

Information Technology (IT) “Strategy Planning Summary”

A. Introduction – Planning Process

The IT Department works collaboratively with the City administration, Department Heads and IT staff to solicit input for technology requirements and innovation. This process incorporates input from City Council, in the form of Council Orders and discussions, and from the Public through public comment at meetings and emails to IT staff and management.

Projects are prioritized and scheduled on a logical and realistic timetable, utilizing available IT and Departmental (end-user) personnel and financial resources, while taking into account formal bid development and selection processes, when applicable. In some cases, projects are phased in over multiple years, due to complexity and to ensure successful completion of the project.

Larger projects may require significant time for IT staff and departments to understand the impact of proposed changes and modify business practices, if necessary. End user training is, typically, a component of an IT implementation.

It should be noted that IT Department functions also include the maintenance and upgrades to existing computer hardware and software applications.

The following is a list of recently completed projects which demonstrate the City’s efforts to advance technology innovations across many departments, with an annual capital budget allocation that addresses a range of departmental needs, while being aware of the impact on taxpayers.

B. Completed Projects

FY2006

- Completed the implementation of the Cambridge Request System (CRS) for all City departments, which included a more robust online permitting capability on the City Website.
- Implemented streaming live Internet video for City Council Meetings held in the Sullivan Chamber, along with links to live and archived meetings on the City’s Website.
- Launched E-Line for street cleaning and rubbish pickup schedules and alerts to residents of parking bans during snowstorms.
- Completed development of a user-friendly Web-enabled interactive GIS tool for city staff and for use on GIS Web pages, CRS and the Assessor’s Property Database Web page. Replaced dated static maps with updated Web-enabled maps and created a comparable properties viewer for each property in the City.

FY2007

- Assisted in the design and planning for the networks for the new Public Safety Facility and the Main Library.
- Enhanced the Web-enabled interactive GIS tool, Cambridge CityViewer, and enhanced various data layers in order to provide the public with better access to more up-to-date, useful information.

- Implemented Network Attached Storage (NAS) and Storage Area Network (SAN) systems that will increase storage capacity alleviate the need to have user storage limits, and save money by reducing the number of new servers required to handle data storage needs.
- Developed a Purchasing Bid tracking system and made it accessible on the Purchasing Department Website.
- Continued development of the Cambridge Website by upgrading the City Clerk Physician's Database, Animal Commission's Database, Arts Council's Calendar Application and online permitting capabilities, in conjunction with improvements to the Women's Commission, West Cambridge Youth & Community Center, Veterans' Services Department and Police Department Websites.

FY2008

- Provided recycled PC's for the Newtowne Court Digital Divide project and reinstalled the WiFi network, thereby improving the reliability and access to the World Wide Web for residents of Newtowne Court.
- Implemented online fee payment for Traffic & Parking permits, including online credit card capability and improvements to the permit accounting system.
- Expanded functionality of GIS technology by: providing more accurate information for commercial search engines and GPS technologies; creating a new National Register of Historic Places GIS layer and atlas for the Cambridge Historical Commission; developing additional Web-enabled interactive GIS tools and CityViewers, that resulted in noticeable increases in both public and staff use; and completing a full review for the U.S. Census 2010 Local Update of Census Addresses (LUCA) program, to aid the U.S. Census in accurate field checking for the 2010 Census.
- Improved network capabilities by: creating a process for the School Department to broadcast their recorded meetings on the Web; implementing functionality for Library computers to serve as both City and Minuteman PC's; and setting up Web content filters for the Youth Centers.

FY2009

- Completed design and installation of a new data phone system, Voice over Internet Protocol (VoIP), for the new Public Safety building and the new Main Library.
- Implemented an online street occupancy permit application and payment system, and an online resident parking renewal and payment system.
- Implemented an online payment system for utility billing.
- Implemented a citywide municipal ticketing system.
- Expanded the E-Line system to include text messaging capability to alert residents of street cleaning.
- Created a new Parks GIS Viewer for CDD and Infrastructure viewers for DPW and Water Depts.
- The GIS Dept. completed a full review for the Census 2010 Participant Statistical Area Program (PSAP), with CDD. Information aided US Census in delineating accurate census tracts and boundaries for the 2010 Census.

FY2010

- Installed new "green planet" software for shutting down PCs when they are inactive.
- Implemented a new wireless network at Main Library.
- Implemented an online Activity Registration application for DHSP Recreation programs at the golf course and War Memorial, which includes Facility Reservation, Pass Management, ID Cards, Point of Sale and Tee Times.

- Conducted a Citywide flyover of Cambridge in Spring 2010 for the creation of new GIS base map layers and color orthophotos (seamless aerial photos). GIS layers will include paved surfaces, buildings, rail lines, water bodies, pavement markings, traffic features, topographic contours and an impervious surface layer.
- Implemented online submission of parking consideration requests for the Traffic & Parking Department.
- Implemented online submission of 30 licenses and permits for the License Commission.
- Provided online application and payment capability for 7 Public Works permits. Developed 5 new permits for online submission for Public Works: White Goods, Park Use, Easement Overhang, Manhole Access and Discharge Permits. Completed modifications to the online Sidewalk Business Use, Newsrack and Excavation Permits.

FY2011

- Launched a new City Website. Designed and implemented new Library and DPW websites.
- Launched new City Webcast pages with upgraded user functionality, providing cross-platform support and iPhone compatibility.
- Created a system allowing for online reporting of potholes.
- Enhanced online permitting to enable online payment for DPW permits.
- Implemented Wi-Fi service at all Youth Centers and the parks associated with them. Completed the design and implemented the network and Wi-Fi service at the newly renovated CRLS.
- Received data and managed the completion of the Citywide flyover project of Cambridge. The flyover was on April 14, 2010 for the creation of new GIS base map layers and color orthophotos (seamless aerial photos). GIS layers include paved surfaces, buildings, rail lines, water bodies, pavement markings, traffic features, topographic contours and an impervious surface layer.
- Improved the Web-enabled interactive GIS tool, Cambridge CityViewer, for city staff and for use on the Internet. Added more data connections and updated all of the basemap information with the new April 2010 base map layers and aerial photography. Added new viewers for both staff and public use.
- Created a series of maps for the School Department administration showing the distribution of students by their residence. These maps aid the staff and School Committee in future planning decisions regarding schools.
- Conducted a search for and participated in the evaluation of a new Permitting System that will be implemented for Inspectional Services and DPW.
- Enhanced existing online permits for DPW, Traffic and License Depts.
- Implemented an online Registration and Payment System (Rec Trac) for the Youth Centers.

C. FY12 Project Listing

The following list reflects planned projects, with estimated costs, which the IT Department plans to work on during FY12, which will maintain and/or improve the current infrastructure and reflect the strategy noted above for developing and supporting projects. The source of funding for these IT projects is the Capital Budget. The list below does not include the Inspectional Services Permitting Project, which requires a supplemental appropriation of \$350,000 referenced on the first page. With that additional appropriation, coupled with \$100,000 already allocated, the total cost for the project is \$450,000. The cost of the projects listed below, when added to the \$450,000 for the Inspectional Services Permitting Project, equals \$1,650,565.

Highest Priority Projects

	Projects	Projected Expense
GIS	GIS Web tools, Public complaint app, Master Address.	\$50,000
Microsoft Licenses	Licenses for Operating System (Windows 7) upgrades	\$90,000
Network Upgrade	Replace obsolete Access Points, Switches and GBIX. No longer supported and not upgradable.	\$150,000
PC Upgrades	Replace old PC's	\$70,000
Peoplesoft (Oracle)	Peoplesoft (Oracle) upgrades for Human Resources, Payroll and Financial Systems. Current versions go off support in calendar 2012.	\$600,000
Uninterrupted Power Supply	Install an uninterrupted power supply as backup to Computer Room in 301 City Hall	\$100,000
Web Technology	Continue development of City Department web pages. Transition CDD and other departments to City Website and Content Management System	\$140,065
Total		1,200,565

D. FY12 ITD Budget

Salary and Wages	\$2,557,365	59%
Other Ordinary Maintenance	\$1,081,815	25%
Travel and Training	\$38,200	1%
Extraordinary Expenditures	\$60,000	1%
Capital	\$605,000	14%
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	\$4,342,380	100%