Agenda Item No. 3.7

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 Center for Infrastructure Renewal Project, Texas A&M Engineering Experiment Station, College Station, Texas (Project No. 28-3196)

Background and Prior Actions:

The Center for Infrastructure Renewal (CIR) Project was included as an approved project on the FY 2016-FY 2020 A&M System Capital Plan approved by the Board at the September 2015 meeting.

Proposed Board Action:

(1) Approve the project scope and budget.

(2) Appropriate $73,000,000 for construction services and related project costs and revert previous appropriations to the source account.

(3) Approve construction of the CIR Project for the Texas A&M Engineering Experiment Station (TEES).

Funding/Budget Amount:

Funding Source	Budget Amount	Average Estimated Annual Debt Service	Debt Service Source
Revenue Financing System Debt Proceeds	$68,000,000	$5,000,000	General Revenue*
Revenue Financing System Debt Proceeds	$ 5,000,000	$396,699	Indirect Cost Recoveries
Total Project Funds	$73,000,000		

*Debt service will be paid from institutional funds until the General Revenue is available on September 1, 2016.

Project Justification:

The CIR, a building for TEES, is envisioned as a collaborative and interdisciplinary engineering research facility focusing on all facets of infrastructure research. The facility will incorporate research teams from across the university including TEES, the Texas A&M Transportation Institute (TTI), and College of Engineering. The research conducted in the building is intended to make a positive impact on the nation's infrastructure by researching issues related to improved safety, security, efficiency, performance, longevity, hazard resiliency, and sustainability.

The facility will contain collaborative, multi-use spaces and include shared facilities that support interdisciplinary engineering research teams. In particular, the high bay and mid bay spaces (at ~60' and 40' high respectively) will support research teams from many departments. The facility will also include several specialized laboratories conducting cutting-edge research in smart grid technology, connected vehicle sensors and corrosion sciences.

The facility will be located at the Riverside Campus, near State Highway 21, creating a unique destination for faculty and showcase the depth and diversity of research at the university.

The impetus for this facility is two-pronged. First, the university has launched an effort to have 25,000 engineering students by the year 2025 – an initiative titled "25 by 25." This initiative is prompting a physical space reallocation and expansion effort. Existing engineering research space on main campus will mostly be moved elsewhere to other campus locations to make way for an expansion of academic space dedicated to the College of Engineering. As part of this effort, the large academic engineering facility on main campus called the Zachry Building is undergoing a substantial renovation and expansion – a project called the "Engineering Education Complex" (EEC). A feature outdoor green open space is envisioned on the south end of the Zachry Building prompting the demolition of three engineering research facilities: the McNew Laboratory, the Concrete Materials Laboratory, and the high-bay space connected to Wisenbaker Engineering Building.

Second, the university bolsters its research capabilities by identifying distinct, if not unique, destination-research facilities that attract the best and brightest researchers from around the world. The CIR fits this quest.

Scope:

The CIR is envisioned as a state-of-the-art engineering research facility that houses interdisciplinary researchers dedicated to improving the nation's infrastructure. The facility will bring together multiple research arms of the university including the College of Engineering, TEES and TTI. The facility will also host professional development/training.

The CIR Project A/E team is charged with the responsibility of establishing the final locations, configuration, and layout taking into consideration site conditions and requirements established in this program.

All construction in this project shall meet all applicable codes and standards identified within the Facility Design Guidelines including National Fire Protection Association Life Safety Codes and Texas Accessibility Standards.

Construction on this project is scheduled to start in September 2016 with substantial completion scheduled for November 2017. The total project budget is $73,000,000.

Other Major Fiscal Impacts:

None.

Agenda Item No. 3.7

THE TEXAS A&M UNIVERSITY SYSTEM
FACILITIES PLANNING AND CONSTRUCTION
Office of the Executive Vice Chancellor and Chief Financial Officer
March 11, 2016

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 Center for Infrastructure Renewal Project, Texas A&M Engineering Experiment Station, College Station, Texas (Project No. 28-3196)

I recommend adoption of the following minute order:

"The project scope along with a project budget of $73,000,000 for the Center for Infrastructure Renewal Project is approved.

The amount of $68,000,000 is appropriated from Account No. 01-083536, Revenue Financing System Debt Proceeds (General Revenue), and the amount of $5,000,000 is appropriated from Account No. 01-083536, Revenue Financing System Debt Proceeds (Indirect Cost Recoveries), for construction services and related project costs. The amount of $6,800,000 is reverted to Account No. 28-810044, Center for Infrastructure Renewal.

The Center for Infrastructure Renewal Project, Texas A&M Engineering Experiment Station, 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

[ORIGINAL SIGNED BY]
M. Katherine Banks
Vice Chancellor and Dean of Engineering
Director, Texas A&M Engineering Experiment Station

Approved for Legal Sufficiency:

[ORIGINAL SIGNED BY]
Ray Bonilla
General Counsel

CENTER FOR INFRASTRUCTURE RENEWAL **PROJECT BUDGET**
TEXAS A&M ENGINEERING EXPERIMENT STATION
PROJECT NO. 28-3196

1.	Amount Available for Construction Contract	$55,475,775
2.	Owner's Contingency	2,407,106
3.	Architectural/Engineering Fees	5,079,400
4.	CMAR Pre-Construction Services	155,000
5.	Owner Supplied Insurance	1,360,000
6.	FP&C Project Management and Inspection Fees	1,884,560
7.	Movable Furnishings	2,434,970
8.	Audio Visual Equipment	1,505,023
9.	Environmental Systems Balancing	312,507
10.	Construction Testing	354,234
11.	Security System	208,338
12.	Interagency and Other Costs	263,613
13.	Physical Plant Services	1,459,474
14.	Building Envelope Consultant	100,000
15.	TOTAL ESTIMATED COST OF PROJECT	$73,000,000

CENTER FOR INFRASTRUCTURE RENEWAL **PROJECT SCHEDULE**
TEXAS A&M ENGINEERING EXPERIMENT STATION
PROJECT NO. 28-3196

1. A/E Notice to Proceed/Kick-Off Meeting .....January 21, 2016
2. Finalize Building Footprint.....February 20, 2016
3. First Cost Estimate .....March 1, 2016
4. Second Cost Estimate .....April 1, 2016
5. Board of Regents Approval for Construction .....April 27, 2016
6. Notice to Proceed .....September 2016
7. Construction Substantial Completion ..... November 2017
8. Owner Occupancy.....December 2017

TEXAS A&M ENGINEERING EXPERIMENT STATION
REVENUE FINANCING SYSTEM
28-3196 Center for Infrastructure Renewal
General Revenue

Dates	Outstanding Principal	Principal Amount	Interest Amount	Annual Total
BONDS	68,000,000.00			
YEAR 1	65,713,673.00	2,286,327.00	2,713,671.94	4,999,998.94
YEAR 2	63,336,122.00	2,377,551.00	2,622,447.48	4,999,998.48
YEAR 3	60,863,706.00	2,472,416.00	2,527,583.20	4,999,999.20
YEAR 4	58,292,641.00	2,571,065.00	2,428,933.80	4,999,998.80
YEAR 5	55,618,990.00	2,673,651.00	2,326,348.32	4,999,999.32
YEAR 6	52,838,661.00	2,780,329.00	2,219,669.64	4,999,998.64
YEAR 7	49,947,396.00	2,891,265.00	2,108,734.52	4,999,999.52
YEAR 8	46,940,770.00	3,006,626.00	1,993,373.04	4,999,999.04
YEAR 9	43,814,180.00	3,126,590.00	1,873,408.66	4,999,998.66
YEAR 10	40,562,839.00	3,251,341.00	1,748,657.72	4,999,998.72
YEAR 11	37,181,769.00	3,381,070.00	1,618,929.22	4,999,999.22
YEAR 12	33,665,794.00	3,515,975.00	1,484,024.52	4,999,999.52
YEAR 13	30,009,532.00	3,656,262.00	1,343,737.12	4,999,999.12
YEAR 14	26,207,385.00	3,802,147.00	1,197,852.26	4,999,999.26
YEAR 15	22,253,533.00	3,953,852.00	1,046,146.60	4,999,998.60
YEAR 16	18,141,922.00	4,111,611.00	888,387.90	4,999,998.90
YEAR 17	13,866,258.00	4,275,664.00	724,334.62	4,999,998.62
YEAR 18	9,419,995.00	4,446,263.00	553,735.64	4,999,998.64
YEAR 19	4,796,326.00	4,623,669.00	376,329.74	4,999,998.74
YEAR 20	-	4,796,326.00	191,853.04	4,988,179.04
		$ 68,000,000.00	$ 31,988,158.98	$ 99,988,158.98

Long-term rates are assumed to be 4.00%. Rates are subject to market change.
Prepared by the Office of the Treasurer - Treasury Services 3/9/16

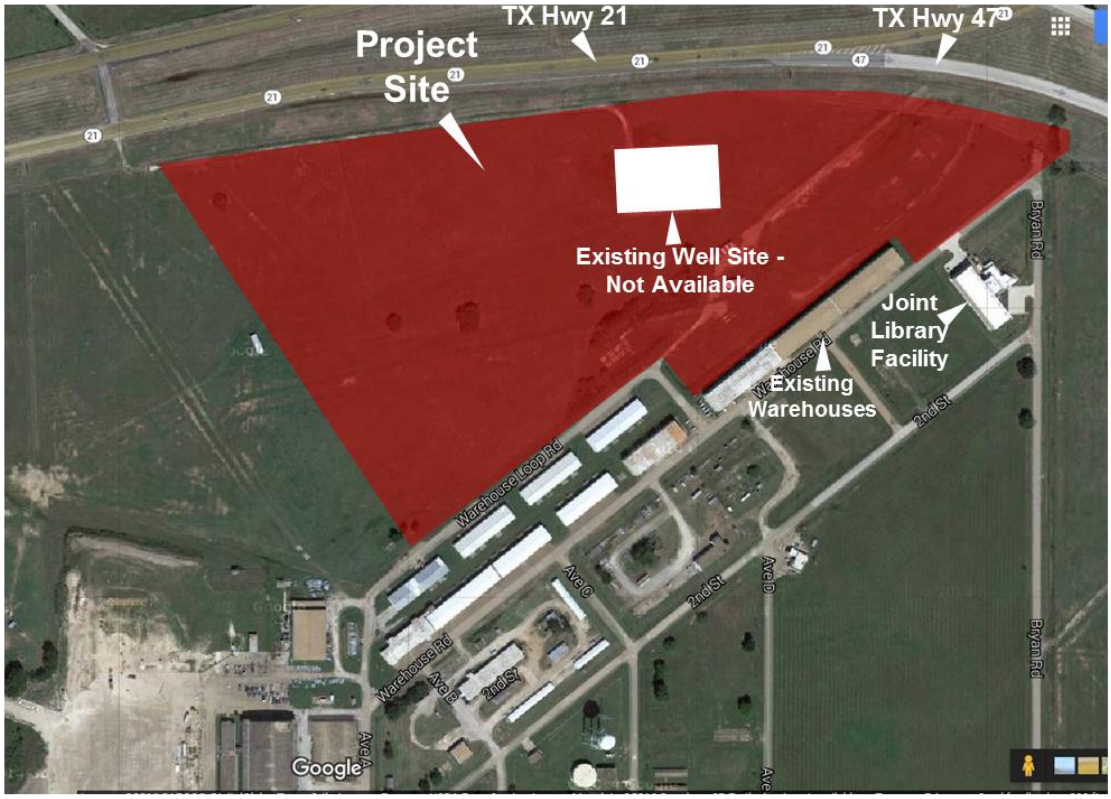
Rates are subject to market change. Amounts are preliminary estimates tha revised at the time bonds are issued.

TEXAS A&M ENGINEERING EXPERIMENT STATION
REVENUE FINANCING SYSTEM
28-3196 Center for Infrastructure Renewal
Indirect Cost Recoveries

Dates	Outstanding Principal	Principal Amount	Interest Amount	Annual Total	Coverage 1.15x
BONDS	5,050,000.00				
YEAR 1	4,895,000.00	155,000.00	239,875.00	394,875.00	454,106.25
YEAR 2	4,730,000.00	165,000.00	232,512.50	397,512.50	457,139.38
YEAR 3	4,560,000.00	170,000.00	224,675.00	394,675.00	453,876.25
YEAR 4	4,380,000.00	180,000.00	216,600.00	396,600.00	456,090.00
YEAR 5	4,190,000.00	190,000.00	208,050.00	398,050.00	457,757.50
YEAR 6	3,990,000.00	200,000.00	199,025.00	399,025.00	458,878.75
YEAR 7	3,780,000.00	210,000.00	189,525.00	399,525.00	459,453.75
YEAR 8	3,565,000.00	215,000.00	179,550.00	394,550.00	453,732.50
YEAR 9	3,340,000.00	225,000.00	169,337.50	394,337.50	453,488.13
YEAR 10	3,100,000.00	240,000.00	158,650.00	398,650.00	458,447.50
YEAR 11	2,850,000.00	250,000.00	147,250.00	397,250.00	456,837.50
YEAR 12	2,590,000.00	260,000.00	135,375.00	395,375.00	454,681.25
YEAR 13	2,315,000.00	275,000.00	123,025.00	398,025.00	457,728.75
YEAR 14	2,030,000.00	285,000.00	109,962.50	394,962.50	454,206.88
YEAR 15	1,730,000.00	300,000.00	96,425.00	396,425.00	455,888.75
YEAR 16	1,415,000.00	315,000.00	82,175.00	397,175.00	456,751.25
YEAR 17	1,085,000.00	330,000.00	67,212.50	397,212.50	456,794.38
YEAR 18	740,000.00	345,000.00	51,537.50	396,537.50	456,018.13
YEAR 19	380,000.00	360,000.00	35,150.00	395,150.00	454,422.50
YEAR 20	-	380,000.00	18,050.00	398,050.00	457,757.50
		$ 5,050,000.00	$ 2,883,962.50	$ 7,933,962.50	$ 9,124,056.90

Estimated issuance costs and rounding of $50,000 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 3/9/16

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


TX Hwy 21
TX Hwy 47
Project Site
Existing Well Site - Not Available
Joint Library Facility
Existing Warehouses
Warehouse Loop Rd
Warehouse Rd
Ave C
Ave D
2nd St
Bryan Rd
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