

Capital Project for the North Chiller Plant

JOINT FINANCE AND AUDIT COMMITTEE AND BUILDINGS AND GROUNDS COMMITTEE

February 27, 2009

The University's Campus Master Plan and Six-Year Capital Outlay Plan envision the Prices Fork commuter parking lot as the next major facility development area of campus with approximately one million square feet of building capacity. The recently approved Parking Structure project that is underway is the first facility in this area, and it will establish the necessary parking capacity to make way for new building sites. The next facility envisioned for this development area is the Engineering Signature Building which is in the state's long-range funding model; and the University has completed the pre-planning requirements for this facility in accordance with the state's capital process. The University's existing central cooling systems do not have capacity to serve new buildings in the Prices Fork area. Without central cooling capacity, each new facility placed in this area will require a stand-alone chiller system. Stand-alone systems carry significant cost premiums for the upfront building construction and the on-going energy and maintenance costs to the University.

This project request is for authorization to design and construct a central chiller plant with a scope sufficient to ensure the central chiller infrastructure will service the envisioned one million square feet of future development of the Prices Fork area. The total project cost of the centralized chiller plant is \$3.8 million. This proposal envisions substantial one-time savings to future capital projects because of the relief of space, construction costs, and equipment installations required for stand-alone systems. Ongoing energy and maintenance savings are envisioned to accrue to the University because a central plant operates a smaller number of large chillers more efficiently than a decentralized plant with many small stand-alone chillers. Based on a 20-year build out of the one million square feet in the Prices Fork area, a central chiller system (including the future chiller equipment) may provide a net present value of \$12 million for construction, equipment, and operating costs compared to stand-alone systems.

The proposed location for the chiller plant is in the basement of the Parking Structure project. This is an optimal location for a chiller plant that will not reduce the original target scope of 1,200 parking spaces, will not add unnecessary costs to the Parking Structure project, and is an efficient use of valuable land. If approved, the chiller plant project will be consolidated with the Parking Structure project for implementation under a single design-build contract. This proposed project is a new item and is not on the current Six-Year Capital Outlay Plan. The project is a result of a new long-term strategy on providing chilled water service to future buildings located in the north section of campus. A key to the success of the chiller strategy is that it be incorporated within the Parking Structure project which is underway.

As with all self-supporting projects, the University has developed a financing plan to provide assurance regarding the financial feasibility of the project. This plan includes establishing a central cost pool that will cover the \$3.8 million project costs, either directly or through debt service, and any associated temporary financing costs that may apply. The cost pool will be repaid over time as future projects in the region acquire their fair share of the cooling system, based on computed building demand loads. Any financing costs will be repaid separately through nongeneral fund support associated with the future projects. With the scope, schedule, cost, and funding plan for the chiller plant established, the University is ready to move the project forward.

Under the 2006 Management Agreement between the Commonwealth of Virginia and the University, the Board of Visitors has the authority to approve the budget, size, scope, debt issuance, and overall funding of nongeneral fund capital outlay projects. This request is for a project and funding authorization to construct a centralized chiller plant within the Parking Structure at a cost of \$3.8 million.

RESOLUTION ON CAPITAL PROJECT FOR THE NORTH CHILLER PLANT

WHEREAS, the University's Campus Master Plan and Six-Year Capital Outlay Plan envision the Prices Fork commuter parking lot as the next major facility development area of campus with approximately one million square feet of building capacity; and,

WHEREAS, a central chiller plant offers substantial one-time construction and on-going energy and maintenance efficiencies compared to stand-alone systems; and,

WHEREAS, the project will include design and construction of a chiller plant inside the Parking Structure project with the necessary space and infrastructure to accommodate future chiller equipment to service the full build-out of the Prices Fork area; and,

WHEREAS, the total project cost of constructing the chiller plant in the parking structure is \$3.8 million with a funding plan that includes 100 percent nongeneral fund resources and does not impact parking fees; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the University, the University has the authority to issue bonds, notes, or other obligations that do not constitute State tax supported debt; and,

WHEREAS, the Finance and Audit Committee will further review and approve any financing resolutions prior to securing permanent financing for the debt component of a project plus amounts needed to fund issuance costs, reserve funds, and other financing expenses; and,

WHEREAS, under the 2006 Management Agreement between the Commonwealth of Virginia and the University, the Board of Visitors has authority to approve the budget, size, scope, debt issuances, and overall funding of nongeneral funded major capital outlay projects; and,

WHEREAS, the University may address minor cost variances provided sufficient funds are available to support the full project costs;

NOW, THEREFORE BE IT RESOLVED, that the University be authorized to move forward with design and construction of \$3.8 million chiller plant to be consolidated within the Parking Structure project and to secure temporary short-term financing, as needed, through any borrowing mechanism that prior to such borrowing has been approved by the Board, as applicable, in an aggregate principal amount not to exceed \$3.8 million for all or a portion of the costs of the project, plus related issuance costs and financing expenses.

RECOMMENDATION:

That the above resolution authorizing Virginia Tech to complete a chiller plant be approved.

March 23, 2009