

# UNIVERSITY OF NEW MEXICO

## **Design Principles and Guidelines for the Development of the Main Campus**

(Draft # 8, 3/30/07)

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### *Overview*

As a destination and center for educational, business, social and cultural events for divergent interests and populations, campuses of public institutions, the University of New Mexico has unique and special characteristics. With its assembly of specialized facilities, inviting landscapes, evocative public art and other attractive features, the main campus at this university comprises a landmark setting for its flagship educational, research, and service activities. As part of the larger urban fabric of the metropolitan area, the UNM campus also provides an exceptional asset to the city, the region, and the State of New Mexico.

The UNM campus setting should be attractive and welcoming. The campus environment must also communicate the importance of the university in our society through its unique sense of place and academic traditions.

The historic buildings and landscapes of the campus provide the critical continuity between the past and our future. The campus should convey a sense of dignity while celebrating the nobleness of its purpose. In supporting the basic missions of the university and providing a variety of venues for numerous events and other activities, the distinctive qualities of the physical environment are meant to provide an atmosphere conducive to intellectual discovery and interaction as well as repose and contemplation.

Studies have shown that the initial visual impression of a campus has a notable influence on prospective students when making decisions about attending a university. Perceptions of the campus environment depend on the qualities of the landscape, buildings, and the spaces between them. The well planned and designed campus should promote curiosity, discovery, and inspiration.

Used in conjunction with the adopted University of New Mexico “Campus Development Plan,” the following *Design Principles and Guidelines* are intended to impart an understanding of the specific objectives and design intentions that contribute to: (1) the qualities of the physical environment, (2) a unity of visual character, (3) a unique “sense of place,” and (4) the activities that are encompassed on the UNM main campus.

In providing guidance to those involved directly or indirectly with the development of the campus – its master plan, area or precinct plans, landscaping, new buildings and other structures, renovations, maintenance, security, way-finding, service, and utilities – a coherency of purpose and direction will be achieved that will result in an efficient, safe, and visually attractive campus environment.

**Section I**  
***General Principles and Goals***

The University of New Mexico campus is expected to be:

1. Respectful of its heritage and design traditions – culturally meaningful, humane in scale, urbane in character, and harmonious in material and detail.
2. Functionally efficient and logically organized in accommodating a variety of needs and users.
3. Pedestrian oriented, safe, user-friendly, and easily accessible to the handicapped.
4. Visually attractive and enjoyable, both day and night.
5. Landscaped sensitively and supportive of specific places and needs.
6. Climatically responsive and environmentally responsible; a model of sustainable principles and best practices.

## **Section II**

### ***Design and Planning Objectives***

#### **1. Context and Perimeter Conditions of the Campus:**

A successful university campus embraces the physical context in which it resides, understands the various forces that shape its edges and mold its core, and incorporates community representation and constituencies into its planning processes. To foster successful interactions with all who use it, the campus should simultaneously convey unity in its visual appearance with a sense of adventure and discovery.

The UNM campus should be cohesive in its organization while remaining open and inviting at its perimeter. By design and landscaping, primary entry points to the campus should convey and celebrate a sense of arrival – for members of the campus community as well as for visitors.

The future physical development of the University of New Mexico should be sympathetic to and respectful of the residents, business establishments, and other interests that surround it. It should balance the needs of the largest university in the state with the smallest interest of those that share this part of the city and region.

The UNM central campus and its buildings should contribute to the urban design quality of the adjoining public streets and districts, and connect safely and logically with off-campus student housing, varsity sports venues at the south campus, the HSC and other functions on the north campus, and with outlying parking areas.

#### **2. Land Use and Organization:**

- A.** Academic buildings on the main campus (generally bounded by University Boulevard, Central Avenue, Girard Boulevard, and Lomas Boulevard) should be clustered with appropriate adjacencies (density) and within a maximum ten-minute walking distance of each other (i.e., about ¼ mile). Exceptions should be limited to facilities that primarily support research and/or graduate/professional studies.
- B.** Following the primary east-west, north-south grid of the original pattern of streets that preceded the university's expansion, the campus development is fundamentally rectilinear in character – with clearly defined edges, pedestrian movement, and major open spaces. Pedestrian movement should be accommodated by logical circulation patterns, linking entry points at the campus perimeter and entrances of buildings and other destinations. A critical part of the circulation system is the continuity of public *interior* spaces of academic buildings with primary campus circulation paths, courtyards and plazas. Each new project should reinforce primary and secondary circulation routes.
- C.** Continued emphasis will be given to the deeply rooted heritage of New Mexico and the historically significant structures and landscapes of the campus. Essential to this

character and aesthetic is the continued development of a series of exterior rooms or courts, representing the *Spanish Pueblo Revival* traditions of planning and design. The physical environment should embody a clear understanding and application of passive climate control methods to create comfortable outdoor rooms, as well as the judicious use and celebration of water.

### **3. Movement and Circulation:**

#### **A. *Pedestrian Systems***

Building design and adjacent landscaping should reflect a commitment to both pedestrian movement and repose. A hierarchy of pedestrian pathways should reflect the basic intensities of demand while providing a continuity of movement that includes the interior public spaces of the campus buildings. The design of the pedestrian network – including sidewalks, paths, courtyards, plazas, building entrances and lobbies – should maximize the opportunities of chance encounters and encourage lingering and communication. Compromises to the pedestrian circulation system should be considered only for code-dictated fire and rescue vehicle access and essential delivery and service vehicles. Toward that end, pedestrian movement systems are to be carefully integrated in all building design and site planning decisions.

#### **B. *Vehicular Access and Parking***

Vehicular movement, insofar as possible, will be restricted to the perimeter of the main campus. Structured parking should also be located at, or adjacent to, the campus perimeter. Additional parking may be located at remote lots supported by bus shuttle service. In all instances, parking structures and lots should be effectively landscaped to mitigate the visual impact. Vehicle and service routes into the main campus will generally be perpendicular to pedestrian circulation patterns to minimize interaction. A strategically located fire/service/delivery vehicle route is intended to penetrate each quadrant of the campus.

#### **C. *Bicycles, Skateboards, and other Small Wheeled Means of Conveyance***

To further encourage the use of bicycles by commuters to campus, a continuous network of dedicated bicycle lanes at the campus perimeter, directly linked with the regional system, is desired. In many instances, designated bicycle lanes should also be provided along vehicular and service access routes that penetrate into the primary academic core of the campus. For reasons of safety, minimizing both bicycle-automobile and pedestrian-bicycle conflicts in the campus circulation plan is of paramount importance. In some instances and for certain hours of the day, specific dismount zones along major pedestrian malls and courtyards may be necessary. Proper lighting, signage, sight lines, paving materials, and level changes should be carefully considered for bicycle movement and parking areas.

Primary storage areas needed for bicycles used by commuters should be located adjacent to, or at the termination, of primary bicycles routes. These may be positioned at the perimeter of the academic core, near building entrances, as well as adjacent to automobile parking lots. In addition, bicycle storage areas should be integrated with parking structures and residential living halls. Designated storage should consist of several types, including large areas to accommodate 50 to 100 bicycles and smaller areas that can accommodate 10 to 15 bicycles. Low plantings,

berms, and walls – judiciously designed and located and with a maximum height of about three feet – will provide appropriate screening without compromising safety. For reasons of security, the bicycle storage areas should be visible from highly trafficked pathways and observable from nearby interior spaces.

As with bicycles; skateboards, scooters, and rollerblades provide an alternative means of commuting to campus, and are sometimes used in conjunction with other modes of transportation. In minimizing potential hazards to both pedestrians and riders, accommodations for other non-motorized wheeled vehicles follow similar principles as with bicycling. Recreational (i.e., acrobatic) skateboarding, rollerblading, and bicycling are generally ill-suited to the pedestrian domain of the main campus and contrary to the intended purpose and needs of the academic environment. [For reasons of public safety as well as to negate potential damage to public property, UNM has adopted restrictive policies for skateboarding and other similar activities on or near physical structures – including steps, railings, planters, benches, and retaining walls.]

#### ***D. Transit***

Building site selection and orientation should not compromise transit system access to strategic pedestrian queuing locations on the perimeter of the campus. Similarly, transit drop-off points should correspond to highly developed pedestrian entrances to the campus. Shuttle routes around the campus should be linked to city and regional transit systems.

#### ***E. Service, Delivery, and Refuse***

Building design and site planning must accommodate the need for limited access for service and delivery vehicles. The use of bollards at key entry points will also permit service and safety vehicle access on appropriately designed and constructed pedestrian pathways. Service, delivery, and refuse areas should encroach as little as possible on the pedestrian realm of the campus, visually and physically. Views of loading docks, trash dumpsters, and service vehicle parking should be obscured by screen walls and/or vegetation.

### **4. Open Space and Landscape:**

#### ***A. Large Open Spaces***

To accommodate a variety of active and passive recreational opportunities, large open spaces on the UNM main campus should be preserved. The inclusion of water collection, storage, and distribution systems for the re-use of storm water is encouraged.

#### ***B. Pedestrian Corridors, Plazas, Courtyards, Terraces, and Building Entries***

Pedestrian circulation and human experiences are enhanced by carefully planned and executed exterior landscaped “rooms” and corridors, both formal and informal. The continuity and linkages of exterior space are expected to correspond directly with primary the entrances and circulation systems of buildings (as well as parking structures).

A hierarchy of open spaces – including courtyards, plazas, terraces, and balconies – respond well to user needs and the high desert climate of New Mexico. These spaces

should be designed to support a variety of intended purposes, from informal recreation to small group and individual passive activities and leisure.

**C. *Public Art and Water Features***

The exterior environment of campus and its multitude of open spaces provide exceptional opportunities for the successful integration of public art within the public realm of the university. The campus landscape – including its exterior spaces and rooms – is an important aspect of civic art, providing a unique and memorable sense of place. Toward that end and in response to the UNM “Art Master Plan,” specific enhancements that may be provided by public art projects should be carefully considered within the context of the specific site and its special character, three-dimensional form, history, and current/future uses. At the earliest phases of design and whenever possible, collaboration between artists and professional design consultants is desired.

The visual presence of water in this arid region imparts important symbolic and psychological benefits to users of the campus. As public art, thoughtfully designed fountains and other water features provide critical elements in the open space framework of the campus. Relatively subdued and brimming fountains can be used to minimize evaporation. Designers should consider possible sustainable practices by incorporating rainwater harvesting and reuse, as well as gray-water recycling in the planning and design of campus water features.

**D. *Site Furniture and Pedestrian Paving***

Considerable care should be given to the selection of exterior furniture (seating benches, tables, railings, trash receptacles, bike racks, etc.) that contribute to the visual appearance of the public realm. These elements should be durable, relatively simple in style, inviting, comfortable, and consistent with the overall character of the landscape.

Paving materials also contribute to the aesthetic quality and character of courtyards, plazas, terraces, and walkways. Thematic patterns of specific campus districts should be maintained and/or enhanced with respect to the historical context and adjacent architecture. Care should also be given to ensure appropriateness of paving design and selected materials to the needs of handicapped and visually impaired. (See also UNM Campus Landscape Standards)

**E. *Lighting, Illumination and Fixtures***

Considerations for exterior lighting design should include basic illumination, energy consumption, and compliance with local “dark sky” ordinances. So that safety and security are not compromised, glare and sharp contrasts in the lighting of exterior spaces should be minimized. With well-designed lighting, the landscape of the campus can achieve heightened drama and varying subtlety compatible with particular spaces and uses during the evening and night-time.

As lighting fixtures are visually evident during daylight hours, selection of fixtures and standards are also important elements of the campus landscape. [Refer also to the UNM Lighting Master Plan (Draft; May 2004)]

**F. *Plant Materials***

Plant material selections should be responsive to the character of the high desert, the historic traditions of the campus landscape, as well as the intended uses of the specific open space. Landscape plantings may be used to frame views, announce entries, obscure or screen undesirable aspects, and strengthen way-finding – while also providing texture, seasonal color, and fragrance. Landscape plans should be designed to temper wind and extreme temperature conditions on the campus.

Native plant material, particularly species that are drought tolerant and disease resistant, are preferred. Where appropriate, selected planting materials should also contribute to the UNM campus arboretum.

Turf areas and lawns provide pleasant and visually attractive areas for students to relax and meet. To provide summer shade, trees should generally be located at the perimeter of lawns, along with the placement of benches and seatwalls at these edges.

To minimize water consumption, residual areas and spaces that are not intended for human activity should be landscaped incorporating drought tolerant plant materials.

#### ***G. Signage and Graphic Information***

Graphic information systems should be carefully designed and integrated as part of the campus landscape and architecture. Primary entrances and gateways to the campus should identify this transition with integrated signs that contribute to the design of the particular civic space and public realm. Other signage and graphic information, conforming to UNM adopted standards and graphics plan, should be located for ease of wayfinding. Notwithstanding, special attention should be given to avoid the unnecessary duplication, excessive size, or proliferation of signage that may contribute to “visual clutter” of the campus landscape.

To discourage the indiscriminate posting of flyers, carefully designed kiosks should be provided at key circulation nodes.

### **5. Buildings and Facilities:**

#### ***A. Architectural Character and Historic Precedent***

It is the intention of these guidelines that the design of new structures and additions should be responsive to and informed by the historical context and style of buildings on campus, rather than merely imitative of past examples.

The main campus of the University of New Mexico includes a predominant number of buildings that are distinctive in pattern and embrace relatively consistent adaptations deriving from the Spanish Pueblo Revival style. The numerous buildings that were designed or influenced by John Gaw Meem provide a basic reference point to many aspects of architectural vocabulary and style on campus.

Essential design considerations include basic massing (typically large areas of both solids and voids), proportions and materials, window fenestration, sun protection on east and west façades, relatively deep recesses on south-facing façades, earth-toned colors, courtyards as organizing elements of building floor plans, the use of portáls as connectors, and the incorporation of terraces and other transitional spaces at building entries. Given the historic character of the campus and the desire to maintain a

humanistic quality of this environment, horizontality is preferred rather than verticality in building forms.

The overall visual character of the UNM main campus is also marked by a variety of roof heights, with several buildings possessing small towers that are silhouetted on the skyline. Following the principle of ascending mass in elevation with corresponding to reduced floor plates at the upper floor or floors, many buildings have a pattern of step-wise incremental increases in building height – rather than consistent horizontal surfaces – while also encompassing horizontal parapets that occur at different levels. Design of new buildings and major additions should be mindful of adjacent building heights to preserve this effect.

While it is important to maintain a cohesive architectural character for the main campus, new facilities and major additions should not be confused with historic structures of earlier eras. For renovation, modernization, and additions to structures of historic importance, including those listed on the national Register of Historic Places, the Secretary of the Interior’s *Standards for Rehabilitation of Historic Structures* shall be followed.

Changing needs should be addressed and new technologies applied in a manner that identifies both the time and the place. The resulting design should be informed by the character, style and materials of historic structures and traditions, such that new construction contributes to the overall visual quality and “sense of place” of the UNM main campus.

The “University of New Mexico Heritage Preservation Plan” (2006) identifies historically significant zones and structures as part of a *Historic Preservation Plan* for UNM. It should inform the perpetuation of the institution’s rich history and serve as a barometer for the achievement of preservation goals. Each new building, as well as additions to existing structures, should contribute directly to the overall character and fabric of the campus, with an emphasis on defining and establishing important outdoor spaces by their presence. The inclusion of new “object buildings” – those that are designed to stand apart, rather than conform with, the architectural context of adjacent buildings – are expected to be the exception rather than the norm.

#### **B. Density and Building Height**

Many historic buildings on campus are only one or two stories in height, intended to serve a far smaller campus community when constructed. As with most universities with large student populations, the academic core of the UNM campus must be of a relatively high intensity and density to support basic human efficiency and the typical “ten minutes” permitted for student movement between classes. Uses that are less sensitive to these fixed time constrictions (e.g., research labs, recreation, administration) are best relegated to the perimeter of the academic core., while still easily pedestrian accessible.

To support the basic pedestrian movement implied by typical instructional patterns, it is incumbent in planning new facilities and additions for the academic core that a relatively high intensity of land use be accomplished, without diminishing the attractiveness of the exterior environment. Notwithstanding, in tall buildings (i.e., above five stories) increased percentages of each floor-plate must be dedicated to vertical circulation and mechanical services. As such, a higher density of assignable

square footage is often achieved with structures ranging from three to five stories in height.

Carefully designed and detailed courtyards adjacent to and adjoining buildings – rather than larger lawns with undifferentiated uses – are able to provide pleasant and user-friendly exterior spaces throughout the academic core while providing natural lighting for building interiors. Where buildings must be located in close proximity, the simple use of generous amounts of clear glazing at the grade level will greatly mitigate the sense of confinement. Care should also be given to ensure solar access to these outdoor rooms in the winter months.

To achieve optimal density of the main campus, buildings in the core must include at least one sub-grade level, ideally receiving natural light from an adjacent exterior courtyard. (The sub-grade level would normally include room types that do not require natural light, i.e., research labs or classrooms.) In some instances, properly designed buildings of four or five stories in height will be necessary. Notwithstanding, the historical “ziggurat” effect of the skyline should be considered and maintained.

### **C. *Sustainability***

“Best practices” are to be utilized in the design for all new construction to ensure healthy and sustainable facilities and grounds. Buildings shall be designed to be energy efficient and based on life-cycle performance.

[Executive Order 2006-001 “State of New Mexico Energy Efficient Green Building Standards for State Buildings,” issued by Governor Richardson on January 16, 2006, declares that all Executive Branch state agencies, including the Higher Education Department, adopt standards to implement the use of high-performance, energy-efficient green building practices for all state-funded buildings throughout the state. The policy’s general principles and specific applications include adoption of the U.S. Green Building Council’s LEED (Leadership in Energy and Environmental Design) rating system and achievement of a minimum rating of “Silver” for the building.]

### **D. *Functional Relationships and Considerations***

To provide ease of access and efficiency of student movement between classes, major classrooms and meeting areas of buildings should be located within one level of the entry grade. In providing the desired campus density and internal pedestrian movement within facilities, lower plaza levels, incorporating natural day-lighting, are encouraged. Where possible visible stairways, rather than elevators, should be considered the primary means of vertical conveyance for heavily trafficked areas and destinations within buildings. Entrances, lobbies, and public stairs should be considered a fundamental part of the basic campus circulation system.

To accommodate (and facilitate) informal and unscheduled gatherings of a small number of individuals, buildings should incorporate informal, “residual” areas adjacent to corridors or stairway landings. To encourage students to gather with each other or with an instructor to further course discussion, these places should include seating and have natural lighting with pleasant exterior views.

Most buildings on campus are experienced from all directions (i.e., while perhaps having a single, primary entrance, there is no “back façade”). To minimize the

negative visual impact that typically accompany the temporary storage and collection of trash, service and loading access, fire exits, and exterior mechanical equipment devices, considerable care is necessary in the initial design and planning of facilities on the campus. Ideally, the visual impact of these needs can be mitigated by screened or walled service courts (perhaps supporting more than a single facility), grade changes, or other judicious landscape design.

### **Section III**

#### ***Process***

1. These ***Design Principles and Guidelines*** will be incorporated into all decision processes and communication that directly impact or otherwise affect the physical character and design quality of the UNM Main Campus.
2. The processes for the solicitation and selection of consulting design services (e.g., architects, engineers, landscape architects, artists) will address the ability of responding firms and their lead designers to successfully address and meet the expectations embodied in these ***Design Principles & Guidelines***.
3. An appointed ***Campus Design Review Board*** will review design proposals and advise the President and UNM key staff on all major projects and construction that will alter the character of the physical environment and appearance of the campus.

In addition, the Design Review Board will assist in the process for the solicitation and selection of external design consultants for major projects. The Design Review Board will annually review the adopted campus ***Design Principles and Guidelines*** and, as appropriate, recommend revisions to this document.

The ***membership*** of the ***Design Review Board*** shall include prominent, external design professionals as well as members of the faculty and staff with experience and/or expertise in such matters.