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Site and Landscape Design

4.1. General

1. Purpose

The site and landscape design guidelines herein support the enhancement of the campus open space system as described in the Campus Master Plan.

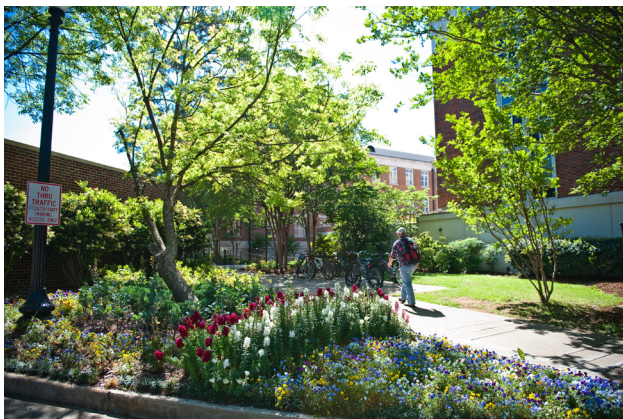
2. Designer Qualifications

The landscape designer shall be a Landscape Architect registered in the State of Alabama.

3. General Guidelines

A. *New spaces.* New landscape design should open views to historic and architecturally significant existing buildings.

B. *Open space diversity.* Site development should create a variety of open space types and experiences for campus users.



C. *Support safety.* Site amenities and plantings should enhance campus security through careful attention to circulation routes, lighting and maintaining visibility. See also §2.6.

D. *Respecting the site.* The site development plan must demonstrate consideration for unique site features including topography, hydrology and existing vegetation and acceptable methods to preserve aspects of the site deemed desirable by the University.

E. *Site preparation.* Mass clear-cutting or grading of a site to the extent that all native or existing conditions are lost is prohibited.



4.2. Hardscape

1. Application

Hardscape is to be used to provide a durable, all-weather surface to accommodate pedestrian activity and outdoor gatherings and activities. Wherever possible, hardscape materials shall be chosen to maximize pervious surface area. Refer also to the Sidewalk Master Plan for additional guidelines associated with hardscape.

2. Location

Hardscape is intended generally for sidewalks and paths, plazas/building entrances, transit stops, and in gathering places adjacent to buildings or building groups. Materials should be chosen based on the activities intended for the location, including such considerations as the use of a combination of materials for prominent locations and compatibility with the materials and styles of adjacent buildings.

A. Sidewalks and Paths.

- Most sidewalks and paths require only scored concrete while more prominent pedestrian areas, such as a concourse, may require additional accent surfaces, such as brick pavers, to visually reflect their importance. Such paths may also include brick banding.
- Sidewalks shall be a minimum of eight feet wide.
- To the extent possible use walkways as the edge of planting beds to reduce edging of lawn.

B. *Plazas, Building Entrances and Gathering Places.* A combination of hardscape materials shall be used to distinguish building entrances, public spaces and gathering places.

- Pavement patterns in plazas and gathering spaces should include a combination of materials and colors that may be served from those in adjacent buildings.
- All walkways for building entrances, plazas and feature areas shall consist of compacted dense grade base, concrete subslab, mortar bed and brick pavers or concrete topping slab.

C. *Transit Stops.* A suitably sized, all-weather surface shall be provided along with other furnishings for transit stops.



The hardscape patterns in plazas often reflect design elements of associated buildings.

4.3. Surface Parking

Surface parking areas shall be minimized from public views, to the degree practicable, by location and/or through landscape screens. Parking areas shall be arranged properly for vehicular and pedestrian safety and landscaped for shade and scale.

1. Relationship to Context

Surface parking areas should be located away from open spaces and streets. Preferably parking lots are located internally to each “block” behind buildings. In this manner, access to and use of the lot may be shared among neighboring buildings.

2. Pedestrian Access

Convenient pedestrian paths should be designed into the arrangement of large parking lots to direct pedestrians to designated crossings and pedestrian linkages.

3. Vehicular Access

See §2.5.1.B.

4. Parking Lot Landscaping

Landscaping shall be provided along the perimeter and within the interior of surface parking lots. Landscape areas shall be protected from vehicle encroachment.

A. Perimeter Landscaping.

Landscaping shall be provided along the perimeter of any parking areas not bounded by a building.

- Define the edges of and limit access to/from the parking area to designated points using landscaping consisting of all or a combination of hedges, trees, and walls/fences.
- Hedges and walls/fences shall be between three to four feet in height to block vehicle headlights from off-premise views. Such screens shall not be of a height to compromise natural surveillance (see §2.6.1).





B. *Interior Landscaping.* Landscape islands and circulation should be arranged to break down the overall scale of a large surface parking area so that it might be experienced as a group of small parking areas.

- Landscaping islands shall be sized to provide sufficient root growth for canopy and/or understory trees.
- Internal landscape islands shall be a minimum of 160 square feet (9 feet x 18 feet, typical).
- Include a landscape island for each contiguous 15 spaces.

C. *Parking Lot Lighting.* See §4.4.4.C and §4.4.5.D.

D. *Drainage.* Stormwater drainage should be integrated with the landscape design to include opportunities for on-site retention, such as through rain gardens and swales.

4.4. Lighting

Provide lighting for safety and design consistency throughout the campus. Refer also to §2.6 for environmental safety strategies applicable to lighting.

Adhere to campus design standards for pole lights. In no case shall fixtures taller than 35 feet be permitted. This shall not apply to lighting for sports and recreational fields.

Design and locate fixtures for service accessibility and safety. Fixtures should be of a type that is easy and safe for changing of lamps. Accessible locations encourage more regular maintenance. Tamper-resistant hardware should be used wherever a fixture is accessible to the public. Place “hot” fixtures so that physical contact with a hot lamp or fixture is normally avoidable.

It is important that buildings and spaces not be over-lighted. Adhere to illumination criteria indicated in §4.4.5.

Lamping shall typically be metal halide or LED of equivalent color. High-pressure sodium lighting is prohibited.

1. Application and Location

Provide lighting in the following locations:

- Along streets, sidewalks, and other paths
- Within open spaces and parking lots
- At building entrances
- In locations appropriate for accenting of buildings, signage, gateway, and landscape elements

2. Architectural Lighting

- Highlight a building's most prominent features.* Evenly light the building façade with slight emphasis on edifice. “Close-in” lighting can be used to accent the textures of building finishes such as stone and brick. Illumination shall be consistent with §4.4.5.
- Integrate lighting equipment into the building design.* Fixtures and wiring should be concealed by architectural elements to ensure that equipment has a minimal visual impact during the daytime. Alternatively, building-mounted fixtures shall be designed as integral features consistent with the building's geometry and architectural style.
- Place ground-based accent lighting to avoid glare.* Ground-based building lighting should be designed and/or positioned to avoid interfering with the vision of passersby.

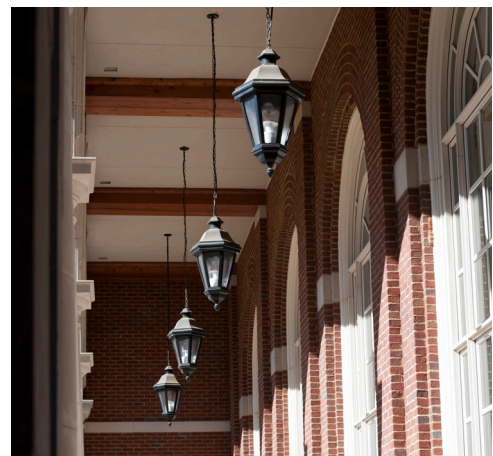
D. *Design parking deck lighting to minimize light pollution.* Direct and indirect lighting shall be contained to minimize stray light. Daylighting and off-peak lighting controls shall be implemented to reduce energy consumption.

E. *Connect lighting to a control system.* Lighting should be connected to a photocell to turn fixtures on and a time clock to turn them off.

3. Site Lighting

Fixture selection should strike a balance between minimizing the number of units required to accomplish the desired effect and the ability to conceal light sources from view. Illumination shall be consistent with §4.4.5.

- Fixtures along sidewalks and paths.* Pedestrian-scale, pole-mounted lights shall be provided along streets, sidewalks, and paths. Generally, spacing between pedestrian-scale fixtures shall be no greater than 100 feet nor less than 60 feet.



B. *Fixtures along streets.* Where lighting is also needed along the vehicular way, a combination fixture shall be used to light the street and adjacent pedestrian way or open space, with a taller fixture lighting the street and a pedestrian-scale fixture lighting the adjacent sidewalk, path or open space.

C. *Fixtures within parking lots.* Lighting shall be provided at the perimeter of and within surface parking areas. Illumination shall be consistent with §4.4.5.

- Light fixtures should be of the least height to provide the desired lighting level. Landscaping shall have precedence in islands; poles shall generally be located in grassed areas and within the parking lots. Concrete foundations with extended height shall be installed for poles that are subject to vehicle damage.
- Building-mounted lights should be avoided for general site lighting.

D. *Fixtures within open spaces.* Lighting in open spaces shall be provided through pedestrian-scale, pole-mounted lighting, lighted bollards and, where unavoidable, building-mounted lighting. Excessive grouping of pole mounted fixtures shall be avoided to minimize glare.

E. *Fixtures at building entrances.* Grand building entrances, such as those which front on a plaza, shall include pedestrian-scale pole-mounted fixtures and building-mounted fixtures. More modest building entrances may include only building-mounted fixtures.

F. *Connect lighting to a control system.* Lighting should be connected to a photocell for dusk to dawn operation.

4. Accent Lighting

For accent lighting of landscaping, signage and gateway features, the following guidelines shall apply:

A. *Fixture selection should strike a balance.* Balancing between minimizing the number of units required to accomplish the desired effect and the ability to conceal light sources from view as much as possible.

B. *Avoid overly bright lights and frontal floodlighting.* Use lower-wattage light sources. Lighting of landscape elements from a distance can interfere with nighttime vision and is discouraged. Up-lighting should only be used where it will not interfere with the vision of passersby.

C. *Minimize light trespass and glare.* Fixtures should be designed to direct light only where it is intended and appropriate shielding should be used to prevent light trespass and glare.

D. *Connect lighting to a control system.* Lighting should be connected to a photocell to turn fixtures on and a time clock to turn them off.



5. Illumination Standards

Provide lighting of a height, spacing and intensity so as to create comfortable, safe, and consistent illumination. In determining illumination levels, adjacent, existing lighting shall be considered. Where approved by the Facilities Department, existing lighting not consistent with these guidelines may be modified as needed to create the illumination pattern and level desired for the project and surrounding area.

- A. *Community edges.* Lighting shall be shielded to prevent glare and designed so that illumination does not exceed 0.2 footcandles on abutting community residential edges or 0.5 footcandles on abutting community nonresidential edges.
- B. *Streets.* Illumination at pavement level shall be between 0.5 and 1.0 footcandles average maintained. The ratio of average to minimum illumination shall not exceed 4:1*.
- C. *Sidewalks, paths, and open spaces.* Horizontal illumination at grade

level shall be no less than 0.5 footcandles, average maintained. Vertical illumination at six feet above grade level shall be no less than 1.0 footcandles, average maintained. The ratio of average to minimum illumination shall not exceed 5:1*.

- D. *Parking lots.* Illumination at pavement level shall be between 2.0 and 3.0 footcandles average maintained. The ratio of average to minimum illumination shall not exceed 5:1*.
- E. *Architectural façade lighting.* Illumination shall be between 2.0 and 3.0 footcandles average maintained. Building edifices shall be between 3.0 and 4.0 footcandles average maintained. The ratio of average to minimum illumination shall not exceed 5:1*.
- F. *Building entrance ways.* Illumination shall be between 2.0 and 3.0 footcandles average maintained. The ratio of average to minimum illumination shall not exceed 5:1*.
- G. *Signs.* See the Wayfinding Graphics Master Plan.

*The ratio of average to minimum illumination may be higher in peripheral locations, such as adjacent to natural areas or community residential edges, where decreased illumination along the site boundary would be more appropriate.

4.5. Planting Materials

Planting design is an important component in enhancing the appearance of a successful campus. Plant selection, quality of plant material and ongoing maintenance should be consistent throughout the campus to convey the visual image of a single integrated open space. Plant materials used for landscaping purposes under these guidelines shall be selected from the Recommended Plant List in Appendix A.

1. Irrigation, Drainage, and Maintenance

Planting and irrigation design shall promote water conservation through selection of plant materials with low water requirements, by grouping plants with similar water needs together, and by utilizing water-conserving irrigation design and equipment.

- High maintenance areas shall be limited to building entrances and other easily accessible, prominent locations.
- Yard inlets and area drains in landscape areas shall be located in grass areas, where practical, instead of planting beds.

2. Recommended Plant List

The recommended plant list in Appendix A classifies planting materials under the following categories: ornamental tree, understory tree, canopy tree, groundcover and vines, shrubs, ornamental grasses, and annuals.

A. Plant Selection.

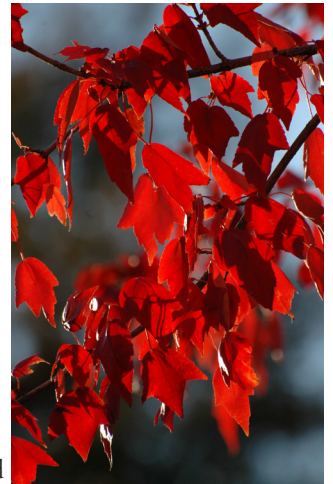
- Evergreen plants shall be a primary selection in open space designs.
- Place emphasis on the selection of native trees and trees with spring and/or fall color.
- All trees shall be hand-selected by the University's representative at the growing source to ensure consistent quality.

3. Trees

Trees shall be used to provide shade; define edges of streets, paths and open spaces; and to support the intended pedestrian-scale of the Campus.

A. Street and Path Trees.

- Street trees shall be located within the planting strip between the sidewalk and curb. The strip shall be of sufficient width to prevent damage to hardscape due to root spread.
- Streetscapes with building setbacks of 25 feet or more (measured from curb) shall include canopy trees to reinforce the intended street width proportions described in §2.3.3. Streets with narrow building setbacks may use ornamental or understory trees.
- Off-street paths shall be lined with ornamental trees, at a minimum, and spaced between 40-80 feet.



B. *Trees in Open Spaces.* Trees located within open spaces shall be arranged consistently with the intended geometry of the open space and shall be located so as to preserve intended views across or through the space.

- Larger open spaces should include a combination of understory and canopy trees.
- Understory trees are sufficient for most plazas.
- Sufficient room shall be provided in tree wells to accommodate the expected root spread of the tree type.

C. *Trees in Parking Lots.* Understory and canopy trees shall be used in surface parking areas for shade and to reduce heat islands. All parking spaces shall be within 100 feet of a shading tree, which may include trees within perimeter landscaping areas. See also §4.3.4 and §5.2.3.

4. Shrubs

A. *Defining Space.* Shrubs shall be used to define spaces as needed but shall not interrupt the open flow of grassed areas.

B. *Pruning.* Select shrub material that performs well with limited pruning.

C. *Maintenance.* All shrubs shall be planted a minimum of five feet from buildings for ease of building maintenance and window cleaning.

5. Existing Plantings

The University places a high value on its existing tree canopy and requires its partners in development, contractors and all vendors working on campus to respect and preserve existing trees.

A. *Existing Trees.* Generally, only those trees which are necessary for construction on the site shall be removed.

- Removal of trees having a diameter at breast height of four (4) inches or more is discouraged.
- Methods, as described in CA Standard #022331, shall be used to protect all trees and major plant material designated by the University during construction. The entire area below or within the drip line shall be enclosed with fencing to protect root systems during construction.
- The University will monitor protection fencing and will assess fines up to \$1,000 per infraction if tree protection fencing is not kept in place and maintained during construction.

4.6. Site Furnishings

Site furnishings shall be provided consistent with the intended use of and desired level of activity within the open space, streetscape, or path. Site furnishings at building entrances or within building-specific outdoor spaces may vary from University specifications, but shall be designed in harmony with one another and the character of the building.

1. Benches

Benches shall be provided along streets, paths, and along the perimeter of open spaces and as otherwise desired due to the nature of the space. Benches may be grouped at larger plazas, building entrances and features where larger groups may gather. All benches shall be placed facing pedestrian routes to maximize the ‘people watching’ aspect of the open space. See CA Standard #02870.

2. Trash Receptacles

Trash receptacles shall be provided near street intersections, entrances to buildings, along paths, and along the perimeter of open spaces and as otherwise necessary due to the nature of the space. See CA Standard #02870.

3. Kiosks

Kiosks shall be provided in accordance with the Wayfinding Graphics Master Plan.

4. Signage

All signage shall be provided in accordance with the Wayfinding Graphics Master Plan.

5. Drinking Fountains

See University specifications.

6. Bollards

See University specifications. Steel bollards and chain may be used to edge lawns and direct pedestrian traffic along perimeter paths. More substantial precast concrete bollards may be used to control vehicular access. Removable steel bollards may be used where major pedestrian walkways must accommodate service and emergency vehicles. Bollards shall match University of Alabama standards.

7. Post and Chain

Where temporary or adjustable barriers are needed, a simple post and chain type shall be used. For fixed uses, bollard and chain may be used to control pedestrian movement. See University specifications.

8. Bicycle Racks

See University specifications.



9. Outdoor Dining

Furniture for outdoor dining shall be durable powder-coated steel tables and chairs. In areas that may be secured, weighted free-standing tables and stackable chairs will allow flexibility in seating arrangements. In more open areas, steel tables with permanently fixed seats will be used. Where fixed seating is used, an appropriate portion of the overall seating should accommodate wheelchair access.

10. Other

- A. *Newspaper Boxes*. See University specifications.
- B. *Art*. Sculpture and similar types of public art should be included in prominent open spaces and located in harmony within the intended geometry of the space.

4.7. Fences, Walls, and Screening

1. Use of Fences and Walls

Fences and walls shall serve one or more of the following purposes: to define transitions by providing physical boundaries between public, semi-public and private zones; to provide visual screening from service/support areas; or to retain soil.

- A. *Fences and walls used in prominent locations*. Generally, a combination of decorative fence/wall and shrubs, shall be used in locations of greater visibility. See CA Section 2 Standard #04.
- B. *Barrier fencing*. Non-decorative fencing (such as chain-link) used to restrict access shall only be used in areas away from streets and paths and areas not visible from off-Campus. See CA Section 2 Standard #04.

2. Site and Seat Walls

In addition to their functional purposes, such as retention or control of access and pedestrian movement, walls within open spaces should also be considered for opportunities to provide seating, where appropriate.

- A. *Retaining walls*. Retaining walls, where practical, should be designed to provide seating in gathering places and other high-traffic areas.



B. *Materials*. When located within an open space with pre-existing site walls, consistent wall materials should be used. In the absence of such precedents, wall design and materials should complement the materials of neighboring buildings, especially wherever the wall connects to a building. Segmental block retaining wall systems are prohibited. Acceptable materials are:

- Stone veneer over cast in place concrete or CMU
- Brick veneer over cast in place concrete or CMU
- Precast concrete veneer over cast in place concrete or CMU
- Cast in place concrete with sandblast or parged finish.
- Wall caps shall be stone, precast concrete or brick.

3. Transition Zones

Fences or walls may be provided, as desirable, to distinguish between public, semi-public, and private spaces (see also §2.6.3).

- A. *Potential applications*. Limited height ornamental fences or walls (including retaining walls) may be used to define the transition between a public space, such as a streetscape or path and a semi-public lawn or gathering space.
- Generally, fences/walls located between a building front and the public space shall not be taller than four feet.
 - Fences/walls taller than four feet shall only be located away from public views.

4. Parking

- A. *Surface Parking.* Surface parking lots shall be screened in accordance with §4.3.4.A through a combination of landscaping and fence/wall.
- B. *Parking structures.* Parking structures shall be screened from both campus and community residential uses through dense evergreen landscaping when a liner facade is not used.
- Landscaping in combination with a fence/wall may be desirable in certain contexts.
 - Variation from the above may be acceptable when the structure is designed integrally with (and/or attached to) a campus residential building. In these cases, portions of the structure visible from residential units, such as the top level, shall be landscaped or the views shall be otherwise mitigated.

5. Sports and Recreation Areas

Fencing required for sports and recreation areas shall be of a design, opacity, and height appropriate to the function. Where used, all chain-link fencing shall be vinyl-coated, black.

6. Loading and Service Areas

Loading and service areas shall be screened from public view through a combination of location, landscaping and fence/wall.

- A. *Screening.* Bulk trash containers and building equipment shall be concealed within enclosures designed as integral elements of the building design.
- Screens for bulk trash containers shall be compatible with the style, materials, and colors of the adjacent building(s) and shall be at least the height of the container.
 - Above ground utilities and building appurtenances, such as air conditioners and similar building equipment, shall be screened from public view and access restricted by walls or fencing compatible with the style, materials, and colors of the adjacent building(s).

- B. *Security fencing*. Uses requiring security fencing shall be located away from community edges where practical.
- Where location is not sufficient to minimize public views of uses requiring security fencing, razor-wire and similar treatment are discouraged. Instead, a masonry wall or another fencing system should be used, such as black, “ornamental” galvanized fencing.
 - Where public views are effectively screened by landscaping, buildings, or other methods, fencing may be black, vinyl-coated, chain-link. See also CA Section 2 Standard #04.
 - All chain-link fencing shall be vinyl-coated.

4.8. Utilities

1. Underground Utilities

Generally, all new utilities lines shall be placed underground for new building projects. For new construction projects in locations where surrounding buildings are served by above-ground utilities, the UA Facilities Department shall be consulted regarding the application of this guideline.

2. Above-ground Utilities

Above-ground utilities and utility appurtenances shall be placed to minimize their visibility from open spaces, streets, and paths and shall be placed as recommended by the UA Facilities Department. Where location is not sufficient to minimize public views, screening shall be provided consistent with screening concepts of §4.7.6.

