

SECTION 300—PLANNING, BUDGETING, ACQUISITION AND
MANAGEMENT OF CAPITAL ASSETS

Exhibit 300: Part I: Capital Asset Plan and Business Case (All Assets)

Date of this Submission: 09/13/04
Agency: Arlington National Cemetery (ANC)
Bureau:
Location in the Budget:
Account Title: DOD – Civil Cemeterial Expenses Army
Account Identification Code: 21X1805
Program Activity: 0861 Operation & Maintenance
Name of Investment: Total Cemetery Management System (TCMS)

Unique Project (Investment) Identifier: 021-00-01-02-01-0002-00-101-003
(For IT investment only, see section 53. For all other, use agency ID system.)
UPI should be created the same for all investments.

Investment Initiation Date: FY2000
Investment Planned Completion Date: FY2010

This Investment is:
Initial Concept ___ Planning ___ Full Acquisition ___ Steady State ___ Mixed Life Cycle X

Investment/useful segment is funded: Incrementally X Fully ___

Was this investment approved by OMB for previous Year Budget Cycle? Yes X No ___

Did the Executive/Investment Review Committee approve funding for this investment this year? Yes X No ___

Did the CFO review the cost goal? Yes X No ___

Did the Procurement Executive review the acquisition strategy? Yes X No ___

Did the Project (Investment) Manager identified in section 1.D review this? Yes X No ___

Is this investment included in your agency's annual performance plan or multiple-agency annual performance plans? Yes X No ___

Does this investment support homeland security? Yes ___ No X

If this investment supports homeland security, indicate by corresponding number which homeland security mission area(s) this investment supports?

- 1 – Intelligence and Warning;
- 2 – Border and Transportation Security;
- 3 – Defending Against Catastrophic Threats;
- 4 – Protecting Critical Infrastructure and Key Assets;
- 5 – Emergency Preparedness and Response; or
- 6 – Other.

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Is this investment information technology?
(see section 53 for definition)

Yes X No

For information technology investments only:

a. Is this project (investment) a financial management system?
(see section 53.2 for definition)

Yes No X

If so, does this project (investment) address a FFMIA compliance area?

Yes No X

If yes, which compliance area?

b. Does this investment implement electronic transaction or record keeping
that is covered by the Government Paperwork Elimination Act (GPEA)?

Yes No X

If so, is it included in your GPEA plan (and does not yet provide an
electronic option)?

Yes No

Does the investment already provide an electronic option?

Yes No

c. If the investment administers information in identifiable form about
members of the public, was a privacy impact assessment submitted via
PIA@omb.eop.gov with a unique project (investment) identifier?

Yes No X

d. Was this investment reviewed as part of the FY 2003 Federal Information
Security Management Act review process?

Yes No X

d.1 If yes, were any weaknesses found?

Yes No

d.2 Have the weaknesses been incorporated into the agency's corrective
action plans?

Yes No

e. Has this investment been identified as a national critical operation or
asset by a Project Matrix review or other agency determination?

Yes No X

e.1 If no, is this an agency mission critical or essential service, system,
operation, or asset (such as those documented in the agency's COOP Plan),
other than those identified as above as national critical infrastructures?

Yes X No

f. Was this investment included in a Performance Assessment Rating Tool
(PART) Review?

Yes No X

f.1. Does this investment address a weakness found during the PART
Review?

Yes No X

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SUMMARY OF SPENDING FOR PROJECT (INVESTMENT) STAGES
(In Millions)
(Estimates for BY+1 and beyond are for planning purposes only and do not represent budget decisions)

	PY-1 and Earlier	PY 2004	CY 2005	BY 2006	BY+1 2007	BY+2 2008	BY+3 2009	BY+4 and Beyond	Total
Planning:									
Budgetary Resources		.179	.200	.270	.255	.230	.255	.130	1.519
Outlays		.179	.200	.270	.255	.230	.255	.130	1.519
Acquisition :									
Budgetary Resources		.664	2.402	1.437	.148	.178	.200	.150	5.179
Outlays		.664	2.402	1.437	.148	.178	.200	.150	5.179
Total, sum of stages:									
Budgetary Resources		.843	2.602	1.707	.403	.408	.455	.280	6.698
Outlays		.843	2.602	1.707	.403	.408	.455	.280	6.698
Maintenance:									
Budgetary Resources		.082	.120	.120	.373	.367	.428	.415	1.904
Outlays		.082	.120	.120	.373	.367	.428	.415	1.904
Total, All Stages:									
Budgetary Resources		.925	2.722	1.827	.775	.775	.883	.695	8.602
Outlays		.925	2.722	1.827	.775	.775	.883	.695	8.602
Government FTE Costs:									
		.031	.032	.033	.034	.035	.036	.038	.241

Note: Government FTE costs shall include government personnel considered direct and indirect labor in support of this investment. This includes the investment management IPT and any other government effort (e.g., programming effort for part of the overall investment, development effort) that contributes to the success of the investment. The costs include the salaries plus the fringe benefit rate of 32.8%. Agencies should reflect estimates of the costs of internal FTE supporting an IT investment, and should at a minimum include in FTE estimates of anyone spending more than 50% of their time supporting this investment. Persons working on more than one investment, whose contributions over all investments would exceed 50% of their overall time, should have their specific time allocated to each investment.

I. A. Investment Description

1. Provide a brief description of this investment and its status through your capital planning and investment control (CPIC) or capital programming "control" review for the current cycle.

The mission of Arlington National Cemetery (ANC) is to serve as the Nation's premier military cemetery and shrine honoring those men and women who served in the Armed Forces by providing dignified burial of eligible veterans and family members in a setting of public honor, and commemorating their sacrifice through ceremonies conducted in their memory. Operational responsibility for this cemetery is vested in the Secretary of the Army.

For most of its 140-year history, ANC has conducted its critical mission entirely manually. Indeed, the large majority of its 300,000-plus burial records are still maintained on paper and microfiche. At the close of FY02, the remains of 302,044 persons were interred/inurned in these cemeteries, of which 3,903 interments and 2,342 inurnments were performed by cemetery labor in FY02. ANC currently conducts an average of 24 burials each day, and receives approximately 4 million visitors annually.

Since its establishment in 1864, records of all persons buried through the ANC have been maintained in a paper format. The burial records, grave site records, and maps associated with burial locations are still archived and accessed manually. Until recently, scheduling of funeral ceremonies was also performed manually. ANC has been working for the last several years to find a viable automated solution. ANC had hoped that the VA's BOSS system would be a viable alternative to its current manual process. However, a comprehensive study of BOSS and ANC's performance requirements showed that BOSS was not a viable alternative. This was confirmed in discussions with VA and OMB in early 2004. In the Spring of 2000, ANC contracted for a number of business process reviews to determine the costs and feasibility of automating the administrative functions of the cemetery. These analyses resulted in an Information Management Strategy presented to OMB in May 2003. This strategy set forth the development of an ANC Total Cemetery Management System (TCMS), designed to fill performance gaps related to:

- Transforming the ANC to a more customer service-centered organization that better leverages the capabilities of, and improves coordination among, its stakeholders and partners,
- Increasing the information and services available to its customers (family members and visitors),
- Improving customer satisfaction,
- Increasing the efficiency and effectiveness of ANC processes while reducing costs, and
- Reducing the risks associated with the manual data access and maintenance processes.

This vision, as documented in ANC's modernization blueprint, calls for a collaborative, component-based approach to closing the performance gap. To achieve the ANC's information management vision and goals, TCMS will be developed in phased components as identified below. The components are not listed in strict time sequencing, as aspects of all the phases will overlap over the course of the development of the entire TCMS infrastructure and implementation.

- **Interment Scheduling System (ISS)** – This component was developed to automate the scheduling process for burials and replaces a manual, paper-intensive process. ISS will provide ANC with an automated mechanism to schedule burials and honors ceremonies. Started in 2002, this component is 90% complete. In the last few months, ANC operational analysis identified significant problems with ISS performance. ANC replaced the prime contractor, and is currently assessing the application, working to ensure that the system can meet all performance requirements, and that the configuration is consistent with the target enterprise architecture. Modifications may be required in order for it to meet all performance requirements and to fully interoperate with other components of the TCMS. Once this is corrected in FY05, ANC expects that funding will only be required for operations and maintenance.
- **Geographic Information System (GIS)** – This component will tie in with the TCMS Data Repository, and will provide the capability of locating/tracking burial locations, plots, buildings and other facilities, utilities, and even natural objects (e.g. trees) on the current 612 acres of the cemetery and any other future land grants. This system will meet ANC objectives not only in the area of records management, information, and retrieval, but will greatly assist engineers in making burial

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arrangements, scheduling, and grounds maintenance and development. A pilot project, using approximately 30,000 records is currently underway. Once ANC is assured of the feasibility and overall success of this pilot, the GIS effort will be expanded to include all gravesites and other critical locations across the cemetery.

- **TCMS Data Repository (TDR)** – This component will provide a paperless electronic repository for information on persons interred/inurned at ANC (e.g., personal and location information). It will also support an automated information retrieval mechanism that will serve not only ANC administration personnel, but the family and friends of loved ones buried at the cemetery, as well as the public at large looking for grave sites. This information will be accessible through kiosks and the ANC web site. This database component will replace the WYSE system (an obscure database previously used to capture burial record information in the Visitor Center to search for interment location requests), paper burial records, and microfiche files used by the ANC support staff in the Visitor's Center and the Administrative Division.
- **ANC Automated Headstone Ordering System (AHOS)** – The AHOS is intended to eliminate the current duplication of effort between ISS and the VA Automated Management Application System (AMAS). All headstones for federal cemeteries must be ordered through the AMAS; in order to do this now, ANC employees must manually enter a request into the AMAS system (even though all of the information in this request is already in the ISS record). AHOS will eliminate this duplication of effort by providing an automated interface between TCMS and AMAS. AHOS will also improve the communications between the ANC and families by notifying them of changes in status and offering an image of the erected headstone prior to placing the order.
- **Electronic Document Management System (EDMS)** – In order to automate the management of and track the flow of documents received and sent by ANC, an EDMS component will eventually be developed, linking the ANC's Complaint and Records Managements systems, TCMS, and a redesigned web site. The EDMS will encompass all inquiries, letters, and eligibility questions, and provide a central repository for mail and other correspondence. In FY06, ANC plans to document all EDMS functional requirements and conduct a study on the best approach to closing this performance gap. The Office of Personnel Management (OPM), as managing partner of the e-Records Management e-Gov initiative, has stated that ANC's requirement is not duplicative of other government systems, and has committed to assisting ANC as necessary with this component of the TCMS.

Each of these components is linked directly to the ANC's mission and the performance gaps identified in the business process analyses, and track with the President's Management Agenda, the Government Paperless Environment Act (GPEA), and e-Government Act goals for interagency cooperation and internal government efficiency.

The majority of the TCMS investment is in the Select phase of ANC's CPIC process. A critical part of the overall TCMS effort has been to comprehensively plan and coordinate these different efforts. Since January 2004, ANC has worked to fully document its performance gap, develop a modernization blueprint, and develop an acquisition strategy. ANC is now conducting a Data Integration Support activity, working to identify, define, and manage all of the data required to integrate the various components of TCMS into a single repository of information. Driven by the overarching strategic plan and target enterprise architecture, the TCMS investment is now on track to provide a robust, interoperable, and secure means of managing all cemetery functions. Since many of these key documents have only recently been completed and approved, the overall schedule has been adjusted from that reported in the Draft Exhibit 300 submitted to OMB in December 2003. While some of the planning is still underway, a baseline for the useful segment extending to FY2010 is provided at section I.H.2 of this document.

The ANC has a 10-Year Capital Investment Plan (last updated May 2003) and associated capital asset planning procedures. The plan currently includes only construction and physical asset planning and management. Expanding the plan and processes to include information technology investments was delayed due to funding issues and is now scheduled for completion by December 31, 2004.

2. What assumptions are made about this investment and why?

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The following assumptions have been identified for the TCMS program:

- The average number of daily interments/inurnments will continue to increase particularly with the passing of World War II Veterans.
- The number of requests for statistical information on persons interred at ANC will continue to rise.
- The number of visitors requesting information on the location of their loved ones will continue to rise as the number of persons interred at ANC continues to increase.
- The infrastructure upgrade will be performed as required.
- A single COTS product for complete cemetery management, including national/military honors, will not become available during the course of TCMS development.
- The majority (95% +) of the work will be performed by contractors.
- Operational analyses conducted in FY07 and FY09 may reveal a need to make major upgrades to hardware and software related to the GIS. The budget for the out-years includes funds for these possible upgrades as place-holders.

3: Provide any other supporting information derived from research, interviews, and other documentation.

Starting in FY00, ANC planned and contracted for five (5) separate studies to analyze requirements and solicit industry input for recommendations on how to fill the performance gaps, which were identified between the existing and envisioned technical environments for the Cemetery's operations. These studies are listed below. Each study included proposed project timelines for the implementation and projected costs, which ANC has utilized in its TCMS planning.

- **Phase I Business Process Review (April 2000)** – This initial study assessed the ANC's resources, business processes, stakeholders, technology, and driving forces for change.
- **Business Process Reengineering (BPR) Study Review (May 2000)** – An independent assessment of the initial Business Process Review.
- **Phase II Business Process Review (April - November 2000)** – A follow-on to the May BPR Review, this study makes recommendations to "improve the management and efficiency of ANC business operations through the standardization, effective implementation, and utilization of new and innovative technology and systems," including the development and implementation of a Burial Records Database considered the most critical new initiative of the study. The Veterans Affairs (VA) Burial Operations Support System (BOSS) was analyzed during this review (see Section I.E. Alternatives Analysis.) The review documented the As-Is and Envisioned Technical/Operational Environment as well as an initial gap analysis (with gap prioritization) and implementation recommendations.
- **Phase III Business Process Review (October – December 2004)** – A follow-up to the Phase II Business Process Review, this is a continuation study aimed to further validate the results and to realign current processes with new applications. As well, this study examines the feasibility of automating these processes with respect to TCMS.
- **Automation Assessment (April 2002)** – This study provided analysis on and recommendations for burial operations, scheduling, records management, and technology infrastructure enhancements and training.
- **Visitor Study/Customer Survey Study (October 2001)** – This report reviewed case studies of surveys from the National Park Service, Bureau of Land Management, and the National Cemetery Administration and other survey methodology literature; documented a survey for ANC visitors; provided reports on the survey implemented; and provided an analysis of tabulation options. This report provides a customer satisfaction baseline against which to track increases in customer satisfaction due to TCMS implementation.
- **Burial Records Automation Project: Analysis & Design Project (October 2001)** – Contents of this information includes functional requirements, data collection processes for gravesite inventory and burial records data entry, process flows for locating requests, and a presentation of the system to OMB.

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- **GIS Study (2002)** – The Needs Assessment activities of this Geographic Information System (GIS) review validated the ANC's theory that such a system "...could significantly improve business operations and thereby improve overall customer service at ANC." The review also included a Technical Evaluation of commercial off-the-shelf (COTS) computer-aided design (CAD) and GIS software, and concluded that there was an abundance of products that could be used to "integrate into the Cemetery's business processes to improve operations and quality assurance."
- **GIS Study (2004)** – Building upon the results the 2002 GIS Study, a pilot of the GIS system is being performed consisting of an assessment of 300 burial sites, which will demonstrate the feasibility of the GIS application and its inter-operability with other components of the TCMS.
- **E-Gov Initiative Research** – The ANC has met with representatives from USA Services, the e-Records initiative, and the Geospatial One-Stop e-Gov initiative to examine opportunities to leverage their work across ANC.

I.B. Justification (All Assets)

In order for IT investments to successfully address support of the President's Management Agenda and justification of the investment, the investment should be collaborative and include industry, multiple agencies, State, local, or tribal governments, use e-business technologies and be governed by citizen needs. If the investment is a steady state investment, then an E-Gov strategy review is underway and includes all the necessary elements. If appropriate, this investment is fully aligned with one or more of the President's E-Gov initiatives.

1. How does this investment support your agency's mission and strategic goals and objectives?

The Total Cemetery Management System (TCMS) directly supports the ANC's vision and mission by enabling its administrative staff to perform their functions more efficiently and effectively, at lower costs per activity, and with greater capacity to handle increased numbers of customers. Specifically, TCMS will meet specific strategic goals and objectives as identified in its FY05 Performance Plan (completed September 2003):

Goal 1: Honor the memory of the uniformed men and women who served the US while accommodating family members and visitors.

Objective 1.1 Maintain and preserve the dignity of ANC and provide for the increased number of burials, while being sensitive to family members of the deceased. Implementing TCMS will enable ANC to provide timely information to family members on their burial options, provide better coordination on scheduling for family service, and provide a cost-effective service through better utilization of technology to reduce the time and costs associated with these functions.

Objective 1.2 Accommodate the high volume of visitors paying their respects while protecting the privacy of family members. As the number of visitors and customers at ANC increases every year, TCMS will meet this objective by ensuring historical information provided by ANC is accurate through the new TDR system and customer kiosk interface. It will also provide for better coordination for smaller ceremonial wreath laying and other dedications at ANC through the GIS components, which will allow florists and other providers quicker, more accurate information to particular gravesites.

Objective 1.3 Maintain the appearance and atmosphere befitting a national shrine. Both the TDR and GIS components of TCMS will ensure that graves are properly marked and maintained by providing more accurate information to particular gravesites, and automating the grave site location and the individual's personal information links, as well as maintenance schedules and orders.

Goal 2: Provide a final resting place for these individuals through the 21st century.

Objective 2.1 *Ensure that initial interment/inurnment is an available option through the next century for all eligible veterans and their family members.* The GIS component of the TCMS system will equip ANC with a more efficient means of developing land and preparing plans to develop additional land. A GIS capability will provide an automated and real-time means of tracking land usage that includes not only gravesites, but facilities (buildings and roads), physical security (e.g. security checkpoints, barricades, cameras), and natural landmarks (i.e., trees, large rocks).

ANC's performance gap is described in more detail below.

Requirement: Approximately 302,000 persons have been interred/inurned at Arlington Cemetery, with an average of 24 additional interments/inurnments daily. The large majority of these funerals involve various levels of military honors which are provided by the different military Services. Arlington must coordinate all funeral resources, including its own resources (gravesites and chapels) and resources provided by the military Services (chaplains and honors teams). ANC schedulers must also ensure that individual funeral services are held at times and in locations that do not conflict with one another or other ceremonies. Over 3,000 special ceremonies are conducted each year (e.g., ceremonies at President Kennedy's gravesite, remembrance ceremonies for September 11th, etc.). ANC schedulers must meet all of these challenges while providing family members with comprehensive, timely, and respectful services.

Performance Gap: BOSS does not provide any automated scheduling support; funeral resources are managed manually while family members and funeral directors wait for extended periods on the telephone.

Closing the Gap: TCMS will allow ANC staff to quickly schedule funerals and all associated resources via its ISS component.

Requirement: As employees of the Department of the Army (DA), ANC employees must have access to DA email, training, and other systems via their desktop computers. However, BOSS can only be accessed from inside the Department of Veterans Affairs (VA) domain.

Performance Gap: The VA security requirement forces ANC to maintain two separate networks (Army and VA) and to provide two separate desktop computers for ANC schedulers.

Closing the Gap: By way of its ISS component, TCMS will allow ANC employees to access DA email, training, and other systems via a single desktop system.

Requirement: ANC also receives approximately 4.5 million visitors annually. Many visitors are family members of the deceased visiting individual gravesites. ANC also receives thousands of visits from florists delivering flowers to gravesites; most of these are concentrated on holidays (Easter, Memorial Day, Veterans Day, etc.).

Performance Gap: All visitors currently have to wait in line at the Visitors Center to get information on gravesite locations. Current records only provide the section number and general location; no map or directions to the individual gravesite. On special days, florists and other visitors wait hours to get gravesite information.

Closing the Gap: Through its GIS and the Data Repository, TCMS will allow customers to search for burial locations on the web or through kiosks on the Cemetery grounds and print out directions from the ANC entrance to the grave location.

Requirement: Since its establishment in 1864, records of all persons buried through the ANC have been maintained in a paper format. While records for a small percentage of the interred/inurned are maintained in electronic format (BOSS and/or ISS), most historical data is inaccessible to persons/organizations conducting research or seeking summary data. Entering the historical records into BOSS/PRIORS database is not feasible.

Performance Gap: ANC receives numerous requests from the White House, Congress, and the public concerning persons interred/inurned at Arlington. ANC currently has no means to

provide genealogical or summary information (e.g., number of World War I veterans, number of Army Sergeants, number of women, etc.). All burial records must be converted to an electronic format, and existing paper files must be archived.

Closing the Gap: TCMS will support ad hoc queries of its data repository via its ISS component.

Requirement: ANC must maintain an accurate account of gravesite resources, for current funeral scheduling as well as estimating remaining cemetery capacity. Capacity estimates affect military and Congressional policy on eligibility as well as planning for expansion. Gravesite resources are affected by trees, utilities, and structures.

Performance Gap: ANC has no current, verified cross-reference of burial information against the physical plant. Performing solely a manual verification/cross-reference is not feasible due to the number and age of the records; ANC requires a physical inventory of all grave sites and headstones, validating the physical plant against all ANC burial records.

Closing the Gap: TCMS, via its GIS component, will tie in with the TCMS Data Repository, and will provide the capability of locating/tracking burial locations, plots, buildings and other facilities, utilities, and even natural objects (e.g. trees) on the current 612 acres of the cemetery and any other future land grants. This system will meet ANC objectives not only in the area of records management, information, and retrieval, but will greatly assist engineers in making burial arrangements, scheduling, and grounds maintenance and development.

2. **How does it support the strategic goals from the President's Management Agenda?**

The TCMS Program is designed to support two of the President's Management Agenda (PMA) scorecard items a number of the guiding principles that support the PMA strategic goals as follows:

- **Financial Performance.** Based on considerable analysis and studies, the TCMS Program will ensure the ANC is better able to perform its mission by utilizing its resources in a more efficient and cost-effective manner. This not only includes anticipated increases in quality and performance and the capability to do more with the same number of resources, but also to reduce the risks associated with the current manual, paper-based systems and the financial impact those risks could have if realized.
- **E-Government.** Components of the TCMS Program will enable the ANC to provide accurate, real-time information via electronic medium to its customers and stakeholders. The TCMS Program envisions the ability to let customers search for burial locations on the web or through kiosks on the Cemetery grounds, and print out directions (e.g. from the ANC entrance to the plot) through two of its components (GIS and Records Management System), as well as Website Redesign/Maintenance). The TCMS program falls under the following classifications:
 - **Government to Citizen** (customer and visitor information),
 - **Government to Government** (e.g. VA, Armed Forces providing military honors to funerals),
 - **Government to Business** (e.g. florists and other vendors), and
 - **Internal Efficiency and Effectiveness** (e.g. record quality, information retrieval speed).

More specifically, the following PMA Guiding Principles are driving ANC's development of TCMS:

- **Create a citizen-centered, results-oriented, and market-based government.** ANC developed a strategic Information Management Strategy that specifically cites its vision for the TCMS Program, as transforming it to a Customer Service-centered, unified

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information system that leverages its best capabilities as well as those of its stakeholders and partners. Performance measures have been developed to track the progress and benefits of the program and ensure the results of the TCMS are managed and achieved. Five studies have been conducted to solicit and incorporate industry comments and recommendations, and to ensure all possible alternatives available in the market have been considered.

- **Identify and manage corporate measures of success.** The TCMS program is a major investment for ANC and, as such, has associated performance/financial goals and measures and a program management strategy and plan for accomplishing them.
- **Simplify and unify redundant activities, both within and across agencies.** Since the current operations of the ANC involve manual, paper-based processes (including two separate paper-based systems for cataloging burial plot locations and buried individuals' personal information), the TCMS will unify and simplify activities. For example, the TCMS Data Repository and GIS components of the program will unify and cross-reference the two current paper files, and simplify record retrieval in terms of man power and time. The ANC is working with the VA so that any redundant activities performed by both agencies could be identified and eliminated. In addition, the OPM e-Records group was consulted to ensure there is no redundancy between its automation efforts and ANC's TCMS investment.
- **Develop strategic partnerships to perform business with State, local and other Federal agencies; non-profit organizations; and private industry as appropriate.** ANC has been in conversations with other Federal agencies and private industry for three years to assess commonalities, available technologies, and best practices both in the information technology and burial management arenas. In recent months, ANC has worked to ensure TCMS is not duplicative with federal e-Gov initiatives, including USA Services, e-Records Management, and GeoSpatial One-Stop. To date, ANC has had productive dialogue with both the USA Services and e-Records Management managing partners. Through these discussions, ANC hopes to leverage their efforts across ANC in its own automation efforts.

3. Are there any alternative sources in the public or private sectors that could perform this function?

ANC has examined, directly and through contracted analyses, burial management systems used by private industry and other government organization (e.g. Veterans Affairs). The VA has a Burial Operations Scheduling System (BOSS) used to track, manage, and report on the provision of burial services. ANC studied BOSS in detail and has actually implemented and used the system on-site since April 1999. Due to the specific requirements of ANC in the fulfillment of its mission operations (e.g. honors associated with buried individuals), and the fact that the VA cannot tailor its system (which is deployed in numerous cemeteries nationwide and which uses a shared database) for the specific unique requirements of ANC, it was determined that a new system was required to satisfy the Cemetery's performance gaps and requirements (See Section I.E. Alternatives Analysis for details.). ANC has been in continuous conversation with the VA, and the VA continues to be one of ANC's stakeholders in this investment. No single system was identified to meet all of the ANC's requirements.

However, to fulfill certain TCMS *component* requirements, ANC did identify COTS systems for the GIS portion of the TCMS. In addition, ANC is in discussions with the VA in Philadelphia concerning the use of its EDMS (a requirements analysis for EDMS is scheduled for FY07). Furthermore, ANC is partnering with several private sector companies who are providing support for TCMS planning, development, and operation efforts.

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4. If so, explain why your agency did not select one of these alternatives.

For the complete functionality of the TCMS program, no alternative exists. Where possible and applicable, ANC is using, or will use, COTS products.

5. Who are the customers for this investment?

The ANC considers its customers to be family members/decedents of those buried on its grounds, visitors to the cemetery grounds and events, individuals who are eligible for burial on its grounds, and persons/agencies requesting statistical data on persons interred/inurned at the cemetery.

6. Who are the stakeholders of this investment?

Stakeholders of the TCMS investment include the following:

- Congress and OMB: Requests for information/statistics on persons interred/inurned at ANC
- Veterans & Families: Burial requests, information packets, ceremony scheduling
- Armed Services (Army, Navy, Air Force, Marines, Coast Guard): Honors requests, service schedules
- Department of Veterans Affairs: Headstone orders and receipts, installation and management of BOSS installations
- General Services Administration (GSA), St. Louis and Cleveland: Burial eligibility requests
- Department of Defense (DoD): Schedules, ceremony requests, purchase requests/orders
- Funeral directors/Other Contractors: Schedules/arrangements information, gravesite locations
- General Public: Information requests, cemetery events information
- John C. Metzler – Superintendent, ANC [REDACTED], john.metzler [REDACTED]
- Claudia Tomblom – Deputy Assistant Secretary of the Army (Management & Budget) (Office of the Assistant Secretary of the Army (Civil Works) [REDACTED])
claudia.tomblom [REDACTED]
- Armed Services (Army, Air Force, Navy, Marines, Coast Guard)

7. If this is a multi-agency initiative, identify the agencies and organizations affected by this initiative.

While the TCMS is funded entirely by ANC, we are collaborating with other agencies in a number of ways. The VA is a partner and stakeholder in the program's development; ANC is also in conversation with the Defense Finance and Accounting Service (DFAS) and the Social Security Administration (SSA) on possible collaboration opportunities.

7a. If this is a multi-agency initiative, discuss the partnering strategies you are implementing with the participating agencies and organizations.

ANC is in continuous conversation with its VA counterparts. Periodic meetings are held with VA, DFAS, and SSA to discuss status and opportunities. Thus far, conversations held with OMB and the VA have concluded that TCMS and BOSS are not duplicative systems and therefore do not represent redundant efforts. Even so, ANC will continue to coordinate with the VA to ensure that there is no unnecessary repetition or overlap.

8. How will this investment reduce costs or improve efficiencies?

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The current method of cataloging and retrieving information on Cemetery burials is by hand and on paper. There is no electronic alternative in place that includes all ANC records dating back to its inception in 1864. There are a number of ways the TCMS program is envisioned to benefit ANC in reducing costs and improving efficiencies, including:

- Reducing the cost of performing each burial by streamlining the (manual) scheduling process
- Reducing the time it takes to schedule each burial and increasing the integrity of that schedule
- Reducing the time to retrieve information on burial locations (for both internal and customer use)
- Improving Customer Satisfaction through increased number of services available
- Improving the efficiency of determining eligibility
- Increasing interment data capture to 100%
- Improve gravesite inventory by identifying and rerouting obstructions
- Reduce family waiting times on the telephone during the scheduling process by scheduling burials, honors, etc. more efficiently
- Increase efficiency of resource/event scheduling by minimizing conflicts
- Increase efficiency of Armed Services human resources allocation by providing real-time scheduling information to the Armed Services up to six months in advance; this allows them to better task their resources and reduces their re-entry of scheduling data

These anticipated benefits will be quantified when a complete TCMS Alternatives Analysis with associated costs/benefits is finalized. This analysis is now scheduled for October through December 2004.

9. List all other assets that interface with this asset. Have these assets been reengineered as part of this investment? Yes/No

Due to the manual, paper-based nature of many of the ANC's business operations, there were few assets to interface with a new system:

- The ANC Information Infrastructure includes fiber, network, hardware, software, and communications required to enable the development and implementation of all other components. It also includes physical and IT security features that are linked or automated (e.g. security cameras will also be used to display Cemetery events on the redesigned web site).
- Website Redesign and Maintenance will incorporate information from the GIS and Records Management System to fulfill information requests through the Internet, and will provide a platform for customer feedback and input (tying it to the Customer Satisfaction Program).
- The AHOS component will provide an automated interface with the VA Automated Management Application System (AMAS), eliminating current duplication of effort for ANC schedulers. All headstones for federal cemeteries must be ordered through the AMAS; in order to do this now, ANC employees must manually enter a request into the AMAS system (even though all of the information in this request is already in the ISS record).

I.C. Performance Goals and Measures (All Assets)

In order to successfully address this area of the business case, performance goals must be provided for the agency and be linked to the annual performance plan. The investment must discuss the agency's mission and strategic goals, and performance measures must be provided. These goals need to map to the gap in

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the agency's strategic goals and objectives that this investment is designed to fill. They are the internal and external performance benefits this investment is expected to deliver to the agency (e.g., improve efficiency by 60%; increase citizen participation by 300% a year to achieve an overall citizen participation rate of 75% by FY 2xxx, etc.). The goals must be clearly measurable investment outcomes, and if applicable, investment outputs. They do not include the completion date of the module or investment, or general goals, such as, significant, better, improved that do not have a quantitative or qualitative measure.

Agencies must use Table 1 below for reporting performance goals and measures for existing investments that were initiated prior to FY 2005. The table can be extended to include measures for years beyond FY 2004.

Table 1						
Fiscal Year	Strategic Goal(s) Supported	Existing Baseline	Planned Performance Improvement Goal	Actual Performance Improvement Results	Planned Performance Metric	Actual Performance Metric Results
2004	Objective 1.1 Maintain and preserve the dignity of ANC and provide for the increased number of burials, while being sensitive to family members of the deceased.	The internal process to assign a grave site is currently 10 – 15 minutes, while the engineer manually checks 2 different, paper records.	Reduce time required to assign a grave site to 1 minute upon implementation of GIS component	To be provided after FY04	Time required for engineer to assign a grave site	To be provided after FY04
2004	Objective 1.2 Accommodate the high volume of visitors paying their respects while protecting the privacy of family members.	Visitors and vendors (e.g., florists) can only get gravesite location information from the BOSS kiosk (only for interments from 1999 to 2001) or by waiting in line at the Visitors Center - where two staff members look up location information on microfiche (1864 – 1999) or in the ISS (2001 – present). On holidays, the line is several hours long. Gravesite location is limited to the section, which can be as much as an acre in size.	Reduce visitor wait time to get gravesite location from an average of one hour to less than five minutes. Provide precise gravesite location instead of only the gravesite section.	In FY04, ANC is working to collect baseline information on average wait times.	Customer Satisfaction Survey currently asks for a rating of accessibility to gravesite information. ANC will explore ways to capture average wait time to get gravesite location information	To be provided after FY04
2004	Objective 1.1 Maintain and preserve the dignity of ANC and provide for the increased number of burials, while being sensitive to family members of the deceased.	ANC has no means to provide genealogical or summary/statistical information, as is frequently requested from the White House, Congress, and the	Support ad hoc queries of burial information from the TCMS data repository.	To be provided after FY04	In FY05, ANC will work to collect baseline information on number of requests for data received.	Baseline data to be provided after FY04

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2005	Objective 1.1 Maintain and preserve the dignity of ANC and provide for the increased number of burials, while being sensitive to family members of the deceased.	public. The internal process to assign a grave site is currently 10 – 15 minutes, while the engineer manually checks 2 different, paper records.	Reduce time required to assign a grave site to 1 minute upon implementation of GIS component	To be provided after FY05	Time required for engineer to assign a grave site	To be provided after FY05
2005	Objective 1.2 Accommodate the high volume of visitors paying their respects while protecting the privacy of family members.	Visitors and vendors (e.g., florists) can only get gravesite location information from the BOSS kiosk (only for interments from 1999 to 2001) or by waiting in line at the Visitors Center - where two staff members look up location information on microfiche (1864 – 1999) or in the ISS (2001 – present). On holidays, the line is several hours long. Gravesite location is limited to the section, which can be as much as an acre in size.	Reduce visitor wait time to get gravesite location from an average of one hour to less than five minutes. Provide precise gravesite location instead of only the gravesite section.	In FY04, ANC is working to collect baseline information on average wait times.	Customer Satisfaction Survey currently asks for a rating of accessibility to gravesite information. ANC will explore ways to capture average wait time to get gravesite location information	To be provided after FY05
2005	Objective 1.1 Maintain and preserve the dignity of ANC and provide for the increased number of burials, while being sensitive to family members of the deceased.	ANC has no means to provide genealogical or summary/statistical information, as is frequently requested from the White House, Congress, and the public.	Support ad hoc queries of burial information from the TCMS data repository.	To be provided after FY04	In FY05, ANC will work to collect baseline information on number of requests for data received.	To be provided after FY05

All new IT investments that are development, modernization, or enhancement (DME) for 2005 and beyond must use Table 2 and are required to use the FEA Performance Reference Model. The PRM Version 1.0, available at www.feapmo.gov, includes detailed guidance about how to incorporate PRM Indicators into the performance goals and measures table below. Please use the Table 2 and the PRM to identify the performance information that pertains to the major IT Investment. Ensure there is a complete tie-in to the strategic goals and objectives described in section I.B.1.

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Table 2						
Fiscal Year	Measurement Area	Measurement Category	Measurement Indicator	Baseline	Planned Improvements to the Baseline	Actual Results
2006	Mission and Business Results	Knowledge Management	# of requests for statistical information satisfied	Historical data on persons interred at ANC is inaccessible prior to 1999	Capture all historical data, and develop standard reports around most common data requests.	TBD in early FY07
2006	Customer Results	Timeliness and Responsiveness	Time required to schedule a funeral	Family members wait on the telephone for an average of 15 minutes while schedulers manually check for availability of military honors units.	Reduce family member wait time by 200%.	TBD in early FY07
2006	Processes and Activities	Productivity and Efficiency	Time required to assign a grave site.	Currently takes 10-15 minutes to assign a grave location.	Reduce time required to assign a grave location to less than 1 minute.	TBD in early FY07
2006	Technology	Effectiveness	User satisfaction with kiosk system of information retrieval, as measured in Customer Satisfaction Survey	Currently, visitors must wait in line at the Visitors Center, and can only get incomplete information on grave site location. This can take up to several hours on busy holidays.	Decrease time required to get graveside location information to less than 5 minutes Earn average rating of Excellent on Customer Satisfaction Survey for Grave Site Visitation	
2007	Mission and Business Results	Knowledge Management	# of requests for statistical information satisfied	Historical data on persons interred at ANC is inaccessible prior to 1999	Capture all historical data, and develop standard reports around most common data requests.	TBD in early FY08
2007	Customer Results	Timeliness and Responsiveness	Time required to schedule a funeral	Family members wait on the telephone for an average of	Reduce family member wait time by 200%.	TBD in early FY08

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				15 minutes while schedulers manually check for availability of military honors units.		
2007	Processes and Activities	Productivity and Efficiency	Time required to assign a grave site.	Currently takes 10-15 minutes to assign a grave location.	Reduce time required to assign a grave location to less than 1 minute.	TBD in early FY08
2007	Technology	Effectiveness	User satisfaction with kiosk system of information retrieval, as measured in Customer Satisfaction Survey	Currently, visitors must wait in line at the Visitors Center, and can only get incomplete information on grave site location. This can take up to several hours on busy holidays.	Decrease time required to get graveside location information to less than 5 minutes Earn average rating of Excellent on Customer Satisfaction Survey for Grave Site Visitation	TBD in early FY08

I.D. Project Management (Investment Management) [All Assets]

The OMB Circular A-11, Part 7, Capital Programming Guide, and the OPM Project Management Guidance "Interpretive Guidance for Project Manager Positions, discuss project management structures, responsibilities, and qualifications that contribute to successful achievement of cost, schedule, and performance goals.

1. Is there a project (investment) manager assigned to the investment? Yes X No

If yes, what is his/her name?

Mr. Thurman Higginbotham
Deputy Superintendent

thurman.higginbotham [REDACTED]

1.A. Identify the members, roles, qualifications, and contact information of the in-house and contract project (investment) managers for this project (investment).

Name: Mr. Thurman Higginbotham
Title: Deputy Superintendent
Phone: [REDACTED]
Fax: [REDACTED]

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Email: Thurman.Higginbotham [REDACTED]

Mr. Higginbotham has over 39 years of experience in funeral and cemetery management at ANC; he developed the current vision and has supervised the development of all ANC automation efforts since 1985.

Name: Shawn Battle

Title: Program Manager, TCMS

Phone: [REDACTED]

Email: Shawn.Battle [REDACTED]

Mr. Battle has over 15 years of diverse technical and managerial experience in Infrastructure Design, Systems Management, Systems Security, Risk Assessment, Disaster Recovery, Project Management, Large Scale Implementations, and Network Engineering, with a strong focus on Enterprise Architecture and Information Assurance.

Name: Richard Greaux

Title: Program Manager, Data Management

Phone: [REDACTED]

Email: richardg [REDACTED]

FAX: [REDACTED]

Mr. Greaux has over twenty years of experience as a technical manager and leader with emphasis on leading software development teams, system engineering, and leading network engineering and analysis projects. Mr. Greaux holds an Associates Degree in Electronic Engineering Technology and is a member of the Project Management Institute and Armed Forces Communications Electronics Association (AFCEA).

Name: Bill Hume

Title: Program Manager, GIS Component and TDR

Phone: [REDACTED]

FAX: [REDACTED]

Email: Bill.Hume [REDACTED]

Mr. Hume has 20 years experience in designing, developing, and managing technology integration projects for the federal government. He holds a Bachelor's Degree in Architecture and is an active member of the American Institute of Architects and the Professional Housing and Management Association.

2. Is there a contracting officer assigned to the project (investment)? Yes X No

If so, what is his/her name

Contracting Officer (DC local)

Glynis Duncan Guest

[REDACTED]
glynis.guest [REDACTED]

Contracting Officer (Baltimore)

Patricia Adams

Baltimore District, USACE

[REDACTED]
patricia.adams [REDACTED]

3. Is there an Integrated Project Team? Yes X No

3.A. If so, list the skill set represented.

(C=Contractor, G=Federal personnel)

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Program/Project Management:	T. Higginbotham (G), G. Bell (G), S. Battle (C)
Personnel Management:	T. Higginbotham (G)
Master Planning:	K. Welton (G)
Change Management:	S. Battle (C), J. Teed (C)
Enterprise Architecture:	T. Higginbotham (G), S. Battle (C)
IT System Design, Development & Implementation:	S. Battle (C), J. Teed (C)
IT Security and Privacy:	T. Higginbotham (G), V. Lowery (C)
e-Government:	T. Higginbotham (G), S. Battle (C)
Earned Value Management (EVM):	T. Higginbotham (G)
Risk Management	S. Battle (C)
Functional Requirements	T. Higginbotham (G)

4. Is there a sponsor/owner for this investment? Yes X No

4.A. If so, identify the sponsor/process owner by name and title and provide contact information.

John C. Metzler
Superintendent
ANC

john.metzler [REDACTED]

I.E. Alternatives Analysis

In order to successfully address this area of the business case, you must include three viable alternatives that were compared consistently, identify the alternative chosen, and provide benefits and reasons for your choice. Agency must identify all viable alternatives and then select and report details on the top three viable alternatives. Use OMB Circular A-94 for all investments and the Clinger Cohen Act for IT investments for the criteria to be used for Benefit/Cost Analysis. Agency must include the minimum criteria to be applied in considering whether to undertake a particular investment, including criteria related to the quantitatively expressed projected net, risk-adjusted return on investment, and specific quantitative and qualitative criteria for comparing and prioritizing alternative investments. For IT investments, agencies should use the Federal Enterprise Architecture (FEA) to identify potential alternatives for partnering or joint solutions that may be used to close the identified performance gap.

1. Describe the alternative solutions you considered for accomplishing the agency strategic goals or for closing the performance gap that this investment was expected to address. Describe the results of the feasibility/performance/benefits analysis. Provide comparisons of the returns (financial and other) for each alternative.

Over the past two years, ANC has explored a number of different options and alternatives for closing its performance gap. Last year, ANC had planned to complete an Alternatives Analysis this summer. However, since January 2004, ANC has worked to fully document its performance gap, develop a modernization blueprint, and develop an acquisition strategy. Based on this work, ANC is currently conducting a pilot effort for the GIS component, including the interoperability between the GIS and burial record data systems. As part of this on-going effort, ANC will be conducting a formal Alternatives Analysis in the first quarter of FY2005. The upcoming analysis will identify and verify viable alternatives, quantify benefits associated with each, and develop a full financial analysis. An informal analysis was conducted last year; the following sections describe that high-level analysis.

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- **Alternative 1 – A Total Cemetery Management System (TCMS)** that included various components, including Interment Scheduling System, Geographic Information System, and TCMS Data Repository.
- **Alternative 2 – VA Burial Operations Support System (BOSS):** In a review of the ANC's business processes (May 2001), VA BOSS was identified as a potential solution for the Cemetery's scheduling system and was specifically analyzed to determine whether or not it could also be used as a burial records management system. A VA-owned BOSS system kiosk (loaned at no charge to ANC) was actually implemented as a test pilot at ANC. However, it was determined that BOSS would not fully meet the Cemetery's specific needs. As noted above, there were several alternatives identified and analyzed for the function to be performed by the implementation of BOSS. These four alternatives were to 1) Clone BOSS, 2) Develop a new Front End to BOSS for ANC, 3) Develop a custom system, and 4) to develop a new system which combined Options 1 and 3. In this alternatives analysis, alternative 3, Develop a Custom System, ranked highest as the preferred solution.
- **Alternative 3 – Paper-based System:** Although not usually considered an alternative, in the case of the ANC operations, it is the current system that has been in place for 150 years and would be the alternative in the event that funding or other approval was not granted for the technology enhancements identified by ANC.

1.A. Discuss the market research that was conducted to identify innovative solutions for this investment (e.g., used an RFI to obtain four different solutions to evaluate, held open meetings with contractors to discuss investment scope, etc.). Also describe what data was used to make estimates such as, past or current contract prices for similar work, contractor provided estimates from RFIs or meetings, general market publications, etc.

Alternative	Description
Alternative 1: TCMS	A Total Cemetery Management System (TCMS) that included various components, including Interment Scheduling System, Geographic Information System, and TCMS Data Repository. This solution is supported by five separate analyses, including two Business Process Reviews, and automation, visitor/customer survey, and GIS studies. Projected timelines and project costs were included in each study.
Alternative 2: BOSS	The VA BOSS was analyzed in the Business Process Review (Phase I) study conducted in April 2000, and BOSS kiosks were implemented in pilot mode.
Alternative 3	Status Quo

2. Summarize the results of your life-cycle cost analysis performed for each investment and the underlying assumptions.

The studies and initial alternatives analyses that have been completed to date have provided some, but not all, cost estimates for TCMS. A more comprehensive alternatives analysis will be completed for TCMS that will look at all pertinent life cycle costs. This analysis will be completed by December 31, 2004 for the TCMS components that are scheduled to become operational first. Additional alternatives and cost-benefit analyses will be completed for TCMS components that are now in the conceptual phases, as the needs assessments and other planning analyses, are completed.

The initial, high-level analyses provided the following information:

5/30/01 – Interment Scheduling System (ISS): Standard Technology, Inc. (STI) conducted an analysis of scheduling system alternatives that identified shortcomings or gaps of the current system, including that it was too slow, and did not allow multi-user entry to shared calendar, Web-based read access to calendar, or depiction of resource availability. The first alternate solution, Option 1, was to build around

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MS Outlook. This option was less expensive, but did not provide control over the appearance of the calendar and provided limited function. The second alternative, Option 2, was to custom build. This option would provide complete control over appearance and exact function, but it was more expensive. The second option would also provide some future extension options, in addition to a BOSS interface, that the first option could not provide, such as automatic resource checks, automatic resource notifier, and group resource management.

Option 1 costs:

- Requirements/documentation - \$15,000
- Construction - \$30,000
- Testing/Quality Assurance - \$15,000
- Server and software - \$5,000
- Total cost estimate: \$65,000 (+ report costs \$3,000 per report)
- Project Duration 8-10 Weeks

Option 2 Costs:

- Requirements/documentation - \$23,000
- Construction - \$44,000
- Testing/Quality Assurance - \$23,000
- Server and software - \$5,000
- Total cost estimate: \$95,000 (+ report costs \$3,000 per report)
- Project Duration 8-10 Weeks

7/19/01 – 10/11/01 TCMS Data Repository/Burial Records Automation: This review, conducted by Enterprise Integration Corporation (EIC), identified four system alternatives: 1) clone the existing BOSS, 2) create a BOSS front-end, 3) develop a new system leveraging BOSS (reverse engineer), and 4) a combination of options 1 and 3.

The alternatives were compared using a weighted ranking method that evaluated the alternatives and identified the third alternative as the highest ranked based on the following evaluation factors:

- Development and implementation cost
- Implementation time
- Maintenance cost
- Training and operational changes
- Veterans Administration assistance
- Links to other VA systems

In addition to recommending the third solution, recommendations were also made to commence a gravesite inventory project and initiate a burial records data entry project (now part of the TCMS records management system). An estimate of \$4.6 million was provided for a TCMS that included a burial records database, a gravesite inventory, software standardization, infrastructure upgrades, a project management system, a Geographic Information system (GIS) and a customer service feedback system.

8/30/02 – Geographic Information System (GIS) Study: This GIS study, conducted by Nakata Planning Group, LLC, included a technical evaluation of GIS products from four providers; ESRI, Intergraph, Bentley, and Autodesk. The process used to conduct the evaluations consisted primarily of published public documentation review with follow-up conversation with the providers. The evaluation provided an assessment of the product capabilities and their costs. The analysis evaluated the capabilities of each of the products against GIS critical criterion and functionality requirements. The costs of each product were also determined using government pricing information. Costs were estimated for a two year period and included basic software costs, additional modules costs, and web product costs. Cumulative two-year costs for the four different products ranged from \$23,123 to \$104,406. The ESRI platform, with an estimated 2-year cost of \$63,712, was chosen based on product reputation, capabilities, and current staff familiarity with the ArcView and AutoCAD products that would integrate well with the ESRI platform.

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Cost Elements	Alternative 1: TCMS	Alternative 2: BOSS	Alternative 3: Paper-based System
Element 1			
Element 2			
Element 3			
Element 4			
Element 5			
Total			

3. Which alternative was chosen and why?

Alternative 1, the TCMS, was chosen due to its ability to completely achieve the ANC's strategic goals and support its mission, to increase ANC's ability to meet PMA and e-government objectives, and to better serve its customers and stakeholders over time. Given the specific and unique requirements of the ANC's mission and operations that no other public or private cemetery has, TCMS was the only alternative to meet all of ANC's needs.

3. A. Are there any quantitative benefits that will be achieved through this investment (e.g., systems savings, cost avoidance, stakeholder benefits, etc)? Define the Return on Investment (ROI).

The current method of cataloging and retrieving information on Cemetery burials is by hand and on paper. There are a number of ways the TCMS program is envisioned to benefit ANC in reducing costs and improving efficiencies, including:

- Reduce the cost of performing each burial
- Reduce the time it takes to schedule each burial and increasing the integrity of that schedule
- Reduce the time to retrieve information on burial locations (for both internal and customer use)
- Improve Customer Satisfaction through increased number of services available
- Improve the efficiency of determining eligibility
- Increase interment data capture to 100%
- Increase gravesite inventory by identifying and rerouting obstructions
- Reduce family waiting times
- Increase efficiency of resource/event scheduling by minimizing conflicts
- Increase ANC's overall administrative efficiency by automating and standardizing the enterprise IT infrastructure
- Increase in efficiency of human resources allocation of the Armed Services, due to the ability of ANC to send electronic funeral schedules to the Armed Services up to six months in advance, allowing them to better task their resources and reduce re-entry of data

These anticipated benefits will be quantified when a complete TCMS Alternatives Analysis with associated costs/benefits is finalized by December 31, 2004.

3. B. For the alternative selected, provide a financial summary, including Net Present Value by Year and Payback Period Calculations:

Note: The alternatives analysis scheduled for completion by December 31, 2004 will include a full financial analysis.

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YEAR=	FY	FY	FY	FY	FY	FY	FY	FY	FY

4. What is the date of your cost benefit analysis?

Analyses of various TCMS components were conducted as part of numerous studies and analyses. A complete cost-benefit analysis for the TCMS components has not yet been completed. Furthermore, some of the cost and baseline information is being updated or collected. A baseline for a cost benefit analyses will be completed by December 31, 2004. The cost benefit analysis will be completed in December.

I. F. Risk Inventory and Assessment (All Assets)

In order to successfully address this issue on the business case and capital asset plan, you must have performed a risk assessment at the initial concept, included mandatory risk elements defined below and demonstrate active management of the risk throughout the life-cycle of the investment.

For all investments, both IT and non-IT, you must discuss each of the following risks and present your plans to eliminate, mitigate, or manage risk, with milestones and completion dates. If there is no risk to the investment achieving its goals from a risk category, indicate so. If there are other risks identified, include them. Risk assessments should include risk information from all stakeholders and should be performed at the initial concept stage and then monitored and controlled throughout the life-cycle of the investment. Risk assessments for all investments must include: 1) schedule; 2) initial costs; 3) life-cycle costs; 4) technical obsolescence; 5) feasibility; 6) reliability of systems; 7) dependencies and interoperability between this investment and others; 8) surety (asset protection) considerations; 9) risk of creating a monopoly for future procurements; 10) capability of agency to manage the investment; and 11) overall risk of investment failure.

In addition, for IT investments, risk must be discussed in the following categories 12) organizational and change management; 13) business; 14) data/info; 15) technology; 16) strategic; 17) security; 18) privacy; and 19) project resources. For security risks, identify under the Description column the level of risk as high, medium, or basic. What aspect of security determines the level of risk, i.e., the need for confidentiality of information, availability of information or the system, reliability of the information or system? Under the Current Status column, list the milestones remaining to mitigate the risk.

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Date Identified	Area of Risk	Description	Probability of Occurrence	Strategy for Mitigation	Current Status
12/15/03	1. Schedule	Unscheduled downtime or delays could adversely affect system users and lead to inability to schedule burials in a timely manner.	High	<ul style="list-style-type: none"> Select vendor(s) with extensive experience in transitioning to similar large, complex systems. Coordinate schedule to accommodate technical requirements revisions Establish contingency plans to accommodate technical/component exigencies 	In Aug 04, ANC began holding round-table discussions with all vendors, to ensure all requirements and schedules are coordinated, and that all risks are identified and known to all parties.
12/15/03	2. Initial Costs	Failure to understand the unique needs of the ANC stakeholders could lead to inadequate requirements definition, in turn, leading to changes in scope and costs.	Basic	<ul style="list-style-type: none"> Perform studies and analyses on each component of the TCMS system Establish a control process to ensure mutually agreed upon changes 	5 Studies were conducted to determine costs and scope of the entire TCMS program prior to implementing any single component. Pilot program in Aug 04 will also provide data.
02/01/04	3. Life cycle Costs	Due to the phased component nature of the TCMS program, funds may not be available in FY05 and beyond	Medium	Gain consensus from OMB on funding strategies for all components	Presentations made to and conversations held with OMB since May 12, 2003 on this investment and its funding requirements
12/15/03	4. Technical Obsolescence	Hardware and software components will not meet emerging security requirements	Basic	Ensure on-going coordination on matters related to new security requirements and features	Security assessments are scheduled for completion in FY04
12/15/03	5. Feasibility	Technology may not exist to meet the unique and special requirements of ANC or it may be difficult to implement, unreliable or very expensive.	Basic	Perform market research studies and technology evaluations (including costs) to ensure feasibility is known	Numerous studies conducted. Technology is available and can be implemented to address ANC and customer requirements
12/15/03	6. Reliability of Systems	Potential for excessive system downtime which could delay burial scheduling.	Medium	Performance delays with ISS caused ANC to analyze the system, including stress tests. Ensure reliability through contractual performance requirements, system testing, and redundancy/ backup measures, among others	ISS analysis conducted in August 2004. Results TBD.
12/15/03	7. Dependencies and	Each component of	Basic	<ul style="list-style-type: none"> Ensure analysis of 	<ul style="list-style-type: none"> Comprehensive

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	Interoperability between Investment and Other Systems	TCMS will not fully integrate or be operable with others.		<p>all interrelated business processes prior to development</p> <ul style="list-style-type: none"> • Ensure coordination of component developers 	<p>BPR analyses conducted in FY00/FY01</p> <ul style="list-style-type: none"> • Each new phase of development to include requirements of completed components • In Aug 04, ANC began holding round-table discussions with all vendors, to ensure all requirements and schedules are coordinated, and that all risks are identified and known to all parties.
12/15/03	8. Surety	TCMS assets will be vulnerable to vandalism, theft, cyber attack or other actions that would endanger their surety.	Basic	<ul style="list-style-type: none"> • Ensure physical security and monitoring of TCMS kiosks on ANC grounds • Implement IT infrastructure security to ward off web attacks 	<ul style="list-style-type: none"> • Stringent physical security is in place at ANC • IT Infrastructure Enhancements have included firewall and other security measures to protect data and systems
06/01/04	9. Risk of Creating a Monopoly	ANC will become dependent on a single contractor to develop the TCMS system	Basic	<ul style="list-style-type: none"> • Ensure validation of BPR and requirements analyses • Split development work among system components 	<ul style="list-style-type: none"> • Independent review of initial BPR studies performed 5/30/2000 • Various components of the system have already been developed by separate contractors
12/15/03	10. Capability to Manage the Investment	Limited ANC staff could jeopardize project performance / completion	Medium	<ul style="list-style-type: none"> • Ensure an Integrated Project Team (IPT) is in place • Ensure the development of and monitoring of SLAs and performance metrics in contracts 	<p>IPT identified 12/21/03. "Impartial contractor" selected for enterprise architecture work, ensuring that all aspects of the investment stay on schedule.</p>
12/15/03	11: Overall Risk of Investment Failure	The technology will not exist to support the envisioned TCMS functionality	Basic	<p>Ensure initial planning and industry input supports the envisioned TCMS environment; develop pilot projects to ensure all components will properly interact, and provide expected results.</p>	<p>Industry input sought and received regarding recommendations for filling performance gaps* and currently available technology to meet requirements</p>

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12/15/03	12. Organization and Change Management	ANC staff may not be able to adapt to significant process and technological change without appropriate support, especially given the longevity of ANC employees	Medium	<ul style="list-style-type: none"> • Ensure training for Administrative staff on each component of TCMS • Plan a communications strategy for other ANC staff (visitor center, grounds) 	<ul style="list-style-type: none"> • Training already completed (4/26/03) for the first component implemented, ISS • Training to be acquired for each component • Communications Plan completed 6/30/04.
12/15/03	13. Business	Once completed, TCMS may not meet customer expectations	Medium	<ul style="list-style-type: none"> • Ensure customer requirements are identified • Track customer satisfaction • Ensure customer knowledge of new components / functionalities and how to use them 	<ul style="list-style-type: none"> • Initial Customer Survey completed 08/2000. • ANC has undertaken a web redesign for communicating new system features and usage to customers • ANC conducts Customer Satisfaction surveys
12/15/03	14. Data/Info	<p>The data structure of the program components will be incompatible with COTS products, requiring extensive modifications that will affect costs</p> <p>Data structure within each of the program initiatives will be incompatible for integration and interfacing</p>	<p>High</p> <p>Medium</p>	<ul style="list-style-type: none"> • Ensure the TCMS components have well defined data strategies and databases that are ODBC compliant and relational in nature • Ensure the data structures are compatible and based on the same private sector vendor software or data structures • Ensure data structure consistencies between the systems interface, as well as testing the data accuracy when processed in initiative systems and interfaces 	<ul style="list-style-type: none"> • ANC began work on its overall data architecture in August 2004. This work is being closely coordinated with all vendors. • Data, data migration, and historical data collection and warehousing strategies were developed for the burial cards. Each applicable component of the TCMS program will have its own strategies. The GIS strategy will be completed by 9/30/04.
12/15/03	15. Technology	Processes and methods fail to support timely and effective technology development	Basic	<ul style="list-style-type: none"> • Ensure system development life cycle management best practices for all vendor and internal activities • Include performance and service level requirements that focus on these aspects 	ANC's new round-table discussions will include sharing best practices; monthly project management meetings will review performance and service level requirements.
12/15/03	16. Strategic	The program will lose momentum over time jeopardizing executive	Medium	<ul style="list-style-type: none"> • Ensure executive commitment to TCMS 	<ul style="list-style-type: none"> • TCMS program initiated by the ANC Deputy

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		and budgetary support		<ul style="list-style-type: none"> • Ensure strong program management • Establish and monitor contractor performance requirements 	Director (2000)
12/15/03	17. Security	Unauthorized access to the system may result in unauthorized disclosure of sensitive information or disruption of service to ANC and its customers. This risk is medium to high, since security C&A processes have not been completed and the risk posed by TCMS has not been fully assessed.	Medium	<ul style="list-style-type: none"> • Strictly adhere to all security policies and procedures • Include best practices for secure access points development • Complete security assessments, plans and C&A activities to ensure risks are identified and adequately mitigated. 	Security plans and assessments will be completed in FY04 and FY05 to ensure compliance with government-wide requirements
12/15/03	18. Privacy	TCMS will not meet Privacy Act requirements	Basic	Ensure that system design and operational guidelines properly address privacy requirements where applicable	A Privacy Impact Review was completed 7/7/04.
12/15/03	19. Project Resources	Project resources will not be adequate to complete the system on time	Medium	<ul style="list-style-type: none"> • Ensure requirements analyses include human resource estimates including required skills • Identify dedicated ANC staff for this project 	<ul style="list-style-type: none"> • Staffing requirements identified in initial studies/analyses (2000-2002) • IPT identified 12/21/03.

1. What is the date of your risk management plan?

Development of a TCMS Risk Management Plan was slated for completion on 5/31/04. Due to funding issues this was delayed. Development of the Risk Management plan is now slated for completion by December 31, 2004.

I.G. Acquisition Strategy

In order to adequately address this area of the business case and capital asset plan you must employ a strong acquisition strategy that mitigates risk to the Federal government, accommodate Section 508 as needed, and use performance based contracts and (SOWs). If you are not using performance based fixed price contracts, your acquisition strategy should clearly define the risks that prompted the use of other than performance based contracts and SOWs. Finally, your implementation of the Acquisition Strategy must be clearly defined.

1. Will you use a single contract or several contracts to accomplish this investment?

Several

1.A. What is the type of contract/task order if a single contract is used?

- 1.B. If multiple contract/task orders will be used, discuss the type, how they relate to each other to reach the investment outcomes, and how much each contributes to the achievement of the investment cost, schedule and performance goals. Also discuss the contract/task order solicitation or contract provisions that allow the contractor to provide innovative and transformational solutions.**

Multiple contracts/task orders will be utilized to accomplish TCMS, due to the diverse requirements and skills associated with completing each of its components. ANC's acquisitions must be performed in the most cost-effective and human resource-efficient manner possible. For this reason, ANC utilized GSA Schedule 70/MOBIS vehicles and other streamlined acquisition mechanisms for acquiring its outsourced services. Contract vehicles are used based on the specific requirements of each TCMS component.

As ANC begins a major automation program, it is working to formalize an overall strategy for acquiring all of the hardware, software, and services required for the TCMS. This program will require a number of different contracts and task orders with a variety of different contractors; therefore, a comprehensive acquisition strategy is required to ensure that all expenditures are made appropriately. ANC had used a T&M contract with Standard Technologies, Inc (STI) to develop ISS and provide network infrastructure support. When STI's contract ended during FY04, ANC decided to replace STI with two different contractors. By establishing separate, performance-based contracts for system development and network infrastructure, ANC will be able to manage the work and funding much more effectively. ANC plans to use an existing BPA with Interactive Designs (ID), managed through the US Army Corps of Engineers' Baltimore District, as its primary vehicle for automation services. This includes maintenance and on-going development work with the ISS component, GIS component, and software to support the kiosks and web portal. (Contracts for the infrastructure effort are now reported in a separate Exhibit 300.) In addition, ANC has contracted with Offise Solutions, Inc. (OSI) for data entry and scanning of the burial records, as well as gathering and validating data requirements. In addition, a series of firm-fixed price and T&M tasks with DigitalNet provide enterprise architecture support, including facilitating the direction of the data and technical architectures.

ANC plans to maximize the use of performance-based task orders in this effort, developing SOWs that are focused on the provision of benefit/performance, rather than the delivery of hours of effort. Each contract requirement is carefully reviewed for possible performance goals and measures, transferring the maximum amount of cost risk to the contractors providing support.

- 2. For other than firm-fixed price, performance-based contracts, define the risk not sufficiently mitigated in the risk mitigation plan, for that contract/task order, that requires the Government to assume the risk of contract achievement of cost, schedule and performance goals. Explain the amount of risk the government will assume.**

ANC strives to use performance-based, firm fixed price contracts as much as possible. Any time and materials contracts will be closely managed, with all risk included in the risk management plan.

As with any major automation program, some use of cost reimbursable contracts will be inevitable. For example, ANC expects that efforts to identify user requirements will not be easily defined in terms of performance, and will likely be done on a time and materials or other cost reimbursable basis. In these cases, ANC will actively work to mitigate the associated risk. Cost risk will be mitigated by issuing contracts of short duration, with clearly defined milestones. ANC will monitor these contracts with regular meetings and reviews of cost, schedule, and

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performance against the project plan. As appropriate, ANC will require development contractors to report earned value management (EVM) data, to further mitigate contract risk.

ANC's ongoing enterprise architecture (EA) effort will also serve as a primary risk mitigation strategy. ANC will ensure that all investments are consistent with its evolving modernization blueprint, and that all proposed work is compliant with its PRM, SRM, and TRM. This will ensure that ANC's critical business functions are driving all modernization efforts, and that each new component will be fully interoperable with existing components.

3. **Will you use financial incentives to motivate contractor performance (e.g. incentive fee, award fee)?**

No.

4. **Discuss the competition process used for each contract/task order, including the use of RFP's, schedules or other multiple agency contracts, etc?**

Procurement procedures for TCMS include the use of the GSA Schedule 70 and MOBIS vehicles, purchase orders, and task orders under the Army Contracting Agency Acquisition Center at Fort Belvoir, and follow the appropriate competitive process for each.

5. **Will you use commercially available or COTS products for this investment?**

Yes. Wherever possible, COTS or commercially available products will be used to complete the individual components of this investment.

- 5.A **To what extent will these items be modified to meet the unique requirements of this investment?**

COTS products will need to be customized. For example, any GIS system will need to be tailored to the ANC's specific requirements and for the interface with the Records Management System.

- 5.B **What prevented the use of COTS without modification?**

As there is no other cemetery with the exact requirements as ANC in the country, there was no single cemetery management system that could be implemented to meet ANC's requirements.

6. **What is the date of your acquisition plan?**

July 2004

7. **How will you ensure Section 508 compliance?**

The current ANC web site was evaluated and found to be in accordance with Section 508 compliance (11/6/03), and future web site enhancements will follow these guidelines and likewise be tested for compliance according to the TCMS project plan. In addition, Section 508 compliance will be written into all future contracts as part of the acquisition of each TCMS component.

8. **Acquisition Costs:**

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8.A. For budget year, what percentage of the total investment is for hardware acquisition?

10%

8.B. For budget year, what percentage of the total investment is for software acquisition?

10%

8.C. For budget year, what percentage of the total investment is for services acquisition?

80%

I.H. Project (Investment) and Funding Plan

In order to successfully address this section of the business case, you must demonstrate use of an Earned Value Management System (EVMS) that meets ANSI/EIA Standard 748, for both government and contractor costs, for those parts of the total investment that require development efforts (e.g., prototypes and testing in the planning phase and development efforts in the acquisition phase) and show how close the investment is to meeting the approved cost, schedule and performance goals. Information on EVMS is available at <http://www.acq.osd.mil/pm>. For those investments in the operations/steady state phase, you must perform an operational analysis as defined in the Capital Programming Guide to demonstrate how close the investment is to achieving the expected cost, schedule and performance goals for this phase. Program status information in this section must include both the contractor's part of the investments overall costs and milestone requirements as well as the government's costs and milestone requirements to successfully complete the investment phase, segment or module being reported.

I.H.1. Description of performance-based management system (PBMS)

Explain the methodology used by the agency to analyze and use the earned value performance data to manage performance. Describe the process you will use or used to verify that the contractor's project management system follows the ANSI/EIA Standard 748-A. If the investment is operational (steady state), define the operational analysis system that will be used. If this is a mixed life-cycle investment with both operational and development/modernization/enhancement (DME) system improvement aspects, EVMS must be used on the system improvement aspects of the investment and operational analysis on the operations aspects. Using information consistent with the work breakdown structure (WBS), provide the information requested in all parts of this section.

TCMS management will plan and control the project on EVM principles as delineated in ANSI EIA 748, fully integrating planning, scheduling, and budgeting with the organization and business priorities. A major goal of the current planning process is to build TCMS' WBS and schedule and put associated controls in place for the coming acquisition process.

All future contracts and task orders will require monthly reports with actual costs for all subtasks included in the WBS. This will allow ANC to compare invoices with costs estimated in the Project Management Plan for activities and deliverables. This data, plus that provided by the management contractor, will establish a value for the work performed and products delivered and is reflected in I.H.2.

Future TCMS design and development contracts will also require a management plan with a WBS, a schedule and deliverables that track to costs, and a documented process for providing monthly planned vs. actual information for the contract. A combination of MS Project (for the WBS and schedule) and Excel (for current and planned costs (ETC) mapped to work products in MS Project) allow ANC to identify

and track the value of work performed from one or more contracts and to adjust plans based on actual performance and risks. This flexibility is important because of the potential for external impacts on program priorities and project schedules.

During FY05, procedures will also be developed for conducting operational analyses of the operational components of the TCMS.

I.H.2. Original baseline (OMB-approved at investment outset)

What are the cost and schedule goals for this phase or segment/module of the investment (e.g., what are the major investment milestones or events; when will each occur; and what is the estimated cost to accomplish each one)? Also identify the funding agency for each milestone or event if this is a multi-agency investment. For operational or steady state projects, complete one line on the chart for each year of this phase. If the project is mixed life-cycle there will be two parts to the chart; one for the O&M portion and one for the developmental portion using EVMS. If this is a multi-agency investment or one of the President's E-Gov initiatives, use the detailed investment plan with milestones on the critical path, to identify agency funding for each module or milestone. (This baseline must be included in all subsequent reports, even when there are OMB-approved baseline changes shown in I.H.3).

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Cost and Schedule Goals: Original Baseline for a Phase/Segment/Module of Project (Investment)					
Description of Milestone	Schedule			Planned Cost (in thousands)	Funding Agency
	Start Date	End Date	Duration (in days)		
FY04 Milestones and Costs					
TCMS Planning/Project Management (DigitalNet) – FY04	12/03/03	04/18/05	501	114.62	ANC
Complete As-Is Enterprise Architecture - costs are included in PM costs above (DigitalNet) – FY04	07/19/04	12/31/04	164	0	ANC
TCMS Security Assessment/Program Plan (DigitalNet) – FY04	05/04/04	06/30/04	57	1.02	ANC
TCMS Security Plan/Implementation (DigitalNet) – FY04-05	07/19/04	04/18/05	273	63.38	ANC
Complete Alternatives Analysis – cost included in FY04 PM costs (DigitalNet) – FY04-05	09/15/04	12/31/04	108	0	ANC
Complete Risk Management Plan – cost included in FY04 PM costs (DigitalNet) – FY04-05	09/15/04	12/31/04	108	0	ANC
Complete Privacy Impact Assessment – cost included in FY04 Security Implementation costs (DigitalNet) – FY05	07/19/04	12/31/04	165	0	ANC
Complete Detailed Security Plan – cost included in FY04 Security Implementation costs (DigitalNet) – FY05	07/19/04	02/28/04	224	0	ANC
Complete C&A of current components of TCMS Assessment – cost included in FY04 Security Implementation costs (DigitalNet) – FY05	10/01/04	01/31/05	123	0	ANC
ISS O&M (STI) – FY04	10/01/03	07/31/04	304	63.39	ANC
ISS O&M (ID) – FY04	08/25/04	10/23/04	60	18.7	ANC
GIS Ortho Photo (ID) – FY04	03/23/04	05/24/04	61	24.9	ANC
GIS Prototype, including testing for headstone inventory (ID) – FY04	08/25/04	12/30/04	92	173.9	ANC
Scan paper burial records in preparation for entry into TCMS Data Repository (OSI) – FY04	7/24/04	9/30/04	69	65	ANC
Data entry for key fields on paper burial records (convert/validate date) in preparation for entry into TCMS Data Repository (OSI) – FY04.	9/13/04	2/15/05	155	400	ANC

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FY05 Milestones and Costs					
TCMS Project Management (DigitalNet) – FY05-FY06	04/19/05	04/18/06	365	120	ANC
TCMS Security (DigitalNet) – includes C&A on new components – FY05-FY06	04/19/05	04/18/06	365	80	ANC
ISS O&M (ID) – FY05	10/01/04	09/30/05	365	120	ANC
Capture remaining source data for TCMS (OSI) – FY05	4/1/05	1/15/06	290	175	ANC
GIS Grave Card Capture and Integration (ID) – FY05	11/23/04	04/07/05	98	357	ANC
GIS Application Development and Hardware (ID) – FY05	01/01/05	09/30/05	273	445.88	ANC
GIS Survey/Photography of Headstones and Utilities(ID) – FY05	10/01/04	09/30/05	365	906.5	ANC
Kiosk Software: Web Portal GIS and Customer Service Application (ID) – FY05	10/01/04	09/30/05	365	50	ANC
TCMS Data Repository Development (ID) – FY05	10/01/04	06/09/05	180	193	ANC
Integrate ISS with TCMS (ID) – FY05	01/01/05	09/30/05	273	155	ANC
Develop Interface from TCMS to VA's AMAS headstone system (OSI) – FY05	01/01/05	04/30/05	112	120	ANC
FY06 Milestones and Costs					
TCMS Project Management (DigitalNet) – FY06-FY07	04/19/06	04/18/07	365	120	ANC
TCMS Security (DigitalNet) – includes C&A on new components – FY06-FY07	04/19/06	04/18/07	365	80	ANC
ISS O&M(ID) – FY06	10/01/05	09/30/06	365	120	ANC
Study to update TCMS data requirements (OSI) – FY06	10/01/05	09/30/06	365	30	ANC
GIS Survey/Photography of Headstones and Utilities (ID) – FY06	10/01/05	09/30/06	365	906.5	ANC
Kiosk Software: Web Portal GIS and Customer Service Application(ID) – FY06	10/01/05	09/30/06	365	100	ANC
TCMS Data Repository Development (ID) – FY06	10/01/05	09/30/06	365	430.88	ANC
EDMS Study to document functional requirements and develop best approach (OSI) – FY06	04/01/06	07/31/06	120	40	ANC
FY07 Milestones and Costs					
TCMS Project Management (DigitalNet) – FY07-FY08	04/19/07	04/18/08	366	120	ANC
TCMS Security (DigitalNet) – includes C&A on new components – FY07-FY08	04/19/07	04/18/08	366	80	ANC

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ISS O&M (ID) – FY07	10/01/06	09/30/07	365	120	ANC
Study to update TCMS data requirements (OSI) – FY07	10/01/06	09/30/07	365	30	ANC
GIS O&M - Survey/Photography of Headstones and Utilities (ID) – FY07	10/01/06	09/30/07	365	150	ANC
Kiosk Software: Web Portal GIS and Customer Service Application(ID) – FY07	10/01/06	09/30/07	365	50	ANC
TCMS Data Repository O&M, including hardware upgrade (ID) – FY07	10/01/06	09/30/07	365	102.5	ANC
TCMS Operational Analysis study against current requirements (ID) – FY07	10/01/06	09/30/07	365	25	ANC
EDMS System Requirements and Design (OSI) – FY07	12/01/06	06/01/07	180	97.5	ANC
FY08 Milestones and Costs					
TCMS Project Management (DigitalNet) – FY08-FY09	04/19/08	04/18/09	365	120	ANC
TCMS Security (DigitalNet) – includes C&A on new components – FY08-FY09	04/19/08	04/18/09	365	80	ANC
ISS O&M (ID) – FY08	10/01/07	09/30/08	366	120	ANC
Study to update TCMS data requirements (OSI) – FY08	10/01/07	09/30/08	366	30	ANC
GIS O&M - Survey/Photography of Headstones and Utilities (ID) – FY08	10/01/07	09/30/08	366	150	ANC
Kiosk Software O&M: Web Portal GIS and Customer Service Application (ID) – FY08	10/01/07	09/30/08	366	31	ANC
TCMS Data Repository O&M, including hardware refresh (ID) – FY08	10/01/07	09/30/08	366	66	ANC
EDMS Development (OSI) – FY08	10/01/07	09/30/08	366	177.5	ANC
FY09 Milestones and Costs					
TCMS Project Management (DigitalNet) – FY09-FY10	04/19/09	04/18/10	365	120	ANC
TCMS Security (DigitalNet) – includes C&A on new components – FY09-FY10	04/19/09	04/18/10	365	80	ANC
ISS O&M (ID) – FY09	10/01/08	09/30/09	365	120	ANC
Study to update TCMS data requirements (OSI) – FY09	10/01/08	09/30/09	365	30	ANC
GIS O&M - Survey/Photography of Headstones and Utilities (ID) – FY09	10/01/08	09/30/09	365	150	ANC
GIS System Reassessment and Development (ID) - FY09	10/01/08	9/30/09	365	200	ANC
Kiosk Software O&M: Web Portal GIS and Customer Service Application (ID) –	10/01/08	09/30/09	365	31	ANC

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FY09					
TCMS Data Repository O&M, including hardware refresh (ID) – FY09	10/01/08	09/30/09	365	87	ANC
TCMS Operational Analysis study against current requirements (ID) – FY09	10/01/08	09/30/09	365	25	ANC
EDMS O&M (OSI) – FY09	10/01/08	09/30/09	365	40	ANC
FY10 Milestones and Costs					
TCMS Project Management (DigitalNet) – FY10	04/19/10	04/18/10	165	60	ANC
TCMS Security (DigitalNet) – FY10	04/19/10	04/18/10	165	40	ANC
ISS O&M (ID) – FY10	10/01/09	09/30/10	365	120	ANC
Study to update TCMS data requirements (OSI) – FY10	10/01/09	09/30/10	365	30	ANC
GIS O&M - Survey/Photography of Headstones and Utilities (ID) – FY10	10/01/09	09/30/10	365	150	ANC
GIS System Reassessment and Development (ID) - FY09	10/01/09	9/30/10	365	150	
Kiosk Software O&M: Web Portal GIS and Customer Service Application (ID) – FY10	10/01/09	09/30/10	365	31	ANC
TCMS Data Repository O&M, including hardware refresh (ID) – FY10	10/01/09	09/30/10	365	73.5	ANC
EDMS O&M (OSI) – FY10	10/01/09	09/30/10	365	40	ANC
Completion date: 09/30/10			Total cost estimate at completion: \$8,136,67		

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I.H.3. Proposed baseline/current baseline (applicable *only* if OMB-approved the changes)

Identify in this section a proposed change to the original or current baseline or an OMB-approved baseline change. What are the new cost and schedule goals for the phase or segment/module (e.g., what are the major investment milestones or events; when will each occur; and what is the estimated cost to accomplish each one)? Also identify the funding agency for each milestone or event if this is a multi-agency investment. If this is a new investment in the FY 2005 budget year, this section will be blank for your initial submission.

Cost and Schedule Goals:					
Proposed _____ or Current (OMB-Approved) _____ Baseline for a Phase/Segment/Module of Project (Investment)					
Description of Milestone	Schedule			Planned Cost	Funding Agency
	Start Date	End Date	Duration (in days)		
1.					
2.					
3.					
Completion date:				Total cost estimate at completion:	

I.H.4 Actual performance and variance from OMB-approved baseline (original or current)

A. This section is always filled in to reflect current status of the investment. It compares the OMB approved baseline and actual results for this phase, segment, or module of the investment. Show for each major investment milestones or events you planned (scheduled) to accomplish and the cost and what work was actually done and the cost. If the project is in the operational or steady state phase complete one line on the chart for each year. For these projects complete paragraphs C, D, F and G as appropriate. If this is a new investment in the FY 2005 budget year, this will be blank for your initial submission. OMB may ask for latest information during the budget review process.

Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)									
Description of Milestone	OMB-Approved Baseline					Actual Outcome			
	Schedule			Planned Cost	Funding Agency	Schedule		Percent Complete	Actual Cost
	Start Date	End Date	Duration (in days)			Start Date	End Date		
FY04 Milestones and Costs									
TCMS Planning/Project Management (DigitalNet) - FY04	12/03/03	04/18/05	501	114.62	ANC	12/03/03		45.5 %	51.23
Complete As-Is	07/19/04	12/31/04	164	0	ANC	07/19/04			

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Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)									
Description of Milestone	OMB-Approved Baseline					Actual Outcome			
	Schedule			Planned Cost	Funding Agency	Schedule		Percent Complete	Actual Cost
	Start Date	End Date	Duration (in days)			Start Date	End Date		
Enterprise Architecture - costs are included in PM costs above (DigitalNet) - FY04	4	4							
TCMS Security Assessment/Program Plan (DigitalNet) - FY04	05/04/04	06/30/04	57	1.02	ANC	05/04/04	06/30/04	100%	1.02
TCMS Security Plan/Implementation (DigitalNet) - FY04-05	07/19/04	04/18/05	273	63.38	ANC	07/19/04			
Complete Alternatives Analysis - cost included in FY04 PM costs (DigitalNet) - FY04-05	09/15/04	12/31/04	108	0	ANC	09/15/04			
Complete Risk Management Plan - cost included in FY04 PM costs (DigitalNet) - FY04-05	09/15/04	12/31/04	108	0	ANC	09/15/04			
Complete Privacy Impact Assessment - cost included in FY04 Security Implementation costs (DigitalNet) - FY05	07/19/04	12/31/04	165	0	ANC	07/19/04			
Complete Detailed Security Plan - cost included in FY04 Security Implementation costs (DigitalNet) - FY05	07/19/04	02/28/04	224	0	ANC	07/19/04			
Complete C&A of current components of TCMS Assessment - cost included in FY04 Security Implementation costs (DigitalNet) - FY05	10/01/04	01/31/05	123	0	ANC				
ISS O&M (STI) - FY04	10/01/03	07/31/04	304	63.39	ANC	10/01/03	07/31/04	90%	57.05
ISS O&M (ID) - FY04	08/25/04	10/23/04	60	18.7	ANC	08/25/04			
GIS Ortho Photo (ID) - FY04	03/23/04	05/24/04	61	24.9	ANC	03/23/04	05/24/04	100%	24.9
GIS Prototype, including testing for headstone	08/25/04	12/30/04	92	173.9	ANC	08/25/04		0%	0

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Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)									
Description of Milestone	OMB-Approved Baseline					Actual Outcome			
	Schedule			Planned Cost	Funding Agency	Schedule		Percent Complete	Actual Cost
	Start Date	End Date	Duration (in days)			Start Date	End Date		
inventory (ID) – FY04									
Scan paper burial records in preparation for entry into TCMS Data Repository (OSI) – FY04	7/24/04	9/30/04	69	65.00	ANC	7/24/04			
Data entry for key fields on paper burial records (convert/validate date) in preparation for entry into TCMS Data Repository (OSI) – FY04.	9/13/04	2/15/05	155	400.00	ANC	09/13/04			
FY05 Milestones and Costs									
TCMS Project Management (DigitalNet) – FY05-FY06	04/19/05	04/18/06	365	120	ANC				
TCMS Security (DigitalNet) – includes C&A on new components – FY05-FY06	04/19/05	04/18/06	365	80	ANC				
ISS O&M (ID) – FY05	10/01/04	09/30/05	365	120	ANC				
Capture remaining source data for TCMS (OSI) – FY05	4/1/05	1/15/06	290	175	ANC				
GIS Grave Card Capture and Integration (ID) – FY05	11/23/04	04/07/05	98	357	ANC				
GIS Application Development and Hardware (ID) – FY05	01/01/05	09/30/05	273	445.88	ANC				
GIS Survey/Photography of Headstones and Utilities (ID) – FY05	10/01/04	09/30/05	365	906.5	ANC				
Kiosk Software: Web Portal GIS and Customer Service Application (ID) – FY05	10/01/04	09/30/05	365	50	ANC				
TCMS Data Repository Development (ID) –	10/01/04	06/09/05	180	193	ANC				

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Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)									
Description of Milestone	OMB-Approved Baseline					Actual Outcome			
	Schedule			Planned Cost	Funding Agency	Schedule		Percent Complete	Actual Cost
	Start Date	End Date	Duration (in days)			Start Date	End Date		
FY05									
Integrate ISS with TCMS (ID) – FY05	01/01/0 5	09/30/0 5	273	155	ANC				
Develop Interface from TCMS to VA's AMAS headstone system (OSI) – FY05	01/01/0 5	04/30/0 5	112	120	ANC				
FY06 Milestones and Costs									
TCMS Project Management (DigitalNet) – FY06-FY07	04/19/0 6	04/18/0 7	365	120	ANC				
TCMS Security (DigitalNet) – includes C&A on new components – FY06- FY07	04/19/0 6	04/18/0 7	365	80	ANC				
ISS O&M(ID) – FY06	10/01/0 5	09/30/0 6	365	120	ANC				
Study to update TCMS data requirements (OSI) – FY06	10/01/0 5	09/30/0 6	365	30	ANC				
GIS Survey/Photography of Headstones and Utilities (ID) – FY06	10/01/0 5	09/30/0 6	365	906.5	ANC				
Kiosk Software: Web Portal GIS and Customer Service Application (ID) – FY06	10/01/0 5	09/30/0 6	365	100	ANC				
TCMS Data Repository Development (ID) – FY06	10/01/0 5	09/30/0 6	365	430.88	ANC				
EDMS Study to document functional requirements and develop best approach (OSI) – FY06	04/01/0 6	07/31/0 6	120	40	ANC				
FY07 Milestones and Costs									

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Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)									
Description of Milestone	OMB-Approved Baseline					Actual Outcome			
	Schedule			Planned Cost	Funding Agency	Schedule		Percent Complete	Actual Cost
	Start Date	End Date	Duration (in days)			Start Date	End Date		
TCMS Project Management (DigitalNet) – FY07-FY08	04/19/07	04/18/08	366	120	ANC				
TCMS Security (DigitalNet) – includes C&A on new components – FY07-FY08	04/19/07	04/18/08	366	80	ANC				
ISS O&M (ID) – FY07	10/01/06	09/30/07	365	120	ANC				
Study to update TCMS data requirements (OSI) – FY07	10/01/06	09/30/07	365	30	ANC				
GIS O&M - Survey/Photography of Headstones and Utilities (ID) – FY07	10/01/06	09/30/07	365	150	ANC				
Kiosk Software: Web Portal GIS and Customer Service Application(ID) – FY07	10/01/06	09/30/07	365	50	ANC				
TCMS Data Repository O&M, including hardware upgrade (ID) – FY07	10/01/06	09/30/07	365	102.5	ANC				
TCMS Operational Analysis study against current requirements (ID) – FY07	10/01/06	09/30/07	365	25	ANC				
EDMS System Requirements and Design (OSI) – FY07	12/01/06	06/01/07	180	97.5	ANC				
FY08 Milestones and Costs									
TCMS Project Management (DigitalNet) – FY08-FY09	04/19/08	04/18/09	365	120	ANC				
TCMS Security (DigitalNet) – includes C&A on new components – FY08-FY09	04/19/08	04/18/09	365	80	ANC				

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Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)									
Description of Milestone	OMB-Approved Baseline					Actual Outcome			
	Schedule			Planned Cost	Funding Agency	Schedule		Percent Complete	Actual Cost
	Start Date	End Date	Duration (in days)			Start Date	End Date		
ISS O&M (ID) – FY08	10/01/07	09/30/08	366	120	ANC				
Study to update TCMS data requirements (OSI) – FY08	10/01/07	09/30/08	366	30	ANC				
GIS O&M - Survey/Photography of Headstones and Utilities (ID) – FY08	10/01/07	09/30/08	366	150	ANC				
Kiosk Software O&M: Web Portal GIS and Customer Service Application (ID) – FY08	10/01/07	09/30/08	366	31	ANC				
TCMS Data Repository O&M, including hardware refresh (ID) – FY08	10/01/07	09/30/08	366	66	ANC				
EDMS Development (OSI) – FY08	10/01/07	09/30/08	366	177.5	ANC				
FY09 Milestones and Costs									
TCMS Project Management (DigitalNet) – FY09-FY10	04/19/09	04/18/10	365	120	ANC				
TCMS Security (DigitalNet) – includes C&A on new components – FY09-FY10	04/19/09	04/18/10	365	80	ANC				
ISS O&M (ID) – FY09	10/01/08	09/30/09	365	120	ANC				
Study to update TCMS data requirements (OSI) – FY09	10/01/08	09/30/09	365	30	ANC				
GIS O&M - Survey/Photography of Headstones and Utilities (ID) – FY09	10/01/08	09/30/09	365	150	ANC				
GIS System Reassessment and Development (ID) - FY09	10/01/08	9/30/09	365	200	ANC				

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Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)									
Description of Milestone	OMB-Approved Baseline					Actual Outcome			
	Schedule			Planned Cost	Funding Agency	Schedule		Percent Complete	Actual Cost
	Start Date	End Date	Duration (in days)			Start Date	End Date		
Kiosk Software O&M: Web Portal GIS and Customer Service Application (ID) – FY09	10/01/08	09/30/09	365	31	ANC				
TCMS Data Repository O&M, including hardware refresh (ID) – FY09	10/01/08	09/30/09	365	87	ANC				
TCMS Operational Analysis study against current requirements (ID) – FY09	10/01/08	09/30/09	365	25	ANC				
EDMS O&M (OSI) – FY09	10/01/08	09/30/09	365	40	ANC				
FY10 Milestones and Costs									
TCMS Project Management (DigitalNet) – FY10	04/19/10	04/18/10	165	60	ANC				
TCMS Security (DigitalNet) – FY10	04/19/10	04/18/10	165	40	ANC				
ISS O&M (ID) – FY10	10/01/09	09/30/10	365	120	ANC				
Study to update TCMS data requirements (OSI) – FY10	10/01/09	09/30/10	365	30	ANC				
GIS O&M - Survey/Photography of Headstones and Utilities (ID) – FY10	10/01/09	09/30/10	365	150	ANC				
GIS System Reassessment and Development (ID) - FY09	10/01/09	9/30/10	365	150					
Kiosk Software O&M: Web Portal GIS and Customer Service Application (ID) – FY10	10/01/09	09/30/10	365	31	ANC				
TCMS Data Repository O&M, including hardware refresh (ID) – FY10	10/01/09	09/30/10	365	73.5	ANC				

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Comparison of OMB-Approved Baseline and Actual Outcome for Phase/Segment/Module of a Project (Investment)									
Description of Milestone	OMB-Approved Baseline					Actual Outcome			
	Schedule			Planned Cost	Funding Agency	Schedule		Percent Complete	Actual Cost
	Start Date	End Date	Duration (in days)			Start Date	End Date		
EDMS O&M (OSI) – FY10	10/01/09	09/30/10	365	40	ANC				
Completion date: OMB-approved baseline: 09/30/2010 (for current useful segment)						Estimated completion date: 09/30/04			
Total cost: OMB-approved baseline: \$8,136.67						Estimate at completion: \$8,136.67			

B. Provide the following investment summary information from your EVMS data (as of date):
06/30/04

- B.1. Show the budgeted (planned) cost of work scheduled (BCWS): \$ 135.13
- B.2. Show budgeted (planned) cost of work actually performed (BCWP): \$ 134.20
- B.3. Show the actual cost of work performed (ACWP): \$ 135.13

B.4. Provide a performance curve graph plotting BCWS, BCWP and ACWP on a monthly basis from inception of this phase or segment/module through the latest report. In addition, plot the ACWP curve to the estimated cost at completion (EAC) value, and provide the following EVMS variance analysis.

Project (Investment) Summary (Cumulative)	Value
Cost Variance = (BCWP-ACWP) =	- 0.93
Cost Variance % = (CV/BCWP) x 100% =	-0.69%
Cost Performance Index (CPI) = (BCWP/ACWP) =	0.99
Schedule Variance = (BCWP-BCWS) =	-0.93
Schedule Variance % = (SV/BCWS) x 100% =	-0.69%
Schedule Performance Index (SPI) = (BCWP/BCWS) =	0.99
Two independent Estimates at Completion (EAC) = ACWPCum + (Performance Factor (PF) X (BAC minus BCWPCum)), where PF ₁ = 1/CPI, and PF ₂ = 1/(CPI X SPI). =	EAC1 = \$8,193.06 EAC2= \$8,248.90
Variance at Completion (VAC) = (BAC minus EAC) for both EACs above =	VAC1= -56.39 VAC2= -112.23

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Variance at Completion % = $(VAC/BAC) \times 100\%$ for both EACs above =	VAC1%= -0.69%
	VAC2%= -1.38%
Estimated Cost to Complete (ETC)=	\$8,057.93
Expected Completion Date =	09/30/10

Definitions for Earned Value Management System:

- ACWP – Actual Cost of Work Performed – What you paid.
- BAC – Budget at Completion – The baseline (planned) budget for the investment.
- BCWP – Budgeted Cost for Work Performed – The earned value.
- BCWS – Budgeted Cost for Work Scheduled – The planned costs.
- CPI – Cost Performance Index – The ratio of the budgeted to actual cost of work performed.
- CV – Cost Variance – The difference between planned and actual cost of work performed.
- EAC – Estimate At Completion – The latest estimated cost at completion.
- ETC – Estimate to Completion – Funds needed to complete the investment.
- PF – Performance Factor – The cost to earn a dollar of value, or $ACWP/BCWP$, or $1/CPI$.
- SPI – Schedule Performance Index – The percent of the investment that has been completed.
- SV – Schedule Variance – The variance between the actual and planned schedules.
- VAC – Variance at Completion – The variance between the baseline and actual budget at completion.

C. If cost and/or schedule variance are a negative 10 percent or more at the time of this report or EAC is projected to be 10 percent or more, explain the reason(s) for the variance(s).

While ANC is currently on track against its final baseline, there have been a number of delays over the last year. These are due to work stoppages while ANC ensured that the plan for automation was feasible, consistent with its overall modernization blueprint, and not redundant with other government systems.

D. Provide performance variance. Explain based on work accomplished to date, whether or not you still expect to achieve your performance goals. If not, explain the reasons for the variance. For steady state projects, in addition to a discussion on whether or not the system is meeting the program objectives, discuss whether the needs of the owners and users are still being met.

ISS has experienced some performance issues, leading ANC to ask Interactive Designs to do a complete analysis (and possible redesign) of the hardware and software system. All other TCMS is within acceptable limits.

E. For investments using EVMS, discuss the contractor, government, and at least the two EAC index formulas in I.H.4.B, current estimates at completion. Explain the differences and the IPT's selected EAC for budgeting purposes. This paragraph is not applicable to operations/steady state investments.

The project is very close to its planned budget; while one task in June was a few days late, it was completed under a Firm Fixed-Price contract, and so there was no impact on the budget. Both EACs are within a few thousand dollars of each other. At this point, ANC is still planning on its

budgeted BAC. Actual cost, schedule, and performance data will be closely monitored across the life of the project.

- F. Discuss the corrective actions that will be taken to correct the variances, the risk associated with the actions, and how close the planned actions will bring the investment to the original baseline. Define proposed baseline changes, if necessary.

N/A – TCMS is within acceptable cost, schedule, and performance limits.

- G. If the investment cost, schedule or performance variances are 10% or greater, has the Agency Head concurred in the need to continue the program at the new baseline?

Yes ___ No ___

Exhibit 300: Part II: Additional Business Case Criteria for Information Technology

II. A. Enterprise Architecture

In order to successfully address this area of the business case and capital asset plan you must ensure that the investment is included in the agency's EA and CPIC process, and is mapped to and supports the Federal Enterprise Architecture. You must also ensure that the business case demonstrates the relationship between the investment and the business, data, application, and technology layers of the EA.

II.A.1 Business

- A. Is this investment identified in your agency's enterprise architecture? If not, why?

Yes, the components of TCMS make up the bulk of ANC's current EA. The ANC modernization blueprint has been completed. The As-Is Enterprise Architecture documentation is underway, and should be complete by 12/31/04.

- A.1 Will this investment be consistent with your agency's "to be" modernization blueprint?

Yes, TCMS is the centerpiece of ANC's modernization blueprint. The development of TCMS is being driven by the EA work, to ensure that all aspects and components of TCMS are fully interoperable and consistent with all layers of the EA target architecture.

- B. Was this investment approved through the EA Review committee at your agency?

Yes.

- C. What are the major process simplification/reengineering/design projects that are required as part of this IT investment?

The Business Process Reengineering and Infrastructure upgrade programs are key portions of this investment. Rather than simply automating the current paper process, ANC intends to design new processes that meet current needs of ANC, the military departments, and its customers. Taking the necessary time to do this critical work has been one factor in the recalculation of TCMS's initial baseline.

D. What are the major organization restructuring, training, and change management projects that are required?

Initial training in the ISS component of TCMS has been provided. While no organization restructuring projects are envisioned, ANC will review the need for training and change management projects as the TCMS investment evolves.

E. Please list all the Lines of Business and Sub-Functions from the FEA Business Reference Model that this IT investment supports. The *primary* BRM mapping for this initiative should have been identified with the last six digits of the unique project (investment) identifier in section 53.8. For a list of the BRM Lines of Business and Sub-Functions, as well as guidance on mapping to the BRM, please see www.omb.gov. (Note: The Services for Citizens area and the Mode of Delivery area should be thought of collectively. If you identified your *primary* line of business/sub-function in section 53.8 as a Service for Citizen or a Mode of Delivery, at a minimum you should identify the corresponding Mode of Delivery/Service for Citizen that applies in this section).

	Business Area	Line of Business	Sub-function
Primary	Management of Government Resources	Information and Technology Management	Record Retention
Secondary	Management of Government Resources	Information and Technology Management	Information Management
Secondary	Mode of Delivery	Support Delivery of Services	Central Records and Statistics Management
Secondary	Mode of Delivery	Government Service Delivery/Public Goods Creation and Management	Public Resources and Facility Management

II.A.2 Data

A. What types of data will be used in this investment? Examples of data types are health data, geospatial data, natural resource data, etc.

Geospatial data will be an integral element of the GIS component of the TCMS investment. The Records Management component will include personal data on all persons interred/inurned at ANC to include personal information (name, social security number, next of kin, dates of birth and death), military information (rank/grade, dates of service), and burial information (e.g. type, casket/urn descriptions, inscriptions, religious emblems, grave numbers and sections).

B. Does the data needed for this investment already exist at the Federal, State, or Local level? If so, what are your plans to gain access to that data?

Only pieces of the required data for the TCMS are available from other Federal sources. Information on the veterans and their military service/history are available from the Armed Service branches as well as the VA. ANC has already entered into discussions with these and other organizations (specifically the VA) to automate any and all data feeds possible into the TCMS.

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- C. **Are there legal reasons why this data cannot be transferred? If so, what are they and did you address them in the barriers and risk sections above?**

No. Reasons for lack of direct data transfer to date are more logistical/technical in nature (disparate systems/platforms). ANC is reviewing the data chain of custody and privacy impacts. ANC is working with these agencies to find ways to overcome existing barriers to data reuse/transfer.

- D. **If this initiative processes spatial data, identify planned investments for spatial data and demonstrate how the agency ensures compliance with the Federal Geographic Data Committee standards required by OMB Circular A-16.**

The Geographic Information System (GIS) component will involve spatial data. The ANC complies with regulations under which the US Army is subject.

- E. **If this activity involves the acquisition, handling or storage of information that will be disseminated to the public or used to support information that will be disseminated to the public, explain how it will comply with your agency's Information Quality guidelines (section 515 requirements)?**

ANC is researching and implementing appropriate measures during FY04. A Privacy Impact Assessment is currently underway.

- F. **Managing business information means maintaining its authenticity, reliability, integrity, and usability and providing for its appropriate disposition. Address how the system will manage the business information (records) that it will contain throughout the information life cycle.**

ANC is working to provide a number of safeguards to maintain the authenticity, reliability, and integrity of its business information. All components of the TCMS will include appropriate security measures that will be checked in the process of daily operation. All data is validated before considered ready for use. ANC places great emphasis on the proper management and retention of records as it is especially important for the hundreds of thousands of paper records currently maintained. ANC's plan to automate these records will significantly enhance record retention, as electronic backups will be possible. This will reduce the cost of maintenance as well as the time to retrieve particular records. Electronic record retention will also be performed in accordance with pertinent government wide and ANC records management policy.

II.A.3 Applications, Components, and Technology

- A. **Discuss this major investment in relationship to the Service Component Reference Model Section of the FEA. Include a discussion of the components included in this major IT investment (e.g., knowledge management, content management, customer relationship management, etc). For detailed guidance regarding components, please refer to <http://www.feapmo.gov> and the SRM Release Document.**

The information provided below is based on approximated data compiled when the Draft Exhibit 300 was developed in December 2003. This information will be modified as follows. As ANC continues to mature its EA, the initial focus is on defining, implementing and maintaining its Reference Models. ANC's Service Component Reference Model will be based upon the FEAF. The ANC SRM will be a component based framework that will provide for the re-use of applications, service components and business services throughout the enterprise. The development of the SRM is based upon the foundation that; (1) The business and the IT

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organization will work together to develop solutions that meet customer needs; (2) Solutions are structured and implemented to accommodate ANC's business areas; (3) Changes to applications and technology are made in response to business needs; and (4) Technology solutions evolve with changes to ANC;s strategic goals.

SERVICE REFERENCE MODEL

Service Domain	Service Type	Component	New Component	Relation to SRM of FEA
Customer Services	Customer Relationship Management	<ul style="list-style-type: none"> • Customer Feedback • Surveys 		
Customer Services	Customer Initiated Assistance	<ul style="list-style-type: none"> • Online Help • Self-Service • Assistance Request • Scheduling 		
Business Management	Management of Process	<ul style="list-style-type: none"> • Change Management • Configuration Management • Program/Project Management • Quality Management 		
Digital Asset Services	Content Management	<ul style="list-style-type: none"> • Content Authoring • Content Review and Approval • Content Publishing and Delivery 		
	Document Management	<ul style="list-style-type: none"> • Document Referencing • Document Revisions • Library/Storage • Document Conversion • Indexing • Classification 		
	Knowledge Management	<ul style="list-style-type: none"> • Information Retrieval • Information Sharing • Categorization • Knowledge Capture • Knowledge Distribution and Delivery 		
	Records Management	<ul style="list-style-type: none"> • Record Linking/Association • Document Classification 		
Business Analytical Services	Analysis and Statistics	<ul style="list-style-type: none"> • Modeling • Predictive 		
	Visualization	<ul style="list-style-type: none"> • Graphing/Charting • Mapping/Geospatial/Elevation/GPS 		
	Business Intelligence	<ul style="list-style-type: none"> • Data Mining 		
	Reporting	<ul style="list-style-type: none"> • Ad Hoc • Standardized/Canned 		
Back Office Services	Data Management	<ul style="list-style-type: none"> • Data Exchange • Data Mart • Data Warehouse • Loading and Archiving • Data Recovery • Data Classification 		
	Assets/Materials Management	<ul style="list-style-type: none"> • Property/Asset Management • Computers/Automation Management 		

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	Development and Integration	<ul style="list-style-type: none"> • Legacy Integration • Data Integration 		
Support Services	Security Management	<ul style="list-style-type: none"> • Identification and Authentication • Access Control • Role/Privilege Management 		
	Collaboration	<ul style="list-style-type: none"> • Shared Calendaring • Task Management 		
	Search	<ul style="list-style-type: none"> • Query • Classification 		
	Communication	<ul style="list-style-type: none"> • Computer/Telephony Integration 		
	Forms Management	<ul style="list-style-type: none"> • Forms Creation • Forms Modification 		

B. Are all of the hardware, applications, components, and web technology requirements for this investment included in the Agency EA Technical Reference Model? If not, please explain.

The ANC Enterprise Architecture Technical Reference Model is currently being reviewed and developed. As stated earlier, the Enterprise Architecture modernization blueprint is completed and the as-is Enterprise Architecture work is underway. As this process evolves, vendors are selected based on their interoperability and consistency with all existing standards. Great care is being taken to ensure that no new requirements are introduced without being verified against the ANC EA first.

C. Discuss this major IT investment in relationship to the Technical Reference Model section of the FEA. Identify each Service Area, Service Category, Service Standard, and Service Specification that collectively describes the technology supporting the major IT investment. For detailed guidance regarding the FEA TRM, please refer to <http://www.feapmo.gov>.

The information provided below is based on approximated data compiled when the Draft Exhibit 300 was developed in December 2003. This information will be modified as follows. While working to develop and implement ANC's Enterprise Architecture, the Technical Reference Model is a primary focus. ANC's TRM will be a component driven technical framework which will identify standards, specifications, and technologies that support and enable the ANC to reach its target architecture. The ANC TRM will be structured as to promote a component based architecture allowing for inter and intra-Agency collaboration and interoperability. The TRM will also focus on re-using best solutions and technologies to support ANC's business functions, its mission, and its To-Be Architecture.

TECHNICAL REFERENCE MODEL

Service Area	Service Category	Service Standard	New Specification	Relation to SRM of FEA
Service Access and Delivery	Access Channels	Web Browser		
		Collaboration Communications		

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		Other Electronic Channels		
	Service Requirements	Legislative Compliance		
		Hosting		
	Service Transport	Supporting Network Services		
		Service Transport		
		Platform Dependent (MS)		
	Delivery Servers	Web Servers		
	Software Engineering	Integration Development Environment		
		Software Configuration Management		
	Database/Storage	Database		
		Embedded Technology Devices		
		Peripherals		
		LAN		
		Network Devices/Standards		
		Videoconferencing		
Component Framework	Security	Certificates/Digital Sign		
		Supporting Security Services		
	Presentation / Interface	Static Display		
		Dynamic/Server-Side Display		
		Content Rendering		
		Platform Dependent		
	Data Interchange	Data Interchange		
	Data Management	Database Connectivity		
Services Interface and Integration Area	Integration	Middleware		
	Interoperability	Data Format / Classification		
		Data Types / Validation		
		Data Transformation		
	Interface	Service Discovery		
		Service Description/Interface		

D. Will the application leverage existing components and/or applications across the Government (i.e., FirstGov, Pay.Gov, etc). If so, please describe.

ANC collaborating with GSA to ensure that ANC is included in FirstGov as part of the web site redesign effort. ANC is also pursuing the possibility of sharing data with the DFAS, SSA, and VA, to ensure that deaths are reported to these agencies, and benefits are stopped/started as appropriate.

E. Financial Management Systems and Projects, as indicated in Part One, must be mapped to the agency's financial management system inventory provided annually to OMB. Please identify the system name(s) and system acronym(s) as reported in the most recent systems inventory update required by Circular A-11 section 52.4.

The ANC Total Cemetery Management System (TCMS) is not a financial management system.

II. B. Security and Privacy

In order to successfully address this area of the business case, each question below must be answered at the investment (system/application) level, not at a program or agency level. Simply referring to security plans or other documents is not an acceptable response. For IT investments under development, security planning must proceed in parallel with the development of the system to ensure that IT security requirements and costs for the lifecycle of the investment are identified and validated. All IT investments must have up-to-date security plans and be fully certified and accredited prior to becoming operational. Anything short of a full certification and accreditation indicates that identified IT security weaknesses remain and need to be remedied and is therefore not adequate to ensure funding for the investment. Additionally, to ensure that requests for increased IT security funding are appropriately addressed and prioritized, the agency must identify: 1) current costs; 2) current IT security performance gaps; and 3) how the funding request will close the performance gaps. This information must be provided to OMB through the agencies' plan of action and milestone developed for the system and tied to the IT business case through the unique project (investment) identifier.

In addition, agencies must demonstrate that they have fully considered privacy in the context of this investment. Agencies must comply with Section 208 of the E-government Act and forthcoming OMB implementing guidance and, in appropriate circumstances, conduct a privacy impact assessment that evaluates the privacy risks, alternatives and protective measures implemented at each stage of the information life cycle. Agencies should utilize the guidance provided in OMB Memoranda in conducting the PIA and submit a copy, using the unique project (investment) identifier, to OMB at PIA@omb.eop.gov.

II.B.1. How is security provided and funded for this investment (e.g., by program office or by the CIO through the general support system/network)?

ANC is funding the security Certification and Accreditation processes as well as implementing specific security controls across the investment and supporting infrastructure.

A. What is the total dollar amount allocated to IT security for this investment in FY 2005? Please indicate whether an increase in IT security funding is requested to remediate IT security weaknesses, specifying the amount and a general description of the weakness.

Analyses and assessments are planned and being completed during FY04 that will help determine the security funding requirements for fiscal years 2005, 2006, and following. FY05

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security funding will include a full FISMA review as well as completion of security C&A activities and documentation that began in FY04.

An initial security program assessment and plan was conducted in FY04; this identified a number of weaknesses and other opportunities to improve security. These are all being addressed under a new security program task with DigitalNet. In addition, infrastructure and physical security controls that are presently funded include firewalls to protect access to the network, intrusion detection, Biometric security cameras, security premise wiring, employee ID Cards/Access Cards, Door alarms, and vehicle passes.

Internal safeguards will include user ID and password access controls, logical system access controls that limit the types of access an ID is granted based on the user's functions, regular data backups, and logs of transactions by user ID.

II.B.2 Please describe how the investment (system/application) meets the following security requirements of the Federal Information Security Management Act, OMB policy, and NIST guidelines:

A. Does the investment (system/application) have an up-to-date security plan that meets the requirements of OMB policy and NIST guidelines? What is the date of the plan?

An initial security program plan was completed in July 2004. A full FISMA review, security plan, and C&A are now in work under a new task order. This work will ensure compliance with NIST guidelines and all other applicable ANC requirements (e.g., DITSCAP may be required since ANC's infrastructure interfaces with Army communications systems). As part of this process, a security plan is being developed to complete a C&A for all TCMS components. All the information required by the NIST SP 800-18 security plan template will be included in the C&A documentation.

B. Has the investment been certified and accredited (C&A)?

Note: Certification and accreditation refers to a full C&A and does not mean interim authority to operate. Additionally, specify the C&A methodology used (e.g., NIST guidelines) and the date of the last review.

The TCMS has not completed a C&A as its different components are in different life cycle phases. However, network components have undergone security assessments and vulnerability scans, and funds have been budgeted during FY04 to develop security plans and ensure compliance with pertinent security regulations. Due to the unique organization and mission of ANC, the C&A methodology that will be used for the TCMS is being determined. An initial Security Assessment was completed July 7, 2004. The full FISMA review will be completed by December 31, 2004. The security plan will identify a schedule for C&A for the various components of TCMS, ensuring that all data is properly secured.

C. Have the management, operational, and technical security controls been tested for effectiveness? When were most recent tests performed?

Some security assessments and vulnerability scans have been conducted on the TCMS infrastructure/network prior to FY04, including an IAVA scan that was completed in September 2003. A security plan is being developed which will establish C&A milestones for all TCMS components; this will include periodic security evaluations and testing of operational TCMS components.

- D. Have all system users been appropriately trained in the past year, including rules of behavior and consequences for violating the rules?**

Security training will be conducted for all new users who have access to the TCMS, and periodically at least once a year. Security training plans will be part of the TCMS security plan and will be conducted beginning in FY04 and as TCMS components are deployed. Security training will include contractors who use and/or access the TCMS.

- E. How has incident handling capability been incorporated into the system or investment, including intrusion detection monitoring and audit log reviews? Are incidents reported to DHS' FedCIRC?**

Security controls for the TCMS infrastructure will include intrusion detection and audit logs. Incident reporting procedures are being documented as part of the TCMS C&A documentation and will include instructions for reporting and responding to incidents, including reporting to FedCIRC.

- F. Is the system operated by contractors either on-site or at a contractor facility? If yes, does any such contract include specific security requirements required by law and policy? How are contractor security procedures monitored, verified, and validated by the agency?**

TCMS services are performed by a combination of government and contractor personnel at government facilities. As part of the security assessments and C&A process, procedures are being evaluated and, where necessary, developed to ensure security language is being and will be included in SOWs that requires contractors to comply with ANC security requirements including for protecting ANC information and attending security training.

- II.B.3 How does the agency ensure the effective use of security controls and authentication tools to protect privacy for those systems that promote or permit public access?**

The use of security controls and authentication tools to protect the privacy of systems will be evaluated as part of the security assessments being completed during FY04 and FY05.

- II.B.4 How does the agency ensure that the handling of personal information is consistent with relevant government-wide and agency policies?**

ANC completed a privacy impact review in July 2004, and will complete a formal Privacy Impact assessment to ensure TCMS privacy requirements are properly identified and addressed. Access to privacy data is currently restricted based on need to know.

Additionally, existing privacy procedures will be reviewed and evaluated as part of the TCMS security C&A and planning processes to determine if adequate security measures are being developed and implemented.

- II.B.5 If this is a new or significantly altered investment involving information in identifiable form collected from or about members of the public, has a Privacy Impact Assessment (PIA) for this investment been provided to OMB at PIA@omb.eop.gov with the investment's unique project (investment) identifier?**

A Privacy Review was completed on 7/7/2004. A Privacy Impact Assessment is scheduled for completion by 2/28/2005.

II. C. Government Paperwork Elimination Act (GPEA)

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II.C.1 If this investment supports electronic transactions or record-keeping that is covered by GPEA, briefly describe the transaction or record-keeping functions and how this investment relates to your agency's GPEA plan.

GPEA requirements were assessed in a GPEA Strategy Plan in July 2004; this plan determined that TCMS does not support electronic transactions or record-keeping that is covered by GPEA. However, in the spirit of GPEA, ANC is working vigorously to automate its current manual process and records, in accordance with its modernization blueprint.

II.C.2 What is the date of electronic conversion from your GPEA plan?

A GPEA Strategy was completed July 15, 2004.

II.C.3 Identify any OMB Paperwork Reduction Act (PRA) control numbers from information collections that are tied to this investment.

None.