

## Table of Contents

Agenda . . . . .	2
Workshop No. 2 - 2012 Bond Sale and Refunding Presentation	
Coversheet updated. . . . .	4
List . . . . .	5
Workshop No. 3 - Tech Plan Brief to Council	
Coversheet updated. . . . .	7
Tech Plan . . . . .	8



**Mayor**  
Nancy Berry  
**Mayor Pro Tem**  
Dave Ruesink  
**City Manager**  
David Neeley

**Council members**  
Blanche Brick  
Jess Fields  
Karl Mooney  
Katy-Marie Lyles  
Julie Schultz

**Agenda**  
**College Station City Council**  
**Workshop Meeting**  
**Thursday, March 22, 2012 6:00 p.m.**  
**City Hall Council Chambers, 1101 Texas Avenue**  
**College Station, Texas**

1. Presentation, possible action, and discussion on items listed on the consent agenda.
2. Presentation, possible action, and discussion on City of College Station 2012 bond sale and refunding and financing structure. *(This item is also on consent agenda item 2d)*
3. Presentation and discussion regarding an update briefing of the City's Technology Plan.
4. Council Calendar
  - March 23 14th Annual Crawfish Boil at the Expo Center, 5:30 p.m.
  - March 24 Arts Council of Brazos Valley - "Savour the Arts" at George Bush Presidential Library, 7:00 p.m.
  - March 27 Youth Advisory Town Hall Meeting at A&M Consolidated High School - 1801 Harvey Mitchell Parkway South, 4:30 p.m.
  - April 2 Citizen's University 2012 (Council) in Council Chambers at 7:00 p.m.
  - April 4 15th Annual M.B. Zale Lecture and Award "Theo Killion" CEO Zale Corporation at Ray Auditorium, Mays Business School, 11:30 a.m.
  - April 5 P&Z Workshop/Meeting in Council Chambers at 6:00 a.m.
  - April 6 City Offices Closed - HOLIDAY
  - April 12 City Council Workshop/Regular Meeting at 3:00 p.m. and 7:00 p.m.
5. Presentation, possible action, and discussion on future agenda items and review of standing list of Council generated agenda items: A Council Member may inquire about a subject for which notice has not been given. A statement of specific factual information or the recitation of existing policy may be given. Any deliberation shall be limited to a proposal to place the subject on an agenda for a subsequent meeting.
6. Discussion, review and possible action regarding the following meetings: Animal Shelter Board, Arts Council of the Brazos Valley, Arts Council Sub-committee, Audit Committee, Bicycle, Pedestrian, and Greenways Advisory Board, Brazos County Health Dept., Brazos Valley Council of Governments, Brazos Valley Wide Area Communications Task Force, BVSWMA, BVWACS, Cemetery Committee, Code Review Committee, Convention & Visitors Bureau, Design Review Board, Historic Preservation

City Council Workshop Meeting  
Thursday, March 22, 2012

Committee, Interfaith Dialogue Association, Intergovernmental Committee, Joint Neighborhood Parking Taskforce, Joint Relief Funding Review Committee, Landmark Commission, Library Board, Metropolitan Planning Organization, National League of Cities, Outside Agency Funding Review, Parks and Recreation Board, Planning and Zoning Commission, Research Valley Partnership, Regional Transportation Committee for Council of Governments, Signature Event Task Force, Sister City Association, TAMU Student Senate, Texas Municipal League, Transportation Committee, Zoning Board of Adjustments, (Notice of Agendas posted on City Hall bulletin board).

7. Adjourn.

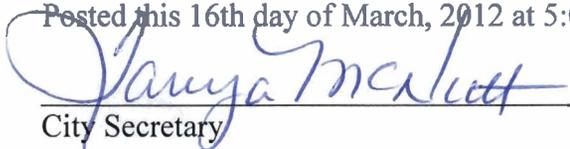
APPROVED:

  
\_\_\_\_\_  
City Manager

  
\_\_\_\_\_

Notice is hereby given that a Workshop Meeting of the City Council of the City of College Station, Texas will be held on the 22nd day of March, 2012 at 6:00 pm in the City Hall Council Chambers, 1101 Texas Avenue, College Station, Texas. The following subjects will be discussed, to wit: See Agenda

Posted this 16th day of March, 2012 at 5:00 pm

  
\_\_\_\_\_  
City Secretary

I, the undersigned, do hereby certify that the above Notice of Meeting of the Governing Body of the City of College Station, Texas, is a true and correct copy of said Notice and that I posted a true and correct copy of said notice on the bulletin board at City Hall, 1101 Texas Avenue, in College Station, Texas, and the City's website, [www.cstx.gov](http://www.cstx.gov) . The Agenda and Notice are readily accessible to the general public at all times. Said Notice and Agenda were posted on March 16, 2012 at 5:00 pm and remained so posted continuously for at least 72 hours proceeding the scheduled time of said meeting.

This public notice was removed from the official board at the College Station City Hall on the following date and time: \_\_\_\_\_ by \_\_\_\_\_.

Dated this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

CITY OF COLLEGE STATION, TEXAS By \_\_\_\_\_

Subscribed and sworn to before me on this the \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
Notary Public – Brazos County, Texas My commission expires: \_\_\_\_\_

This building is wheelchair accessible. Handicap parking spaces are available. Any request for sign interpretive service must be made 48 hours before the meeting. To make arrangements call (979) 764-3517 or (TDD) 1-800-735-2989. Agendas may be viewed on [www.cstx.gov](http://www.cstx.gov). Council meetings are broadcast live on Cable Access Channel 19.

**March 22, 2012**  
**Workshop Agenda Item No. 2**  
**2012 Bond Sale and Refunding Presentation**

**To:** David Neeley, City Manager

**From:** Jeff Kersten, Executive Director of Business Services

**Agenda Caption:** Presentation, possible action, and discussion on City of College Station 2012 bond sale and refunding and financing structure. *(This item is also on consent agenda item 2d)*

**Relationship to Strategic Goals:** Goal 1.1 Spending taxpayer money efficiently.

**Recommendation(s):** Staff recommends the City Council receive the presentation and provide any input or direction desired.

**Summary:** As part of a growing community, the City of College Station has infrastructure needs that must be met. The City has a capital plan to address those needs. Categories of capital projects include streets, parks, facilities, and utilities including electric, water, wastewater and drainage. This presentation will provide an overview of the 2012 proposed capital project funding list, potential refunding opportunity, and structure of financing.

The City has the opportunity to refund a portion of its General Obligation, Certificates of Obligation and Utility Revenue Bonds from 2003, 2004 and 2005 in order to achieve savings due to lower interest rates that are currently available. The City's Financial Advisor, Drew Masterson with First Southwest Company has presented the City with an opportunity to issue refunding bonds for several of our outstanding General Obligation, Certificates of Obligation and Utility Revenue Bond series. Refunding is issuing new debt to replace and pay off existing debt. Refunding can be done for a number of reasons; however, most often are used to accrue a savings against the current debt. The City Council's Finance and Budgetary Policies allow for the City to "refund" debt when there is a net present value savings of at least 5%. This refunding opportunity will save the City approximately 8.379% over the remaining life of the issues.

In order to take advantage of low interest rates and save on debt issuance cost, staff plans to recommend combining the new money sale with the refunding. Combining the two issues would require a negotiated sale rather than our normal bidding process.

In a negotiated sale, a consortium of investment firms is selected with one firm named as the managing partner for the sale. The sale is negotiated and pricing is verified against pricing for similar instruments within a few days of the actual sale date to make sure that the City is getting good pricing for its debt.

**Budget & Financial Summary:** In Fiscal Year 2012 the City intends to issue \$4,435,000 in General Obligation Bonds and \$17,400,000 in Certificates of Obligation Bonds. Based on current estimates, the refunding of \$28,715,000 will reduce the overall cost of the refunded bonds by at least 8.379% over the remaining life of the existing bonds. Total gross savings will be at least \$2,951,528.99 with a net present value savings of \$2,534,570.58. Annual actual savings will range between at least \$210,787.50 and \$233,412.50 per year. The savings will help the City by providing an additional margin that Council may choose to use for projects not currently funded by an identified source.

**Attachments:**

1. List of 2012 Long Term Debt Funded Projects and Proposed Refunding

## 2012 Proposed Bond Issue

### General Obligation Bonds

<b>2003 General Obligation Bonds</b>	<b>Amount</b>
Streets and Transportation	
Oversize Participation	\$ 440,000
<hr/> Streets and Transportation Projects Total	<hr/> \$ 440,000
<b><hr/>2003 General Obligation Bond Total</b>	<b><hr/>\$ 440,000</b>
<b>2008 General Obligation Bonds</b>	
Streets and Transportation	
Penberthy Extension	\$ 500,000
Traffic Signals	650,000
Bird Bond Road Rehabilitation *	423,000
Rock Prairie Road Bridge Widening Design *	567,000
Health Science Center Parkway *	500,000
Lincoln Sidewalks	200,000
Rock Prairie Road West Right of Way	630,000
Lick Creek Hike and Bike Trail	100,000
University Drive Pedestrian Improvements Ph II	250,000
<hr/> Streets and Transportation Projects Total	<hr/> \$ 3,820,000
 Parks	
Lick Creek Park Trail Completion	\$ 100,000
Lincoln Center Addition	75,000
<hr/> Parks Projects Total	<hr/> \$ 175,000
 <b><hr/>2008 General Obligation Bond Total</b>	<b><hr/>\$ 3,995,000</b>
 <b>New General Obligation Bond Total</b>	<b>\$ 4,435,000</b>
 <b><hr/>Proposed Refunding</b>	<b><hr/>\$ 28,715,000</b>
 <b><hr/><hr/>General Obligation Bonds and Refunding Total</b>	<b><hr/><hr/>\$ 33,150,000</b>

\*From remaining Barron Road Widening authorization.

## 2012 Proposed Bond Issue

### Certificates of Obligation

<b>General Government Certificates of Obligation</b>	<b>Amount</b>
<b>General Government</b>	
Fiber Optic Infrastructure	\$ 100,000
<b>General Government Projects Total</b>	<b>\$ 100,000</b>
<hr/>	
<b>Utility Certificates of Obligation</b>	
<b>Electric</b>	
General Plant	\$ 980,000
Overhead System Improvements	1,050,000
Underground System Improvements	750,000
New Services and System Extensions	1,475,000
Residential Street Lighting	60,000
Thoroughfare Street Lighting	132,000
Distribution System Improvements	1,853,000
Transmission System Improvements	1,700,000
<b>Electric Projects Total</b>	<b>\$ 8,000,000</b>
<b>Water Projects</b>	
Dowling Road High Service Water Pump Improvements	\$ 3,000,000
<b>Water Projects Total</b>	<b>\$ 3,000,000</b>
<b>Wastewater</b>	
Bee Creek Parallel Trunk Line	\$ 550,000
Royder/Live Oak Sewer Ext (FM 2154)	500,000
South Knoll/The Glade Rehabilitation	1,600,000
Carter Creek Headworks Improvements	1,500,000
Lick Creek Centrifuge Replacement	1,100,000
Carter Creek Lab and SCADA Building	750,000
<b>Wastewater Projects Total</b>	<b>\$ 6,000,000</b>
<hr/>	
<b>Utility Certificates of Obligation Subtotal</b>	<b>\$ 17,000,000</b>
Estimated Debt Issuance Costs **	\$ 300,000
<hr/>	
<b>Certificates of Obligation Total</b>	<b>\$ 17,400,000</b>

\*\* This is 0.59% of the total bond issue and refunding

**March 22, 2012**  
**Workshop Agenda Item No. 3**  
**Tech Plan Brief to Council**

**To:** David Neeley, City Manager

**From:** Ben Roper, IT Director

**Agenda Caption:** Presentation, and discussion regarding an update briefing of the City's Technology Plan.

**Key Strategic Initiative:** Core services and infrastructure.

**Recommendation(s):** Staff recommends the acceptance of the Technology Plan as report only.

**Summary:** A five year Technology Plan is prepared annually in support of the City's Strategic plan and as a part of the budget preparation process. The plan is finalized once the budget is set and provides a planning tool for technology throughout the City. The planning process looks at what is required to maintain the current level of technology as well as new technologies which may provide more efficient service or enhance the services provided to citizens.

This Year's Tech Plan is in a completely revised format and provides significantly more information regarding technology implementation in the City.

**Budget & Financial Summary:** Each year all proposed technology projects are evaluated in terms of their relevance to the Council adopted Strategic Plan and the funding available for implementation.

**Attachments:**  
Tech Plan

**College Station, Texas  
Department of Information  
Technology**

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**FY 2012  
Information  
Technology Plan**

# Table of Contents

Executive Summary.....	3
SECTION 1.....	4
IT Governance.....	4
1.1 Technology Governance.....	5
1.2 Department of Information Technology Organization.....	6
SECTION 2.....	9
Strategic Directions and Initiatives.....	9
2.1 Department of Information Technology Goals.....	9
2.2 Department of Information Technology Objectives.....	10
2.3 Department of Information Technology Guiding Principles.....	10
SECTION 3.....	12
Information Technology Projects.....	12
3.1 MDT System Replacement (CO 0701).....	14
3.2 Wireless Infrastructure (CO 0704).....	15
3.3 Fiber Optic Infrastructure (CO 0902).....	15
3.4 E-Mail and File System Migration (CO 1201).....	16
3.5 Network and Data System Upgrade (CO 1202).....	16
3.6 Court Software Upgrade (CO 1203).....	17
3.5 ERP System Upgrade/Replacement (CO 1204).....	17
SECTION 4.....	19
Management Controls and Processes.....	19
SECTION 5.....	21
Information Technology Architecture.....	21
5.1 Enterprise Architecture.....	21
5.2 Application and Data Architecture.....	21
5.3 Platform Architecture.....	22
5.3.1 Platforms.....	23
5.4 Network Architecture.....	24
5.5 Security Architecture.....	26
APPENDIX A.....	28
Technology Forecast Project Plan.....	28

## Executive Summary

The Department of Information Technology is an internal service department. Similar to most other city departments, the fiscal challenges of the last two years have resulted in increasing service demand at the same time as resources have declined. To face these challenges, the department is reevaluating past business practices, taking steps to be more efficient, and examining ways to strengthen relationships so technology can be applied intelligently and deliberately to solve business and service delivery challenges.

The City of College Station Information Technology Plan for Fiscal Year 2012 is significantly changed from the Technology Plans submitted in previous years. This document contains significantly more detail and a broader scope explaining how technology is used and applied within the city, and linking the efforts of the Department to the Strategic direction provided by Council. The plan provides expanded detail regarding Capital Projects that have been approved for either continuation or implementation in FY 12, including current status, required resources, and information on the return on investment for these projects.

The challenges faced by the city and the department as technology continues to evolve at a rapid pace are discussed in appropriate sections of the plan, including the philosophy, guidelines and objectives that are used to respond to current technological trends that are challenging the way technology has been applied and delivered in the past. An overview of the technology architecture that exists and is being adapted to meet evolving requirements is presented. This overview demonstrates the complexity and extensive nature of technology use in the city, affecting virtually every employee and impacting the service provided by other departments. Finally, Appendix A contains the information previously presented as the Technology Plan, renamed as the Technology Forecast Project Plan.

# SECTION 1

## IT Governance

Like many governments faced with growth in demand for services, while confronting a strained economy, the City is faced with major challenges and opportunities where technology innovation is essential. These challenges and opportunities are fueled by heightened expectations from the City's citizens and business community to interact and conduct business with the City utilizing modern technology and web-based capabilities that enhance information, communication, and transactions in a variety of formats, and enable further transparency in government. An environment of rapid change and the need for responsiveness together with finite resources highlights the importance of thoughtfully considered deployment of IT trends, that embrace supportable standards and nimble IT enabled services. The City's Information Technology (IT) capabilities must be contemporary, flexible, scalable, secure, and environmentally conscious with the ability to respond to new goals and dynamically changing service and operational requirements by various entities.

The City's IT environment builds on an enterprise architecture that includes, where appropriate, industry standards, open systems, and tools that support a variety of needs and diverse portfolio of systems. The supporting infrastructure foundation is designed to ensure the integrity and safety of transactions, efficiency of resources, data and optimum system performance. Strategic planning, governance and program management assures inclusion in decision making and implementation of solid products, and effective solution delivery at a fully leverage cost.

To enable College Station's technology program to meet these challenges, continued emphasis is placed on determining solutions that provide enhanced web based on-line capabilities (including mobile applications), promote cross department business processes, enable information sharing for more effective decision making, and promote greater transparency by making

information more publicly accessible; and enable key City priorities such as increasing the efficiency and effectiveness of service delivery, use of WEB 2.0, 3.0, mobility, and green IT initiatives, self-service opportunities; ensure data security and privacy; and maintain low cost, supportable and secure infrastructure. IT investments enable these priorities as well as executive leadership goals. Emphasis is also placed on processes to ensure that IT projects are managed consistently through proper levels of oversight and tracking, and ensure that IT investments are leveraged, deliver a return on the investment and are aligned with the City's strategic goals.

This plan summarizes the City's underlying principles for IT Governance: (Section 1); Strategic Directions and Initiatives (Section 2), Information Technology Projects (Section 3); Management Controls and Processes (Section 4); and Information Technology Architecture (Section 5). The plan describes adopted technology investments that accomplish identified goals and objectives; provides status of ongoing project accomplishments; identifies resources required for implementation; and states the return on investment benefits projected by the sponsors of the projects. Projects are linked to department sponsor business and Council's Strategic Plan and Initiatives.

The routine operational activities, on-going support efforts, and normal upgrades and maintenance work and personnel costs for the Department of Information Technology (DIT) described in this plan are funded in the General Fund-Fund 100. Major projects are funded from a variety of sources and may include a combination of cash and debt issuance. Most debt issued for technology projects is in the form of Certificates of Obligation (CO). Sometimes projects included in the IT Plan are funded from other sources such as sponsor department budgets or income funds or other monies to take advantage of total available

City dollars, and provide additional opportunities to meet IT investment goals. Some technology projects are funded by assessing the using departments an annual assessment, which is

placed in the Equipment Replacement Fund - Fund 225. Additional details of each fund can be found in the City of College Station Fiscal Year 2011-2012 Approved Annual Budget.

## 1.1 Technology Governance

Technology is managed as an enterprise capability in the City. The Department of Information Technology (DIT) serves primarily as an internal service delivery department and is responsible for direction and execution of information technology and communications systems and support services on an enterprise-wide infrastructure and architecture framework, setting standards for most systems. Individual departments may have a designated staff member or members that support small scale department business specific point solutions or provide enhanced support and interface for members of that department.

There is close cooperation and collaboration between the Department of Information Technology (DIT) and other City Departments who rely heavily on technology to support their service delivery, including Public Communications, Utilities and Public Safety (Fire, Police).

Public Communications provides multiple tools to assist interested citizens the opportunity to learn more about the City's operations, programs, and activities. The City has long made it possible for the public to subscribe to information published through e-mail using "E-Notifier" (<http://www.cstx.gov/index.aspx?page=3085>), and is increasing the breadth of available information through various channels. The City provides RSS feeds (<http://www.cstx.gov/Rss.aspx?type=5&paramtime=Current>), which allow users to have information sent to them through tools explicitly designed to track published information. Access to information is also expanded through City blogs (<http://www.cstx.gov/index.aspx?page=3609>). Public Communications also manages award-winning broadcast production content for College Station Government Channel 19. Channel 19 televises a variety of programming, including City Council Meetings, which are also available by

video stream, providing residents with programming about City programs and services that serve the community. The department also manages the City website ([www.cstx.gov](http://www.cstx.gov)) and works with other departments to coordinate the City's presence and message delivered by social media. Posting content on these sites allows the City to access an expanded, and potentially younger, audience than it has in the past.

Electric Department and Water Services Department work with DIT to coordinate projects and service delivery. Both Utility Departments operate and maintain supervisory control and data acquisition (SCADA) networks that interface with the city data network and are allocated dedicated fiber strands on the city's fiber optic infrastructure network. Both departments are also key, non-public safety users of the city radio, telephone and pager systems.

The City public safety departments Fire (including Emergency Management) and Police are heavily supported by the DIT. Critical data and voice communication systems as well as various applications supporting day-to-day operations rely extensively on IT support and expertise. During the last four years 35 public safety positions have been added to the city payroll. Due to the extensive demand placed on IT support by public safety departments, maintaining the service level in this area is presenting an increasing challenge.

Annually the DIT works with other city departments to develop and publish a Technology Forecast Project Plan. This plan provides a planning roadmap that is used to identify major projects that are either technology based, or contain a significant technology component. Almost exclusively, major technology projects are managed by the DIT. Projects that contain a major technology component may be managed by DIT or by the sponsoring department. The technology

forecast project plan also projects when the plan is anticipated to be implemented. This information is used by the Fiscal Department in budget planning for future years. The technology forecast project plan is a planning document only. Inclusion of a

project on the plan does not constitute approval of the project or authority to disburse funds. All projects must be submitted via City approved budget and project submission procedures.

## 1.2 Department of Information Technology Organization

The Department of information Technology (DIT) provides leadership, process governance, architecture resources and expertise in developing and deploying and maintaining modern information technologies to improve government efficiency and effectiveness. DIT designs, manages, and implements all aspects of information technology capabilities, programs, and supporting infrastructure that enable City agencies to effectively deliver services and information to internal staff, citizens and the community. To provide focus and direction to staff within the department and to help plan for the future, an overall mission was established with four overarching goals, supported by eight objectives. The mission and goals statements were developed with considerable input from other departments, City Leadership, and the IT staff.

College Station continues to make the necessary investments in information technology hardware and software, which through careful planning, cooperative business and technical execution provides its citizens with a return on investment in the form of improved services. The department's goals were established to energize performance while DIT's functions of developing and maintaining information technology systems, and providing secure, agile and sustainable technology infrastructure and customer service support other city departments. The Department of Information Technology is charged with establishing technology architecture, implementing and managing systems, applications, communications, and the overall management and security of the City's information assets.

The organizational structure of the Department of Information Technology (DIT) has evolved over the years to align with changing priorities, trends, requirements, and leverage technology platforms and resources (Figure 1 at the end of this section

shows the DIT organizational structure). It is designed to address the ongoing evolution of technology and its utilization in support of the business functions within city government. This evolution has seen a tremendous growth in the demand for web based systems, mobile and other wireless devices, as well as platforms that support enterprise class solutions and software applications. Additionally, there has been increasing interest in cloud' architectures and green IT initiatives. These information technology capabilities are becoming crucial components in the day-to-day operations of almost all areas of City government, and the increasing complexity and sophistication of these systems require well-trained support staff, and demands that end users assume more responsibility for understanding and knowing the applications they use on a daily basis. Through necessity, DIT is becoming the technology facilitator rather than the know all expert in every conceivable technology or application.

DIT is organized into five IT functional area divisions containing subject matter experts that support enterprise-wide systems. These functional areas include IT Support Center, Management Information Systems (MIS), E-Government, Communications, and Geographic Information Service (GIS). A brief description of each functional area and their main functions is included in the following paragraphs.

### IT Support Center

The IT Support Center serves three very different functions. First, the support center representatives serve as Tier 1 support for users. They provide a wide range of technical assistance for resolution of routine hardware and application problems experienced by users. Roughly one third of user support calls are resolved by the IT Support Center.

The second function performed by the IT Support Center is to provide administrative support for the IT Department. These functions include, purchasing support, recording timesheets, managing department budget and various other administrative tasks.

The IT Support Center also provides supervision for the city Mail services. This includes supervision of personnel, managing mail accounts, mail pickup and delivery and package handling.

#### Management Information Systems (MIS)

MIS is an umbrella division that includes three different functional areas; network, computer and desktop application support, and enterprise application support.

- The network functional area provides high quality design and support services for the City's Intel CPU based servers and the Ethernet switches and routers that support data connectivity.
- The computer and desktop application support functional area provides personal computer hardware and software resolution to all city computer users, installs and repairs microcomputers including internal parts and peripherals, diagnoses system hardware, software and operator problems, and works with outside vendors for needed hardware repairs.
- The city's systems analysts and business system manager make up the enterprise application support functional area. This internal service area provides project management support for major IT projects, particularly those with a significant enterprise software implementation or integration component. This functional area also provides production support for the city's Enterprise Resource Planning (ERP) applications used by City departments and the hardware for

designated critical systems (i.e. Public Safety dispatch and the IBM I-series system).

#### E-Government

The E-Government division has experienced significant change over the last two years. As recently as two years ago, this division consisted of two personnel, a Coordinator and a Technician. Due to budget reductions, the E-Government Coordinator position was eliminated at the end of FY 2010. More recently the person serving as E-Government Technician was promoted to another position in the department. The City E-Government goals and plan was revisited. The result of this examination was a decision to reclassify the E-Government Technician position to that of E-Government Coordinator. This reclassification is complete.

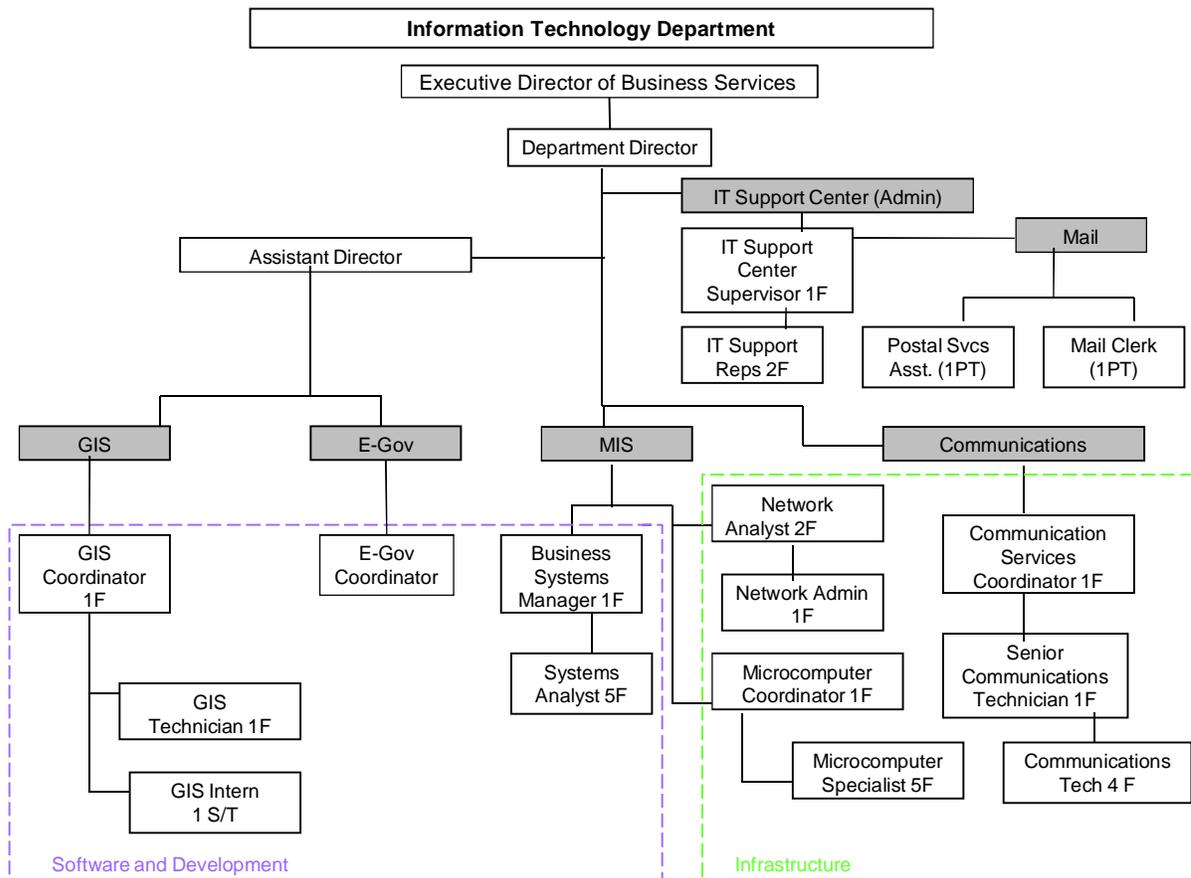
#### Communications

Communications maintains several critical systems including, the Trunk Radio System, Fire Station Alerting, and Paging systems used by Police and Fire to provide critical public safety emergency services. Additionally, they support critical interfaces such as the telephone and computer networks that provide open communication between the public and all City departments. Less obvious but extremely vital is the maintenance of the over 120 miles of fiber optic cable owned by the city which provides a flexible, virtually bandwidth-unlimited connectivity backbone.

#### Geographic Information Services (GIS)

The City maintains a centralized, enterprise GIS system. IT serves as the hub of the City's GIS functions, providing clear standards, goals, and usability across all departments. Several individual departments have GIS analysts or technicians that use the GIS system and data to support their department functions and uses. IT provides overarching policy guidance, strategic innovation and support.

**Figure 1: Department of Information Technology Organizational Structure**



**Note:** MIS includes the functional areas of Business Systems, Network and Microcomputers. For reporting purposes, Business Systems Manager and Micro Coordinator Report to the Assistant Director. Network Analysts report to the Director.

## SECTION 2 Strategic Directions and Initiatives

The City’s Information Technology Goals are aligned with and complement the Strategic Plan and Strategic Initiatives developed by City Council. Providing overarching guidance Council has adopted the following Vision statement:

**College Station...will be a vibrant, progressive, knowledge-based community which promotes the highest quality of life by...**

- § ensuring safe, tranquil, clean, and healthy neighborhoods with enduring character;
- § increasing and maintaining the mobility of College Station citizens through a well-planned and constructed inter-modal transportation system;
- § expecting sensitive development and management of the built and natural environment;
- § supporting well planned, quality and sustainable growth;
- § valuing and protecting our cultural and historical community resources;
- § developing and maintaining quality cost-effective community facilities, infrastructure and services which ensure our city is cohesive and well connected; and
- § pro-actively creating and maintaining economic and educational opportunities for all citizens

College Station will continue to be among the friendliest and most responsive of communities and a demonstrated good partner in maintaining and enhancing all that is good and celebrated in the Brazos Valley. It will continue to be a place where Texas and the world come to learn, live, and conduct business

Further refining the Vision statement above, Council has stated that, **“Promotion and advancement of the community’s quality of life is what we, the Council view as our mission on behalf of the citizens of College Station.”**

Through the Strategic Planning process, City Council identified the following six key strategic initiatives that support both the Vision and Mission of the Council:

- § Financially Sustainable City
- § Core Services and Infrastructure
- § Neighborhood Integrity
- § Diverse Growing Economy
- § Improving Mobility
- § Sustainable City

### Information Technology Goals, Objectives and Guiding Principles

#### 2.1 Department of Information Technology Goals

In recognition of the need to link the City’s Information Technology efforts more closely to Council’s Strategic Plan, Vision and Mission, the following City-wide Information Technology (IT) goals have been established:

- § The City will use technology to increase government transparency and accountability.

- § The City will use technology to more effectively and efficiently deliver services to citizens.
- § The City will develop and maintain critical technology infrastructure that supports the delivery of core services.
- § The City will identify and prioritize the delivery of technology programs and enhancements that increase staff efficiency and effectiveness.

The formulation of these goals provides a framework by which the allocation of critical resources are directed, categorized and aligned

with City goals. The goals are reviewed annually for applicability and relevance against new demands on City business requirements and IT industry trends

## 2.2 Department of Information Technology Objectives

The Department of Information Technology is charged with delivering quality and innovative information technology solutions that provide City staff and, as applicable, citizens with solid technical capabilities that ensure the integrity of the City's information, service efficiency and convenient access to appropriate information and services. DIT has established objectives used to evaluate and guide operations. Unlike goals, which are derived from Council Strategic Initiatives, objectives are more closely linked to the philosophy the department will use in delivering services. DIT embraces the following objectives:

**Objective 1:** Deliver timely and effective response to customer requirements through teamwork.

**Objective 2:** Provide vision, leadership, and a framework for evaluating emerging technologies and implementing proven information technology solutions.

**Objective 3:** Provide customers with convenient access to appropriate information and services through technology.

**Objective 4:** Work with city departments to improve business operations by thoroughly understanding business needs and by planning, implementing and managing the best information technology solutions available.

**Objective 5:** Provide a reliable communication and computer infrastructure foundation on which to efficiently conduct City business operations today and in the future.

**Objective 6:** Effectively communicate information about plans, projects, and achievements to City staff and customers.

**Objective 7:** Develop and maintain technically skilled staff competent in current and emerging information technology, and encourage a user community that understands and can employ modern technologies to maximize business benefits.

**Objective 8:** Ensure effective technical and fiscal management of the department's operations, resources, technology projects and contracts.

## 2.3 Department of Information Technology Guiding Principles

In addition to the Department of Information Technology's Goals and Objectives, College Station's Information Technology projects and processes are developed using the following Guiding Principles:

1. Our ultimate outcome is to use technology as a tool to provide City employees and citizens with timely, convenient access to appropriate information and services.

2. Business needs drive information technology solutions. Technology is a tool, not a requirement.

3. Implement contemporary, but proven, technologies. College Station will stay abreast of emerging trends through an ongoing program of technology evaluation, but will not chase the newest trend or fad. New technologies will often be introduced through pilot projects where both automation and its business benefits and costs can be evaluated prior to any full-scale adoption.

4. To the maximum extent possible, hardware and software shall adhere to open (vendor independent) standards and minimize proprietary solutions. This approach will promote flexibility, interoperability, cost effectiveness, and mitigate the risk of dependence on individual vendors.

5. Provide a solid technology infrastructure as the fundamental building block of the City's IT architecture to support reliability, performance and security of the City's information assets. Manage and maintain the enterprise network as an essential communications channel connecting people to information and processes via contemporary server platforms and workstations. It will provide access for both internal and external connectivity; will be flexible, expandable, and maintainable; be fully integrated using open standards and capable of providing for the unimpeded movement of data, graphics, image, video, and voice.

6. Consider the purchase and integration of top quality, commercial-off-the-shelf (COTS) software requiring minimal customization as the first choice to speed the delivery of new business applications. This may require redesigning some existing work processes to be compatible with beneficial common practice capabilities inherent in many off-the-shelf software packages, while achieving business goals.

7. Capture data once in order to avoid cost, duplication of effort and potential for error and share the data whenever possible. Establish and use common data and common databases to the fullest extent.

## SECTION 3

### Information Technology Projects

The City's technology strategy has several key elements: provide an adequate technology infrastructure for departments in making quality operational improvements; redesign existing business processes with technology to achieve large-scale improvements in service quality and achieve administrative efficiencies; and promote the use of technology in enabling government services without "doors, walls or clocks". The City's long-term commitment to provide quality customer service through the effective use of technology is manifested in service enhancements; improved access to services electronically, expedited response to citizen inquiries, improved operational efficiencies, better information for management decisions, and increased performance capabilities.

#### **FY 11 Projects**

Major technology projects completed in FY 11 include the replacement and upgrade of the city's mid-range computer system (Project CO 1101) - \$170,870, server consolidation and virtualization (Project CO 0901) - \$178,021, aerial topographic mapping (Project CO 1102) - \$92,460, radio system replacement (CO 0601) - \$427,999. Additional work was also accomplished on the multi-year project for fiber optic Infrastructure (Project CO 0902) - \$150,798.

#### **New FY 2012 Funded Projects**

The FY12 Approved Budget includes a projected expenditure of \$832,000 for technology projects. Included is \$300,000 for the replacement of the City's Mobile Data Terminal system. \$122,500 is projected for the Fiber Optic Infrastructure project. An estimated \$224,500 is included for the E-mail and File System Migration project. Finally, \$185,000 has been included for a Network and Data Security Upgrade project. These latter two projects, as well as \$200,000 of the MDT System Replacement budget, will be funded using a portion of the balance of the Radio System Replacement project, which is complete and came

in under budget. Additional detail regarding these and other projects that are scheduled to be accomplished or continued during FY 12 is found in Section 3.1

#### **Funding Priorities**

Funding priorities for technology projects are developed through the annual Capital Improvements Project (CIP) prioritization process. This process weighs department project nominations against Council priorities while considering the requesting Department and City requirements. Projects nominated by DIT for funding in FY 12 meet IT project funding is based on five key investment policy objectives:

- **Mandated Requirements:** enacted by the Federal Government, State of Texas, City Council, Court ordered or City regulation changes.
- **Completion of Prior Investments:** multi-year lease purchase, implements phase or completion of planned project.
- **Enhanced City Security:** homeland security, physical security, and information security and privacy.
- **Improved Service and Efficiency:** consolidate business practices; support more efficient government; optimize management and use of City assets and data; enhance systems to meet the expectations and needs of citizens; and promote service that can be provided through the Internet and e-government.
- **Maintaining a Current and Supportable Technology Infrastructure:** consistent and reliable hardware, software and communications infrastructure; ensure that City staff and citizens have appropriate access to information and services.

These five investment policy objectives relate to the City's continuing focus on making access to

government services more reliable, secure, and efficient. The projects on the following pages are supported and funded for FY 12.

**Completion of Prior Investments – \$221,520**

The City’s IT program focuses on using technology as an essential tool to enable cost-effective delivery of services, and continues to stress the need to build reliable, supportable projects for these services in a timely manner. Many projects funded can be completed within that fiscal year, while others are multi-phase projects that require more than one year of funding. In FY 12, projects that fall under this category include the Wireless Infrastructure Project (CO 0704) and the Fiber Optic Infrastructure Project (CO 0902).

**Enhanced City Security – \$185,000**

The City strives to be as transparent and open as possible. However, there are legitimate regulatory and privacy concerns that require various levels of security for selected data maintained, stored and used by the city. The Network and Data Security Upgrade Project (CO 1202) will enhance the security of city confidential and sensitive data.

**Maintain a Current and Supportable Technology Infrastructure – \$524,500**

In an ever changing technical environment, maintaining a current and supportable technology

environment is a challenge that must be continually addressed to ensure performance, operability, security and integrity. The City’s technological improvement strategy strives to balance business needs that require technology investments with the desire to adopt contemporary but relevant and supportable technology industry trends, as well as the ability to leverage existing infrastructure. Projects funded in FY 2012 support the goal of strengthening the City’s technology foundation where practical, and ensuring that and City staff and citizens have appropriate and reliable access to information and services. These projects include MDT System Replacement (CO 0701) and the E-mail and File System Migration Project (CO 1201).

The City is heavily dependent on vendor developed software to meet specialized business needs. It is incumbent on IT to work with departments to continually evaluate the effectiveness of the software application in use and the responsiveness of the vendors in supporting the City and responding to technical and business requirements. In FY 12 IT, working with affected departments, initiated two projects to review the current software applications in use, evaluate potential alternatives and determine if a change should be made. These two projects are Court Software (CO 1203), and the ERP System Upgrade/Replacement (CO 1204). For FY 12, no funds are budgeted for these two projects, although staff time will be used to begin the evaluation process.

## FY 12 Projects

The CIP projects scheduled for continued implementation or completion in FY 12 are listed in the following paragraphs. Additional detail regarding the project description, goals, status, budget, and Return on Investment (ROI) is

provided for each project. The first three projects listed reflect the continuation of prior year investments for multi-year projects that continue into FY 12.

### 3.1 MDT System Replacement (CO 0701)

#### Project Description

This project provides for continued support and maintenance of the Public Safety radio communications network. The network's component systems are vital for ensuring immediate and systematic response to emergencies, and replacement and enhancement is necessary to maintain performance, availability, reliability, and capacity to meet growing City population and demand for public safety services. This project replaces the electronic equipment that provides the interface between the radio frequency system (800/700 MHz radio system) and the Internet Protocol system (Computer Aided Dispatch). This equipment is located at the Radio Tower and this upgrade follows and complements the Radio System Voice Replacement. The current Data System vendor, Motorola, does not offer a low data rate system to replace or upgrade the current data system. A new vendor, CalAmp (formerly DataRadio), does provide a similar system.

#### Project Goal

The goal of this project is to provide Public Safety Radio System data that meets the current and anticipated coverage needs of Fire, PD and Emergency Responders. The current system is obsolete and does not provide complete coverage in key areas that are experiencing growth.

#### Progress to Date

This system represents a niche market to wireless vendors and there is an extremely limited number of vendors that can provide a low bandwidth radio data system in the spectrum dedicated to public safety communications. The vendor who installed the current system does not have a viable replacement or upgrade product available. Following extensive research, a vendor was located and negotiations regarding contract terms and pricing have taken place. Additionally, the City entered into an Interlocal Agreement with the City of Plano to piggyback on their contract with the selected vendor.

#### Project Budget

FY 2012 funding of \$300,000 is included in the CIP budget for this project. Funding sources include \$100,000 from the Equipment Replacement Fund (Fund 225) and \$200,000 using a portion of the balance of the Radio System Replacement project, which is complete and came in under budget.

#### Return on Investment

The return on investment for this project is realized by the performance, productivity, and effectiveness of public safety services in the City. Replaced and upgraded technology for these systems is critical to the safety of the public and the public safety personnel they support.

## 3.2 Wireless Infrastructure (CO 0704)

### Project Description

A revised wireless plan was approved by Council in November 2008. This plan included staff and citizen wireless access inside designated city facilities, a pilot video surveillance project in Northgate, and the creation of hot zones for staff and citizen access in select locations throughout the city. The first two phases of the project are complete. The final part of this project is the extension of Wi-Fi zones in selected city locations.

### Project Goal

This project will allow the use of Wireless Fidelity (WiFi), by city employees in selected areas of the city, both internal to buildings and externally in designated "hot zones". This access will provide the ability for field workers and public safety personnel to connect to the city network and conduct business without having to return to the office.

### Progress to Date

As noted above, the initial phased of the Wireless Project are complete. The infrastructure to connect and deploy the wireless access points is in place. IT has coordinated with other departments to identify the highest priority locations for the hot zones to be located throughout the city.

### Project Budget

The remaining project budget of \$118,427 for this project is expected to be expended in FY 2012. Funding was originally allocated in FY 07 and consisted of a total of \$200,000 funded through the issuance of debt in the form of Certificates of Obligation (CO).

### Return on Investment

The return on investment for this project is realized by the extension of the city network through wireless technology, making access for city staff possible in locations outside their traditional office. The additional of wireless access in designated locations as a free service to citizens also enhances the quality of life of the community.

## 3.3 Fiber Optic Infrastructure (CO 0902)

### Project Description

This project will support the installation of fiber optic cable to continue expansion of the city's network to new buildings and facilities, and to permit the connection of existing facilities that are not currently on the network.

### Project Goal

This project extends city network connectivity to support voice, video and data to all city facilities and locations where connection to the network is necessary to support the delivery of city services or to permit staff to accomplish their duties.

### Progress to Date

This multi-year project continues with the expansion of the city fiber optic network as required. Planned sub projects in FY 12 include Fire Station #6, Central Park concessions and Southwest Parkway traffic signal connectivity.

### Project Budget

Project funds allocated in FY 12 total \$122,500. Funding source for this project is generally Certificates of Obligation, issued to support projects expected to be completed in the year of issue. Total budget allocation for this project is \$1,000,000.

### Return on Investment

The return on investment for this project is realized by the extension of the city network using

city owned and maintained fiber optic cable to

provide connectivity for staff.

### 3.4 E-Mail and File System Migration (CO 1201)

#### Project Description

The city's E-mail and file systems are managed by Novell software applications. In November 2010, Novell was purchased by Attachmate Corp. Attachmate is controlled by a consortium led by Microsoft. This sale leaves considerable doubt regarding the long term viability of all Novell software, but in particular the GroupWise E-mail application and Novell file management application. After careful review of all options, the decision to move toward Microsoft applications for E-mail and File management was made. This project implements that decision.

#### Project Goal

The goal of this project is to migrate the city E-mail system from GroupWise to Microsoft Exchange Outlook, and implement Microsoft Enterprise licensing. This project will also implement a new E-mail Archive system and move file and print management from Novell to Microsoft.

#### Progress to Date

The change from Novell file and print management to Microsoft file and print management is essentially complete. Hardware to support the new Exchange E-mail platform is in place and has been configured. Planning to stand up and migrate city users to the Outlook application is in progress.

#### Project Budget

FY 2012 funding of \$224,500 is included in the CIP budget for this project. Funding source is from the balance of the Radio System Replacement project, which is complete and came in under budget.

#### Return on Investment

The return on investment for this project is realized by efficiency gained by staff by the implementation of an E-mail system that is a de facto standard for office applications. Most software vendors build in integration or compatibility with Microsoft Outlook into their applications as a standard feature. With GroupWise, the city frequently had to purchase third party software, develop custom interfaces, or not implement needed functionality.

### 3.5 Network and Data System Upgrade (CO 1202)

#### Project Description

This project will examine city wide data security standards, policies and procedures and will result in establishing guidelines and business practices that will bring the city more closely in alignment with the ISO 27002 standard for information security. This project will include the city's first Payment Card Industry (PCI) readiness assessment, network vulnerability testing, and a security assessment of the i5 system.

#### Project Goals

Project goals include the development of City policy that is designed to protect confidential or sensitive data contained on or transported by city information resource equipment and systems. Protection is designed to prevent internal data or programming errors, misuse by individuals within or outside the agency, and unauthorized disclosure of data. This is to lessen the risk of compromising the integrity of city programs, violating individual rights to privacy and confidentiality, violating

criminal law, or potentially endangering the public's safety. This project will also serve to identify information that is confidential or sensitive and develop policies procedures and guidelines for transporting confidential or sensitive data.

### **Progress to Date**

Initial discussion with security vendors to determine overarching scope and planning has occurred. Major components of this project will occur following the E-mail system migration (Project CO 1201).

## **3.6 Court Software Upgrade (CO 1203)**

### **Project Description**

The College Station Municipal Court is responsible for enforcing criminal laws, traffic laws and municipal ordinances within the court's jurisdiction. To accomplish this task, the Court uses Case Management and Jury Management software applications. The current software applications have been in use for a number of years and the city has experienced support and maintenance issues with the software application. This project will examine other court application solutions to determine if the city should change applications or continue with the current solution.

### **Project Goals**

This Project goal is to determine if the city should change the case management software used by Municipal Court.

## **3.5 ERP System Upgrade/Replacement (CO 1204)**

### **Project Description**

The City's current ERP system vendor is Sungard Public Sector (formerly HTE). The city has 27 application modules to perform most city business functions including, but not limited to accounting, purchasing, payroll, HR, fleet management, land

### **Project Budget**

FY 2012 funding of \$185,000 is included in the CIP budget for this project. Funding source is from the balance of the Radio System Replacement project, which is complete and came in under budget.

### **Return on Investment**

The return on investment for this project is realized by improvement of the city network and data security standards, policies and procedures to help ensure that there is no inadvertent disclosure of city sensitive or confidential data.

### **Progress to Date**

Court and DIT staffs have collected preliminary information on other potential software applications.

### **Project Budget**

There is no funding in the FY 12 budget for this project. This project was established to track internal staff time spent on the evaluation of alternatives.

### **Return on Investment**

The return on investment for this project will be realized by determining the most efficient and effective court software application(s) for the city to use.

management, planning and zoning, building permits, and utility billing. Many of these applications no longer meet requirements, or take an inordinate amount of staff time to perform "work a rounds" in order to conduct business. This project will begin the process to examine alternatives to the current system and recommend

a replacement solution. There is an identified need to give priority to the HR and Payroll systems review. It is possible that these two applications could be separated from the overall ERP system review, or may be the initial applications transitioned to a new system.

### **Project Goals**

This Project goal is to determine if the city should change the ERP software used by most city departments to conduct business operations.

### **Progress to Date**

Internal DIT planning has occurred. An initial meeting with using departments is scheduled.

### **Project Budget**

There is no funding in the FY 12 budget for this project. This project was established to track internal staff time spent on the evaluation of alternatives.

### **Return on Investment**

The return on investment for this project will be realized by determining the most efficient and effective ERP system for the city to use.

## SECTION 4

### Management Controls and Processes

The overall governance structure is described in Section 1 of this Plan. City Council sets the overall strategic direction for the City. Working with the Executive Director of Business Services, the Director of Information Technology develops strategy, policy and processes for technology city-wide, as well as directing the activities in the Department of Information Technology. The input of other Department Directors is sought to develop and prioritize technology and information initiatives and projects.

The Strategic Plan adopted by Council provides the City and the Department guidance for long term technology commitments and allocation of limited resources to achieve business objectives. This process is necessary to keep and update technology, analyze appropriateness of technology refresh cycles, and the effectiveness and sustainability of technology investments. Keeping up with the pace of change in technology and using technology effectively to meet government business requirements and public expectations are still the most critical challenges facing the department. Advances in technology enable the workforce to provide better and faster service at a reduced cost, but changes in technology are expensive and complex. New technology must be adopted carefully and integrated wisely into the existing technology infrastructure of the city in order to maximize the benefits in a cost-effective manner.

Seven major trends impact technology solutions and have the potential to enhance the City's current technology architecture. These trends maximize IT capability for users and stakeholders while presenting some deployment challenges in the face of IT resource limitations:

1. The workplace is more mobile; therefore, users are demanding the ability to perform more functions without being tied to a physical location.

2. Communication, collaboration, and information sharing methods are increasingly automated.
3. Information resources must be managed from a full life cycle perspective.
4. Security for information and communications systems and privacy of information are critical priorities.
5. Technical architectures are facing increased capacity and flexibility demands.
6. Citizens require "around the clock" access to information and services through a variety of convenient delivery channels.
7. Interoperability requirements drive a need for data standards and open information architecture.

The resources available to the DIT to carry out its goals and objectives are linked closely to the available funding. The ability of the DIT to continue to meet increasing service demands in a fiscally constrained environment is a tribute to the skill and capability of the DIT staff. As with most service organizations the majority of the DIT operating budget is devoted to salaries and benefits. In FY 12 this percentage is 56.5%. An additional 25.8% of the IT operating budget is devoted to annual maintenance and license fees for hardware and software used throughout the city.

The city budget cycle begins early in the calendar year. Departments, including IT, submit their budget requests early in the process. The DIT uses historical financial data as well as projections based on known and assumed factors to develop a proposed budget that falls within targets provided by the Budget staff. The FY 12 budget reflected the loss of a full time Systems Analyst, part time mail clerk, and one part time GIS intern position. While the loss of these positions was calculated to minimize the impact on service delivery, it further complicates the ability to meet customer expectations.

By policy, DIT receives 10% of the original purchase price of the installed base for hardware and software replacement each year. In FY 12, this equates to \$171,462 for hardware and \$38,223 for software (total \$209,685). This funding is used for replacement of obsolete equipment, including desktop/workstation computers, laptops (except mobile data terminals in city vehicles), scanners, network printers, and purchase of new software or software upgrades for selected city wide applications. Additionally, this funding is used for routine maintenance and repair items needed in day-to-day operations such as replacement hard drives, DVD drives, misc cables, etc. This funding model has worked reasonably well as PC and laptop hardware costs have continued to decrease. The implementation of the server virtualization and consolidation project started in FY 2009 changes server purchases from individual physical devices to the purchase of a strategic asset that hosts numerous virtual servers. This model concentrates server hardware into fewer, more expensive servers that will require development of a different funding model to be successful. Discussion of this change will be a department priority as FY 13 budget planning begins.

It is important to note that the ability of the DIT staff to meet Department Objective 7 in Section 2.2 of this Plan (Develop and maintain technically skilled staff competent in current and emerging information technology...), correlates directly to the availability and quality of training. The rapid pace of technology requires constant skill update and refresh. In the current fiscally constrained environment, the loss of training funds jeopardizes the ability of the staff to meet this objective. Restoration of training funds remains a department priority.

Funding for IT Capital projects begins with the identification of a need by IT, other city departments, or strategic direction received from Council or the City Manager's Office. Consideration of a particular project normally begins with the project being submitted for inclusion on the Technology Forecast Project Plan. This Plan is developed annually by IT, working with other city departments. This plan forms the basis of IT projects submitted for funding during the Capital Improvements Project (CIP) prioritization process. The Technology Forecast Project Plan is included as Appendix A.

## SECTION 5

# Information Technology Architecture

### 5.1 Enterprise Architecture

This section identifies the current information technology architecture implemented in College Station. The City’s technology architecture is a strategic asset that defines technology components necessary to support business operations and the infrastructure required for implementation of new technologies in response to the changing needs of government business. It is a multilayered architecture that includes:

- Application and Data Architectures
- Platform Architecture
- Network Architecture
- Security Architecture

#### IT Architecture Process

College Station began an Enterprise Architecture (EA) approach as a method to improve standardization, document processes, and develop

a blue print or roadmap by which specific technology solutions are developed. This process has evolved and is intended to define the manner in which technology is used to enable flexible business solutions which enable expansion and change as requirements evolve, technology is updated, or becomes obsolete. EA as a foundation and roadmap is intended to enable the City to establish open standards, assess the impact of new requirements and evolving technologies, and allow for the incorporation of new technologies as part of an updated blueprint that benefits other solutions. As implementation progresses and matures, EA will improve the efficiency and effectiveness of technology investments by reducing functional redundancy, leveraging solutions and platforms, optimizing value, and promoting the sharing of knowledge and best practices across City departments.

### 5.2 Application and Data Architecture

Application architecture defines the design of and correlations between software programs and applications. The Architecture promotes common development and presentation standards, enables optimum system integration, provides opportunities for use of shared infrastructure environments, servers, storage and related tools, enables shared use of data, facilitates the reuse of components, and the rapid deployment of applications in response to changing business requirements. Application

Architecture includes elements of technology architecture that converts business process to business intelligence to support the City’s goal of delivering timely, efficient and cost effective services. Currently in College Station enterprise-wide and department specific applications reside on mainframe (IBM iSeries), server (Virtual and Physical), desktop and/or mobile computer platforms, and to a lesser degree cloud based

services. New applications and application enhancements are constantly evaluated, developed or acquired, and implemented as older “legacy” applications retire, or, business units and related functions reorganize and/or have new needs.

To the maximum extent possible, the City’s goal is to use industry standard applications. The Application Architecture also protects the City’s investment in ‘classic’ systems by enabling enhancements that facilitate enhanced usability, improved data analytics, search and reporting and end user controls. In addition, by keeping abreast of emerging technologies the City positions itself to take advantage of emerging opportunities offered by mobile and cloud technologies.

**Geographical Information System Applications (GIS)** – The ArcGIS software suite provides high-end geospatial technology, GIS tools and

functionality and presentation to the GIS user community. The software integrates visual or graphic data in the form of maps, with descriptive or attribute information from internal databases. ArcGIS provides tools for analysts to access, visualize, and query both graphic and tabular data for better analysis and decision-making. There are two levels of license usage for ArcGIS that the city uses. The highest level, ArcInfo, is used by professional GIS analysts and technicians for sophisticated analysis and processes. The View level is used by most users for map creating and simply analysis of the City's geographic data sets. Arc Internet Map Server (ARCIMS) and ArcGIS Server are two components used to distribute highly customized GIS based applications through the Internet / Intranet. Internet based mapping capabilities are incorporated as appropriate for augmenting and using available applications for public and internal government access via the WEB.

**Database Management Systems (DBMS)** – The City uses several database management platforms to support its business applications. Microsoft SQL Server is the primary and preferred City database standard. The majority of small department applications use Microsoft Access or Microsoft SQL Server as the database and programming language architecture. The City's mainframe based applications use a DB2 database.

**Enterprise Decision Support Systems and Business Intelligence** – The City's portfolio currently contains a number of products used for reporting, analytic, and decision support. Crystal Reports, SQL Reporting Services, and Impromptu (Cognos) are the currently-supported tools for enterprise reporting, basic ad-hoc query, and departmental reporting. Many of these products were acquired through COTS solutions with embedded tools. The proliferation of tools and the associated support, training, and infrastructure costs present a strong business case for rationalizing the portfolio, consolidation and virtualization.

The City's strategy is to provide shared enterprise capability and infrastructure for reporting, query, transparency and decision support. As standards are defined for the City's enterprise solution(s), the portfolio will be rationalized into fewer products over time. This approach will enable DIT to continue to modernize the existing systems portfolio while creating economies of scale for improved interoperability, search, and cost control.

**Desktop Office Automation/Workstation Software** – Microsoft's Office Suite is the standard for general productivity automation functions including Word, Excel, PowerPoint, and Outlook. Microsoft Internet Explorer is the standard for Web browsing, implemented in the standard image. Microsoft Project and Visio are available as needed for individual users. Departments may have other desk top based software for special, unique requirements. Of note, the City will migrate from Novell GroupWise as its standard E-mail application to Microsoft Exchange in FY 2012.

**IT Service Desk software** – The IT Service Desk provides City employees centralized portal and point of contact for computer support. GroupLink E-HelpDesk the solution used to support the Service Desk function. The IT Support Center has a high percentage (approximately 30%) of first-call resolution.

**Management Tools** - The DIT has implemented Novell ZENworks as its software tool for desktop configuration management and asset management, and has made significant progress toward implementation. An internal goal in FY 12 is to implement the patch management module. ZENworks provides an automated method to track hardware and software use throughout the city, with the direct result of decreasing personnel time needed for these tasks.

### 5.3 Platform Architecture

Platform architecture defines the technical components of the infrastructure including server and client platforms, middleware, operating systems and interfaces supported, as well as other software tools and equipment used to operate applications. With the City's server consolidation and virtualization effort, started in FY 2009, College Station's platform architecture has been significantly reduced. This project continues in FY 2012. Servers include primarily HP platforms running Microsoft Windows /2003, 2008, 2008R2. Novell servers providing file and print services and E-mail support will be phased out

### 5.3.1 Platforms

#### **Desktop PCs, workstations and Peripherals**

– DIT prescribes hardware platforms and desktop applications standards as well as procurement vehicles to optimize support and cost. Workstations, desktops and laptops (PCs) are replaced in accordance with the City's PC Replacement Program cycle using adopted standards. The PC Replacement strategy applies to all departments and provides the city economies of scale as well as a more robust, effective support environment. (Note: The average age of city PCs has been slowly increasing and currently averages 4.3 years. Discussion with the Budget Office to increase funding available for PC replacement will occur as the FY 2013 budget process starts.)

City PCs are used for office productivity software, enterprise e-mail and client software, Internet/Web access software, and mainframe emulation terminals. Windows 7 began to be deployed with replacement PCs in FY 11, and is continuing.

### 5.3.2 Storage Area Network

College Station implemented its first Storage Area Network (SAN) in 2004. This enabled

as the city migrates to Microsoft applications for these services. Over 800 PC's provide end-user access to City systems. Laptops, Blackberries also support employee access to city network systems. Currently personal I-phones, Droids, and other mobile devices are permitted to connect to the city E-mail application using Microsoft ActiveSync, however, these devices are not supported by DIT. Workstations, desktops, and laptops are standardized using the Windows XP and Windows 7 operating systems. The following paragraphs describe the major features of the City's platform architecture.

Desktop and network printing is accomplished primarily through the City's multi-function copier/printer/scan/fax machine fleet and network printers located in most departments. Departments also use stand alone desktop printers, and special use machines, i.e. plotters, etc.

**LAN-based Network Servers** – College Station's enterprise server environment utilizes Intel based servers. Enterprise-class server technology (e.g. HP 360/380 servers for robust, high availability applications) supports the City's enterprise infrastructure applications such as E-mail, Active Directory, SQL, and major business systems such as GIS.

The City has standardized on VMWare for its virtualization platform and consolidated over 30 servers to the virtual environment.

data storage in a centralized location, with redundancy and failover, mitigating the risk of

data loss due to hardware failure. Data from all Windows and Novell servers now coexist on the same disk subsystem. In 2011, the City further consolidated and upgraded storage with the implementation of a HP P4500 SAN Solution with primary back up to a HP 2000 Multi Storage Array (MSA).

In conjunction with the SAN upgrade, the City enhanced storage back up by implementing CommVault Capacity License Agreement (CLA) for up to 12 Terabytes of data, with data deduplication. These actions position the City for future growth and the ability to meet strategic initiatives for Data Lifecycle Management. Storage Management requirements addressed by the SAN and backup solution are:

- Scalable storage capacity that allows users to increase storage as needed.
- Highly available architectures to minimize/prevent downtime.

- The storage solutions provide a range of cost savings. For example using CommVault for storage platform backup saves the city money because of the built in features such as Deduplication, which help to control the amount of storage needed for the city's growing storage requirements.
- The new HP 4000 storage system provides the high volume input/output operations required by our high volume Database and E-mail systems
- Higher performance backup and restore operations helps to support shrinking backup windows
- The ability to share data across the enterprise rather than building "islands of data".
- Easy to use, centralized management tools that allow hardware and data to be distributed.

## 5.4 Network Architecture

The City views a strong, viable communications infrastructure as a vital component to the overall IT strategy of maintaining its successful deployment of cost-effective solutions that optimize business goals. The enterprise communications infrastructure includes voice and data technologies, as well as various network topologies, transmission services and protocols necessary to facilitate the interconnection of server platforms, intra-building and office networks (LANs), and inter-building and campus networks (WANs).

The network is thus responsive and reliable for City business applications and allows for the uninterrupted flow of voice, data, and video information. The plan and architecture takes into account growth based on the needs of City departments as programs expand for intra-City connectivity. The core network for intra-city is supported by the City's fiber optic network. The underlying infrastructure is able to support voice, data, and video, providing increased, cost-effective bandwidth potential, and improved output.

### 5.4.1 Enterprise Data Communications Network

The College Station Enterprise Data Communications Network serves as the data communications backbone that provides

citywide access to information technology resources. All systems connected on the enterprise network are based on well

recognized, open standards; compliance with published standards is required for any network-connected device or system. The City standard network protocol is TCP/IP. The main fiber optic ring operates at ten gigabit Ethernet as the backbone speed. Edge switches are standardized at gigabit Ethernet, and 1 gigabit per second (Gbps) is the standard desktop speed. All platforms are interconnected via the enterprise network including PCs, servers, multi-function printer/scanner/copier device fleet, and the mainframe computer. Additionally, various wireless technologies have been added in various locations in accordance with the Council approved Wireless Plan. The City also uses commercial broadband wireless cellular infrastructure to support wireless applications, data, images, live video to the

field and mobile devices supporting primarily public safety responders. The ongoing strategy has allowed for the integration of the wireless and wire-line networks.

The City will continue to implement wireless data over commercial systems as necessitated by business and operational requirements. The use of this technology is carefully evaluated to ensure all City data is protected from unauthorized access. Non-broadcast SSID's, Network Address Translation (NAT) and Media Access Control (MAC) address registration, and digital certificates are viable options for protecting access to the city network. Virtual Private Network (VPN) technology is employed to protect data transmitted over commercial services.

#### **5.4.3 Public Service and Public Safety Radio Networks**

To support operations of the various public safety agencies, in 2008 the City partnered with the City of Bryan, City of Brenhan, Brazos County, Washington County, and Texas A&M University to form the Brazos Valley Wide Area Communications System (BVWACS), a regional public safety voice radio system. This regional system provides interoperable communications for all members to support primarily public safety

and emergency management users. Public works and utility users also use the system on a secondary basis. Additionally, BVWACS partnered with the Harris County Regional Radio System, further enhancing interoperable communications. The BVWACS system consists of more than 2400 mobile and portable users, of which approximately 800 are city users. The BVWACS system operates in the 700 MHz Public Safety frequency band.

#### **5.4.4 Voice Communications Network**

In FY 2005, the City deployed a telephone architecture using a Cisco enterprise-wide voice over internet protocol (VoIP) capable platform. This solution uses technology that includes VoIP and the City's fiber-optic network for connecting City facilities. Using the city's fiber backbone greatly reduces the

total costs of providing telecommunications services within the city and permitted the elimination of numerous dedicated telephone lines to various facilities. This system is reaching its end of service life and is planned for upgrade/replacement in FY 2013.

## 5.5 Security Architecture

IT Security continues to be a fundamental component of the City's enterprise architecture and overall strategy. The security architecture fuses best practice security principles with a hardware and software infrastructure, supported by policies, plans, and procedures. This layered architecture is designed to provide an appropriate level of protection for all City information processing resources, regardless of platform, and includes incorporation of industry best practices to yield an overall reduction in risk.

The objectives of IT information security efforts are to ensure confidentiality of information, integrity of data, systems and operations, technical compliance with legal mandates such as HIPAA and PCI, privacy and availability of information processing resources. The department uses a multi-faceted approach to meet these objectives, an approach that includes threat reduction techniques, technology and management solutions, and the vigorous implementation of awareness activities. The basic elements of identification, authentication, authorization, access control, and monitoring of information processing activities are employed throughout the enterprise. The secure network architecture is best described as a defense-in-depth approach to network security design.

Remote access via VPN and Microsoft Terminal Services provides access to the City's network resources for telecommuters, vendors, remote access users or business travelers. Additionally, IT recognizes the need to acquire and implement a mobile security solution which can begin to address the challenges of data loss prevention and security on mobile devices, such as tablets and smartphones, which may access City data from remote networks. Potential solutions will

be examined as part of the FY 12 Network Security Upgrade Project.

Firewall technology is used as the main perimeter defense with all access from the Internet routed through the City's network firewalls. In addition, the City employs E-mail and Internet filters to reduce spam and deny access to prohibited content.

Classic authentication for each internal user is based upon a unique User ID (also called a sign-or log-on) combined with a unique, password.

Intrusion Prevention Systems (IPS) primary function is prevention rather than detection. IPS devices can proactively prevent intrusions by detecting signs of an intrusion and/or detecting an actual intrusion attempt. The city's IPS provides capacity to perform real-time analysis of intrusion attempts to determine if sensitive data, systems or network devices are being attacked or if a breach of confidentiality, integrity, or availability has occurred. The primary objective of Intrusion Prevention is to reduce damage and isolate/contain malicious traffic. With the large quantities of log and alarm data generated by firewalls and sensors, a specialized device and application to support the role of correlation and alerting has also been implemented. The IPS solution conducts a comprehensive threat assessment and allows for quick identification and blocking of credible threats to the network in order to facilitate expedited response and containment of intrusions and malicious activity.

The College Station IT Department is dedicated to the protection of its IT assets and the data & information in its charge. The city is also dedicated to the task of ensuring that no unauthorized access or use of such data. It is for this reason that the FY 12 Network and

Data Security Upgrade Project was designed and funded.

# APPENDIX A

## Technology Forecast Project Plan

**Note: Inclusion of any project in the Technology Forecast Project Plan does not constitute approval of the project or authority to disburse funds. All projects must be submitted via City approved budget and project submission procedures.**

### Statement of Purpose

A five-year Technology Forecast Project Plan is developed and reviewed annually and used to provide a comprehensive approach to the implementation of technology for the City of College Station. Projects listed in the plan represent either new technology, or significant upgrades to existing technology applications or systems that have been identified as requirements by one or more City Departments. The projects are reviewed annually to determine if each project is still needed or feasible. This plan is used in preparing Service Level Adjustments (SLA) and Capital Improvement Projects (CIP) during the budget process. City Council may approve or disapprove of any SLA or CIP submitted.

The following provides a brief summary of each element of the plan. The symbol (|) just to the right of the project name indicates that the project is funded. Funded projects have been approved in previous budget cycles and are included in the Plan as in progress, or ongoing projects.

**1. Broadcasting and studio equipment (|)**  
**General Fund (EG fees) - \$40,000 annually (estimated)                      FY04**  
**Requested by Public Communications**

This ongoing project provides funding for purchase of equipment and items related to broadcasting and production of events, which are aired on the City's cable channel. An educational and governmental fee (EG fee) is collected by the local cable company (15 cents monthly per subscriber) and paid to the City on a quarterly basis. Income from these fees is limited to purchases related to the studio and production facilities for Channel 19.

**2. Fiber optic loop (|)**  
**CO - \$1,000,000**  
**(approx \$900,000 remaining)**  
**Requested by IT**  
**Project CO0902**  
**began FY09**  
**to be completed in FY14**

This is a multi-year project that provides the continued support and expansion of the City of College Station fiber network supporting telecommunications, phone, traffic, utilities, and computer networks throughout the city. Some of the network's capacity is shared with Texas A&M University, College Station Independent School District, Texas Transportation Institute, and the Brazos Valley Community Network. The previous fiber project, ME 9701, was completed in FY 07. Fiber projects completed under this overarching project include Adamson Lagoon, Veterans Park, Texas Ave, fiber distribution cabinet placement, Graham Rd, Wellborn Rd/Old Main reroute, Fire Station #3 reroute, and Tauber/Stasney as well as various miscellaneous upgrades.

**3. MDT radio infrastructure replacement (|) Project CO0701**  
**Equipment Replacement Fund - \$300,000 FY12**  
**Requested by Fire/Police**

The infrastructure to support the public safety mobile computing data side was ten years old in FY2008 which is the expected life of this type of equipment. This project replaces the electronic equipment that provides the interface between radio frequency system (700/800 MHz radio system) and the Internet Protocol system (Computer Aided Dispatch). This equipment is located at the Radio Tower and PD IT Equipment Room and is scheduled to be replaced in FY 2012. (**Note:** The voice subsystem was replaced as part of the Radio Replacement Project completed in late CY 2010. To a lesser extent, the data system is experiencing the same coverage limitations as the voice system addressed by project CO0601.

**4. Aggie Acres Lift Station Fiber (|) FY11-FY12**  
**Water Services Funds: - \$76,175**  
**Requested by Water Services**

This project is being executed in response to Council's exception to policy to allow connection of this lift station in the ETJ to the City's sewer system. The fiber optic line will be the most efficient option of meeting TCEQ's requirement that our collection system be "properly maintained and operated".

**5. SCADA System Upgrade (|) FY05-06 Through FY11-12**  
**Water Services Funds: \$570,000**  
**Requested by Utilities – Water Services Plant Operations**

This project consists of replacing the Supervisory Control and Data Acquisition (SCADA) infrastructure. The existing equipment has exceeded its useful life expectancy. This equipment applies to the Plant Operations. Replacement of wireless communications within the City service area could spawn a pilot project for a wireless mobility workforce. Water Production has been upgraded along with Carters Creek WWTP. Upgrading the Lick Creek WWTP and Lift Stations is in progress. WWW is also in the process of planning for fiber optic connectivity to the lift stations in lieu of wireless communications. Fiber routes have been identified and installation is in process where feasible.

**6. Wireless infrastructure (|) Project CO0704**  
**All Funds - \$200,000 FY09 –FY 12**  
**Ongoing costs estimated at \$20,000**  
**Requested by IT/PD/Community & Economic Development**

This project provides wireless network access by city employees in selected city facilities, and citizen Internet access in some facilities. Additionally, this project implemented a pilot project using wireless video surveillance in the Northgate area. The third objective of this project, to create hotspots that will serve employees in the field, is scheduled for completion in FY12.

**7. Work Order Software with Mapping Integration. (|)**

**Water Services Funds: - \$60,000**  
**Ongoing costs estimated at \$6,000**

**FY10 – FY12**

**Requested by Utilities - Water Services Mapping & Distribution/Collection/Plant Operations**

This project will provide the initial phase to implement a software system to manage the assets of the Water Department. The goal is to reduce duplication efforts and the number of information systems. This type of software will enhance the asset management of buried lines by planning for rehabilitation and trouble areas with a specified geographical area. Also needed is software for management of assets to support scheduling of preventative maintenance, track cost, and better plan for replacement. It is likely that two applications will be required; the existing HTE application for capital asset management, and City Works for operational work orders. For City Works, the database structure for the plant assets is defined and the process of populating the database for a test period with a small sample has begun.

**8. SCADA – New Lift Stations (I)**

**Water Services Funds: - \$240,000**

**FY10 – FY13**

**Requested by Water Services**

This project is to provide communications and telemetry hardware to enable critical lift station operations to be remotely monitored. Construction of new lift stations does not include the implementation of monitoring and alarming via the SCADA system. As of 2009, there are Lift Stations in operation that are not within the SCADA system. Subsequent years allow for SCADA implementation of an additional four per year.

**9. SCADA System Man Machine Interface (MMI) Replacement (I)**

**Water Services Funds: - \$145,000**

**FY11 - FY 13**

**Ongoing costs estimated at \$15,000**

**Requested by Utilities - Water Services Plant Operations**

This project will allow for the evaluation and upgrade of the Plant Operations MMI to a more secure and maintainable configuration. The software will be evaluated on factors such as communication overhead, functionality of trending, alarming, scripting and deployment. Water Services will also look into the ability to interface with performance metrics software and process data analysis to provide best in class products and services. The existing MMI has been in place for more than 12 years without the ability for further integration. Evaluation of software has started to verify that the ongoing maintenance cost is acceptable for the service obtained and actual software still performs and they have not been lagging in technology.

**10. Network and Data Security Upgrade (I)**

**Transferred from Radio Replacement: \$185,000**

**Project CO 1202**

**FY12**

**Requested by IT**

This project will examine city wide data security standards, policies and procedures and will result in establishing guidelines and business practices that will bring the city more closely in alignment with the ISO 27002 standard for information security. Included is a security assessment of the main City Computer operating system. Additionally, this project provides the first Payment Card Industry (PCI) Readiness Assessment. This assessment is the initial

step to achieve compliance with standards set by credit card companies to ensure that we are taking necessary action to be confident that users personal data is secure and protected.

**11. E-mail and File System Migration ( ) Project CO 1201**  
**Transferred from Radio Replacement: \$224,500.00 FY12**  
**Ongoing costs estimated at \$TBD (offset by annual Novell**  
**Maintenance of approximately \$40K)**

**Requested by IT**

The city's E-mail and file systems are managed by Novell software applications. In November 2010, Novell was purchased by Attachmate Corp. Attachmate is controlled by a consortium led by Microsoft. This sale leaves considerable doubt regarding the long term viability of all Novell software, but in particular the GroupWise E-mail application and Novell file management application. After careful review of all options, the decision to move toward Microsoft applications for E-mail and File management was made. This project implements that decision. This project also implements a new E-mail archive system

**12. Enterprise Resource Planning (ERP) System Project CO 1204**  
**[Sungard Replacement]**  
**All Funds - \$ TBD FY 12-FY15**

**Ongoing costs estimated at \$ TBD**

**Requested by CMO, IT, ECD, HR**

The City's current ERP system vendor is Sungard Public Sector (formerly HTE). The city has 27 application modules to perform most city business functions including, but not limited to accounting, purchasing, payroll, HR, fleet management, land management, planning and zoning, building permits, and utility billing. Many of these applications no longer meet requirements, or take an inordinate amount of staff time to perform "work arounds" in order to conduct business. This project will build on the work started in FY 12 and will bring a consultant onboard to further define department requirements and shortfalls in the existing system. There is an identified need to give priority to the HR and Payroll systems review. It is possible that these two applications could be separated from the overall ERP system review, or may be the initial applications transitioned to a new system.

**13. Fire Tone Out System ( ) Project GG 1201**  
**CO/Transferred from Radio Replacement - \$ 599,000 FY 12**  
**Ongoing costs estimated at \$ TBD**

**Requested by Fire/IT**

The current Fire Station Tone out system is obsolete and does not work well with the new digital radio system. This system must be interface with the CAD system and will include the system as a whole, including dispatch equipment, transmission medium (wireless vs wired) and fire station equipment. Compatibility with the City of Bryan fire tone out is needed to facilitate mutual aid agreements.

**14. Phone System Replacement/Upgrade**  
**All Funds - \$900,000 FY 13**  
**Ongoing costs estimated at \$45,000**

**Requested by IT**

The current city phone system was installed in 2005, with an anticipated 7 year useful life. The current hardware will not support additional software upgrades, so the technology will continue to age. Additionally, several key hardware devices are beyond end of life and cannot be covered under maintenance. Failure of these devices will result in degradation or failure to the system.

**15. Timekeeping**

**All Funds - \$150,000**

**FY 13**

**Ongoing costs estimated at \$25,000**

**Requested by Finance/HR**

This project will allow city staff to enter the hours worked as appropriate for the job. This automates timekeeping processes and pushes data entry to the individual staff members. This should reduce workload on the administrative staff.

**16. Identification System Upgrade**

**All Funds - \$65,000**

**FY 13**

**Ongoing costs estimated at \$4,500**

**Requested by PD**

The current hardware and software used by PD to electronically capture fingerprints and palm scans is no longer manufactured. Support of existing systems will end in 2014. This project will replace obsolete equipment and upgrade the system software.

**17. Intranet Upgrade**

**All Funds - \$TBD**

**FY 13**

**Ongoing costs estimated at \$TBD**

**Requested by CMO/Public Communications**

There is a need to enhance the city intranet to make it more interactive and capable of providing information in a variety of formats, including video posting, blogs, etc. This project will develop requirements and determine if design and development could be accomplished in-house, or should be contracted, and finally provide the finished product.

**18. Electronic Agenda Management**

**General Fund - Cost estimated at \$60,000**

**FY 13**

**Ongoing costs estimated at \$7,500**

**Requested by CSO**

The software used by the city to submit agenda items and to prepare an electronic agenda for Council and City Committees is difficult to use and does not easily integrate with other applications. This project will replace the current application with one that integrates with Laserfiche, Granicus, and Municode. The new system should provide automatic agenda assembly; user-defined templates for automated agenda formatting and sequencing; stitch complete packets with attachments; agenda item auto-numbering; legislative history; direct links to agenda and minutes; and automatic posting to the web.

**19. Court Software**

**All Funds - \$TBD**

**FY 14**

**Ongoing costs estimated at \$TBD**

**Requested by IT**

The current software used by Court is difficult to maintain and administer. Updates from the vendor have so many discrepancies that a test system has to be maintained to test new software releases and updates. The IT staff time needed to maintain the system averages over 20 hours per week. The vendor is difficult to work with and annual maintenance fees are among the highest paid by the City. This project will evaluate and recommend an alternate Court software application.

**20. Identity Management System**

**TBD: \$60,000.00**

**FY14**

**Ongoing costs estimated at \$8,000 (however, potential savings of 9,000 due to removing an ongoing system maintenance expense)**

**Requested by IT**

The city's numerous systems are primarily managed by IT, including the setup and removal of user access to those systems. To set up a new user in the City, at least 6 IT staff members must dedicate time to the setup and configuration of the user's new account(s). An identity management system is designed to have a template for roles within the organization and automatically create and assign system privileges to new employees or to new positions an existing employee may take on. It provides a one-stop-shop for auditing, granting, denying privileges as well as providing an employee self-service portal for requesting access to systems and resetting passwords.

**21. Mobile computing in sanitation vehicles**

**Sanitation Fund - \$94,000**

**FY12**

**Ongoing costs estimated at \$12,000**

**Requested by PW-Sanitation**

This project will provide for the equipment and software for Sanitation crews to view and complete work orders in the field. This will also allow the use of GIS in the vehicles.

**22. Water Production Redundant Communications**

**Water Services Funds: - \$480,000**

**FY12 - FY13**

**Requested by Water Services**

This project will provide for data communication improvements. This will allow for built-in redundancy, wireless communications, mobile work force, and any unforeseen communication plan not related to construction projects. The main focus is to construct fiber loops which provide multiple paths to all facilities.

**23. Computer Aided Dispatch (CAD), MDT,RMS, FBR,etc. Application System Upgrade**

**General Fund - \$1,500,000**

**FY14**

**Ongoing costs estimated at \$150,000**

**Requested by Fire/Police**

The current CAD application system received a major upgrade in 2003. The current system is difficult to interface to other systems, has limited reporting capability, and does not meet current requirements. This project will examine the existing system and provide required upgrades/modifications to the system, or replace the system entirely. This may include replacement or upgrade of hardware and software

**24. Citizen request management**

**All Funds - \$60,000**

**FY14**

**Ongoing costs estimated at \$12,000**

**Requested by CMO**

This system or service will allow citizens to enter requests either over the phone or the Internet. It will also allow for the tracking of all contacts with citizens as well as tracking all requests to the point of resolution. There are a number of approaches to implement CRM, Included in this pricing is interface to the Sungard work order system, system implementation and the first 12 months of service. Not implementing the Sungard interface will decrease cost by approximately half.

**25. Vehicle tracking - GPS batch devices**

**Water Services Funds/General Fund: - \$110,000**

**FY14**

**Ongoing costs estimated at \$33,000**

**Requested by Utilities (Water Services Mapping) and PW**

This project allows the tracking of a vehicle's location and the speed of the vehicle (aka Automated Vehicle Locator – AVL). Supervisors then use reports to determine that city vehicles were in the proper locations and whether exceeding speed limits has occurred. This equipment improves customer service by quickly identifying the closest service vehicle to the trouble call. In other organizations this has resulted in fewer accidents and other vehicle related incidents.

**26. Code Enforcement Voice Recording System**

**General Fund \$12,000**

**FY 14**

**Ongoing costs estimated at \$1,500**

**Requested by Planning and Development Services**

This project would allow recording of selected calls to and from the Code Enforcement Officers for Quality Control purposes.

**27. Annual Imagery Updates**

**General Fund \$30,000 annually (estimated)**

**FY13-14**

**Requested by IT, PARD, Fire, PD, Fiscal, P&DS, Public Works, and Utilities**

This project provides funding for purchase of satellite and aerial imagery for use by most departments. The City's growth is requiring imagery and planimetrics on a frequent basis, either overall or for areas of interest. This project will assist with mapping demands for emergency response, locating and planning construction and utilities, and saving City dollars by eliminating trips to verify features. Imagery is currently acquired at two-foot resolution every two years and six-inch resolution every five, which many users find not often enough to meet their work requirements. The

proposed project would allow for six-inch imagery every year in areas of interest, planimetrics every two years, and two-foot resolution imagery annually.

**28. Internet use monitoring system**

**All Funds - \$24,000**

**FY14**

**Ongoing costs estimated at \$24,000**

**Requested by IT**

This project will allow better management of how and when city staff is using access to the Internet. Currently supervisors have no way to quickly see how much time employees spend on the Internet and the type of use being made of the Internet during work hours. This system is available as a subscription service and would be paid annually.

**29. Long distance learning /video conferencing**

**All Funds - \$110,000**

**FY14**

**Ongoing costs estimated at \$15,000**

**Requested by Fire/HR**

This project will provide the additional module and upgrade to the City's video streaming hardware and software to provide training city staff in several locations from another location. This is targeted specifically for Fire to remotely train personnel in the Fire Stations from a single location. This will keep Fire and EMS crews in the areas they are serving while providing required training.

**30. e-Signature city wide**

**All Funds - \$225,000**

**FY15**

**Ongoing costs estimated at \$33,750**

**Requested by IT**

This project will provide electronic signature capability for all employees using desktop computers. Currently only those involved in the Council Agenda packet process have electronic signature capability. This should reduce the flow of paper documents requiring signatures citywide.

**31. Facilities Infrastructure Management System**

**Unfunded - \$150,000**

**FY-14**

**Ongoing costs estimated \$25,000**

**Requested by Public Works**

This project is for the purchase and installation a facility infrastructure management system to better monitor expenditures and control facility costs. System purchase may include a server for monitoring software, monitoring sensors, and other ancillary equipment and software. This project could be included as part of project # 12 (ERP System).

**32. New- Bar Coding Inventory System**

**Unfunded - \$85,000**

**TBD**

**Ongoing costs estimated \$12,000**

**Requested by Fire/Police/Finance/Public Works**

These 4 departments have requested using Bar Coding Inventory Tracking. Finance needs the system to track assets placed in the field to ensure they have records of the assets' locations. Police is looking at bar coding to track evidence locations with greater accuracy. Fire needs it to track EMS medical supplies usage and age to ensure the emergency medical supplies are available, up to date, and in the correct spot. This will also help Fire track the usage of regulated medical supplies to ensure proper tracking of that material's usage. Public Works plans to use the system to manage Traffic Systems inventory.