

**GUARANTEED MAXIMUM PRICE
FOR
ANIMAL DISEASE RESEARCH AND DIAGNOSTIC LABORATORY ADDITION AND
RENOVATION (OSE #R0315-63X)
STATE OF SOUTH DAKOTA AND SOUTH DAKOTA STATE UNIVERSITY**

December 11, 2017

In accordance with Board of Regents Policy 6.4 for Capital Improvements, South Dakota State University (SDSU) requests approval of the Guaranteed Maximum Price (GMP) as submitted by the construction manager at risk (CM@R), McCownGordon Construction Inc. Upon approval of the Guaranteed Maximum Price, the project will proceed immediately to bidding and construction.

The Facility Design Plan was approved by the by Board of Regents at the October 2016 meeting. The project was approved during the 2017 South Dakota Legislative Session (Senate Bill 172).

McCownGordon Construction Inc. has developed the GMP based on the design consultant's Construction Drawings & Specifications dated November 3rd, 2017, Addenda 1, 2 & 3 to these construction drawings and specifications, and additional information included with the Guaranteed Maximum Price submittal dated December 7, 2017. The scope of the project remains unchanged from the submittal of the Facility Design Plan.

Project Cost Estimate:

Construction Costs:

Guaranteed Maximum Price (GMP)	\$50,275,500
(Included within the Guaranteed Maximum Price is a 5% construction contingency of \$2,250,423. The Guaranteed Maximum Price also includes the CMR services for preconstruction estimating and constructability review.)	
Owner Furnished Construction and Equipment Costs	\$ 974,850
Hazardous Material Abatement	\$ 9,690
Steam Infrastructure Upgrades	<u>\$ 810,000</u>
Subtotal (Construction Costs)	\$52,070,040

Non-Construction Costs:

Professional Design Services	\$ 5,273,399
Commissioning, Building Envelope, & Construction Testing	\$ 643,510
Project Administration (OSE & SDSU) services and fees	\$ 422,650
Fixed Furnishings, Furnishings, and Equipment	<u>\$ 1,071,777</u>
Subtotal (Non-construction costs)	\$ 7,411,336

Owner Project Contingency (~=7% of construction costs) \$ 3,800,907

Total Project Costs: \$63,282,283

Project Scope:

The scope of the project is construction of an addition to the South Dakota Animal Disease Research and Diagnostic Laboratory (ADRDL), renovation of the existing South Dakota Animal Disease Research and Diagnostic Laboratory (ADRDL), and an addition to the SDSU North Chiller Plant. This includes demolition and relocation of an animal holding facility, building utility services, demolition of the Veterinary Isolation building and small outbuildings, campus utility infrastructure work to connect and upgrade the chilled water & steam infrastructure utility systems on the SDSU campus to support the new addition and existing ADRDL, and furnishings & equipment to outfit the addition and renovated existing facilities. Utility infrastructure (steam, condensate return, & chilled water) and North Chiller Plant improvements will serve the existing ADRDL and the new ADRDL addition.

The project construction documents will include four alternates. The cost of these items are not included within the Guaranteed Maximum Price. Construction costs for each alternate will be obtained when the project is publicly bid. These alternates may be awarded and constructed if the bids are favorable and the project budget will allow for them to be implemented without added burden. The alternates are described below:

Alternate #1 – Change floor finish in the corridors of the new addition from vinyl composition tile to epoxy:

Estimated cost - \$98,000

Justification: This will provide a more durable and sanitary floor finish in the corridors of the laboratory addition. The improved durability and clean-ability is desirable.

Alternate #2 – Replace 4 existing air handling units in lieu of renovating the existing 4 air handling units in the existing ADRDL:

Estimated cost - \$975,000

Justification: Existing air handling equipment has reached the end of its useful life. The project will be pricing two options for renewal of the equipment. One is refurbishment of the existing equipment. The alternate is replacement of the existing equipment. Refurbishment and upgrades to the existing air handlers will have a slightly shorter life span than new equipment and will not meet University standards that minimize ongoing maintenance and repairs. New units will provide entirely new pieces of equipment that should have somewhat greater energy efficiency than the existing equipment and lower maintenance costs. In order to provide new equipment, an addition will be required to the existing building, as the new air handling units cannot fit in the same space as the existing equipment. It will also entail associated site work, utility work, footings, foundations, roofing, and related construction. Additional design fees and commissioning costs will be necessary and are included in the estimated cost above.

Alternate #3 – In lieu of one central carbon dioxide laboratory gas system serving the addition and the existing ADRDL from the existing ADRDL, a carbon dioxide lab gas system will be provided in each of the new addition and in the existing ADRDL.

Estimated cost - \$49,000

Justification: Existing carbon dioxide equipment is capable of serving the existing and new addition, but will require more frequent servicing and filling. Special thermally jacketed laboratory piping must be extended from the existing building to the new addition. The existing equipment will require modification to enable the laboratory to manufacture dry ice for research

and diagnostic work. In lieu of this, a carbon dioxide closet with equipment can be provided in the new addition and existing equipment retained in the current ADRDL. The cost of additional equipment will be mostly offset by the reduced piping and modifications costs. Reduced operations, filling, and servicing of equipment should result.

Alternate #4 – Replace hot water heating pumps in the existing ADRDL in lieu of reusing the existing pumps.

Estimated cost - \$32,000

Justification: Existing heating pumps are of varying ages. All have been rebuilt, repaired, or replaced over time. While, the existing equipment functions adequately, replacement of the primary and secondary heating pumps for all air handling units would provide new, modern, and more efficient equipment throughout.

Approved Funding Sources:

The project is funded from a the following sources:

FY17 Appropriations:

Bonded funding	\$50,100,000
BOR/SDSU funding	\$ 6,000,000
Livestock Disease Emergency Fund	\$ 2,300,000
Feed and Remedy Fund	\$ 300,000

FY16:

Livestock Emergency Fund Appropriation	\$ 1,575,000
ADRDL R&R Account – ADRDL Fees Fund	\$ 532,000
ADRDL R&R Account – ADRDL Fees Fund	\$ 635,000

Other Funds:

Other capital project funding for a portion of the North Chiller Plant Addition.	<u>\$ 1,900,000</u>
--	---------------------

Total Funding \$63,342,000

Project Schedule:

The project schedule has been updated.

The completion date of the project remains unchanged (summer of 2020). Intermediate milestones for completion of the project were included within the Guaranteed Maximum Price proposal of McCownGordon, the Construction Manager @ Risk and are described below.

- Establish the Guaranteed Maximum Price of McCown Gordon Construction
December 2017
- Issue the project for public bidding immediately after approval of the Guaranteed Maximum Price
December 2017
- Time period for bid preparation by the general contractor and subcontractors
December 2017 - January 2018
- Bid opening date for project
January 17, 2018
- Establish subcontracts and stage equipment & personnel to the project
January – March 2018

- Demolition of existing Veterinary Isolation Building, Animal Holding Shed, and small storage buildings
March 2018
- Construct the replacement Animal Holding Shed
March – June 2018
- Construct the addition to the ADRDL
March 2018 – August 2019
- Construct the North Chiller Plant addition
July 2018 – April 2019
- Vacate the existing ADRDL and move into the new Addition
August 2019
- Renovate the existing ADRDL
August 2019 – May 2020
- Commission the new addition, the chiller plant, and the existing ADRDL
January 2019 – August 2020
- Project Completion
August 2020

End of Report