

Submitted by: John L. Davis, Vice President of Finance and Facilities Management

Chatsworth Apartments - Steam Boiler Plant Installation

Recommendation

It is recommended that the Board of Governors authorize the President, or his designee, to design, solicit bids and award contracts for the construction and installation of four (4) natural gas fired steam boilers and accessories in the former Chatsworth Apartment parking garage for a total cost not to exceed \$3,500,000, including capitalized interest and bond issuance costs. The proposed steam boiler plant will serve the requirements of Chatsworth Apartments, DeRoy Apartments, and the Student Center Building. Funding for this project will be provided by bond proceeds generated through the sale of general revenue bonds, Series 2004. A bond resolution authorizing a bond sale for capital projects including this one, is on the agenda for action later in this meeting. The annual debt service on the bonds for this project will be paid with annual energy cost savings by the Housing Department and the Student Center Building, both auxiliary operations.

Background and Project Description

As a result of recent increases in steam procurement costs, self-generating steam has become economically justifiable in some cases. Through an engineering feasibility analysis, comparing the cost of district steam (from Detroit Thermal) to self generation (new Chatsworth Apartments Steam Boiler Plant), it has been determined that the annual costs of a University owned and operated steam plant for Chatsworth Apartments, DeRoy Apartments and the Student Center Building are considerably less than the cost to purchase steam from Detroit Thermal. Specifically, the analysis demonstrated that an annual cost savings of \$353,200 can be realized through this project. On the aforementioned project budget, the payback period is 9.9 years, excluding the financing cost for the bonds. For a 30 year bond term the annual debt service expense is estimated at \$215,000. After accounting for the total debt service expense, the operations of the Housing Department and the Student Center Building will net a savings of approximately \$138,000 annually that can be invested in other programs or deferred maintenance projects. The boiler plant has an expected life of 35 years.

The Chatsworth parking garage is ideally suited for this project. The square footage is large enough to accommodate the plant, and saves the university the costs of new construction that would otherwise be required to permit the implementation of this project.

It should also be noted that during the construction of the foundation for the New Residence Hall, the existing steam service line to Chatsworth was exposed and was found to be leaking and in need of repair. This condition must be addressed immediately to prevent the loss of steam service to the building. The \$3,500,000 capital cost to implement the proposed project does not include \$260,500 to replace the existing steam service line to Chatsworth. The proposed Chatsworth Steam Boiler Plant permits the steam service line replacement cost to be avoided completely.

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Treating such cost as a given improves the economic performance of the proposed project from a 9.9 year payback to 9.2 years, excluding the financing cost for the bonds. Accordingly, the administration recommends approval of the Chatsworth Steam Boiler Plant now, to achieve permanent annual energy savings and to avoid the cost of a new steam service line to Chatsworth Apartments.

All contracts will be awarded in compliance with University policies and procedures, including affirmative action.