

Development of a Research Laboratory Management Application for the NMSU College of Agricultural, Consumer, and Environmental Sciences (ACES), Las Cruces, NM

Architectural Research Consultants, Incorporated (ARC) assisted the NMSU College of Agricultural, Consumer, and Environmental Sciences (ACES) to understand and manage research laboratory use, helping to identify priorities for renovation and determine an associated cost for implementation.

ACES has about 130 research laboratories within 10 buildings representing about 26% of ACES total assigned space. ACES indicated to ARC that the tools available to the college were insufficient to effectively allocate and manage this resource. The existing data was inconsistent, incomplete, and lacked meaningful metrics for measuring effective use. The college had yet to implement a unified process to collect and update data.

ARC worked with ACES to assemble a database that documents key information about the characteristics of each lab, how they are used, the research funds associated with them, and the physical condition of each research space.

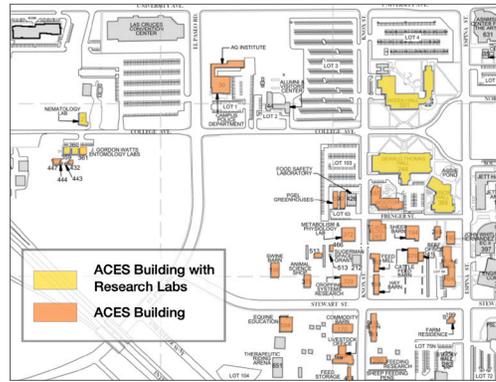
ARC collected and assembled the data, first as a spreadsheet, and later as website with administrative access by ACES and NMSU facilities personnel. The ACES currently views its research laboratory as a demonstration project that will be extended to all NMSU colleges with research laboratories.

Client: New Mexico State University

Completion: 2023



Architectural Research Consultants, Incorporated
22020.2034



Left: ACES buildings with research labs

Below: Various screens of the ACES web application showing research lab data

ADMIN: Select "Update" at the end of a room record row below to change its data, OR click the "Add Room" button below to add a new space to this facility.

Room	FICM Code	Location Code	Existing FICM Description	Room Description by Attachment	Priority Office	Storage	Wet Lab	Lab Prep Support	Electronics Lab	Fume Hood	Air Vacuum	Gas	Water	Power 220	Power 460	Number of Work Stations	Exterior Access	Other	Modify Record
1	165	250	413	Research LABORATORY				X											Update
1	155A	230	212	Research Lab	X						X	X	X	X					Update
1	155B	230	209	Research Lab				X					X	X					Update
1	155C	235	84	Research Lab-Service							X	X	X	X					Update
1	154	230	604	Research Lab							X	X	X	X					Update
1	155A	235	84	Research Lab-Service							X								Update

Below: ACES web application



FACILITIES INFORMATION

Space Characteristics

FICM Code	Location Code	Existing FICM Description	Room Description by Attachment	Priority Office	Storage
230	613	Research Lab	RESEARCH LAB		

Professional Assessment

Assessment Date	Condition	Renovation Cost	Renovation Year
11/30/2022	Average	\$152,024	

Existing Users

Department	Name and Title of User as of 3/1/2020
Plant and Environmental Science (PES)	Dr. Omar Holguin-Asac, Prof and Guzman Asst Prof

User Self-Evaluation of Condition/Quality

Adequacy of Space for Lab	Overall Physical Condition of Lab	Adequacy of Lab Services Available to Lab	Adequacy of Lab Equipment
Good	Good	Good	Good

Current Funding

Total Current Research Funds Awarded	Year Current Funding Awarded	Year Current Funding Ends	Year 2021	Year 2022	Year 2023	Year 2024	Year 2025
>\$3 million							

Assessment Photos

Right: Interactive floor plans linking to research lab data



* Listed as a Research Lab in the ACES Research Lab Inventory
**A note is associated with this lab indicating a change in use that may require changing FICM code