplied by the staffing factor and rounded to the nearest whole number, as illustrated below:

- **Day Shift:** 22 positions needed * 1.13 staff per position = 24.86, or 25 staff required to full staff the shift
- **Evening Shift:** 18 positions needed * 1.13 staff per position = 18.08, or 18 staff required to full staff the shift
- **Midnight Shift:** 12 positions needed * 1.13 staff per position = 13.56, or 14 staff required to full staff the shift

After applying the staffing factor to this proposed schedule, the Day Shift requires 25 officers, the Evening Shift requires 18 officers, and the Midnight Shift requires 14 officers, for a total of 57 officers.

A second scheduling option which improves capacity for proactive policing involves changing to a 12-hour schedule. A 12-hour schedule allows the Department to more efficiently allocate staff in order to address periods of high demand while maintaining capacity for proactive policing efforts. To accomplish this, the Department should create two 12-hour shifts: the Day Shift should operate from 8:00 AM to 8:00 PM, and the Midnight Shift should operate from 8:00 PM to 8:00 AM. Notably, this schedule eliminates the use of an Evening swing shift. The following table compares the proposed 12-hour schedule to the Department's current 10-hour schedule.

Table 49: Current Schedule and Proposed 12-Hour Shift Schedule, 2016

Shift	Current Schedule	Current Minimum Staffing	Proposed 12-Hour Schedule	Proposed Minimum Staffing
Day Shift	7:30AM to 5:30PM	9	8:00AM to 8:00PM	15
Evening Shift (Sun-Thu)	3:00PM to 1:00AM	8 to 9	None	None
Evening Shift (Fri-Sat)	5:00PM to 3:00AM	10	None	None
Midnight Shift	10:00PM to 8:00AM	6 to 8	8:00AM to 8:00PM	10

As indicated in the table above, a minimum staffing level of 15 officers will enable the Day Shift to address peak demand periods with minimal interruption to proactive policing efforts. Similarly, a minimum staffing of 10 officers on the Midnight Shift provides sufficient capacity to cover weekend peaks as well as early morning calls throughout the week. While staffing at this level does not eliminate periods where officers will be too busy to engage in proactive work, it represents the most efficient staffing balance of the schedules compared, and avoids significantly over- or under-scheduling for proactive policing efforts. The effect of this proposed schedule on proactive policing is illustrated in the following table.

Table 50: Proactive Policing Availability – Proposed Schedule for 12-Hour Shifts, 2016

Proactive Policing Over/(Under) Scheduled	Week 1							Week 2						
	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
12AM - 1AM	2	(4)	2	4	6	5	7	2	(4)	2	4	6	5	7
1AM - 2AM	4	(1)	0	6	6	5	5	4	(1)	0	6	6	5	5
2AM - 3AM	4	(3)	(2)	6	6	5	5	4	(3)	(2)	6	6	5	5
3AM - 4AM	6	2	2	8	7	7	7	6	2	2	8	7	7	7
4AM - 5AM	7	4	5	8	8	8	8	7	4	5	8	8	8	8
5AM - 6AM	7	5	7	8	8	8	7	7	5	7	8	8	8	7
6AM - 7AM	7	6	7	7	6	7	7	7	6	7	7	6	7	7
7AM - 8AM	3	6	7	3	3	3	4	3	6	7	3	3	3	4
8AM - 9AM	3	9	10	6	3	1	4	3	9	10	6	3	1	4
9AM - 10AM	5	8	9	6	5	4	4	5	8	9	6	5	4	4
10AM - 11AM	2	5	8	3	5	6	3	2	5	8	3	5	6	3
11AM - 12PM	3	5	7	4	4	5	4	3	5	7	4	4	5	4
12PM - 1PM	2	4	5	2	5	4	4	2	4	5	2	5	4	4
1PM - 2PM	2	4	6	3	3	2	4	2	4	6	3	3	2	4
2PM - 3PM	3	4	6	3	3	4	3	3	4	6	3	3	4	3
3PM - 4PM	2	4	5	1	2	4	2	2	4	5	1	2	4	2
4PM - 5PM	2	6	7	2	2	2	2	2	6	7	2	2	2	2
5PM - 6PM	(1)	5	6	3	3	2	2	(1)	5	6	3	3	2	2
6PM - 7PM	4	7	6	4	5	5	5	4	7	6	4	5	5	5
7PM - 8PM	6	7	5	6	5	5	6	6	7	5	6	5	5	6
8PM - 9PM	1	2	2	1	1	0	1	1	2	2	1	1	0	1
9PM - 10PM	1	1	1	2	1	0	0	1	1	1	2	1	0	0
10PM - 11PM	0	1	3	1	1	2	1	0	1	3	1	1	2	1
11PM - 12AM	(1)	(1)	4	3	3	4	1	(1)	(1)	4	3	3	4	1

Under this schedule, Saturdays between 12:00 AM and 3:00 AM and Sundays between 2:00 AM and 3:00 AM represent periods where call activity will interfere with proactive policing; however, this schedule increases the proactive capacity of officers compared to 10-hour shifts. In order to achieve minimum staffing goals for each shift, the Department will need to fill 30 positions for Day Shift and 20 positions for Midnight Shift.

It is necessary to apply a staffing factor to each shift in order to accurately compare the implications of this schedule with the existing 10-hour schedule. Staff working a 12-hour schedule consisting of two days on, two days off, three days on, two days off, two days on, three days off are available for an estimated 2,196 hours per year. Subtracting 239 leave hours yields 1,957 working hours each year, which results in a staffing factor of 1.12. Applying this factor to each 12-hour shift yields a total staffing estimate of 34 officers for Day Shift and 23 officers for Midnight Shift, for an estimated total staffing of 57 officers.

Because the 12-hour shift schedule more effectively schedules staff to achieve proactive policing, it is recommended that the Department pursue this schedule as an alternative to its current 10-hour shift structure.

It is important to note that this analysis is an evaluation of the Department's capacity to proactively police while engaging in its core function: response to DCFS. There are additional factors that must be considered in determining the appropriate level of staffing for a police department that do not lend themselves to such data driven analysis; they are based on a community's unique needs and tolerances, local knowledge of conditions, and are ultimately dependent on policy decisions. An initial example is the determination of the community's desired level of service. Although the IACP guidelines cited previously call for a minimum of 33% proactive time, many communities choose to staff to a higher level to allow for greater community interaction, quicker response time, or additional patrol capacity such as business district foot patrol.

Geography is a second major consideration. Although a certain number of officers may be sufficient to meet the average calls for service workload, additional officers may be required to provide adequate coverage, visibility, backup, and availability for emergency response. The Charlottesville Police Department, for example, is responsible for an area in excess of 10 square miles, with periodic heavy traffic conditions. Policy determinations regarding staffing should account for sufficient staffing to ensure that adequate and timely backup is available, given the size of a community and the presence of any geographical barriers.

Capacity to respond to unplanned events must also be considered. Charlottesville is a university community, which creates certain demands. It has shopping areas, a central pedestrian mall, a hospital, and numerous bars and entertainment venues. Adequate staffing should be available at appropriate hours to handle the early stages of major incidents to a degree that meets the standards expected by the community and by the governing body.

These factors should be used as an overlay to the statistical staffing model when determining a final staffing level. Its foundation, however, should be adequate, accurate, and reliable data.

Investigations
RECOMMENDATION 59: Track investigative caseload and clearance statistics.
Data regarding basic indicators, such as investigative caseload and clearance rates, is invaluable for investigative units, as it is in all aspects of policing. It provides police and municipal administrators an empirical basis for evaluating performance, making staffing and deployment decisions, and submitting budget, grant, and other funding requests that are supported by facts. It enables elected officials and other decision makers to make informed choices, and validates to residents and businesses the return on their investment of tax dollars.

Two measures generally used to assess investigative work are clearance rates and case load. The clearance rate – essentially the percentage of cases that are solved -- reflects individual performance, as well as the overall performance of a unit in successfully completing investigations. Case load is a measurement that provides a snapshot of the workload of a detective at a given point in time: the number of open cases for which he or she is responsible. Both metrics should be immediately available and reviewed on both a monthly and an annual basis, in order to track short term needs for adjustment of deployment or redistribution of work, long term staffing needs, and performance in both the long and short term.

The General Investigations Bureau has provided basic statistics regarding case intake, as shown in the table below.

Table 51: General Investigations Bureau Case Intake, 2013-2016

Year	2013	2014	2015	2016 YTD[46]
Total cases	902	932	831	552
Arrest	158	150	118	71
Suspended	406	489	412	196
Prosecution declined	59	37	22	13
Victim declined prosecution	16	13	18	8
Unfounded	46	37	28	22
Transferred to other agency	68	68	64	24
Non-Criminal	79	40	40	9
Warrants obtained	2	4	9	9

Note that this data does not accurately track the Division's clearance rate, since many investigations are not opened and closed within a calendar year. Some cases can be closed quickly. Others – particularly those involving serious or complex investigations – can remain open for years.

No data regarding detectives' caseloads in Charlottesville is available; the Department's Records Management System is not configured to produce such information. A cursory review of the data provided indicates that the General Investigations Bureau opened an average of 888.33 cases per year between 2013 and 2015, or 74 cases per month. Since ten Detectives are assigned cases (one additional Detective is assigned to the FBI Task Force), the Bureau opens an average of 7.4 cases per detective per month. However, without additional data, it is impossible to adequately assess whether Detectives' workload is appropriate. There are many factors that enter into such an assessment.

In 2015, for example, 831 cases were opened, and 711 were closed by arrest or other means. Of those cases, 64 were transferred to other agencies. Many computer/technology crimes, such as identity theft and Internet fraud, are referred to other agencies that have better resources for such investigations, an area that is likely to require additional personnel and technological resources in the future, not only for Charlottesville but for almost all agencies. Available data does not indicate how many referred cases were for jurisdictional reasons or were referred based on availability of resources. It is not possible to determine the number of additional cases that remained open from prior years, or how many were assigned to certain detectives based on their areas of specialization, such as property crimes versus crimes against persons.

The amount of effort required by a particular case or category of investigation can vary widely. For example, a complicated homicide investigation can require numerous interviews and canvasses, invoicing of evidence, surveillance, multiple search warrants, coordination with outside agencies, repeated conferrals with prosecutors, and production of witnesses for multiple hearings. A simple theft case may require little beyond an interview with the victim and perhaps review of security video. Consequently, a single-digit caseload for one detective may be equally or more demanding than another detective's caseload that numbers in the dozens.

It is important to acknowledge that the investigative process is not linear; cases are not received, investigated, and closed in an assembly line fashion. Based on workload, witness availability, and

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[46] 2016 figures are as of October, 2016.

the occurrence of priority incidents, detectives work on cases as time allows, frequently touching on multiple cases during a shift. When a major case is received – a homicide or an officer involved shooting, for example – the entire unit may be occupied with that investigation for weeks, and unable to work on their regular caseloads. Detectives do not do interviews or apprehend suspects alone; although a case may be assigned to a particular detective, several others may be involved in the investigation, and that time is not necessarily reflected in their own caseloads.

Overall, the criminal investigative function has become more complex. Search warrants are now required in many cases that in the past would have required only a subpoena or even a request. Technology has given rise to an entirely new category of crime. It has also made investigations more complex and time-consuming. Property crime investigations, for example, which in the past often required only a few inquiries to determine whether witnesses or physical evidence were available, now often require obtaining and reviewing surveillance video footage and cell phone information. Advances in digital technology, DNA evidence, and the availability of video evidence have increased the likelihood of success in many investigations, but they have also increased the workload of investigators, public expectation for successful outcomes, and the need for funding equipment.

Precise accounting for every minute of a detective's time is virtually impossible; however, a reasonable estimate of investigators' activity in a user-friendly system can yield valuable results that will inform decisions regarding performance, staffing, and allocation of resources. It will also assist in documenting that time spent assisting on cases that are officially assigned to other detectives, which can consume a substantial portion of an investigator's time.

The Department should work with its software vendor to update the records management system to ensure that it provides ready access, in a user friendly manner, to up-to-date case closure and caseload statistics, and that it accounts for the time invested in investigations by detectives. Access to that information on both a daily snapshot basis and on an annual basis would assist in the assessment of both short term and long term staffing and deployment needs. The data available at this time does not support a reliable assessment of Investigations Bureau staffing needs.

RECOMMENDATION 60: Implement a process for review of patrol investigations by the Investigations Bureau and a quality assurance program for all investigations.
Although the General Investigations Bureau has opened an average of 833 cases annually since 2013, that is only a portion of the investigations conducted by the Department. During the past three years, an average of 1,520 major crimes[47] have been reported to the Department; detectives investigate only about 58% of that number. Many cases, including most misdemeanors, are investigated at the patrol level. Department procedures governing case screening[48] place responsibility on the shift supervisor for determining whether to suspend investigation of an incident, refer it to the Investigations Bureau, or retain it for investigation by patrol personnel.

Under these guidelines, certain crimes require immediate assignment of a Detective, such as homicides, major sex offenses, child abuse requiring immediate medical treatment or placement, kidnappings and abductions, certain categories of missing persons, robberies and felonious assaults with aggravating factors. The supervisor may routinely assign certain cases to the Investigations Bureau unless he or she feels that it is more efficient to retain the case for patrol investigation. They include burglaries, arson, threatening or annoying phone calls, vandalism in

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[47] Violent crimes and property crimes as recorded in the FBI's Uniform Crime Reports
[48] General Order 24-98, "Case Screening"

excess of $2000 with suspects, larceny over $500 with suspects, stolen vehicles, armed robbery, shots fired with evidence or witnesses, rape and sodomy, missing persons, extortion, and credit card fraud/identity theft. Shift, Division, and Investigations Supervisors also have discretion to refer cases based on an assessment of specified solvability factors, sensitivity of the crime, community interest, the unusual nature of the crime, or the existence of a pattern of similar crimes. Department procedures on investigations specify appropriate steps to be taken in completing investigations,[49] including:

- Non-criminal cases
    - Interviewing complainants and witnesses
    - Locating missing persons
    - Determining if information or suspicious activity relates to criminal activity
    - Distributing information to the proper persons or agencies
    - Locating lost property and returning same to the owner
    - Investigating deaths, overdoses, suicides, and injuries to determine if a crime was committed
    - Making necessary notifications or conducting necessary inspections
    - Recording information in field notes and Pistol 2000
- Criminal cases
    - Reviewing and analyzing reports of preliminary investigations
    - Recording information in Pistol 2000 (the Department's records management system) and when applicable, preparing case file jacket
    - Survey crime scene to identify, preserve and collect additional crime scene evidence and/or assist forensic technicians
    - Reviewing Departmental records for investigative leads
    - Seeking additional information (from other officers, informants, contacts in community, other investigators/agencies)
    - Interviewing victims and witnesses
    - Interrogating suspects
    - Arranging for the dissemination of information as appropriate
    - Reviewing results from laboratory examinations
    - Identifying and apprehending suspects or the offender
    - Checking the suspect's criminal history
    - Determining if the suspect has committed other crimes
    - Consulting with the commonwealth attorney in preparing cases for court presentation and assisting in the prosecution of the case
    - Notifying victims and witnesses when their presence is required in court unless the Commonwealths Attorney's office takes responsibility
    - Testifying in court
    - Arranging for polygraph examinations, if necessary

The Department's guidelines in this area are thorough, and affording patrol officers with the opportunity to investigate appropriate cases broadens their professional horizons, increases the number of cases that are investigated despite limited Investigative Bureau resources, and allows detectives to focus on more complex investigations. One area of concern, however, is that the Shift Supervisor is the final authority in most incidents on the level of investigation a case receives. Currently, there is no overall review of incident reports – open or suspended – to ensure that all investigations that warrant investigation by detectives are appropriately referred or, more importantly, that all incidents are reviewed to identify trends and patterns. Investigations Unit

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[49] General Order 100-00, "Investigations – Preliminary and Follow-up."

supervisors review referred cases and assign them to detectives, but do not regularly review cases suspended at the patrol level or retained by patrol for investigation. There are also no formal quality control processes in place to review the quality of investigations by either patrol or investigative personnel.

The Department should implement procedures under which Investigative Unit supervisors review all cases as a safeguard to ensure that cases are properly referred and that trends or patterns are not missed (a function which should also be performed by the Department's Crime Analyst). That responsibility currently rests with patrol shift supervisors, but should be fixed at the Investigations Bureau level to ensure that a more global view is taken of all reports received on all shifts. There should also be a quality assurance process by which samples of cases are routinely audited to ensure that appropriate investigative measures have been taken. Although as a general rule case referrals are properly made by shift supervisors and all investigations are well supervised by both patrol and investigative supervisors, the goal in implementing procedures is to minimize the potential for error when there may be gaps.

RECOMMENDATION 61: Establish standards for timeliness of investigations.

The Department's Records Management System reportedly does not alert staff when cases are assigned. Currently, Investigations Unit Supervisors review referred cases and assign them to detectives. The practice is to review and assign cases within twenty four hours of occurrence. However, there is one area of exposure. If a report is not completed and approved prior to the reporting officer's or approving supervisor's days off, a gap of several days can result. If those days off border the weekend, when the Investigations Unit is not staffed, there can occasionally be a delay of three to five days before a case reaches an investigator.

The Department should establish guidelines for timely assignment of cases to investigators to minimize such occurrences. There should also be clear guidelines for case progress and follow-up. For example, assigned cases should have a general target date for completion, such as 30 days from receipt, and there should be routine calendared follow-ups by supervisors at set intervals, such as 30, 60, and 90 days. As indicated earlier, each case has its own timeline based on numerous factors, such as availability of witnesses, the number of interviews to be conducted, the availability of evidence, and the amount of labor required in the preparation and execution of search warrants. The goal is not to impose hard deadlines that will discourage thorough investigation, but to ensure that case progress is monitored and kept on track.

Policing Practices and Management

RECOMMENDATION 62: Update the Police Department Strategic Plan; track performance measures.

The Department's Strategic Plan is dated; most of the plan was conceived in 2005 to 2007, and the most recent update provided by the Department was dated March 6, 2009.[50] However, the Department does track a number of performance indicators focused on community relations that are posted on the City of Charlottesville website as part of "City Council Vision 2025," which began with the Strategic Plan of 2005, was updated as recently as 2011, and posts statistics as recent as the first quarter of 2016. Measures tracked include[51]:

- Number of police/citizen outreach meetings
- Number of police/citizen neighborhood events

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[50] "Charlottesville Police Department Strategic Planning Document (Modified 3-06-09)."
[51] http://www.charlottesville.org/measuresup

- Number of crime prevention/general education programs
- Number of hits on website
- Number of hours spent interacting with students in public schools
- Number of problem-solving projects
- Total reported violent crime
- Number of violent and disorder related calls for service
- Number of Police Department tours
- Number of foot and bike patrol hours
- Number of participants in Citizens' Police Academy

The Department should continue to monitors these metrics. As noted previously, the collection of data regarding a department's community outreach efforts is an invaluable tool during this time of shifting focus in policing. Performance measurement is important to the success of any business or government entity, and the Department tracks a number of indicators. Some, cited previously, are:

- Calls for service
- Arrests
- Traffic stops
- Driving Under the Influence (DUI) stops
- Traffic Citations issued
- Criminal Investigations conducted

As indicated previously, the Department should track several key indicators regarding its investigative workload:

- Cases opened
- Cases cleared, by category (arrest, investigation suspended, warrant obtained, etc.)
- Caseload per investigator

The Department will benefit from tracking the following measures, if they are not already monitored:

- Total overtime hours
- Overtime hours at Court
- Number of overtime hours reimbursed
- Sick leave utilization
- Calls for service
- Response time: the average time from receipt of a call for service to the arrival of an officer on scene
- Service time: the average time spent on a call for service from receipt through disposition

Finally, a great deal has happened in the Department and in the nation since 2009. The current transition in the Department – the appointment of a new Chief of Police, the major restructuring of the organization, the introduction of a new command staff, and the need for renewed vision and direction in American policing – makes this an ideal time to engage in a strategic planning process in order to chart a clear course for the Department's future.

RECOMMENDATION 63: Implement an information-led, proactive policing strategy.
There is currently no formal process for communicating intelligence regarding crime trends to officers on patrol. The Department is of sufficient size to warrant a structured means of sharing intelligence information, ensuring that its multiple divisions, bureaus, and units are collaborating effectively, and that communication across the agency is seamless. The recent appointment of a Deputy Chief to whom all three divisions will report, along with the restructuring of the organizational chart, provides an opportunity to formalize that level of cooperation.

The means by which this is achieved must be tailored to the size, structure, and culture of the organization. Many municipalities have adopted and found success with the Compstat model. Compstat was employed by the Charlottesville Police Department for a number of years. It was replaced about two years ago by a program known as PROS – Plan, Review, Organize, Strategize. Under the PROS program, unit commanders would attend monthly meetings to report on crime conditions, initiatives, personnel issues, and operational matters. Lacking the high-level support that is critical to the success of such a program, it was essentially discontinued during the Department's leadership transition.

There is a great deal of room for innovation in this area. Whether the program is Compstat, PROS, or a completely different initiative designed to fit the needs of a particular jurisdiction, the basic Compstat principles are a foundation for effective policing, collaboration, and assessment of the progress of virtually any initiative:

- Timely and accurate intelligence
- Effective tactics
- Rapid and effective deployment; and
- Relentless follow-up and assessment

The implementation of these concepts can differ significantly in each jurisdiction, but the basic components of the process are the same: efficient collection and analysis of crime statistics or other performance indicators; dissemination of relevant information to supervisors and line personnel to form the basis for personnel deployment and enforcement initiatives; and assessment, often in the form of command-level meetings that ensure that appropriate information has been shared, that all units within the agency are coordinating their efforts and providing necessary support, and that all members of the agency are actively engaged in its mission. A publication by the Police Executive Research Forum (PERF) summarized the impact of Compstat*: "…instead of merely responding to calls and investigating crimes after they were committed, police gathered accurate, timely information to identify emerging crime trends, held regular meetings to discuss countermeasures, and deployed resources to break up crime patterns and prevent crimes. (And they succeeded; the national violent crime rate in 1994 was 66 percent higher than the comparable figure for 2009; and the property crime rate was 53 percent higher in 1994 than in 2009, according to the FBI.)*[52]

An information-driven program should include not only analysis of crime statistics, but processes for monitoring data that tracks patrol and investigative performance, as well as community outreach efforts. Community outreach plays as important a role in the crime reduction process as does enforcement, particularly in developing information about conditions of concern to the residents. It must be recognized equally, and subject to the same level of accountability and analysis, as traditional enforcement. The Department's positive relationship with the community it serves will be an asset in this area.

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[52] Police Executive Research Forum, *"Subject to Debate,"* Vol. 25, No. 2, March/April 2011

It is recommended that the Police Department implement a proactive, information-led crime reduction strategy based on the principles originated by the Compstat model that includes:

- A formal crime analysis component to identify crime trends and put relevant intelligence into the hands of the staff who can apply it in the field through deployment of personnel and enforcement initiatives
- Assessment, in the form of periodic command-level meetings or other methods most suitable to the needs of the Department, to ensure that appropriate information has been shared, and that all units within the agency are coordinating their efforts and providing necessary support; and
- Accountability, to ensure that all members of the agency are actively engaged in its mission

As part of this process, it is necessary to assign personnel with appropriate rank and position within the agency to coordinate the implementation of strategies and accountability for the performance of personnel and cooperation between units, as well as personnel capable of assembling the necessary data. The Department has a Crime Analyst; the recent appointment of a Deputy Chief provides the necessary command level coordination; and the creation of three Division Commander positions provides an ideal opportunity for communication, collaboration, and execution of strategies. The establishment of a structured process in conjunction with the proposed reorganization of the Department affords an additional opportunity to establish and reinforce the importance of intra-Departmental collaboration.

RECOMMENDATION 64: Review District boundaries.
The City is divided into eight patrol districts for deployment purposes:

- *District 1* covers the South East corner of the City and primarily includes residential areas
- *District 2* covers the South West corner of the City and includes both residential and business areas
- *District 3* covers the North East end of the City and primarily includes residential areas
- *District 4* is the Downtown Mall itself, and entails the entirety of the businesses located area
- *District 5* covers the Northern most portion of the City and includes both residential and business areas
- *District 6* covers the West Central portion of the City and includes both residential and business areas
- *District 7* covers the South half the City's center and includes both residential and business areas
- *District 8* covers the North half of the City's center and primarily includes residential areas

The current District boundaries have been in place for decades, and in some cases may not reflect the impact of new residential and commercial development, shifting neighborhood demographics, and current demands for service. The Department should review the boundaries and make necessary adjustments to ensure that they provide for effective deployment of resources.

A map of the District boundaries is provided on the next page.

Charlottesville Police Department
District Map
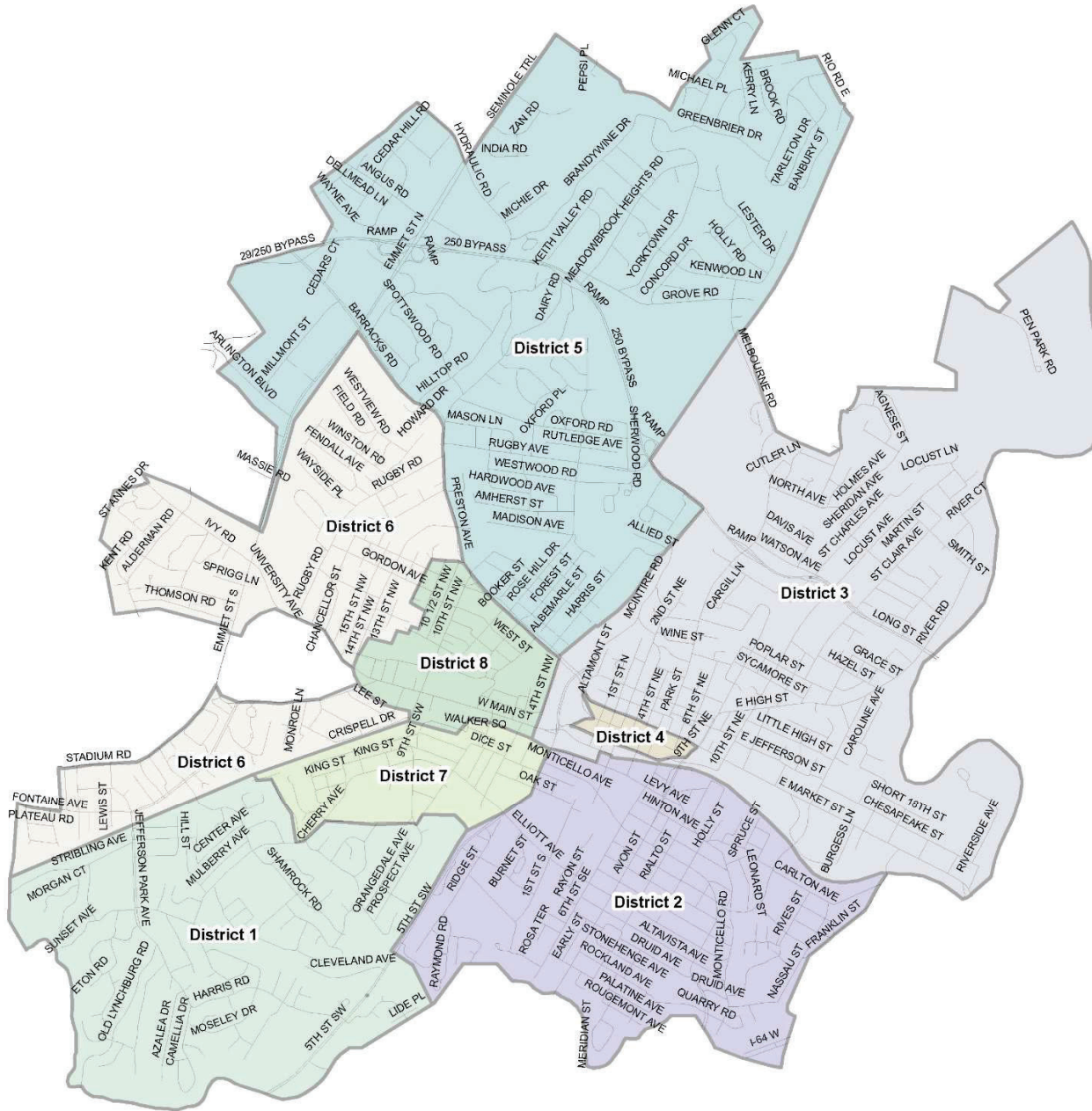
Data Source: Charlottesville PD RMS
Prepared by the Crime Analysis Unit: 434-970-3274

0   0.25   0.5   0.75   1
Miles

Figure 27: Charlottesville Police Department District Map

Police Department Administration and Policies

RECOMMENDATION 65: Add financial review to spending approval process.

The Police Department's Chief Financial Officer and staff are responsible for the Department's financial management: preparation of the annual budget recommendations, accounts receivable and payable, payroll, and procurement. Although budgets are prepared based on the needs of the Department's divisions and bureaus, their annual allocations are not routinely communicated to them. The spending approval process in many cases bypasses financial review. For example, there is a single training budget for both divisions. The Department's finance staff is often not made aware of expenditures until money has been spent, periodically leading to overspending. There is no point in the process at which the finance staff has the opportunity to verify the availability of sufficient funds prior to approval.

As part of its spending process, the Department should include advisory review by the Department's finance staff to ensure that sufficient funds are available prior to final approval. In addition, the Department should make division commanders aware of the annual budget allotments for their areas.

RECOMMENDATION 66: Streamline the reporting process.

Scheduling is currently a paper-based process. Information Management Services Support (Records) personnel spend a good deal of time inputting handwritten reports prepared by police officers into the records management system. Printed copies of reports are kept on file. Time records are kept manually.

A new records management system (New World Systems) and a new electronic scheduling system (In Time Solutions) are being introduced and may address some of these issues. The scheduling system, which will be used only for Field Operations Division personnel, was expected to become operational in October 2016. The Department's technology needs are managed by the City's IT Department. As the new systems are rolled out, it is essential that both departments verify that all aspects of these systems are maximized to ensure that personnel have the ability to file reports from the field, that routine tasks such as scheduling are computerized, and that the need for the preparation and retention of paper documents is minimized.

RECOMMENDATION 67: Implement a vehicle replacement policy.

The Department operates a fleet of 135 vehicles. Of those vehicles, 59 are assigned to the Field Operations Division and 61 to the Support Services Division. Fifteen vehicles are "deadlined," or permanently out of service, 11 of those are assigned to the Field Operations Division, and four to the Support Services Division. An additional nine vehicles have been proposed for deadlining: three vehicles listed on the fleet inventory and six vehicles not listed on the vehicle inventory. The fleet includes: 71 sedans; 29 sport utility vehicles; 4 motorcycles; 2 pickup trucks; 4 trailers; and 7 vans.[53] Vehicle maintenance is provided by Public Works. Repairs that exceed the Yard's capacity are outsourced to private vendors.

There is no formal vehicle replacement policy; vehicles are replaced on a one-for-one basis based on assessment of age, mileage, and repair costs. Police Department and Public Works Fleet personnel identify vehicles to be replaced based on their repair history as documented in the SAP database. Police Department command staff and Public Works staff work together on the selection and procurement of vehicles, which are purchased under State contract.

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[53] Fleet inventory does not include special use vehicles assigned to SWAT/Crisis Negotiation Team/Bearcat.

A police department cannot operate effectively without safe and reliable vehicles. It appears that the current process generally meets the needs of the Department. However, best practice is to establish guidelines for vehicle replacement, a policy that promotes an acceptable vehicle lifecycle without the disruption that can arise during times of financial challenges, political disagreement, or changes in managerial styles. A good policy protects both the Police Department, by ensuring that the fleet will be maintained in good condition, and the governing body, by ensuring that technically sound and fiscally prudent replacement guidelines are in place. A well designed policy bases replacement criteria on multiple factors, such as age, mileage, type of use (take home vehicle vs. fleet vehicle subject to around the clock use; marked emergency response vehicle vs. unmarked administrative vehicle; sedan vs. truck), mechanical condition, and repair history. Therefore, the City should implement a formalized vehicle replacement policy.

RECOMMENDATION 68: Periodically evaluate the Department's take-home vehicle policy.
The Department has an extensive take-home vehicle program.[54] Take-home vehicles are provided to:

- Command staff
- Sergeants and Detectives
- Members assigned to positions subject to off-duty call-out, including:
  - SWAT Team personnel
  - Crisis Negotiation Team personnel
  - Forensic Technicians
  - Evidence Technicians
  - Traffic Unit Investigation Team
  - Other positions designated by the Chief of Police
- Sworn Police officers who meet the following criteria:
  - Have completed probation
  - Have had not more than one avoidable crash in the previous 12 months
  - Have received no more than one sustainable complaint within the previous 12 months
  - Have at least a satisfactory performance rating for the last evaluation period
  - Have at least three years of service and live within the City of Charlottesville
  - Have at least five years of service and live within 10 miles of the City limits

The program was recently expanded to include Field Training Officers. Although Department policy states that officers who travel more than 10 miles from the City limits are required to reimburse the City for excess mileage,[55] that practice has been discontinued.

There are certain benefits associated with take home vehicles for both the staff and the municipality. From officers' perspectives, it is a convenience to use a department vehicle for travel to and from work with necessary patrol equipment stored in the vehicle. There is a financial benefit in reducing wear and tear on one's personal vehicle and the associated maintenance costs, as well as the savings on fuel. Officers consider the vehicles an important element of compensation in a Department whose salaries are considered lower than those of neighboring agencies. From

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[54] General Order 03-01

[55] "All personnel who travel more than ten miles one way from the city limits to their place of residence will be responsible for mileage costs for the excess mileage. The total mileage subject to reimbursement will be calculated by multiplying the total number of miles driven in excess of ten miles from the city limits (twenty miles for round trip) by twenty (20) cents per mile by number of days worked in the period. The reimbursement rate may be adjusted annually by the Chief of Police." (General Order 03-01).

the City's perspective, although a take home program requires a larger fleet, vehicles typically last longer and have reduced maintenance costs as a result of having fewer operators and officers' sense of ownership of the vehicle. Personnel subject to mobilization are able to respond directly to incidents more rapidly and with necessary equipment available. There is a benefit from the increased visibility and deterrent effect of marked police vehicles being parked around the City.

However, take home vehicles require ongoing cost/benefit analysis. Escalating fuel and maintenance costs make the program more important to officers; however, the City must regularly assess its financial sustainability. Since most officers live outside the City, their vehicles do not provide the desired deterrent effect. In addition, any expansion of the program must be evaluated carefully to ensure that it has been fully reviewed and that it produces a benefit to the City as well as to the affected members.[56]

The Department should periodically review the scope of its take home vehicle program to ensure that it remains cost effective and fiscally sustainable.

RECOMMENDATION 69: Review the impact of the Career Development Program.
The Department has a Career Development Program[57] that provides full-time sworn police officers not holding supervisory ranks an opportunity for career development and financial incentives based on training, education, and work experience. The program creates four program status levels as shown below.

Table 52: Career Development Program Status Levels and Compensation

Level	Required Service	Compensation
Police Officer 1	Three years with CPD	5% of hourly base pay
Senior Police Officer	Three years as Police Officer 1	10% of hourly base pay
Master Police Officer	Three years as Master Police Officer	15% of hourly base pay
Career Officer	15 years of service and three years as Master Police Officer	20% of hourly base pay

In addition to the financial stipend, Senior, Master, and Career Officers are routinely given supervisory responsibilities suitable to their rank and experience, including conducting roll call and roll call training; review and approval of reports; supervisory tasks identified by the Shift Commander or Sergeant; supervising incident scenes in the absence of the on-duty supervisor; and Master and Career Officers may substitute for shift supervisors when staffing necessitates it.

Officers apply to the program, which is voluntary, by submitting a detailed resume. Advancement is based on a matrix of requirements in eight categories:
- Experience
- Entry Level Competency Test
- Disciplinary Actions
- Police Vehicle Accidents
- Firearms Proficiency
- Education
- Compliance Review Form
- Specialized Duties

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[56] For example, take home cars were recently issued to Field Training Officers as part of an incentive package to attract officers to the position.
[57] General Order 78-99

The Career Development Program is a well-developed program that provides officers with both professional and financial incentives, and it appears to be appreciated by the officers who are given the opportunity. However, the stipends associated with the program, although they are factored into officers' overtime rates, are not included in the calculation of retirement benefits. They also have the potential to exceed the compensation provided to members in advanced ranks. Detectives, for example, receive an annual stipend of $1,200.00, a clothing allowance of $1,000.00, and a take home car. Field Training Officers receive a stipend of $4,000.00 and a take home car. The salary of a police officer under the Career Development Program can exceed that of a Detective, Field Training Officer, or supervisor, positions with added responsibilities, consequently creating a potential disincentive for officers to seek such positions.

The Department, in coordination with the HR Department, should evaluate the ongoing impact of the program to ensure that salaries and benefits across the Department do not create a situation in which this beneficial and highly regarded program serves to discourage officers from competing for advanced rank.

Physical Plant

RECOMMENDATION 70: Conduct a space needs assessment for Police Headquarters.

The Police Department is housed in a building at 606 East Market Street. Four units are housed in leased space separate from Police Headquarters at 705 Dale Avenue and 108 5th Street (Rooms 308 and 310) in Charlottesville: the Office of Professional Standards, the Accreditation and Crime Analysis Units, and the JADE Task Force. The Department also maintains several off site storage spaces. Firearms training is conducted at a recently opened joint Firearms Training Facility operated by the Charlottesville Police Department, the Albemarle County Police Department, and the University of Virginia Police Department on land donated by the university at 2300 Milton Road in Charlottesville.

The Police Headquarters facility has exceeded maximum capacity. Locker rooms and the report room are located in the basement of a garage across the street from Headquarters. Of particular concern is the Forensic Unit, which is located in a basement level of the City Hall building separate from the Police Department's offices. The unit stores approximately 16,400 items of evidence and invoiced property in a space built to hold 10,000 items. It uses additional storage area in the basement of Police Headquarters and an area at the City Yard for storage of bicycles and similar items. The unit's mini-lab, utilized for processing crime scene evidence, has insufficient space for installation of a table for examining large items, which have to be processed in a piecemeal fashion. The unit had to close the lab for a period of about three months to store 300 items of evidence from a major case while they were being processed in batches at the Commonwealth's Central Lab in Richmond.

Both of the Forensic Unit's functions – processing crime scene evidence and maintaining custody of evidence and property taken into the custody of the Department – are critical to the Department's operations. Evidence and property management, in particular, requires sufficient space for the storage of invoiced property in a manner that is amenable to inspection, retrieval, and routine inventory, as well as work space to ensure that material is inventoried and processed properly.

The Information Management Services Unit (Records) is also in need of additional file storage space. Moving toward paperless reporting should help to alleviate some of that space concern, but many documents will continue to require preservation in hard copy form.

Although Police Headquarters is situated in a central location just off the Downtown Mall, its current physical layout is not ideal for police usage. Parking is in a section of a municipal garage across the street from the building, and is inadequate to meet all of the Department's needs. The garage entrance and exit is on a narrow street with only one exit; the opposite end of the street is blocked by bollards where it meets the Downtown Mall. An improperly parked vehicle can shut down egress from the street, severely hindering the Department's capacity to respond to an emergency.

Construction or renovation of a police facility is a major financial undertaking, especially in light of the price and limited availability of real estate in Charlottesville. Whether the choice is to construct a new facility or renovate the existing building, additional space will be needed to meet the Department's needs into the future. The City should commence a space needs assessment so it can begin the process with an understanding of the potential scope and cost of the project.

RECOMMENDATION 71: Install appropriate security measures in remote locker rooms and the parking area.
Male and female locker rooms and the report room are located in the basement of a parking garage across the street from Police Headquarters. They share a hallway leading to the rear portion of a Postal Service facility. Although the rooms are relatively new, well maintained, and serviceable, few security measures are in place. Entrance doors are secured only by card-access magnetic locks. Other than a street-facing camera located near the entrance to the small garage area of Police Headquarters, there are no alarms or security cameras covering the report and locker room area.

Likewise, no security measures are in place in the section of the municipal garage used for parking of Department vehicles, despite the fact that vehicles contain police equipment and weapons, and vandalism has occurred in the garage in the past.

The Department should augment security in these areas, particularly with the installation of security cameras with recording capability at the outside of the report/locker area entrance and common hallway, and in the parking garage.

Fire Department Analysis and Recommendations

The Charlottesville Fire Department (CFD) has been the primary fire protection provider for the City of Charlottesville since 1856. The Department's responsibilities include the protection of a diverse array of residential, commercial, educational, historical, sporting, entertainment, and other special properties. In addition to fire suppression services, the CFD provides the City and UVA with emergency responses to hazardous materials incidents, special technical rescue incidents, and emergency medical incidents including sudden severe illnesses, accidents, and injuries.

The Department has a service area of 10.24 square miles plus the UVA campus, which includes 1.89 square miles of land and 502 buildings. Residential structures are the majority of the buildings in the City. TYPE V-B (unprotected wood frame single-family dwellings) and more modern construction TYPE V-A (protected wood-frame multi-family dwellings) are the typical type of construction in the Fire Department's service area.

The Department has received outside recognition for the quality of the services it provides, First, according to the 2016 National Citizen Survey, residents feel positively about the services provided by the Department; 92% of respondents rate fire services positively, 90% rate ambulance/EMS services positively, and 79% rate fire prevention services positively. Second, the CFD has previously been accredited by the Commission on Fire Accreditation International (CFAI) and is currently in the process of seeking reaccreditation. The CFAI accrediting process is a rigorous analysis designed to determine if the Fire Department's programs and services are successfully meeting the needs of the community and if the Department has achieved a high level of performance and efficiency. Finally, in 2014, the City received a superior Class 1 rating as the result of an Insurance Services Organization (ISO) analysis of the City's fire suppression services. At the national level, ISO reports only 60 jurisdictions achieving such distinction, which places the City of Charlottesville in the top 0.12% of fire-safe communities nationally.

The Fire Department operates out of three stations. The Ridge Street Station ("Headquarters") was built in 1959 and is located at 203 Ridge Street in downtown Charlottesville. Station 1 was built in 1962 as a satellite station and is located at 345 250 Bypass on the northeast side of the City. Station 10 was built in 2012 and is located at 2420 Fontaine Avenue on the west side of the City near the UVA campus. Station 10 houses the Department's training facility. Prior to Station 10's construction, Department administration was located at The Ridge Street Station. The following figure shows the service area of each station.
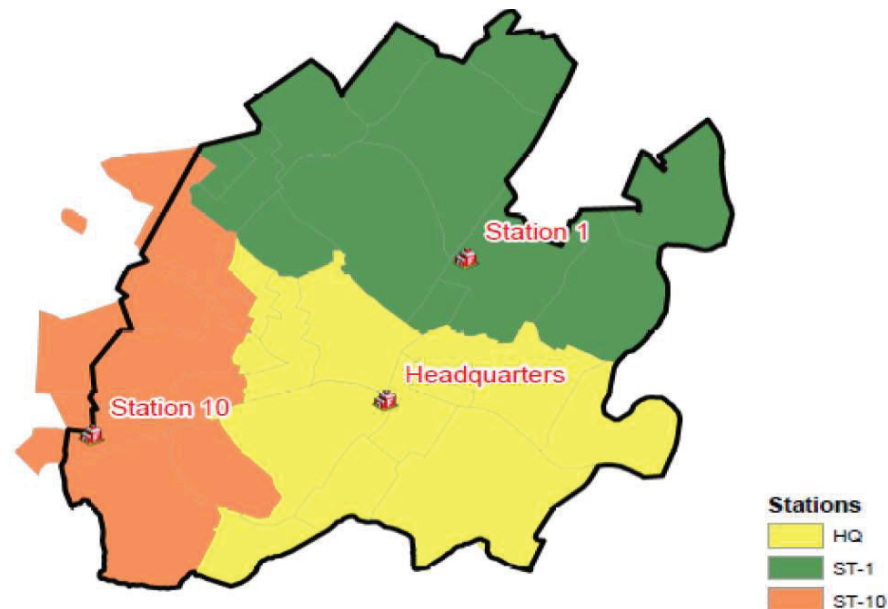
Figure 28: Fire Station Service Areas

The Fire Department consists of the following six divisions: Administration, Fire Fighting, Fire Prevention, Personnel Support, Department Maintenance, and the Volunteer Fire Department. The responsibilities and staffing of each division are discussed below and in the following section.

The **Administration Division** of the Fire Department is responsible for the development, coordination and oversight of the Department's mission and for providing the Department with the administrative support necessary to complete its mission. The Administration Division is staffed by the Fire Chief, the Administration Deputy Chief, one Executive Assistant to the Fire Chief, one Planning Battalion Chief, one Planning Captain, and one Assistant Accreditation Manager.

The **Fire Fighting Division** of the Fire Department consists of 78 officers and firefighters who are directly responsible for responding to emergencies in the City and UVA campus, and as a mutual aid provider in designated areas of the County. The Department does not operate its own ambulances. However, the Fire Department provides two Firefighter/Medics between 7:00 AM and 6:00 PM Monday through Friday to operate one unit of the Charlottesville Albemarle Rescue Squad (CARS) volunteer EMS provider under an agreement with that agency. There are formal agreements in place with UVA and Albemarle County that cover some of the costs associated with serving areas beyond the City's limits. The formal agreement with CARS covers some of the cost of providing EMS transport services within the City limits during weekday/daylight hours. The Fire Fighting Division is led by the Operations Deputy Chief and is staffed by three Operations Battalion Chiefs, 17 Captains, and 49 Firefighters. All Fire Department emergency response personnel are required to have a minimum emergency medical service (EMS) training certification level of Emergency Medical Technician – Basic (EMT-B). Many of the Department's response personnel are trained to the Advanced Life Support (ALS) level and practice as EMT-Intermediates and EMT-Paramedics.

The Department staffs three 24-hour shifts, with each shift being led by a chief officer and a combination of four fire engines and two aerial devices, along with the chief officer in a command vehicle. Each fire engine and aerial device is staffed daily with a minimum of three firefighters, and the command vehicle is staffed with a chief officer.

This results in a minimum daily staffing level of 19 per shift including one Battalion Chief, a minimum of three Captains, and a minimum of 15 firefighters) per shift. In order to reach this minimum daily staffing level, each shift is staffed with 26 personnel.

The **Fire Prevention Division** is responsible for fire safety inspections, enforcement of the Fire Prevention Code, fire investigations, and public fire education. The Division also reviews plans for new construction to ensure that fire safety requirements (such as sprinklers, standpipes, alarm systems, and fire apparatus access) are properly planned for and incorporated into the construction of new buildings. For FY2017, the Fire Prevention Division is staffed by one Fire Marshal, along with one full-time and one part-time Assistant Fire Marshal.

The **Personnel Support Division** works to identify Department training needs and develop training programs to assist firefighters in becoming more proficient in emergency service delivery, emergency incident management, and safety. Also, they provide oversight of the Department's hazardous materials and special rescue teams, as well as specify and purchase the specialized equipment required for those activities. For FY2017, the Personnel Support Division is staffed by one Battalion Chief, a Training Firefighter, and the EMS Administrator.

The **Department Maintenance Division** is responsible for the Department's vehicles, facilities, and equipment. The Division is staffed by the Resources Captain and the Fire Equipment Mechanic. The Fire Equipment Mechanic ensures that the Department's vehicles are kept operational and ready for use at all times. Routine repairs and preventative maintenance are completed in-house while all other repairs are contracted out. The Resources Captain is responsible for purchasing and maintaining all equipment and for coordinating all facility maintenance activities.

The **Volunteer Fire Department** responds to fires and other emergencies alongside the full-time members of the Charlottesville Fire Department. The Volunteer Fire Department operates one vehicle and has members who are capable of operating the Charlottesville Fire Department's pumpers to provide additional resources or backup during emergencies. However, since volunteers have not historically undergone the same physical screenings or received the same training as full-time firefighters, the Volunteer Fire Department has had a more limited role in recent years. The new City Fire Chief and the Volunteer Fire Company Chief have been working together to encourage an active and involved volunteer company and a total of 10 volunteers recently underwent the necessary medical screenings. While the Volunteer Fire Department can take donations, it does not fundraise the way many volunteer departments do. For FY2017, the Volunteer Fire Department has a budget of $26,232, which covers training, protective equipment, and uniforms.

The current Fire Chief has been in command of the Department since September 2015. During the transition to the new Chief, the Department developed and adopted a strategic plan that will guide the Department's activities and deployment of resources. Having a strategic plan sets the Department up for success. While fire prevention activities had not been a priority in the past, one of the new Fire Chief's key goals is to broaden the scope of this function beyond basic fire prevention to community risk management and make it a priority for the Department. However, there is still a lot of work to be done in this area.

Staffing and Scheduling

The CFD responded to 5,884 incidents in 2015. Total calls for service have increased by 13% over the last three years. During that time, fire calls (excluding false alarms) decreased by 28%, EMS calls increased by 21%, and other calls (such as false alarms, HAZMAT, and mutual aid

incidents) increased by 7%. The following table shows the number of incidents to which the CFD responded between 2013 and 2015.

Table 53: Incidents by Type, 2013-2015[58]

Incident Type	2013	2014	2015	% Change
Fire	213	180	154	-28%
EMS	2,749	2,818	3,321	21%
Other	2,255	2,237	2,409	7%
TOTAL	**5,217**	**5,235**	**5,884**	**13%**

The Fire Chief is responsible for the Department's operations. Two Deputy Chiefs, one of operations and one of administration, assist the Fire Chief in managing the activities of the Department. For FY2017, Fire Department has 91.0 authorized FTEs. The following figure illustrates the Department's current organizational structure.
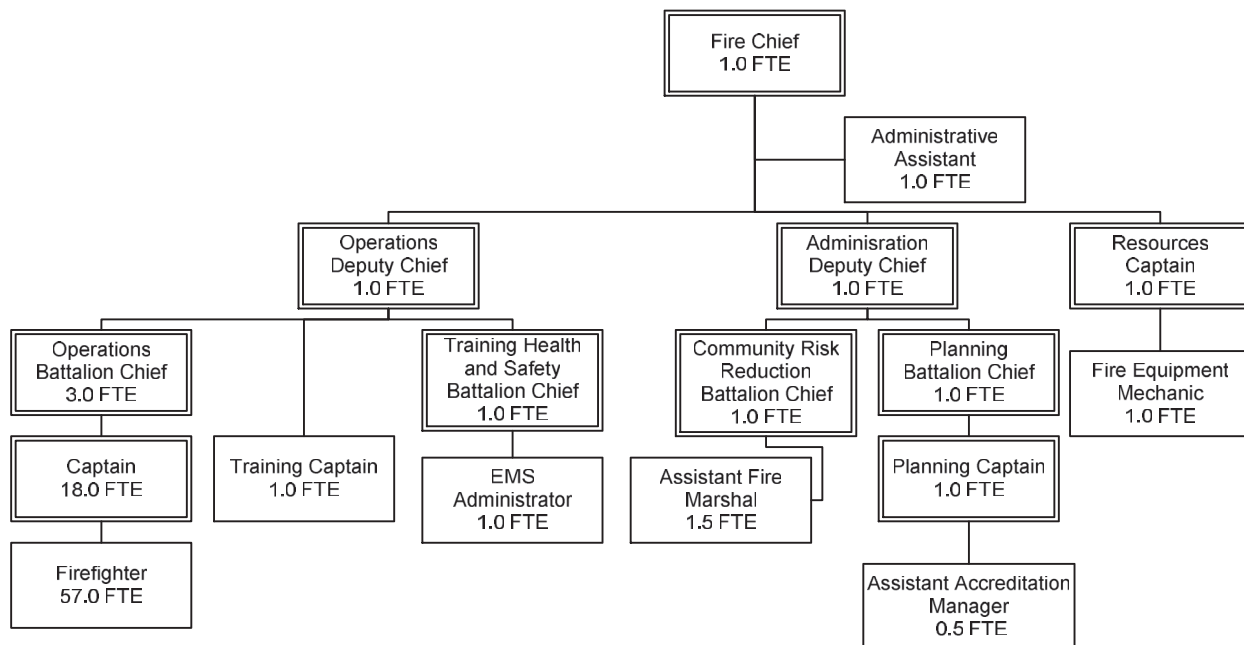

Figure 29: Fire Department Organizational Structure, FY2017

Evaluating staffing levels requires an analysis of coverage requirements and staffing availability. These factors are used to determine the appropriate number of personnel to assign to each shift. Because full-time staff are eligible for paid time off, additional staff are required to ensure that enough firefighters are available to meet minimum coverage standards. The number of firefighters on duty - a department's minimum staffing level - is based on the level of service expectations of the community.

The CFD currently operates with a minimum staffing level of 19 firefighters. However, in order to ensure the minimum staffing level is consistently achieved, more than 19 firefighters must be

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[58] Data provided by Department

assigned to work each shift. The goal of a staffing analysis is to determine the appropriate number of firefighters to assign given typical leave patterns.

A staffing factor represents the number of employees needed to cover each position on a shift, after accounting for leave (such as sick time and vacation). Because the Department utilizes three shifts to provide fire coverage throughout the year, each shift is responsible for covering approximately 2,920 hours (one third of the 8,760 hours – 24 hours, 365 days – covered by all three shifts together) on an annual basis. Overall, operations staff at all levels (Battalion Chief, Captain, and Firefighter) utilize an average of 633 hours of leave per year. The table summarizes the average leave used by all positions responsible for fire suppression by leave type.

Table 54: Average Annual Leave Usage among Firefighting Division Employees, by Leave Type[59]

Leave Type	Average Annual Leave Hours Used
Administrative Leave	16
Bereavement Leave	5
Education Leave	12
Family Sick Leave	41
FMLA	37
Holiday	205
Injury Leave	3
Military Leave	9
Personal Sick Leave	103
Special Days Off	12
Vacation	190
TOTAL	633

Subtracting leave hours from the 2,920 total coverage hours results in an average of 2,287 hours worked by shift staff per year. In order to determine the total number of staff required after accounting for leave, total coverage hours are divided by the number of hours actually worked on average. This yields a staffing factor of 1.28 (2,920 / 2,287 = 1.28). This means that 1.28 staff are required per shift position in order to adequately cover leave taken. This staffing factor can then be applied the Department's existing minimum staffing model in order to compute appropriate staffing levels. The following table applies the staffing factor to the Department's minimum of 19 firefighters per shift.

Table 55: Shift Staffing Requirements to Meet Established Minimum Staffing Level of 19 Firefighters

Shift Staffing	Minimum Shift Staffing Positions	Minimum Shift Positions Multiplied by Staffing Factor	Total Positions Needed for Adequate Shift Coverage	Total Positions Needed Across all Shifts
Shift Battalion Chief	1	1.28	1	3
Shift Captain	4	5.12	5	15
Firefighter	14	17.92	18	54
TOTAL	19	24.32	24	72

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[59] Three year average based on leave information provided by Department

Currently 78 firefighters (57 Firefighters, 18 Captains, and 3 Battalion Chiefs) are assigned to the three shifts, and each shift is staffed with 26 firefighters (one Battalion Chief, six Captains, and 19 firefighters).

Based on the Department's staffing factor outlined in the previous table, the Department has sufficient authorized personnel to consistently meet the established minimum staffing level of 19 firefighters on each shift as 26 firefighters are assigned to each shift. However, the Department only requires 24 firefighters on a shift in order to consistently meet the minimum staffing level of 19 firefighters on duty. This represents 72 firefighters needed across all three shifts. It should be noted that, over time the Department's staffing factor will change as the tenure of employees change, thus increasing their paid time off.

The results of the staffing analysis show that some capacity exists in the Fire Fighting Division. In order to more fully leverage this capacity, the Department can assign shift personnel additional responsibilities. For example, the Fire Chief is interested in appointing an operations captain that would also serve as a dedicated safety officer on each shift. Given the staffing analysis conducted by The Novak Consulting Group, it should be possible for the Department to take on these roles within the current staffing level. The Department may also decide to dedicate additional personnel to fire prevention activities, as discussed later in this analysis.

False Alarms

In 2015, the Department responded to a total of 5,884 calls for service. Most of the Department's calls for service (56%) are EMS calls. Of the non-EMS calls, 62% are false alarms. This is an unusually high number of false alarms generated by detection and alarm systems when compared to the national average of 22%.[60] The following table includes the number of false alarms to which the Department responded for the last five years and the percentage change in the number of false alarms since 2011.

Table 56: Fire Department Top 10 False Alarm Calls by Type, 2011-2015

False Alarm Type	2011	2012	2013	2014	2015	Percent Change
Malicious, Mischievous False Call	13	93	26	22	22	69%
System Malfunction	153	786	205	165	187	22%
Unintentional	605	537	530	483	563	-7%
Other False Alarm	30	190	48	51	50	67%
TOTAL	**801**	**1,606**	**809**	**721**	**822**	**3%**

The recommendation in this section addresses the high number of false alarms in the City of Charlottesville.

RECOMMENDATION 72: Develop a comprehensive false alarm reduction program.
The current level of false alarm activity creates a number of challenges for the Department. False alarms result in the deployment of expensive equipment and staff, tying up limited emergency response personnel when a genuine emergency could occur elsewhere. In addition, repeated false alarms undermine the confidence of occupants in the reliability of the system and potentially reduces their response to the alarm.

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[60] National average for false alarms as a percentage of non-EMS calls.

In order to proactively address the prevalence of false alarms in the community, the Department should create a comprehensive false alarm reduction program. This program should be modeled on the National Fire Protection Association (NFPA) best practices associated with reducing unwanted alarms. A recent NFPA report titled "Development of a Risk-Based Decision Support Tool to Assist Fire Departments in Managing Unwanted Alarms" describes several strategies for reducing false alarms and case studies of other communities. A copy of this report will be provided to the Department by The Novak Consulting Group.

The City does not currently have a comprehensive false alarm reduction program in place. Such programs typically incorporate education and management elements that seek to reduce the cost of dispatching costly apparatus and personnel to false alarm calls, increase reliability and confidence in the systems, and create a financial disincentive for multiple false alarms.

In order to effectively address unwanted alarms, the Department should identify trends, patterns, and top offenders and create targeted efforts to combat unwanted alarm activity. One common approach is to establish an alarm system and installer registration ordinance in conjunction with a fee schedule for repeat false alarms. The registration process can be leveraged to educate alarm users regarding ways in which false alarms can be avoided. In engaging with alarm users, the Department should stress that the impact of a false alarm is not just negative for the Fire Department, but also for the occupant who suffers lost time and opportunity for revenue generation.

The primary goal of assessing a false alarm fee is to encourage improved maintenance of systems and reduce unnecessary response from firefighters, thereby ensuring that response capacity is available for true emergencies. A secondary goal of false alarm fee assessment is the recovery of costs associated with repeatedly deploying resources to the same site unnecessarily. Albemarle County currently has a false alarm ordinance in place which requires alarms to be registered and charges $100 for the third false alarm in a 12-month period. It is recommended that the City utilize an escalating fee schedule for multiple false alarms within a given period. An escalating fee rate allows the community to increase penalties for repeat offenders and is designed to maximize deterrence, minimize false alarms, and create a more reliable alarm reporting system.

A second common approach is to modify the Department's response to commercial fire alarms when no additional information is provided that indicates an actual emergency is taking place. For example, the Department may send only one non-emergency response unit to investigate the alarm prior to calling for emergency crews. While this approach would increase response times in the event of an actual emergency, it will save time and mobilization costs each time an alarm turns out to be false or unwanted.

Training and Testing
RECOMMENDATION 73: Implement competency-based evaluations of firefighting, HAZMAT, and technical rescue skills.
The Insurance Services Office (ISO) recently completed a Public Protection Classification (PPC) survey related to the CFD. While ISO is not a fire service standard, it serves as a useful benchmark for establishing training standards when used in conjunction with state and national recommended best practices. Adopting ISO recommendations helps to ensure comprehensive training is being provided to Department staff and potentially improves the community's overall ISO score. These benchmarks, when used in conjunction with state and national recommended practices, fire service standards, and materials developed by the International Fire Service Training Association can assist in developing a comprehensive training program.

ISO's training categories for firefighter staff are illustrated in the following table, along with the amount of credit earned by the Fire Department compared to the total credit available.

Table 57: ISO Training Categories, 2016

ISO Category	ISO Recommended Minimum Annual Firefighter Training Hours	Department Credit Earned	ISO Credit Available
Facilities and Use	18	23	35
Company Training	192	24	25
Classes for Officers	12	6	12
New Driver and Operator Training	60	5	5
Existing Driver and Operator Training	12	5	5
Training on Hazardous Materials	6	1	1
Recruit Training	240 (during recruit's first year)	5	5
Pre-Fire Planning Inspections	Company Inspection Program	6	12
TOTAL	**540**	**75**	**100**

The Department should be commended for its focus on training and its work toward meeting the standards set by ISO. It is important that the Department remain focused not just on the quantity of training provided to employees, but the quality. ISO does not measure the quality of the training provided by departments. As many departments begin to rely more heavily on online training, it is important to not sacrifice the skills gained through hands-on training.

The NFPA develops (through a consensus of more than 250 technical committees which include nearly 9,000 volunteer committee member seats) and publishes codes and standards that are intended to eliminate death, injury, property and economic loss due to fire, electrical, and related hazards. In addition to providing training program guidance to department, the NFPA also has standards aimed at verifying training program outcomes. The NFPA 1400 standard will assist in developing a comprehensive firefighter skills training program. The NFPA 472 standard specifies minimum competencies for those responding to hazardous materials incidents. The NFPA 1006 standard is for individuals seeking verification that their technical rescue skills meet minimum job performance requirements while the NFPA 1670 standard outlines the level of functional capability for the organization as a whole.

All CFD response personnel meet the NFPA guidelines for hazardous materials operations as this level of certification is required for firefighters in the Commonwealth of Virginia. A total of 29 personnel are certified at the technician competency level. Technical rescue is comprised of many different disciplines (e.g., rope, confined space, trench). CFD does not have any minimum competency requirements for technical rescue, so response personnel are at varying competency levels when it comes to each discipline.

Department personnel routinely train to respond to fire, technical rescue, and hazardous materials events. However, the efficacy of the training is not currently being tested. Competency-based assessments will enable the Department to evaluate firefighting, HAZMAT, and technical rescue skills.

As this report was being written, the Department reclassified a Firefighter position as a Captain and tasked it with developing and implementing a core competency program that meets the NFPA standards included in this recommendation.

RECOMMENDATION 74: Adopt validated physical agility test for use during the hiring process.

As part of the hiring process, the Department requires applicants to successfully complete a physical agility test. This test, which was developed by the CFD, is intended to evaluate the applicant's physical potential to effectively perform critical firefighting tasks. The Department is also planning to use this test as part of its annual work performance evaluation process for existing staff.

Firefighting is a physically demanding occupation and the employer has a legitimate interest in ensuring applicants are capable of performing all aspects of the job. However, physical assessments such as these have undergone scrutiny for potential disparate impacts particularly for female applicants, and it is critical that employers be able to demonstrate validity and job relatedness of any test. The International Association of Fire Chiefs (IAFC) and the International Association of Fire Firefighters (IAFF) jointly developed a physical exam called the Candidate Physical Ability Test (CPAT) in recognition of the challenge fire departments face when trying to assess the ability of candidates to meet the physical demands of the jobs in a valid way; the CPAT has been reviewed by the Department of Labor. Agencies wishing to use the test must perform a transportability study to verify it is valid for their specific operation. There is also a requirement that applicants be provided orientation, preparation, and training sessions prior to the test being administered.

The CFD should adopt the IAFF/IAFC CPAT since it has been proven to be both job related and valid in both construct and parameters for scoring. Administering the CPAT process in house can be time consuming and burdensome for a department. Therefore, the Department should consider either having an independent third party administer the CPAT process or developing a regional hiring pool with other departments and offering the testing process on a set schedule. Since agencies across the country offer the testing process to potential firefighters and provide the candidates with a certificate of passing, adopting the IAFF/IAFC CPAT will enable the CFD to allow candidates to show compliance by providing a certificate that has been issued within a predetermined period of time, further decreasing the burden associated with testing candidates.

EMS

RECOMMENDATION 75: Partner with CARS to review medical calls for service and evaluate schedule.

EMS services are provided to Charlottesville residents through a regional provider, the Charlottesville Albemarle Rescue Squad. CARS is primarily staffed by volunteers, with CFD providing supplemental coverage. CARS does not bill for service. Instead, it fundraises the funds necessary to support the operation. The City staffs one medic unit (two Firefighter/Medics) from 7:00 AM to 6:00 PM, five days per week. In addition to staffing one medic unit during the week, the CFD invests in maintaining ALS response (i.e., engines, personnel, training), but not transportation. In return, CARS has paid the City $130,000 per year since the MOU was first signed in 2014.

Currently, the Department relies heavily on firefighters coming in for overtime to staff the medic unit because it requires two paramedics and not all CFD firefighters are paramedics. Therefore, when two paramedics are not on duty, they must be called in to work overtime. On average, CFD employees work over 18,000 hours of overtime per year,[61] approximately 200 hours per employee. During interviews conducted by The Novak Consulting Group, employees indicated that they do not appreciate the constant need for overtime and that it strains employee morale.

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[61] Based on overtime data from 2013-2016.

Therefore, the Department should evaluate whether this is the best approach to providing supplemental coverage.

While the Department and CARS have a collaborative relationship, data was not available regarding the workload profile of CARS. The Department should continue working with CARS to review the regional EMS provider's call volume by hour of the day and day of the week. It may be that EMS calls for service do in fact peak between 7:00 AM and 6:00 PM, in which case having the additional medic unit work an 11-hour shift makes sense. However, depending on the workload, it may be possible for Charlottesville to staff a unit for just eight hours a day, in which case assigning two medics (three employees in total would be necessary to cover leave) to the CARS unit, working eight-hour shifts, would be more efficient and would limit the strain caused by overtime. As this report was being written, CARS approached the CFD about potentially providing 24-hour coverage.

RECOMMENDATION 76: Ensure adopted EMS service level standard for the City of Charlottesville is met.
It is common for communities to establish service level standards for EMS operations, particularly when EMS services are not provided directly by the City organization. As this report was being written, the City and CARS developed and agreed upon a service level, the Emergency Medical Services Benchmark Service Delivery Level Objectives.

Level of care and response time are common components of an EMS service level standard. The level of care provided by EMS providers is either ALS or BLS. The difference between ALS and BLS is the level of Emergency Medical Technician (EMT) training employees have achieved; ALS providers must staff each unit with at least one EMT-Paramedic while BLS providers have responders with less training (EMT-Basic or EMT-Intermediate). Some communities, as part of their service level standard, even require that ALS medic units be staffed with two paramedics.

Response time is the amount of time elapsed between when the dispatchers notify responders of the call and when the responders arrive on the scene. The NFPA response time standard for EMS calls has two levels, one for ALS calls and one for BLS calls.

To ensure that City of Charlottesville residents are receiving adequate services, it is recommended that the City ensure that the EMS service level standard is met. If CARS is not able to provide the desired level of service, the City may consider directly providing EMS services. Based on call data provided by the Department, CARS responded to an estimated of 6,872 EMS calls[62] in 2015. It is estimated that the Department would require three units to handle this call volume in-house.

A common measure of system capacity for EMS is the unit utilization rate for the staff and equipment involved. The simplest methodology is to calculate the number of hours for which there are staffed ambulances in service and divide that number into the number of calls for service. While there are many variables in how long a given call may commit a unit, for the purpose of calculating a simple Unit Hour Utilization (UHU) rate, it is assumed that an EMS call commits a unit for an hour. An ambulance staffed 24/7 results in coverage of 8,760 hours annually. In order to keep a UHU of less than the recommended 0.35, the CFD would need to staff three units (6,872 calls/26,280 hours of coverage), in order to handle the 6,872 EMS calls, which would result in a utilization rate of .27 (6,872 calls /26,280 hours).

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[62] Includes calls outside of the City limits. Number of calls within CFD service are would need to be estimated.

Prevention and Public Education

Since the new Fire Chief took command in 2015, the Department has begun transitioning from a traditional fire prevention model towards a broader community risk reduction model. According to the National Fire Academy, community risk reduction is defined as "those programs, initiatives, and services that prevent and/or mitigate the risk of or effects from fire, injuries, natural disasters, hazardous materials incidents, acts of terrorism, etc." As such, traditional fire prevention programs are incorporated as part of a broader community risk reduction model. The recommendations included in this section of the report aim to support the Department's shift toward a more holistic approach to fire prevention and to enable the Department to efficiently and effectively engage in fire prevention activities.

RECOMMENDATION 77: Conduct a community risk assessment to inform the work plan of the Fire Prevention Division.

The Department tracks all emergency incidents using its records management system based on the National Fire Incident Reporting System (NFIRS). As such, a wealth of information about the Department's historical workload profile is available. However, this data is not being used to guide the work of the Department.

Understanding the community and its incident history is the first step toward adopting a community risk reduction approach. A community risk assessment involves identifying and prioritizing risks in order to plan prevention and mitigation activities. According to the Institute of Fire Engineers,[63] it is important to first review the community demographic profile and historical experience to identify risks and hazards. The next step involves prioritizing the identified risks. The final step is to use the results of the assessment to inform the Department's work plan.

The Fire Prevention Division is currently completing a community risk assessment to guide the Department's community risk reduction activities as part of the reaccreditation process. Once the community risk assessment has been completed, the results should be used to develop the work plan of the Division in the short term and the Department as a whole in the long term.

RECOMMENDATION 78: Establish accurate occupancy inventory and adopt inspection schedule.

The Virginia Statewide Fire Prevention Code (SFPC) empowers local fire marshals to "inspect all structures and premises for the purposes of ascertaining and causing to be corrected any conditions liable to cause fire, contribute to the spread of fire, interfere with firefighting operations, endanger life, or any violations of the provisions or intent of the SFPC." The SFPC goes on to mention that the local Fire Marshal is required to annually inspect all: residential care facilities operated by any state agency; assisted living facilities; student-residence facilities owned or operated by public institutions of higher education; and public schools. It also states that the City's fire department shall have responsibility to serve as the local enforcing agency for the SFPC.

Fire prevention services are provided by the Community Risk Reduction Battalion Chief/Fire Marshal, one full-time, and one part-time Assistant Fire Marshal. The Department does not have an inventory of the number of occupancies in the City of Charlottesville, which is a listing of all the buildings in the City by type (e.g., multifamily dwelling, warehouse, and restaurant). As such, a clear picture of the Fire Prevention Division's inspection workload does not exist, and it is not possible to tell if the Department is meeting State inspection requirements.

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[63] *Community Risk Assessment: A Guide for Conducting a Community Risk Assessment.* http://strategicfire.org/wp-content/uploads/2016/04/Community-Risk-Assessment-Guide-v1.5.pdf

The Fire Prevention Division has been working with the City Assessor to create an occupancy inventory. However, as this report was being written, the Division started working with NDS to ensure that the occupancy module of that Department's new software system (Image Trend Elite) is implemented. This module will include a fully updated occupancy inventory.

Once the occupancy inventory is complete, targets for how frequently each occupancy type should be inspected must be established (ranging from annually to every three years depending on the occupancy type). In a 2008 study titled "Measuring Code Compliance Effectiveness for Fire Related Portions of Codes," the NFPA identified several practices that improve the effectiveness of compliance activities. One of those is to implement a risk-based inspection program. The City of St. Paul, Minnesota is noted for using actual fire experience instead of theoretical risk assessments to determine priority of inspections. Three classifications are used: those occupancies determined to be the highest risk are inspected annually, the second tier bi-annually, and the third group on a three-year rotation. It is recommended that the Department create a system similar to that of St. Paul to prioritize the workload.

The Department is on track to complete approximately 231 inspections in 2016. The following table includes the number of first inspections completed between January and September 2016 and does not reflect returns for code enforcement follow ups, (e.g., second or third inspections to follow up on code issues found on first inspection are not included in this inspection list).

Table 58: Fire Department Inspections Completed, January–September 2016

Occupancy Type	Number of Inspections
UVA Fraternity/Sorority	40
City Parks and Recreation Facility	37
City Building	20
Hotel	19
Private School	13
City School	12
Bed and Breakfast	9
City After School Programs	5
Business	5
Adult Homes	4
Day Care	3
Restaurant	3
Sprinkler System Follow Up	3
TOTAL	**173**

It should be noted that producing the data included in the above table is a cumbersome process for the Division because inspections are currently only tracked on paper. The Department is in the process of upgrading to a new RMS software called ImageTrend® and has already purchased the inspection tracking module. Once implementation of the new system is complete, the Fire Prevention Division should begin tracking all inspections electronically and should consider moving towards a paperless program incorporating the use of tablet-style computers. The data collected in this system can then be used to monitor the ability of the Division to meet inspection standards.

RECOMMENDATION 79: Use collected data to determine appropriate staffing level for the Fire Prevention Division.

Once the City has a complete understanding of the inspection workload, the next step is to determine whether the Fire Prevention Division requires additional staff. A new full-time position – Assistant Fire Marshal – was created in 2016 and given responsibility for completing inspections. It is reasonable to expect one full-time inspector to conduct an average of 800 to 1,000 inspections per year.[64] This estimate includes travel, administrative, and inspection time.[65] This estimate can be used to calculate the number of staff the Fire Prevention Division will need to inspect all occupancies on the recommended schedule. Since each community's occupancy makeup is unique, once the Division begins conducting routine inspections it should calculate its own annual inspection target when more data becomes available rather than applying an average target.

If the workload of the Division does not warrant an additional full-time position, or if funding is not available for an additional position, there are other ways the Department can support the work of the Fire Prevention Division without adding staff. One such option is to create an Assistant Fire Prevention Officer position for each shift. Employees in this position would maintain their core emergency response functions but would receive additional training and assume a technical support role for each shift. They would be the first resource for questions from company officers, conduct re-inspections, provide back-up for system testing, and carry enforcement authority. The Assistant Fire Prevention Officer should be assigned a vehicle to use to perform his/her duties and respond as needed to emergency calls during the day and rejoin his/her assigned crew at night. One benefit of this approach is that the Assistant Fire Prevention Officer would be a resource outside of the Fire Marshal's regular hours. This would allow the Fire Marshal to keep pace with their workload and also focus on the higher priority tasks.

Another option is to restart the engine company inspection program. Not only does this increase the number of inspections conducted, but the firefighters also gain a greater familiarity with the buildings in their district. Implementing an engine company inspection program involves assigning a portion of the lowest risk group to the engine companies. The implementation of such a program should be staged to allow initial training for crews that will perform the inspections and should include a data capturing element for both engine companies, as well as fire prevention specialists to allow the Department to track and predict the amount of time it takes to conduct inspections.

In addition to appropriately staffing the Fire Prevention Division, the Department must ensure that staff in this Division receive adequate training to maintain the necessary skills and certifications. Currently, the Division is not tracking the training Fire Prevention staff receive and is not planning for future required training.

RECOMMENDATION 80: Adopt a preplan maintenance schedule.

As part of a comprehensive approach to delivering high quality fire suppression services, fire departments engage in a practice of conducting pre-incident planning activities. These efforts focus on identifying specific hazards posed by a structure, occupancy type, or operational activities of a business and proactively develop tactics and strategies to minimize the danger to responders and address known life-safety concerns for occupants. These preplans identify core components of the building that need to be addressed by firefighters as part of their initial fire response.

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[64] Based on over 200 studies conducted by TriData, a public safety consulting firm
[65] *Measuring Code Compliance Effectiveness for Fire-Related Portions of Codes.* The Fire Protection Research Foundation, 2008.

The Department has a database of preplans that it created a few years ago. The Department estimates that existing preplans are anywhere from one to three years old as they have not been maintained in recent years. The existing preplans are housed on an internal drive, to which the Battalion Chiefs have access in their command vehicle computer. Since the Department recently installed Mobile Data Terminals (MDTs) in the fire apparatus, the Planning function of the Administration Division has been transitioning existing preplans over to those devices.

In order to ensure the safety of responders and occupants, the Department should adopt a preplan maintenance schedule that involves reviewing all preplans for accuracy approximately every five years, prioritizing based on risk.

Facilities and Equipment

The CFD has best-in-class equipment and has had access to the resources it needs to provide high-quality emergency services to the public. However, some inefficiencies exist that the recommendation in this section aims to improve.

RECOMMENDATION 81: Transfer maintenance responsibility for select Fire Department fleet to Fleet Maintenance Division.

The Fire Department has a total of 37 pieces of equipment (18 light duty vehicles, 14 heavy duty vehicles, and five trailers). The Fire Equipment Mechanic, who operates out of the Ridge Street Station, is responsible for completing recurring preventive maintenance and emergency repairs for the Department's 18 light duty vehicles and for maintenance of equipment (e.g., chain saws, hoses, lights). The more complex maintenance and repairs required by the Department's heavy duty apparatus are completed by an Emergency Vehicle Technician (EVT) certified shop in a neighboring city.[66]

Many fire departments prefer to have a dedicated vehicle maintenance operation located within their department for several reasons. First, fire equipment is very specialized, requiring mechanics to have an EVT certification. Second, having an in-house vehicle maintenance operation means fire departments do not have to compete with other departments when it comes to the prioritization of repairs. Third, in-house operations can minimize the amount of time equipment is out of service. Finally, departments prefer to have direct control over the level of service they receive from the fleet maintenance shop.

While it is understandable that the Department prefers to have its own dedicated vehicle maintenance operation, this arrangement is not the optimal organizational approach for several reasons. First, the Department does not have enough equipment to warrant a dedicated mechanic. The National Fleet Management Association (NFMA) recommends a target mechanic-to-vehicle ratio of between 1:60 and 1:100, depending on the age, condition, and specialized nature of the fleet. The mechanic-to-vehicle ratio in the Department Maintenance Division is 1:37, which is well below the recommended range and does not take into account the fact that major repairs are contracted out. For FY2017, the Department Maintenance Division has a budget of $88,091 (approximately $82,000 of which covers personnel expenses). Second, while the job description for the Fire Equipment Mechanic states that the position "diagnoses, adjusts, repairs, maintains and services a wide variety of medium and heavy duty fire and pump apparatus and aerial truck hydraulic systems," the incumbent is not required to be EVT certified and does not complete those activities. As such, the Maintenance Division is not performing any specialized repairs that would require a dedicated vehicle maintenance operation. Third, the facility out of

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[66] The shop is 70 miles away, but transports equipment for the Department

which the Fire Equipment Mechanic operates is not ideal; specifically, it does not have a lift, it is small, and there is no way to secure the parts inventory.

It is recommended that the Department begin using the Department of Public Works fleet maintenance operation. The Fleet Maintenance Division charges City departments for the cost of parts and labor ($64/hour). It is expected that this recommendation would save the Fire Department money as it would not require more than 1,280[67] hours of labor for the 18 passenger vehicles and various pieces of equipment given the industry standard mechanic-to-vehicle ratio. It may be desirable for the Department to train firefighters from each shift to handle very minor maintenance (bulb changes, etc.), in order to limit how often vehicles must be go to the Public Works fleet maintenance shop.

In order to successfully transition responsibilities for Fire Department passenger vehicles to the Public Works Department, expectations will need to be clear regarding what the fleet maintenance service standards should be for the Fire Department. To facilitate such expectations, a service level agreement should be developed between the Public Works Department's Fleet Management Division and the Fire Department. The service level agreement will outline the mutual expectations of service, identifying target standards with quantifiable measures of success and avenues to resolve any service level issues that may arise,

Emergency Management
RECOMMENDATION 82: Clarify Emergency Management responsibilities.
Emergency management has taken on an increased level of importance in municipal government during the last decade as the scope of natural and manmade disasters, the expectation of preparedness for any contingency, and the need for coordinated interagency response at the local, state, and federal levels has become abundantly clear. Interagency coordination is not only an operational necessity; it is a federal mandate pursuant to the National Incident Management System (NIMS), which requires interoperability of communications and equipment, training of all potential first responders, and a seamless response under the Incident Command System, which is a standardized on-scene incident management concept.

The Charlottesville-UVA-Albemarle County Emergency Communications Center (ECC) provides emergency communications and emergency management for Albemarle County, the City of Charlottesville, and the University of Virginia. The ECC receives all 9-1-1 calls in the area and serves as a central dispatch for the three local police departments, three rescue squads, and fire calls. The regional emergency management program maintains the regional Emergency Operations Plan and coordinates across the City, County, and University on emergency preparedness, training, and in times of disaster. The ECC reports to the ECC Management Board (the City of Charlottesville Fire Chief is a member) and is jointly funded by the County, City, and UVA. ECC employees are County employees.

The ECC's full-time Emergency Management Coordinator is responsible for the following:
- Writing a joint Emergency Operations Plan (EOP)
- Implementing the EOP in times of disaster
- Coordinating City, County and University response to a disaster
- Acting as liaison between local, state and federal disaster officials
- Educating the public on disaster preparedness

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[67] The hours of labor that could be purchased (at $64/hour) for $82,000 (the salary and benefits costs of the Department Maintenance Division).

- Coordinating, planning and conducting the annual City, County and University disaster exercise

There are typically four first responder agencies in a disaster situation: Police, Fire, EMS, and Public Works. It is essential that during an emergency, first responders are aware of predetermined lines of responsibility and can transition into Incident Management without allowing conflict to interfere with the operational response. What appears to be unclear, however, is the delineation of who assumes command as the Emergency Operations Coordinator and when that responsibility is triggered. That can be situational, e.g., the Fire Department assumes Incident Command for a storm/earthquake/tornado, but the Police Department assumes command for an explosion/potential crime scene; or it can be singular, e.g., the Police Chief or Fire Chief is the Emergency Operations Coordinator when an emergency is declared.

While the ECC Emergency Management Coordinator is responsible for overall planning in the region, there is some confusion regarding who within the City is the designated Emergency Operations Coordinator. The previous City Manager was the designated Emergency Operations Coordinator but, when the current City Manager took over, that responsibility is thought to have been assigned to an Assistant City Manager. Emergency preparedness appears to be handled in a siloed manner within the City of Charlottesville. In addition, there are concerns that City departments do not routinely engage in training or exercises together and that not all departments are in compliance with NIMS training requirements. NIMS is the federally-recognized approach to preparing for and managing the response to emergency incidents. This is particularly important when multiple departments (Fire, Police Public Works) are involved in a situation or it crosses multiple governmental jurisdictions. The NIMS training modules are designed to train participants in emergency responses to be able to work together in a cohesive manner. Various levels within an organization need to meet different training levels depending on their responsibilities or roles. The level of compliance with the training expectations are tracked and reported. Compliance is a precursor to receiving federal disaster aid and grants.

A key to successful emergency management is for questions regarding interoperability to be tested and decided long before the incident occurs to avoid distraction in the midst of an emergency event. Therefore, emergency management responsibilities should be clarified, compliance with NIMS training requirements should be verified, and an ongoing program of interagency training should be implemented. The ECC is an asset that the City should leverage as it seeks to implement this recommendation.

Planning
RECOMMENDATION 83: Civilianize the planning function of the Administration Division.
The Planning function of the Administration Division is staffed by the Planning Battalion Chief, Planning Captain, and part-time Assistant Accreditation Manager (who is a retired Captain). The Planning function is responsible for: providing the research, reporting, statistical data analysis, and GIS mapping needed to define the community's fire and EMS problem; supporting the Accreditation process; and providing IT support for the Department.

The responsibilities of the planning function as defined by the CFD do not require firefighter-trained personnel if supervised by managers with fire service experience. Staffing the planning function with civilian employees may enable it to continue to meet the needs of the Department while also saving money. The core responsibilities of the function (i.e., IT support, research and analysis, and accreditation support) can be completed by civilian personnel. As such, this recommendation involves the following specific actions:

- Transfer responsibility for Fire Department IT systems (and the Planning Battalion Chief FTE) to the IT Department
- Convert the Planning Captain position to a civilian Fire Data Analyst position
- Convert the part-time Assistant Accreditation Manager position to a full-time temporary[68] civilian Accreditation Manager position

Currently, the Planning Battalion Chief is responsible for implementing and then supporting those Fire Department-specific systems (i.e., Telestaff and ImageTrend) that the City IT Department does not support. While the Battalion Chief should be commended for stepping in and taking on these responsibilities, this is not the best use of a Battalion Chief position in the long run. Instead, the Department should transfer both the position and responsibility for supporting fire systems to the City's IT Department. The City's IT staff have the knowledge and skills necessary to support the Department's systems and the additional staff will ensure that the IT Department is able to meet the demands of the Fire Department.

The Department has been fortunate to have a retired Captain that was willing to return part-time to assist with accreditation efforts. However, the responsibilities of this position could be managed by a civilian. As the Department moves toward pursing accreditation, the workload of this position will increase, so it is recommended that this position become full-time for approximately two years. Once accreditation is complete, this position can transition back to part-time.

Finally, the Department does not have much administrative or analytical support and has not been using data to inform its decisions (as discussed in other recommendations). Having a position dedicated to the analysis of fire data would give the Department access to the information it needs to make informed decisions. The Fire Data Analyst position would be responsible for the following:

- Participate in the development of the Fire Department's annual budget and prepare supporting documents as necessary
- Review existing Fire Department revenue sources, performance agreements, and contracts to ensure compliance with specified agreements
- Analyze and prepare statistical and monthly fiscal reports, prepare special reports relating the progress of specified Fire Department activities
- Assist the Fire Chief with the analysis of revenues and expenditures of the Fire Department; recommend amendments to the budget as appropriate
- Compile and analyze data and make recommendations on the formation of Fire Department policies, procedures, staffing, and organizational services
- Represent the City in organizational meetings as required
- Work with the City Auditor to correct possible deficiencies
- Conduct surveys, perform research, and prepare recommendations and coordinator City Council reports as they pertain to the Fire Department
- Assist with Fire Department cost of service studies; analyze rates, fees and taxes; and propose ordinances detailing revenue fee adjustments

The following figure includes the current and proposed organizational structure of the planning function of the Administration Division.

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[68] Once accreditation is complete, the responsibilities of this position may be reduced to part-time.
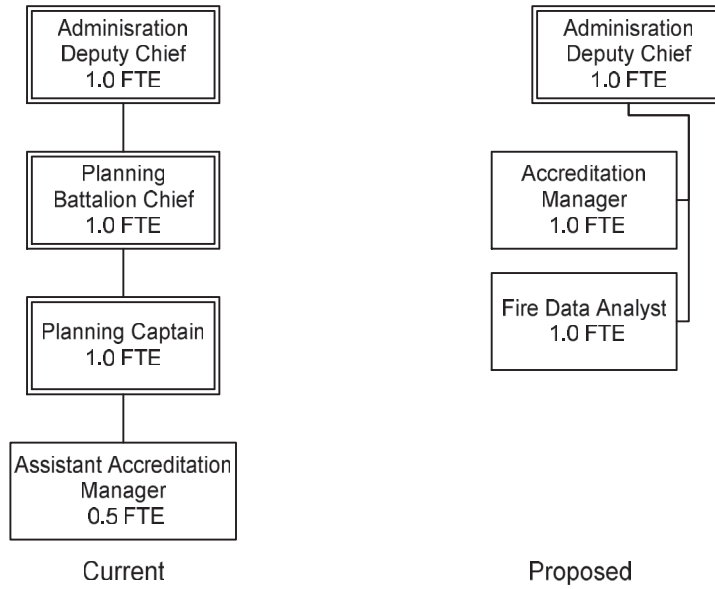
Figure 30: Current and Proposed Planning Function Organizational Structure

Conclusion

This Efficiency Study was undertaken to identify opportunities for efficiency and improved service to the Charlottesville community. The recommendations were developed to build on the City's foundation of high quality service delivery.

Charlottesville is very fortunate to be staffed with employees who care deeply about the community and the residents they serve. They are passionate about providing timely, quality customer service.

There are many areas across the City where Charlottesville is a model organization. The fact that the City decided to undertake this study represents a strong commitment to learning and improving. Using this report as a guide, Charlottesville can now further improve its operations and services.

Implementation of these recommendations will take time and hard work to be successful. The challenge to the City is to make the decision to implement needed changes and to complete implementation in a prioritized manner.

Appendix A – Community Forum Summary

On October 18-19, 2016, The Novak Consulting Group hosted two community forums at the Carver Recreation Center. These forums were advertised by the City and open to any member of the public. In total, 10 individuals participated in the conversations; 2 individuals observed.

During each session, participants were asked to discuss among themselves a series of questions about their experience with and perceptions about City services. The following is a summary of the discussion.[69]

Healthy Families and Community

1. When you think of **Healthy Families and Community,** what specific services or activities do you appreciate?

   - Parks heavily used – community value
   - But don't always think the best decisions are made
   - Downtown Mall
   - Parks Department, availability, strong knowledge of the slate of activities for families – good coordination between what is available from Schools to Parks, etc. including our pools
     - Not sure why the City supports the YMCA when they have competitive programming
     - Personally object to financial subsidy for YMCA
   - Therapeutic recreation is done really well and we'd like to see even more
   - Human Services – Disproportionate Minority Contact – appreciate citizen input in this process; volunteers from UVA doing professional work – there are more ways to tie the community in – appreciate this even though it isn't perfect
   - City Social Services does a great job – better than other social services in the community; more available and does a good job – there may be efficiencies, but it is more effective

2. What opportunities for efficiency do you see in the **Healthy Families and Community** operations of the City?

   - Could be more on elder care options
   - Don't know who to call – no ap like See Click Fix
     - A lot of run around, 10 people have to touch the paper
   - Not as many picnic shelters – City should allow people to rent for less than 1 full day
   - Not prorating the fee for swimming during the day – unfair for working families
     - Person going at 5 pm pays the same as someone who arrived at 10 am
   - All the developers complain about review process
     - What is the public cost of development? How much time are we spending reviewing each application? Are we designing the projects for them? Do we have clear standards?

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[69] The meetings were not recorded, and this represents a summary of the conversations, not verbatim comments by all participants.

- Housing – widely known and widely accepted that housing is in serious disarray, don't think it can be fixed at the local level
  - Spend a significant amount to maintain properties
- Pool prices are not affordable (people noted subsidies are available)
- NDS needs to be split up – there is a conflict between developers, codes and enforcement; there is no ombudsman for citizens who call with a question
- We hire a lot of contractors to do work – who's watching them?
- Neighborhood Commercial Corridors – not well defined, planners don't know everything, need more dialogue with neighborhoods vs. developer needs
- Have issue with language in the Comprehensive Plan – discussion of small area plans and how that is a guide, but there is no reference to Belmont. Plan was developed in 2001 and no one seems to know it exists, except me because I have been around for a while
- No one knows who does things at the City. We need one person who deals with the public and addresses issues concerns and questions
- Lack of athletic fields noted in the Comprehensive Plan – we don't take advantage of the opportunity to meet what is outlined in the Plan – we don't prioritize this above other "needs" that emerge in the moment
- Snow enforcement needs to be figured out
- Concerned about lack of expertise in traffic engineering

Infrastructure and Transportation

1. When you think of **Infrastructure and Transportation,** what specific services or activities do you appreciate?
   - Snow removal
   - City doing better on coordinating projects – but not convinced it is happening holistically across the organization
   - CAT Ridership questions – Someone said we don't have counts – lots of good news coming from CAT let's get the statistics out there – put data out there so everyone can see it!
     - CAT Board member provided some stats

2. What opportunities for efficiency do you see in the **Infrastructure and Transportation** operations of the City?
   - No water fountains on the Mall – they are needed to encourage healthy drinking
   - Belmont Bridge – why did it take so long? Why did procurement take so long?
   - Publish GPS maps so we can see where the snow truck are
   - Streets that Work Initiative – would make sense to relook at snow removal routes against most populated streets
   - CIP – seem to be having a bad streak of problems
     - Huge failure with a fire station – worst managed construction project
   - Sidewalk repair happens in one office and new sidewalks happen in another – hard to get sidewalks repaired or new sidewalks
     - They need to be maintained and managed since we are promoting walkability
     - No excuse to have unsafe sidewalks
   - We have moved traffic engineering to NDS, but certain maintenance (Downtown Mall and building maintenance) is in Parks and Recreation, signage is in Public Works, and now creating new Parking Department

- o   Mobility and Transportation Department would bring all of these pieces together
- Explore more innovative ways to manage parking systems
  - o   Permit parking is archaic
- A lot of issues in terms of Planning in general
  - o   Quasi parking crisis but City has been in control for 30 years
  - o   Solution by the City is to create a Parking Department – who needs to find parking spaces but for 30 years we have taken away parking
- Pool issues – over chlorinated
- Seen people that are not skilled in project management who are assigned to manage projects
  - o   Staff not trained well enough to manage projects, contractors, consultants
- Milling of our street took months
  - o   Wasn't done in a cordial and collegiate way
- Infamous above ground vault installed on my property
- UVA started a bike share program, but it isolated to mostly UVA area
  - o   Had a pop up bike share on Mall for a short period – would like to see more of this
- Communication is a problem in these area – you get voicemail and then you may or may not get a response; sometimes I know who to call, we need more than voicemail. I want live people to answer phones. Never know who to call or who you need to talk to – City employees have multiple roles or if one person is out you never know who to contact
- Inefficiencies
  - o   Saw five guys doing something that required zero skilled labor – painting asphalt to look like concrete – just standing around chatting while one person worked
  - o   Road with no traffic – people on either side of road work, one with yield, one with stop sign; very inefficient and not necessary (took photos, and they changed it, it wasn't a safety issue)
- Don't need to hire more people. Our staff just needs to be more efficient. Someone in a department should be able to guide you in that department.
- We have gone over the top with computers. Not everyone has one – losing contact with the neighborhoods
- Bike paths are dangerous – the counter flow ones like on South Street – they are very dangerous – no one knows who authorized it, whether it was vetted, looked at, etc. They did it because they wanted a short cut.
- CAT – an area where there could be more citizen participation with the users – let them have input on what would improve the bus system

Public Safety and Justice

1. When you think of **Public Safety and Justice,** what specific services or activities do you appreciate?
   - Don't think anyone has a better police force than we do – amazing level of understanding of the law, professional, courteous
   - Had prostitution and drugs in our neighborhood – police worked diligently with us to deal with the problems
   - Fire department does a great job and they haven't been listened to when it comes to street improvements

2. What opportunities for efficiency do you see in the **Public Safety and Justice** operations of the City?
   - Seems expensive to have two truck roll on every call
   - Aren't always officers on the Mall, especially late at night
   - Community Ambassadors/Parking Service Officers back up traffic on Monticello checking for parking violations
   - Fire Department needs to merge with the County – a lot of political capital spent between the two jurisdictions
     - This was studied 6-7 years ago, and it all seemed great but it never happened
       - Benefits of City were 2x the benefits of the County firefighters
       - But County's benefits are much more compatible with the City now
     - E-911 not very efficient for this scale of operation
   - Exceptional volunteer rescue squad
   - Police Department – never waive, windows rolled up, never communicate with residents – otherwise don't know how they do their jobs
     - Neighbor recommended doing a ride-a-long
   - Wasteful for a big truck to go out with every medical call – expensive and inefficient use of resources both manpower and equipment
     - Rescue calls them to assist and they have to drive the vehicle they are assigned to
   - Need to be sure street design anticipates needs for emergency equipment
   - Are we buying the right equipment? Do we need hook and ladders at each station? They do a great job but if our issues are residential, is there something else that could be used? Need to really coordinate this and ensure the right vehicle is sent for the right street
   - NDS Is very important to Public Safety and Justice – street design, etc. needs coordination
   - Even within departments citizens get bounced around – "it's not my job is an attitude" – infuriating!
   - Staff don't want to communicate via email – they don't want a paper trail
   - Inefficiencies cause rancor, but individual city staff are generally really responsive, but they are part of all that! Staff aren't the cause of this…they want to be part of a solution.

Economic Development and Communications

1. When you think of **Economic Development and Communications,** what specific services or activities do you appreciate?
   - Communication really making an effort over the last two years – more electronic notice – FB , email event communication has gotten much better; I have had to learn how to get it, but they are doing a good job getting ahead of the curve – how do you quantify the reach though? What are plans to grow them
   - Economic Development does a great job – really helpful staff, they come up with good ideas
   - Enjoy the newsletter in my water bill

2. What opportunities for efficiency do you see in the **Economic Development and Communications** operations of the City?
   - Economic Development needs to be more proactive, more strategic, more aggressive outreach, more coordination with companies coming to the region
   - Make it easier for people to commute into the city – we just aren't going to be affordable for everyone

- Councilors have said things that can be interpreted as hostile to certain businesses, planning department has been hostile to certain businesses – especially mom and pops
- Not a lot of zoning enforcement
- Several long term businesses that have approached planning about wanting to expand were rejected; within a few days of purchasing land outside City, the City asks you what they can do to get you to stay
- Closer coordination between NDS and ED – maybe some things need to move from NDS to PW – maybe NDS is too big
- There are times when policy gets overridden in the field in order to keep projects moving
  - Used to be able to make things work in the field
- All of our ordinances need to be reviewed and revised for clarity
  - Starting to do a code audit
  - Need much more clarity and less redundancy in our ordinances
- A lot of people have four day work weeks – not efficient for the community
- Need a better data storage system – a lot of things that can't be found
- Supposedly we have a fantastic work order system – but no record of my call
- Is posting signs still effective? Are they placed correctly?
  - City will say they do exactly what needs to be done, but they need to do more than the minimum
- Need to do post-mortems and evaluate the effectiveness of various communication methodologies
- Experience with communications not as good – forwarded questions when I was part of Leadership Institute and didn't get questions answered
- Communications just seems to send out press releases – don't go beyond. Putting everything out on social media is not enough
- Need varied communication – can't do everything on line – need to mail, use newspaper, etc. we need to effectively communicate with everyone and their individual preferences
- "It's on the website" – do you know how big that website is? There are 20 things on each page even if you get a link to a page! Putting it on the website is not the same as making people aware – that is not enough
- Try to watch programming – try to watch meetings live – they are getting better but you really don't have good quality. They are looking around and not speaking into microphones; just started re-televising things – do they not have enough staff?
- Have to know something to even know to go and look for something
- Resident opposition to building hotels – employment numbers and increase in tourism industry employment, and occupancy rates tell us that building hotels is justified and needed, that needs to be communicated – residents complain but City needs to tell them we need this!
- Need more front porch conversations! It's not all about technology.

Financial and Internal Services

1. When you think of **Financial and Internal Services,** what specific services or activities do you appreciate?
   - Finance is awesome – answer the phone – when I go into any of these departments the staff is wonderful – IF YOU GO THERE, yes – but if you call you get voicemail!
   - Registrar is very responsive
   - Assessor is very responsive
   - Any department with a human touch and people answering the phone

- Commissioner of revenue very helpful and responsive working with you to be sure you get bills, etc.
- Finance department – work with them on CIP and they try to be very responsive and have a good process for putting the CIP together.

2. What opportunities for efficiency do you see in the **Financial and Internal Services** operations of the City?
   - Need See Click Fix
   - Need a good work order system that works well
   - Website has been improved by still bulky and clunky
   - Impossible to get someone to answer the phone in the Assessor's Office
   - How much does the study cost?
   - Bus system study 5-6 years ago – took a very close look at it, from a business and landlord perspective
     - Most of the routes pretty much useless
     - Take huge busses around in 8 hour shifts – but most ridership is in the am and pm, why can't you run them like school buses, change the schedule to match the needs
     - Too many one way routes
     - More coordinate with UVA
   - Valuable communication shot in foot by voicemail
   - IT and Communications – how does IT support communications
     - How will this information get out to the efficiency study or will it be lost?
     - IT needs to connect with a person to get the word out
   - Use technology to put out information on what will be paved, etc.
   - Need to make it easy for people

Other issues raised by participants

- Trash pickup is horrible, particularly downtown
  - Trash containers left open on rainy days
  - Not left where they were found – on the street
  - Downtown not picked up enough, not enough capacity and they are overflowing
- No branch pick up
- Back in 1965 – had higher level of services than we have now
  - Trash is more expensive for less service
  - No leaf pick up – other than the bagged
  - Diminishing of services
- The few people who come to meetings do not speak for the rest of the community
- Citizens should have been involved in this process from the very beginning and more people would have been here
- Where is communication between departments happening? That is the common theme!
- Adding responsibilities to city staff – very big concern – can't just contract things out because someone has to be knowledge about the task
- Does this meeting mean anything to the study or did we just check a box on your workplan?
  - Didn't even ask for our contact information – so there will be no follow-up – people who came today are the informed ones

- Neighborhoods can say NO but if it is by right, NDS says no control so we can't do anything about it
- Neighbors upset about lack of parking for restaurant growth in the Neighborhood Corridor – not happening
    - Did three athletic field studies and nothing done
    - Streetscape for Elliott Ave – nothing happening
- We don't need consultants to evaluate City staff. We need strong leadership from City Manager and his people and stop hiring outside contractors – this public private concept they have gotten into leads to a path where they don't value it
- Staffing is an issue – what are staff doing – they don't have time to do things the neighborhood wants.
- Structure
    - Department heads are like CEOs and there isn't enough oversight higher up in the City
        - when in doubt we go "wider" – add to breadth of span of control rather than focusing in on something
    - Parks did a master planning study and didn't use any of the contact information they gathered, didn't re-invite people to engage in the process
- Public input is about checking the box – needs to be managed
- There is a need for follow-up for any issue raised by citizens AND we need point people for dealing with departments. That would be more efficient.

Appendix B - Sample Employee Recognition Programs

CITY OF CLEARWATER
ACHIEVEMENT AWARDS PROGRAM
OVERVIEW

Purpose

The City of Clearwater's Achievement Awards Program (AAP) appreciates, recognizes and rewards employees whose work and attitudes reflect the values of the city. The program aims to motivate and encourage employees to continuously strive for excellence. Identifying and rewarding employees who reflect the values in their day-to-day work and actions encourages other employees to emulate these behaviors. As a result, we "raise the bar" and the quality of service provided. Behaviors and practices which support the City's mission, strategy and goals are the basis of the AAP, and should be celebrated. The values are:

- Caring
- Well-Run
- Integrity
- Outstanding Quality
- Future-Oriented Decision-Making

Our Most Important Asset

The AAP is based on the philosophy that our employees are our most important asset. Without them, the City would not be able to serve its 100,000+ citizens. By rewarding and recognizing employees for the work they do, we let them know that they are valued. The AAP is designed to invest in our people, and hopefully, see a great return in terms of employee loyalty, productivity, and quality and morale.

Strategic Goals

To achieve the desired results, the AAP will focus on the following goals:
1. Improve the quality of work ("raise the bar") and increase productivity
2. Reinforce behaviors and actions that are valued by the City
3. Boost employee morale and motivation
4. Instill a sense of pride in quality work
5. Foster teamwork
6. Reward employees the way they want to be rewarded

The Achievement Awards Committee

To better represent the needs of the individual departments, a 17-member, cross-functional team of employees, the Achievement Awards Committee (AAC),

was developed. The committee provides feedback on the types of recognition employees want, assists with the development of the programs, including criteria for nominations, procedures, and eligibility, and selects which employees will receive the rewards and recognition.

In addition, the AAC:

- Evaluates and fine-tunes the program as needed
- Aids in promoting the program and increasing participation
- Motivates and inspires other employees
- Filters the City-wide goals of the program down to a department level and implement recognition and rewards on a smaller scale
- Meets monthly to make selections and plan and evaluate programs
- Works with subcommittees as needed to develop and implement employee appreciation parties, special events and other activities

The Achievement Awards Committee consists of the Human Resources Analyst who serves as Chairman, and employees appointed by the Human Resources Department, Department Directors, and the appropriate group as follows:

1		Police
1	-	Fire
1	-	Engineering
1	-	Public Utilities
1	-	Public Services
1	-	Gas
1	-	General Services
1	-	Parks & Recreation
1	-	Marine & Aviation
1	-	Library
1	-	Finance/Budget
1	-	Planning & Development
1	-	Solid Waste
1	-	City Hall
1	-	Information Technology/Public Communications
1		Human Resources

Any member who misses four (4) consecutive meetings and does not send a representative is subject to replacement.

Awards and Recognition Programs

The AAP encompasses the following individual programs which aim to meet the goals:

I. Service Awards

Employees will be recognized for duration of employment with the City. The Human Resources Department notifies each department with the name(s) of employees receiving the awards and instructions for selection and presentation. Employees may receive the awards at a City Commission meeting if desired.

The awards are as follows:

5 years	Pin
10 years	Desk clock/thermos/$25 Target Gift Card
15 years	Plaque/desk or pocket pen set/$50 Target Gift Card
20 years	Watch/Crystal desk memento/$75 Target Gift Card
25 years	Day off with pay and $100 gift certificate to one of the following: Target/Beachcomber/Outback/Olive Garden/Home Depot
30 years	Day off with pay, $300 travel certificate, $300 Target Gift Card, or other gift valued at $300
35 years	Day off with pay and $350 Target Gift Card or other gift valued at $350
40 years	Day off with pay and $400 Target Gift Card or other gift valued at $400

II. Retirement Awards

Any employee retiring on pension or Social Security with 20 years of service receives a $200 gift. The department should decide what to give the employee and should request a check from Human Resources for the desired vendor. Cash is not permitted. Employees retiring on pension must have at least 20 years of service and be age 55 OR have 30 years of service regardless of age OR have 10 years of service and be age 65, except hazardous duty positions (police and fire) which is 20 years of service regardless of age OR ten years of service and age 55 OR early retirement with ten years of service and age 50.

III. Employee of the Month and Employee of the Year Award

Each month, an employee is selected by the Achievement Awards Committee for Employee of the Month and will receive an engraved desk clock, a day off with pay, and a certificate. At the end of the calendar year, one employee will be selected as Employee of the Year and will receive an engraved gift and a check for $150. All regular full-time and part-time employees are eligible and any employee may nominate any other employee. See application and procedures for details.

IV. Bimonthly Team and Team of the Year Awards

In February, April, June, August, October, and December, the AAC selects one team for the Bimonthly Team. The award is based on the accomplishment of a specific task or set of tasks. Teams may consist of employees within the same department or different departments. Team members will each receive a $15 check and a certificate. At the end of the calendar year, one team will be selected as the Team of the Year and each member will receive an engraved gift and a check for $25. All regular full-time and part-time employees are eligible and any employee may nominate any other employee. See application and procedures for details.

V. Motivational Mentor Award

The Motivational Mentor Award recognizes employees who devote time to facilitate, develop, advise, motivate, and train other employees. The AAC makes its selection of up to four recipients per quarter. All employees are eligible and any employee may nominate any other employee. Employees receive a letter of recognition and a day off with pay. See application and procedures for details.

VI. Volunteer Service Award

The Volunteer Service Award recognizes employees who have made substantial contributions to the community by donating their time and talents to charity events, City co-sponsored activities, or any community activity outside of their job responsibilities. The AAC makes its selection of up to four recipients per quarter. All employees are eligible and any employee may nominate any other employee. Employees receive a letter of recognition and a day off with pay. See application and procedures for details.

VII. PEER Award

The PEER award, **P**romoting **E**mployee **E**xcellence through **R**ecognition, recognizes employees who "go the extra mile" to provide excellent customer service. Employees or customers can nominate an eligible employee by completing a PEER nomination form. All employees are eligible and any employee may nominate any other employee. Employees will be recognized publicly and in a timely manner with a write-up signed by the Department Director. There is no limit to the amount of employees who may receive the PEER award. Employees receive a letter of recognition and a $20 gift certificate. See application and procedures for details.

VIII. <u>Applause Cards</u>

Applause Cards are used as a way to say "thanks" immediately and on-the-spot for a job well-done. Any employee may present any other employee with an Applause Card. The cards are three-part: one copy to the employee, one to the supervisor, and the third to Human Resources. From those received, four names will be drawn each month for a $10 gift certificate.

For more information

For applications or more information, please contact a member of the Awards Achievement Committee or Debbie Ford at 562-4880.

City of flagstaff

REWARDS & RECOGNITION PROGRAM

Awards:

CITY MANAGER'S EXCELLENCE AWARDS –
The employees of the City of Flagstaff strive to provide excellent customer service in every program and service we provide to each other and to our community. While customer service is expected of each of us, there are some employees that go beyond our expectation and achieve the extraordinary in service delivery and customer satisfaction. To recognize those individuals and to hold them up as examples, employees may be presented with one of the City Manager's Excellence Awards. Since the City's slogan/motto is "Service at a Higher Elevation" the awards were named after the highest points of the San Francisco Peaks.

The Humphrey's is the highest award and will be given to one employee each year that exemplifies all of the values of the City to an extraordinary degree. Recipients will receive an engraved award; a monetary award and a day off with pay. The award will be memorialized on a plaque to be displayed in the City Hall lobby.
The Agassiz awards will be given to an individual or group that provides an outstanding example of at least one of the values of the City. The recipients of the Agassiz Award will also be given a unique nametag, an engraved award, a $50 gift certificate and a day off with pay. Their award will also be memorialized on the City Hall plaque.
The Fremont awards will be given to an individual or group excelling in at least one of the Values of the City. The recipients of the Fremont Award will receive a unique nametag, an engraved award and a half-day off with pay. The award will be memorialized on the City Hall plaque.

Tenured and exempt employees in good standing are eligible. Awards will be presented by the City Manager at a televised City Council Work Session.

QSI (Quality Service Increase) –
A **QSI** provides recognition to those employees whose performance substantially exceeds an acceptable level of competence and has sustained this level of performance over a period of time is eligible for this award.

Tenured and exempt employees are eligible to receive an increase equivalent to the average merit increase.

WOW -
Wonderful Outstanding Worker increases are intended to provide immediate recognition to those employees whose skills, knowledge, or conduct exemplify the City's values of reliability, responsiveness, professionalism, teamwork, and problem solving.

Tenured and exempt employees who have completed one year of service are eligible for a WOW Increase. Employees may receive any amount up to a maximum of $500.

7K -

7K awards recognize employees who have provided excellent customer service (beyond normal working expectations) and have supported the mission and values of the City of Flagstaff.

All tenured and exempt employees in good standing are eligible to participate. Recipients will receive a "Thank You" certificate, entitling them to 4 hours off with pay. A copy of the certificate and supporting documentation will be placed in the employee's 201 file and the employee will be eligible for consideration for the City Manager's Excellence Awards. An employee may receive more than one 7K Award during the fiscal year.

ON THE SPOT AWARDS (5 total) –

Above & Beyond
High Five
You Got Caught Making a Difference
You Rock
You're an Essential Piece
On the Spot awards allow city employees to recognize one another throughout the year. There are five different awards in order to give the nominator a variety to pick from and the ability to nominate individuals whenever they feel the duty performed deserves recognition. Employees are eligible to receive multiple awards throughout the year.

SERVICE –

Employees are eligible to receive the following awards for service which is administered through the Human Resources Division:
5 years – employee receives a City pin.
10 to 35 years - in five-year increments – an employee is eligible to choose from a catalog any item of their choice.

Nomination Process:

For the following awards, employees are nominated by their supervisor or someone in city leadership:
- City Manager's Excellence Award
- QSI Award

For the following awards, employees can nominate other employees:
- WOW Award
- 7K Award
- On the Spot Award

For the following award, employees receive based on years of service:
- Service Award

Reaching for the Stars
Employee Recognition Awards for 2011 Achievements
Guidelines and Criteria

Any employee may nominate any other employee for a Reaching for the Stars Award. Employees may be recognized for achievements in any category. By using a criteria-based recognition system, there may be more than one winner in each category. Likewise, awards will not necessarily be presented in every category every year. The goal is to provide a forum that allows for the recognition of the outstanding achievements of our employees.

Reaching for the Stars Criteria and Mechanism
- Employees may be nominated who, in the opinion of their co-workers, and/or supervisors clearly demonstrate the following achievements and meet the eligibility requirements for the awards.
- Any City employee can nominate any other City employee or team of employees by completing the nomination form and submitting it to the nominee's Department Director by the designated deadline. Forms may be typed or handwritten.
- Department Directors are not eligible for these awards except where noted.
- Employees may self-submit their own nomination form for the Dorothy "Dodi" Cummings Award for Community Service.
- Nomination forms are not required for the North Star Award for Excellence in Attendance, as attendance records are generated by the Financial Services Department.
- Nomination forms are available in Tamarac template/Adobe format (see "Reaching for the Stars Form") as well as in each department. Requests for forms can be made to the department Administrative Coordinator or to the Human Resources Department.
- To determine award recipients, the City Manager and the Recognition Review Committee will evaluate the nomination forms submitted by Department Directors according to program criteria.

Any use of personal days awarded by this program must be scheduled in advance with the approval of the department. These additional personal days have no monetary conversion value and must be used by the end of the calendar year. For purposes of this program, a personal day will be equal to the duration of a regularly scheduled workday, not to exceed ten (10) hours. For example, if a regularly scheduled workday for a recipient is eight (8) hours, that recipient will receive eight (8) hours of personal leave. The hours awarded must be taken as a day, not broken down into increments.

Due to the Compressed Work Schedule, the "regularly scheduled workday" may vary in length from one day to the next; however, the number of hours awarded will be consistent with the number of hours that the employee was expected to work on the day that was taken as a "Day Off." For accounting purposes, there may be occasion where the hours in an individual's accrual account for the "Time Off" category exceed the hours taken by one or two hours. Any remaining hours in the "Time Off" category, following the use of the awarded "Day Off," will not be deemed usable on another day, and may not be rolled into another accrual account.

Nomination Form Content: It is important to stress that each individual who prepares a nomination form needs to provide a narrative that specifically identifies the individual's accomplishments and why the accomplishment is beyond the expectations of the employee's job description. The nomination should demonstrate why the individual's accomplishment is outstanding enough to be recognized in a competitive category. The nomination should be specific about activities that merit the recognition. If the person writing the nomination has difficulty in determining which category is appropriate for the individual's accomplishments, or is having difficulty putting those accomplishments into words, then that person is encouraged to contact a member of the Recognition Review Committee or the Human Resources Department. As outlined in the Reaching for the Stars program information, the Department Director of the employee being nominated is to screen each nomination form for content, completeness, and the appropriate time frame. The Department Director is encouraged to add comments to the nomination form as designated.

Responsibilities

Employees

Any employee may nominate another employee in any given category. Nominations for annual awards should be submitted to the nominated employee's Department Director by no later than **Tuesday, January 17** (extended due to the Monday holiday). If a nomination is inter-departmental, that nomination form should be forwarded to the Director of the nominee's department for review. If the nomination is for an inter-departmental team, it should be forwarded to the Department Director of the group leader or chair of the team being nominated.

Department Directors

Department Directors will review completed award nominations for each award, and then forward appropriate nominations to the Recognition Review Committee. Nominations are due to the City Manager's Office by **January 31** of each year.

Recognition Review Committee

This group will review all nominations for awards as submitted by the Department Directors. The recommendations of the Committee will be made to the City Manager by February 28 of each year. The Committee will also be responsible for reviewing the recognition program and making recommendations for program improvements.

Any member of the Recognition Review Committee who is nominated for an award may not participate in the evaluation of that award category.

City Manager

The City Manager will make appointments to the Recognition Review Committee. Also, the City Manager will make the final decisions on recommendations from the Committee. The City Manager may make administrative changes to this program as needed.

Awards Categories & Criteria

North Star Award for Excellence in Attendance

Eligibility: Must be a full-time regular employee, either FPE or Administrative classification in order to qualify. Employees covered by IAFF are not eligible for the "Day Off", since this issue is covered in the Fire Department's Labor Contract. Nomination forms are not required, as a listing of eligible employees will be generated by the Payroll Division of the Financial Services Department.
- Completion of one calendar year (January 1 – December 31) without the use of any sick time.

Dorothy "Dodi" Cummings Award for Community Service

Eligibility: Available to all full and part-time, regular employees including Department Directors.
- Made outstanding contributions off duty by participating in or implementing community and public service projects (such as volunteerism with various non-profit organizations)
- May not be awarded twice for the same contributions to the community.

Golden Star Award for Heroic Action

Eligibility: Available to all employees including Department Directors for actions on or off duty.
- Demonstrates all or most of the following characteristics:
- Voluntarily risked life to save the life of another person, to prevent injury or to prevent damage to or loss of property in an emergency
- Demonstrated outstanding judgment, courage, or ability in an emergency

Regarding Fire Rescue Department heroic actions, the supervisor or Fire Chief and/or designee will determine if a "heroic action" is above and beyond the call of duty, and therefore eligible for this award.

Galileo Award for Excellence in Innovation
Eligibility: Available to all full and part-time, regular employees
- Demonstrates all or most of the following characteristics:
- Establishes new and outstanding methods, practices, plans, and/or designs which result in improved delivery of services to internal and/or external customers
- Demonstrates unusual initiative or creative ability in the development and improvement of methods, procedures, or devices resulting in substantially increased productivity, efficiency, economy, or reduction in paperwork
- Understands and nurtures creative thinking
- Contributes an idea that is initiated and recognized as a quality idea
- Idea or project must be written and documented. If idea or project is not implemented, highlight difficulties in reaching or obtaining achievement
- Contributes idea that enhances the City's Green Initiative
- Implements an idea that results in efficiency or cost savings

Mercury Award for Excellence in Customer Service
Eligibility: Available to all full and part-time, regular employees.
Demonstrates all or most of the following characteristics:
- Provides exemplary behavior, attitude and productivity that far exceeds the norm and inspires others to achieve performance excellence, exemplary meaning so good or admirable that others would do well to copy it
- Is recognized by peers and co-workers as someone who consistently exceeds the expectations of the customers (internal and external customers)
- Solves an extraordinary customer-based problem
- Seeks input and feedback from customer base
- Consistently demonstrates "Play Your "PART"

Constellation Award for Excellence in Teamwork
Eligibility: Available to all full and part-time, regular employees. Teams of two or more individuals are eligible. Inter-departmental teams are encouraged. Not intended for entire divisions.
Possesses all or most of the following characteristics:
- Displays a consistent spirit of teamwork and cooperation
- Assists others in areas outside their responsibilities
- Joins in and participates fully-- in discussion, task completion and execution of project
- For large teams, this recognition is meant for the key members of the team. Not every member of a team may qualify for this teamwork award.
Note: Individuals are no longer eligible for this award and should be considered in other categories.

Crystal Star Award for Excellence in Leadership
Eligibility: Available to all full and part-time, regular employees at all levels in the organization, excluding Department Directors.
Demonstrates leadership in one or more of the following:
- Leads change and innovation, builds teams, develops and empowers people, and fosters diversity
- Demonstrated outstanding ability, skill, leadership, or creativity in devising and implementing or administering major programs
- Communicates effectively, encourages participation by all employees, and inspires others to reach full potential
- Demonstrates all or most of the following characteristics:
- High levels of productivity
- Works collaboratively
- Understands and/or nurtures creativity
- Provides recognition for achievement
- Sets goals and achieves them
- Contributes original ideas

Supernova Award for Exemplifying Excellence Always
Eligibility: Available to all full and part-time, regular employees
Meets the following criteria:

- Consistently adheres and exemplifies the essence of the Mission Statement by fostering and creating an environment that:
  - Responds to the customer
  - Works as a team
  - Creates and innovates
  - Achieves results
  - Makes a difference
- As stewards of the public trust, values:
  - Vision
  - Integrity
  - Efficiency
  - Quality Service

Individuals who receive this award clearly reflect the highest standard of being "Committed to Excellence Always."

REMEMBER!

Nomination forms for annual awards should be submitted by Tuesday, January 17, 2011, to the Department Director of the employee being nominated. [Template is available on the Intranet - / Human Resources/Recognition/Forms]. Nomination forms may be submitted at any time of year.

If you need help, call a current or past member of the Recognition Review Committee or Human Resources at 954-597-3600.

City of Shoreline, Washington

Employee Recognition Program

CITY OF SHORELINE THANK YOU

Thank you for demonstrating and supporting the City of Shoreline's values!

_____
Signed

_____
Presented to

_____
Presented by

Please circle all values that apply:

CONTINUOUS IMPROVEMENT
Raising the bar!

Teamwork

Innovation

Leadership

Personal and Professional
Development

Organization-Wide
Perspective

Community Involvement

PROFESSIONALISM
Making the difference!

Integrity

Diversity

Respect

Excellence

Responsiveness

RESULTS
Getting it done!

Personalized Service

Problem Solving

Two-Way Communication

Responsible Stewardship

Celebration of Successes

Mutual Support

Fair Process

CITY OF SHORELINE

THANK YOU

Givers:
Fill out this Thank You note and present it to someone who has demonstrated our values.

Receivers:
To be eligible for the drawing, deposit this portion of the note in one of the thank you boxes located throughout City Hall, City Hall Annex and other City locations.

The City of Shoreline has an employee recognition program that allows employees to recognize one another for exemplifying the organization's values. Employees fills out the "Thank You" card and present it to their co-worker. The recipient then submits the bottom portion of the card to HR (or various locations throughout the organization) to be entered into a drawing. This program has been used successfully in the organization to boost morale, encourage employee engagement and to incorporate and reaffirm the values of the organization.

EMPLOYEE RECOGNITION PROGRAM
Guidelines for Radford University

Purpose
In creating a high-performance workplace, recognition is a motivating factor that provides employees with increased job satisfaction and encouragement to perform their jobs more effectively. Recognition programs are excellent motivators and critical to employee retention. When employees are recognized for their accomplishments – and done so in a manner that is meaningful to them, they feel appreciated for their efforts and feel their work is valuable. Recognition programs that acknowledge employees' contributions to the overall objectives and effective operation of Radford University will promote good employee relations, improve morale, and increase productivity.

Funding
Vice presidents, deans, directors, and department heads will ensure the availability of funds to support reasonable costs incurred by employee recognition programs for their work units. Work units will be defined by vice presidents. Most programs will be department-based and, therefore, department-funded. Departments are encouraged to plan for employee recognition awards in their budget. The expense of presenting awards will be paid from institutional funds and will not be deducted from employee award amounts.

Recognition Approaches
Either an informal or formal approach may be used to recognize individuals or teams who have made significant contributions toward the university's goals, priorities, and successful operations.

Informal Recognition
An informal approach provides recognition at any time, typically by the employee's supervisor. Examples include on-the-spot awards to recognize teamwork, project completion, a new or modified work practice, exemplary effort, employee appreciation, etc.

Formal Recognition
Departments or divisions may want to plan a more formal approach to acknowledge employee accomplishments. Examples include awards for attendance, safety, customer service, productivity, honoring separating employees, outstanding achievements, etc.

Awards
Employees may be recognized with monetary and/or non-monetary awards and recognition leave. An employee may receive the maximum for each type of award. All recognition awards will be documented, reported, and processed with the *Employee Recognition Award* form (*Attachment C*). Obtain approvals and mail form with original signatures to Human Resources. The original record for recognition leave will be maintained in Human Resources. For monetary and non-monetary awards, the original record will be forwarded to Accounting Services.

Monetary and Non-Monetary Awards

Full-time and part-time classified, probationary, and wage employees are eligible for monetary and non-monetary awards. In accordance with state policy (1.20 Employee Recognition Programs), no employee will receive more than $1,000 in a fiscal year.

The highest levels of monetary awards will be the institutional awards. Lesser monetary awards will be decentralized to divisions and departments so that employees may be recognized in accordance with the values and priorities of their respective work units. Non-monetary awards will be held to a level so as not to result in tax liability for the employee. NOTE: In years when the budget does not allow for monetary awards, recognition leave will be substituted.

Monetary awards

- Subject to income taxes so an employee never receives the face value of the award.
- Will not be added to an employee's base pay.
- Up to $750 for institutional awards.
- Up to $500 for awards funded by a division or department.
- Will be processed using the PR40.
- Examples of monetary awards are cash, check, and savings bonds.

Non-monetary awards

- Cumulative value will not exceed $50 per employee in a fiscal year (*de minimus* value making it non-taxable as income to the employee).
- Department heads will be responsible for keeping records to ensure that the cumulative value of awards does not exceed $50 in a fiscal year. These records will be subject to audit.
- May be purchased through normal purchasing procedures using object code 1417 for employee recognition awards. Copies of the Employee Recognition Award form should be maintained with departmental purchasing records and/or provided to Accounts Payable as required.
- To add non-refundable money to an employee's RU Express account, complete the *Employee Recognition Award* form and send copy to the RU Express Office.
- Examples of non-monetary awards include thank you notes; ***non-refundable*** money deposited to an employee's RU Express account; non-refundable gift certificates; plaques; trophies; certificates; pencils, pens, desk items; cups, mugs; caps, shirts, sweatshirts; and other items such as tools, electronics, radios, sports equipment, and timepieces.

Recognition Leave

Full-time and part-time classified employees are eligible for up to 40 hours of recognition leave in a calendar leave year (January 10 – January 9). Wage employees are not eligible for recognition leave. The value of leave awarded will not be included in the $1,000 award limit per employee per fiscal year. Awards of recognition leave are decentralized to departments and are typically used as "spot" awards.

- The amount of leave and the reason for awarding leave may be determined by the supervisor but must be approved by the department head.
- The department head will monitor the cumulative hours to ensure that no more than 40 hours are approved.
- The department will immediately send a copy of the *Employee Recognition Award* form to Human Resources when leave is approved.
- Recognition leave lapses within 12 months from the date it is awarded.
- If the employee is unable to use the leave, the rules outlined in State Policy 1.20 will apply.

HOW TO PLAN FOR EMPLOYEE RECOGNITION

Incentives only work if they are meaningful and if the goals set are realistic, attainable, and measurable. Recognition programs that are evaluated subjectively are tougher to develop because employees may not perceive them to be fair. The key is to set goals and evaluate employee behavior objectively, i.e., improve safety record with a lower number of accidents, improve attendance with fewer days missed. These are objective criteria and can be easily understood by participants.

Here are some guidelines for planning a more structured employee recognition program:

Brainstorm with your staff. Seek their input on goals to work toward and/or ways to make the particular employee recognition program a success.

Make it fair and unbiased. State the program objectives and eligibility for participation; describe process for selecting employees for recognition; state objective criteria upon which award decisions will be made; describe awards and manner of presentation; describe method for informing employees about the program; and estimate expenses.

Set a schedule. Determine the intervals at which progress is going to be measured. For example, if a recognition program is slated to run for three months, announce the rankings every two weeks to keep the program at the front of everyone's mind.

Give meaningful recognition. Employees will be most inspired if they feel rewards are worth the effort. Consider personalities when thinking of rewards. Think creatively.

SUGGESTED WAYS TO RECOGNIZE EMPLOYEES

"Way To Go!" Cards. Human Resources will make available specially printed thank-you cards on which to write a note and hand out to employees who do exceptional work.

Ten Ways To Say Thank-you. Telling employees "You're doing a great job" isn't specific enough. Give praise that is detailed and relevant. Here are ten "openers" that you can use to make your praise specific:

<div align="center">

"I'm impressed with…"

"What an effective way to…"

"You got my attention with…"

"You're right on the mark with…"

"One of the things I enjoy most about you is…"

"We couldn't have done it without your…"

"You're doing top quality work on…"

"You can be proud of yourself for…"

"You've made my day because of…"

"You really made a difference by…"

</div>

Thank-you Bucks. A department may want to make up some fake dollars to recognize and reward employees for a job well done or just to appreciate their hustle that day. Ten bucks could be traded for a $50 non-refundable deposit (funded by the work unit) to an employee's RU Express account.

Achievements Box. This is a way to improve morale in your department. When something positive happens, write it down and put it in the box. At the next staff meeting, read each piece of paper to employees to give everyone a lift. Encourage employees to contribute their own positive news to the box by drawing one employee note at random for a small prize.

Weekly Planner. Employees who feel appreciated are much less likely to look for another job. Go through your weekly planner for the next three months. Write the name of a different employee on each week. When that employee's week comes up, catch him or her "doing something right" – and dish out the praise.

Perfect Attendance Award. Employees with perfect attendance for three months win eight hours of recognition leave or non-refundable money (funded by the work unit) deposited to their RU Express account

Check Out These Books from the HR Department's Resource Library for Ideas:
- <u>1001 Ways to Energize Employees</u> by Bob Nelson
- <u>1001 Ways to Reward Employees</u> by Bob Nelson
- <u>Motivating Today's Employees</u> by Bob Nelson
- <u>180 Ways to Walk the Recognition Talk</u> by Eric Harvey

Appendix C - Sample IT Cost Allocation Methodology

IT Cost Allocation Methodology

In 2016, The Novak Consulting Group partnered with the City of Boulder, Colorado to develop a comprehensive IT cost allocation model for the City which sought to more equitably distribute software, hardware, storage, server, and network costs. Practices utilized in the creation of that model are described below to help the City of Charlottesville identify options for allocating IT costs more effectively.

The City of Boulder's IT costs were allocated to departments according to the following methodology:

Table 1: IT Cost Allocation Methodology

Expenditure Category	Cost Allocation Methodology
Department-Owned Software	100% of total costs paid by Department.
Enterprise Software	Total enterprise software annual replacement and maintenance costs allocated based on ratio of department PCs to organization-wide PCs.
Infrastructure Costs (PCs/workstations)	Total PC/workstation annual replacement and maintenance costs allocated based on ratio of department PCs to organization-wide PCs.
Infrastructure Costs (Storage)	Total data storage costs allocated based on ratio of department's total utilized storage to organization-wide utilized storage.
Infrastructure Costs (Network Switches)	Total network infrastructure costs allocated based on ratio of department's switches to organization-wide switches.
Server Costs	100% of Department-specific server costs paid by Department. Enterprise server maintenance and infrastructure costs allocated based on ratio of department's switches to organization-wide switches.
VOIP Infrastructure Costs	Total cost of dedicated VOIP infrastructure (servers, routers, gateways, switches, licenses, services) allocated based on the ratio of department's phone lines to total phone lines utilized organization-wide.

Detailed information on the cost allocation as applied to a General Fund department (the City Attorney's Office) and an Enterprise Fund Department (Public Works Utilities Division) is illustrated in the following table.

Table 2: City of Boulder, Example IT Cost Allocation

Year 1 Ratios and Costs	City of Boulder	City Attorney's Office	Public Works Utilities Division
Department-Owned Software Ratio	Not Applicable	100%	100%
Department-Owned Software Costs	Not Applicable	$15,000	$0
Enterprise Software Ratio	Not Applicable	1.86%	13.04%
Enterprise Software Costs	$675,002	$12,571	$87,991
Infrastructure (PCs/Workstation) Ratio	Not Applicable	1.86%	13.04%

Year 1 Ratios and Costs	City of Boulder	City Attorney's Office	Public Works Utilities Division
Infrastructure (PCs/Workstation) Costs	$132,059	$2,459	$17,215
Infrastructure (Storage) Ratio	Not Applicable	3.26%	15.40%
Infrastructure (Storage) Costs	$108,710	$3,539	$16,746
Infrastructure (Network) Ratio	Not Applicable	1.83%	16.62%
Infrastructure (Network) Costs	$353,757	$6,461	$58,811
Server Ratio	Not Applicable	1.83%	16.62%
Server Costs	$72,053	$940	$11,037
VOIP Ratio	Not Applicable	2.14%	14.68%
VOIP Costs	$71,023	$1,517	$10,426
Overall Allocation	Not Applicable	1.05%	4.97%
Overall Costs	$4,065,105	$42,487	$202,227

Department-Owned Software

Software licensing and maintenance costs were forecasted over a ten-year period, and the replacement costs of department-specific software were charged to departments on an annual basis. For example, the City of Boulder Attorney's Office is scheduled to replace a software program in 2020, with an estimated replacement cost of $75,000. This five-year funding timeframe results in an annual fee of $15,000 to cover the anticipated cost of this replacement. In contrast, the Boulder Public Works Utilities Division utilizes only enterprise-wide software programs and was not assessed an annual fee for specific software.

Enterprise Software

The number of personal computers (PCs) and workstations utilized by each department was calculated, along with the ratio of each department's PCs to the total number of PCs organization-wide. The City of Boulder has over 1,700 PCs in total; 32 are utilized by the City Attorney's Office and 224 are utilized the by the Public Works Utilities Division, resulting in ratios of 1.86% and 13.04% respectively.

The determination to utilize the number of PCs as a ratio was made because a PC represents a platform which may be capable of running software and services shared across the enterprise. In cases where more specificity is known, such as the number of licenses attributable to each department, the City of Charlottesville may choose to allocate annual costs according to these metrics.

Infrastructure (PCs/Workstations)

Allocating costs for PC and workstation replacement followed a similar methodology to allocation for Enterprise Software. The first step in this process is to determine expected replacement costs for the City's workstations based on usage and life expectancy. This cost is then allocated across departments based on the number of PCs and workstations operated by each department.

In the City of Boulder, the estimated annual cost for maintaining enterprise-wide software is $675,002. Applying the PC ratio of 1.86% and 13.04% for the City Attorney's Office and Public Work Utilities Divisions yields allocations of $12,571 and $87,991, respectively.

Infrastructure (Storage)

The Boulder model allocates storage area network (SAN) costs based on each department's current storage utilization in bytes. For example, the Boulder City Attorney's Office utilizes 0.45 terabytes of City storage space, while the Public Works Utilities Division utilizes 2.15 terabytes. Across all departments the City's total storage utilization is 13.9 terabytes, yielding ratios of 3.26% and 15.4% for the City Attorney's Office and Public Works Utilities, respectively.

This ratio allows the City to more accurately assess SAN costs across all departments based on how much data each department actually utilizes. Given estimated annual SAN costs of $108,710, the City Attorney's Office is responsible for $3,539 and the Public Works Utilities Division is responsible for $16,746.

Infrastructure (Network)

Network storage ratios were calculated based on the cost of network switches utilized by each department. The annual replacement cost of all switches was computed and amount to approximately $480,000 per year. Switches serving the Boulder City Attorney's Office amount to $8,766, while switches serving the Public Works Utilities Division amount to $79,799. This results in a ratio of 1.83% for the City Attorney's Office and 16.62% for the Public Works Utilities Division. Going forward, these ratios can be applied to overall network infrastructure costs in order to more accurately assess departments for network infrastructure services.

In situations where departments share network switches, there are several options for allocating costs. These could include dividing the cost of the switch by the number of departments with access, the number of employees per department with access, or by performing an in-depth network traffic analysis to determine which departments send the most traffic across the switch. The choice of methodology to use in this case should be determined by the overall cost of the switch compared with the need for accuracy in allocating costs.

Server Costs

Departments utilizing their own discrete servers should be fully responsible for those servers and associated costs. In the Boulder model, enterprise-wide server costs were allocated based on the network switch ratio, because each server is accessed via the City's internal network.

VOIP Costs

Voice over Internet Protocol (VOIP) telephony costs were allocated by comparing the total cost of all dedicated VOIP infrastructure to the number of VOIP-enabled lines utilized by each department. For example, the Boulder City Attorney's Office utilizes 31 VOIP lines, compared to 213 for the Public Works Utilities Division, out of a total of 1,451 VOIP lines across the City. This results in a ratio of 2.14% for the City Attorney's Office and 14.68% for the Public Works Utilities Department, which informed the overall cost allocation.

The essential methodology utilized in the Boulder model is to allocate costs at the department level as cleanly and efficiently as possible, utilizing ratios that are easily calculated and updatable in future years. This enables a straightforward recalculation of IT costs over periodic intervals and creates greater transparency in the internal service assessment process.