

Capital Budget Request

Construct Animal Production and Livestock Facilities

Overview

Agency	Virginia Cooperative Extension and Agricultural Experiment Station (229)
Project Code	none
Project Type	New Construction
Biennium	2014-2016
Budget Round	Initial Bill
Request Origin	New Project
Building Name	
Project Location	Roanoke Area
Facility/Campus	Other
Source of Request	Agency Request
Building Function	Higher Education - Cooperative Extension and Agricultural Experiment Station -- 100% E&G
Infrastructure Element	Laboratory / Classroom
Contains significant technology costs? No	
Contains significant energy costs? No	

Agency Narrative

Agency Description

This project has been on the university's plan since 2011, formerly titled Animal Production Facility and is included in the first biennium as a high priority to upgrade and replace deteriorated facilities in five of the College of Agriculture and Life Sciences animal and livestock programs. The project will provide new replacement facilities at the Blacksburg campus and three nearby university production and research farms.

Based on analysis of the Animal and Land Use Study undertaken by the College of Agriculture and Life Sciences, the Department of Animal and Poultry Science's Sheep, Poultry, Swine, Equine and Beef/Cattle animal programs each identified buildings and facilities that are deteriorated and are beyond repair; facilities that cannot continue to efficiently serve animal program production, animal housing, on-going instruction and scientific research. Several other facilities serving multi-use facilities serving animal programs were also evaluated and determined to require major renovation.

Justification

Program description:

These animal production and livestock buildings will support the Department of Animal and Poultry Science and its instructional and research programs. In total the proposed renovation and new facilities total 196,300 gross square feet (GSF).

- Multi-use Facilities serving multiple animal programs will include a Livestock Holding building, a Judging Pavilion, a Hay and Equipment Storage building and a Feed Mill facility all totaling 59,650 GSF.
- Beef/Cattle program: Facilities will include renovations to Beef/Cattle facilities at Plantation Rd., a new research facility at Kentland Farm, a calving facility, a Central Working Facility, renovations to the Grow Safe Facility, and a new Dairy/Beef Facility each at Kentland Farm all totaling 34,400 GSF.
- Equine program: Facilities will include an Equine Housing/Exercise facility, a 20-stall Barn, a Foaling Facility, a new Stallion Facility and a new Research/Extension Program facility all totaling 34,400 GSF.
- Sheep program: Facilities will include a new Sheep Center Facility at Moore Farm totaling 12,500 GSF.
- Poultry program- Broiler Layer Research: Facilities will include new a new Grow-out facility, a new Breeder and Layer House, a new Battery Cage and Isolation facility, a new Hatchery facility, a new processing facility, a new Feed Processing facility, a new Laboratory/Office building and a new Classroom Building all totaling 44,500 GSF.
- Poultry program- Breeding/Genetics: Facilities will include a teaching Building, a new Hatchery facility, a new Battery House, a new Breeder House, a new Grow-out facility, a new Cage Layer House, a new Pullet-Layer house, a new Neuroscience Laboratory and Animal Rearing Facility and a new Laboratory Building all totaling 39,500 GSF.
- Swine program: Facilities will include a new Gestation House, a new Farrowing house, and a new Finishing & Nursery house all totaling 6,000 GSF.

The university strategic plan includes principal strategies that this important project will help to accomplish including:

- Creating meaningful partnerships with businesses and government entities to address complex problems by co-locating researchers and practitioners in "living labs"

- Increasing undergraduate involvement in meaningful research experiences and experiential learning (hands on minds on).
- Emphasizing translational research and scholarship
- Maintaining growth in research expenditures toward a target of \$680 million by 2018.

Existing facilities:

Many of the current Department of Animal and Poultry Science facilities are deteriorated beyond repair and do not offer practical renovation or upgrade possibilities. Other facilities require major renovation to continue in operation. Without these facilities animal production, animal sciences instruction and applied research cannot continue of progress.

The following totals by program gross square feet in existing facilities to either be replaced by the new proposed animal production and livestock facilities or animal production and livestock buildings planned for significant renovation:

- Multi-use Facilities: totaling 9,573 GSF.
- Beef/Cattle program: totaling 40,390 GSF.
- Equine program: totaling 19,800 GSF.
- Sheep program: Facilities will include a new Sheep Center Facility at Moore Farm totaling 11,500 GSF.
- Poultry program: Broiler Layer Research and Breeding/Genetics: totaling 38,600 GSF.
- Swine program: totaling 14,432 GSF.

The university's strategic plan includes the following principle strategies that will be supported by completion of this project:

- Increasing the number of our programs recognized as among the best internationally
- Establishing a distinctive and globally recognized profile
- Emphasizing translational research and scholarship
- Building upon existing and emerging strengths
- Maintaining growth in research expenditures toward a target of \$680 million by 2018.
- Increasing graduate enrollment toward a target of an additional 1,000 students
- Increasing the number of post-doctoral positions in STEM-H research areas.
- Creating meaningful partnerships with businesses and government entities to address complex problems by co-locating researchers and practitioners in "living labs"
- Increasing undergraduate involvement in meaningful research experiences and experiential learning (hands on minds on)

Funding Plan:

The program for this project is 100 percent Educational and General for the Cooperative Extension/Agricultural Experiment Station; thus, the funding plan calls for 100 percent state support.

Alternatives Considered

Options considered include renovation of other existing animal facilities to house animals and deferral of the project. Renovation of other existing facilities would be costly as facilities would require major reconfigurations to the specified animal breed and population. Deferral of this project to a future biennium is also rejected because of the urgent need for improvements and the on-going impact on the quality of instruction and research.

Costing Methodology

The construction costs are based on the efforts of an external cost consultant, which analyzed the program requirements and compared to current market building comparables within university settings. Soft cost estimates developed by university staff based on historical data costing analysis and trends over the past eight years. The project is anticipated to have moderate site conditions and will use an appropriate construction delivery method for the size and complexity of the project. Project costs are estimated to the mid-point of construction using three percent escalation in accordance with the instructions for developing the Six-Year Capital Outlay Plan.

Agency Funding Request				
Phase	Year	Fund	Subobject	Requested Amount
Construction	2015	0100 - General Fund	2322 - Construction, Buildings	\$49,087,000
Total				\$49,087,000
Project Costs				
Cost Type	Total Project Costs	Requested Funding	DGS Rec	
Acquisition Cost	\$0	\$0	\$0	
Building & Built-in Equipment	\$32,061,000	\$32,061,000	\$0	
Sitework & Utility Construction	\$4,808,000	\$4,808,000	\$0	
Construction Cost Total	\$36,869,000	\$36,869,000	\$0	
Design & related Services from Other Costs tab	\$3,457,000	\$3,457,000	\$0	
Inspection & Testing Services from Other Costs tab	\$1,561,000	\$1,561,000	\$0	
Project Management & Other Costs from Other Costs tab	\$4,213,000	\$4,213,000	\$0	

Furnishings & Movable Equipment	\$1,512,000	\$1,512,000	\$0
Construction Contingency	\$1,475,000	\$1,475,000	\$0
Total Project Cost	\$49,087,000	\$49,087,000	\$0

Capacity

Cost Type	Unit of Measure	Units	Cost Per Unit
Acquisition Cost		0	\$0
Construction Cost	GSF	196,300	\$188
Total Project Cost	GSF	196,300	\$250

Other Costs

Cost Type	Total Project Costs	Requested Funding	DGS Rec
Design & Related Service Items			
A/E Basic Services	\$3,042,000	\$3,042,000	
A/E Reimbursables	\$0	\$0	
Specialty Consultants (Food Service, Acoustics, etc.)	\$0	\$0	
CM Design Phase Services	\$0	\$0	
Subsurface Investigations (Geotech, Soil Borings)	\$84,000	\$84,000	
Land Survey	\$0	\$0	
Archeological Survey	\$0	\$0	
Hazmat Survey & Design	\$0	\$0	
Value Engineering Services	\$77,000	\$77,000	
Cost Estimating Services	\$76,000	\$76,000	
Other Design & Related Services	\$178,000	\$178,000	
Design & Related Services Total	\$3,457,000	\$3,457,000	
Inspection & Testing Service Items			
Project Inspection Services (inhouse or consultant)	\$845,000	\$845,000	
Project Testing Services (conc., steel, roofing, etc.)	\$716,000	\$716,000	
Inspection & Testing Services Total	\$1,561,000	\$1,561,000	
Project Management & Other Cost Items			
Project Management (inhouse or consultant)	\$690,000	\$690,000	
Work By Owner	\$55,000	\$55,000	
BCOM Services	\$0	\$0	
Advertisements	\$0	\$0	
Printing & Reproduction	\$0	\$0	
Moving & Relocation Expenses	\$165,000	\$165,000	
Data & Voice Communications	\$1,464,000	\$1,464,000	
Signage	\$67,000	\$67,000	
Demolition	\$0	\$0	
Hazardous Material Abatement	\$0	\$0	
Utility Connection Fees	\$321,000	\$321,000	
Utility Relocations	\$0	\$0	
Commissioning	\$320,000	\$320,000	
Miscellaneous Other Costs	\$1,131,000	\$1,131,000	
Project Management & Other Costs Total	\$4,213,000	\$4,213,000	

Operating and Maintenance Costs (Agency)

Cost Type	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
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GF Dollars	\$0	\$1,125,946	\$1,159,724	\$1,194,516	\$1,230,352	\$1,267,262
NGF Dollars	\$0	\$0	\$0	\$0	\$0	\$0
GF Positions	0.00	4.89	4.89	4.89	4.89	4.89
NGF Positions	0.00	0.00	0.00	0.00	0.00	0.00
GF Transfer	\$0	\$0	\$0	\$0	\$0	\$0
GF Revenue	\$0	\$0	\$0	\$0	\$0	\$0
Layoffs	0	0	0	0	0	0

Planned start date of new O&M costs (if different than the beginning of the fiscal year):---

Supporting Documents

No supporting documents for this adjustment

Workflow History

Step Name	User Name	Claimed	Submitted
Enter Capital Budget Request	Rob Mann	06/20/2013 06:05 PM	06/20/2013 06:05 PM
Continue Drafting	Rob Mann	06/20/2013 06:05 PM	06/20/2013 06:13 PM
Continue Drafting	Rob Mann	06/21/2013 10:43 AM	06/21/2013 10:44 AM
Agency Review Step 1	Bob Broyden	06/21/2013 03:08 PM	06/21/2013 03:11 PM
Ready for DPB Submission	Rob Mann	06/21/2013 05:28 PM	06/21/2013 05:28 PM
DPB Review	Anne Smith	06/24/2013 04:29 PM	06/24/2013 04:30 PM
DPB Review			