

AGENDA ITEM BRIEFING

Submitted by: Billy Hamilton, Executive Vice Chancellor and Chief Financial Officer
The Texas A&M University System

Subject: Approval of the Project Scope and Budget, Appropriation for Construction Services, and Approval for Construction for the Engineering Education Complex Project, Texas A&M University, College Station, Texas (Project No. 02-3155)

Background and Prior Actions:

The Engineering Education Complex Project was shown as an approved project on the FY 2015-FY 2019 A&M System Capital Plan approved by the Board at the May 2014 meeting.

Proposed Board Action:

- (1) Approve the project scope and budget.
- (2) Appropriate \$155,365,000 for construction services and related project costs. \$13,700,000 has been previously appropriated to this project. Revert \$165,000 of previous appropriations to source account.
- (3) Approve construction of the Engineering Education Complex Project at Texas A&M University (Texas A&M).

Funding/Budget Amount:

<u>Funding Source</u>	<u>Budget Amount</u>	<u>Average Estimated Annual Debt Service</u>	<u>Debt Service Source</u>
Permanent University Fund Debt Proceeds	\$ 90,500,000	\$7,179,115	Available University Fund
Revenue Financing System Debt Proceeds*	\$ 68,250,000	\$7,598,060	Gifts
Cash (Gifts)	\$ 6,750,000	N/A	N/A
Cash (Designated Funds)	\$ 900,000	N/A	N/A
Cash (Indirect Cost Recovery - TEES)	<u>\$ 2,500,000</u>	N/A	N/A
Total Project Funds	<u>\$168,900,000</u>		

Agenda Item No. 3
Agenda Item Briefing

*Currently, 75% of gift funds have been pledged. The university is committed to backstop the project until cash is collected.

Note: Any gifts received for this project are hereby appropriated and previous appropriations are reverted from Revenue Financing System Debt Proceeds.

Project Justification:

Across the United States and in Texas, it is projected that over the next 12 years there will be a significant shortage of engineers. To meet this need, Texas A&M and the Dwight Look College of Engineering (Look College) have launched the “25 by 25” controlled growth initiative to increase enrollment to 25,000 engineering students by the year 2025. The Look College currently has more than 14,000 (11,000 undergraduate and 3,000 graduate) students. Advances in engineering innovation and technology have influenced how future engineers are educated. The education of future engineers requires modern technology-rich classrooms and study space to impart vertically integrated design curricula and experiential learning. Appropriate study spaces and laboratories with workshop facilities to facilitate design experiences are necessary to encourage students to work in teams on multidisciplinary projects. In order to effectively educate today’s technology-savvy undergraduate engineering students and provide them with modern cutting edge instructional methods, the existing Zachry Engineering Center will be renovated and expanded.

Scope:

The new Engineering Education Complex Project completely renovates the existing 350,000 gross square foot Zachry Engineering Center and will include additions to both the north and south sides of the existing building totaling 200,000 gross square feet. The resulting facility will encompass 550,000 square feet of space dedicated solely to undergraduate education. Of this total building area, 114,000 square feet will be shelled space. The project is located on the Texas A&M Main Campus south of University Drive, between Spence and Bizzell Streets. A site map is included with this agenda item.

The project program divides the building spaces into several categories. Education and general spaces are as follows:

- Education Center – These spaces include:
 - + Design Center – This will include spaces for student project fabrication and assembly, including state-of-the-art equipment for processes such as 3D rapid prototyping and injection molding
 - + Learning Studios – A total of 32 technology rich, active learning classrooms will be provided
 - + Academic Advising Center
 - + Learning Resource Center

Agenda Item No. 3
Agenda Item Briefing

- + Design Studios and informal gathering spaces to support group study and student and faculty interaction

A portion of this space will be shelled.

- Laboratories – A total of nine teaching laboratories will utilize modular space planning to provide safe, open, and flexible spaces for continuous student use. A portion of this space will be shelled.
- Public Interface – These spaces will include new entry atriums at the north and south additions, as well as renovation and reconfiguration of the existing Zachry atrium. Interactive exhibits will be included within these spaces to engage and inform visitors of activities within the facility.
- Administration – A number of office suites will house various administrative departments for the College of Engineering as well as provide office space for faculty and teaching assistants. Most administrative areas are dedicated to student support functions. A portion of this space will be shelled.
- Building Support – A receiving area, storage and janitorial rooms, and public restrooms will provide necessary services. The existing basement and a roof top penthouse will house all new mechanical equipment for the building.

Additional program spaces include:

- Common Amenities – These spaces will include a Technology Support Center and a Recreation and Fitness Center.
- Grab-n-Go Café – Providing limited food and beverages for the convenience of building occupants. This space will be shelled.

Site work will include relocating and upgrading all existing utilities and on-site storage for storm water. Landscaping will include new paving, seating areas, bicycle parking, plantings, and other amenities.

Construction on this project is currently scheduled to begin in February 2015 with substantial completion currently scheduled for September 2017. The total project budget is \$168,900,000.

Other Major Fiscal Impacts:

None.

Agenda Item No. 3

THE TEXAS A&M UNIVERSITY SYSTEM
FACILITIES PLANNING AND CONSTRUCTION
Office of the Executive Vice Chancellor and Chief Financial Officer
December 12, 2014

Members, Board of Regents
The Texas A&M University System

Subject: Approval of the Project Scope and Budget, Appropriation for Construction Services, and Approval for Construction for the Engineering Education Complex Project, Texas A&M University, College Station, Texas (Project No. 02-3155)

I recommend adoption of the following minute order:

“The project scope along with a project budget of \$168,900,000 for the Engineering Education Complex Project is approved.

The amount of \$77,115,000 is appropriated from Account No. 01-085520, Permanent University Fund Debt Proceeds, (AUF), the amount of \$68,250,000 is appropriated from Account No. 01-083536, Revenue Financing System Debt Proceeds (Gifts), the amount of \$6,600,000 is appropriated from Account No. 02-512857, Engineering Education Complex, the amount of \$900,000 is appropriated from Account No. 02-205960, Dean’s Leadership Funding; and the amount of \$2,500,000 is appropriated from Account No. 08-32600-97524, Zachry Engineering Education Complex, for construction services and related project costs. The amount of \$165,000 is reverted to Account No. 02-241414, Engineering Instructional Support.

The Engineering Education Complex Project, Texas A&M University, College Station, Texas, is approved for construction.

The Board of Regents of The Texas A&M University System (Board) reasonably expects to incur debt in one or more obligations for this project, and all or a portion of the proceeds received from the sale of such obligations is reasonably expected to be used to reimburse the account(s) for amounts previously appropriated and/or expended from such account(s).

As required by Section 5(a) of the Master Resolution of the Revenue Financing System, the Board hereby determines that it will have sufficient funds to meet the financial obligations of The Texas A&M University System, including sufficient Pledged Revenues to satisfy the Annual Debt Service Requirements of the Revenue Financing System and to meet all financial obligations of the Board relating to the Revenue Financing System and that

the Participants, on whose behalf the debt is issued, possess the financial capacity to satisfy their Direct Obligations.”

Respectfully submitted,

[ORIGINAL SIGNED BY]

Billy Hamilton
Executive Vice Chancellor and
Chief Financial Officer

Approval Recommended:

[ORIGINAL SIGNED BY]

John Sharp
Chancellor

Approved for Legal Sufficiency:

[ORIGINAL SIGNED BY]

Ray Bonilla
General Counsel

[ORIGINAL SIGNED BY]

Mark A. Hussey, Interim President
Texas A&M University

ATTACHMENT TO ITEM 3

ENGINEERING EDUCATION COMPLEX TEXAS A&M UNIVERSITY PROJECT NO. 02-3155	PROJECT BUDGET
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1.	Amount Available for Construction Contract.....	\$132,250,000
2.	Owner’s Contingency	5,874,100
3.	Architectural/Engineering Fees	9,653,235
4.	CMAR Pre-Construction Services.....	197,500
5.	Program of Requirements	165,000
6.	FP&C Project Management and Inspection Fees	4,360,300
7.	Movable Furnishings	5,000,000
8.	Audio Visual Equipment.....	3,825,000
9.	Environmental Systems Balancing	1,000,000
10.	Construction Testing.....	575,000
11.	Fiber Optic Interface.....	3,000,000
12.	Security System	780,000
13.	Physical Plant Services	150,000
14.	Building Envelope Testing	150,000
15.	Electrical Testing	15,000
16.	Other Project Costs	116,410
17.	Owner’s Builder’s Risk Insurance (FM Global).....	100,000
18.	Movable Equipment.....	1,000,000
19.	Engineering District Plan.....	588,455
20.	Artwork Allowance	<u>100,000</u>
21.	TOTAL ESTIMATED COST OF PROJECT.....	<u>\$168,900,000</u>

1. Project Kick-Off Meeting April 8-10, 2014
2. Program Validation Review May 8, 2014
3. Post Construction Manager at Risk (CMAR) RFP June 16, 2014
4. Receive CMAR Proposals July 7, 2014
5. CMAR Shortlist Meeting July 14, 2014
6. Interview Top Ranked Firms July 24, 2014
7. Shortlist Recommendation to Chancellor July 28, 2014
8. Chancellor/BOR Approval of CMAR Ranked Order August 11, 2014
9. Execute Contract with CMAR August 25, 2014
10. Schematic Design Complete September 18, 2014
11. Complete 100% Construction Documents – Bid Pkg. #1 & 2 December 22, 2014
12. Design Development Complete January 21, 2015
13. Board of Regents Approval for Construction February 13, 2015
14. Begin Construction – Pkg. #1 & 2 February 2015
15. Approve Guaranteed Maximum Price (GMP) from CMAR April 23, 2015
16. Complete 100% Construction Documents – Main Pkg. June 11, 2015
17. Begin Construction – Main Pkg. August 2015
18. Project Substantial Completion September 2017
19. Complete Furnishings Move In and Commissioning December 2017

Package #1 – Demolition/Abatement

Package #2 – Site Utility Relocation

Main Package – Remainder of Project Work

**TEXAS A&M UNIVERSITY
PERMANENT UNIVERSITY FUND
02-3155 Engineering Education Complex
Available University Fund**

Dates	Outstanding Principal	Principal Amount	Interest Amount	Annual Total
BONDS	91,395,000.00			
YEAR 1	88,555,000.00	2,840,000.00	4,341,262.50	7,181,262.50
YEAR 2	85,585,000.00	2,970,000.00	4,206,362.50	7,176,362.50
YEAR 3	82,470,000.00	3,115,000.00	4,065,287.50	7,180,287.50
YEAR 4	79,210,000.00	3,260,000.00	3,917,325.00	7,177,325.00
YEAR 5	75,795,000.00	3,415,000.00	3,762,475.00	7,177,475.00
YEAR 6	72,215,000.00	3,580,000.00	3,600,262.50	7,180,262.50
YEAR 7	68,465,000.00	3,750,000.00	3,430,212.50	7,180,212.50
YEAR 8	64,540,000.00	3,925,000.00	3,252,087.50	7,177,087.50
YEAR 9	60,425,000.00	4,115,000.00	3,065,650.00	7,180,650.00
YEAR 10	56,115,000.00	4,310,000.00	2,870,187.50	7,180,187.50
YEAR 11	51,600,000.00	4,515,000.00	2,665,462.50	7,180,462.50
YEAR 12	46,870,000.00	4,730,000.00	2,451,000.00	7,181,000.00
YEAR 13	41,920,000.00	4,950,000.00	2,226,325.00	7,176,325.00
YEAR 14	36,730,000.00	5,190,000.00	1,991,200.00	7,181,200.00
YEAR 15	31,295,000.00	5,435,000.00	1,744,675.00	7,179,675.00
YEAR 16	25,605,000.00	5,690,000.00	1,486,512.50	7,176,512.50
YEAR 17	19,640,000.00	5,965,000.00	1,216,237.50	7,181,237.50
YEAR 18	13,395,000.00	6,245,000.00	932,900.00	7,177,900.00
YEAR 19	6,855,000.00	6,540,000.00	636,262.50	7,176,262.50
YEAR 20	-	6,855,000.00	325,612.50	7,180,612.50
		<u>\$ 91,395,000.00</u>	<u>\$ 52,187,300.00</u>	<u>\$ 143,582,300.00</u>

Estimated issuance costs and rounding of \$895,000 are included in this schedule.
Long-term rates are assumed to be 4.75%. Rates are subject to market change.
Prepared by the Office of the Treasurer - Treasury Services 1/8/15

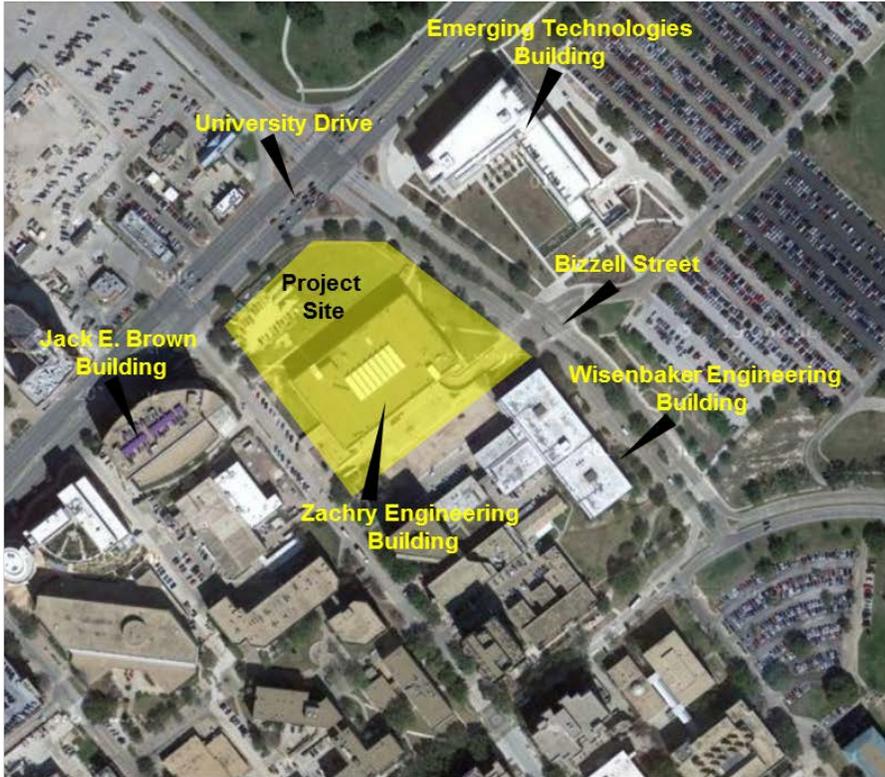
Rates are subject to market change. Amounts are preliminary estimates that will be revised at the time bonds are issued.

**TEXAS A&M UNIVERSITY
REVENUE FINANCING SYSTEM
02-3155 Engineering Education Complex
Gifts**

Dates	Outstanding Principal	Principal Amount	Interest Amount	Annual Total	Coverage 1.15x
Commercial Paper	68,250,000.00				
YEAR 1	62,015,000.00	6,235,000.00	1,365,000.00	7,600,000.00	8,740,000.00
YEAR 2	55,660,000.00	6,355,000.00	1,240,300.00	7,595,300.00	8,734,595.00
YEAR 3	49,175,000.00	6,485,000.00	1,113,200.00	7,598,200.00	8,737,930.00
YEAR 4	42,560,000.00	6,615,000.00	983,500.00	7,598,500.00	8,738,275.00
YEAR 5	35,815,000.00	6,745,000.00	851,200.00	7,596,200.00	8,735,630.00
YEAR 6	28,935,000.00	6,880,000.00	716,300.00	7,596,300.00	8,735,745.00
YEAR 7	21,915,000.00	7,020,000.00	578,700.00	7,598,700.00	8,738,505.00
YEAR 8	14,755,000.00	7,160,000.00	438,300.00	7,598,300.00	8,738,045.00
YEAR 9	7,450,000.00	7,305,000.00	295,100.00	7,600,100.00	8,740,115.00
YEAR 10	-	7,450,000.00	149,000.00	7,599,000.00	8,738,850.00
		<u>\$ 68,250,000.00</u>	<u>\$ 7,730,600.00</u>	<u>\$ 75,980,600.00</u>	<u>\$ 87,377,690.00</u>

Short-term rates are assumed to be 2.00%. Rates are subject to market change.
Assuming that project will remain in commercial paper until paid off in ten years.
Prepared by the Office of the Treasurer - Treasury Services 1/8/15

Rates are variable and subject to market change.



Engineering Education Complex

Texas A&M University

Project No. 02-3155