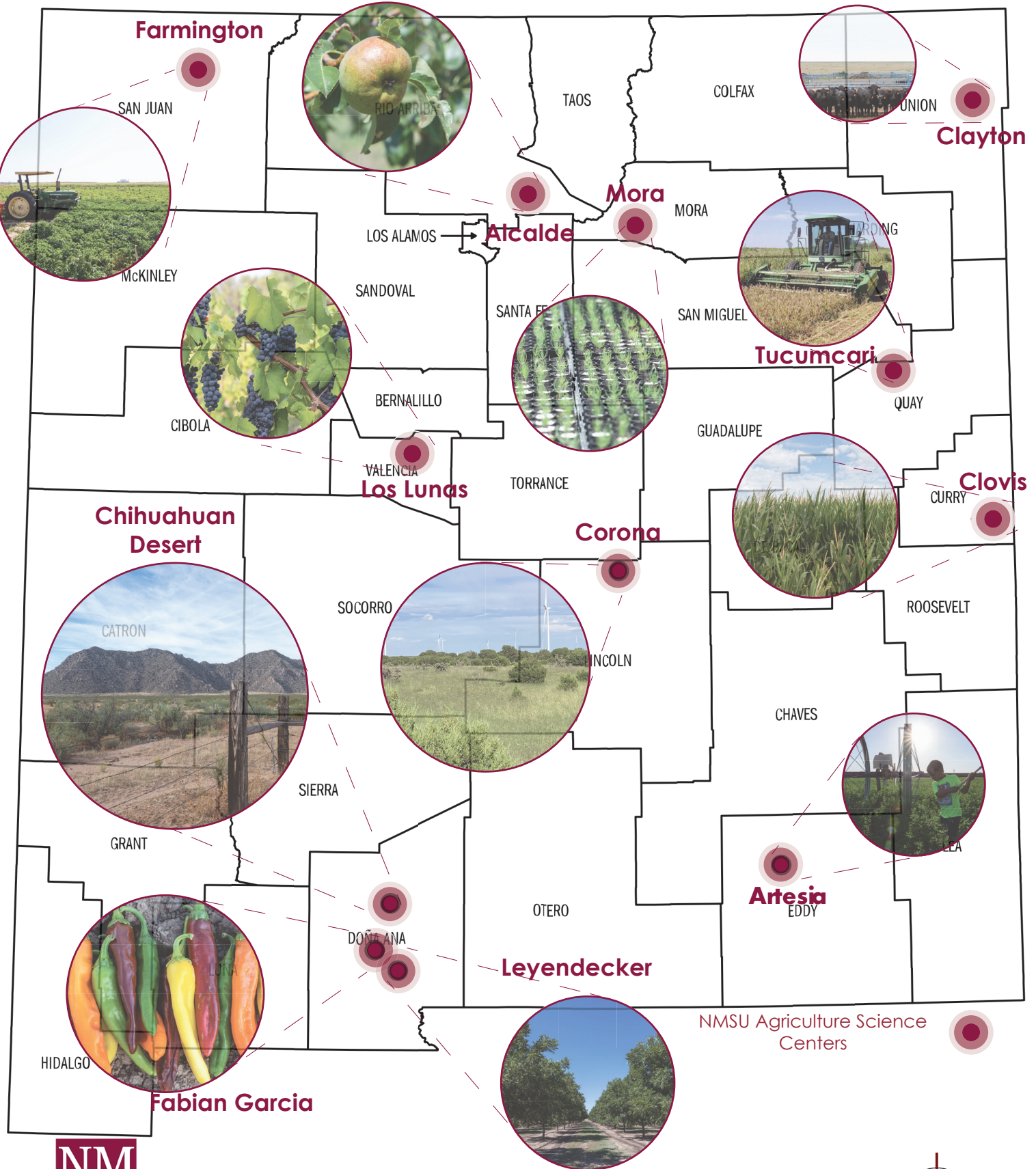


New Mexico State University

College of Agricultural, Consumer, and Environmental Sciences



BE BOLD. Shape the Future.
College of Agricultural,
Consumer and Environmental
Sciences.

Chihuahuan Desert **Rangeland**
Research Center

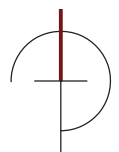


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ACKNOWLEDGMENTS

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Additional thanks to representatives of the research center:

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NMSU-ACES IT DEPARTMENT - Information Technology*

FACILITIES MASTER PLAN REPORT

Executive Summary | July 2023

OVERVIEW

New Mexico State University Facilities Group (NMSU) commissioned Nine Degrees Architecture and Design, Inc. (NDA&D) in the Fall of 2021 to perform a facility assessment study and master plan of the institution's agricultural research centers that are located throughout the State of New Mexico. As identified in this report, this consortium of twelve agricultural research facility locations is an integral part of the College of Agricultural, Consumer, and Environmental Sciences (ACES) academic, research, and public service program for the New Mexico State University System. These assessment efforts required NDA&D to complete this evaluation plan under an open and transparent methodology to ensure a fair data-driven Facility Master Plan (FMP) effort. The Facilities Master Plan is intended to inform NMSU of the College of ACES agricultural research facilities building conditions for operations, use, and future capital investment decisions that may be needed for these agricultural centers' next five years of operations. Together with the College of ACES administration, NMSU Facilities and Services Department Staff, and ACES research centers' staff, our architectural staff members undertook an assessment effort and outreach process that included extensive field visits and data gathering at all twelve research center locations.

The Facilities Master Plan (FMP) findings that informed our team of the specific recommendations are summarized in this document, thus providing NMSU with an outsider's snapshot of the state of operations, facilities conditions, and functional suitability to maintain the center's successful operations. Our team's expectations are that, as this plan is implemented, it will assist the staff at NMSU College of ACES to continue its educational and research vision and mission by having their centers equipped and capable of meeting the needs of their academic endeavors for upcoming research grants and being able to achieve a balance of their existing needs. Through this balance ACES will be able to increase capacity utilization, and by being able to improve their research programs – both being crucial and beneficial issues to all New Mexico State University College of Agricultural Consumer Environmental Sciences students today and in the future.

FINDINGS

After a series of on-site visits and through visual assessment of each facility, the findings included in this Facility Master Plan (FMP) begin to illustrate that many of the College of ACES research center facilities appear to be in relatively poor condition and/or declining conditions. These conditions can be attributed to the historically low level of state funding for critical maintenance and capital investment for basic building maintenance, structural repairs, facility erosion control, mechanical systems repairs, and roof replacement. In addition, based on the data that was discovered during our assessment process, it appears that all research centers, in some form or another, have suffered from issues such as a shortage of maintenance personnel, staff attrition, and financial cutbacks, which have exacerbated their poor facilities' conditions. The annual maintenance and operation budget awarded to each of the agricultural centers has directly impacted the number of repair projects required to improve and maintain each of the centers to perform to their optimal capabilities.

After evaluating demographic information for the State of New Mexico from 1990 to 2020, as reported in the annual assessment by the State of New Mexico Economic Development Department, the state increased its population by an average of 240,000 citizens per decade since the 1990s. It leveled off in 2020 for a total of 2.1 million citizens. Over the past three years since, the population has continued to grow but at a slower and smaller pace. Current assessment predicts a smaller but steady increase in population, with a projected student enrollment for the next 2 to 3 years that will continue to remain relatively level with smaller incremental growth. Additionally, the assessment describes that there will be growth and/or decline in specific geographic areas as the state experiences regional population immigration or interstate migration.

<i>NMSU ACES</i>	
FACILITY DEFICIENCY COST - PRESENT	\$17,604,854.00
5-YEAR LIFE CYCLE FORECAST- ESCALATION	\$6,402,251.14
TOTAL 5-YEAR NEEDED - OVERALL BUDGET	\$24,007,105.46

This facilities assessment has identified the need for a minimum expenditure of around \$24,007,105.46 million in projected Operations & Maintenance funding for facility-related needs within the next five years (in 2022 dollars), comprised of \$13,843,194.00 million for the repair of current deficiencies, and additional \$3,761,660.00 million for instructional technology infrastructure improvements. Furthermore, an add is anticipated over the next five years for end of life-cycle repairs

of \$6,402,251.14 million premium to the O&M Budget. This budget does not include any additional funding that may be required to transition each center to a renewable energy system as currently being studied by NMSU Facilities Team. Each agricultural center's physical condition and functional adequacy were determined by thoroughly inventorying all buildings and accessory structures against their current scheduled use. By comparing the operational capacity of each center against current and projected enrollment predictions based on existing utilization capacity, utilization percentages were developed to inform our assessment team on how to develop individual strategies for facility repair and replacement efforts. These strategies created the best use and value for all college of ACES research facilities. It is certain that continued degradation of the research facilities will financially strain NMSU College of ACES's academic and research mission. The operational expenditures, such as utilities, annual maintenance, and growing extensive repairs caused by buildings and operational systems reaching the end of their life-cycle, will become overwhelming and create greater difficulty to repair the existing buildings.

RECOMMENDATIONS

To determine whether an asset is critical to the continuation of the mission of the University, a needs assessment must be scheduled and performed every five-years and, in some facilities, even sooner, when regulations, curriculum shift, or just a change in the facilities conditions, warrants a new assessment. Our recommendations are based on a mixture of both basic general building systems performance and institutional priorities. Institutional priorities are based on academic necessities as they are balanced against the maintenance and maintenance budgets provided within the annual system's expenditure strategy. Our observations of the buildings' performance were based on assessing the life expectancy of the building systems as they are collectively beginning to reach their end of the life-cycle or by analyzing the systems' age.

Based on the field conditions and facility historical data, Nine Degrees Architecture and Design, Inc., recommends to the NMSU College of Agricultural, Consumer, and Environmental Sciences and NMSU Facilities Planning Team to begin taking additional operational and capital funding steps that will provide opportunities for improving each Ag Center and create the possibility for a more balanced utilization program for each of their research centers.

These additional operational and capital actions are detailed below.

OPTION ONE: Divest Surplus Landholdings.

Divesting surplus landholdings with strategic time-to-market transactions will replenish the NMSU College of Agricultural, Consumer, and Environmental Sciences funding budget and create additional resources for potential reinvestment into their current research center facilities. This recommendation directly aligns with research center staff recommendations towards enhancing the center's mission and vision.



OPTION TWO: Review Land Use for the Surplus Landholdings.

Rethinking and reallocating surplus landholdings with strategic lease transactions to the private sector to create wind farms, grazing farms, solar farms, or any other public-minded use that will allow for a cash flow increase while still retaining land ownership that should replenish NMSU College of Agricultural, Consumer, and Environmental Sciences fund balance and create financial resources for additional reinvestment into each research center facility and infrastructure. This recommendation directly aligns with each research center's mission and vision.



OPTION THREE: Explore Public Bond Support.

The evaluation team advises the institution to consider using non-state funding sources and develop a plan for a multi-million bond referendum to fund facility improvements at each of the twelve research centers. If approved by the voters, these funds would optimize the immediate safety concerns and modernization of the research centers while addressing top-priority facility repair and infrastructure needs in the near term. Consequently this would defer the remaining \$6,402,251.40 million in lower priorities for future implementation due to construction escalation over the next 5-year cycle. In an effort to assist the bond steering committee, the planning team defined a list of recommended high-importance/ high-impact enhancements for each research center focusing on critical facility replacements, repairs, and high technology needs.



OPTION FOUR: Explore Public-Private Partnership.

The evaluation team also recommends that the NMSU College of Agricultural, Consumer, and Environmental Sciences team and the institution consider identifying and developing specific strategic public partnerships aligned with their 5-year cycle to secure targeted sponsorship and ventures with key industry leaders that each center serves. This proposed association can work with donors or sponsors with a vested interest in the success of the research agenda of each center. This option will require a more detailed analysis to engage the private sector in identifying suitable candidates for each research center.



INTRODUCTION AND METHODOLOGY

In concurrence with the academic offering by New Mexico State University, the College of Agricultural, Consumer, and Environmental, the expected outcome for this assessment effort is to provide the New Mexico State University Planning and Design team with a snapshot assessment of the “present day” state of their existing facilities with the expectations of developing a sound strategy for the maintenance, upgrades, and/or replacement of their agricultural centers’ building facilities. This assessment also serves as an inventory of the building conditions of each center intended to inform the College of Agricultural, Consumer, and Environmental Science leadership as they continue to prioritize their needs for academic, research, and public service. In order for the system to help fulfill the NMSU College of ACES educational and research vision, the NMSU Board of Regents and Administration determined the necessity to develop the Facility Master Plan (FMP) and assessment that will inform and guide the potential of needed facility rehabilitation and capital investment decisions for the next 5-year cycle. Entrusted with first putting College of ACES research excellence in the forefront and then emphasizing the effective stewardship of the university’s assets, NDA&D engaged and undertook an exhaustive visual assessment of every research center facility, evaluated demographic studies, and facilitated a transparent assessment and planning process. This process included the participation of staff members from the NMSU team and administrative members of each agricultural center.

The Facility Master Plan findings and recommendations from our assessments and reviews are summarized within this document, providing the NMSU Board of Regents with an independent, unbiased snapshot and near-term forecast of all ACES facilities’ condition, suitability, and utilization. This document summarizes the results of a comprehensive assessment performed in the Fall of 2022 through the Summer of 2023, culminating in this Facility Master Plan with recommendations for NMSU College of ACES that identifies options for future investments in the enhancement and maintenance of its agricultural centers’. We have included a review of the entire facility portfolio, an educational/ research adequacy assessment, a facility condition assessment, a five (5) year life-cycle forecast, and a review of College of ACES’s current enrollment statistics.

NMSU ACES RESEARCH AT EACH SITE

CHIHUAHUAN DESERT RANGELAND RESEARCH CENTER

9912 Co Rd E079, Las Cruces, New Mexico, 88212

The research mission of the Chihuahuan Desert Rangeland Research Center is to protect and ensure the availability of its resources for teaching, research, and extension endeavors that benefit the citizens of New Mexico, as originally declared by Congress in 1927. The Chihuahuan Desert Rangeland Research Center (CDRRC) conducts educational, demonstrative, and experimental development with livestock, grazing methods, and range forage, including investigation of the sustainability and management of natural resources and environmental ecosystems. The Chihuahuan Desert Rangeland Research Center is an outdoor laboratory for rangeland management studies

Future research efforts – continuation of current research effort.

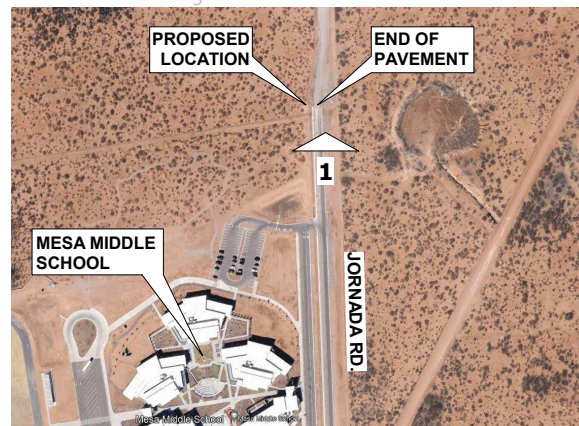
Chihuahuan Desert **Rangeland Research Center -** **WAYFINDING**



Chihuahuan Desert **Rangeland Research Center - WAYFINDING**



Chihuahuan Desert
Rangeland Research Center



2 WAYFINDING MAP AT END OF PAVEMENT
G007 12" = 1'-0"



WAYFINDING MAP AT GATE
12" = 1'-0"



3 WAYFINDING MAP FOR CHIHUAHUAN DESERT RESEARCH CENTER
12" = 1'-0"



PROJECT FOR :
**CHIHUAHUA DESERT RANGELAND
RESEARCH CENTER**
9912 Co. Rd. E079
LAS CRUCES, NM 88012



		DATE
Sheet Title:		
WAYFINDING SHEET		
Phase:		
PROPOSED SIGNAGE LOCATION		
Project No:		
2201.01		
Date:		
04-26-22		
Sheet No:		
G007		
SHEET		OF



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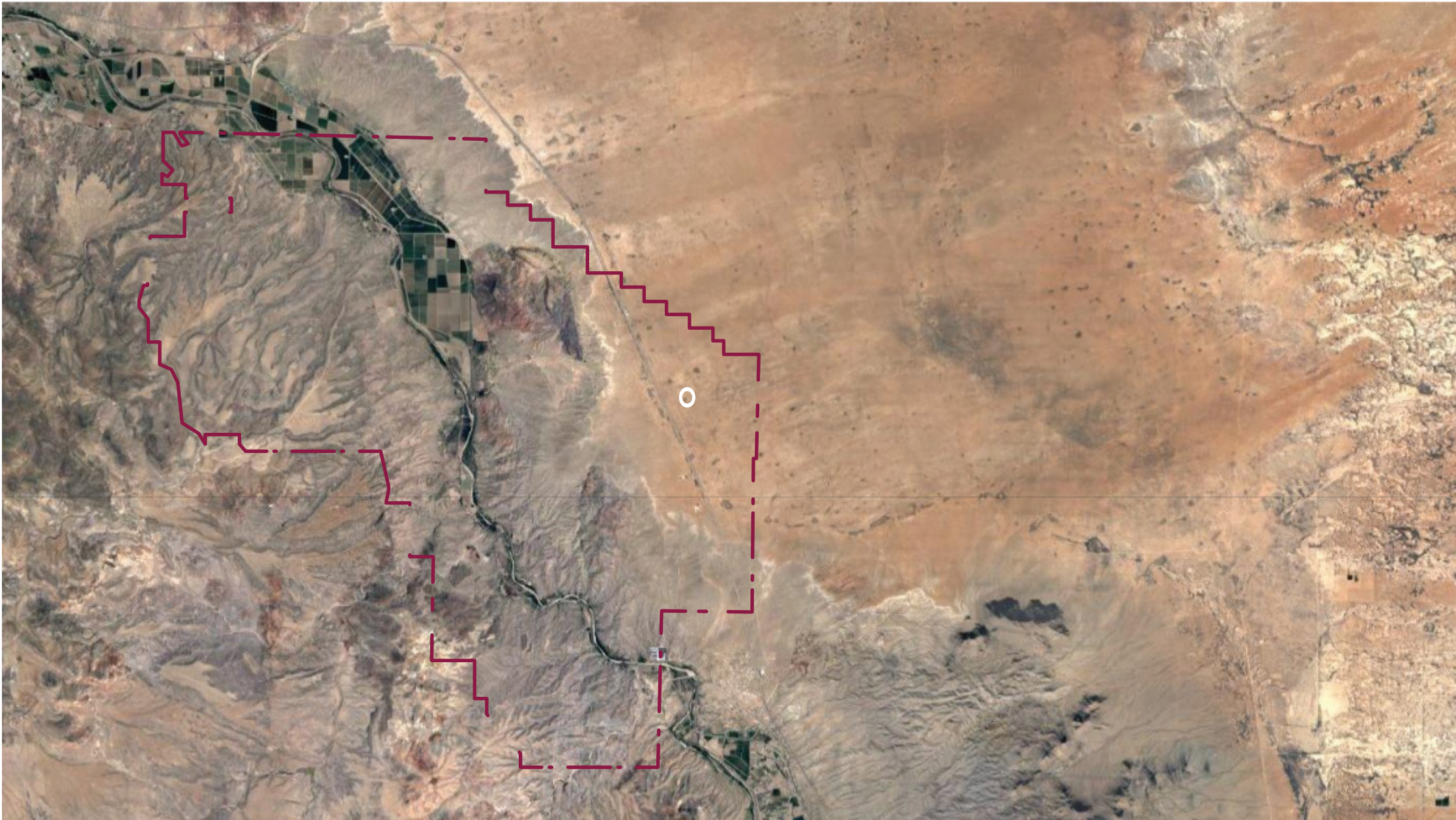
Chihuahuan Desert **Rangeland Research Center -** **LOCATIONS**



Chihuahuan Desert **Rangeland Research Center** - LOCATIONS



Chihuahuan Desert
Rangeland Research Center



Property Boundary



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Chihuahuan Desert **Rangeland Research Center** - LOCATIONS



Chihuahuan Desert
Rangeland Research Center



- 1. New Foreman's Residence **560** (FCI Score 0.014)
- 2. Garage **587** (FCI Score 0.033)
- 3. Residence **142** (FCI Score 2.497)
- 4. Stables **144** (FCI Score 2.195)
- 5. Scale Barn **143** (FCI Score 2.167)
- 6. Barn **73** (FCI Score 1.500)
- 7. Herbicide Shed **423** (FCI Score 1.970)



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Chihuahuan Desert **Rangeland Research Center -** **DEFICIENCIES LIST**



Chihuahuan Desert **Rangeland Research Center** - Deficiencies **List**



BARN 73

Building is a candidate for demolition and replacement due to extensive deterioration.



HERBICIDE SHED 423

Building is a candidate for demolition and replacement due to extensive deterioration.

Chihuahuan Desert **Rangeland Research Center -** Deficiencies **List**



RESIDENCE 142

Building has extensive mortar joint cracking throughout requiring needs new exterior wall finish and paint. It needs soffit to be repaired and repainted, Needs new roof due to existing shingles flown off. The interior needs repair (wall/ ceiling patching, repaint). The structure needs central refrigerated AC system and ductwork, needs electrical service upgrade o be compliant. The structure needs new insulated windows and needs new exterior and interior doors with hardware. It needs new electrical wiring throughout and could use new interior LED Lights. The restroom need to be completely remodel to meet ADA regulations, needs access ramps front and rear door, needs concrete apron around exterior walls, needs gutters and downleaders.



SCALE BARN 143

Building is a candidate for demolition and replacement due to extensive deterioration.

Chihuahuan Desert **Rangeland Research Center** - Deficiencies **List**



STABLES 144

Building is a candidate for demolition and replacement due to extensive deterioration.



GARAGE 587

Needs metal fascia repairs, gutters and downleaders, exterior stucco patches and repaint, concrete apron around exterior walls along two sides of the building.

Chihuahuan Desert **Rangeland Research Center** - Deficiencies **List**



NEW FOREMAN'S RESIDENCE 560

Building needs gutters and downleaders, the exterior stucco required to be patched and repainted, the soffit needs repairs and repainted, a concrete apron along the exterior walls along four sides is required. Windows needs new insect screens, and both building entrance door's needs ADA door hardware at two exterior entry doors, needs ADA ramps at front, rear and sliding door.

Chihuahuan Desert **Rangeland Research Center -** **FLOOR PLANS**





Chihuahuan Desert Rangeland Research Center

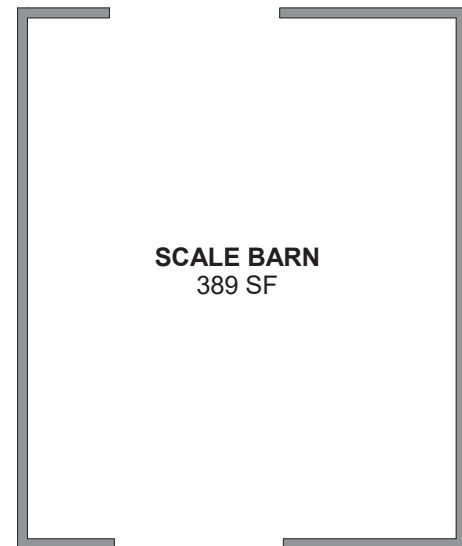
- 2. Garage 587
- 4. Stables 144
- 5. Scale Barn 143
- 7. Herbicide Shed 423



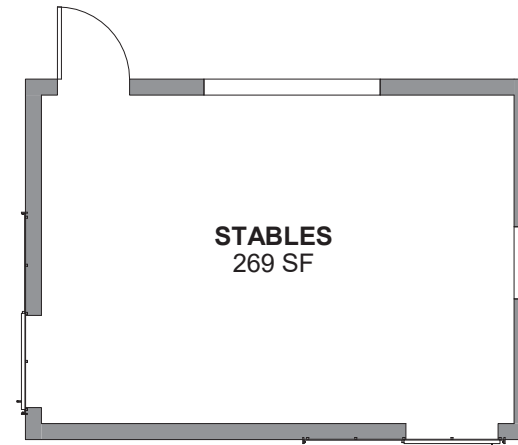
Key Map



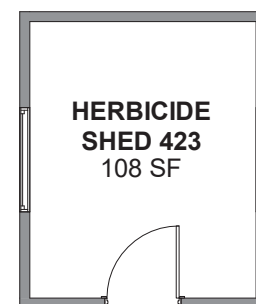
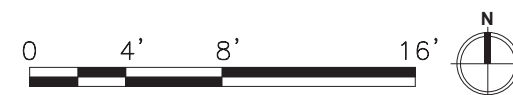
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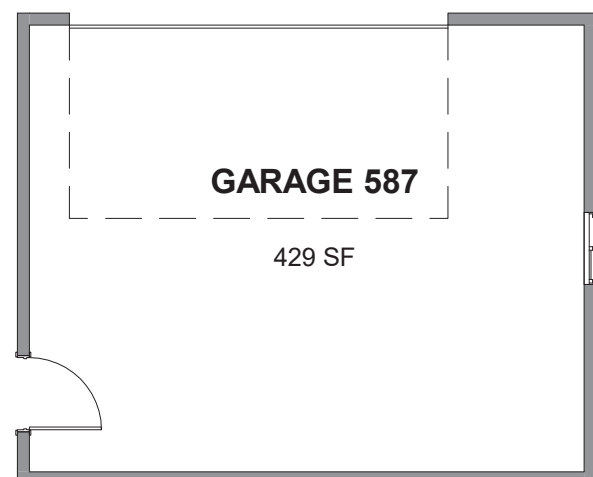
143 SCALE BARN
SCALE 1/8" = 1'-0"



144 STABLES
SCALE 1/8" = 1'-0"

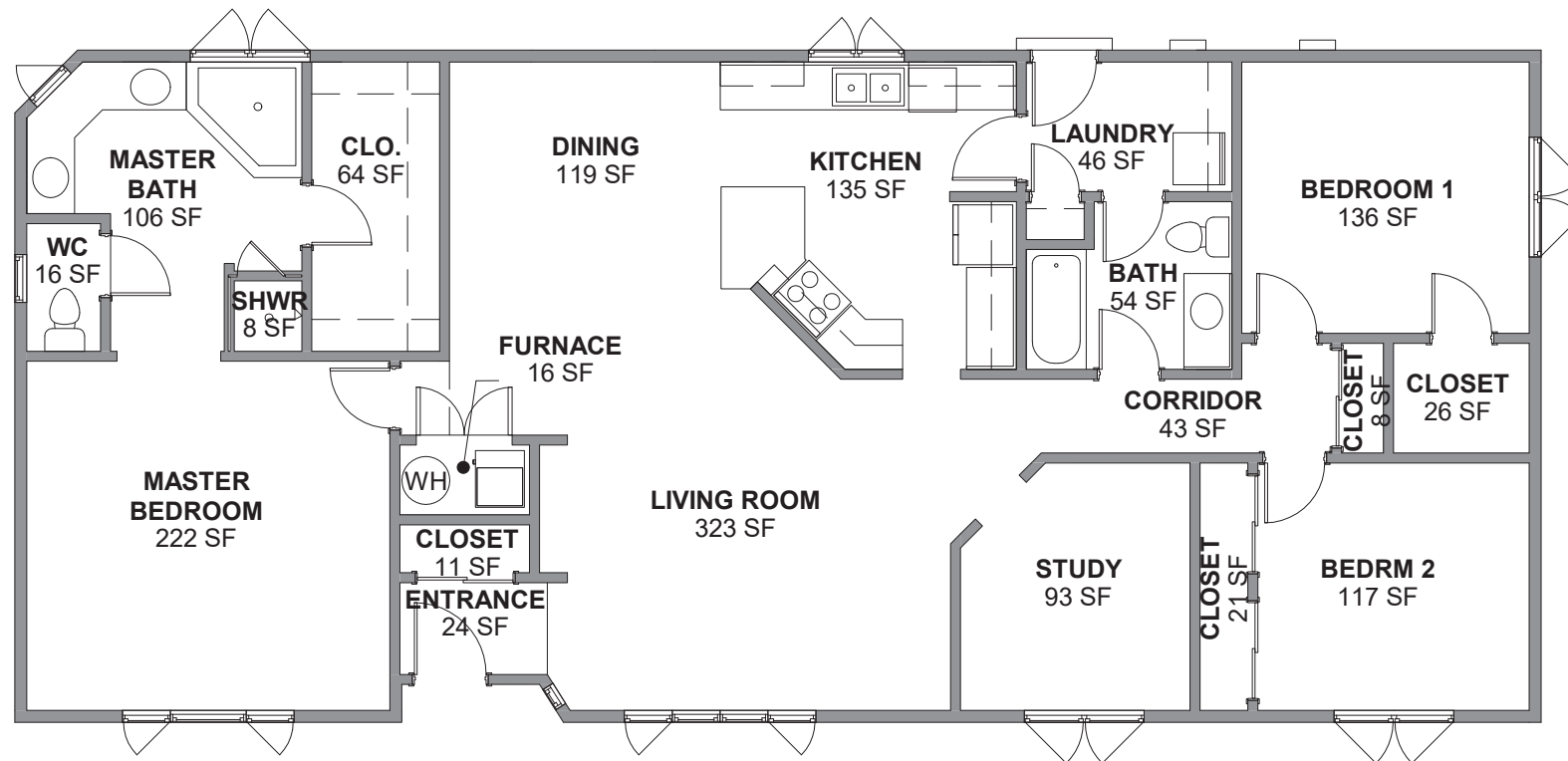


423 HERBICIDE SHED
SCALE 1/8" = 1'-0"



587 GARAGE
SCALE 1/8" = 1'-0"





560 NEW FOREMAN'S RESIDENCE

SCALE 1/8" = 1'-0"



Chihuahuan Desert Rangeland Research Center

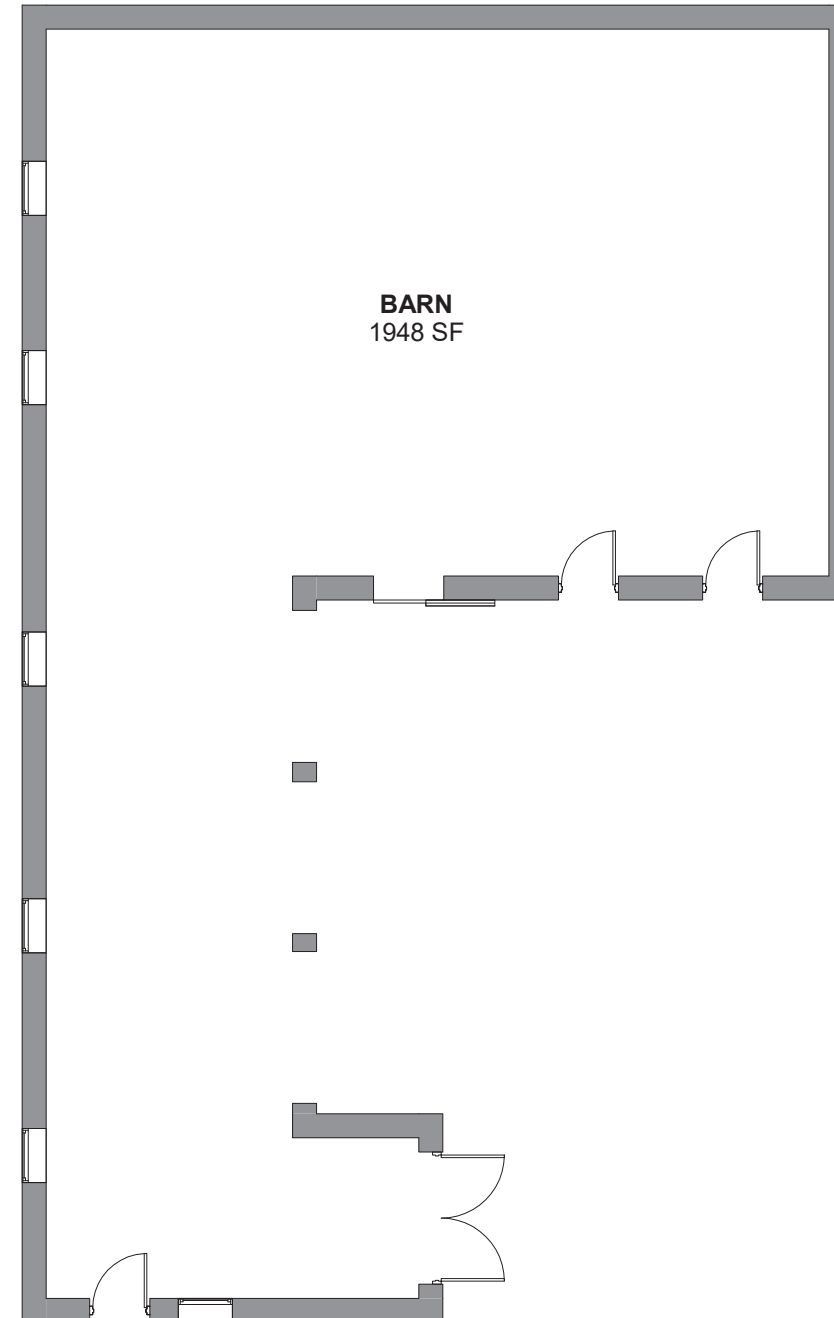
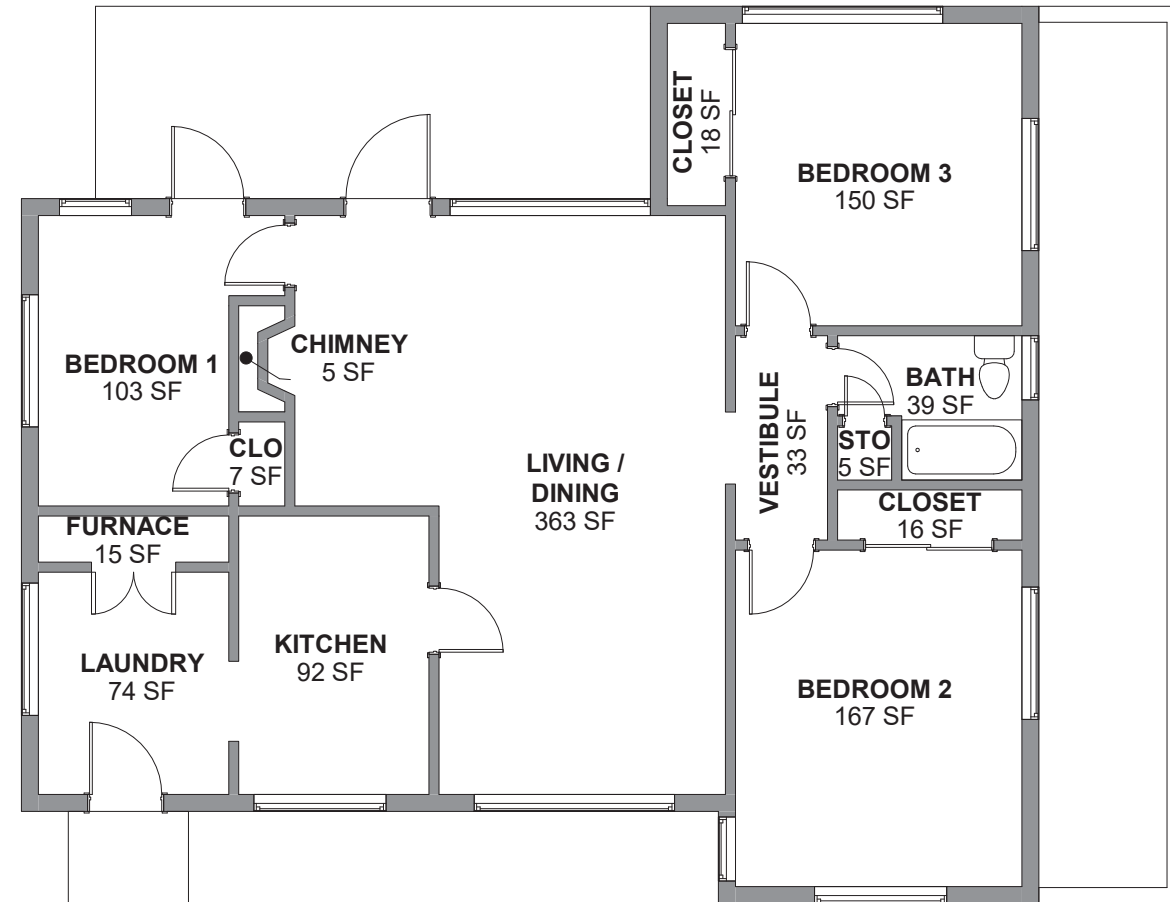
1- New Foreman's Residence 560



Key Map



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NM STATE UNIVERSITY Chihuahuan Desert Rangeland Research Center

- 3- Residence 142
- 6- Barn 73



Key Map



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Chihuahuan Desert **Rangeland Research Center -** **CANDIDATES FOR DEMOLITION**



CHIHUAHUAN DESERT

The following buildings are candidates for replacement:



Chicken coop and storage area:

Wood structure, rotted. Building beyond feasible repair



Fuel storage building:

Wood structure, rotted. Building beyond feasible repair





Scale house 1:

Rock building with differential settlement and eroded foundation. Building beyond feasible repair



View of corner settlement



View of corner settlement, powdered setting mortar, rotted wood and rusted galvanized roof panels



Scale house 2:

Wood framed building with rotted wood and sheer instability due to wind exposure. Building beyond feasible repair



Shop barn:

Rock building with rotted wood roof structure. Building is condemned. Building beyond feasible repair

Chihuahuan Desert **Rangeland Research Center** - **INVENTORY COMPARISON**



(The following list excludes structures being considered for demolition and replacement)

CHIHUAHUAN DESERT

The following structures are not included in the current inventory for this site:



Pump House:

Needs: Reinsulate interior, appropriate integrated heating unit, replace exterior OSB wood panels, rain gutters and down leaders, re-grade to replace eroded dirt material.



Hay shade:

Needs: Repair damaged panels on roof, reattach lateral bracing cables, paint exposed steel columns, concrete bollards around front columns.

Chihuahuan Desert **Rangeland Research Center -** **UTILITY OVERVIEW**



NMSU College Ranch

Address: Gerald Thomas Hall, Room 220 Box 30003, MSC 3BF, Las Cruces, New Mexico, 88003

Contact: Andrew Cox, Farm Ranch Manager – (575) 646-2514
arcox@nmsu.edu



Description:

As described by the NMSU System, the Teachers, researchers, and students from across campus benefit from the Center. The Department of Animal and Range Sciences oversees the facility with help from a steering committee of scientists from the College of Agriculture and Home Economics and the College of Arts and Sciences. The Center is part of the Jornada Basin Long-Term Ecological Research project through the Biology Department - a National Science Foundation Ecology Network. Current research efforts include: Evaluating continuous and seasonal grazing strategies at different intensities to determine effects on livestock performance as well as plant cover and composition; Evaluating performance of breeds of cattle concerning quality and quantity of forage in a hot, arid environment; Determining the influence of range conditions on wildlife populations; Autecology of plant species; Assessing competition and other interactions between common plant species and Ascertaining the role of small herbivores in a desert environment. In addition to research conducted by the Department of Animal and Range Sciences, faculty and graduate students from other NMSU departments are conducting research at the Center. Currently, much of the research is in conjunction with the Long-Term Ecological Research program, which is part of a nationwide program funded by the National Science Foundation. The CDRRC is used for teaching, demonstration, and research projects with livestock, grazing methods, and range forage, including investigations into the sustainability and management of natural resources and environmental ecosystems.

Findings

Water System:

Based on the information provided, this facility has multiple wells supplying water for daily use. Out of all of the existing wells on site, just two are regulated by the NM Office of the State Engineer and designated as LGR 5315 and LGR 5318.

While Well, LGR 5315 currently serves the water needs of the Headquarter Building while the rest are used for livestock water supply. The Well LGR 5318 is the only one designated and regulated by the State Engineers Office.

In addition, this facility has plans for the near future to go ahead and do an exploratory camera assessment of the headquarters well – LGR 5313, to determine the existing condition of the casing and to determine the depth/amount of water. This assessment will allow for further decisions regarding the use and needs of the well.

Electrical System:

Based on the information provided, El Paso Electric Company (EPEC) provides electrical service to this facility with overhead power lines. Recently El Paso Electric Company replaced the overhead power lines that serviced the Assistant Manager’s Residence with a new underground service line.

Waste Water System:

Based on the information provided, the NMSU College Ranch Campus utilizes septic tanks to treat its waste-water. Individual septic tanks exist at the headquarters for the manager and assistant manager’s residences. The septic tank for the manager’s residence was serviced this year.

Agricultural Center	Well Designation	Information and Descriptions	Google Map Coordinates	
NMSU College Ranch				
Well Number 1	LRG05315	Headquarters well - in use	32°31'52.9"N	106°48'12.0"W
Well Number 2	LRG05316	Camp #2 well - in use	32°34'36.8"N	106°52'10.7"W
Well Number 3	LRG05317	Mayfield well - temporary capped for future use	32°34'43.7"N	106°55'23.6"W
Well Number 4	LRG05318 05318 POD	LRG Selden well - in use. This well is composed of 4 tags. These wells have WR File numbers that are different to their POD Numbers. They have the same coordinates.	32°32'45.7"N	106°54'48.8"W
Well Number 5	LRG05319	Lytten well - temporary capped for future use	32°33'20.3"N	106°59'45.9"W
Well Number 6	LRG05320	Buckle Bar well- temporary capped for future use.	32°32'00.2"N	106°58'59.1"W
Well Number 7	LRG05321	Cleofas well - temporary capped for future use.	32°28'07.7"N	106°49'16.3"W
Well Number 8	LRG05322	Wagner well - hand dug well not in use.	32°28'59.4"N	106°49'31.9"W
Well Number 9	LRG07290	Geo well - in use	32°32'07.0"N	106°55'54.3"W
Well Number 10	LRG14638	Curve well - exploratory well should be declared for livestock and tied into HQ	32°32'43.6"N	106°49'29.5"W

VERL

Well Number 1	No information was available on the New Mexico Office of the State Engineer for this Well's
Well Number 2	
Well Number 3	
Well Number 4	
Well Number 5	
Well Number 6	

Chihuahuan Desert **Rangeland Research Center** - **INFORMATION TECHNOLOGY**



Chihuahuan Desert **Rangeland Research Center**

Information **Technology**

Network and Wireless LAN

Wireless Network Coverage	Main Building
Condition of Physical Cabling	Rewire
Distribution Closet	Office
Central Tower	No
Monthly Estimates	
Registered Devices	15
Upload	95.26 GB
Download	162.39 GB

College Ranch has one main building, which is a house, but research has been expanding with the need of broadband wireless on the property. In order to make that possible, new cabling is needed as well as a dedicated network closet/rack in the main building office. Once completed, new cabling can be added which can lead to broadband network equipment to saturate the ranch.



Network space is needed at this ASC and needs to meet standards. It is our recommendation to build out an IT/network space for this ASC. If there is no room that can be modified into this space, it is our recommendation to build a separate IT/network space outside, close to the existing DMARC, that is cooled, isolated only for IT needs, has proper lighting, floor loading, power, network racks and equipment, airflow, and meets standards.

UPS

Recommended:

Multiple, 2 minimum, network UPS's are needed for the network equipment at the CDRRC ASC.

Network Tower

Recommended:

70-80 ft network tower erected to provide broadband INTERNET to different parts of the center. This network tower would also need to be installed with power to provide power to the network devices on the tower.

The location of the tower can be close to the main building on the site where the DMARC is to allow the easier network access to be broadcast. If that is not possible, another location can be determined by the availability of the line of site from the main building to the tower.

Chihuahuan Desert **Rangeland Research Center**

Information **Technology**

POP / PtMP

Recommended:

CDRRC ASC needs one PtMP, point to point, and at the minimum five POPs, point of presence, if not more, to help saturate different parts of the center with wireless. The POPs are mobile and can be moved and adjusted as needed.

Cable Plan

Recommended:

Existing cabling, jacks, ports, patch cables and patch panels be upgraded to Category 6, at minimum. Connectivity between buildings can be accomplished by trenching and laying conduit, or to create wireless bridges through line of sign wireless broadband devices.

VoIP

Recommended:

It is recommend replacing antiquated phone systems and currently, the standards is VoIP. VoIP phones will tie into the network infrastructure and allow us to control the phones off of one system, and gives us the availability to manage the phone systems from each ASC remotely.

Conference Room/Collaboration Spaces

Recommended:

Smart screens, interactive touch displays, conference room cameras, speakers and mics, etc. can all be implemented to help bring these conference room spaces into the modern era and allow them to be utilized on a moments notice.

This ASC does not have a dedicated conference room, but a room can be designated and this conference room should include one smart interactive display, either Dell or Samsung, laptop or mini computer to be mounted on the display, a wall mount or portable mount, at least one Stem wall speaker/mic and Stem Hub, one Huddly camera, a Logitech Swytch for BYOD (bring your own device), a PoE Ethernet switch, and an AV station/equipment rack.

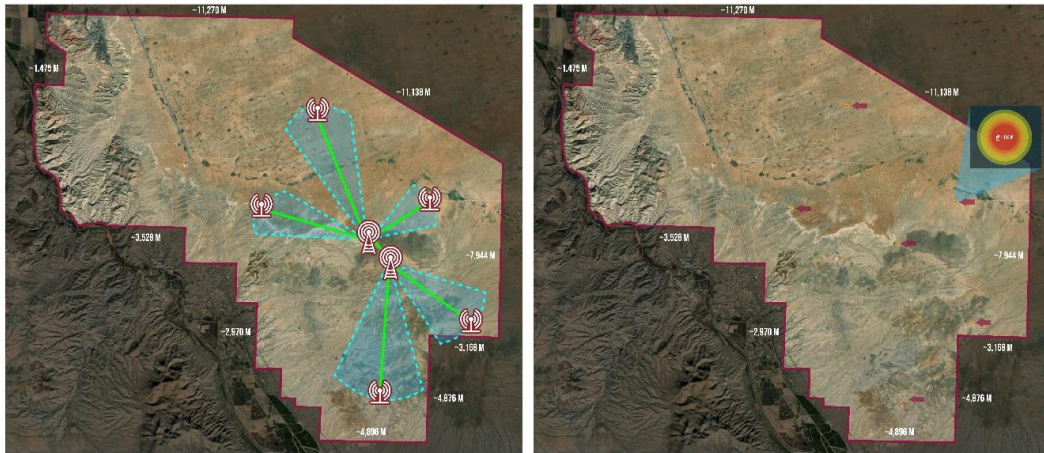
Security & Surveillance Systems

Recommended:

This ASC should have a minimum of two cameras, one showing the entrance/exit when vehicles arrive, and one on the main office building. This ASC would benefit from multiple cameras across the center to deter theft and increase visibility. Different locations at the center would allow for cameras to be installed and configured. There are multiple buildings on site and multiple stations where research is performed that would benefit from cameras to deter theft and monitor.

Chihuahuan Desert **Rangeland Research Center**

Information **Technology**



UBIQUITI ROCKET 5AC P1MP (2)
INSTALLATION HEIGHT: 8 M (26 FT)
OUTPUT POWER: 28 dBm
CHANNEL WIDTH: 40 MHz
ANTENNA GAIN: 22 dBi

UBIQUITI ROCKET 5AC



SPECS:
 - 5GHz WIDE BAND OPERATING FREQUENCY
 - POINT-TO-MULTIPOINT LINKS (PTMP)
 - DEDICATED MANAGEMENT RADIO



UBIQUITI ISOSTATION 5AC
INSTALLATION HEIGHT: 3 M (10 FT)
OUTPUT POWER: 25 dBm
CHANNEL WIDTH: 40 MHz
ANTENNA GAIN: 15.5 dBi

UBIQUITI ISOSTATION 5AC



SPECS:
 - 45° ISOLATION ANTENNA
 - SUPERIOR THROUGHPUT UP TO 450 MBPS
 - HIGH CAPACITY AND SCALABILITY
 - CAPABLE OF HIGH-SPEEDS



UBIQUITI MESH PRO
INSTALLATION HEIGHT: 2 M (6 FT)
MAXIMUM POWER: 20 dBm
POWER SUPPLY: 24 V, 0.5A
ANTENNAS: 2.4 GHz, 5 GHz

UBIQUITI MESH PRO ACCESS POINT



SPECS:
 - OMNIDIRECTIONAL 360° COVERAGE
 - LONG RANGE SYMMETRICAL TRANSMISSION UP TO 183 METERS
 - 802.11AC WAVE 1 WIFI
 - 2.4 GHz (802.11N) BAND WITH A 450 MBPS THROUGHPUT RATE
 - 5 GHz (3X3 MIMO) BAND WITH A 1.3 GBPS THROUGHPUT RATE



Chihuahuan Desert **Rangeland Research Center**
Energy Report



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Energy Audit:

For detail information regarding conservation strategies for the Chihuahuan Desert Agricultural Center please refer and review the AAE Energy Master Plan study.