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# 1. ACKNOWLEDGMENTS

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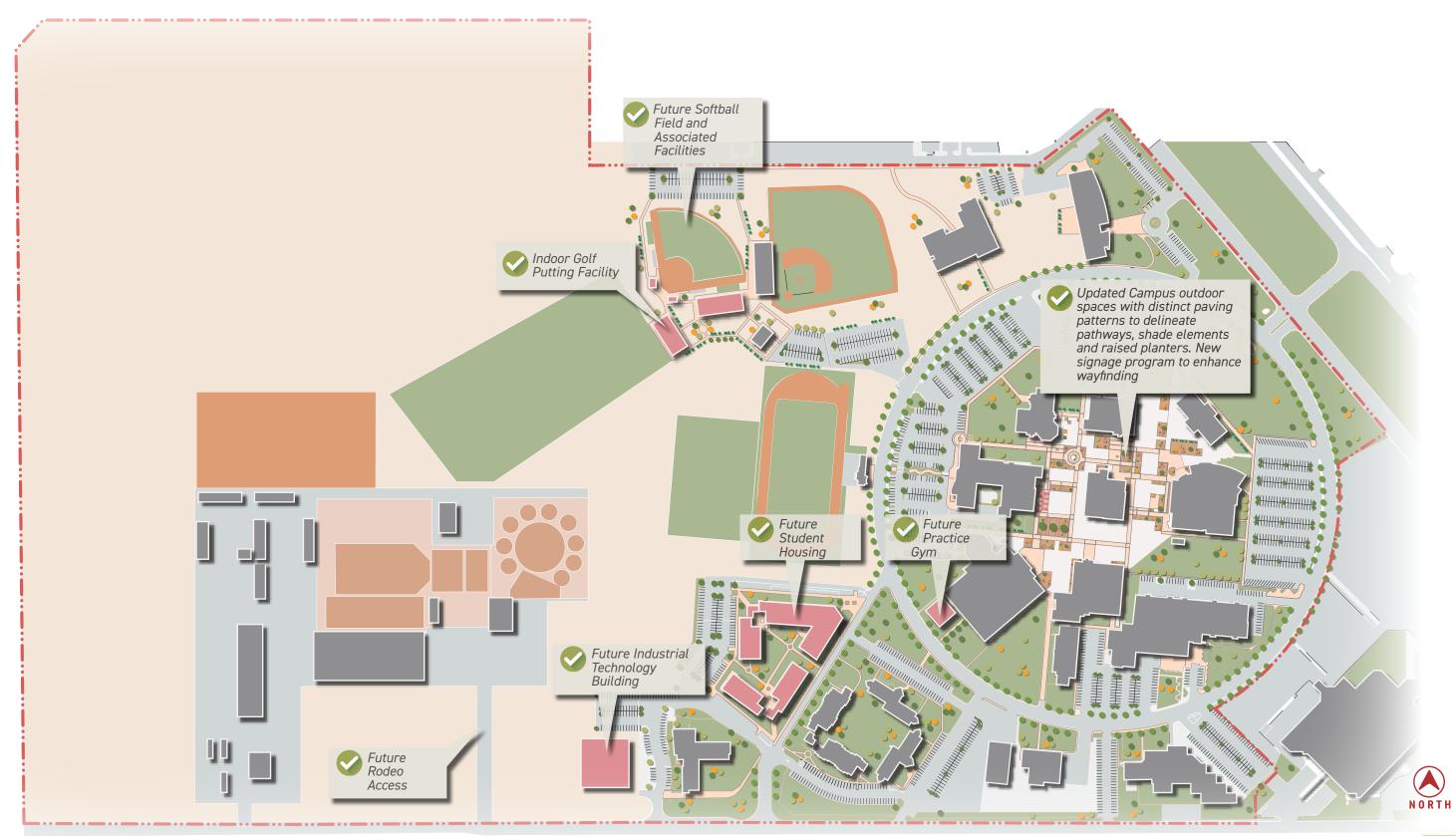
# 3. EXECUTIVE SUMMARY

Founded in 1965, the New Mexico Junior College (NMJC) just north of the City of Hobbs in southeastern New Mexico. The campus serves approximately 2,800 students and is the major higher education institution in Lea County in the southeast quadrant of the State. NMJC offers courses of study for a range of career tracks, from automotive technology to cosmetology to entertainment tech to nursing, as well as general studies that lead to an Associate of Arts or Associate of Science degree. The 2019 NMJC Campus Master Plan updates the 2005 NMJC Facilities Master Plan. It articulates a new vision for the campus, prioritizing maintenance and upgrades to existing facilities, enhancing safety and security, and strengthening the campus identity.

Higher education in general is undergoing structural changes in terms of provision of education, with online classes and changes in pedagogy towards more collaborative classroom environments. As a state, New Mexico's demographics are trending towards slower overall population growth and an aging population. For NMJC, this translates to slower/flat enrollment growth but also opportunities to attract an older cohort of students - people looking to start second careers or retirees seeking educational outlets. NMJC is situated within the Permian Basin, one of the most prolific oil and gas resources worldwide. Advances in the oil and gas extraction industry have significantly increased the rate of production in Lea County. The URENCO uranium enrichment facility nearby also contributes to the booming energy sector. NMJC is uniquely positioned to help train the workforce needed for the energy industry. The NMJC Campus Master Plan focuses on how the physical campus can respond to external forces and support the NMJC vision and mission.

The 2019 NMJC Campus Master Plan carries forward relevant information from the 2005 Facilities Master Plan but makes a deliberate shift away from the concept of a dramatically expanded campus and shifts the attention to the core nucleus of the campus to maintain existing campus assets. A comprehensive Facilities Assessment was completed to inform the goals of the master plan. While the campus as a whole is in excellent condition, the Facilities Assessment identified a range of deficiencies on a building by building basis. Roof repairs, mechanical upgrades and ADA accessibility issues are among the most common items identified in the report. The Facility Condition Index (FCI) overall is excellent; McClean Hall (slated for renovation) and the Administration Building have the highest ratios of repairs needed to overall building replacement value. The campus infrastructure requires repairs to the concrete flatwork and some portions of the tunnels that run the campus heating and cooling boiler/chiller system pipes to the various buildings within the campus core.

This Campus Master Plan will be used to guide future investments in the physical campus infrastructure and facilities and prioritizes improvements of existing campus assets.



Conceptual Campus Site Plan for Illustrative Purposes only



# 3. A-CAMPUS DEVELOPMENT **GOALS**

At the outset of the project, the project team and key stakeholders drafted development goals to guide the strategic direction of the Master Plan update and set a framework for future development projects. The updated development goals focus on enhancing and maintaining existing campus assets, creating resilience, enhancing safety, enhancing the campus brand and wayfinding, creating flexible and adaptable campus facilities and encouraging collaboration with communities and business partners. These goals help ensure that future projects are aligned with the campus strategic vision and implement this vision into the campus environment.

NMJC identified the following campus goals to inform future projects:



# Enhance and Maintain Existing Campus

> Enhance and maintain existing facilities and infrastructure



# Create a Resilient Campus

- > Anticipate future development opportunities with infrastructure that can be extended to targeted areas
- > Explore the potential to generate renewable energy to meet campus energy demands



## Create a Safe and Welcoming Campus

- > Implement Crime Prevention through Environmental Design (CPTED) strategies.
- > Control access to the campus and individual buildings.
- > Improve campus lighting to enhance security.
- > Create consistent shading features.



# Enhance Campus Identity Enhance the NMJC Brand.

- > Create a Signage and Wayfinding Plan.
- > Create a hierarchy of signage for both vehicular and pedestrian campus users.
- > Incorporate branding throughout the campus to strengthen campus identity.
- > Create consistent building entry features.
- > Create distinct and welcoming arrival points.
- > Identify/create convenient drop off points for visitors.



## Provide Flexible, Adaptable Spaces and Support Online Instructional Delivery

- > Assess the campus to understand facility capabilities and shortcomings in terms of technology capabilities and functionalities.
- > Enhance capacity to deliver and support online instructional classes.



## Encourage Collaboration with Communities and Business Partners

- > Create connections to communities and business partners.
- > Identify opportunities for naming, recognition.



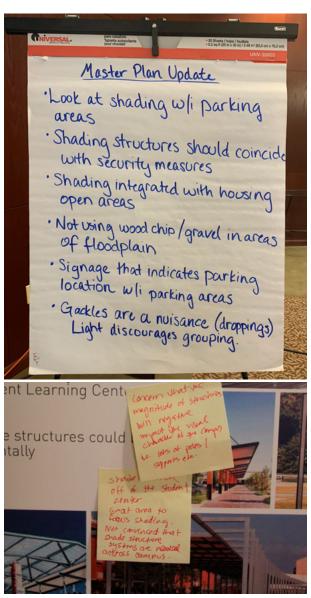


# 4. PLANNING PROCESS

The planning process section outlines the process by which the NMJC Campus Master Plan was updated and how NMJC and the project team collaborated.

In 2018, NMJC commissioned Dekker/Perich/ Sabatini to update the Campus Master Plan. At the outset, the project team met with key stakeholders to identify project goals and tour the campus. The first phase of work focused on an in-depth analysis of the existing campus conditions. This analysis included a facility and infrastructure assessment to determine the state of each structure and underlying infrastructure.

Guided by the findings of the facilities assessment, the project team developed campus concepts and strategies to achieve the goals articulated at the outset. The campus concepts and findings were presented to a larger group of NMJC stakeholders during a workshop held in June 2019. The workshop was well-attended with active participation by key stakeholders that readily shared thoughts and suggestions. Input from this workshop further informed and guided the NMJC Campus Master Plan. The project team delivered a draft of the Master Plan in August 2019 and a final version in September 2019. Over the course of the project, the project team consulted a core group of NMJC stakeholders on a bi-weekly basis.



Copious notes were taken during the workshop and feedback received informed the campus master plan update.













Following a presentation from the consultant team, participants were invited to consider a number of boards with more detailed concepts. and information.









Participants indicated their likes and dislikes with colored sticker dots on the boards, as well as additional comments on sticky notes.



# 5. INTRODUCTION

The introduction outlines the purpose of the NMJC Master Plan update and provides background information pertaining to the physical location and history of the campus.

# **5. A-PURPOSE AND PROCESS**

NMJC last updated the Campus Master Plan in 2005. Since that time, the dynamics of higher education have changed, driven by shifting demographic patterns, rapidly changing economic realities, technological advances and new regulatory requirements. The overall strategic direction for NMJC has shifted, with less emphasis on campus expansion and more on maintaining and improving existing facilities to create a resilient, flexible and attractive campus that draws more students to the college and the surrounding area.

As the strategic focus of the college has changed since 2005, NMJC made the decision to generate a new Master Plan rather than updating the 2005 Master Plan. The 2019 NMJC Campus Master Plan carries forward relevant information from the 2005 Facilities Master Plan; however, it establishes a new campus framework that considers the changing demographics, economic and regulatory realities. It addresses the current campus conditions and articulates strategies for future improvements. This Campus Master Plan will be used to guide future investments in the physical campus infrastructure and facilities and identifies and prioritizes improvements that are needed to the existing campus.

<u>"Table 1. Old vs. New Master Plan"</u> outlines the different focus areas of the 2005 and 2019 Campus Master Plans.

#### TABLE 1. Old vs. New Master Plan

#### New Mexico Junior College Facility Master Plan Update, 2005

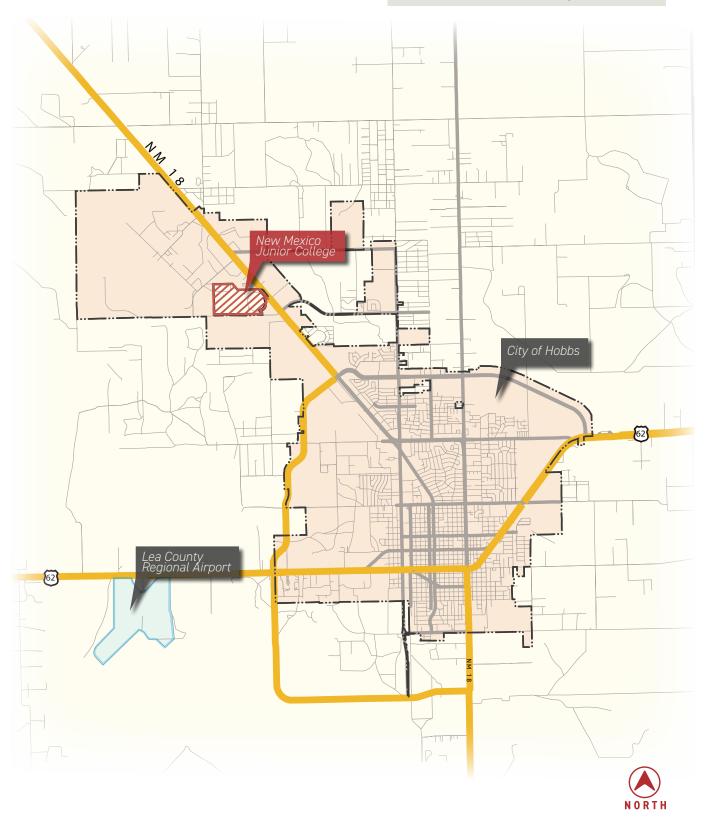
- > Expand square footage of facilities and infrastructure
- > Continued growth within the Circle by infill and expansion
- > Completion of the array of possible facilities outside the Circle
- > Development of a "West Campus" and connection of it to the Original Campus by both pedestrian and vehicular traffic
- > Retention of the existing array of parking both inside and outside the Circle.

#### New Mexico Junior College Campus Master Plan, 2019

- Maintain and enhance existing facilities and infrastructure
- > Repair/protect tunnel system
- > Develop new housing
- > Develop new recreational facilities
- > Increase security of campus
- > Enhance signage and wayfinding
- > Incorporate shade elements and landscape renovations

The 2019 Campus Master Plan is a vision for the New Mexico Junior College that provides a framework to direct future development and identifies priorities to allow the college to direct resources and grow in an organized and predictable manner.

# **EXHIBIT 3. NMJC Context Map**

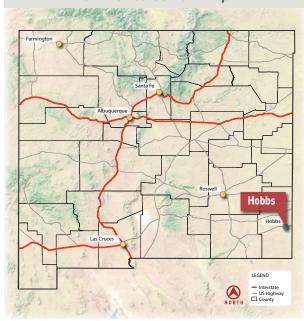




# **5.B-LOCATION**

NMJC is located adjacent to the northern city limits of Hobbs, within Lea County, five miles west of the Texas border. Located at the intersection of U.S. Highway 62 and NM 18, Hobbs is also served by the nearby Lea County Regional Airport. NMJC is situated on the northwest side of Hobbs, with the main entrance along the north-south corridor of Lovington Highway (NM 18).

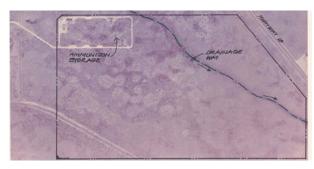
**EXHIBIT 1. New Mexico Context Map** 



# **5.C-HISTORY**

The Legislature of the State of New Mexico passed the Junior College Act in 1963 and NMJC was officially founded on July 1, 1965 as the first independent junior college in New Mexico.

NMJC acquired approximately 230 acres of land at the southwest corner of the World War II US Army Air Corps bomber training field. The eastern boundary was Lovington Highway (NM 18) and the southern boundary was a caliche road and fence line that would become Millen Drive. The site was largely unused during the war except for its northwest corner which was the ammunition and ordnance depot for the airfield.



Aerial of campus boundary in 1965



Aerial of campus, 1997

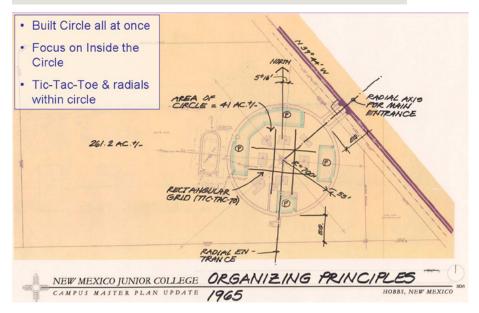


Aerial of campus, 2003



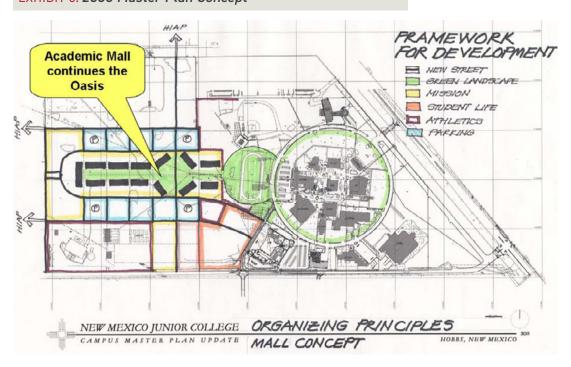
Aerial of campus, 2019

# EXHIBIT 4. Original Campus Master Plan, 1965



Original campus Master Plan drawing of 1965

# EXHIBIT 5. 2005 Master Plan Concept



2005 Master Plan concept showing the anticipated westward expansion



Classes at NMJC began in the fall of 1966. The enrollment of NMJC has grown from 1,094 students in 1968 to 1,326 in 1988 to an enrollment of 2,720 in Fall 2018. From a population of 55,100 in 1980, Lea County has grown to an estimated 68,759 in 2017.

The original campus Master Plan and associated facilities were designed by Standhardt and Murray, Associated Architects of Roswell in 1965. The campus was designed in a circular pattern bounded by a loop road framing a grid of nine building sites as identified by "Exhibit 4. Original Campus Master Plan, 1965".

By the 1970s, this first phase had been built out to the full extent of the Circle. By the early 1980s, buildings outside the circle were planned and in 1982 a minor campus Master Plan update was prepared by Morrow & Worley, Landscape Architects of Albuquerque in 1982.

In 2005, the Master Plan was updated again. This update envisioned the campus to expand westward with a separate but closely connected campus called the "West Campus," which was envisioned to be as close in size and proximity to the original Circle as possible, as shown in "Exhibit 5. 2005 Master Plan Concept". This expansion did not materialize, and today's goals and priorities have shifted in pursuit of a different vision.

# 6. TRENDS

The trends section outlines trends in demographics, the state and local economy and higher education to evaluate external forces that impact NMJC. This analysis allows NMJC to take the findings into consideration when drafting goals and planning for future development projects.

#### 6. A-DEMOGRAPHIC

The population in Lea County has increased steadily over the past two decades. In 1999, the overall population accounted for 55,067 residents. In 2017, Lea County accounted for over 68,759 according to the Census. In 2017, the average median age was 31, which is younger than the population of both New Mexico (37.7) and the United States (37.8) according to the Census. Hobbs that is immediately adjacent to the NMJC campus, enjoys one of the lowest costs of living at 12% lower than the national average, according to the Council for Community and Economic Research. Its median household

income is close to the national median household income at over \$57,000, and higher than the New Mexican median household income that is just over \$46.000.

# 6. B-ECONOMIC

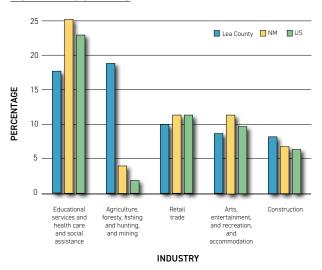
Hobbs serves as the commercial center for southeastern New Mexico and adjacent areas in Texas. The boom in the oil and natural gas industry has created new commercial growth in the City which has increased in population by a third between 2009 and 2018 according to the Economic Development Corporation (EDC). As a result of

the growing economy, housing has been in short supply. In order to stimulate the construction of residential and commercial buildings, the City of Hobbs created a number of incentives. In response, building permits issued for residential single-family homes doubled between 2016 and 2018 in Hobbs, according to the EDC. This steady growth of employment opportunities has contributed to the appeal of this region and population is expected to increase further.

The oil and gas industry serves as the primary economic activity for this area. More than half of New Mexico's oil production in 2018 was produced in Lea County. Lea County continues to establish itself in the energy sector nationally, as it is currently ranked third in oil production in the US at the time of this update. Compared to the state and the country, Lea County employs a much higher percentage of people in mining (Agriculture, forestry, fishing and hunting, and mining industry sector) due to the success of the oil and gas industry.

#### **EXHIBIT 2. Top Industries**

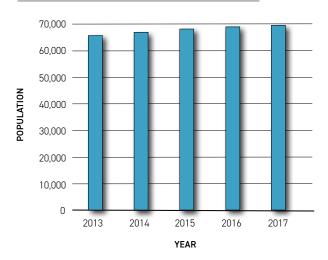
# TOP INDUSTRIES



As a result of a strong economy and the availability of high paying jobs, some potential students may opt for work over higher education, thus affecting enrollment numbers.

#### **EXHIBIT 3. Total Population**

#### LEA COUNTY TOTAL POPULATION



# **6.C-HIGHER EDUCATION**

Historically, higher education institutions have followed a traditional model, primarily teaching liberal arts. However, shifting demographic patterns, the pace of technological change, and the path of economic globalization necessitate a reexamination of this higher education model.

The junior or community college started out as a nearby, low-cost open enrollment vocational school. Today, colleges enroll almost half of all U.S. undergraduate students. Colleges are in an unique position to fill the gap in higher education by providing training that contributes to a faster turnaround than the traditional model.



There are a number of factors that are driving change within the job market both globally and domestically. Given population trends and trends in labor force participation rates, the U.S. workforce will continue to increase in size but at a considerably slower rate than in the past. Technological advances, such as artificial intelligence (AI), robotics and automation, have dramatically accelerated and streamlined production in recent years. Future demand of skills in complex problem-solving, cognitive abilities, and social skills will increase because of these advances in technology. Cloud technology that allows for more collaboration at greater distances has also increased productivity and changed the face of "the office."

Following these market forces and technological advances, employment trends are emerging that put pressure on the higher education system to respond. There is a growing demand for middle-skilled workers within the marketplace. These jobs require more than a high school diploma but less than a bachelor's degree and comprise about half of all U.S. jobs. Jobs that were previously available to those with high school diplomas now require specialized training. These fields fall within the training and educational domain of the junior college, providing an opportunity to design new programs to fill the gaps.

Among other trends also is the growing number of multi-generational workplaces. The young and usually more technologically savvy generations have now integrated into workplaces that also include the Baby Boomer generation who often are delaying retirement. This requires more innovative practices and policies to support extended careers. Oftentimes this means that older generations return to school to gain skills to compete or collaborate with younger generations.

With the introduction of advances in technology to higher education comes new models of learning. With online classes, distance is no longer a constraint for students who find themselves in rural areas. It also allows students taking career advancement courses greater flexibility in their schedules while working full-time or part-time. Methods of delivery are also changing with "flipped classrooms" that allow students to complete learning outside the classroom through online lectures and readings while class time is used for more practical, hands-on learning. Adaptive learning is also emerging as a successful method of delivery. This is a computer-based or online educational system that modifies the presentation of material in response to student performance, allowing a more tailored, individual learning experience.

Junior colleges like NMJC have the unique ability to quickly respond to a rapidly changing economy and emerging employment trends. Where junior and community colleges have traditionally succeeded in training a middle-skilled labor force, with specialized degrees and certificate programs, additional connections can be made to the local business sector to supply an immediate demand with graduates that have the necessary skill set. New methods of learning can accommodate the schedules and preferences of a broader range of students, incorporating advances in technology into higher education learning to produce graduates who are prepared to participate in the current economy.

#### **NMJC OPPORTUNITIES**

NMJC is already training the local workforce for industry-specific vocations and essential services. The two-year registered nursing education program, for example, educates 50 students every year, supporting the region with qualified health workers. Other programs provide technical knowledge as well as extensive practical handson skill developing experiences for students. Workforce training is available through continuing education courses as well.

However, with the drivers of change and employment trends in mind, there are a number of ways NMJC can respond to the changes and solidify its place in the higher education landscape.

- > Programming classrooms to offer a variety of innovative fast-track, boot camp style workforce training programs.
- > Collaborative spaces to connect junior or community colleges to the business sector of the local economy to create opportunities for internships, apprenticeships and networking. These entrepreneurial incubator spaces host start-up companies and provide a sort of laboratory for students to interact with the local economy.
- > Flexible classrooms where furnishings are designed to be easily rearranged.
- > Up-to-date technology integrated into classrooms, including Virtual Reality, interactive white-boards, and

- videoconferencing that boosts collaboration and offers diverse learning opportunities
- > Renovations that include creating collaborative spaces with smaller meeting room spaces with glass walls that open to larger central gathering spaces, etc.

# **6.D-HED REQUIREMENTS**

New Mexico Higher Education Department (NMHED) is responsible for the review and approval of public college and university Capital Projects. It is necessary for institutions to have an updated five-year Master Plan in which the institution determines the types of funding required for a given project in order to receive funding from NMHED. The institution requests legislative funding to support conceptual construction/ renovation projects from their five-year plan. NMHED determines a recommended list of projects to submit to the Governor. If approved, funding is awarded through General Obligation Bonds (GOB), Severance Tax Bonds (STB), or General Funds (GF). NMHED also holds monthly Capital Project Meetings to approve funding expenditures for construction/ renovation projects and land purchases/leases. Based on project cost and type of school, the State Board of Finance reviews and approves. Institutions must submit all capital projects to NMHED, even if capital projects are not seeking Legislative funding.



# 7. EXISTING CAMPUS CONDITIONS ASSESSMENT

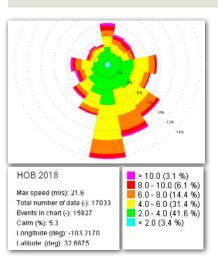
The existing campus condition assessment evaluates the existing campus conditions to help NMJC determine future projects and priorities and informs the development goals and implementation strategies set forward in subsequent sections.

## 7.A-ENVIRONMENTAL ASSESSMENT

#### **CLIMATE AND WEATHER**

The NMJC campus is located in southeastern New Mexico, an area known for its harsh climate and strong winds. During the spring and summer months, the campus experiences winds from the south, peaking in April. During the winter months, wind direction shifts to the west. Because the terrain is flat, winds can be destructive to the built environment and must be considered for overall campus improvements. Hobbs also experiences tornadoes, with over 15 events recorded since 1950 with a magnitude of 2 or above.

#### **EXHIBIT 4. Wind Rose**



#### **EXHIBIT 5. Average Weather Conditions**

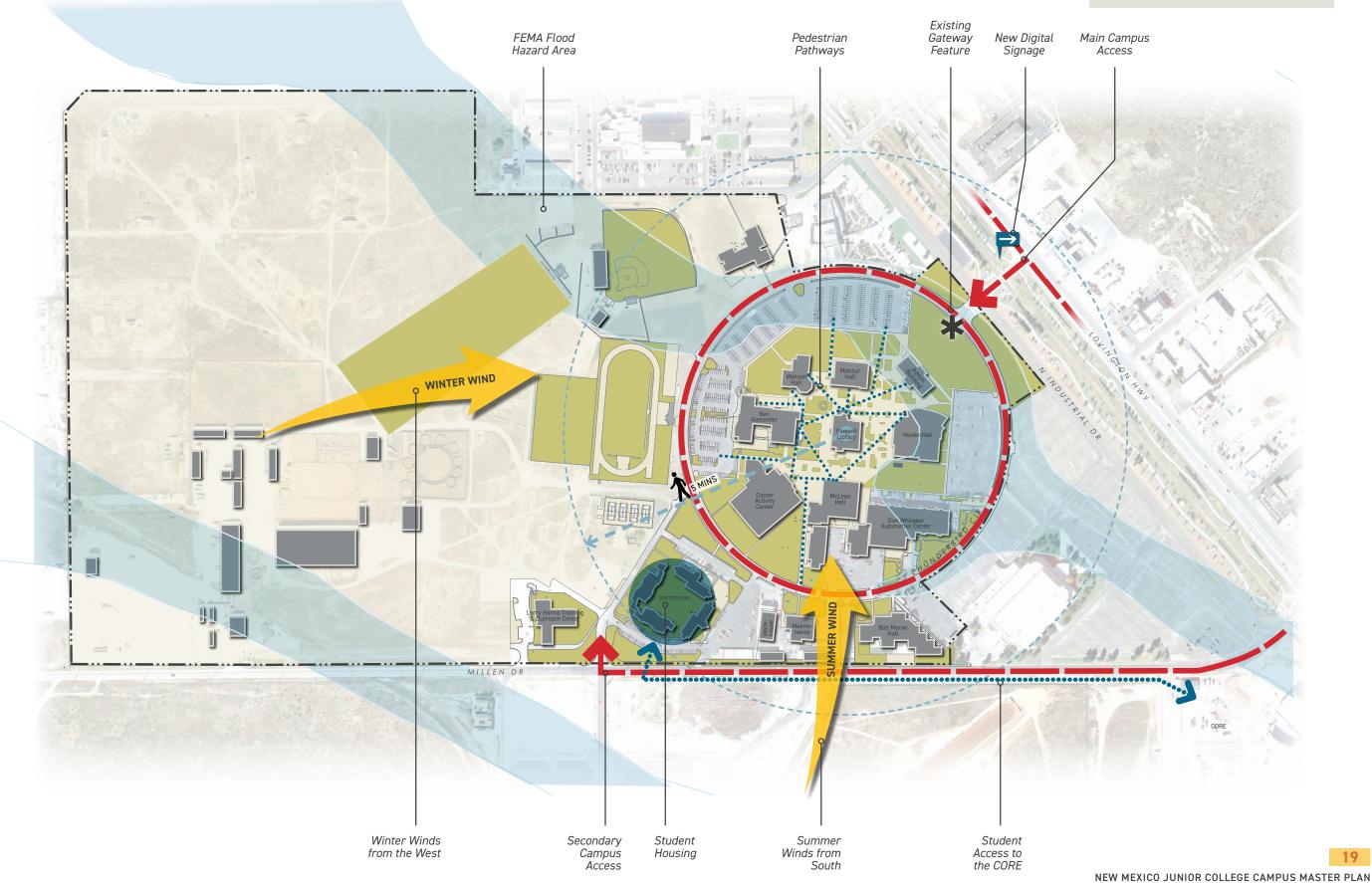
avg.	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	9	9	10	11	10	9	7	6	6	7	8	9
0.0.0										1.8"		
***	1.5"	2.7"	1.5"	0.1"	0.0"	0.0"	0.0"	0.0"	0.0"	0.0"	0.7"	0.2"
										62		



The above graph illustrates average weather conditions in Hobbs

According to the FEMA National Flood Hazard Layer, parts of the campus are located in the floodplain. Although Hobbs averages 16 inches of annual precipitation, major floods have occurred in Hobbs on several occasions that have caused significant damage. There is anecdotal evidence that the campus has flooded significantly and boats were used to maneuver the campus floating on the loop road. Storm events generally occur between May and October. Most of the flooding occurs as sheet flow with a depth of one to three inches. Since soil depths are very shallow, the propensity for flash flood events during the monsoon season in the summer are increased.

# **EXHIBIT 6. Site Assessment**





# SOILS

Soils within the NMJC campus are composed primarily of Kimbrough gravelly loam and the Kimbrough-Lea complex, according to the USDA Web Soil Survey. The typical vegetation consists of short and mid grasses and shrubs and is unsuitable for agricultural use. The surface layer is dark grayish-brown about 6 inches thick with beds of caliche underneath which pose challenges to landscaping as plant root systems can only penetrate to a depth of 6 to 16 inches. For NMJC this means that new landscape areas have to be excavated first and backfilled with more suitable topsoil, requiring additional labor and increasing project costs.

As such, the recommendations provided in this Master Plan take into consideration this particular challenge for future projects.

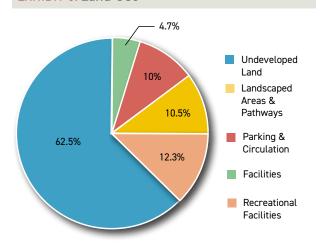
Hobbs is located at an elevation of over 3,600 feet. This elevation, combined with a generally dry climate and lack of natural tree canopy, has a harsh impact on exterior materials, from signage to building facades. During the winter months, the sun's southerly path results in high solar exposure on the southeast- and southwest-facing walls of facilities. The summer months bring a higher intensity of rays and sustained high temperatures.

#### LAND USE

There are several existing land uses on-campus with specific physical characteristics and location considerations. Since almost two-thirds of the campus is currently undeveloped, it is important to consider the existing percentages of land uses as goals and strategies are identified for future development opportunities. Over 62% of land is currently undeveloped, while 12% is occupied by

recreational uses, such as the baseball and track and field facilities. 10% is occupied by parking and almost 5% by facilities. The college has an ample supply of land for future expansion if new facilities are required.





## 7. B-CAMPUS CONTEXT

The NMJC campus is comprised of a cluster of facilities located within the circle, bound by the Thunderbird Circle loop road. The first phase of the campus was developed within the circle and facilities located here are referred to as within the circle. Most NMJC academic programs and campus functions are located within the circle, while support services like maintenance and student housing are located outside the circle. Outside the circle to the west are the athletic fields and golf driving range as well as a rodeo and equestrian facilities.

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  Center (HAC)

- Center (FAC)
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  07 McLean Hall (MC)
  08 Caster Activity Center (CAC)
  09 Ben Alexander Student Learning Center
  (BAC)

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- 29 Baseball Field House
  30 Ray Birmingham Thunderbird Baseball
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#### LEGEND

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- H Lea Regional Medical Center
- Western Heritage Museum
- Watson Hall Theater
- Pannel Library
- Larry Hanna Training and Outreach Center (HTO)
- Caster Activity Center
- Driving Range
- Ray Birmingham Thunderbird Baseball Field (BBF)

- Track and Field
- Equestrian Facilities







Aerial of NMJC campus looking northwest, 2019

To the southwest, located at the secondary entrance off of Millen Drive, is the Larry Hanna Training and Outreach Center which offers continuing education, instrumentation and controls, oil and gas technology, transportation training, and workforce training. Also located to the southwest and outside the loop road is student housing.



Aerial of NMJC campus looking west. Located to the southwest is student housing, 2019.

To the southeast and outside the campus boundary is the Lea County Event Center and the CORE Center of Recreational Excellence. Both facilities are utilized by NMJC students and coordinate with the college to offer complementary programs.

The Western Heritage Museum of Lea County is located in the north of the campus, just outside the circle. In 2019, the Allied Health building was added to the west of the Western Heritage Museum. The Allied Health building is strategically located adjacent to the Lea County Regional Medical Center

to create a physical and programmatic adjacency benefiting the hospital and NMJC nursing students; walkways connect the Allied Health building to the medical center site to the north.



Aerial of NMJC campus looking southwest from the main gateway into the campus from Lovington Highway. To the north is the newly constructed Allied Health building, 2019.

# 7. C-CIRCULATION

The campus is accessed through two points with the primary access located on the east off of Lovington Highway and a secondary access located on the south side of the campus off of Millen Drive. Thunderbird Circle serves as a loop road and internal arterial, dividing the campus into areas within the circle or loop road and facilities outside the circle. Facilities within the circle are organized around Pannell Library at the center, facing inwards with parking fields located adjacent to Thunderbird Circle. Equestrian facilities to the east of the campus are accessed through a dirt road north of the tennis courts and south of the Track Field facilities. If new student dorms are constructed to the west of the exciting dorms, NMJC expressed the desire to create a new access road off of Millen Drive to service the equestrian facilities.

The college includes approximately 730 parking spaces which sufficiently serve the college. Parking fields are located adjacent to Heidel Hall, Mansur Hall. Watson Hall and Ben Alexander as well as the Don Whitaker Automotive Technology Center. There are additional parking fields outside the circle serving Bob Moran Hall, the Maintenance Building, student housing, the Larry Hanna Training and Outreach Center, the tennis courts, track field, and baseball facilities. Parking fields are not numbered or identified by names and with the exception of the parking area to the west of Ben Alexander, lack landscaping or shade. During discussions with NMJC stakeholders the desire for covered parking was expressed to protect users and their vehicles from exposure to the sun.



Parking field looking north.

Pedestrian movement occurs throughout the campus, primarily concentrated within the circle as students move from class to class. No vehicular access is permitted within the circle, allowing pedestrians full access; however, the pedestrian pathways are poorly defined. Outside the circle, pedestrian activity occurs primarily between Ben Alexander and the athletic field/baseball field, between student housing and Caster Activity Center as well as between the Allied Health building and the parking lot adjacent to Watson and Mansur

Halls. Other pedestrian routes are between the student housing and the CORE. During discussions it was mentioned that this connection needed to be enhanced to create a safer and more pleasant pedestrian environment when traveling to and from the CORE.



Access within the circle is restricted to pedestrians and bicyclists and includes an extensive network of concrete pathways and land-scaped areas.

## 7. D-SECURITY

Much of the core NMJC campus was planned and constructed in the early 1960s and 1970s. At that time, the main focus was providing accessibility, resulting in a porous campus with a multitude of access points. Today, heightened security concerns have changed the focus. NMJC leadership wants to implement access control measures as well as other security measures to make the campus safer for all users.





Building entrances with automated sliding doors, creates challenges for maintaining the building temperature and controlling access.

One of the main security concerns is the large number of building entrances distributed throughout the campus. Many buildings have more entrances than required serving no specific purpose. A majority of the entrances are not equipped with vestibules which are necessary to implement access control measures. NMJC stakeholders expressed the desire to install access control measures on all entrances to restrict access to buildings.



During the workshop, NMJC stakeholders commented on a board prepared to discuss security issues and introduce concepts to enhance security on campus.

## CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

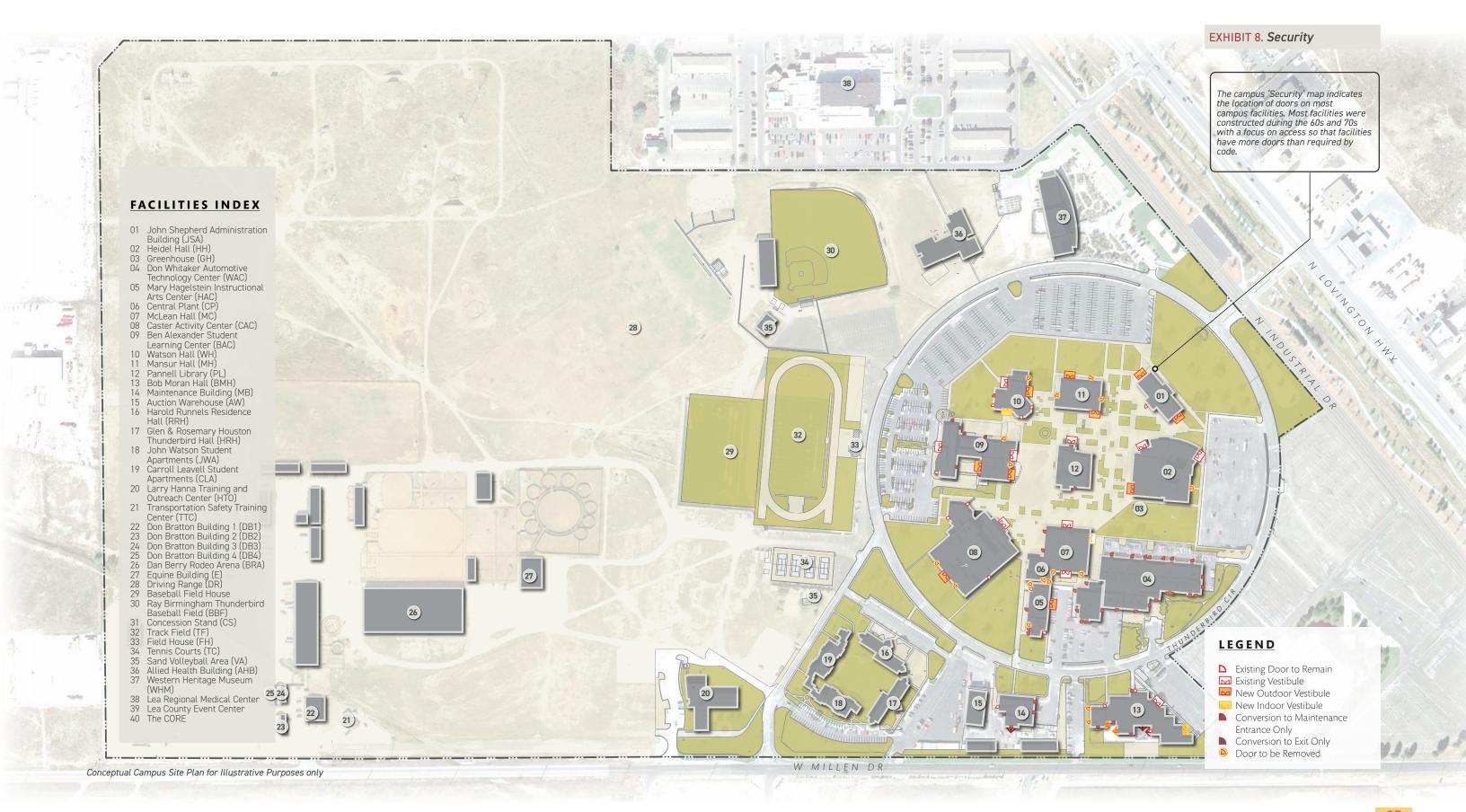
Crime Prevention Through Environmental Design (CPTED) principles are strategies that use site and building design methods to reduce the incidence and fear of crime.

Older campus facilities are not designed or located to maximize visibility or to eliminate hiding places. The conscious placement and design of outdoor spaces and buildings increase the perception of human presence and supervision. This deters unwanted intrusion and behaviors that creates a natural surveillance system. Part of this system includes proper illumination in buildings and walkways. Currently the campus lacks a comprehensive lighting scheme within and around campus facilities. A majority of outdoor areas are not well-lit, creating dark corners and the perception of a lack of supervision.



A majority of facilities on campus are not designed or located to maximize visibility or to eliminate hiding places.

Renovations and new facility design projects should take into consideration the location, design and orientation of buildings and openings to enhance safety and oversight throughout the campus. An improved and coordinated lighting system would further improve overall safety.





Throughout the campus, there is a lack of signage, wayfinding measures, branding and pathway delineation which creates ambiguous spaces that are confusing to use and are likely to invite unwanted behavior. Currently there is no comprehensive signage system with a general lack of pedestrian-level signage inside the circle and a lack of building-applied signage. Pathways are largely not delineated. For example, the pedestrian areas between facilities within the circle have large expanses of lawn and pavement broken up by seemingly random landscape pieces. These areas are in need of more structured delineation to better orient users. This, accompanied by a comprehensive signage system, would contribute to better wayfinding and territorial reinforcement that enhances security.

The campus facilities assessment revealed that many of the pedestrian hardscape walkways are in need of repairs and maintenance. The network of tunnels that are below some walkways also need repairs that necessitate the reconstruction of the sidewalks above.

The following outlines general CPTED strategies which should be considered for renovation and new construction projects. More targeted strategies are outlined in the <u>"9. CAMPUS IMPROVEMENT PRIORITIES"</u> section.

#### Natural Access Control

> Natural access control refers to a design strategy that is directed at decreasing crime opportunity. The primary goal of an access control strategy is to deny access to a crime target and to create a perception of risk to the offender. Design features attempt to deny offenders access to targets, reduce escape opportunities and guide legitimate users through the environment.

#### Natural Surveillance

> Natural surveillance refers to a design strategy that is directed at keeping intruders under observation. Designing for natural surveillance involves providing ample opportunity for legitimate users engaged in their normal activities to observe the space around them. Design strategies revolve around the placement of physical features, activities and/or people that maximize natural visibility or observation.

#### Territorial Reinforcement

> Territorial reinforcement refers to a design strategy that realizes that physical design can create or extend a sphere of influence over a property. Design features are used to clearly delineate a space as public, semipublic, or private space and to create appropriate ownership of that space.

#### Maintenance

> Maintenance refers to the continued use of a space for its intended purpose. It also serves as an additional expression of ownership. A good maintained campus creates a sense of ownership, which helps to deter criminals.

Implementing CPTED strategies throughout the NMJC campus will help with crime prevention while also enhancing the visual qualities of the campus.



# 8. FACILITIES & INFRASTRUCTURE ASSESSMENT

The facility and infrastructure assessment section outlines the findings of the assessment performed on NMJC facilities and infrastructure.

# 8. A-FACILITIES

As part of this Master Plan update, a Facilities Assessment was conducted to analyze the state of each facility. The existing total square footage covers over 480,000 square feet. The assessment found that most of the facilities are in good shape with minor repairs and maintenance required including but not limited to roof repairs and exterior/interior cosmetic repairs. In addition, due to the age of most facilities, some buildings must be brought into compliance with code requirements including utilities, ADA accessibility and emergency lighting and signage systems.

Most facilities within the circle have sufficient space to accommodate the existing college programs. Outside the circle, some new facilities are required to cover program expansions and support existing functions. One major proposed addition includes a new Industrial Technology Building for welding, vocational training and outreach programs. This is tentatively planned for a site west of the current student housing. Due to a housing shortage in the greater Hobbs area, the need for interim faculty housing was expressed.

The NMJC athletic and sports programs are growing and require facility expansions, including an indoor putting and chipping area to support the existing driving range, a softball field adjacent to

the existing baseball field with ancillary facilities, and a practice gym adjacent to Caster Activity Center.

TABLE 2. Overall Facility Square Foota	ige
Building	SQFT
Watson Hall	14,536
Mansur Hall	15,499
John Shepherd Administration Building	11,447
Ben Alexander Student Learning Center	45,023
Pannell Library	29,514
Caster Activity Center	57,697
Heidel Hall	38,914
McLean Hall	22,853
Central Plant	5,850
Mary Hagelstein Instructional Arts Center	11,533
Don Whitaker Automotive Technology Center	65,763
Harold Runnels Residence Hall	18,160
Glen & Rosemary Houston Thunderbird Hall	18,160
John Watson/Carroll Leavell Student Apartments	67,326
Maintenance Building	12,328
Bob Moran Hall	31,043
Larry Hanna Training and Outreach Center	15,207



(The full Facilities Assessment Report can be found in the Appendices.)

## **WATSON HALL**

Watson Hall is in generally good condition, but is in need of substantial cosmetic repairs and upgrades. Some of the main capital investment areas include renovating the theater to be accessible, mechanical corrections/upgrades, installing a fire suppression system, and cleaning and repointing exterior brick.

Description	A single-story fine arts/theater building
Year Built	1967
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. The floor is a slabon-grade concrete floor.
Additions/ Renovations	Two additions constructed in 1986 and 1994



The mosaic tile walls on the exterior of the theater have some portions that are missing.

#### **STAFF NOTES**

- > Water out of faucets runs rust-colored for a few minutes
- > Plumbing backs up
- > Exterior doors stick open or closed
- > Lighting control has several issues
- > Windows in Room 121 generate too much heat gain in the afternoon

#### TABLE 3. Watson Hall Summary

#### Facility Deficiencies

Clean and repoint brick

Correct accessibility issues in restrooms

Electrical corrections/upgrades

Install accessible door hardware

Install compliant signage

Install emergency lighting system, incl. exit signs

Install fire suppression system

Install vestibules at each entry (Incl. replacing existing door)

Mechanical corrections/upgrades

New LED light fixtures

Plumbing corrections/upgrades

Re-finish terrazzo

Renovate plumbing system

Renovate theater to be accessible

Replace ceiling tiles and grid

Replace other flooring

Replace windows in cosmetology

Roof repair

Upgrade Fire alarm system

# MANSUR HALL

Mansur Hall is in generally good condition, but is in need of substantial cosmetic repairs and upgrades. Some of the main capital investment areas include mechanical and electrical corrections/upgrades, cleaning and repointing the exterior brick, and upgrading the fire alarm system.

Description	A single-story classroom building
Year Built	1966
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. The floor is a slabon-grade concrete floor.
Additions/ Renovations	None



Upgrades are needed at building entrances/exits that include vestibules in order to better control access and regulate temperatures.

# STAFF NOTES

- > Women's restroom has bad odor
- > Exterior doors stick open or closed
- > No windows
- > WI-FI is not consistent

TABLE 4. Mansur Hall Summary
Facility Deficiencies
Clean and repoint brick
Correct accessibility issues in restrooms
Electrical corrections/upgrades
Install accessible door hardware
Install compliant signage
Install emergency lighting system, incl. exit signs
Install exhaust fans in restrooms
Install vestibules at each entry (incl. replacing existing door)
Mechanical corrections/upgrades
New LED light fixtures
Plumbing corrections/upgrades
Re-finish terrazzo
Renovate plumbing system
Repair (patch, remove debris, clean drains, replace ballast)
Replace ceiling tiles and grid
Replace existing / install new drinking fountains

Replace other Flooring
Upgrade Fire alarm system



# JOHN SHEPHERD ADMINISTRATION

John Shepherd is in generally good condition, but is in need of cosmetic repairs and upgrades. Some of the main capital investment areas include mechanical and electrical corrections/upgrades, sprinkle building, and replace alarm system.

Description	A single-story administration building
Year Built	1966
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. The floor is a slabon-grade concrete floor.
Additions/ Renovations	Original entry was closed and main entry was relocated to the north side.



Sidewalks need to be replaced that surround the building

# TABLE 5. John Shepherd Summary Facility Deficiencies Adjust sticking storefront door at entrance near Electrical corrections/upgrades Fire alarm system Localized repair Mechanical corrections/upgrades Plumbing corrections/upgrades Re-landscape Repair door trim 141 Repair drywall Repair hole in wall above door 121 Repair holes in finance office door Replace auto door opener at entrance near 106 Replace auto door opener at entrance near 131 Replace blinds in storage Replace ceiling tiles Replace door 114 cracked Replace flooring Replace lighting Replace sidewalks around building

Replace signage

Sprinkle building

Replace storefront door near 106

## BEN ALEXANDER STUDENT LEARNING CENTER

Ben Alexander is in generally good condition, but is in need of substantial cosmetic repairs and upgrades. Some of the main capital investment areas include renovate kitchen, electrical and mechanical corrections/upgrades, and clean and repoint brick.

Description	A two-story student building with student activity center, cafeteria/kitchen, bookstore and student services
Year Built	1969
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. The floor is a slabon-grade concrete floor.
Additions/ Renovations	Addition in 2005

The kitchen floor tiles are aged and the walls are in poor condition

#### **STAFF NOTES**

- > Kitchen is inefficient and poorly laid out
- > Kitchen equipment is old and in need of replacement
- > Flooring in kitchen is very poor

#### TABLE 6. Ben Alexander Summary

#### Facility Deficiencies

Clean and repoint brick

Correct accessibility issues in restrooms

Electrical corrections/upgrades

Install accessible door hardware

Install compliant signage

Install vestibules at each entry (incl. replacing existing door)

Mechanical corrections/upgrades

New LED light fixtures

New VCT

Plumbing corrections/upgrades

Re-finish terrazzo

Renovate kitchen

Repair (patch, remove debris, clean drains, replace ballast)

Replace ceiling tiles and grid



# PANNELL LIBRARY

Pannell Library is in excellent condition, with a few minor cosmetic repairs and replacements. Some of the main capital investment areas include mechanical and electrical corrections/upgrades and replacing toilet partitions.

Description	A two-story library building
Year Built	1960s
Structure	Load-bearing masonry and steel columns and beams as well as concrete column and beams on the lower level
Additions/ Renovations	Two additions/renovations in 1980 and 2010, adding second story and entry/circulation vestibule



Exterior stair and stair structure (including railing) need to be repainted



LVT flooring is coming up in between mobile storage units

# TABLE 7. Pannell Library Summary

# Facility Deficiencies

Electrical corrections/upgrades

Mechanical corrections/upgrades

Re-paint exterior stair

Repair LVT at mobile storage units

Replace carpet at 241

Replace toilet partitions

# HEIDEL HALL

Heidel Hall is in good condition, with substantial cosmetic repairs and replacements. Some of the main capital investment areas include mechanical and electrical corrections/upgrades, replacing flooring and fire alarm system, and re-roofing.

Description	A single-story educational building
Year Built	1966
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floor is slab-ongrade concrete floor.
Additions/ Renovations	Addition in 1995



Flooring in certain locations is in disrepair and is recommended to be replaced  $% \left( 1\right) =\left( 1\right) \left( 1\right) \left$ 

TABLE 8. Heidel Hall Summary
Facility Deficiencies
ADA fixtures in bathroom 105
Blinds in public safety replace
Ceiling cracked in hallway 200 outside 204
Ceiling tile replacement
Dedicated sanitary line
Electrical corrections/upgrades
Fan not working 105
Flooring repair/replacement
Install seal
Landscaping repair/replacement
Lighting replacement
Mechanical corrections/upgrades
Mismatched tiles
Painting
Plumbing corrections/upgrades
Remove door opener button pedestal
Repair corner brick cracking outside 102
Repair door scratches
Repair water damaged drywall at entry
Replace benches near door 130 hallway
Replace cracked sidewalks around building
Replace fire alarm system
Replace roof
Storage
Store 133 needs shelving and chem cabinets
Window repair/replacement



# McLEAN HALL

McLean Hall is in good condition, with substantial cosmetic repairs and replacements. Some of the main capital investment areas include mechanical and electrical corrections/upgrades, cleaning and repointing brick, and upgrading fire alarm system.

Description	A single-story building housing IT and classrooms
Year Built	1966
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floor is slab-ongrade concrete floor.
Additions/ Renovations	Addition in 1977



Out-of-order water fountains should be replaced

#### **STAFF NOTES**

- > Vocational addition is cold
- > Exterior doors stick open or closed

# TABLE 9. McLean Hall Summary Facility Deficiencies Clean and repoint brick (Incl. '66 central plant) Correct accessibility issues in restrooms Electrical corrections/upgrades Install accessible door hardware Install accessible restroom Install compliant signage Install emergency lighting system, incl. exit signs Install vestibules at each entry (Incl. replacing existing door) Mechanical corrections/upgrades New LED light fixtures Paint Plumbing corrections/upgrades Re-finish terrazzo Repair roof Replace ceiling tiles and grid Replace door with insulated unit, 105A exterior Replace existing/Install new drinking fountains Replace other flooring Upgrade Fire alarm system

# **CENTRAL PLANT**

Central Plant is in good condition, with substantial cosmetic repairs and replacements. Some of the main capital investment areas include mechanical and electrical corrections/upgrades, upgrading fire alarm system, and re-roofing.

Description	A single-story building housing boilers and chillers for campus mechanical systems
Year Built	1966
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floor is slab-ongrade concrete floor.
Additions/ Renovations	Additions in 1990, 1997, and 2010



Ponding occurs frequently on the roof and must be replaced



Exposed concrete areas are heavily stained in areas and could potentially be damaged from the various drains

# TABLE 10. Central Plant Summary

# Facility Deficiencies

Clean brick

Electrical corrections/upgrades

Install emergency lighting system, incl. exit signs

Mechanical corrections/upgrades

New LED light fixtures

Paint

Plumbing corrections/upgrades

Replace exterior doors

Replace roof (not incl. '66 portion; incl. modify drainage)

Re-surface floor

Upgrade Fire alarm system



# MARY HAGELSTEIN INSTRUCTIONAL ARTS CENTER

Mary Hagelstein is in good condition, with substantial cosmetic repairs and replacements. Some of the main capital investment areas include mechanical and electrical corrections/upgrades, reconstructing the demo kiln/storage room, and cleaning and repointing brick.

Description	A single-story educational building
Year Built	1976
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floor is slab-ongrade concrete floor.
Additions/ Renovations	Addition recently



Exterior brick is stained and needs cleaning and repointing

### **STAFF NOTES**

- > Fan coil units loud and leaky
- > Poor hot water; takes a very long time
- > No windows
- > Roof leaks

# TABLE 11. Mary Hagelstein Summary

# Facility Deficiencies

Clean and repoint brick

Correct accessibility issues in restrooms

Demo kiln / storage room, reconstruct

Electrical corrections/upgrades

Install accessible door hardware

Install compliant signage

Install emergency lighting system, incl. exit signs

Install fire suppression system

Install vestibules at each entry (Incl. replacing

existing door)

Mechanical corrections/upgrades

Plumbing corrections/upgrades

Re-finish terrazzo

Renovate photo lab (plate making, dark room, etc.)

Renovate plumbing system

Repaint

Replace ceiling tiles and grids

Replace drinking fountains

Replace other flooring

Re-roof

Upgrade Fire alarm system

# DON WHITAKER AUTOMOTIVE TECHNOLOGY CENTER

Don Whitaker is in good condition, with substantial cosmetic repairs and replacements. Some of the main capital investment areas include electrical corrections/upgrades, sprinkling building, reroofing, and replacing fire alarm system.

Description	A single-story educational building
Year Built	1976
Structure	CMU brick and some framed gypsum walls with bar-joist and gypsum deck roof construction
Additions/ Renovations	Addition in 1999



Ductwork located on the roof was not properly supported after the last re-roof or roof repair.

TABLE 12. Don Whitaker Summary
Facility Deficiencies
Clean brick
Electrical corrections/upgrades
Install ventilation
Mechanical corrections/upgrades
Mezzanine repairs
Paint
Plumbing corrections/upgrades
Re-landscape
Remove AC unit, install HVAC
Remove toxic waste containers from 112
Repair broken brick at gas storage
Replace bowed rafters in new classroom inside 110
Replace ceiling tiles
Replace Doors & Hardware
Replace fire alarm system
Replace flooring
Replace plumbing
Replace sinks and wash areas
Replace toilet fixtures and partitions 124
Replace water fountain
Replace windows 203
Re-roof facility
Reroute trough drain 111
Seal split face block
Sprinkler building
Wash sink plumbing 111

Welding and automotive labs



# HAROLD RUNNELS RESIDENCE HALL

Harold Runnels is in good condition, with some cosmetic repairs and replacements. Some of the main capital investment areas include electrical and mechanical corrections/upgrades, replacing fire alarm system, and replacing HVAC piping and equipment.

Description	A two-story dormitory building
Year Built	1991
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floors are slabon-grade concrete floor.
Additions/ Renovations	None



Numerous stained and damaged ceiling tiles were observed

# TABLE 13. Harold Runnels Residence Hall

Summary
Facility Deficiencies
Electrical corrections/upgrades
Mechanical corrections/upgrades
Paint facility
Plumbing corrections/upgrades
Re-landscape for drainage
Repair brick corner
Replace ACT in facility
Replace ACT in lobby
Replace ACT in stairwells
Replace auto door opener
Replace exterior doors and hardware
Replace fire alarm
Replace flooring
Replace HVAC piping and equipment
Replace lighting in lobby
Replace screens
Replace VCT in hallways and rooms 1st floor
Replace VCT in hallways and rooms 2nd floor
Replace windows
Replace windows near entry
Re-roof facility

# HOUSTON THUNDERBIRD RESIDENCE HALL

Houston Thunderbird is in good condition, with some cosmetic repairs and replacements. Some of the main capital investment areas include electrical and mechanical corrections/upgrades, painting facilities, and replacing windows.

Description	A two-story dormitory building
Year Built	1991
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floors are slabon-grade concrete floor.
Additions/ Renovations	None



Doors are in good condition but need adjustment and weather stripping

# **TABLE 14.** Houston Thunderbird Residence Hall Summary

Facility Deficiencies
Electrical corrections/upgrades
Mechanical corrections/upgrades
Paint facility
Plumbing corrections/upgrades
Repair brick corner
Replace ACT in lobby
Replace ACT in stairwells
Replace doors and hardware
Replace HVAC piping and equipment
Replace screens
Replace VCT in hallways and rooms 1st floor
Replace VCT in hallways and rooms 2nd floor
Replace windows
Re-roof facility



# JOHN WATSON/CARROLL LEAVELL STUDENT APARTMENTS

John Watson/Carroll Leavell Student Apartments are in good condition, with a few minor cosmetic repairs and replacements. Some of the main capital investment areas include electrical corrections/upgrades, repair cracked stucco including roof parapets, and replacing rusted structure and concrete at stairs.

Description	Three-story dormitory buildings
Year Built	2007
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floors are slabon-grade concrete floor.
Additions/ Renovations	None

Structural shades show signs of wear and need to be re-painted

# TABLE 15. John Watson/Carroll Leavell Student Apartments Summary

# Facility Deficiencies

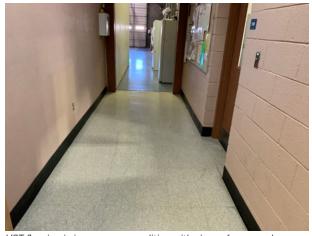
Paint roof ladders and structural shades
Plumbing corrections/ upgrades
Remove storage from electrical closet C102
Repair cracked stucco including roof parapets
Repair holes in ceiling and caulk penetrations
Repair holes in wall at elevator room
Replace exhaust covers
Replace lighting
Replace roof

Replace rusted structure and concrete at stairs

# **MAINTENANCE BUILDING**

The Maintenance Building is in good condition, with a few minor cosmetic repairs and replacements. Some of the main capital investment areas include electrical corrections/upgrades, installing fire sprinkler system, and cleaning and repointing brick.

Description	A single-story maintenance and classroom building with a shop
Year Built	1966
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floors are slabon-grade concrete floor.
Additions/ Renovations	Addition in 1985



 $\it VCT$  flooring is in very poor condition with signs of wear and deterioration

TABLE 16. Maintenance Building Summary
Facility Deficiencies
Clean and repoint brick
Electrical corrections/upgrades
Install accessible door hardware
Install accessible Restrooms
Install compliant signage
Install conductor heads and downspouts
Install emergency lighting system, incl. exit signs
Install exhaust fans in restrooms
Install fire sprinkler system
Install new drinking fountains
Paint (Incl. floors in shops)
Plumbing corrections/upgrades
Renovate plumbing system
Repair (patch, remove debris, clean drains, replace ballast)
Repair roof deck at evap cooler penetrations
Replace ceiling tiles and grid
Replace other Flooring
Replace VCT
Replace windows
Upgrade Fire alarm system



# **BOB MORAN HALL**

Bob Moran Hall is in good condition, with a few minor cosmetic repairs and replacements. Some of the main capital investment areas include mechanical and electrical corrections/upgrades, replacing the roof, and replacing lighting.

Description	A single-story educational and dormitory type building
Year Built	1967
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floors are slabon-grade concrete floor.
Additions/ Renovations	Addition in 2011



Water pools in places at the edge of building. It is recommended to install landscaping to drain water away from building.

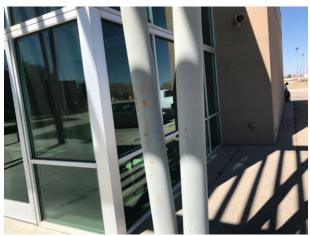
# Facility Deficiencies Electrical corrections/upgrades Landscape for drainage away from building Mechanical corrections/upgrades Paint tile on exterior of building Replace access hatch Replace blinds Replace carpet in lecture hall Replace ceiling tiles in facility due to leaks Replace lighting Replace roof Replace VCT

Replace windows

# LARRY HANNA TRAINING & OUTREACH CENTER

Hannah Training and Outreach is in very good condition, with very few minor cosmetic repairs and replacements. Some of the main capital investment areas include replacing cracked and chipped concrete and some upgrade, and replacing cracked and chipped concrete and upgrades to the electrical system.

Description	A single-story educational and administration type building
Year Built	2007
Structure	Steel columns and beams with bar-joist and gypsum deck roof construction. Floors are slabon-grade concrete floor.
Additions/ Renovations	None



Exterior structural steel needs to be painted

# TABLE 18. Larry Hanna Training & Outreach Center Summary

# Facility Deficiencies

Electrical corrections/upgrades

Paint all exterior structural steel

Replace cracked and chipped concrete



# 8. B-INFRASTRUCTURE

A system of tunnels was constructed in 1966 and provides for the campus heating and cooling boiler/ chiller system pipes to the various buildings within the circle. It also serves to distribute electrical and communications systems throughout the campus. The tunnel system is a valuable asset for the campus and it is a major objective to maintain these functional capabilities. As part of the Master Plan update, an assessment of the tunnels was conducted to evaluate their structural integrity. The tunnels are constructed of reinforced concrete walls and floor with the ceiling constructed of reinforced concrete that is cast on a metal form material called Corruform. Overall, the assessment concluded that the tunnels are in good condition; however, some areas are in need of repairs. For instance, some of the Corruform is rusting and deteriorating causing it to separate from the reinforced concrete above and hang down into the tunnels.

Some sections also show water damage in locations where tunnels are located under buildings. In these instances, one of the exterior tunnel walls is the foundation of the building wall above. Some of these sections that pass underneath McLean Hall and Pannell Library require grading modifications to correct the pooling and seepage under the foundation of the building and into the tunnels.



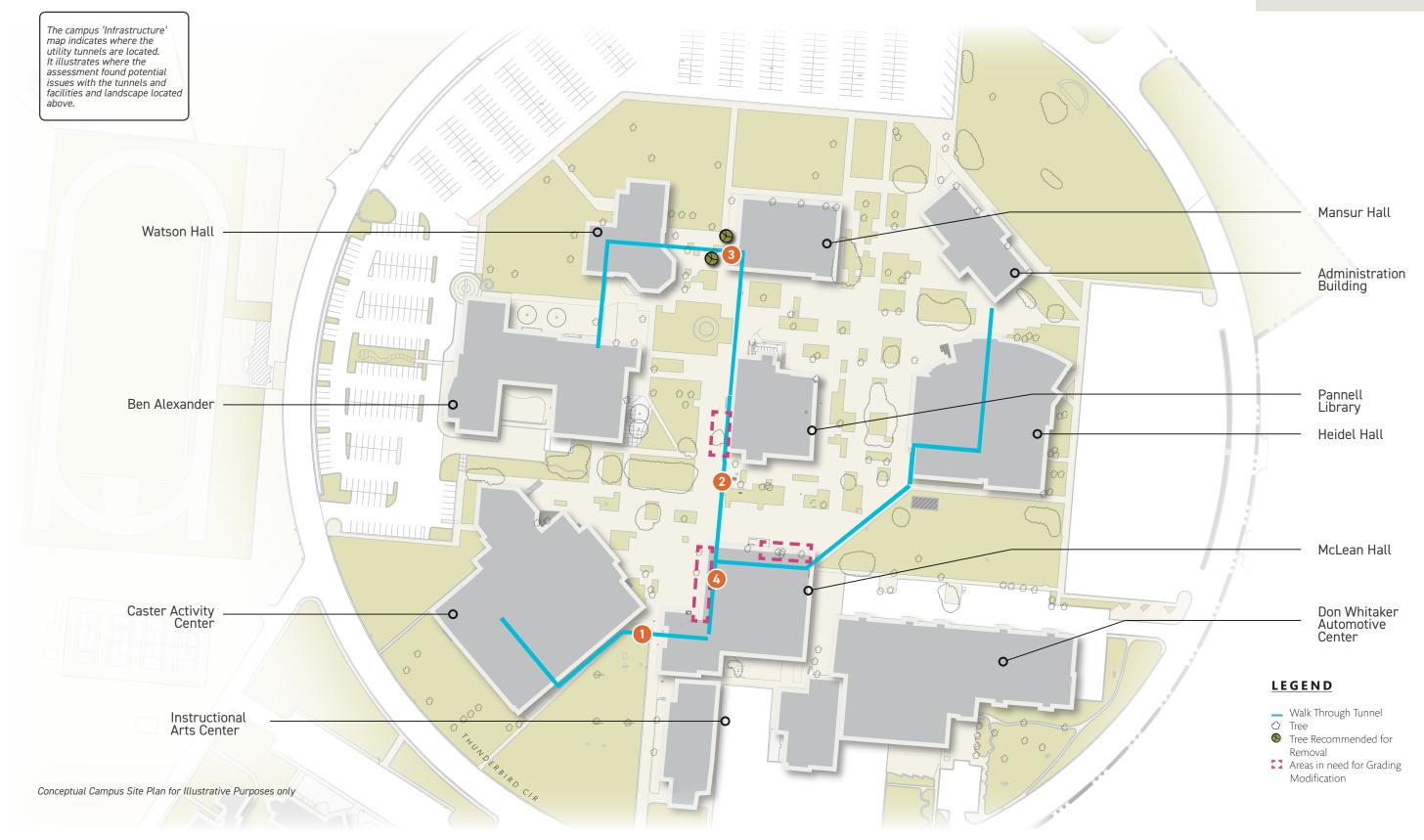


Tunnels generally resemble the above conditions with intact ceilings





Water seeping into tunnel causes rust and panel separation from ceiling





# 8. C-CAMPUS OUTDOOR SPACES

In its current state, the campus outdoor spaces primarily consist of large expanses of lawn and pavement intersected by pedestrian pathways and accented planting areas. NMJC has an existing landscape Master Plan created in 2007 that identifies and addresses general design guidelines and concepts for the landscape and public realm of the campus. It establishes three main principles: cultivate and create a strong community, establish connectivity and foster resilience. Goals and strategies associated with each principle are intended to provide guidance for future decisionmaking related to campus expansion, design, renovations, operations and maintenance. While NMJC expressed support for their existing landscape Master Plan to guide landscape improvements, the larger NMJC Master Planning effort identified targeted issues (as outlined below) that needed to be addressed within this update. Additionally, the existing landscape Master Plan should be updated to include detailed strategies for how to coordinate a unifying scheme for the issues outlined below.



The existing campus consists of large expanses of pavement and lawn areas that don't serve a specific purpose. The college expressed the desire to eliminate some of the lawn areas to reduce overall maintenance and water consumption.



The expansive paved areas lack delineation of pedestrian pathways.



The campus also lacks shade structures to protect campus users from the sun during the hot summer months.

While manicured and well-maintained, a majority of the natural turf areas within the campus circle are not necessary for the campus identity or functions. Removing smaller, more remnant swaths of turf areas would reduce maintenance and water consumption and create more opportunities to congregate in these spaces.

The existing planting areas provide maintenance challenges. A shallow soil profile with underlying caliche requires pit excavations and soil amendment to sufficiently support trees and vegetation. Utilizing raised planters to minimize pit excavations was seen as a favorable alternative







This exhibit shows precedent images presented during the workshop with NMJC stakeholders to demonstrate how raised planters could help delineate outdoor spaces and create seating opportunities for campus users.

and could be utilized as an interim solution to break the expansive hardscape areas and delineate public spaces and pedestrian pathways.

Paving within the circle consists exclusively of plain gray concrete. NMJC expressed the desire to enhance public spaces with more distinct materials and patterns to add interest and identity to the campus and serve as wayfinding elements.

The campus outdoor space generally lacks shade; adding shade elements within these outdoor spaces would increase the time that students and faculty could spend outside during the fall and spring semesters. New shade structures could target areas that are already activity nodes like the outdoor seating areas adjacent to the Ben Alexander Student Learning Center and within the

courtyard space between formed by the student housing buildings. Shade structures could also be used to define and shade pedestrian pathways.



This exhibit shows paving strategies to help delineate the campus outdoor spaces

# 8. D-WAYFINDING & SIGNAGE

The NMJC campus is located along Lovington Highway, the major corridor that connects Hobbs with Lovington, Texas and cities beyond. Recently the college has installed a monument sign at the main entrance at Lovington Highway to enhance its visibility. The sign includes a digital component to communicate events and information. Upon entering the campus, signage is sparse and at times concealed. Signage along the perimeter road is faded and/or missing. Signage on buildings is largely not visible from the loop road. The campus also lacks pedestrian-level signage and maps and the signage on buildings is often not visible. To enhance the wayfinding, a comprehensive signage system should be developed with a hierarchy of signs to better facilitate movement to and within the campus and to allow users to orient themselves and find their destinations with ease.



Signage along the loop road is faded and does not follow a unified design theme.



Signage is hard to read and does not include elements of the NMJC brand identity.





No pedestrian signage is found within the circle to guide campus users and building applied signage is often not visible.



# 9. CAMPUS IMPROVEMENT **PRIORITIES**

The Campus Improvement Priorities section identify specific projects that will enhance the overall campus. Major deficiencies identified in the Existing Conditions Assessment are addressed to direct future campus projects and implement the campus vision identified in this plan.

# 9. A - CAMPUS DEVELOPMENT **GOALS**

At the outset of the project, the project team and key stakeholders drafted development goals to guide the strategic direction of the Master Plan update and set a framework for future development projects. The updated development goals focus on enhancing and maintaining existing campus assets, creating resilience, enhancing safety, enhancing the campus brand and wayfinding, creating flexible and adaptable campus facilities and encouraging collaboration with communities and business partners. These goals help ensure that future projects are aligned with the campus strategic vision and implement this vision into the campus environment.

# TABLE 19. Table 19. Campus Development Goals



# **Enhance and Maintain Existing Campus**

> Enhance and maintain existing facilities and infrastructure



# Create a Resilient Campus

- > Anticipate future development opportunities with infrastructure that can be extended to targeted areas
- > Explore the potential to generate renewable energy to meet campus energy demands



### Create a Safe and **Welcoming Campus**

- > Implement Crime Prevention through Environmental Design (CPTED) strategies.
- > Control access to the campus and individual buildings.
- > Improve campus lighting to enhance security.
- > Create consistent shading features.

# Enhance Campus Identity/ Enhance the NMJC Brand

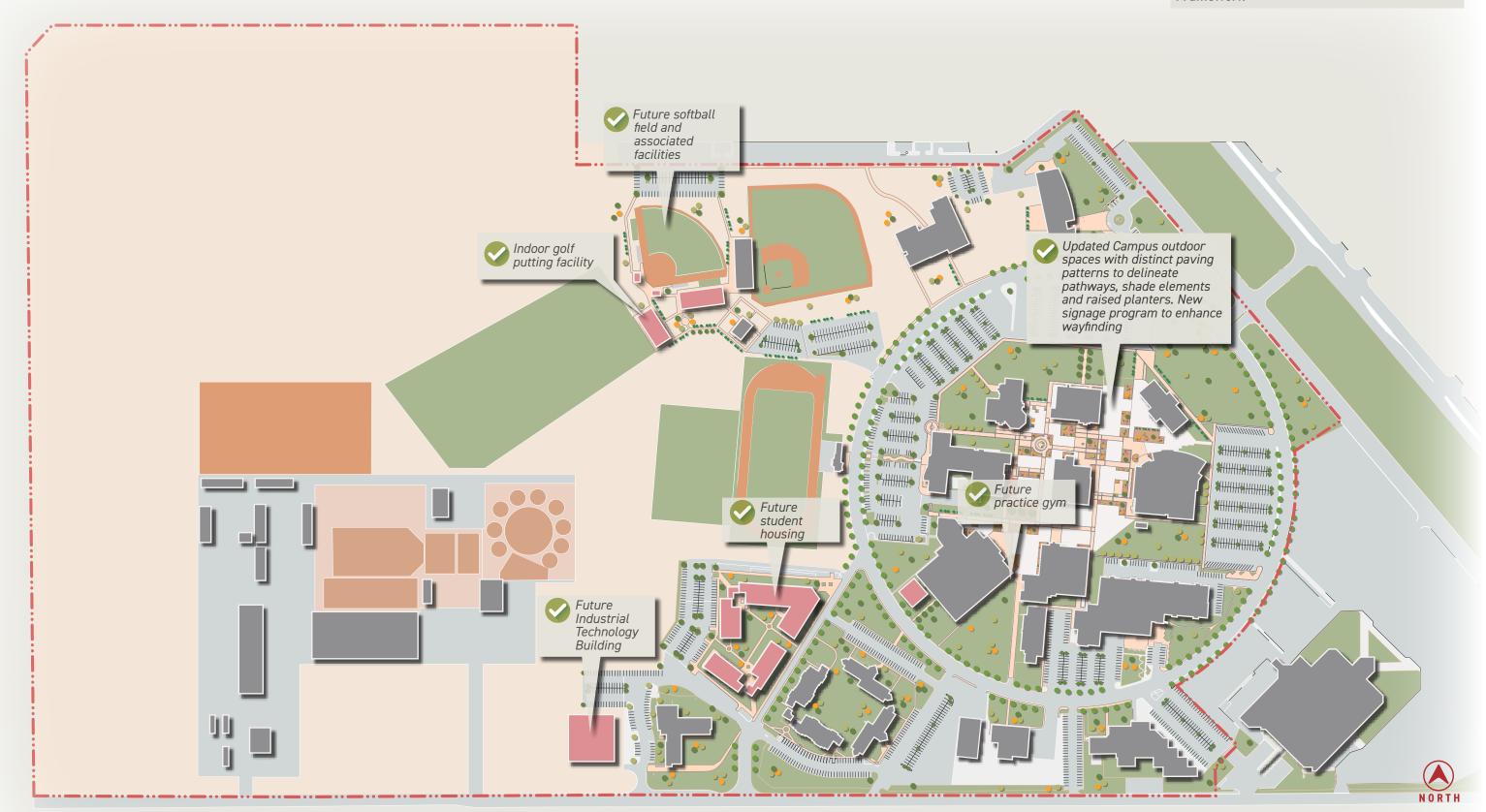
- > Create a Signage and Wayfinding Plan.
- > Create a hierarchy of signage for both vehicular and pedestrian campus users.
- > Incorporate branding throughout the campus to strengthen campus identity.
- > Create consistent building entry features.
- > Create distinct and welcoming arrival points.
- > Identify/create convenient drop off points for visitors.

# **Provide Flexible Spaces & Support Online Instructional Delivery**

- > Assess the campus to understand facility capabilities and shortcomings in terms of technology capabilities and functionalities.
- > Enhance capacity to deliver and support online instructional classes.

### **Encourage Collaboration with Communities** & Business Partners

- > Create connections to communities and business partners.
- > Identify opportunities for naming, recognition.



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# 9. B - CIRCULATION & PARKING GOALS

To enhance access, circulation and parking conditions, it is a goal to install shade elements within targeted areas of parking fields to create a more pleasant parking experience. Shade elements could also accommodate photovoltaic arrays (solar panels). It is also proposed to evaluate all pedestrian connections between facilities within and outside the circle to implement measures that make the pedestrian environment safer and enhance the user experience. Each connection should be evaluated and specific measures designed including but not limited to delineating pathways with decorative pavers, installing enhanced pedestrian where pathways cross a road, and installing periodic shade elements and signage to direct users to and from destinations. If new dorms are constructed, a new road to access the equestrian facilities is required and should be installed to allow better access and prevent conflicts with residents of the dorms.

### **CIRCULATION & PARKING GOALS**

- > Shade parking areas
- > Enhance pedestrian connection between facilities within the campus and off-campus amenities
- > Create safe pedestrian connections
- > Construct access road to equestrian facilities

# PRECEDENT IMAGES 1. Parking Field Shade Structures



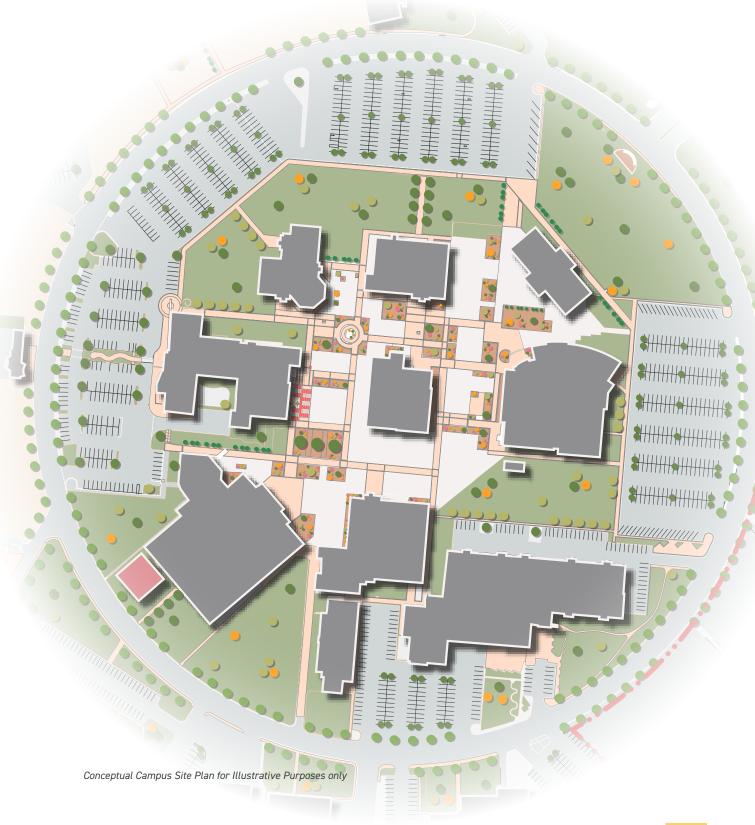
Covered parking within targeted areas of the NMJC parking fields

# 9. C-FACILITIES GOALS

To enhance the overall functional organization of the campus, it is a goal to built upon the existing site framework and strengthen the existing connections, nodes and facilities. The overall site framework is envisioned to be designed as illustrated in "Exhibit 12. Facilities & Infrastructure Development Framework"". While the overall placement and delineation of facilities within the circle will remain, outside the circle a number of new support facilities and recreational projects are planned. For existing facilities, emergency fire alarm systems, emergency lighting systems, and fire sprinkler systems should be upgraded or installed as directed by the facility assessment. Some interior/exterior maintenance is proposed for all facilities within the circle, including maintenance of roofs, replacing flooring and ceiling tiles, cleaning and repointing brick and replacing lighting, while a re-roof of the entire building is recommended for some facilities. Many of the recommendations include replacing lighting controls to improve overall campus energy savings.

### **FACILITIES GOALS**

- > Upgrade and maintain facilities to last for another 50 years
- > Add new facilities to support existing programs





# 9. D-INFRASTRUCTURE GOALS

To enhance and maintain the campus infrastructure, repair projects identified by the infrastructure assessment should be made in a timely manner to ensure the tunnels can fulfill their function without disruption and serve the campus for the future. Tunnel repair should be coordinated with site/flatwork to incorporate other improvements identified within this Master Plan.

There are some cosmetic repairs that are recommended to maintain the integrity and function of the tunnel system. It is recommended to remove two trees adjacent to the tunnel corridor, as the roots may potentially impact the structural integrity of the tunnels. Where water pools against the foundation of buildings, grading modifications are recommended to correct drainage and prevent damage to NMJC facilities. It is also recommended to remove the Corruform ceiling concrete forms as these serve no structural purpose and are separating from the concrete above, creating safety issues to those passing through the tunnels (as identified on "Exhibit 13. Proposed Lawn Removal Map").

### **INFRASTRUCTURE GOALS**

- > Maintain tunnels
- > Maintain sewers

# 9. E-CAMPUS OUTDOOR SPACES GOALS

To enhance and maintain outdoor spaces, it is a goal to enhance the campus identity, increase usability and make public spaces more secure. Removing unnecessary and oddly placed turf areas within the circle as identified on "Exhibit 13. Proposed"

<u>Lawn Removal Map</u>", will allow for more usable public spaces and logical pedestrian routes. Turf removal should be coordinated with other site improvements identified within this Master Plan to determine if they should be replaced with concrete, decorative pavers or raised planters.

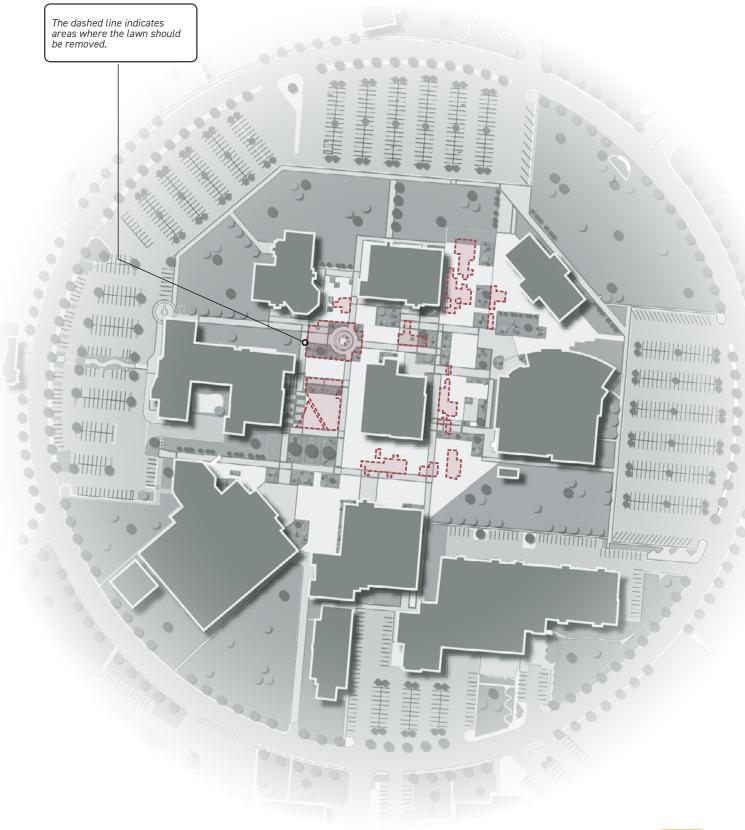
PRECEDENT IMAGES 2. Outdoor Spaces Delineated by Pavers and Planters





A outdoor space delineated by decorative pavers and planters

Decorative paving or other modular unit pavers should be incorporated into the paving scheme of newly constructed or renovated outdoor spaces and/or major pedestrian walkways within the circle to help delineate pathways and public spaces and introduce colors and textures to the campus. As such projects are likely to happen













incrementally, a coordinated paving scheme that identifies appropriate colors and patterns should be created prior to the first phase of implementation to ensure a unified hardscape character is achieved throughout the campus. This enhanced paving scheme should consider the inclusion of an Alumni Brick Program that features engraved pavers that display the name of an alumnus along with his or her degree and graduation year. Such a program could fulfill several goals including enhancing pedestrian connections and wayfinding through a revenue-generating, branding opportunity.

# PRECEDENT IMAGES 3. Decorative Paving & Alumni Brick Program





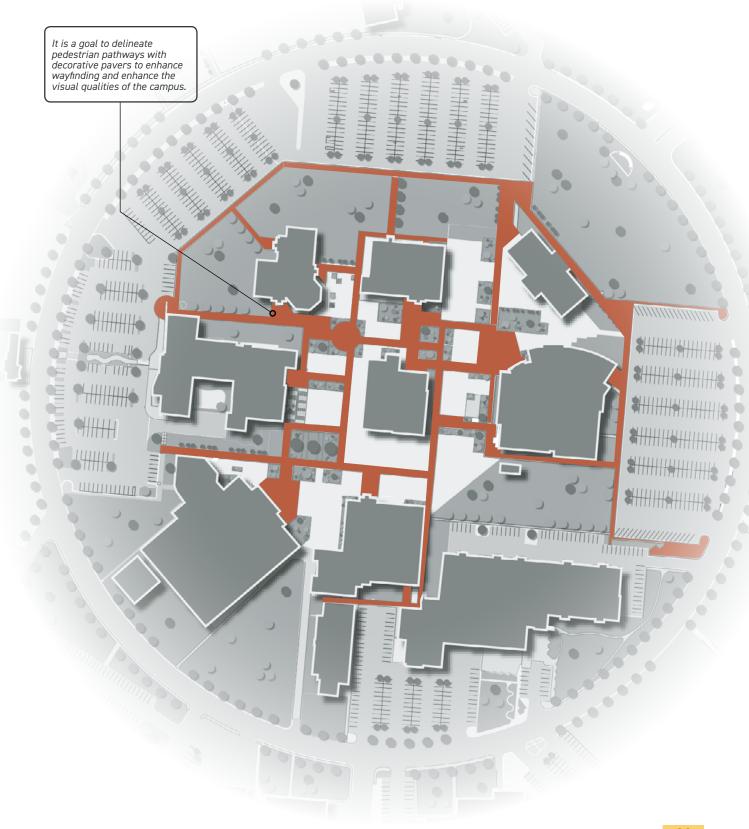
Decorative paving or other modular unit pavers can be installed to delineate pedestrian routes and introduce colors and textures to the campus

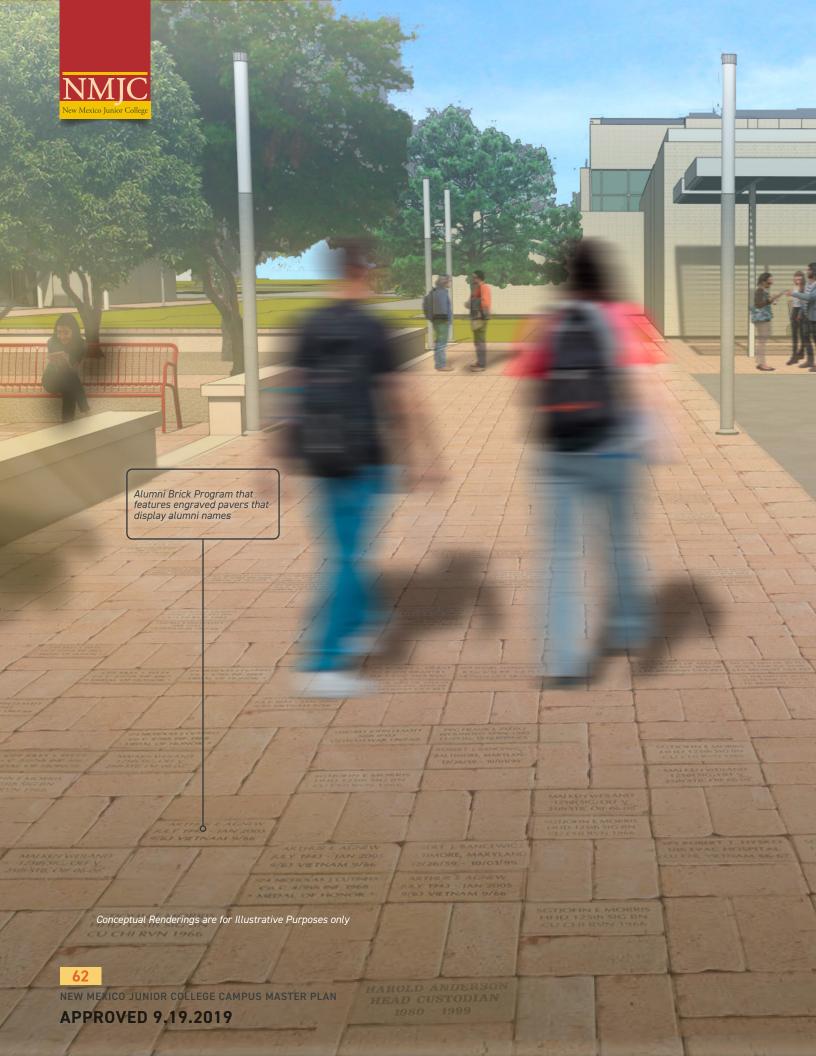






Alumni Brick Program that features engraved pavers that display alumni names









Raised planters are another proposed feature to help delineate public spaces and walkways while also providing seating and planting areas. Raised planters should be utilized to create additional landscape and seating opportunities as well as introduce color and interest to the outdoor spaces.

### PRECEDENT IMAGES 4. Raised Planters







Raised planters to delineate pathways and create landscape nodes and opportunities for seating

The programming of campus outdoor spaces should include site elements like site furnishing, lighting, signage and planters to create a pleasant campus environment for students, staff and visitors, particularly along major pedestrian pathways and public spaces. All site elements, including shade structures, should be compatible with the campus' existing architectural style and utilize common features such as color, material and design.

Coordination among site elements will create a more cohesive and identifiable campus character.

Site furnishings should be coordinated and utilized to introduce interesting shapes and colors to the campus to tie the campus visually together. Their shape in particular can add contemporary accents and elevate the look and feel of the campus as a whole.

Site furnishings can support the NMJC brand identity with the choice of color and particular shape. Simple but elegant designs should be utilized to create an overall timeless and lasting campus design.

# PRECEDENT IMAGES 5. Site Furnishings





Site furnishings that introduce interesting shapes and colors and support the NMJC brand identity.





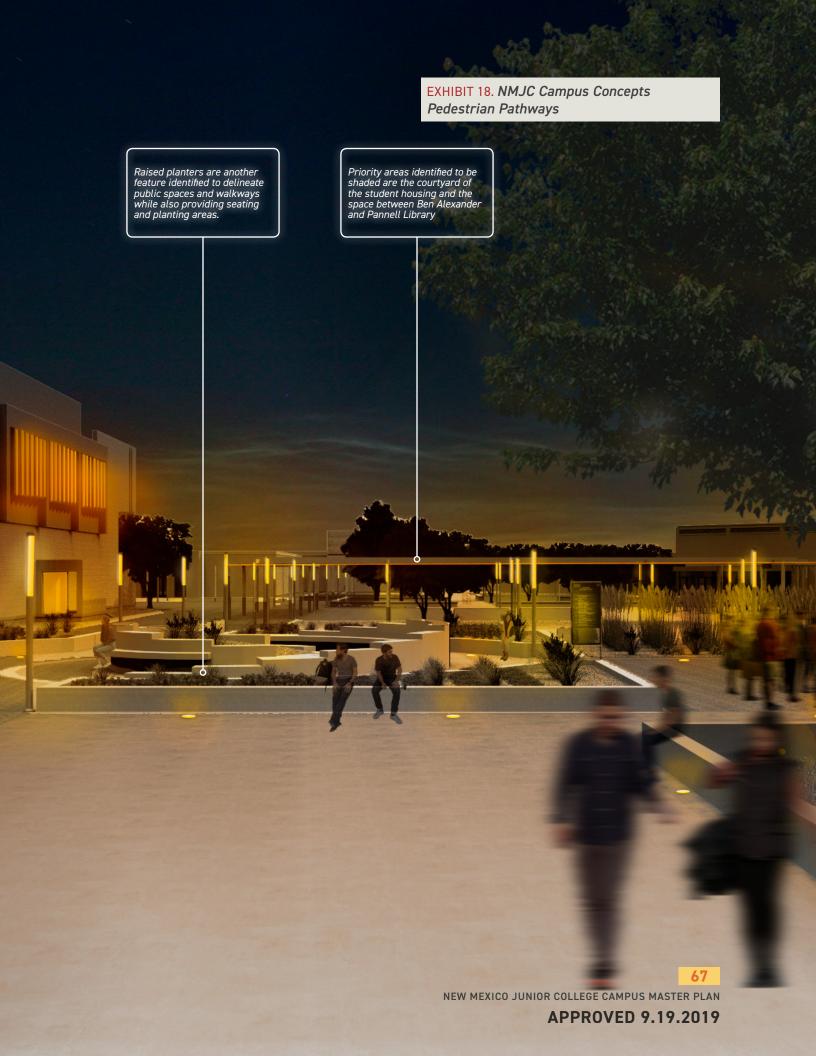
Simple but elegant designs should be chosen that are timeless and durable.



Coordinated site furnishings tie the campus visually together.

The implementation of an enhanced campus lighting scheme is crucial to improving the overall safety and character of the campus. Lighting should be provided within outdoor spaces and along major pedestrian routes to define these areas, improve their visibility and enhance their security. All campus light fixtures should be consistent in respect to design, material and color as well as coordinated with the other site furnishing provided throughout the campus. Utilize simple but elegant designs that are timeless and durable to tie the proposed site furnishings and other campus elements visually together. Lights could also be equipped with cameras to help survey the campus.







# PRECEDENT IMAGES 6. Campus Lights

Light fixtures should coordinate with the site furnishings to tie the campus together visually



Contemporary light fixtures that delineate pedestrian pathways and create a more secure campus environment

Providing shade to public spaces and major pedestrian walkways is identified as a major goal of the Plan. Priority areas identified to be shaded are the courtyard of student housing and the space between Ben Alexander and Pannell Library (as identified on "Exhibit 19. Shade Structures Preferred Placement"). Additional shade elements should be installed in high activity areas during the construction of new or renovation of existing campus facilities. Shade elements should also be considered for targeted parking areas to protect users and their cars from the sun and other weather-related exposure. Shade structures should be constructed of quality materials that is coordinate with the campus' existing architectural styles as well as selected site furnishings.

### PRECEDENT IMAGES 7. Shade Structures



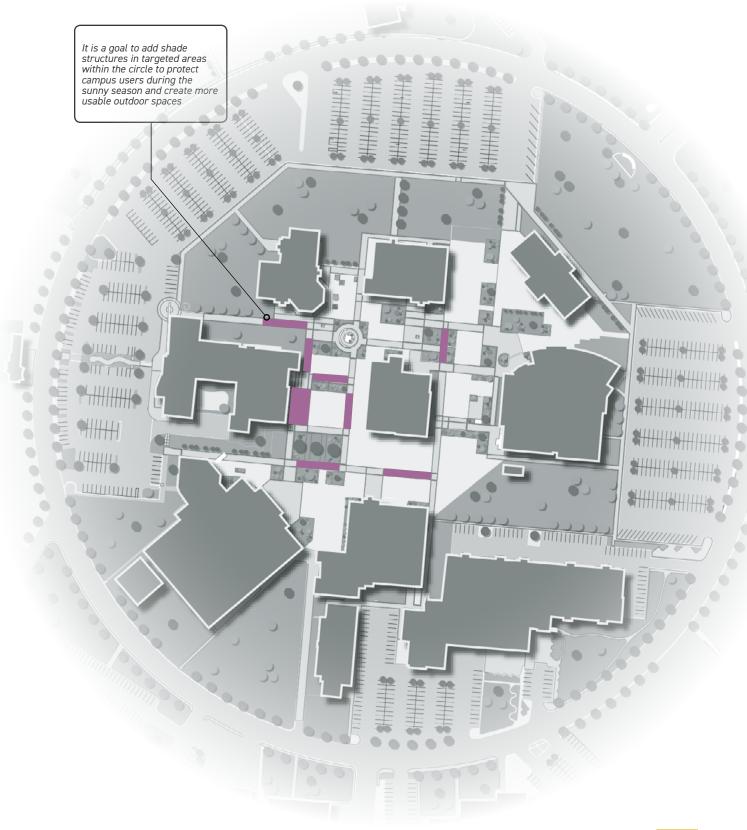


Shade elements that shade key outdoor areas and pedestrian pathways

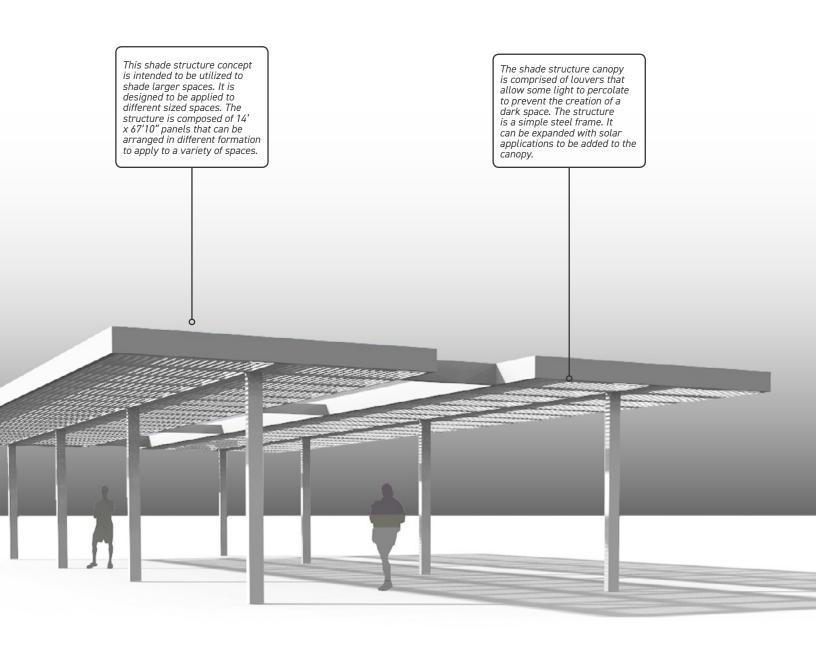
### **CAMPUS OUTDOOR SPACES GOALS**

- > Enhance hardscape/landscape areas
- > Provide shade for public outdoor spaces
- > Eliminate unnecessary lawn areas

# EXHIBIT 19. Shade Structures Preferred Placement















### 9. F-WAYFINDING & SIGNAGE GOALS AND STRATEGIES

To enhance wayfinding and create a cohesive signage system, it is a goal to create a comprehensive signage program that addresses wayfinding outside and inside the circle. Signage should be installed to better guide vehicular and pedestrian traffic to, from and within the campus. Signage can be provided in the form of pedestrian-level and vehicular-level signage.

The NMJC Comprehensive Signage Plan should be consulted to identify the location, number and design of signage and wayfinding elements. A cohesive signage program also provides an opportunity to tie the campus together visually and implement branding elements throughout the campus. All signage products should be of high quality and last in weather conditions of southeastern New Mexico. Specifically, signage products should be able to withstand extended sun exposure and high winds. Signage should also comply with ADA requirements and should not create hazards for campus users. As directed by NMJC, signage should be attached to buildings where feasible. Signage should also be coordinated with the overall design theme and add visual interest to the campus environment.

#### **WAYFINDING & SIGNAGE SPACES GOALS**

 Implement a comprehensive signage program for vehicular and pedestrian campus users



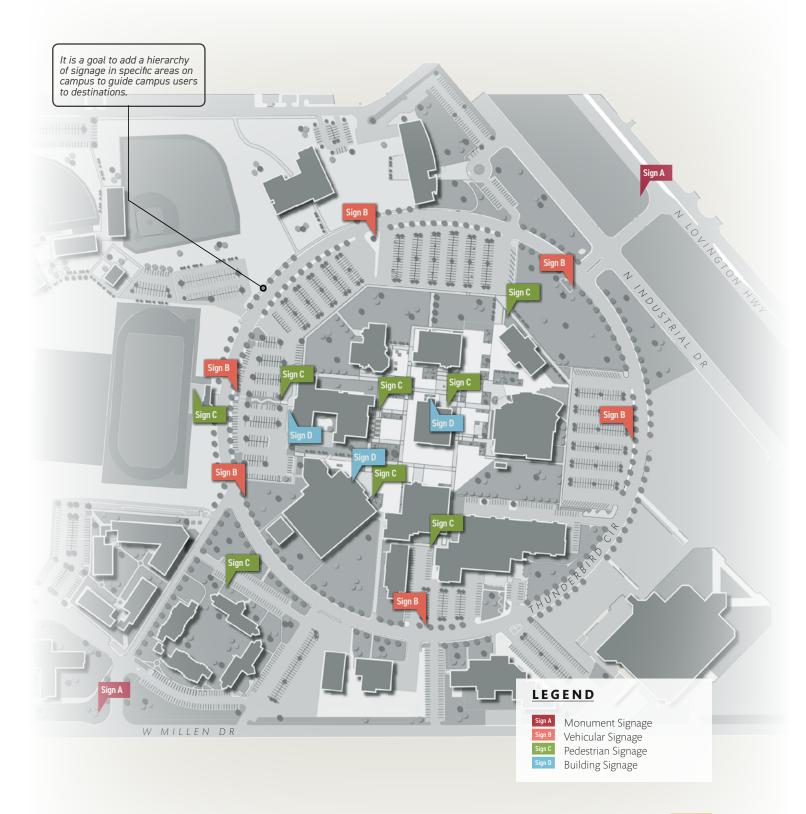


















### 10. A-SECURITY GOALS & STRATEGIES

To enhance security access to campus facilities should be controlled. The long-range development framework strategy for access control involves the construction of vestibules at all primary entrances, the conversion of appropriate doorways to exit only or maintenance entrances and the complete removal of unnecessary doorways as identified in map X. Additionally, all primary building entrances that feature vestibules should be modified to include key-card access systems.

Going forward, CPTED strategies outlined in <u>"Table 19. CPTED Strategies"</u> should be integrated into campus projects to further enhance safety and prevent crime as appropriate.

#### **SECURITY GOALS & STRATEGIES**

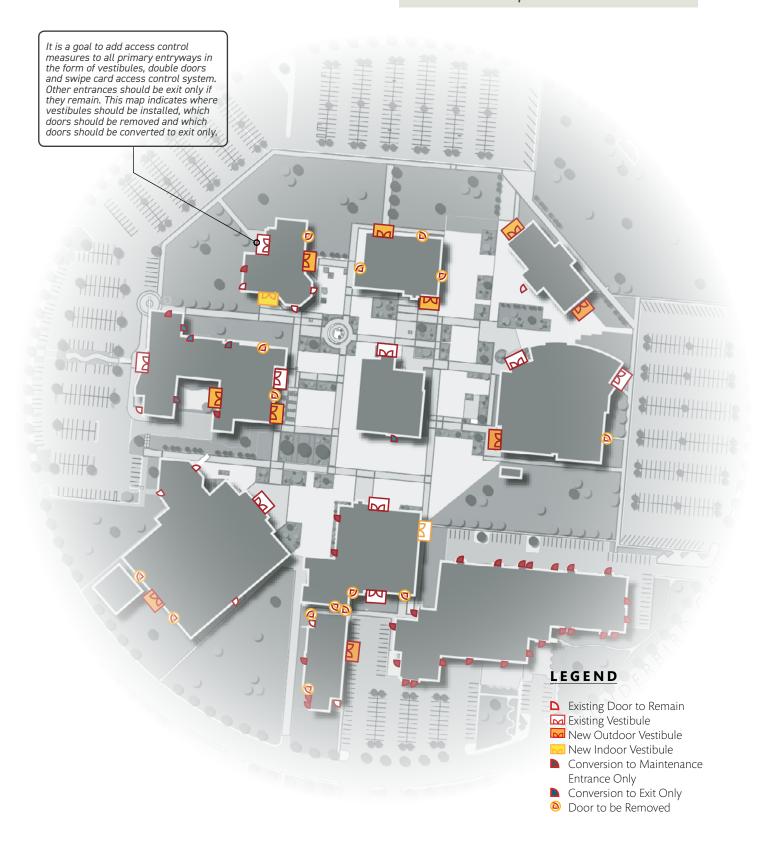
- > Create Access control to campus facilities
- > Implement CPTED Strategies





Vestibules provide an additional level of security with the ability to utilize key-card access









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NEW MEXICO JUNIOR COLLEGE CAMPUS MASTER PLAN

**APPROVED 9.19.2019** 

### EXHIBIT 25. NMJC Campus Concepts Vestibules Vision



NEW MEXICO JUNIOR COLLEGE CAMPUS MASTER PLAN

**APPROVED 9.19.2019** 



The following table outlines CPTED strategies and associated actions that can be considered for renovation projects and new constructions.

TABLE 20. CPTED Strategies				
CPTED Principle	Strategy	Action		
Natural Access Control	Design features that clearly indicate public routes and discourage access to private spaces. Such design features include placement of entrances and exits, fencing, and landscaping to control traffic flow.	Employ elements like walls, fences and gates to create a secured site perimeter and limit access with selected entry points.		
		Create clearly marked transition zones that delineate movement from public, semi-public, and private spaces.		
		Direct pedestrian circulation to a few selected entry points and		
		Develop a comprehensive wayfinding system to guide clearly guide students, staff and visitors.		
		Utilize vestibules to provide a central point of controlled building access		
		Secure building access using card/key pad or similar systems and additional monitoring of building entrances.		
		Use Personal Messaging Alert systems to warn students, employees, visitors, and parents of an impending emergency. Can include cell		
Territorial Reinforcement	Design features that clearly express ownership of the campus. The sense of territory and ownership by an individual is reinforced through regularly scheduled activities, inspections, and maintenance.	Activate campuses space with signage, landscape and public art to physically express signs of caring and ownership.		
		Implement a clear wayfinding signage system throughout the campus.		
		Accentuate building entrances with architectural elements to guide visitor and announce the transition from public to private space.		

TABLE 20. CPTED Strategies				
CPTED Principle	Strategy	Action		
Natural Surveillance	Design features that increase the visibility of the campus. These features maximize the ability of persons in the area to see persons in the vicinity and avoid trouble and allow external activities to be seen from adjacent building structures by persons who could call for help. Such design features include landscaping, lighting, window and stairway placement, and building entrance and garage layouts.	Orient building entrances so that they are clearly visible.  Keep the campus environment well lit, with particular emphasis on pedestrian walkways, public spaces, parking areas and building entrances.  Fully illuminate all doorways that open to the outside.  Ensure building entrances are visible from adjacent streets, parking areas, walkways or public spaces.  Install windows on all sides of campus building to provide to increase the visual connection between interior building spaces and campus walkways, public spaces and parking areas.  Construct elevators and stairwells to be open and well-lit, not enclosed behind building walls.		
		Provide appropriate illumination to doorways and open to the outside and sidewalks.  Select, install and maintain appropriate landscaping that will allow unobstructed views of building doors and windows from adjacent streets, parking areas, walkways or public spaces. Avoid landscaping that might create blind spots.  Ensure parking areas are visible from nearby windows and doors.		
Maintenance		Buildings should be neat and in good repair. This includes  Appropriate colors and adequate lighting. A building that looks as if no one cares will only encourage poor behavior and negative feelings about the campus.  Maintain signs and fencing and remove graffiti promptly.  Maintain parking areas to high standards without potholes or trash.  Use exterior lights at night and keep it in working order.  Keep trees and shrubs trimmed back from windows, doors and walkways. Keep shrubs trimmed to 3 feet and prune lower branches of trees up to 7 feet to maintain clear visibility.		



## 11. IMPLEMENTATION STRATEGIES

The following section outlines implementation strategies for the Campus Improvement Priorities identified earlier. The first table combines all goals with associated implementation strategies as a road-map to implement the physical campus framework. The second table outlines the NMJC project priorities that lists the priority projects identified by NMJC.

### 11. A-DEVELOPMENT GOALS AND STRATEGIES

TABLE 21. Development Goals and Strategies		
Goal	Strategies	
Circulation & Parking Goals & Strategies		
	> Identify priority areas to install shade structures	
Shade parking areas	> Determine the right type of shade structure (solar vs. non-solar)	
	> Install shade structures	
Enhance pedestrian connection between facilities within the campus and off- campus amenities	<ul> <li>Identify amenities outside the circle</li> <li>Formalize crossing and pathways</li> <li>Implement buffer between sidewalk and street</li> <li>Add signage to direct pedestrians to and from off-site campus amenities as identified on map "Exhibit 23. NMJC Campus Concepts Signage Vision" on page 77</li> </ul>	
Create safe pedestrian	> Assess pedestrian connection between facilities within the circle and outside the circle	
Connections	>Determine which connections need to be enhanced	

TABLE 21. Development Goals and Strategies			
Goal	Strategies		
Enhance & maintain vehicular connections	>Construct new access road off of Millen Drive to service equestrian facilities		
Facilities Goals & Strategies			
	> Consult the Facility Assessment to determine facilities that require upgrades/maintenance		
	>Install emergency fire alarm system, emergency lighting system, and fire sprinkler systems as necessary in facilities that lack these as required by the code		
Renew and maintain existing facilities	>Replacing Air Handlers in Heidel Hall, Mary Hagelstein, Pannell Library, Bob Moran Hall, and replace the roof of Ben Alexander Student Center and Western Heritage Museum		
	> Repair interior and exterior including replacing flooring and ceiling tiles, cleaning and repainting exterior brick, and replacing lighting, lighting controls to improve overall campus energy savings, and re-roof as necessary		
	> Renovation and re-purpose of Watson Hall		
	> Build softball building/playing field & bleachers		
Add new facilities to support existing programs	> Indoor Arena Expansion - Add bleachers/restrooms/concession/ HVAC/ sound system and warm-up area		
Silvening programs	Golf Building - Indoor putting and chipping area		
	Industrial Technology Building - Build new building for welding, vocational and training and outreach programs		



TABLE 21. Development Goals and Strategies			
Goal	Strategies		
Infrastructure Goals & Strategi	es		
	> Consult the Tunnel Assessment to determine which tunnels require maintenance and prioritize projects		
Maintain tunnels	> Coordinate projects with site/flatwork		
	> Remove Corruform		
	> Address grading issues under McLean Hall and Pannell Library		
	> Remove trees that are in conflict with underlying tunnel system		
Maintain sewers	> Assess sewers		
Campus Outdoor Spaces Goals	& Strategies		
	> Update Landscape Master Plan to include a coordinated strategy for landscape and hardscape improvements.		
	> Eliminate unnecessary turf areas		
Enhance hardscape/landscape	> Incorporate decorative paving into the construction of new or the renovation of campus plazas, courtyards and primary pedestrian pathways to demarcate and brand them.		
areas	> Introduce an engraved Alumni Brick Program within the enhanced paving scheme for the campus		
	> Introduce raised planters to delineate public space and major pedestrian paths and provide additional opportunities for landscape and seating.		
	> Develop a shade plan to shade primary public spaces and pedestrian pathways		
Provide shade for public	> Install shade elements between Ben Alexander and Pannell Library.		
outdoor spaces	> Install shade in the courtyard at Carroll Leavell Student Apartments.		
	> Install additional shade elements during the construction of new or renovation of existing campus facilities.		
Wayfinding Goals & Strategies			
Improve wayfinding	> Implement a comprehensive signage program for vehicular and pedestrian campus users		

TABLE 21. Development Goals and Strategies			
Goal	Strategies		
Security Goals & Strategies			
	> Construct vestibules at all entrances and incorporate key-card access systems		
	> Doors not required should be removed or converted to exit only		
Create Access control to campus facilities	> Implement CPTED strategies		
campus racidites	> Enhance lighting across the campus		
	> Campus Access Control integrated in building vestibule construction		
	> Repair concrete sidewalk		
Implement CPTED Strategies	> Include and consider CPTED strategies with each new project and renovation		



### 11.B-PROJECT PRIORITIES

TABLE 22. Project Priorities					
Project	Description	Time Frame	Priority		
Safety & Security	Campus Access Control integrated in building vestibule construction, concrete sidewalk repairs, tunnel repairs, and shading upgrades	2020-2021	1		
Watson Hall Renovation	Renovation and re-purpose of Watson Hall	2019-2020	1		
Indoor Arena Expansion	Add bleachers/restrooms/concession/HVAC/ sound system and warm-up area	2019-2020	1		
Golf Building	Indoor putting and chipping area	2019-2020	1		
Industrial Technology Building	Build new building for welding, vocational and training and outreach programs	2021-2022	1		
Air handler and roof replacement	Replacing Air Handlers in Heidel Hall, Mary Hagelstein, Pannell Library, Bob Moran Hall, and replace the roof of Ben Alexander Student Center and Western Heritage Museum	2023-2024	2		
Softball Field	Build softball building/playing field & bleachers	2021-2022	2		
Vocational B HVAC	Tie Voc B to Central Plant add air handler	2022-2023	3		
Heidel Hall Renovation	Renovation and update Heidel Hall	2023-2024	2		
Campus Housing	Build new housing	2022-2023	3		
John Shepherd Administration Building	Renovation and update John Shepherd Administration Building	2024-2025	3		



# 12. APPENDIX A - FACILITY & INFRASTRUCTURE ASSESSMENT



# 13. APPENDIX B - WORKSHOP

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