



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

2008-2010

Biennium

Date: September 7, 2007

**A. General Information**

- |   |                                     |                     |            |
|---|-------------------------------------|---------------------|------------|
| 1. Agency Name:                               | <u>Virginia Tech</u>                | 2. Agency Code:     | <u>208</u> |
| 3. Project Title:                             | <u>Construct Classroom Building</u> | 4. Agency Priority: | <u>4</u>   |
| 5. Name of Person to Contact about this Form: | <u>Robert R. Broyden</u>            |                     |            |
| 6. Contact Person's Telephone Number:         | <u>(540) 231-8782</u>               |                     |            |
| 7. Contact Person's E-mail Address:           | <u>rbroyden@vt.edu</u>              |                     |            |

**B. Proposed Project**

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

This project has been on the University's plan since 2005 and is included in the first biennium as a high priority to increase the quantity of high quality general assignment classrooms. This project includes construction of a 64,250 gross square foot multi-story building with 26 medium and large-size classrooms on the north side campus in the core of instruction activity. The life expectancy of the proposed project is approximately 80 years with proper maintenance.

In response to increasing pressure for course registrations and classroom scheduling, the University commissioned an external review in 2005 of Virginia Tech's classroom inventory, scheduling demands, and room utilization. The outcome of the study shows that Virginia Tech is pushing the productivity of its existing inventory to maximum levels without meeting the demand for classrooms. Additional medium and large-size classrooms are needed to address the significant unmet demand for class registrations and to meet student expectations of state-of-the-art instruction space. The University pushed the classroom inventory to its maximum productivity in 2006-2007 with outstanding unmet demand for instruction space. Because of the pressure for classroom space, the University planned on using a temporary strategy of leasing space for the 2007-2008 academic year to alleviate some of the unmet demand. With the loss of all 397 general assignment classroom seats in Norris Hall on April 16, 2007, the pressure for classrooms has increased significantly. What was once an acute need for additional classroom space is now a crisis, which will remain until a major classroom facility is completed. Finally, Virginia Tech's enrollments for fall 2007 are over 1,000 students more than the official SCHEV 2B projection. Thus, the capacity shortfall continues to grow.

The classroom building is 100 percent support for the Educational and General instruction program. Thus, the proposed funding plan calls for \$23.05 million of General Fund support, and the project is not envisioned to impact student fees.

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:

The University recently completed a classroom utilization study prepared by a nationally recognized higher education planning consultant. The consultant's study concluded Virginia Tech's general assignment classrooms are on average scheduled at a 130 percent utilization rate, using a national 45-hour calculation standard which measures the peak instruction times. This is the highest utilization the consultant has seen at any institution, which validates the University is scheduling classes very efficiently during the traditional classroom day.

While classrooms are scheduled at high utilization rates, the demand for higher capacity, technologically enabled classrooms is not being met and both students and faculty are dissatisfied with the available classroom environments. Overall, the University must provide its students and faculty more flexible learning environments to accommodate the expanding use of technology throughout the institution's curricula. Virginia Tech needs more classrooms that can be configured to support group work, that can physically support the use of laptop computers in the classroom, and that can accommodate the new instructional technologies now being implemented across the campus. The benefit of addressing the classroom needs is a potential benefit to all of Virginia Tech's nearly 26,000 full-time equivalent students.

Renovations to modernize some of the existing inventory are a partial solution to meeting student and faculty needs and some higher quality space is being developed through improvements. However, when renovations are implemented in existing classrooms, the number of seats in the rooms is decreased to make way for ADA requirements and technology, like electronic "smart walls," table space for laptop computers, and other instructional technologies. The paradox is, that as improvements are implemented, the number of seats are reduced, which adds pressure to the registration demand for more rooms. The University cannot therefore improve its existing classrooms to resolve the scheduling stress on the general classroom inventory. This unusual and unmatched high utilization of classrooms has led to the conclusion that new classroom space is needed as part of the solution.

The 2007-2008 academic year is underway with anticipated over crowded classrooms and increasing complaints from students. The University has developed a three phase plan to improve the classroom inventory. The first phase is underway with major renovation improvements to 44 existing classrooms with funding from the 2002 General Obligation Bond program. The second phase is the construction of the proposed Classroom Building with 26 medium- and large-size classrooms. The final phase will be major renovation improvements to another 17 existing classrooms (this project is in the second biennium of

the capital plan). The outcome will be 87 high capacity, high quality classrooms that can help meet the expectation of students and faculty, and the registration demand.

The mission statement of Virginia Tech as a public land-grant university serving the Commonwealth of Virginia, the nation, and the world community includes discovery and dissemination of new knowledge central to its mission. Through its focus on teaching and learning, research and discovery, and outreach and engagement, the University creates, conveys, and applies knowledge to expand personal growth and opportunity, advance social and community development, foster economic competitiveness, and improve the quality of life.

The University's strategic plan includes three scholarship domains: Learning, Discovery, and Engagement; and three Foundational Strategies: Development of the Organization, Investment in the Campus Infrastructure, and Effective Resource Development, Allocation, and Management. This project supports several key domains and strategies of the strategic plan, and the specific goals of each area addressed by this project are listed below.

#### Learning:

*Increase student involvement in discovery and engagement by creating more opportunities for undergraduates to be involved in research capstone experiences, education abroad, and experiential learning.*

*Strengthen and integrate all aspects of the undergraduate academic experience, including the academic experience for transfer students.*

*Invest in departmental and university-level support for undergraduate education.*

*Enhance quality graduate and professional education.*

*Establish a graduate education portfolio reflective of a 21<sup>st</sup> century university.*

*Strengthen the role of distance and distributed eLearning in achieving the university's goals in learning, discovery and engagement.*

*Develop and integrate advanced technology and information systems applications that assist collaboration, reflection, assessment, and sharing among faculty members, students, and staff members.*

*Contribute to the holistic and transformative educational experiences of Virginia Tech undergraduate and graduate students.*

*Improve the capital assets that underpin student learning and support programs.*

#### Engagement:

*Connect the University's discovery, learning, and engagement assets through partnerships with both the public and private sectors to advance the economic vitality of the commonwealth and the quality of life of its citizens.*

*Enhance PK-12 education and its continuity with undergraduate and graduate education, especially in the key disciplines of science, technology, engineering, and mathematics (STEM).*

*Engage students, at the undergraduate and graduate levels, in opportunities for service learning and experiential education that prepare them to serve a diverse and complex marketplace and society while building the capacity of communities.*

Foundational Strategies:

*Effectively manage the University's space and land resources for learning, living, and work.*

*Enhance health, safety, and security operations to support the University's discovery, learning, and engagement endeavors.*

*Promote robust and integrated information technology strategies that advance Virginia Tech's excellence.*

**2. Existing facilities:**

As a result of April 16, the University lost 397 general assignment seats, and the general assignment classrooms inventory is down to 165 rooms, scattered among 26 campus buildings. The inventory ranges from a few modern, desirable classrooms that are heavily scheduled to a large portion of out-dated and physically constrained classrooms. Some of the existing classrooms are excellent opportunities for major or minor renovation improvements, and the University is implementing these improvements to address a portion of the demand. Some classrooms are no longer truly suitable for modern instruction and can not be adequately renovated for current teaching practices. These rooms are generally used for evening tutoring, recitations, and group assignment work. As discussed above, the University has determined that additional classrooms beyond the renovation improvements are needed to solve the unmet demand for course space.

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

The option considered and not selected is deferring the project to a later biennium. This project is selected for the first biennium because of the significant demand for modern classrooms by students and faculty. Without the addition of a new classroom building, the University does not have the capacity to schedule a growing number of course offerings that are needed to meet the demands of our students. As a result, students are not satisfied with their classrooms and course offerings are limited, causing students to defer courses to future academic sessions and delaying credits needed to graduate. Each year of delay adds about five percent to the project costs, or about \$2.3 million to delay one biennium.

Prior to April 16, 2007, the University had planned on leasing additional space for class sections for fall 2007 to address a portion of the unmet course demand. The loss of all 397 general assignment classroom seats in Norris Hall has significantly exacerbated the instructional space deficit and amplified the need for this classroom building.

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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.