January 4, 2013

MEMORANDUM

TO: Dr. R. Bowen Loftin

SUBJECT: CBE Recommendation: Texas Engineering Experiment Station request to construct Three Buildings at the Riverside Campus

At its December 11, 2012 meeting, the Council for the Built Environment (CBE) reviewed a request from Dr. Katherine Banks, Vice Chancellor and Dean of Engineering for approval of the Texas Engineering Experiment Station (TEES) to construct three buildings at the Riverside Campus. The buildings will address space deficiencies and provide space for projected growth for soon to be established research centers. Locations for the proposed building sites were coordinated with the Office of Facilities Coordination. The buildings proposed are:

TEES Building 1 will house a 15,000 ASF natural gas engine test facility. The building will be built by Cameron Industries and transferred to TEES, so that TEES researchers will use the facilities to develop, test, and evaluate new natural gas engine technologies. Details on private industry building a facility on Texas A&M University property is subject to approval by the Office of General Counsel.

TEES Building 2 will house an 8,000 ASF high bay facility to conduct research related to Unmanned Aerial Vehicles (UAVs) and Microwave Antennas. The estimated cost of the building is $3M, and TEES will cover the cost.

TEES Building 3 will house an 8,000 ASF high bay facility to conduct energy related research. The estimated cost of the building is $3M and TEES will cover the cost.

Design Review Sub-Council (DRsc) - found the request to be in compliance with the intent of the proposed Riverside Campus Plan and recommends approval for the buildings with the following observations and recommendations:

a. TEES should work with Environmental Health & Safety Department to ensure that the construction of Building 1 will be able to function under the university's existing air control licenses and regulations.

b. Further review of the design of each building would be presented to the DRsc at schematic design and design development, as well as an on-site exterior materials mockup review.

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Facilities Utilization Review Sub-Council (FURsc) - recommends the CBE support the request by the Texas Engineering Experiment Station to construct the three proposed buildings at the Riverside Campus. The approvals and ultimate construction of the buildings should be guided by the Riverside Campus Plan.

Technical Review Sub-Council (TRsc) - supports construction of the buildings on Riverside Campus and recommends approval, provided the following concerns/issues are addressed and funded.

a. Facilities Services: Concern for storm drainage. For each building site, the project design team needs to model how much the project may increase the immediate run off above the existing condition, and incorporate provisions to detain this increase.

b. Utilities & Energy Services: Much of the TAMU Riverside utility infrastructure is over 50 years old and is showing signs of its age. UES personnel believe the electrical power and sanitary sewer capacity in place will be sufficient to feed the proposed facilities. Storm sewers will need to be looked at on a case-by-case basis, and the need for site detention determined by the design engineer. A detailed utility load analysis needs to be completed for each site and should also take into account the capacity consumed by all three sites combined. Current construction projects on campus have identified fire flow from the existing 8” DSWS loop to be questionable (depending on building location and size) and will need to be investigated thoroughly by the design engineer. The natural gas distribution system on the campus has been replaced in recent years and should have the capacity to feed Sites 2 and 3 if needed, however Site 1 will more than likely require a new connection to the ATMSO main (Highway 21) in order to provide the pressure and flow needed.

Site 1: The project should be prepared to fund the installation of a new 12” DCW line from the TAMU Riverside DCW distribution center approximately 2,500 LF to the site. The project should be prepared to fund the new installation of a natural gas main from the main ATMSO line on Highway 21 to the site, approximately 4,000 LF.

Site 2 and 3: The project will need to investigate the fire flow needed for the proposed structures and be prepared to tap the new 12” DCW installed by Site 1, approximately 750 LF.

c. University Police suggests enhanced security features for the UAV facility be considered. The real concern as this area continues to grow will be whether sustainable secured funding can be obtained to expand patrol and security coverage of the Riverside Campus.

d. CIS Networking: The research nature of the buildings proposed implies a need for connectivity to the campus data network. Fiberoptic cable installation to each building should be included in the building budget. Also, the building budgets should include provision for contractor-installed structured cabling to be installed to TAMU data network standards. The natural gas engine test facility to be funded by and operated in conjunction with Cameron will require consultations with TAMU Networking regarding provisions related to the use of the TAMU data network in the associated contract between TAMU and Cameron.

e. Environmental Health & Safety: i. All buildings are likely to require fire alarm and sprinkler systems; ii. For any of the buildings to be constructed by a third party, it will be important to involve EHS early in the planning process to ensure compatibility with TAMU fire/life safety systems; iii. EHS will perform acceptance testing of all building
fire/life safety systems; iv. All buildings (even those potentially occupied by a private entity) will be inspected annually by EHS.

CBE voted unanimously to recommend the President’s approval for TEES to construct three building on the Riverside Campus provided the above-referenced considerations are addressed.

Karan L. Watson 1-12-2013
Provost and Executive Vice President
for Academic Affairs
Co-Chair, Council for the Built Environment

Rodney P. McClendon 1-8-13
Vice President for Administration
Co-Chair, Council for the Built Environment

R. Bowen Loftin 11-7-13
President

cc: Sub-Council Chairs, Council on the Built Environment
Dr. M. Katherine Banks, Vice Chancellor and Dean of Engineering