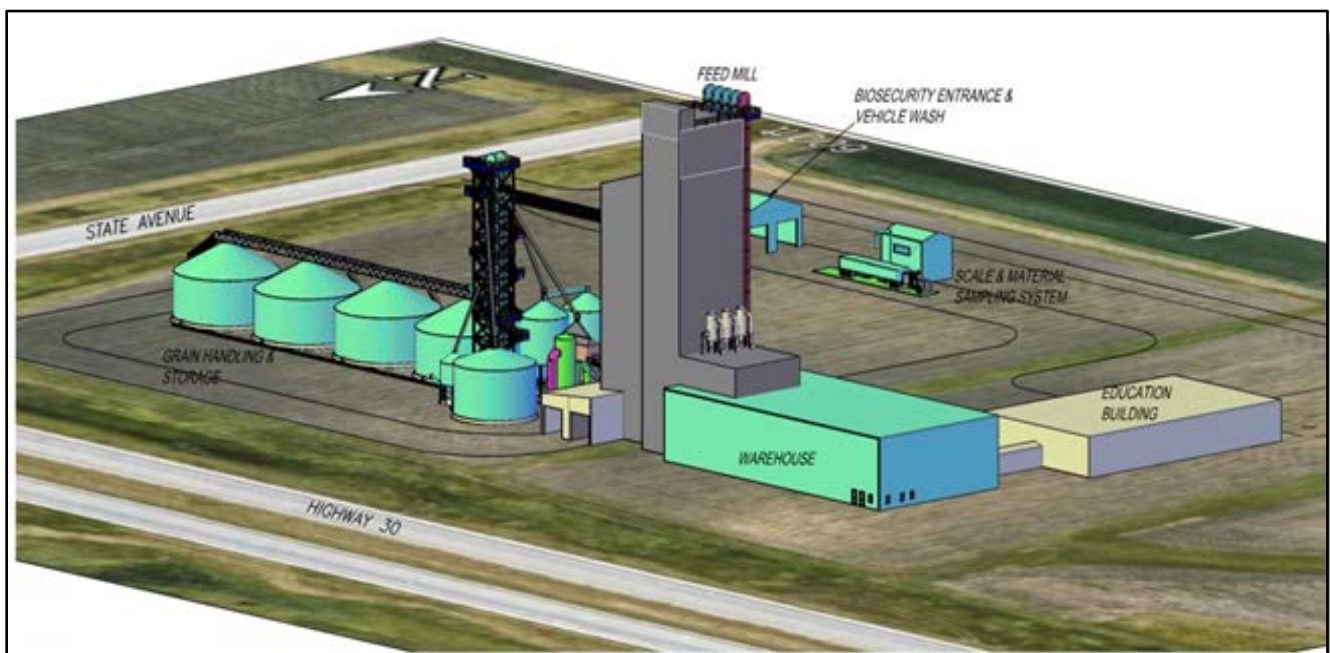


Contact: John Nash

**REGISTER OF IOWA STATE UNIVERSITY
CAPITAL IMPROVEMENT BUSINESS TRANSACTIONS**

Actions Requested: Consider recommending to the Board approval of:

1. Permission to Proceed with Project Planning for the
 - **Utilities–Power Plant–Station Power Improvements project**, including the design professional selection process.
2. Schematic Design, Project Description and Budget for the:
 - **Curtiss Farm-Feed Mill and Grain Science Complex** (\$21,200,000) project with the understanding that approval is authorization to proceed with construction.



Iowa State University's Curtiss Farm – Feed Mill and Grain Science Complex,
looking southeast

3. **Revised** Project Description and Budget for the:
 - **Poultry Farm – Teaching and Research Facilities** (\$6,780,000, previously \$5,750,000) project with the understanding that approval is authorization to proceed with construction.

ISU project #1 of 3
Utilities–Power Plant–Station Power Improvements

Executive Summary: This project would replace a 50-year-old electrical system called the “station power system” that is inside of the university’s Power Plant. The replacement would be executed in multiple phases over multiple years in order to maintain smooth plant operations. The estimated project budget of \$14,000,000 to \$16,000,000 would be funded by Utility Repair Fund and Utility Infrastructure Fund.

Background:

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Jun. 2019	Requested

The “station power system” consists of 5,000 and 15,000-volt switchgear, internal substations, 480-volt load centers, motor control centers and essential power systems for the cogeneration of steam, electricity and chilled water.

The “station power system” has outlived its useful life. The equipment is obsolete and does not meet safety requirements. In addition, plant operations have changed and the “station power system” does not provide the needed redundancy to ensure uninterrupted utility services to the campus.

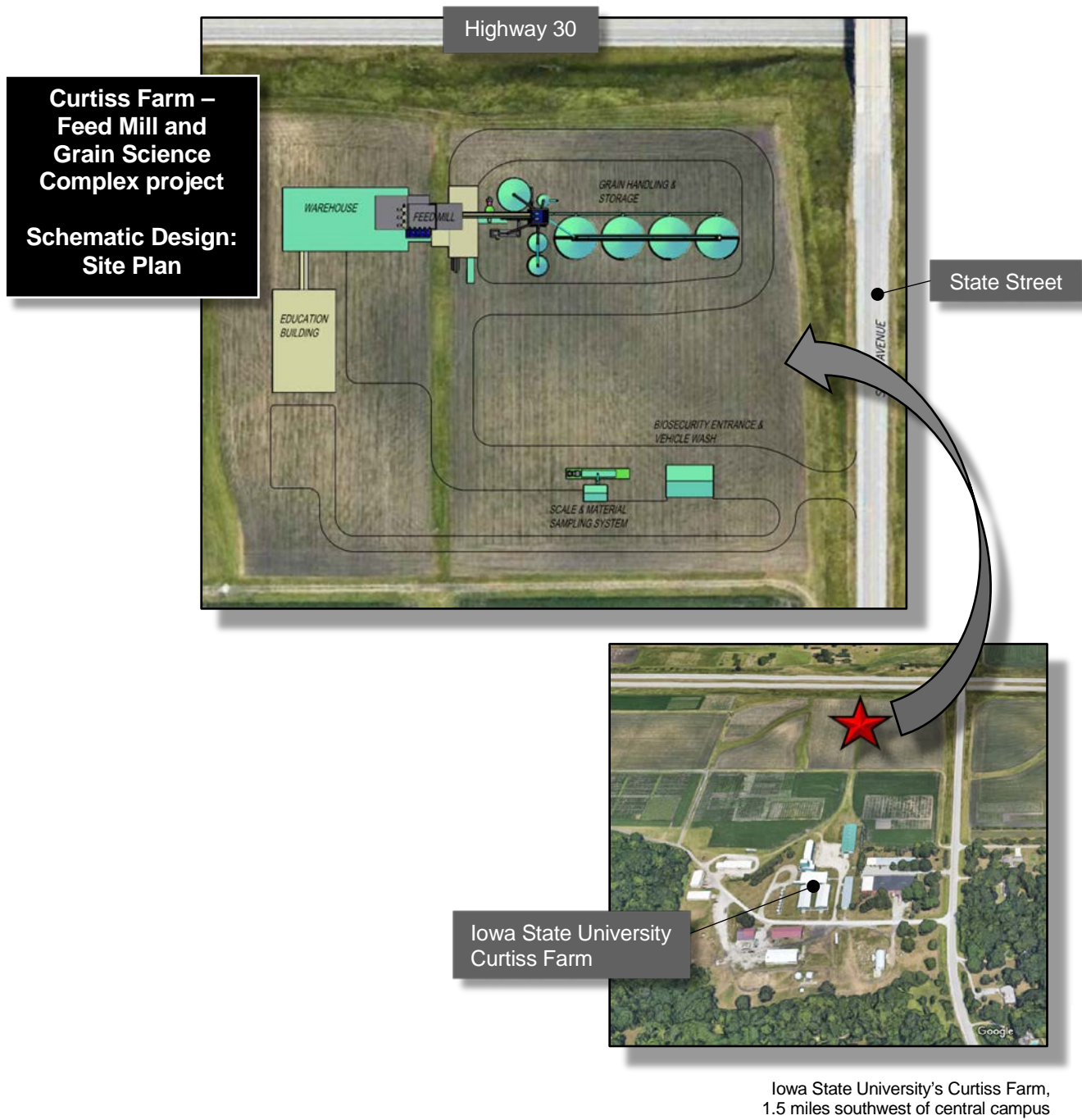
Project Location



Iowa State University, northeast of central campus

ISU project #2 of 3
Curtiss Farm-Feed Mill and Grain Science Complex

Executive Summary: To demonstrate a commercial feed mill operation and train future feed mill managers, this project would construct a six building complex to house 47,000 square feet of teaching, research and outreach facilities at ISU's Curtiss Farm. The project budget of \$21,200,000 would be funded by Private Giving.



Background: The new three-building complex would replace the university's three existing feed mills that are outdated and non-compliant with modern worker and feed safety laws. The strategy envisioned with this project's on-site grain handling and storage facility would increase the power of research results by reducing corn and diet nutrient variability, starting with control of base ingredients. Multi-species animal feed would be produced to support and enhance the university's teaching, extension and diverse research grain science activities.

This project would help meet the university's need for customized, yet affordable, livestock feed, help train students to fill an employment shortage in the feed and grain industries, and meet other significant Iowa agriculture needs.

A feed mill (tower), education building, grain handling and storage building, warehouse, scale and material sampling building, and vehicle wash building would all be located on five acres of the 141 acre Iowa State University Curtiss Farm, one and a half miles southwest of campus. Parking, driveways, site work, and utilities would also be included in the project.

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Jun. 2018	Approved
Use of Alternative Project Delivery Methods		Jun. 2018	Approved
Design Build Bridging Professional Selection			
➤ Curry-Wille, Des Moines		Oct. 2018	Not Required*
Design Build Bridging Professional Agreement			
➤ Schematic Design only	\$ 323,573	Dec. 2018	Not Required*
Use of alternative delivery methods		Jun. 2018	Approved
Program Statement		May 2019	Not Required*
Schematic Design		Jun. 2019	Requested
Project Description and Budget	\$21,200,000	Jun. 2019	Requested
	To be		
Design Build Firm Selection and Contract	determined	Aug. 2019	Not Required*

* Approved by Executive Director, consistent with Board policy.

Budget

Planning, Design & Management	\$ 18,026,100
Construction	2,130,910
Furniture & Equipment	400,000
Contingency	642,990
Total	\$ 21,200,000

Source of Funds

Private Giving

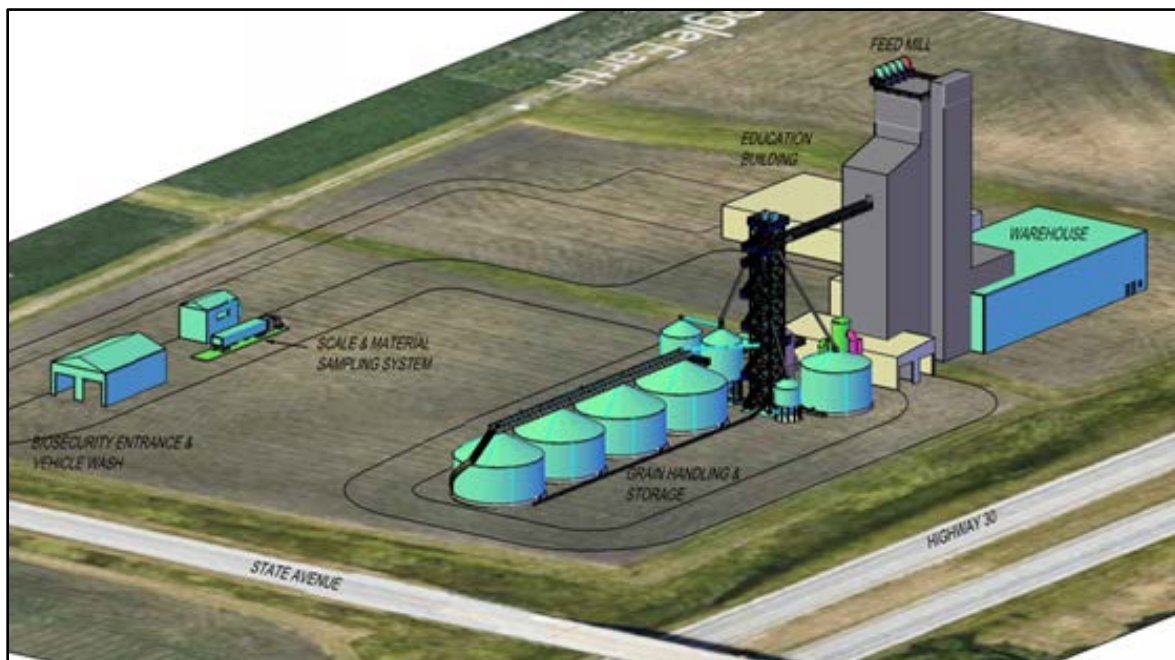
Schedule

Construction: Fall 2019 – Spring 2021

Building Program

	Approved Building Program	Schematic Design
Feed Mill	6,500	6,500
Education Building	11,150	11,150
Grain Handling & Storage	12,200	12,200
Warehouse	12,800	12,800
Scale & Material Sampling	1,050	1,050
Vehicle Wash	3,200	3,200
Total Gross Square Feet	46,900	46,900

Schematic Design: Rendering



Iowa State University's Curtiss Farm – Feed Mill and Grain Science Complex,
looking southwest

**ISU project #3 of 3
Poultry Farm-Teaching & Research Facilities**

Executive Summary: Since the first revised budget, approved by the Board in November 2018, the university has determined the need for two new separate buildings for the teaching and research of turkeys. This second revised budget is for \$6,780,000, is an increase of \$1,030,000, and would be funded by Private Giving.

Background: The project would be a three building complex, including the 21,000 square foot main building for the teaching and research of chickens and these two new buildings. When not used for the teaching and research of turkeys, the two new buildings would be used for chicken research. All nine existing 1960's buildings would still be demolished.

	<u>Amount</u>	<u>Date</u>	<u>Board Action</u>
Permission to Proceed with Project Planning		Oct. 2017	Approved
Use of Alternative Project Delivery Methods		Oct. 2017	Approved
Design Professional Value Engineering			
➤ Henning Companies, Johnston	\$50,000	Aug. 2018	Not Required*
Design Build Bridging Consultant			
➤ ISU Facilities, Planning & Management		Sep. 2018	Not Required*
Project Description and Budget	\$5,000,000	Feb. 2018	Approved
Proposed Naming		Apr. 2018	Approved
Design Build Interviews, Proposals		Jul. 2018	Not Required*
Program Statement		Oct. 2018	Not Required*
Revised Project Description and Budget #1	\$5,750,000	Nov. 2018	Approved
Design Build Firm Selection and Contract			
➤ Henning Companies, Johnston	\$5,250,000	Dec. 2018	Not Required*
Revised Project Description and Budget #2	\$6,780,000	Jun. 2019	Requested

* Approved by Executive Director, consistent with Board policies.

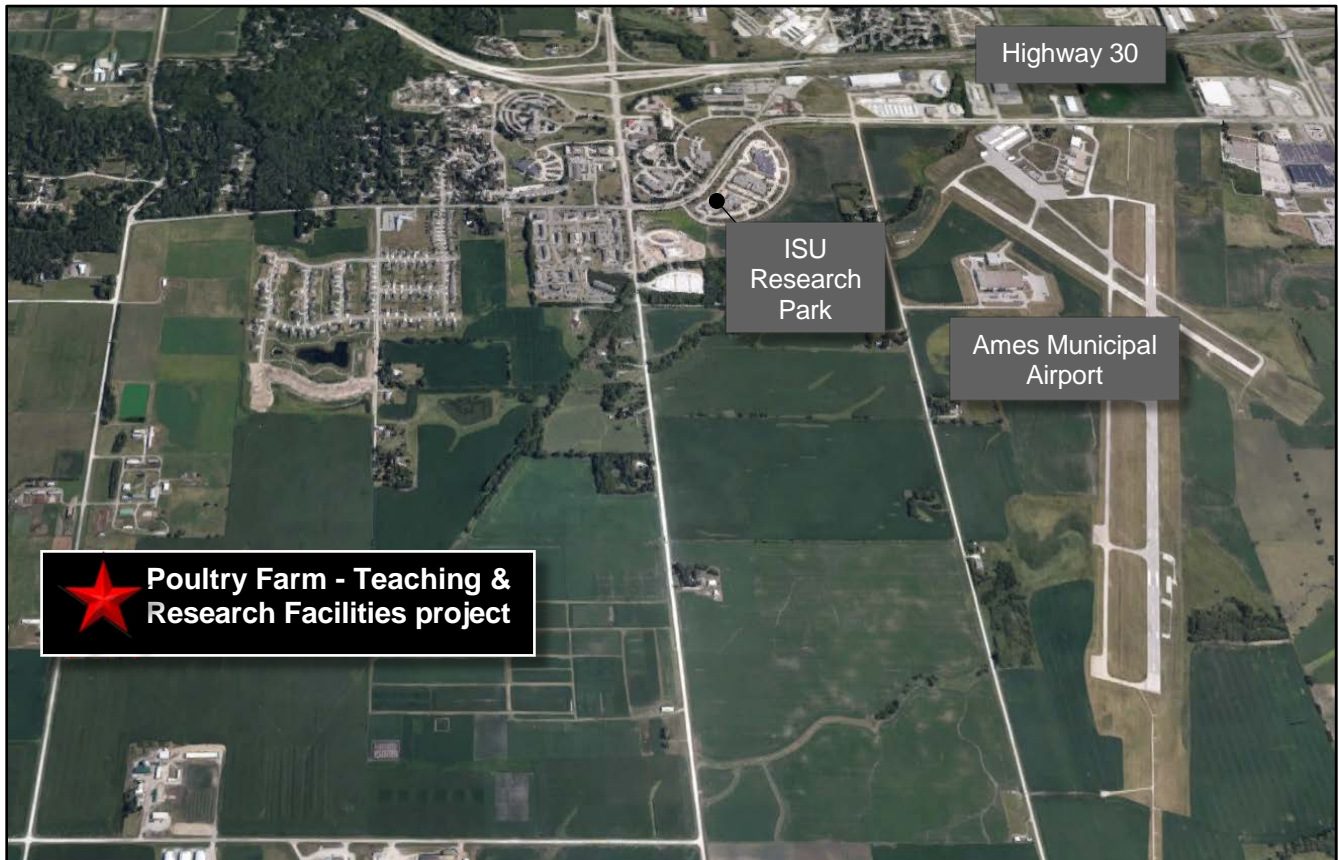
Educational and research needs in breeding, genetics, housing systems, flock management, nutrition and environmental well-being would be accommodated through this project. The facility would be versatile and adaptable to the ever-changing needs of the poultry industry. Important features like biosecurity and isolation would be implemented.

	Budget		
	Original (Feb. 2018)	Revision #1 (Nov. 2018)	Revision #2 (Jun. 2019)
Construction	\$ 4,514,000	\$ 5,320,250	\$ 6,202,010
Planning, Design & Management	340,600	412,100	509,380
Furniture & Equipment	14,050	10,000	-
Contingency	131,350	7,650	68,610
Total	\$ 5,000,000	\$ 5,750,000	\$ 6,780,000

Source of Funds
Private Giving

Schedule
Construction: Fall 2019 through Fall 2020

Project Location



Iowa State University Poultry Farm,
two miles south of central campus, looking north

