Additional Copies

To obtain additional copies of this audit report, contact the Secondary Reports Distribution Unit, Audit Planning and Technical Support Directorate, at (703) 604-8937 (DSN 664-8937) or FAX (703) 604-8932.

Suggestions for Future Audits

To suggest ideas for or to request future audits, contact the Planning and Coordination Branch, Audit Planning and Technical Support Directorate, at (703) 604-8939 (DSN 664-8939) or FAX (703) 604-8932. Ideas and requests can also be mailed to:

Inspector General, Department of Defense
OAIG-AUD (ATTN: APTS Audit Suggestions)
400 Army Navy Drive (Room 801)
Arlington, Virginia 22202-2884

Defense Hotline

To report fraud, waste, or abuse, contact the Defense Hotline by calling (800) 424-9098; by sending an electronic message to Hotline@DODIG.OSD.MIL; or by writing the Defense Hotline, The Pentagon, Washington, D.C. 20301-1900. The identity of each writer and caller is fully protected.

Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFIS</td>
<td>American Forces Information Service</td>
</tr>
<tr>
<td>BRAC</td>
<td>Base Realignment and Closure</td>
</tr>
<tr>
<td>MILCON</td>
<td>Military Construction</td>
</tr>
<tr>
<td>PAX</td>
<td>Programming, Administration, and Execution System</td>
</tr>
</tbody>
</table>
June 30, 1995

MEMORANDUM FOR AUDITOR GENERAL, DEPARTMENT OF THE ARMY

SUBJECT: Audit Report on the Defense Information School at Fort George G. Meade
Base Realignment and Closure Military Construction Project
(Report No. 95-272)

We are providing this audit report for your review and comments. Management
comments on a draft of this report were considered in preparing the final report. This
report is one in a series of reports on FY 1996 Defense base realignment and closure
military construction costs.

DoD Directive 7650.3 requires that all recommendations be resolved promptly.
Based on the Army comments, we performed additional audit work, resulting in the
addition of Recommendation A.2., which pertains to returning $6 million to the Army
and Air Force Base Realignment and Closure Offices. Also, we revised
Recommendations A.1.b., B.1., and B.2. to document technical risks in the budget
request and to revise the amount of money returned to the Army and Air Force Base
Realignment and Closure Offices for eliminating unnecessary landscaping. We request
that the Army provide comments on the unresolved recommendations by August 30,
1995. Specific comment requirements are at the end of each finding.

We appreciate the courtesies extended to the audit staff. Questions on the audit
should be directed to Mr. Harrell D. Spoons, Audit Program Director, at
(703) 604-9575 (DSN 664-9575) or Mr. Charles J. Richardson, Audit Project
Manager, at (703) 604-9582 (DSN 664-9582). See Appendix H for the report
distribution. The audit team members are listed inside the back cover.

Robert J. Lieberman
Assistant Inspector General for Auditing
Executive Summary

Introduction. Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1991 and 1993," December 5, 1991, directs the Secretary of Defense to verify that the amount of the authorization that DoD requested for each military construction project associated with Defense base realignment and closure does not exceed the original estimated cost provided to the Commission on Defense Base Closure and Realignment (the Commission). If the requested budget amount exceeds the original project cost estimate provided to the Commission, the Secretary of Defense is required to explain to Congress the reasons for the difference. The Inspector General, DoD, is required to review each base realignment and closure military construction project for costs that exceed the original cost estimate and to provide the results of the review to the congressional Defense committees. This report is one in a series of reports about FY 1996 Defense base realignment and closure military construction costs.

Audit Objectives. The overall objective was to determine the adequacy of budget data for Defense base realignment and closure military construction. The specific objectives were to determine whether the proposed projects were based on valid Defense base realignment and closure requirements; whether the decision for military construction was supported with required documentation, including an economic analysis; and whether the analysis considered existing facilities. This report provides the results of the audit of a facility construction project, estimated to cost $36 million, for the consolidation and realignment of the Defense Information School, Fort Benjamin Harrison; the Defense Visual Information School, Lowry Air Force Base; and the Defense Photography School, Naval Air Station, Pensacola, to Fort George G. Meade, Maryland, (Ft. Meade). This audit also assessed the adequacy of the management control program as it applied to the audit objectives.

Audit Results. The budget estimate for construction of the Defense Information School at Ft. Meade was based on incomplete planning requirements (see Finding A). As a result, the Office of the Assistant Secretary of Defense (Economic Security) was not informed of an estimated $6 million increase in construction costs until after the FY 1995 budget submission. The Army and Air Force Base Realignment and Closure Offices funded the estimated increase. However, the $6 million increase was not needed because the cost to construct the school was revised to $29.5 million after the contract was awarded (see Appendix F). In addition, the FY 1995 budget estimate of $30 million to construct the Defense Information School included $642,897 for unnecessary landscaping and supplemental features (see Finding B). The management
controls related to this project will be discussed in a summary report on the budget data for base realignment and closure. Therefore, this report does not discuss management controls.

Summary of Recommendations. We recommend that the Army establish procedures to require a current working estimate when the design phase is 35-percent complete to support construction cost estimates for base realignment and closure project budget submissions and to require documentation of the technical risks if a current working estimate is not completed. We also recommend that the Army refund a total of $6 million to the Army and Air Force Base Realignment and Closure Offices, delete unnecessary project features from the design of the Defense Information School, and redistribute an additional $344,897 of Army and Air Force base realignment and closure funds to support other base realignment and closure military construction projects.

Management Comments. The Army nonconcurred that the FY 1995 budget information submitted to Congress was inaccurate, noting that the current working estimate after the contract award on June 2, 1995, was less than $30 million. The Army concurred with the recommendation to establish procedures to require a current working estimate when the design phase is 35-percent complete to support construction cost estimates for base realignment and closure projects. The Army nonconcurred with recommendations to require estimates of the probable costs associated with risks, to delete unnecessary landscaping from the Defense Information School, and to redistribute $344,897 to support other Army and Air Force base realignment and closure military construction projects. A complete discussion of management comments is in Part I, and the complete text of management comments is in Part III of the report.

Audit Response. We consider the Army comments to be partially responsive. As a result of Army comments, we deleted the portion of a recommendation that pertained to including a probable range of costs associated with technical risks. Because the current working estimate for construction of the Defense Information School after contract award on June 2, 1995, was $29.5 million, we added a recommendation for the Army to return a total of $6 million to the Army and Air Force Base Realignment and Closure Offices. The $6 million was the estimated cost increase that did not materialize for the Defense Information School project. In addition, we revised recommendations regarding the reduction of landscaping and nonessential features. The Army should provide additional comments regarding recommendations to reduce the construction contract scope of work for unnecessary landscaping and the return of a total of $344,897 to the Army and Air Force Base Realignment and Closure Offices. We request that the Army provide additional comments on the final report by August 30, 1995.
# Table of Contents

## Executive Summary

### Part I - Audit Results

- Audit Background .......................... 2
- Audit Objectives .......................... 3
- Finding A. Budgeting for the Defense Information School Project .......... 4
- Finding B. Landscaping and Supplemental Project Features .................. 11

## Part II - Additional Information

- Appendix A. Scope and Methodology ........................................... 20
- Appendix B. Summary of Prior Audits and Other Reviews .................. 21
- Appendix C. Defense Information School Facility and Student Load Requirements .................................................. 22
- Appendix D. Details on $6 Million Cost Increase .......................... 23
- Appendix E. Landscaping Cost Estimates ...................................... 25
- Appendix F. Summary of Potential Benefits Resulting From Audit ........ 27
- Appendix G. Organizations Visited or Contacted ............................ 29
- Appendix H. Report Distribution .................................................. 30

## Part III - Management Comments

- Department of the Army Comments ........................................... 34
Part I - Audit Results
Audit Background

The Inspector General, DoD, is performing multiple audits in support of the Defense base realignment and closure (BRAC) process. This is one in a series of reports about FY 1996 BRAC military construction (MILCON) costs.

BRAC 1991 Media School Closures. Before FY 1993, the Army, Navy, and Air Force operated separate media schools for training Active and Reserve components in broadcasting, video production, public affairs, and photo and television maintenance. The Army conducted training at the Defense Information School, Fort Benjamin Harrison, Indiana. The school was realigned to Fort Jackson during the BRAC 1991 process because Fort Harrison was scheduled to close in September 1995. The Air Force conducted training at the Defense Visual Information School, Lowry Air Force Base, Colorado. That school was realigned to Keesler Air Force Base, Mississippi, during the BRAC 1991 process because Lowry Air Force Base was scheduled to close in September 1994. Each gaining military installation prepared a budget estimate of the cost to transfer their school from the losing military installation. The Army estimated it would cost $9.6 million to move the Defense Information School to Fort Jackson, and the Air Force estimated it would cost $6.4 million to move the Defense Visual Information School to Keesler. The Navy Photography School, Naval Air Station, Pensacola, Florida, was unaffected by the BRAC process. However, in FY 1993, Lowry transferred its photography courses to the Navy Defense Photography School.

Consolidation of Military Department Media Schools. In July 1992, the Deputy Secretary of Defense transferred functional control of the Army Defense Information School, the Air Force Defense Visual Information School, and the Navy Defense Photography School to the American Forces Information Service (AFIS), a DoD field organization within the Office of the Assistant to the Secretary of Defense (Public Affairs). The Deputy Secretary of Defense directed realignment and consolidation of the three schools at Fort George G. Meade (Ft. Meade), Maryland. Ft. Meade is under the major command of the Military District of Washington. AFIS named the new consolidated school the Defense Information School. Functional requirements for the consolidated Defense Information School at Ft. Meade differed from the requirements for operating separate media schools. Therefore, Ft. Meade planners prepared a new consolidated budget estimate that included the Army, Navy, and Air Force functional requirements.

Requirements Process for the Defense Information School at Ft. Meade. The AFIS prepared the functional requirements for the Defense Information School to enable Ft. Meade planners to develop the budget estimate on the
Audit Results

DD Form 1391, "Military Construction Project Data," (DD Form 1391) for the Assistant Chief of Staff for Installation Management, Army BRAC Office (Army BRAC Office). The Military District of Washington was responsible for reviewing the budget estimate and for submitting it to the Army BRAC Office. The Army BRAC Office was responsible for the overall review of the FY 1995 budget estimate and authorization of project requirements before submitting the DD Form 1391 to Congress. The DD Form 1391 the Army BRAC Office submitted to Congress in February 1994 shows a 232,653-square-foot (gross) building requirement for the Defense Information School estimated to cost $30 million. As of March 1995, the architectural and engineering design of the school was 100-percent complete, and the Army Corps of Engineers, Baltimore District (District Engineer) issued the contract solicitation for constructing the school. On April 6, 1995, the District Engineer set the scheduled occupancy date to January 1998.

Estimated Increase in Number of Students for the Defense Information School. Although the Military Departments are undergoing substantial personnel reductions, the Defense Information School building is sized to accommodate an increasing student load. The Military Departments plan to increase overall student training from 3,467 students in FY 1993 to 3,591 students in FY 1996. After the new Defense Information School opens, AFIS expects the student training requirement to further increase to 4,071 students in FY 1998 with the addition of an electronic imaging course. An analysis of student load requirements is in Appendix C.

Audit Objectives

The overall audit objective was to determine the accuracy of budget data for Defense BRAC military construction. The specific objectives were to determine whether the proposed projects were based on valid Defense BRAC requirements; whether the decision for military construction was supported with required documentation, including an economic analysis; and whether the analysis considered existing facilities. The audit also assessed the adequacy of the Army Corps of Engineer's management control program as it applied to the overall audit objective and methodology. The management control program will be discussed in a summary report on budget data for military construction related to base realignment and closure. Therefore, this report does not discuss our review of management controls. See Appendix A for a discussion of the scope and methodology and Appendix B for a summary of prior coverage related to the audit objectives.
Finding A. Budgeting for the Defense Information School Project

The Army BRAC Office submitted an incomplete FY 1995 budget estimate to Congress for construction of the Defense Information School. The budget estimate was incomplete because:

- the accelerated BRAC planning process bypassed normal controls over Army military construction planning,
- the reported data were not based on a current working estimate,
- the Ft. Meade planners did not report known technical risks, and
- the Ft. Meade planners did not consider the best available information concerning unique project requirements.

As a result, the Army and Air Force BRAC Offices had to reprogram on short notice $6 million of BRAC funds that normally would have been available to fund other BRAC projects.

Budgeting for BRAC Construction Projects

**Budget Estimating Process for BRAC Projects.** Army Regulation 415-15, "Army Military Construction Program Development and Execution," August 30, 1994, establishes policies and procedures for planning Army construction projects except BRAC projects. However, paragraph 1-1.d. of the regulation states:

> Although this regulation does not govern construction programming funded under Base Realignment and Closure (BRAC), many of the principles and guidelines associated with sound planning, design, and construction apply.

DoD distributes BRAC funds on the basis of demonstrated execution. Accordingly, the Army BRAC Office seeks to achieve the earliest possible award of BRAC construction contracts. Because of the similarities in the program requirements, the Army has chosen to use the military construction process governed by Army Regulation 415-15 and the DD Form 1391 for documenting and executing BRAC military construction projects. However, the time frames associated with the normal military construction processes do not apply to BRAC projects.

**Construction Project Data for the Current Working Estimate.** A current working estimate is a cost estimate based on detailed architectural and engineering drawings of the building and site plans. The District Engineer develops a current working estimate for various design phases (10-, 35-, 60-, 90-, and 100-percent complete) of a
Finding A. Budgeting for the Defense Information School Project

construction project. The 35-percent current working estimate is the first current working estimate to contain detail on architectural and engineering requirements. However, a completed current working estimate is not required before submission of the DD Form 1391 budget estimate for BRAC projects.

Equipment Requirements for the Defense Information School. During the FY 1995 budget estimating process, Ft. Meade planners did not have sufficient planning data on either equipment quantities or the environmental characteristics of the equipment needed for the Defense Information School. In response to Army Audit Agency Report No. SR 93-718, "Consolidated Defense Media School," May 1993 (see Appendix B), AFIS calculated equipment requirements to include environmental specifications (temperature and humidity) for the Defense Information School. AFIS did not complete its efforts until December 1993. Further, the District Engineer did not complete its calculation of the temperature and humidity requirements for design of the facilities until March 1994. Consequently, the District Engineer could not complete a current working estimate at the 35-percent design phase of the construction project before the April 1994 deadline for the FY 1995 budget submission of DD Form 1391 to Congress.

Incomplete Requirements Affect the Budget Submission. Because the FY 1995 budget submission was due in April 1994 and the District Engineer did not receive the completed equipment requirements until March 1994, the District Engineer did not have enough time to produce detailed drawings to determine the architectural and engineering effects of the equipment requirements on the building design in time for the Ft. Meade planners to modify the FY 1995 budget estimates. Therefore, Ft. Meade planners underestimated the cost for specific budget line items in the FY 1995 budget estimate submitted to Congress. The budget line items were underestimated by $6 million. However, on August 12 through 14, 1994, the District Engineer conducted an internal peer review of the current working estimate. The peer review determined that the estimated $36 million cost to construct the Defense Information School project was a valid estimate. In October 1994, the Army BRAC Office informed the Office of the Assistant Secretary of Defense (Economic Security) of the $6 million increase in the project estimate.

Contingency for Technical Risk

Documenting Technical Risk Related to Construction of Specialized Facilities. Army Regulation 415-15 requires that project planners base construction cost estimates on standard or repetitive (historical) costs. The historical cost data recorded in the Army "Programming, Administration, and Execution System" (PAX system) are to be used unless justification for deviating from the standards is documented on the DD Form 1391. The PAX system includes a 5-percent contingency for cost variations during construction. Army Regulation 415-17, "Cost Estimating for Military Programming," February 15, 1980, states that each cost estimate should include a cost
adjustment allowance based on the cost data reliability. Cost data reliability factors are intended to compensate for the probability of cost change due to component items that cannot be analyzed or evaluated at the time the current working estimate is prepared. Cost data reliability factors vary from 1.003 for projects with low technical complexity to 1.15 for projects with ultrahigh technical complexity.

Specialized Facilities for the Defense Information School Constituted Greater Technical Risk. Ft. Meade planners used the standard costs in the PAX system to estimate construction costs for the Defense Information School on the DD Form 1391 budget estimate. Thus, standard classroom and administrative facilities served as the basis for the construction cost estimate. The Ft. Meade planners’ estimate ignored the nonstandard, specialized facilities required for the Defense Information School. Planning personnel at Ft. Meade attended an "AFIS Facilities Requirements Conference," from August 17 through August 21, 1992, to learn about unique requirements inherent in specialized facilities. Planners who attended the conference concluded in an August 24, 1992, trip report, that "the most valuable aspect of the trip was being able to see the types of instructional facilities and the unique requirements." The Defense Information School requires television production studios, broadcasting studios, photographic studios, film processing laboratories, newspaper production laboratories, newspaper publishing laboratories, and silver recovery facilities among others. These facilities require nonstandard heating, ventilation, cooling, plumbing, acoustics, and electrical service.

DD Form 1391 Should Reflect Greater Contingency for Increased Technical Risk. The specialized facilities will comprise 45-percent (104,496 square feet) of the total 232,653-square-foot Defense Information School building. In coordinating with the Ft. Meade planners, the Army BRAC Office was made aware of the specialized facility requirements for the Defense Information School. Because standard Army architect and engineering guidance was not applicable for construction of the specialized facilities, Ft. Meade planners should have specified on the DD Form 1391 that the technical risk was greater than the standard 5-percent contingency for project costs and should have applied a cost data reliability factor to recognize the risk associated with the specialized features. Although the Army BRAC Office was aware that the PAX system was inadequate for estimating the construction costs of the specialized facilities for the Defense Information School, the DD Form 1391 that the Army BRAC Office submitted to Congress neither specified the technical risk nor included an adjustment allowance based on a cost data reliability factor.

Documenting Technical Risk Related to Equipment Requirements. The DD Form 1391 that the Army BRAC Office submitted to Congress also did not disclose the known technical risks associated with the equipment requirements for the Defense Information School. The AFIS calculated the consolidated equipment requirements to include environmental specifications of the equipment for the Defense Information School from May 1993 through December 1993. Equipment requirements for the specialized facilities, such as broadcasting and photography facilities, required high-powered electronic and photo-processing equipment that caused significant
Finding A. Budgeting for the Defense Information School Project

demands on the building's utilities. However, the DD Form 1391 submitted to Congress did not specify that the equipment requirements were incomplete and could significantly affect the budget estimate.

District Engineer's Reasons for $6 Million Increase to Budgeted Amount. In July 1994, the District Engineer prepared an informal current working estimate at the 60-percent design phase, which included the completed equipment requirements from AFIS. The 60-percent current working estimate specified the reasons for the $6 million increase. The District Engineer discovered significant architectural and engineering design problems that caused cost increases of $3.6 million for specific budget line items, such as air conditioning and other mechanical and electrical requirements. Further, the design drawings of the building and site showed that existing supporting facilities at Ft. Meade, such as utility services, traffic patterns, and curbs and gutters were deficient in satisfying the functional requirements of the Defense Information School. Estimated costs to correct the deficiencies totaled $2.4 million. See Appendix D for details on the estimated $6 million increase.

In our opinion, in the absence of a 35-percent current working estimate for construction projects having unique requirements, the Army BRAC Office needs to direct gaining installations, such as Ft. Meade, to identify and document technical risks on DD Form 1391. Documenting contingencies for technical risks allows for a more complete budget estimate submission to Congress.

Construction Project Cost Increase

Army BRAC Office Review of the Cost to Construct the Defense Information School. At the request of the Office of the Assistant Secretary of Defense (Economic Security), the Army BRAC Office reviewed the $36 million cost for the Defense Information School project after the FY 1995 budget submission. The purpose of the review was to determine whether contiguous space or excesses could be cut from the design of the building and the site in order to get the project cost down to the $30 million programmed amount. The Army BRAC Office review team reduced student parking spaces by one-third, deleted a traffic signal from the planned site, and eliminated curbs and gutters from the scope of the project. These reductions and eliminations from the scope of the project reduced the estimated cost of the project by $298,000; however, project funds were not reduced. The Army BRAC Office review team validated the remaining $5.7 million increase. See Finding B for a discussion of those and other features of the project that were eliminated or reduced from the scope of the project.
Finding A. Budgeting for the Defense Information School Project

Fund Sources for the Estimated $6 million Cost Increase

In October 1994, AFIS informed the Under Secretary of Defense (Comptroller) of an estimated $6 million cost increase that would have to be funded before the Army could obligate the estimated $36 million for the Ft. Meade project. In January 1995, the Air Force BRAC Office agreed to fund 45 percent ($2.7 million), and the Army BRAC Office agreed to fund 55 percent ($3.3) of the cost increase.

Refunding Budget Amounts After Contract Award

On June 2, 1995, the District Engineer awarded a contract for construction of the Defense Information School and calculated that the current working estimate as of that date was $29.5 million. Fortunately, the need to fund the $6 million estimated cost increase did not materialize. Therefore, the Army should take immediate action to return $2.7 million to the Air Force BRAC Office. The remaining $3.3 million belongs to the Army BRAC Office.

Conclusion

The process for informing Congress of the most complete cost estimate did not work effectively. The Army BRAC Office did not provide advance documentation for the technical risks associated with a 20-percent increase ($30 million to $36 million) in estimated costs. The estimated cost increase was not disclosed to Office of the Secretary of Defense managers until after the FY 1995 budget cycle, causing an urgent financial response from the Army and Air Force BRAC Offices to fund the estimated increases. Fortunately, competition for the contract was active, and the District Engineer determined that the cost to construct the Defense Information School after the contract award was $29.5 million rather than the estimated $36 million. The experience of funding the Defense Information School project should improve the Army's accuracy of the historical cost data recorded in the PAX system.

Management Comments on the Finding and Audit Response

Army Comments. The Army nonconcurred with the draft finding that the Army BRAC Office submitted inaccurate and incomplete FY 1995 budget information to Congress for construction of the Defense Information School. The Army submitted the
Finding A. Budgeting for the Defense Information School Project

final FY1995 budget in February 1994 based on the data available. The 35-percent design estimate normally prepared to initiate military construction projects was not available because the AFIS had not determined the requirements for the Defense Information School and because the normal military construction process is accelerated for BRAC projects. The accelerated implementation process for BRAC projects does not allow time to complete designs to the 35-percent phase before budget submission. Budget requests and project designs occur simultaneously. The Army stated that the contract was scheduled for award on June 2, 1995, and that the current estimate to construct the Defense Information School was less than $30 million. The complete text of management comments is included in Part III of the report.

Audit Response. The Army knew in July 1992 that the Defense Information School was planned for Ft. Meade and began planning meetings with AFIS in August 1992. During the subsequent 18 months, the District Engineer knew enough about the AFIS requirements to determine that the estimated cost of the project exceeded $30 million. In February 1994, the District Engineer believed that the basis for a $30 million budget estimate was inaccurate and incomplete. Fortunately, the $30 million estimate was not inaccurate. Therefore, we revised our report to omit references to an inaccurate budget submission. In addition, we agree with the District Engineer’s decision to wait for firm requirements before preparing architectural drawings needed to support a 35-percent design estimate.

Recommendations, Management Comments, and Audit Response

Added and Revised Recommendations. As a result of management comments, we revised Recommendation A.1.b. (formerly draft Recommendation A.2.) to avoid the potential for inflating the cost of BRAC projects. Further, we added final report Recommendation A.2. to ensure that unneeded BRAC funds are put to better use as soon as possible.

A. We recommend that the Assistant Chief of Staff for Installation Management, Department of the Army, establish procedures to require:

1.a. A current working estimate at the 35-percent complete design phase to support construction cost estimates on DD Form 1391 for Base Realignment and Closure projects.

Army Comments. The Army concurred, stating that the initial BRAC budget submissions cannot be based on a 35-percent design estimate because the budgeting process and the design process are occurring simultaneously. However, where possible and when available, BRAC construction costs should be updated in follow-on congressional budget submissions to include 35-percent design estimates.
1.b. Documentation on the DD Form 1391 of the technical risks for which reliable cost data are not available when a 35-percent current working estimate is not completed.

Army Comments. The Army nonconcurred with the draft recommendation to include with the DD Form 1391 an estimate of the probable range of costs associated with the risk when a 35-percent current working estimate is not completed. The Army stated that implementing that part of the recommendation would artificially inflate the cost based on unknown factors and further invalidate the accuracy of the cost estimates submitted. BRAC project costs are calculated using the automated PAX system when a DD Form 1391 is developed. The Army has developed a new initiative for the BRAC 1995 project submissions that requires an Army Corps of Engineers technical review before projects are submitted. The new initiative should increase the accuracy of cost estimates. In addition, the Army stated that the cost to construct the Defense Information School did not increase from $30 million to $36 million. The working estimate during the design phase of the project was $6 million higher than the programmed amount. Changes to the programmed amount are made in the year of execution when the project is awarded as a contract.

Audit Response. The Army initiative that requires an Army Corps of Engineers technical review of cost estimates for BRAC budget submissions should result in more complete cost estimates. The Army Corps of Engineers technical review compliments the recommendation to document the technical risks involved in projects not based on a 35-percent current working estimate and makes the documentation a natural by-product. Because, we revised the recommendation as a result of the Army position that including a probable range of costs could inflate the cost of BRAC projects, we request that the Army provide additional comments describing how it intends to document the technical risks involved in projects not based on a 35-percent current working estimate.

A.2. We recommend that the Assistant Secretary of the Army (Financial Management and Comptroller) reduce the funding for the Defense Information School by $6.0 million and return $2.7 million to the Air Force Base Realignment and Closure Office, and $3.3 million to the Army Base Realignment and Closure Office, to support other unfunded base realignment and closure military construction projects.

Management Comments Required. The Army is requested to provide complete comments that conform with requirements of DoD Directive 7650.3.
Finding B. Landscaping and Supplemental Project Features

The FY 1995 budget estimate the Army BRAC Office submitted to Congress for construction of the Defense Information School included overstated amounts for supplemental features. The amounts were overstated because oversight provided by the Army BRAC Office and the Military District of Washington was not effective for reviewing the supplemental features of the project. As a result, $642,897 was included in the FY 1995 budget submission to Congress for nonessential landscaping, a traffic light, and excess curbs and gutters for the Defense Information School.

Guidance Related to Oversight of Project Requirements

Nonessential Enhancements. Public Law 101-510, "Defense Base Closures and Realignment," directs that the funds in the Department of Defense Base Closure account be used only for such actions that are necessary to close or realign a military installation. In addition, according to the "U.S. Army Corps of Engineers Base Realignment and Closure 95 Military Construction Execution Guidance," "get well" projects will not be approved for BRAC funding. A "get well" project contains nonessential enhancements to a BRAC construction project for the gaining installation. The FY 1995 budget for the Defense Information School included overstated amounts for landscaping and other supplemental features that were nonessential enhancements.

Review and Approval of Project Requirements. Army Regulation 415-15 directs major commands to review project documentation to ensure that requirements are valid and conform to current objectives, policies, and procedures. The major command also is responsible to certify that all planning and related coordination has been accomplished before submission to the Army BRAC Office.

Defense Information School Landscaping

The Commander, Ft. Meade, provided 21 acres for the Defense Information School site. The school building, fenced-in areas for the cooling towers, electrical transformers, ice storage, and the parking lot and other paved areas will occupy about 10 of the 21 acres. Grassy areas will comprise about 6 acres, leaving about 5 acres for landscaping.
Finding B. Landscaping and Unnecessary Project Features

Landscaping Budget. Ft. Meade planners identified $485,000 in the DD Form 1391 budget estimate for landscaping based on data for similar construction projects recorded in the PAX system. In preparing a current working estimate for the 35-percent design phase, the District Engineer calculated that $342,872 was required, leaving no identified requirement for $142,128 of the $485,000 budget estimate. The $342,872 in the current working estimate was made up of costs for trees, shrubs, and mulch; reforestation; and the protection of existing trees. In our opinion, Ft. Meade planners and the District Engineer developed an extravagant landscaping plan that exceeded reasonable landscaping budget requirements by at least $344,897. Details on the landscaping costs identified in the budget estimate compared to our calculated costs for landscaping are in Appendix E. In accordance with Army Regulation 415-15, the Army BRAC Office and Army managers at the Military District of Washington are responsible for reviewing the project requirements; however, their review of the landscaping estimate for the Defense Information School was not adequate to verify that only essential requirements were included in the estimate.

Trees, Shrubs, and Mulch. The landscaping budget identified $215,420 for trees, shrubs, and mulch on the 21-acre site. The plans for landscaping included planting 429 trees of 16 varieties and 557 shrubs of 4 varieties, relocating 16 existing white pine trees, and mulching 108,000 square feet of land. The landscaping plans were based on guidelines in the Department of the Army Architectural Engineering Instruction (the instruction), December 1991, as interpreted by Ft. Meade planners and the District Engineer. The instruction does not refer to the numbers or types of trees and plants and the cost of landscaping. District Engineer landscape designers stated that they used 1 to 2 percent of the total project cost as a cost guide for landscaping. The landscaping plans provided an attractive arboretum effect; however, the budgeted costs exceeded our calculated requirements for trees and mulch by at least $121,292 (see Appendix E).

Landscaping Plans for Trees. As of 1995, the construction site already had 100 trees. The landscaping plans included provisions to leave about 57 of the 100 trees on the 21-acre site. In addition, the Ft. Meade planners intended to plant an additional 429 trees, ranging in cost from $123 per tree to $531 per tree for a total of $104,018. We determined that 183 trees costing $45,658 should be deleted from the landscaping plan, leaving 246 trees for a total of about 303 trees scattered over the site. Additional costs could be avoided by planting more cost-effective trees, such as maple trees. The landscaping plans do not identify any maple trees.

The landscaping plans show relocating 16 white pine trees at a cost of $10,634. Pine trees are rapid growth trees. Within 10 years, new pine trees should reach the same height as the original 16 white pine trees. Of the 246 trees we identified for the landscaping at the Defense Information School, 46 are Virginia pine trees that can be used in place of relocating the 16 white pine trees.
Landscaping Plans for Mulch. The budget estimate showed 108,000 square feet of mulch costing $89,724. As a result of the audit, the District Engineer planners reduced the amount of mulch required for the project to 30,000 square feet costing $24,724.

Landscaping Plans for Shrubs. We did not evaluate the need for the 557 shrubs costing $11,044 because of time constraints and lack of materiality.

Landscaping Plans for Reforestation. The Maryland Forest Conservation Act (Conservation Act) applies to the Defense Information School because it requires the protection and establishment of forests in Maryland. Accordingly, Ft. Meade is required to reforest 7.92 acres. The reforestation can occur anywhere on the Ft. Meade installation. The budget estimate for reforestation to comply with the Conservation Act was overstated and unnecessary.

Requirements of the Conservation Act. Personnel at the Maryland Department of Natural Resources stated that Conservation Act requirements can be effectively satisfied using 5,550 tree seedlings. The Maryland State Nursery supplies seedlings that range in cost from 8 cents to $1.38 each. Professional tree planters would plant all the tree seedlings at an estimated cost of $4,646. The representative from the Maryland Department of Natural Resources had consulted with the Ft. Meade agronomist, advising him that the seedlings would satisfy the requirements of the Conservation Act.

Ft. Meade Planners' Reforestation Plans. The Ft. Meade agronomist rejected the use of the tree seedlings because he preferred the use of 3,400 tublings (6- to 12-inch trees) at an estimated cost of $69,507. The agronomist also planned for protective fencing costing $3,087 to protect the trees from lawn mowers. The protective fencing is not required around the reforestation area. Placement of warning signs is adequate to protect an investment of $4,646 for tree seedlings. The District Engineer's estimated cost for the warning signs is $149. Army managers at the Military District of Washington and the Army BRAC Office did not adequately review or evaluate the decisions of Ft. Meade planners and, specifically, the Ft. Meade agronomist. We determined that the most economical plans for satisfying the Conservation Act would cost $4,795 to reforest and protect the 7.92 acres. The District Engineer's estimate exceeded that amount by $67,948 (see Appendix E).

Protecting Existing Trees. The District Engineer overstated the estimate for protective fencing based on the design drawings of 4,500 linear feet of temporary fencing needed to protect 28 existing trees from construction equipment. It is unnecessary to completely encircle the trees that border Mapes Road at the site of the Defense Information School, because the construction equipment will be operating primarily inside the construction site, not on Mapes Road. Finally, 24 warning signs were included in the estimate, but are not
Finding B. Landscaping and Unnecessary Project Features

necessary to protect the 28 trees. Our review showed that the amount of the temporary fence and the number of warning signs could be reduced by 66.7 percent, thereby reducing costs by $13,529 (see Appendix E).

Supplemental Project Features

Assessment of Executive Driveway, Parking Spaces, and Entrance. The executive driveway and parking spaces are planned for the use of the school commander and visiting dignitaries. The executive driveway and eight parking spaces lead to a secondary entrance on the north side of the Defense Information School, which faces a primary road, Mapes Road, and the golf course. A value engineering study (see paragraph entitled, Value Engineering Study) indicated that the executive entrance would accommodate less than 2-percent of the building's occupants. The design plans for the Defense Information School show adequate parking close to the primary entrance along the southwest side of the school building and in the main parking lot.

The design plans for the secondary north entrance included a detached five-column facade that the AFIS wanted for an impressive, photogenic entrance suitable for executive students and other guests from the DoD Components, foreign countries, and national television networks, who may attend or visit the Defense Information School. The estimated cost for the executive driveway, parking spaces, and facade totaled $210,000. Those features are not essential in meeting the training mission of the Defense Information School.

Value Engineering Study. In January 1994, the District Engineer tasked an independent contractor to prepare a value engineering study for the Defense Information School project. The value engineering study recommended eliminating the driveway and the executive parking spaces at the north entrance. The contractor determined that the Army allocated considerable resources to give the executives and visiting dignitaries a special "experience." However, after entering the building, executives and dignitaries experienced the same things as students and instructors. In addition, the contractor concluded that the north entrance of the Defense Information School was a secondary entrance because more than 98-percent of the building's occupants would enter the building through the south and west entrances.

The AFIS rejected the recommendations in the value engineering study and planned for supplemental features at the north entrance. Ft. Meade planners also supported the executive entrance because it was consistent with the architecture envisioned in the Ft. Meade Installation Design Guide, July 15, 1991. In our opinion, effective oversight of the project would have eliminated the unnecessary executive entrance features from further design efforts of the Defense Information School. Army managers at the Military District of Washington and the Army BRAC Office should have evaluated the
value engineering study recommendation and eliminated the executive entrance as excessive to the construction project before the FY 1995 budget estimate was submitted. When AFIS continued with the plans for the executive entrance, the Army BRAC Office should have referred the recommendation to eliminate the executive entrance to higher authority.

**Army BRAC Office Review.** In December 1994, the Army BRAC Office reviewed the construction cost of the project at the request of the Office of Secretary of Defense (Economic Security). As a result of the review, the Army BRAC Office eliminated $298,000 from the Defense Information School project for unnecessary curbs and gutters, 37 parking spaces in the main student parking lot, and a traffic light. Further, the Army BRAC Office review team determined that the executive driveway, parking spaces, and the detached facade at the north entrance were excessive to the construction project. However, the Army BRAC Office review team did not recommend deleting those nonessential features from the scope of work because the District Engineer told the Army BRAC Office reviewers that redesign and delay-in-construction costs of eliminating the features would be higher than the costs to complete the features. We asked for the specific reasons why eliminating the driveway, executive parking spaces, and facade would require redesign or delay the project. The District Engineer and the Army BRAC Office review team said that redesign time would take about 60 days. Because distribution of the Invitation for Bid Package (contract solicitation) to prospective contractors was imminent, we decided that it would not be cost-effective to delay the project. The District Engineer issued the contract solicitation on April 6, 1995, and awarded the contract on June 2, 1995.

**Conclusion**

Planners approved nonessential enhancements totaling $642,897 for the Defense Information School project. Part of the nonessential enhancements were included in the landscaping budget that was overstated by $344,897. An Army BRAC Office review team deleted the remaining $298,000 in planned unnecessary features from the project before the construction contract for the Defense Information School was awarded.

**Management Comments on the Finding and Audit Response**

**Army Comments.** The Army nonconcurred with the finding statement that the FY 1995 budget estimate for the Defense Information School included overstated amounts for supplemental features. The Army stated that the Army BRAC Office was not required to update the annual budget estimates because of
Finding B. Landscaping and Unnecessary Project Features

changes to the current working estimates for the design phase of a project. The Army determined that supporting facilities for the Defense Information School amounted to 10.4-percent of total project costs which was within an acceptable range of costs based on a limit of 25-percent for supplemental features. Further, the Military District of Washington and Ft. Meade commanders did not agree with modifying the school's facade, executive driveway, and parking area because those features were consistent with the Ft. Meade installation design guide and the Army's communities of excellence initiative. The complete text of management comments is in Part III of the report.

Audit Response. The amounts budgeted for unnecessary landscaping and supplemental features represent poor planning and a waste of BRAC funds. Unnecessary project features should not have been included. However, we recognized in the finding that redesign costs associated with deleting the executive entrance and driveway would eliminate any monetary benefits that could be gained. In addition, we revised the finding to recognize that part of the other unnecessary supplemental features were previously deleted from the project. Therefore, the final report recommendations pertain only to unnecessary landscaping.

Recommendations, Management Comments, and Audit Response

Revised Recommendations. As a result of Army comments, we revised the amounts available for redistribution to the Army and Air Force BRAC Offices in Recommendations B.1. and B.2.

B.1. We recommend that the Office of the Assistant Chief of Staff for Installation Management, Department of the Army reduce the budget estimate for the Defense Information School project by $344,897 for nonessential landscaping, and inform the Assistant Secretary of the Army (Financial Management and Comptroller) that $344,897 is available to support other unfunded base realignment and closure military construction projects.

Army Comments. The Army nonconcurred with the recommendation, stating that the Army BRAC Office had previously directed removing supplementary features from the project that did not result in excessive redesign costs.

Audit response. The Army comments are not responsive. The Army did not comment on the unnecessary landscaping costs and the associated potential monetary benefits. We request that the Army provide additional comments on the landscaping items deleted from the project and the amount reduced on the construction contract.
B.2. We recommend that the Assistant Secretary of the Army (Financial Management and Comptroller), reduce the funding by $344,897 and return $155,204 to the Air Force Base Realignment and Closure Office and $189,693 to the Army Base Realignment and Closure Office to support other unfunded base realignment and closure military construction projects.

Army Comments. The Army nonconcurred with the recommendation, stating that modifications to the project would be reviewed by an executive working group consisting of officials from the Army and AFIS. The working group would determine the effect of the modifications on the cost and completion date of the project. Any monetary benefits would be distributed in accordance with the ratio of contribution to the project.

Audit Response. The Army comments are partially responsive. The only modifications at issue are excessive landscaping features estimated at $344,897. As stated in the finding, the Army removed supplemental features totaling $298,000 from the project before the contract was awarded. The landscaping modifications are reductions in the scope of work in the contract. Therefore, we request that the Army provide additional comments describing how it reduced the excessive landscaping costs and how it plans to redistribute $344,897.
Part II - Additional Information
Appendix A. Scope and Methodology

Consolidated Defense Information School. We reviewed FY 1993 through 1995 planning and budgeting data for the realignment and consolidation to the Ft. Meade Defense Information School. We compared the DD Form 1391 with the District Engineer's current working estimate and reviewed Ft. Meade's real property records. We compared the DD Form 1391 to the 35-, 90-, and 99.9-percent current working estimates to determine the circumstances that led to and the justification for the $6 million cost increase. We reviewed the methodology that AFIS used to determine the square footage required for training and operational facilities. Also, we analyzed the space requirements allocated to applied and general classrooms, the student load, and course requirements for the Defense Information School. In addition, we reviewed the five alternatives for acquiring space for consolidating the Army and Air Force Defense Visual and Information Schools and the Navy Defense Photography School at Ft. Meade as presented in the Ft. Meade economic analysis. We also reviewed the plans and cost estimates related to landscaping and other supplemental features for the construction project. In addition, after we reviewed Army comments on the draft report we reviewed and evaluated documentation provided by the District Engineer pertinent to the contract awarded on June 2, 1995, for the construction of the Defense Information School.

Use of Computer-Processed Data. We performed limited tests on the reliability of computer-processed data provided by the AFIS, Ft. Meade planners, and District Engineer. The computer-processed data related to requirements for the space, student load, equipment, and courses. Other computer-processed data included the District Engineer's "Micro-Computer Aided Cost Estimating System"; Army Technical Manual 5-800-2, "Cost Estimates Military Construction," June 1985; and cost data in the PAX system. To the extent that we relied on the computer-processed data, the data were sufficiently reliable for us to meet our audit objectives.

Audit Period, Standards, and Locations. We performed this economy and efficiency audit from January through March 1995 in accordance with auditing standards issued by the Comptroller General of the United States, as implemented by the Inspector General, DoD, and accordingly, included such tests of management controls as were considered necessary. Appendix G lists the organizations visited or contacted.
Appendix B. Summary of Prior Audits and Other Reviews

The Inspector General, DoD, issued Report No. 92-087, "Quick-Reaction Report on the Review of Defense Base Realignment and Closure Budget Data for Fort Knox and Fort Meade," May 7, 1992. The report showed that a proposed Military Construction project at Ft. Meade to alter 10 buildings to provide 106,000 square feet would not be adequate to accommodate a consolidated Defense Information School. The report recommends that the Comptroller, Department of Defense (now the Under Secretary of Defense, [Comptroller]), expedite a decision on the consolidation of Military Department schools and suspend action on the Army's portion ($9.6 million) of the project at Ft. Meade, pending the consolidation decision. Management concurred with the recommendation. On July 28, 1992, the Deputy Secretary of Defense decided to consolidate the three Military Department schools at Ft. Meade. The Army suspended action on the alternative project.

The Army Audit Agency issued Report No. SR 93-718, "Consolidated Defense Media School," May 5, 1993. The report states that the planned construction and renovations at Ft. Meade for consolidating the three Military Department schools were not fully supported and that the FY 1995 student load requirement of 4,570 was overstated by about 32-percent. In addition, new equipment requirements totaling $30.3 million were unsupported. The report recommends that AFIS recalculate requirements for student load, courses, facilities, and equipment during the design phase. The AFIS agreed to recalculate all requirements based on revised student load.
Appendix C. Defense Information School Facility and Student Load Requirements

Facility Requirements for the Defense Information School. The AFIS methodology for determining the square footage of the Defense Information School building was reasonable and logical. The AFIS training personnel convened a working group from August 16 through 21, 1992, with subject matter experts from the Defense Information School, Defense Visual Information School, and the U.S. Army Signals Center to determine the facilities necessary to meet the Military Departments' training requirements. The working group's primary purpose was to refine facility requirements identified in an Interservice Training Review Organization study performed in January 1992. The Interservice Training Review Organization studied consolidation of the Defense Visual and Information Schools and the Defense Photography School and validated the number of courses as well as the student and instructor load for each course planned to be taught at the Defense Information School. The AFIS working group reviewed course content to determine whether facilities could be shared. The working group identified scheduling conflicts for each facility based on the number of course iterations and the planned capacity of each facility. The working group recommended adjusting the space and equipment requirements accordingly.

In October 1992, the working group concluded that a requirement of 285,949 gross square feet was needed. The AFIS personnel continued to refine the facility requirements by creating master course schedules and facility usage reports. The AFIS decreased the gross requirement by 53,296 square feet in February 1993 for a revised requirement of 232,653 gross square feet.

Student Load Requirements. The AFIS revised the projected student load requirements for FY 1993 through FY 1996 for the Defense Information School. The AFIS showed a decreased student load from FY 1993 through FY 1995, because of a lack of training facilities and because of the move from Lowry Air Force Base and Fort Benjamin Harrison to temporary facilities at Ft. Meade. The move created several months of downtime during which training was stopped. However, the number of students will increase due to the start up of the new electronic imaging courses at the Defense Information School. The AFIS also projected an addition of 300 summer reservists for FY 1996.
Appendix D. Details on $6 Million Cost Increase

The table below shows the differences between the FY 1995 budget estimate for the Defense Information School prepared by Ft. Meade planners and the current working estimate prepared by the District Engineer in January 1995 when the design was 99.9-percent complete.

Comparison of Budget Estimate to District Engineer Estimate
($ in millions)

<table>
<thead>
<tr>
<th>Budget Line Items</th>
<th>Estimate</th>
<th>Budget Estimate</th>
<th>District Engineer Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Conditioning</td>
<td>$3.3</td>
<td>$4.9</td>
<td>$1.6</td>
</tr>
<tr>
<td>Other Mechanical and Electrical Items</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acoustical Duct Insulation</td>
<td></td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Energy Monitoring System</td>
<td></td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Building Information System</td>
<td>1.6</td>
<td>2.3</td>
<td>0.7</td>
</tr>
<tr>
<td>Silver Recovery System</td>
<td></td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Intrusion Alarm System</td>
<td></td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$4.9</td>
<td>$8.5</td>
<td>$3.6</td>
</tr>
<tr>
<td>Support Facilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electric Service</td>
<td>0.3</td>
<td>1.6</td>
<td>1.3</td>
</tr>
<tr>
<td>Paving, Walks, Curbs, Gutters</td>
<td>0.8</td>
<td>1.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Storm Drainage</td>
<td>0.2</td>
<td>0.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Site Improvement/Demolitions</td>
<td>0.9</td>
<td>1.1</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>$2.2</td>
<td>$4.6</td>
<td>$2.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>$6.0*</td>
</tr>
</tbody>
</table>

* The $6.0 million includes the standard 5-percent contingency and 6-percent for supervision and overhead.
Appendix D. Details for $6 Million Cost Increase

The Army BRAC Office review of the cost to construct the Defense Information School concluded that the cost increases were valid. The following paragraphs illustrate the rationale for the increases.

Air Conditioning. The District Engineer's cost estimate for air conditioning showed $1.6 million more than the budget estimate. Ft. Meade planners based the budget estimate on a 232,653-square-foot standard school or administrative facility needing about 750 tons of cooling. However, as the AFIS definitized its equipment requirements in March 1994, mechanical engineers determined that 1,100 tons of cooling were needed to accommodate the peak heat conditions of the Defense Information School at any one time.

Other Mechanical and Electrical Requirements. The District Engineer identified additional requirements for acoustical duct insulation, a building information system, silver recovery, an intrusion alarm system, and an energy monitoring and control system not identified on the DD Form 1391 budget estimate. Those requirements increased the $30 million budget estimate by $2 million. For example, during the DD Form 1391 budget estimating process, Ft. Meade planners did not identify a requirement for acoustical duct insulation. However, once AFIS definitized the equipment requirements, mechanical and electrical engineers determined that the number of air handling units needed to be increased to accommodate the sensitive temperature and humidity requirements inherent with the specialized equipment. The greater quantities of air handling units would cause noise and vibration levels in excess of standard levels for the audio and video training facilities, classrooms, and the library. The increased noise required acoustical duct insulation totaling $0.6 million.

Support Facilities Requirements. The current working estimate prepared by the District Engineer identified a $2.4 million increase in support facilities associated with the electrical feeder line; parking, curbs, and gutters; site improvement; and storm drainage. The cost for the electrical feeder line accounted for $1.3 million of the $2.4 million increase because the existing electrical feeder line was not adequate to handle the power requirements for the school. Ft. Meade planners did not have sufficient documentation on the power requirements associated with the specialized equipment during the budget estimating process. The District Engineer discovered that the Ft. Meade planners miscalculated the electrical power requirements after the Army BRAC Office submitted the FY 1995 budget estimate submission to Congress.
## Appendix E. Landscaping Cost Estimates

<table>
<thead>
<tr>
<th>Landscaping Project</th>
<th>District Engineer Current Working Estimate</th>
<th>Auditor Estimate</th>
<th>Cost Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trees, shrubs, and mulch</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trees</td>
<td>$104,018</td>
<td>$58,360&lt;sup&gt;1&lt;/sup&gt;</td>
<td>$45,658</td>
</tr>
<tr>
<td>Shrubs</td>
<td>11,044</td>
<td>11,044&lt;sup&gt;2&lt;/sup&gt;</td>
<td>0</td>
</tr>
<tr>
<td>Mulch</td>
<td>89,724</td>
<td>24,724&lt;sup&gt;3&lt;/sup&gt;</td>
<td>65,000</td>
</tr>
<tr>
<td>Transplanting 16 white pines</td>
<td>10,634</td>
<td>0&lt;sup&gt;4&lt;/sup&gt;</td>
<td>10,634</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$215,420</strong></td>
<td><strong>$94,128</strong></td>
<td><strong>$121,292</strong></td>
</tr>
<tr>
<td>Reforestation of 7.92 Acres</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tublings&lt;sup&gt;5&lt;/sup&gt;</td>
<td>69,507</td>
<td>4,646&lt;sup&gt;6&lt;/sup&gt;</td>
<td>64,861</td>
</tr>
<tr>
<td>Tubling fence</td>
<td>3,087</td>
<td>0</td>
<td>3,087</td>
</tr>
<tr>
<td>Tubling warning signs</td>
<td>149</td>
<td>149</td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$72,743</strong></td>
<td><strong>$4,795</strong></td>
<td><strong>$67,948</strong></td>
</tr>
<tr>
<td>Protect existing trees</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Protective fence</td>
<td>18,520</td>
<td>6,180&lt;sup&gt;7&lt;/sup&gt;</td>
<td>12,340</td>
</tr>
<tr>
<td>Warning signs</td>
<td>1,784</td>
<td>595&lt;sup&gt;8&lt;/sup&gt;</td>
<td>1,189</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$20,304</strong></td>
<td><strong>$6,775</strong></td>
<td><strong>$13,529</strong></td>
</tr>
<tr>
<td>Top soil and grass seed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Top soil</td>
<td>33,839</td>
<td>33,839</td>
<td>0</td>
</tr>
<tr>
<td>Grass seed</td>
<td>566</td>
<td>566</td>
<td>0</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$34,405</strong></td>
<td><strong>$34,405</strong></td>
<td><strong>$0</strong></td>
</tr>
<tr>
<td>Unidentified requirement on DD Form 1391 budget estimate</td>
<td>$142,128</td>
<td>--</td>
<td>$142,128</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$485,000</strong></td>
<td><strong>$140,103</strong></td>
<td><strong>$344,897</strong></td>
</tr>
</tbody>
</table>

See footnotes on next page.
Appendix E. Landscaping Cost Estimates

1 Auditor estimate based on reducing the number of trees. The current working estimate showed several areas where trees were planted too close together or were excessive in number and cost. In addition, pine trees require more than 10 feet of space to minimize lower branch decline as trees mature.

2 We did not evaluate the need for the 557 shrubs costing $11,044 because of time constraints.

3 The current working estimate amount for mulch was overestimated by 78,000 square feet, based on the landscaping design. As a result of the audit, the District Engineer reduced the requirement to 30,000 square feet of mulch.

4 There is no requirement to transplant the white pine trees.

5 A fully rooted seedling grown in a premolded plastic tube.

6 The cost shown is for seedlings, which can be planted to comply with the State of Maryland Forest Conservation Act.

7 The current working estimate amount for protective fence was overestimated by 3,000 feet based on blueprints for the project. Also, a protective fence is not needed along Mapes Road because there will be no construction on Mapes Road.

8 The auditor reduced the number of signs based on the reduced (67-percent) estimate for fencing.
## Appendix F. Summary of Potential Benefits Resulting From Audit

<table>
<thead>
<tr>
<th>Recommendation Reference</th>
<th>Description of Benefit</th>
<th>Amount and Type of Benefit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.1.a</td>
<td>Management Controls. Requires a current working estimate to support DD Form 1391 construction cost estimates.</td>
<td>Nonmonetary.</td>
</tr>
<tr>
<td>A.1.b</td>
<td>Management Controls. Requires documentation of technical risk cost contingencies and associated costs on DD Form 1391 for base realignment and closure projects for which no current working estimate is completed.</td>
<td>Nonmonetary.</td>
</tr>
<tr>
<td>A.2.</td>
<td>Reduces funds allocated for the Defense Information School project and returns funds to the Army and Air Force BRAC Offices.</td>
<td>Funds put to better use of $3.3 million returned to the Army BRAC Office and $2.7 million returned to the Air Force BRAC Office.</td>
</tr>
<tr>
<td>B.1.</td>
<td>Economy and Efficiency. Eliminates excess features from the scope of the Defense Information School Project.</td>
<td>Funds put to better use (total of $344,897, shown under Recommendation B.2.) by the Army and Air Force BRAC Offices.</td>
</tr>
<tr>
<td>Recommendation Reference</td>
<td>Description of Benefit</td>
<td>Amount and Type of Benefit</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>B.2.</td>
<td>Economy and Efficiency. Reduces funding for the Defense Information School project and returns funds to the Army and Air Force BRAC Offices.</td>
<td>Funds put to better use of $189,693 returned to the Army BRAC Office and $155,204 returned to the Air Force BRAC Office.</td>
</tr>
</tbody>
</table>
Appendix G. Organizations Visited or Contacted

Office of the Secretary of Defense

Office of the Under Secretary of Defense for Acquisition and Technology, Washington, DC
Under Secretary of Defense (Comptroller), Washington, DC
Assistant to the Secretary of Defense (Public Affairs)
   American Forces Information Service, Alexandria, VA

Department of the Army

Army Audit Agency, Fort Belvoir, VA
Assistant Chief of Staff for Installation Management, Army Base Realignment and Closure Office, Washington, DC
U.S. Army Military District of Washington, Fort McNair, Washington, DC
Headquarters, Army Corps of Engineers, Washington, DC
Army Corps of Engineers, Baltimore District, MD
Commander, Fort George G. Meade, MD

Department of the Air Force

Air Force Base Realignment and Closure Office, Washington, DC
Appendix H. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
Assistant Secretary of Defense (Economic Security)
Assistant to the Secretary of Defense (Public Affairs)
  American Forces Information Service
  Director, Defense Logistics Studies Information Exchange

Department of the Army

Auditor General, Department of the Army
Assistant Chief of Staff for Installation Management
Commander, U.S. Army Military District of Washington
Commander, Army Corps of Engineers
  Commander, Baltimore District
  Commander, Fort George G. Meade

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
Inspector General, National Security Agency
Non-DoD Organizations

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division,
General Accounting Office

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

- Senate Committee on Appropriations
- Senate Subcommittee on Defense, Committee on Appropriations
- Senate Committee on Armed Services
- Senate Committee on Governmental Affairs
- House Committee on Appropriations
- House Subcommittee on National Security, Committee on Appropriations
- House Committee on Government Reform and Oversight
- House Subcommittee on National Security, International Affairs, and Criminal Justice,
  Committee on Government Reform and Oversight
- House Committee on National Security
This page was left out of original document
Part III - Management Comments
Department of the Army Comments

1. Army has reviewed the draft report and comments on individual findings and recommendations are addressed at the enclosure. The Army supports the DINFOs project as currently designed, and plans to proceed with construction. The attached discussions provide the Army comments on each finding and recommendation. The Army will continue to review the construction of this project and will consider the audit results in this review process.

2. Point of contact for this action is Mark M. Jones, DSN 225-8030.

Encl

J. C. MENIG
Acting Assistant Chief of Staff for Installation Management
Reply to the IG DoD Draft Audit Report
Defense Information School at Fort George G. Meade
Base Realignment and Closure Military Construction Project
(Project No. 5GC-5017.18)


Nonconcur. The Army submitted the final FY95 budget in February 1994 based on data available at the time. Because requirements were not determined by American Forces Information Service (AFIS) in a timely manner, the 35% design estimate was not available for the submission as normally required for MCA submission to Congress. Also due to the accelerated BRAC program requirements, projects are not generally based upon a 35% design. Project costs were calculated via the DD Form 1391 processor, with adjustments available for location, size, technical updates and adjustment for design contingency. BRAC MILCON budget submissions are not updated based on current working estimates. The DD 1391 is a programming document. It is not updated during the design process for the CWE once it is submitted to Congress. The accelerated implementation process for BRAC does not allow time to complete 35% designs prior to budget submission. The construction required by BRAC must be budgeted within the first three years of the six year implementation period. This means that budget requests and project designs may occur simultaneously. The Army's experience in BRAC program execution is that over the whole BRAC program, growth has not occurred in the construction program.

Recommendation A.1. ACSIM establish a procedure to require a CWE at 35% design to support construction cost estimates on BRAC DD Form 1391s.

Concur with comments. The initial BRAC budget submissions cannot always be based on a 35% design estimate because two processes are occurring simultaneously. We are budgeting a long-range program and simultaneously submitting the first biennial budget. Where possible, BRAC construction costs include 35% design estimates. BRAC recommendations are justified on savings to the service. For BRAC 95 the objective is to execute early to maximize savings. Requiring 35% design before submitting projects to Congress would cause at least a one year delay in budgeting of the BRAC construction costs. Unlike MCA, BRAC projects are not "by line" authorized and appropriated. BRAC projects are developed to satisfy requirements generated by a Total Army Basing Study (TABS) recommendation and validated by the USAAA, and as a result they are built to scope. The total cost of BRAC construction is authorized for a fiscal year. Adjustments are allowed within the total authorization, however, after-the-fact notification to Congress is required during the year of execution when projects exceed the programmed amount in the Congressional budget book, by 25 percent.
Recommendation A.2. ACSIM establish procedures to require documentation of technical risks within a range of costs absent reliable cost data at the 35% design CWE.

Nonconcur. This recommendation would artificially inflate the cost based on unknown factors and further invalidate the accuracy of the cost estimates submitted. Project costs are computed automatically by the DD 1391 Processor system when a DD Form 1391 is developed. Adjustments are included for location, technological updates, and size. Technological updates are often required for projects involving fast changing design concepts such as hospital and laboratory projects. The contingency shown on the DD Form 1391 is for variations during construction and should not be used to fund variations in cost during design. A new initiative for BRAC 95 project submissions will require a U.S. Army Corps of Engineers technical review before projects are submitted to HQDA. We expect this will increase accuracy of estimates. The checks and balances and validation process during project development and Construction Requirements Review Committee ensure as accurate a project as possible in the shortened BRAC timelines. This particular project is an anomaly because it was submitted out of cycle based on a July 1992 Deputy Secretary of Defense directed realignment to consolidate the service schools at one location.

General comments: The cost to construct the Defense Information School did not increase from $30 million to $36 million. The working estimate during the design phase of the project was $6 million higher than the programmed amount. Changes to the programmed amount are made in the year of execution when the project is awarded as a contract. The U.S. Army Corps of Engineers awarded this project on 2 June 95 at a CWE award amount of $29.8 million.

Finding B. The FY 1995 budget estimate submitted by the Army BRAC office for the Defense Information School included overstated amounts for supplemental features like landscaping, executive entrance and parking, a traffic signal and excess curbs and gutters.

Nonconcur. BRAC had no requirement to update the budget estimate to the current working estimate level for this project during the design phase. Reviews attended by the planning MACOM, the Engineer District, the occupant and HQDA were conducted at various design stages. The guideline in reviewing DD Form 1391's is that supporting facilities should not exceed 25% of the primary facility unless justification is provided. In this case the supporting facilities are 10.4% of the primary facility and would normally be considered within an acceptable range. The architectural themes presented in the Installation Design Guide (IDG) are the basis for planning new construction and support the Army communities of excellence initiative. The facade and front drive/parking were deemed within the purview of the IDG.
Recommendation B.1. ACSIM reduce budget estimate by $642,897 for nonessential landscaping and supplemental features and make it available to support other unfunded BRAC MILCON projects.

Nonconcur. In Dec 1994, ACSIM directed the removal of a traffic signal, some roadway improvements and a reduction in the number of parking spaces due to inadequate justification. Additionally, BRAC would fund only 10,572 SF of demolition associated with the project. At that time it was determined it would not be cost effective to the Department of Defense to delete these "supplemental features" from the project. The cost of delaying the project and the actual redesign costs were deemed greater than the savings from deleting the items. Items deleted from the project were not part of the solicitation and therefore no funds are allowed for those items.

Recommendation B.2. ACSIM reduce funding by $642,897 and return 45% to the Air Force and 55% to the Army BRAC Accounts to support other unfunded BRAC MILCON projects.

Nonconcur. Reductions to the cost of the project for modifications based on recommendation B.1. must be quantified based on negotiations with the contractor. Additional modifications to the project, which represent a 2.1% reduction in the total project cost, will be reviewed by an executive working group comprised of HQDA; AFIS; MDW (including the installation); the North Atlantic Division, USACE; and the U. S. Army Engineer District, Baltimore. The analysis will address impact on cost and completion date of the project. Recommendation to implement will be addressed accordingly. Any "savings" will be distributed against the ratio it was contributed to the project. Upon determination of the adjusted requirement, the Army will prorate the amount due from the USAF in FY 96.
Audit Team Members

This report was prepared by the Readiness and Operational Support Directorate, Office of the Assistant Inspector General for Auditing, DoD.

Thomas F. Gimble
Harrell D. Spoons
C.J. Richardson
Jenniffer Wilson
Sharon D. Nguyen
Kenneth B. VanHove
Kristi N. Walker
INTERNET DOCUMENT INFORMATION FORM

A. Report Title: Defense Information School at Fort George G. Meade Base Realignment and Closure Military Construction Project

B. DATE Report Downloaded From the Internet: 01/07/99

C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #): OAIG-AUD (ATTN: AFTS Audit Suggestions)
   Inspector General, Department of Defense
   400 Army Navy Drive (Room 801)
   Arlington, VA  22202-2884

D. Currently Applicable Classification Level: Unclassified

E. Distribution Statement A: Approved for Public Release

F. The foregoing information was compiled and provided by:
   DTIC-OCA, Initials: __VM__ Preparation Date 01/07/99

The foregoing information should exactly correspond to the Title, Report Number, and the Date on the accompanying report document. If there are mismatches, or other questions, contact the above OCA Representative for resolution.