



Virginia Department of Planning and Budget  
**Project Request Justification**

2008-2010

Biennium

Date: September 7, 2007

**A. General Information**

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| <p>1. <b>Agency Name:</b> <u>Virginia Tech</u><br/>Equip: Institute for Critical Technology &amp; Applied Science II</p> <p>3. <b>Project Title:</b> <u>II</u></p> <p>5. <b>Name of Person to Contact about this Form:</b> <u>Robert R. Broyden</u></p> <p>6. <b>Contact Person's Telephone Number:</b> <u>(540) 231-8782</u></p> <p>7. <b>Contact Person's E-mail Address:</b> <u>rbroyden@vt.edu</u></p> | <p>2. <b>Agency Code:</b> <u>208</u></p> <p>4. <b>Agency Priority:</b> <u>6</u></p> |
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**B. Proposed Project**

1. **Description (include project size, capacity, and purpose):**

This is a technical request for restoration of equipment funds for the Institute for Critical Technology and Applied Sciences, Phase II project. The request covers funding for equipment and loose furnishings deferred from the original project funding. This equipment funding is to outfit the facility with scientific research equipment and furnishings to support the research activities and provide environmental safety and protection for the staff. The equipment is needed in fiscal year 2009-2010 to coordinate with the occupancy of the building and to ensure adequate procurement lead time for scientific equipment and compliance with purchasing policies.

Virginia Tech's Institute for Critical Technology and Applied Sciences, Phase II (ICTAS II) was authorized in Chapter 3 of the 2006 Virginia Acts of Assembly with \$13,519,000 of state General Fund support and \$17,500,000 of nongeneral fund support from the authorization of 9(d) agency bonds, for a total project budget of \$31,019,000. The original request included \$3.981 million of equipment that has been deferred to align with the on-line timing of the building.

This request will restore equipment funds held back from the state's 50 percent share of the funding for the project supported by General Funds. The requested \$3.981 million of equipment funds will adjust the project budget to the fully requested amount of \$35 million. Thus, the funding plan for the equipment for the project calls for 100 percent state General Fund support.

2. **In approved Master Site Plan:** Yes  No   
If not, explain:

3. **In current Strategic Plan:** Yes  No   
If not, explain:

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## **C. Project Justification**

### **1. Programmatic:**

Virginia Tech's Institute for Critical Technology and Applied Sciences, Phase II (ICTAS II) was authorized in Chapter 3 of the 2006 Virginia Acts of Assembly. The core premise of the ICTAS plan is to capitalize on existing strengths of the University while using collaborative, interdisciplinary models to foster cutting-edge areas of research where the life sciences and engineering technologies overlap.

ICTAS, Phase II will house the Virginia Tech-Wake Forest University School of Biomedical Engineering and Sciences. The building will be a state-of-the-art research facility with highly specialized research laboratories that will support both applied and fundamental research in several multidisciplinary areas, including biomedical engineering, bioengineering, biomaterials, bio-nanotechnology, communications technology, and sensor technology. The project calls for 77,000 gross square feet of research space to support approximately 27 research faculty, 9 support personnel, and 128 doctoral and post doctoral students.

The completion of the ICTAS Phase II building is vital to the success of Virginia Tech's Institute for Critical Technology and Applied Sciences initiative and the achievement of the University's goal to increase research productivity in growth-oriented areas of science and technology. The establishment of a research facility of this caliber will dramatically impact the teaching and research experience in advanced engineering and sciences at Virginia Tech by allowing students and researchers to utilize the latest materials and techniques in their fields. The enhanced reputation this will bring to the University's engineering and science programs will increase Virginia Tech's status as a major research university, attract the brightest students and most successful faculty, and promote scientific and technological development in Southwest Virginia. Further, this building is envisioned to significantly enhance and increase research space that is needed to support local business and industry and to provide for economic development throughout the Commonwealth.

### **2. Existing facilities:**

This first building (Phase I) for Virginia Tech's Institute for Critical Technology and Applied Sciences (ICTAS) was authorized in the 2002 General Obligation Bond (GOB) Program and construction is underway. ICTAS, Phase II represents the second step to fulfilling the space needs for this innovative, multi-disciplinary research enterprise. This equipment funding request is to outfit the facility with scientific research equipment and furnishings to facilitate the research programs.

The University does not currently have the proposed necessary equipment to support the mission and operation of this research facility -- all proposed equipment and furnishings in this project request are new.

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## **D. Options Considered (include as an option delaying this project until future biennia)**

Delay to a future biennium of equipping and furnishing the Institute for Critical Technology and Applied Science, Phase II building is not a viable option. The building is scheduled for

occupancy in June 2010; thus equipment and scientific instruments lead times of approximately 12 months require funding to support encumbrances in by June 2009. A delay would result in a facility that would not be functional for the program.

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**E. Project Scope Changes:**

None.

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**F. Project Cost Changes:**

None.

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# Instructions for DPB Form CNJ Project Request Justification

**This form is to be prepared only for projects authorized for detailed budget development during the 2008-2010 biennium.**

The project request justification (DPB Form CNJ) details the project's scope and justifies its need. The need must be demonstrated from several perspectives, including the agency's programs and activities and the condition of the existing facilities, in order to show why it is important to fund your request. The narrative should be as thorough and complete as necessary. The quality of your submission is extremely important. Remember who your audience is for this submission and **do not** use technical engineering terms and jargon. Decision-makers may only have your narrative as the basis for considering the merits of your request.

**The justification for additional funding due to anticipated cost overruns on a currently approved and funded project must include the scope adjustments (i.e., reduction in scope) that would be needed to finish the project with existing funding.**

## Section A. General Information

- Item 1. **Agency Name.** Enter your agency's name.
- Item 2. **Agency Code.** Enter the three-digit agency code for your agency.
- Item 3. **Project Title.** Give the new project a clear descriptive title.
- Item 4. **Agency Priority.** Number from the DPB Form H-1.
- Item 5. **Name of Person to Contact about this Form.** Enter the name of the person to contact who can answer specific questions concerning the information provided on this form.
- Item 6. **Contact Person's Telephone Number.** Enter the telephone number of the contact person.
- Item 7. **Contact Person's E-mail Address.** Enter the e-mail address of the contact person.

## Section B. Proposed Project

**Item 1. Description.** The project description should be of sufficient detail to clearly define the scope of the project. This description should address the project's size and capacity. It should also describe how the project would meet specific needs. Below is some of the information that should be presented in this section, as applicable:

- The scope of the project, including type of space proposed, the square footage, and any unique or unusual features.
- Life expectancy of the new facility.
- Methods or sources used to determine the proposed scope.

**Item 2. In approved Master Site Plan.** An explanation should be provided if not in master site plan.

**Item 3. In current Strategic Plan.** An explanation should be provided if not in the current strategic plan

## **Section C. Project justification**

**Item 1. Programmatic information.** The justification for a project is based on how it supports your agency's strategic plan. Specifically, this section should address the following:

- Description of the current use of the facility(ies).
- Description of the relevant programmatic activities, both current and projected, that would be affected by the project. Indicate any services, operations, or activities that will be initiated, expanded, or improved because of this project.
- How the project will support your agency's mission and your current and planned program goals and objectives. How does the proposed project relate to the agency's strategic plan?
- The necessity of the project in terms of objectives, services, and customers. Be sure to indicate the number and type of clients or staff who will benefit from the proposed project. Provide numerical estimates of current and future users of the facility using quantitative data such as number of positions (FTE), average prisoner days, or full-time equivalent students. Highlight any population characteristics important to the project. Indicate and discuss projection methodologies used.
- Address whether the project is required to continue current services, to handle a workload increase, or to provide for new or better quality services.
- For institutions of higher education, be sure to include a summary of the impact of student fee increases

**Item 2. Existing Facility(ies).** To determine the need for a project, you must describe your present facilities. Include in this description information on the adequacy of existing facilities to meet current and projected program demands. To support the need, provide the following information, as appropriate:

- Why the existing facility is inappropriate or inadequate, such as overcrowding or the need to accommodate new programs.
- Age and condition of current facility, analysis of man-hours and expenses invested annually in repairs, interruptions of services or backlogs of services, safety hazards to customers, and health and safety code violations. (Specify which code edition.) Indicate if the request is a result of legislative (federal or state) or judicial mandate or from standards or certification requirements. Be as specific as possible. Use quantitative measures when available and applicable to demonstrate why the capital project is needed.
- Interim accommodations being used to compensate for facility deficiencies or the lack of facilities, including currently leased space.
- Information on the future use of the existing facility(ies) that could impact upon the proposed capital project, such as any future expansion or conversion of the facility.

- How the proposed project fits into the approved Master Site Plan for your agency.

#### **Section D. Options Considered**

This section should identify and discuss any alternatives to the proposed project that were considered and the rationale for selecting the requested project. Provide the estimated cost for each of the alternatives considered. **One option that must be addressed is the impact of deferring the project until a future biennium.**

#### **Section E. Project Scope Changes**

This section should identify and explain any differences between the scope on the DPB Form C-1\_S-1 in this submission and those provided on the previously submitted DPB Form H-1.

#### **Section F. Project Cost Changes**

This section should identify and explain any differences between the cost estimates on the DPB Form C-1\_S-1 in this submission and those provided on the previously submitted DPB Form H-1.