

APPENDIX: ARCHITECTURAL DESIGN GUIDELINES

MASTER PLAN ARCHITECTURAL DESIGN GUIDELINES

	INTRODUCTION & OBJECTIVES	137
SECTION I	Planning and Buildings	139
SECTION II	Landscapes and Buildings	142
SECTION III	Existing Buildings	149
SECTION IV	Building Design Criteria	161
SECTION V	Using Architects Effectively	171
SECTION VI	Using On-Campus Expertise	174
SECTION VII	Governance	175
	GLOSSARY	178

ACKNOWLEDGEMENTS

The Architectural Design Guidelines were prepared with the help of the following groups and individuals: LPK Architects, Sasaki, and the Mississippi State University Office of Planning, Design and Construction Administration; with a special thanks to Dr. Michael W. Fazio, Professor Emeritus of Architecture, for oversight and contributions to the document content.

MASTER PLAN ARCHITECTURAL DESIGN GUIDELINES

INTRODUCTION

The Architectural Design Guidelines are intended to provide a framework for the urban design and architectural development of the Mississippi State University campus. The following guidelines extend the ideas of the overall Master Plan to campus buildings and the spaces between, among, and around them. The guidelines are organized into sections which:

- Consider the University's planning history, the implications of the Master Plan for individual building design, the specific issues of in-fill buildings, or constructing new buildings within a fairly dense context created by existing ones, and of buildings in and adjacent to parklands.
- Address landscapes, landscaped spaces defined by buildings, and the formal obligations of buildings facing streets and parklands.
- Describe and analyze campus architecture and propose methods for achieving architectural identity and stylistic unity.
- Present and discuss the established Building Design Criteria.
- Outline a method for the use of on-campus expertise.
- Outline governance guidelines, which is followed by a glossary.

OBJECTIVES

- Make the campus and discrete portions of the campus distinctive places.
- Create consistency and strengthen the campus's architectural and landscape identity.
- Enable architects to do the best possible work.
- Adopt an ethic of sustainable design and construction.



2015 MASTER PLAN VISION

SECTION I: PLANNING AND BUILDINGS

PLANNING HISTORY AT MISSISSIPPI STATE UNIVERSITY

Mississippi State University did not have the benefit of a master plan when it opened in 1880, and it would not have such a plan for the next one hundred years. The nationally recognized Olmsted Brothers planning firm, by then called “The Olmsted Office,” worked at the University for a considerable period of time and offered guidance on a long list of projects. The Olmsted Office even proposed a 1981-90 Master Plan, with its essential feature being a loop road, although this plan had little effect on the overall form of the campus.

In 2003, stimulated by a new requirement for a campus master plan by the Southern Association of Colleges and Schools, the University’s principal accrediting agency, MSU hired the Jackson-based firm of Foil Wyatt Architects and Planners and asked them to prepare a document to meet the master plan requirement. The 2010 Campus Master Plan, prepared by the firms Sasaki and LPK Architects, provides a new vision for the campus. The following Architectural Design Guidelines in this appendix document are an extension of the overall Master Plan.

THE CUMULATIVE EFFECT OF FOLLOWING A MASTER PLAN OVER TIME

The successful shaping of a university campus through master planning must be thought of as a long-term process, one measured in years, even decades. Erecting new buildings and making associated changes in roads, walkways, landscaping, and the like is a necessarily incremental and potentially unpredictable process due to the vagaries of state appropriations and federal subsidies, individual donor inclinations, and changing pedagogical and research priorities. Even so, the success of a master plan depends not only on the quality of the plan, but also on the disciplined adherence to the plan over time. Nothing about the planning process is more critical to its success than having those who make the decisions accept and accommodate this reality.

WHAT THE MASTER PLAN MEANS FOR THE DESIGN OF INDIVIDUAL BUILDINGS

The Master Plan proposes a cross-axial organization consisting of a north-south ‘green corridor’ running along the line of Catalpa Creek and the southern portion of Stone Boulevard all the way to Chadwick Lake. The east-west ‘cultural corridor,’ which includes many academic buildings and extends west from the northern portion of Stone Boulevard, across highway 12 to the eastern terminus of Gillespie Street. Significantly, the City of Starkville has begun an aggressive effort to better link town and campus along major roads and highways.

The plan acknowledges and reinforces several functional clusters of buildings: the athletic complex to the far north; student housing to the south; fraternity and sorority houses to the west; agriculture, veterinary medicine, and the USDA to the far south; more student housing at the south end; and, at the heart of the plan, the academic buildings. Each cluster must be considered as a unit that can stand on its own while joining with the others to produce a total, unified experience, an experience which is Mississippi State University. In turn, and most significantly for these guidelines, individual buildings form the clusters, and so master planning success ultimately depends on the care which is given to the design and construction of each building and the development of its immediate surroundings.

WHAT THE MASTER PLAN MEANS FOR STREETSAPES

The plan makes specific proposals for maintaining most existing streets, closing and opening new streets, and proposes two new parking garages. The plan includes two types of streetscapes: those fronted by buildings with landscaped foregrounds and those fronted by landscapes with buildings in the background. While the primary purpose of a street is to carry vehicular traffic, a street is also a potential linear space to be experienced by those riding in cars, busses, etc. Ideally, sidewalks flank these streets and also allow for an experience of these linear spaces by those on bicycles or on foot. These vehicular and pedestrian experiences require a variety of amenities and safety measures: bus-stop pavilions, traffic signals, cross walks, and signage. Properly designed, and in aggregation, these elements can provide a distinctive and unified visual experience for those moving along and through the campus.

WHAT THE MASTER PLAN MEANS FOR IN-FILL DEVELOPMENT

Necessarily giving them generic shapes, the master plan proposes locations for in-fill buildings. When specific buildings are built on specific sites, they will be designed to satisfy internal functional requirements, but they must also address and shape the exterior spaces around them. Together with their surrounding vegetation, a building should respond to sun angles and so be more energy efficient. This means that individual site planning must take into account orientation, the landscape, and existing buildings in the immediate vicinity of any new building.

At the in-fill scale, specific design conditions can be created: axial relationships between buildings, buildings advantageously located inside spaces defined by other buildings, composed views of individual buildings, and framed views out into the landscape from building windows or their porches, porticoes, loggias, and colonnades.

The Master Plan retains the drill field as the open-area core of the campus; another space of this size will not be created, meaning that the drill field will remain unique. Rather, there will be smaller linked and linking spaces, especially within the development of academic buildings west of the current Allen Hall site. The highly successful brick-paved promenade, called Old Main Plaza and located southeast of Montgomery Hall and Perry Cafeteria, offers one model for such new spaces. The University can build on its evolving tradition of residential quadrangles, but these exterior spaces must also be appropriately designed and landscaped.



AXIAL RELATIONSHIPS BETWEEN BUILDINGS



BUILDING SPACE DEFINED BY OTHER BUILDINGS



COMPOSED VIEWS OF INDIVIDUAL BUILDINGS



FRAMED VIEWS OUT INTO THE LANDSCAPE

IN-FILL DEVELOPMENT DESIGN CONDITIONS

SECTION II: LANDSCAPES AND BUILDINGS

Note: The Office of Planning, Design and Construction Administration is in the best position to prepare Exterior Design Guidelines complementary to the Master Plan document for campus furnishings, lighting, signs/way-finding devices, fences and railings, walls, walks, art and monuments, streets and crosswalks, parking, plant materials, and storm-water management. This important work should be done, and what follows is intended to be complementary and supplementary to it.

SPACES BETWEEN AND AMONG BUILDINGS

The proportions, sizes, and shapes of exterior spaces must be as carefully considered as those of interior ones. As with buildings facing streets, studying and explaining the nature of these spaces requires section as well as plan drawings. Some spaces will have specific functions, some will have taken on special associations, and some will have assumed historical significance.

SUCCESSFUL SPACES ON THE CAMPUS

Mentioned above are the drill field, the Old Main Plaza, and the residential quadrangles. Other spaces with adequate definition include those north and south of Mitchell Memorial Library and the plaza in front of the Colvard Student Union.



BUILDING PROPORTION ENCLOSING AN INTERIOR SPACE

DETERMINING THE SIZE AND PROPORTIONS OF A NEW EXTERIOR SPACE

The length and width of an exterior space may be partially or even largely dictated by the locations of existing buildings. Even so, and certainly in a situation where few or no buildings exist, these dimensions should be consistent with the intended use of the space. Smaller spaces provide a degree of intimacy, while larger ones make for feelings of expansiveness and multiplicity. These extreme scales and others in between them all have their place on the Mississippi State University campus.

As with building and building-element proportions, the trained eye must be the ultimate arbiter, but certain rules of thumb, can be used to establish preferred dimensions. As with the heights of buildings facing streets, the heights of buildings enclosing an exterior space must increase as the dimensions of the space increase if there is to be an adequate sense of enclosure and so achieve what might be called 'place-ness.' One respected rule of thumb calls for a building to be optimally viewed from a distance measuring about twice its height, meaning that the distance across a space would optimally be twice the building's height. This distance might be diminished to the equivalent of the building's height or increase to three times the building's height before producing either claustrophobia or a loss of an acceptable sense of enclosure.

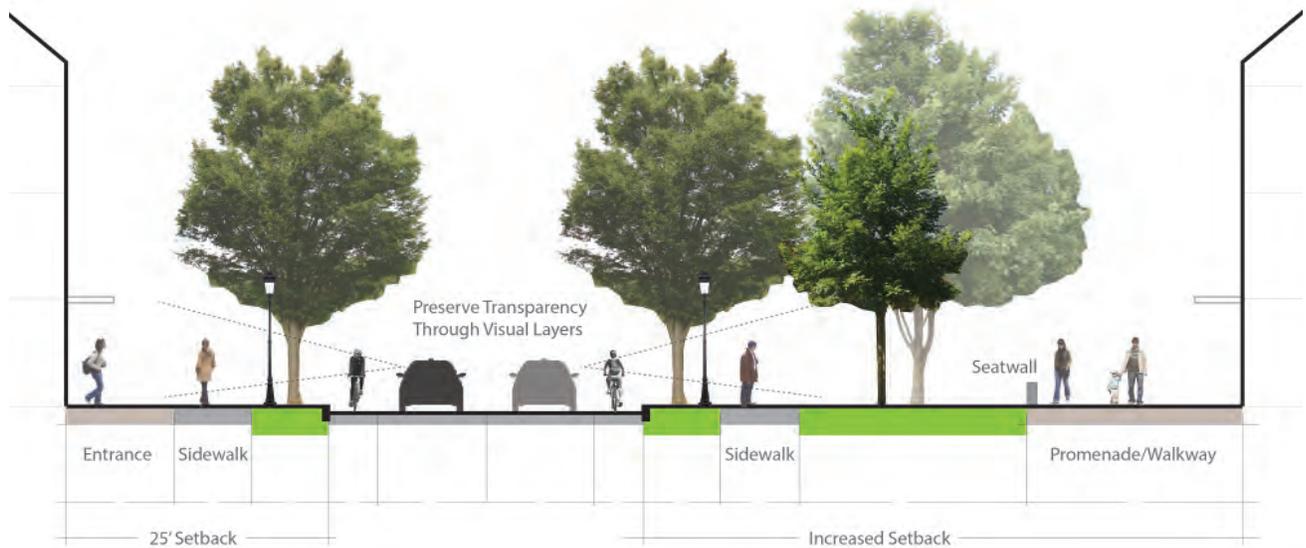
EXISTING WALKWAY PATTERNS AND CREATING SUCCESSFUL NEW ONES

Walkways not only channel foot and bicycle traffic, but also encourage specific approaches to buildings: on axis, on a tangent, at an angle, and even from above or below on irregular terrain. These approaches will present buildings to greater or lesser effect. Every configuration has its implications. For instance, if buildings are arranged around an open space as formal as a quadrangle, walkways occurring only around the interior perimeter of the space and continuing directly outward will preclude definition of the space at its corners and will mean that no building will be approached frontally. The walkway with the view south in front of McCool Hall is a successful example as to how to design an approach to a principal entry.

WHEN BUILDINGS FACE STREETS

When a building faces a street, it takes on either urban or suburban responsibilities, depending on its proximity to the street edge. To a chosen degree, it will define the street-sidewalks spatially, and it will become a component of the streetscape, meaning that it must act as a good neighbor to adjacent buildings and buildings across the street. Understanding these conditions requires two kinds of drawings:

1. Building Elevation - or frontal view that includes the elevations of adjacent buildings.
2. Street Section - or cutaway view that shows the degree of street-sidewalks enclosure.



STREET SECTION: LAYERS FROM STREET TO BUILDING

A street section illustrates that a designer must deal with a series of “layers” from street to sidewalk to building. The first concern is the width of the street. The street may already be in place or be projected at a certain width in the Master Plan and so its size may or may not be open to adjustment. In general, the wider the street, the taller the buildings must be to satisfactorily enclose it as a place. The street’s limits are defined by gutters and curbing, which serve practical purposes such as drainage, but also begin the pedestrian and bicycle zone. Landscaping (which can occur in a median strip if the street is treated as a boulevard) may occur between the curb and the sidewalk in the form of shrubs and trees. The sidewalk and more landscaping form additional layers in front of the buildings, which are viewed from the street and sidewalks through these various layers.

The most critical architectural decision to be made using a street-sidewalks section drawing is the location of the front building façades. If a façade is located close to the street or sidewalk, the effect will be that of a city. If it is located farther back, the effect will be that of a suburb (something like a house and its front lawn). In addition, the façade location must take into account the positions of adjacent buildings. If a series of building facades do not align, the streetscape will be ambiguous, neither city nor suburb.

WHEN BUILDINGS FACE PARKLANDS

In the Master Plan, a significant number of buildings face or will face parkland, that is, larger open spaces with naturalistic plantings or, in the case of sites adjacent to some roads, most notably Stone Boulevard, buildings face a line of regularly spaced trees. Individual buildings will often need to have two or more facades with quite different characters. One façade might face that of another building at a modest distance across a street and have its opposite-side façade face a formally landscaped space or a larger landscaped parkland. The differences among the facades might be quite dramatic or might be subtle, but they must be planned for early in the design process and designed with intention. While a building facing a street at close hand might be appropriately monumental and urban, one among a cluster of buildings surrounding a well-defined open space might be less so, and one facing out over parkland might shed even more of its formality and become picturesque.

VEGETATION

Lush vegetation creates the campus's park-like quality. However, vegetation also interacts with buildings to produce formal or picturesque scenes. These scenes can be experienced by someone looking out from within a building, meaning that there is a framed view through a window, porch, loggia, or colonnade. These scenes can also be experienced from within the landscape, meaning an axial or less focused, even expansive, vista. In each case, the results should be complementary, unified conditions among buildings and landscapes. Such inclusive planning requires foresight by the University and cooperation among design professionals. The Master Plan often calls for trees to be used as definers of space, particularly along the sides of roads. If this part of the plan is to be fulfilled, then a disciplined program of tree planting will have to be initiated and sustained. Accordingly, the Master Plan recommends that the University "initiate a 'native/adaptive hardy' tree species planting program." Although an outdated tree inventory exists, an updated inventory is an important project first step. To define space appropriately, the height, shape, density, and lifespan of new trees must be carefully considered in advance of planting.

Finally, while mature trees are almost always an amenity, they can be located in unfortunate positions, such as the tree that virtually obscures the central portion of the Carpenter Engineering Building. A complete inventory would identify those trees to be saved, removed, or relocated.

TALL ELEMENTS

Tall elements can be used to emphasize a spot within the landscape, a building grouping, or particularly to terminate axes. They can also serve as landmarks and so provide a means of orientation. The Carillon Tower of the Chapel of Memories is a successful example, but something as ordinary as a water tower can be used for more than water storage. It can even provide a surface for applied images, which can be seen from a distance.

GATEWAYS

Entry into a well-designed exterior space can be given emphasis through the introduction of a gateway. Such gateways can be thought of as buildings without interior space and so treated much like any other piece of architecture. Recently constructed gateways mark the various entries onto the campus from the periphery, and the Master Plan calls for their enhancement. Gateways might also be added inside the campus to mark entry into districts, or thematically unified areas.

PAVEMENT, GUTTERS, CURBS, AND SIDEWALKS

The University has begun using brick pavers on the drill-field walkways, on the Old Main Plaza, and elsewhere to very good effect. While paving at various scales logically channels vehicular and pedestrian traffic over its durable surfaces, it can do considerably more to give routes a distinctive character. There are various pavement elements: street surfaces, gutters, curbs, sidewalks, promenades, and specialized pads, which can be used separately or in various combinations. There are a multitude of available paving materials, including pervious ones, and so a multitude of possible colors, textures, patterns, and sizes of elements. And as suggested above, the locations of streets, sidewalks, and paths do much to dictate how buildings and landscapes will be experienced by those following prescribed routes. To note, all pavement and sidewalk materials and colors should be reviewed and approved by the University.



Brick Pavers



Concrete Pavers



Stone Pavers



Granite Pavers



Stamped Concrete



Concrete Aggregate



Pervious Concrete



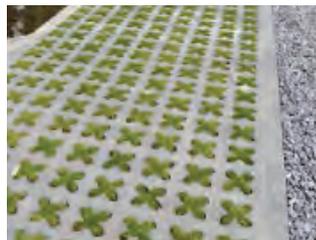
Decomposed Granite



Permeable Pavers



Grass Pavers



Grass Pavers



Boardwalk

EXAMPLES OF IMPERVIOUS AND PERVIOUS PAVING MATERIALS

LANDSCAPE FURNISHINGS

People are obviously more likely to sit down if they can find a comfortable place to sit or if they have shade on a hot, sunny day. They are more likely to ride their bicycles if they have a safe and convenient place to park them. The provision of such amenities will make for outdoor spaces that are more populated, which will, in turn, give the campus a greater sense of vitality and community. As long as ingress and egress requirements are met, outdoor stairs can be designed as ‘bleachers’ for gathering pedestrians. Currently, the steps in front of the Carpenter Engineering Building are a favored spot for students to rest, study, and visit during good weather. The ramp system and adjacent bench and fountain in front of Mitchell Memorial Library not only provide access for the handicapped, but also offer a much-used setting for social interaction.

WATER FEATURES

Still and moving water attracts people. Water has a “scale,” or degree of prominence, by virtue of its extent, but also according to the level of its sound. Small, quiet fountains make for moments of solitude and contemplation or quiet conversation. The fountain in front of Mitchell Memorial Library is a good example. Larger, noisier ones provide energy for the space around them and invite the congregation of larger groups of people. The Master Plan acknowledges Eckes Pond, Chadwick Lake, and Catalpa Creek as significant campus water features and projects others.

LIGHTING

Lighting must make for safety after dark. But it can also create a variety of effects, including dramatic ones. This lighting should be so designed as to enhance the landscape and reinforce the architectural character of buildings. Buildings can be effectively lit at night and can also become nighttime landmarks, such as the lantern-like apse of Montgomery Hall, which dramatically greets those entering the campus from the west.

SIGNAGE

Signage is a convenience for those trying to find their way, so it should be prominent, but not obtrusive. It should also be part of a single, campus-wide system of graphics. Existing signage is helpful, but is not yet part of such a unified system.

CAMPUS ART AND MEMORIALS

Art should also be part of the planned campus landscape. Such art can be used to celebrate chosen locations and to enhance the building-landscape ensemble. Well-chosen and positioned art is a sign of a fully matured planning and design program. Memorials are covered in the Master Plan document.

ADA REQUIREMENTS

Providing accessibility for those with physical disabilities, usually in the form of ramps, can lead to awkward situations when dealt with after the fact. If planned for, ramps can not only provide accessibility but can also become sculptural elements, provide opportunities for special landscaping, and even offer places for pedestrians to gather, as is the case with the ramp system at the west entrance to Mitchell Memorial Library mentioned above.



CHAPEL OF MEMORIES

SECTION III: EXISTING BUILDINGS

CAMPUS ARCHITECTURAL STYLES

None of the buildings from the first two decades of Mississippi State University's existence remains. The architectural character of the central campus was established during the presidencies of John C. Hardy (1900-1912) and David C. Hull and Buz M. Walker (1920s) with the construction of the buildings shown on the following pages.

These buildings illustrate several of the architectural styles popular in America from the early twentieth-century onward. More important than style are the attributes shared among these styles, as these attributes furnish the basis for localized Building Design Criteria. Adherence to these criteria will guarantee a consistent and appropriate character for the buildings on campus.

THE NATURE OF TRADITIONAL ARCHITECTURE

Two campus buildings vividly illustrate the importance of detail and craftsmanship to traditional buildings: George Hall (1902) and the Chapel of Memories (1965). Designed by Meridian architect P. J. Krouse, George Hall appears like a big house. Its most distinctive features are the projecting, rock-faced brick headers, or rugged brick laid with their long dimension perpendicular to the wall surface and projecting beyond it. The pattern of these headers gives the building envelope a rich texture. Projecting headers are repeated at the Chapel of Memories's Carillon Tower, and given that the chapel was built with bricks salvaged from Old Main Dormitory after it burned, the building's principal expression was appropriately derived from them. The chapel, designed by the firm of Dean and Pursell of Jackson, employed repetitive Tudor arches and an exposed wooden structural system on the chapel's interior.

TRADITIONAL BUILDING ORGANIZATION

Traditional buildings typically have a three-part vertical organization. They have a base, often a raised basement, which is sometimes rusticated to provide a feeling of solidity. This base provides a transition from earth to the expanse of the facade. They have a capping cornice, which usually projects and may include moldings and other architectural details. This cornice provides a transition from building to sky and so may benefit from the addition of crowning elements that enrich the building's upper profile. In between base and cornice, traditional buildings have their various floors, and the floor levels may be indicated by belt courses. These floor levels are subdivided horizontally into bays, which may simply be alternating windows with expanses of wall between them or may include a structural expression through the introduction of columns or pilasters or slightly projecting wall panels, with windows positioned between them. The relative proportion of window to wall surface is something equal to or greater than 20 percent, most often greater than. All horizontal and vertical dimensions, even window-pane sizes, are controlled by a system of proportions, which responds to the perceived strength of certain materials, the desire for vertical or horizontal emphasis or a balance between the two, and those long-standing, abstract proportioning systems based on numerical ratios tempered by the well-developed eye of the trained designer. Among the various styles of traditional architecture, the most algorithmically organized are neoclassical or modern classical ones.



INDUSTRIAL EDUCATION 1900



MONTGOMERY HALL 1902 - 1903



GEORGE HALL 1902



MCCAIN ENGINEERING 1904 - 1905



MIDDLETON ROTC BUILDING 1907



LEE HALL 1908 - 1910



CARPENTER HALL 1909 - 1912



OLD MAIN DORMITORY 1910 - 1911



YMCA BUILDING 1914



PERRY CAFETERIA 1921



HARNED HALL 1921



POWER PLANT 1921



DEPOT (STENNIS INSTITUTE OF GOVERNMENT) 1928



BOWEN HALL 1929



HERBERT HALL 1929



LLOYD RICKS-WATSON BUILDING 1929

Modern buildings do not have so codified a set of elements as do traditional ones: no orders, no rustication, no rich variety of belt courses. A modern building should respect the same horizontal and vertical ordering and underlying proportioning as do traditional buildings, while taking advantage of new materials and technological innovations and, perhaps most importantly, expressing the conditions and aspirations of their time. Such an expression seems essential if an institution is to outwardly embrace modern life and culture and reflect its mission in a modern world.

THREE PART SCHEMES

The principal campus buildings built during the first quarter of the twentieth century are quite consistent in their organizational patterns, being either three-part or five-part schemes, and both of these types can be traced back as far as the sixteenth century. Magruder Hall illustrates the three-part scheme, having a dominant, gable-roofed central block composed of three bays, and flanking wings, each with two bays. The more sophisticated Montgomery Hall displays a very subtle five-part organization. It has a dominant, three-bay central block with attached columns and pediment, then a unit of three, set-back bays to each side, then end bays located in the same plane as the front of the central block. Other buildings that follow the three-part organization, with increasing degrees of complexity, are the Lloyd-Ricks-Watson Building, the Carpenter Engineering Building, and the much more three-dimensional YMCA Building.



MAGRUDER HALL



LLOYD RICKS-WATSON BUILDING



CARPENTER HALL



YMCA BUILDING

FIVE PART SCHEMES

There are five older structures with five-part organizations. These are Harned Hall, Lee Hall, and Herbert Hall and, as less conventional variants, Perry Cafeteria and the Industrial Education Building. The 1974 portion of McCool Hall also follows the five-part pattern.

FACADE FENESTRATION

As discussed earlier, traditional buildings typically have their walls subdivided vertically by floor levels and horizontally by various means, but usually by means associated with the expression of structural support. This wall grid then determines the placement of windows, or fenestration. The discussion of wall grids and fenestration patterns that follows begins with some less-successful examples.

The Cobb Institute of Archaeology is difficult to classify. Its front façade is symmetrically organized, but has an asymmetrically located entry. Its only windows are small, single-pane units, so that the percentage of window area compared to that of wall area is extremely low. The front, or east, façade of the 1974 portion of McCool Hall has a gridded distribution of windows, but also a low percentage of window area to that of wall area. Consequently, neither building really fits in among its neighbors. The front, or west, façade of Mitchell Memorial Library has symmetrically organized sub-units, but has an asymmetrical overall organization. And, once again, the percentage of window area to wall area is relatively low. The right side, or south, façade of the library is quite different, having regularly disposed windows and a higher percentage of window area to wall area, making it a more successful building façade.

The older buildings on campus invariably have a significant percentage of window area to wall area, as for example, the Lloyd-Ricks-Watson Building. It is organized horizontally by the simple means of paired, double-hung, nine-over-nine sash. It is organized vertically by means of horizontal brick bands. Even functional elements like leaders and leader boxes become visually very significant. Also relatively simplified, but very effective, is the Patterson Engineering Building, where there are only vertical brick panels of various widths, horizontal base and upper coping, intermediate spandrels, and steel windows. The effect is much the same at the Power Plant, but this effect is enriched by the introduction of classical elements: capitals atop brick pilasters, an entablature of sorts, a projecting cornice, a coping, and corner pediments.

All of the buildings discussed above have windows with vertical proportions, but there are local examples of more recent buildings where the fenestration pattern emphasizes horizontality. One of these is a portion of the east façade at Etheredge Hall. A less successful variant appears at the Walker Engineering Building.



HARNED HALL



HERBERT HALL



LEE HALL



PERRY CAFETERIA



INDUSTRIAL EDUCATION

A survey of traditional campus buildings also reveals a consistent hierarchical emphasis on their principal entries. Within the three and five-part organizations, the principal entry typically occurs at the center of the central block and so within the building's central bay. In all cases, the entry doors are or once were relatively lavish and have elaborated surrounds. Highly developed stairways with cheekwalls and landings often lead to them. Columns and elaborated wall treatments sometimes flank and canopies sometimes overhang them. Emphasis on the central bay may extend vertically to additional doors, windows, or even balconies in the upper floors.

Dorman Hall represents a modern interpretation of the three-part organization, the wall-grid, and the emphasized principal entry. However, its entry treatment—stairs, flat canopy, and storefront with central, metal doors—demonstrates the preference for a certain austerity that accompanied the change from traditional to modern work.

Elaborated entries typically announce major interior spaces beyond them. And in its early years, Mississippi State University received four such spaces, each one accommodating an essential campus function.

When Reuben H. Hunt designed and built Montgomery Hall in 1902-03, he made its four-story apse into the University's library. While the remainder of the building was gutted in the 1920s, the apse was not and has been restored in a manner compatible with its original scale and impressiveness. This library was the first of what might be termed 'four great spaces,' which appeared on the campus over the next two decades, the others being the Lee Hall auditorium (1909-10), the YMCA Building ballroom (1914), and the Perry Cafeteria dining hall (1921). In an enlightened fashion, these spaces addressed respectively the intellectual, cultural, social, and communal aspects of student life. Each of these spaces was made part of a designed architectural sequence, beginning with a well-defined entrance, then a generous vestibule, and lastly the 'great' space itself. While Montgomery Hall's original entry-sequence configuration has been lost, the others remain intact and so provide excellent models and local inspiration for the designs of future campus buildings with 'great spaces.'



HUNTER HENRY CENTER



SIMRALL ELECTRICAL ENGINEERING



ALLEN HALL



BOST EXTENSION CENTER



DAIRY SCIENCE BUILDING



GILES HALL

DESIGN COMPATIBILITY

Some perspective can be gained by considering four campus buildings that are frequently described as being not in the character or architectural style of traditional buildings on campus. While they all have certain modern characteristics, they are all quite different from one another. A building often spoken of as incompatible is the Hunter Henry Center, not located on state property, but on a site across the street from the western edge of the campus. Taken in isolation, this is a well-designed building, one that takes advantage of modern construction materials and methods, although it is obvious that the building's 'futuristic' exterior forms have little in common with other buildings on campus. From the points of view of design quality and appropriateness, it can be said to be a good building built in the wrong place.

Another building that described as being out of character is Allen Hall. The building's forms, materials, and proportions do not correspond to the surrounding buildings. The walls are made of large pre-cast concrete panels, which emphasize verticality, while most of the surrounding buildings are built of brick and emphasize horizontality.

Much of the same criticism can be directed at the Simrall Electrical Engineering Building, which uses a faceted geometry pre-cast concrete panel system and the building has a very small percentage of window to wall surface, which is important to consider when designing future buildings. Another incompatible building on campus is the Bost Extension Center. Like Simrall, it is made of pre-cast concrete panels, but it has repetitive, horizontal, concrete spandrels alternating with repetitive horizontal bands of glazing, which create a wall grid that is quite at odds with most surrounding buildings.

These campus buildings are part of a larger modern architecture design challenge, although there is no reason why a modern building cannot be designed to be a good neighbor. There is a need to take advantage of modern materials and technologies, particularly in a research university where buildings should demonstrate and advance design and construction knowledge while reflecting the progressive attitudes of the institution. Furthermore, modern architecture has a unique character and offers some unique opportunities. Modern architecture provides desirably flexible planning, variably shaped interior spaces, and a dramatic continuity among these spaces and the landscapes around them.

With these modern buildings in mind, it is also instructive to consider the 1974 portion of McCool Hall, which is often mentioned in the same breath with the four previously discussed, even though its forms were derived from traditional, not modern, ones. Its projecting windows are unlike anything else on campus, and as at Simrall Engineering, the small percentage of window area to wall area, as does its gigantic east-side portico of brick columns, makes McCool Hall seem out of place among its neighbors.

Two modern buildings on the campus deserve mention as receiving general praise: the Herzer Dairy Science Building and Giles Hall, which houses the School of Architecture. Built in 1970, the Dairy Science Building is a subtle and elegant assembly of flat-roofed, bi-colored brick masses raised up

from a complex plan outline. A glazed front wall opens up to a Spartan modernist lobby containing a ramp. A second ramp leaves the lobby and behind more glazing projects forward to connect to the MAFES store. Plain-pipe handrails and cantilevered steel canopies complete the building's clean look. Giles Hall is similar in many ways. The north side has horizontal glazing in its panel-brick walls and works its way west to a saw-tooth-plan portion containing the library and gallery and connecting to the 1930s studio building, which was built as a livestock-judging pavilion, and the old and new are completely compatible. At the rear court, the building is seen a full three stories high, featuring the brick along with more glazing and ample metal panels. Overall, the building demonstrates that excellent design can be modern, and modern architecture can harmoniously coexist with traditional buildings.

DESIGN DIRECTION

Various buildings on campus have been consciously designed to be compatible with existing ones, but with varying degrees of success. Hillbun Hall was once a quasi-modern building, but it has been wrapped in a new, quasi-traditional skin, including the addition of gable roofs and many awnings, creating a confusing architectural appearance. The Longess Health Center is partially new and partially another result of wrapping. There are familiar traditional elements: hipped roofs, dormers, brick walls and quasi-traditional windows.

Producing the Leo Seal Family Business Complex, the 2007 addition to McCool Hall achieves greater success than the buildings previously discussed, beginning with its oval atrium that acknowledges the similar 'great space' within the apse at adjacent Montgomery Hall. On the McCool addition, there are more gable roofs, and care was given to window proportions, masonry dressings, and even to the tinting of the bricks on the adjacent McCool Hall walls.

The Agricultural and Biological Engineering Building (2007) was built in relative isolation except that it faces one side of McArthur Gymnasium, not an ideal condition. Here, the designers made a serious effort to acknowledge the character of older buildings around the drill field and to achieve a proper sobriety for a university science building, while also making it a welcoming place for students and faculty. This building is a good example as the University further defines its architectural design direction.

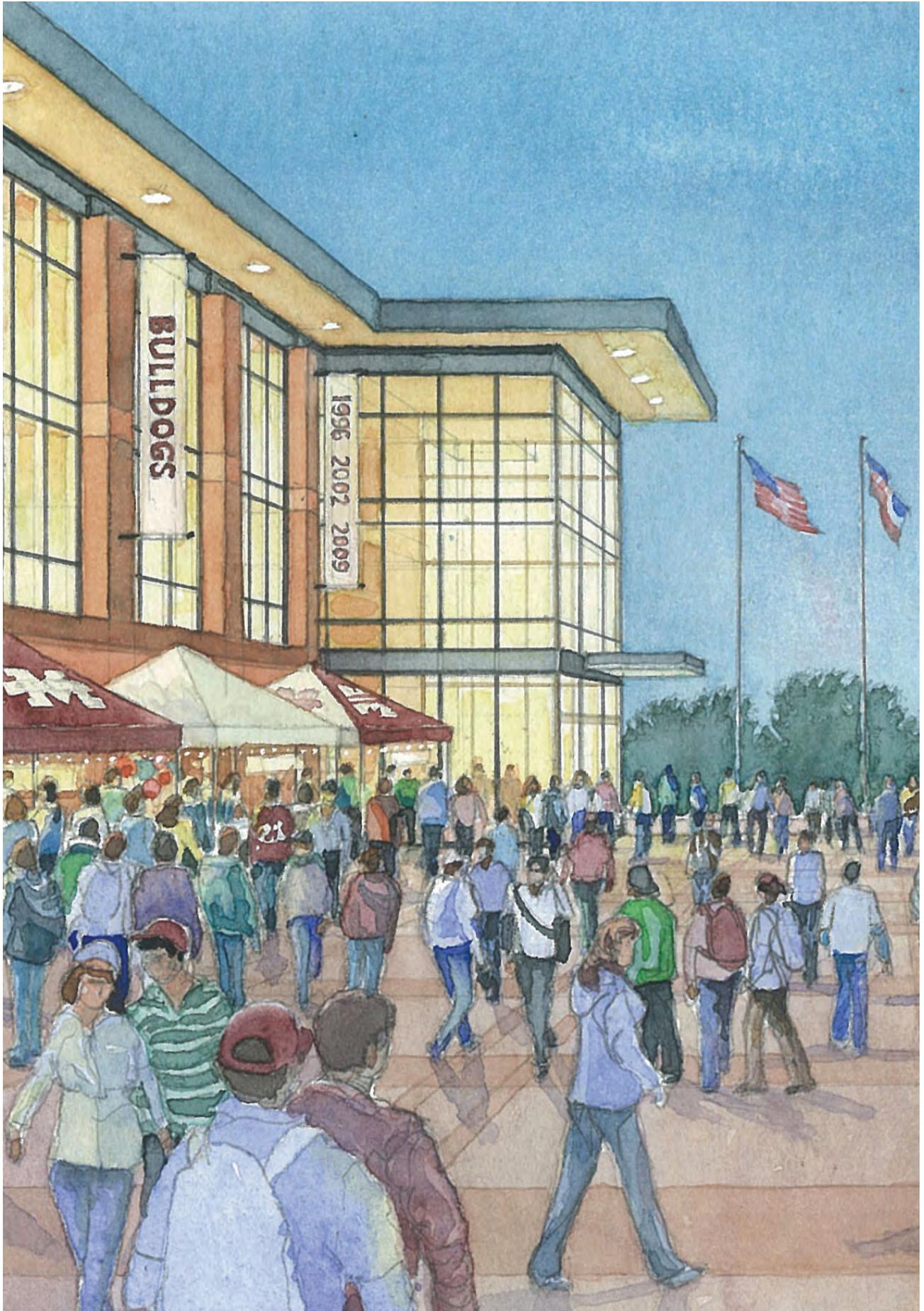
Three other buildings warrant some discussion: Thompson Hall, Giles Hall, and the Butler Guest House. Thompson Hall, which houses the College of Forest Resources, is a building set apart. In some respects, it is an openly modern building, emphasizing horizontal bands of glazing, but it overtly displays traditional wooden elements. Giles Hall, home to the School of Architecture, consists of two parts: the livestock-judging pavilion built in the 1930s and renovated in 1976 and the 1982 addition, which has much of its three-story bulk buried in the hillside. While the addition is overtly modern, it is absolutely compatible with the 1930s original and demonstrates that constructions in various styles can successfully coexist if they are all of high design quality. Lastly, no building on campus argues more vehemently for a master plan than the Butler Guest House. Built in what was once relative openness, it has now been fully surrounded by the expanded Davis-Wade Stadium. It is a great example on the campus of a contemporary, but traditionally detailed building, with elements ranging from careful brick patterning using prominent stretchers to limestone dressings to copper leaders and leader boxes to a clay-tile roof.

PROBLEMS ASSOCIATED WITH MAKING TRADITIONAL ARCHITECTURE IN A MODERN BUILDING ENVIRONMENT

The point has already been made that traditional buildings generally depended on a fairly high level of detail for their architectural expression. It is also important to acknowledge that this detail was achieved through the work of skilled craftsmen, and that the conditions under which Mississippi State University's traditional design buildings were created have changed significantly. Many of the craftsmen who were formerly plentiful are now in short supply, and even if they can be found, their work may be prohibitively expensive. These conditions must be considered at the beginning of any building project, as an architect cannot rationally specify results that are costly or cannot be achieved. It is important that future buildings should not be simplistic copies of traditional buildings. Instead, they should draw from the lessons traditional buildings provide and respond to contemporary program requirements, the demands of the context and the climate.

WHAT CAN BE DONE?

Mississippi State University should set as a goal the erection of buildings that demonstrate excellence in design, not average buildings, but buildings that regularly win design awards on the state, regional, and national levels. In effort to develop a well-established architectural design direction, this document identifies the most successful existing buildings, identifies their distinctive features, and asks future architects to respond to them.



2010 MASTER PLAN VISION - PLAZA RENDERING

SECTION IV: BUILDING DESIGN CRITERIA

These criteria are introduced below and are further discussed in more detail on the following pages. In Section V, the criteria are included in a “Checklist for Evaluating Design Proposals,” which can be utilized during the building design process.

BUILDING ORIENTATION

Whenever possible and for purposes of energy conservation, buildings should be oriented on an east-west axis as to have their long sides facing north and south. Whenever possible, buildings should have principal facades facing toward streets and prominent exterior spaces. These two requirements may, of course, come into conflict with one another.

FAÇADE CHARACTER

In their proportions, ratio of window-opening area to wall area and position of prominent elements, new building facades should follow the patterns found in existing, well-designed, adjacent facades. Facades facing streets should reinforce the scale and character of the streetscape, and facades facing landscaped spaces should reinforce the scale and character of these spaces. The character and amount of detail on new buildings should be consistent with the character and amount of detail on existing, well-designed, adjacent buildings.

BUILDING HEIGHT

New buildings should generally be no more than three-stories tall. Exceptions should be made only as part of the larger planning process and might include buildings or building elements of exceptional importance or ones intended to be landmarks or prone by habit to having many floors.

BUILDING BULK

New Buildings should correspond to their neighbors in volume, scale, and level of detail. Necessarily large buildings should either be located among other such large buildings or be broken down into several smaller masses and given an appropriate level of detail.

ROOF FORMS AND MATERIALS

Sloping roofs are preferred. New roof forms should also be compatible with the roof forms found atop existing, adjacent buildings.

BUILDING ENTRANCES

All buildings should have well-defined entrances that acknowledge existing and proposed walkways, topography, landscaping, and street patterns. Prominent entrances anticipate equally prominent interior spaces beyond them and so should be followed by generous vestibules.

EXTERIOR WALL MATERIALS

Within the historic core of the campus, buildings should be constructed predominantly of brick. Subject to the character of surrounding buildings, those outside the historic core of the campus may be clad with other appropriate wall materials.

BUILDING SERVICES

All building services should be shielded from public view.

SUSTAINABLE DESIGN AND CONSTRUCTION

Buildings should be designed to minimize energy consumption over the course of their existence, to minimally disrupt the campus environment during and after their period of construction, and be made of materials and components that make only sustainable demands on the global environment. New-buildings should be designed to meet or exceed LEED Silver Standards.

ADDITIONS TO AND REHABILITATION OF EXISTING BUILDINGS

Additions to existing buildings should be made not by copying but by adopting organizational patterns, proportions, elements, materials, details, and colors found on the buildings being added-to. Rehabilitations should be carried out according to the Secretary of the Interior's Standards for Rehabilitation as administered by the Historic Preservation Division of the Mississippi Department of Archives and History. Programming for the rehabilitation of existing buildings should not be done in isolation from the building. Rather, the program should be prepared with a full awareness of the character and configuration of the existing building and of the historic elements that need to be preserved. Otherwise, the program and the requirements of the Secretary of the Interior's Standards for Rehabilitation will almost always come into conflict.

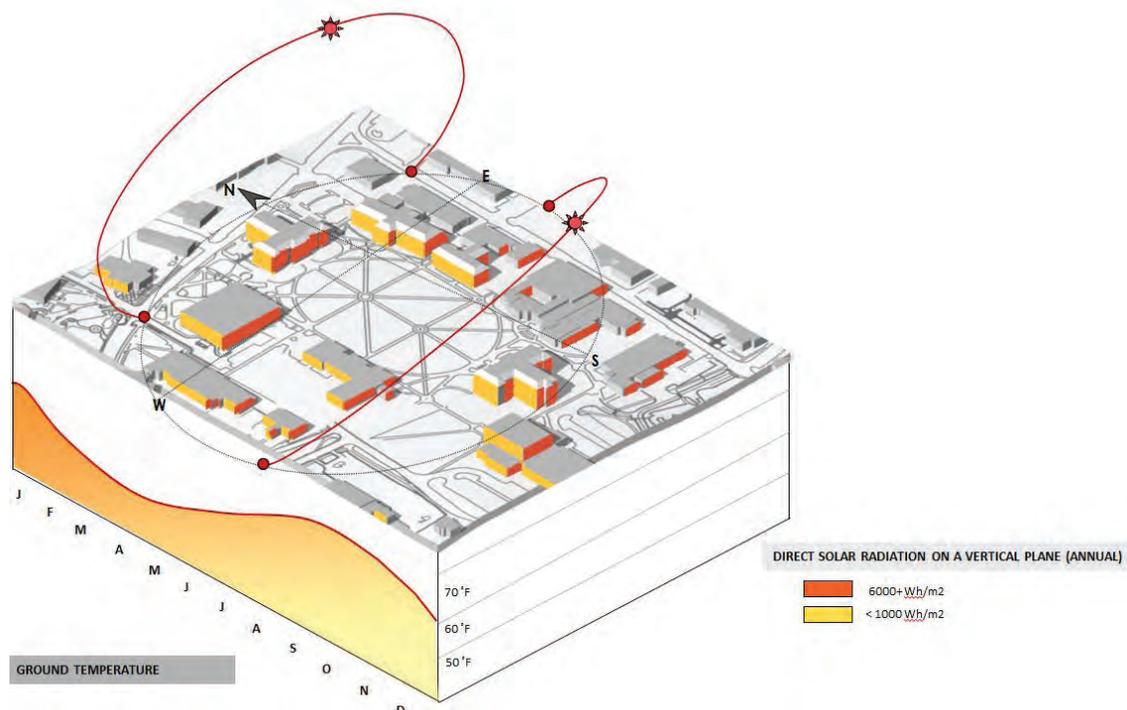
BUILDING DESIGN CRITERIA DISCUSSED

Building Orientation

Unlike so many factors affecting building design, the path of the sun is an absolute. The sun rises and sets at predictable times and follows a predictable arc across the sky on any given day of the year. This predictability makes it possible to control the extent to which the sun's rays, and therefore its light and heat energy, enter a building.

As the sun rises and sets in the east and west respectively, its rays have a low angle of incidence on the earth, which makes control of them difficult unless there are no openings or tall plantings or some kind of motorized baffles. As the sun crosses the sky, its rays always come from the south and arrive at a lower angle in the winter and a higher angle in the summer. This condition means that simple, stationary sun-shading devices over windows on south facades can prevent penetration of the sun's rays in the summer, when cooling is the issue, while allowing them to enter during the winter, when heat-gain is desirable. Building plans should be simple in geometry, avoiding excessive widths. Where possible, plan widths should be in the range of 60 to 65 feet to maximize day lighting and natural ventilation opportunities.

Advantage can be taken of these realities only if a building is properly oriented at the outset. So, whenever possible and as the Master Plan suggests, buildings should be oriented to have their long sides facing north and south. This orientation, in combination with stationary sun-control devices and appropriate plantings—principally meaning shade trees, will lead to energy savings. Accordingly, the Master Plan calls for the University to develop a “comprehensive shade-tree strategy.”



In the South, where cooling is as important, if not more important than heating, such elements as porches, porticoes, colonnades, and loggias can be used both to prevent the penetration of the sun's rays into building interiors and to produce rich, three-dimensional architectural effects, meaning that some decisions made with a mind to energy conservation can enhance formal architectural quality.

Buildings should also be oriented to have their principal facades facing toward streets and prominent exterior spaces, a requirement which may conflict with an ideal orientation for purposes of sun control. The most appropriate time to avoid or at least minimize such a conflict is when street layouts are being determined. Otherwise, building-orientation should be part of the area site-planning process, which also takes into account topography, vegetation, and walkway patterns. Through this inclusive process, the way in which a building is approached, experienced, and entered can be handled most felicitously and advantageously.

Facade Character

A facade presents a building's public face. A building can have one or more principal facades depending on its site conditions. These facades may have decidedly different characters. For instance, a façade facing a major street may require quite a different character from one facing a park-like and private or expansive exterior space. On a campus, where most buildings are approached from multiple directions, most facades need to be considered as 'public' ones.

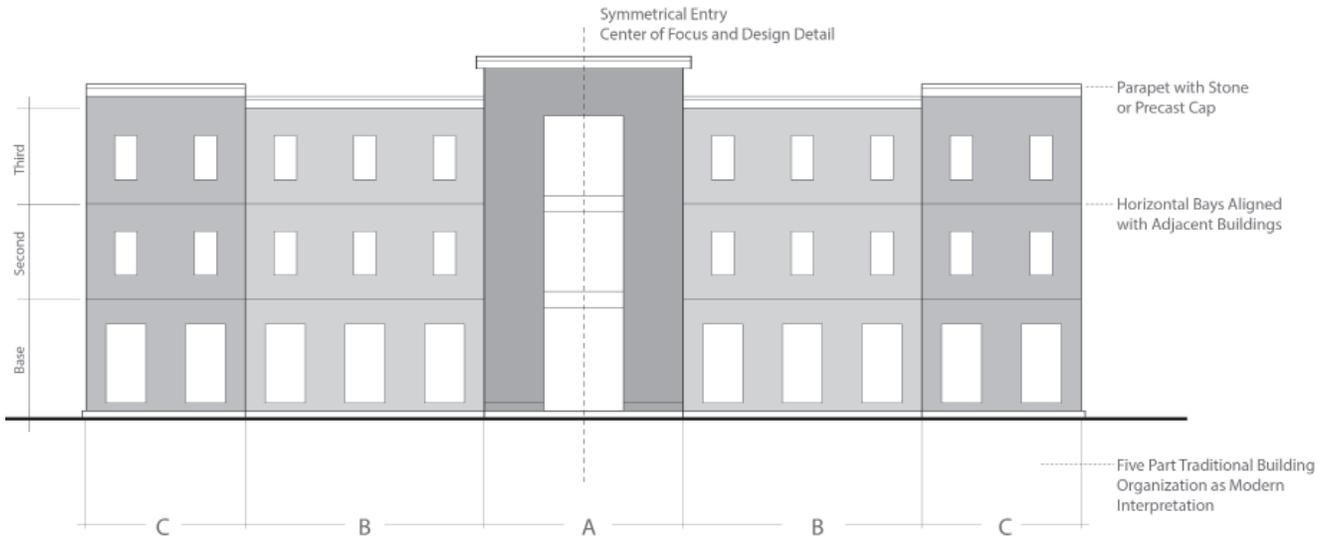
In general, a façade should be a good neighbor to adjacent facades, which means responding to the proportions, ratio of window-opening area to wall area, and positions of prominent elements found on them. If well designed, this response can take the form of a traditional or a modern building.

The likelihood of successful façade design will be greatest if the architect is given proper instructions at the beginning of the design process and then presents initial ideas to university officials when they are still conceptual. This initial presentation could include graphical analyses of adjacent building elevations and elementary section drawings showing the third, or vertical, dimension and so illustrating proposed heights and the resulting degrees of enclosure for streets and planned exterior spaces. A subsequent presentation should include elevation drawings showing the new building facades in the company of existing ones as well as developed section drawings.

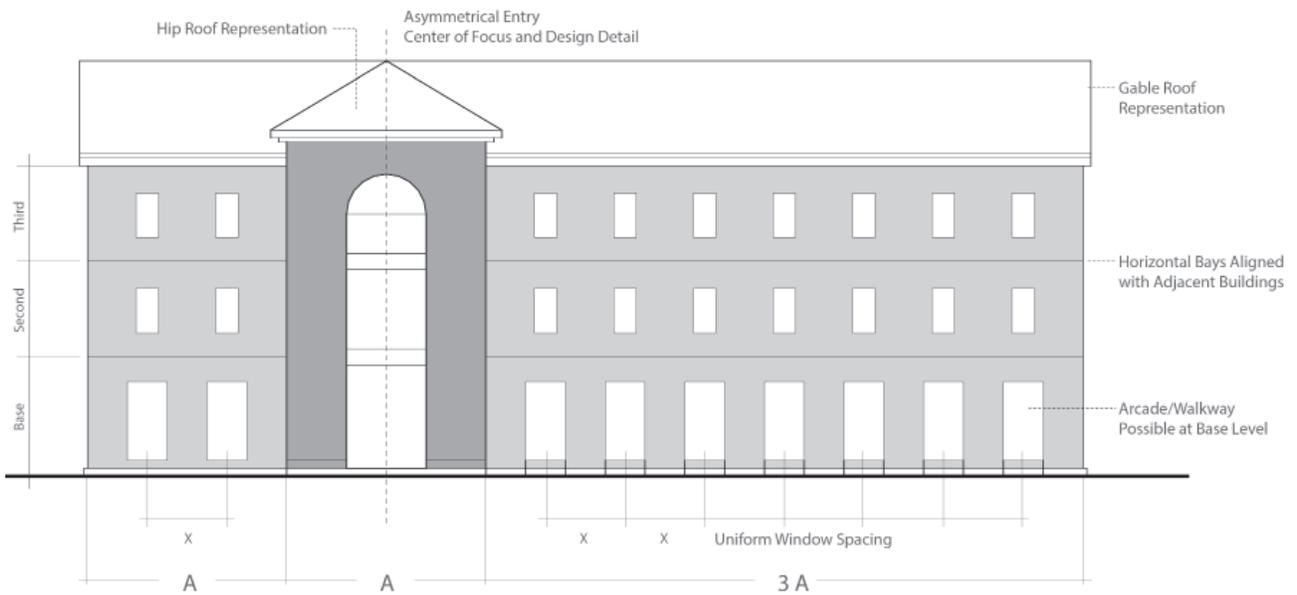
Building Height

Building heights are usually a function of the density of development, which is in turn often a function of land values. So, taller buildings are most commonly found in dense urban areas like the downtowns of cities. The same is true for college campuses, meaning that taller buildings are most common on urban campuses where land is at a premium, but this condition does not mean that the Mississippi State University campus or parts of it cannot be 'urban' when this is desirable.

Like all other such decisions, those about the heights of buildings need to be made as part of the larger planning process and with a mind to a preference for urban, suburban, or rural conditions in that area of the campus where a new structure is to be built. Rural areas will typically be pastoral and even serene and have widely separated buildings. Suburban ones will be orderly and still relatively quiet and have low-rise buildings. Urban ones will be more energized, active, even noisy and will have a heightened sense of place-ness as a result of taller, more densely placed buildings.



LOW-SLOPE ROOF BUILDING ELEVATION: PROPORTION AND MASSING



SLOPED ROOF BUILDING ELEVATION: PROPORTION AND MASSING

As in-fill buildings are built and older, smaller buildings are replaced by larger ones, the greatest challenge on the Mississippi State University campus will be the potential change in character, particularly as a function of increased scale, or apparent size, imposed on the area around them. Because most older buildings in the campus core rise up three or four stories, newer buildings built among them should typically be no taller. Exceptions might be buildings intended to serve as landmarks or those terminating long axes or those building types habitually requiring tallness for reasons of efficiency. In all cases, the likelihood of these new tall buildings blending in successfully will be greatest if their height is considered during the site-selection and programming phases of the work. The program can then include prescriptions for the architect such as providing a gradual change in scale from existing to new buildings. The architect can, in turn, incorporate such devices as setbacks and solve the identified problem.

Building Bulk

Modern academic buildings can become quite large, and so can dwarf their neighbors; and large buildings that lack sufficient exterior wall articulation can be boring, ill-proportioned, even overwhelming because they display undesirably large expanses of unbroken wall surface. Addressing this increased-size problem should first be done at the time of site-selection. That is, very large buildings are best not located in the vicinity of significantly smaller ones. Rather, they should be located in isolation or among their own kind. If large buildings must be situated in the presence of smaller ones, then the issue of wall articulation, or detail, must be addressed. The relative size, or scale, of large buildings can be diminished by breaking them up into smaller, contiguous masses. The scale of individual facades can be diminished by providing sufficient detail and so avoiding huge, unarticulated and so largely scale-less expanses of wall surface.

These positive actions do not come without drawbacks. If buildings cannot grow taller, then they must spread out and so must cover more land. If detail replaces unarticulated wall surface, then building costs may rise. While there can be no single or simple solution to these associated problems, they will be most effectively addressed beginning at the site-selection and programming phases of the project, which are discussed below in Section V.

Roof Forms and Materials

Certain roof types are congenial with certain building forms beneath them, and certain roof types are traditionally associated with specific architectural styles. Being the building surface that addresses the sky, a roof can also provide a rich profile when viewed from the ground. Roofs must also deal with falling precipitation and can also be used as receptors for the sun's rays through the introduction of solar panels.

While sloping roofs offer the most logical response to shedding rainwater, they can become ungainly on buildings that cover a very large area. In addition, sloping roofs cannot provide a platform for mechanical equipment, some of which is most advantageously located above a building's occupied space. Roofs on campus buildings should correspond in design character to the building's style and be compatible with those roof forms on adjacent buildings. As a practical matter, architects should be prudent in their use of low-sloping or flat roofs. When flat roofs are used, they should have as much reflectivity as possible, with a white roof surface being ideal. If roofs include visible solar panels, these panels should be part of the overall building design and never appear intrusive or seem to have been an afterthought.

Building Entrances

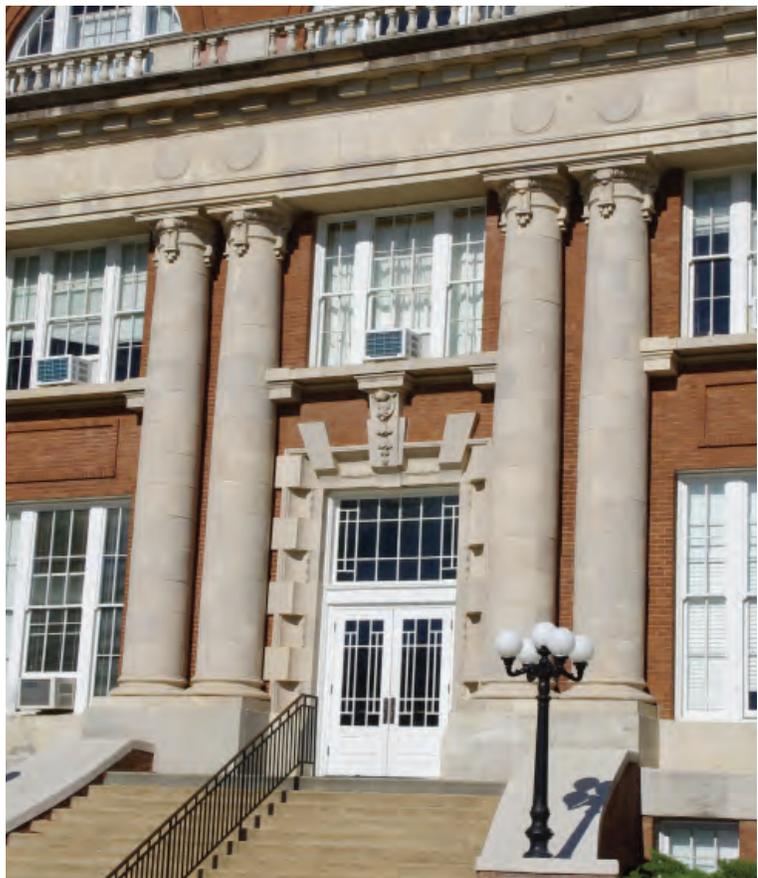
For traditional buildings in, say, the neo-Palladian style of Montgomery Hall, there are specific elements like porticoes, frontispieces, and prominent moldings used to designate points of entry. The entry-element vocabulary for modern buildings is less codified but no less serviceable. In all cases, principal building entries should be prominent and recognizable, and these entries should be welcoming and even protective and should be celebrated through architectural means.

Entrances are thresholds, or transitional spaces, and can provide shelter during inclement weather through the use of canopies, colonnades, and loggias. Therefore, they should both acknowledge and address the exterior space leading to them, including all walkways, topographic features, landscaping, and street patterns, and anticipate generous interior reception spaces, or vestibules, beyond them. (The 'four great spaces' on the Mississippi State University campus, as previously discussed, offer successful models.) Together, these linked spaces can produce a logical and memorable entry sequence. In their expansive form, entrances may include stairs, ramps, retaining walls, railings and balustrades, lighting standards, seating, bicycle racks, landscaping, fountains, and signage.

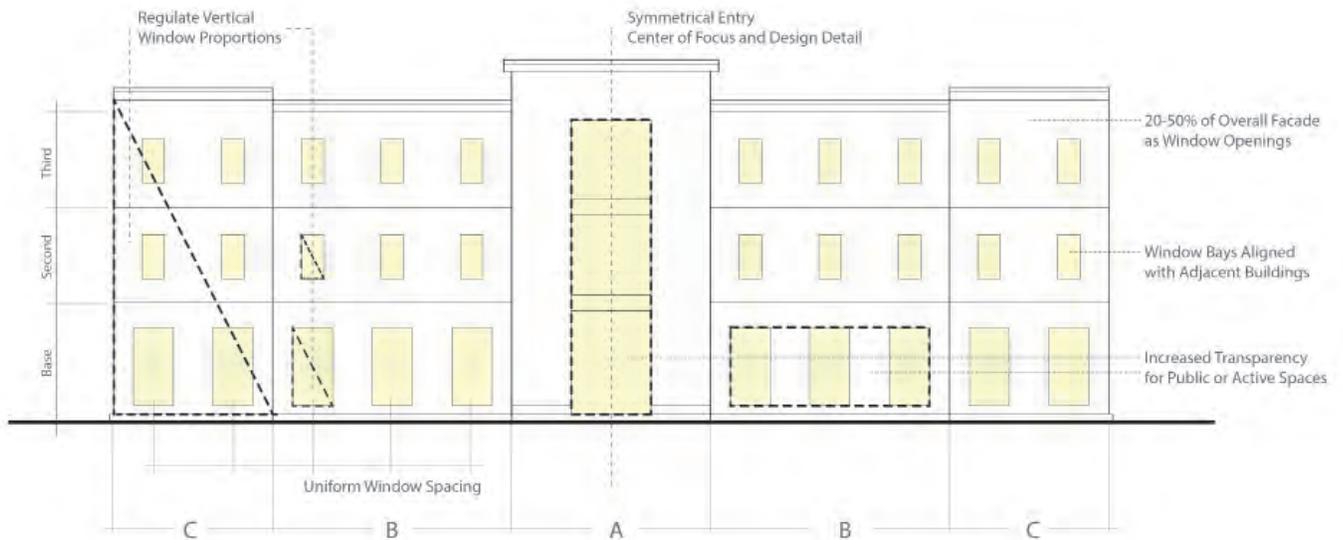
Entrances on buildings facing one another can be aligned axially. Entrances on buildings approached tangentially can be designed to signal 'entry' to pedestrians well in advance of their arrival by means of projecting elements such as stairs, lighting standards, canopies, and signage. In all cases, an entrance should be of a size and have a scale befitting the building's function and should be a harmonious part of the larger façade composition.



PERRY CAFETERIA ENTRANCE



LEE HALL ENTRANCE



BUILDING ELEVATION: WINDOW PROPORTION AND OVERALL TRANSPARENCY

Exterior Wall Materials

Institutional buildings are generally built of relatively permanent materials, which, on the Mississippi State University campus, has long meant primarily brick masonry. From the perspectives of permanence and compatibility, in-fill buildings in the campus core of academic buildings should typically have brick exterior walls. They can have stone or cast-stone dressings, and the brick color should be identical or similar to those colors found on existing buildings. The bricks should typically be modular and not a jumbo size. Stone or stone-veneer walls may also be acceptable, though there has been no local tradition for such wall construction. Metal also has its place, but must be demonstrably compatible with wall materials on adjacent buildings.

Other materials can be used more widely outside the campus core. These materials include exposed concrete, metal, and stucco or some form of artificial stucco. Concrete is extremely durable and can be quite handsome and compatible with brick when its color, texture, scale, and detailing are properly managed. Because artificial stucco can crack and discolor in a fairly short time, especially where there are large expanses of unbroken wall surface, these materials should be used with caution and with an awareness of their liabilities.

Within the campus core and for energy efficiency, the amount of glass in a wall should generally remain within the range of 20 to 50 percent, and new window openings should be consistent in size, scale, and proportions to existing ones, except in areas where indoor activities should be expressed in a more transparent way. This will create stronger visual connections between interior and exterior activities, and thus, will animate the campus environment. These new windows should be subdivided into panes compatible in size and scale with those found on existing buildings and should have

functioning muntin bars, not applied ones. Large expanses of curtain wall are discouraged for both aesthetic and energy consumption reasons unless incorporated with a loggia, portico, or other shading structure or is shaded by an adjacent building or has northern exposure.

Building Services

In the twentieth century, mechanical equipment has proliferated and as a consequence has assumed a significant portion of most building-construction budgets. Traditional architectural styles were created before this proliferation and so have had to respond to them after the fact.

Ground-level mechanical equipment for all new buildings should be concealed from public view by changes in topography, plantings, walls, and designed enclosures. All roof-mounted equipment should be set back or located in penthouses, towers, etc. and so be concealed from ground-level public view. In order to accomplish this concealment most effectively, the locations of mechanical equipment should be considered during the site-selection and programming phases of the work and architects should communicate from the beginning with their mechanical engineers to assure that all architectural and engineering problems are solved in tandem.

Loading docks and garbage bins should be strategically located inside service courts or pulled back within the body of a building and enclosed with doors or enclosed within freestanding enclosures designed to be in keeping with the architecture of adjacent buildings.

Sustainable Design and Construction

As a signer of the “American College and University Presidents Climate Commitment,” the University has dedicated itself to the goal of “climate neutrality.” In the furtherance of this goal, new-building designs should be consistent with the Institutions of Higher Learning Sustainability Policy and be designed to meet LEED Silver Standards.

In general, buildings should be designed to minimize energy consumption over the course of their existence, to minimally disrupt the campus environment during and after their period of construction, and be made of materials and components that make only sustainable demands on the global environment. Specific issues to be considered include the selection of renewable and non-toxic building materials, waste recycling, energy reclamation, alternative energy generation, and thermal insulation.

In a modern building-culture that has largely abandoned passive (meaning such processes as natural cross-ventilation) means of comfort control in favor of active means powered largely by fossil fuels, architects can advantageously look back to comfort-control solutions developed and applied by previous generations, particularly operable, strategically located windows and fixed, sun-shading devices. As a caveat, it should be kept in mind that when windows are operable, the unsupervised actions of users may compromise the integrity and security of the building envelope and so must be planned for.

Additions to and Rehabilitation of Existing Buildings

Presently, Montgomery Hall and the Industrial Education Building (as well as the Cooley Building) are individually listed on the National Register of Historic Places. George Hall, the McCain Engineering Building, Lee Hall, the Carpenter Engineering Building, the Middleton ROTC Building, the YMCA Building, Perry Cafeteria, the Power Plant, Harned Hall, the Railroad Depot, Bowen Hall, Herbert Hall, the Lloyd-Ricks-Watson Building, Hull Hall, and Magruder Hall are designated as Mississippi Landmarks. But any state-owned building over fifty years of age is subject to the requirements of the State Antiquities Law, meaning that changes to it are overseen by the Historic Preservation Division of the Mississippi Department of Archives and History.

An addition to an existing building, particularly those listed above, should not be a copy of all or part of the existing building. Rather, it should be similar to this building, meaning that it should have similar organizational patterns, proportions, features, materials, details, and colors. The cumulative results will then be harmonious and will be consistent with the Secretary of the Interior's Guidelines for Rehabilitation as administered by the Historic Preservation Division of the Mississippi Department of Archives and History. Representatives from the Historic Preservation Division should be consulted at the beginning of any such addition project and at appropriate intervals throughout the design process.

An addition to an existing building should also follow the guidelines listed and discussed above, particularly regarding façade character, exterior wall materials, roof forms and materials, and entrances. The design process should always begin with a close analysis of the building to which the addition is being made, and the results of this analysis should be part of the architect's presentations to the University.

SECTION V: USING ARCHITECTS EFFECTIVELY

SELECTING AN ARCHITECT

When selecting an architectural firm for a building to be built under the purview of the Mississippi Bureau of Building, the University considers proximity, past-work quality, experience with the project type and at the institution in question, abilities of personnel, their capability to perform the work and their grasp of the project at hand, capabilities of consultants, successful cost management, ability to work within the university system, and timely completion of work. While these considerations remain important and appropriate, they can be made more effective if the selection process is specifically attuned to the building's intended function, character, and architectural demeanor.

Some architectural firms will be able to demonstrate great competence in designing modern buildings, while others will be able to do so for traditional ones, and some firms will be able to demonstrate competence in doing both. This distinction should be made a part of the selection process, and firms should be asked to show visual evidence of their competencies. If they cannot do so from within their permanent staffs, they should be required to employ an appropriate design consultant or consultants and give this person or persons the necessary design responsibilities throughout the life of the project.

CHOOSING A SITE

For various reasons, sites are most often selected before the architect is hired, which is not ideal. Such issues as appropriate building character and size and building orientation and its effect on energy efficiency, if not addressed as part of the site-selection process, can limit the ultimate success of the project long before the building-design process ever begins. Every effort should be made to make an architect part of the final site-selection process.

COMMUNICATING NEEDS AND ESTABLISHING EXPECTATIONS

Architects will be most successful when given strict limits, not when they have unlimited freedom. Architects should be held accountable for their actions, and they can only be held accountable if what they are to accomplish is clearly set out at the beginning of a project. This must be done through the building program, and no phase of the building process is more underappreciated.

The building program always establishes room functions, sizes, and all manner of requirements from lighting levels to furnishings. These are important quantitative matters, but the program should also address qualitative ones. It should make clear the project's objectives and the building's intended character and so answer the question: What is this building intended to accomplish as an addition to the Mississippi State University campus?

CHECKLIST FOR EVALUATING DESIGN PROPOSALS

The points should be evaluated as yes (Y), no (N), or not applicable (N/A).

Building Orientation

- | | Y | N | N/A |
|---|--------------------------|--------------------------|--------------------------|
| ▪ A presented site-plan drawing shows that the proposed building's location is consistent with the Master Plan and that exterior spaces have been shaped as carefully as interior ones. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ The building's orientation and adjacent plantings address the path of the sun. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ The building's form takes advantage of passive means for heating and cooling. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ The building's situation appropriately addresses adjacent streets. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ The building's situation appropriately addresses adjacent landscaped spaces and landscape features. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ The building's design provides for handicapped accessibility in a manner that enhances both the building and the landscape. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Facade Character

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| ▪ The principal façade(s) adhere to the design direction preferred by the University for purposes of comparison, presented elevation drawings show the new façade(s) together with adjacent facades of existing buildings. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ Presented section drawings show the body of the new building and its relationship to streets, exterior spaces, and other buildings. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ The new building façade(s) follow the patterns, such as proportions, ratio of window openings to wall expanse, and positions of prominent elements, found on existing, well-designed, adjacent facades. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ The character of the building is appropriate to its position, physically and hierarchically, on the campus. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Building Height

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| ▪ If not previously determined to be an exception, the building's height is consistent with the heights of its neighbors. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ If the building is taller than its neighbors and so could be intrusive, its design includes accommodations, such as setbacks, to mitigate the effects of additional height. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ▪ The building's height is appropriate for the enclosure of adjacent exterior spaces. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Building Bulk

Y **N** **N/A**

- The building is consistent with its neighbors in volume, scale, and detail.
- If a building is decidedly larger in volume than its neighbors, then its apparent size has been diminished through architectural means.

Roof Forms and Materials

- Roof forms correspond in design character to the building's style and are compatible with the roof forms found on adjacent buildings.

Building Entrances

- The building's principal entrances are prominent and unambiguous, accommodate existing and proposed pedestrian paths and landscape features, and, where appropriate, recognize the locations of entrances on adjacent buildings.
- If an entrance is prominent, it leads to a generous vestibule.

Exterior Wall Materials

- Exterior walls are covered with brick having an appropriate size and color or are covered with another durable material previously approved for use on the campus.
- Except where an exception has been previously approved, the amount of glass in any façade falls within the range of 20 to 50 per cent.

Building Services

- All building services are shielded from public view.

Sustainable Construction

- Construction of the building will result in minimal disruption of the campus environment.
- The building will be environmentally sustainable after its construction.
- The building meets or exceeds the criteria set forth in LEED Silver Standards.

Additions to and Rehabilitation of Existing Buildings

- Presented elevation drawings show the addition's façades together with the existing building façades.
- The addition's form is compatible with the existing building in its organizational patterns, proportions, elements, materials, details, and colors.
- The addition's form is consistent with the Secretary of the Interior's Standard's for Rehabilitation.

SECTION VI: USING ON-CAMPUS EXPERTISE

At a land-grant institution like Mississippi State University, with its breadth of programs, a wide variety of experts are available to participate in the implementation of the Master Plan. These experts include architects, interior designers, landscape architects, ornamental horticulturalists, turf-grass specialists, engineers, and artists. The following are suggestions of how to use such on-campus experts, who can assist with aspects of projects such as programming, design inspiration, competition management, site selection, architect selection, and design reviews.

- The programming phase of the building-design process is under-appreciated. It may be advantageous for the University to look for a programming specialist on campus.
- Because each site presents certain opportunities and possibilities and presents certain limitations, site selection must be done with the building program in mind.
- With adequate forethought and in tightly controlled conditions, architectural students can provide design inspiration in the form of multiple design ideas.
- Competitions have been used advantageously to select architects for highly significant projects throughout the world. Architectural faculty could explain this process to University officials and could organize such competitions. Such competitions must follow the laws of the State of Mississippi and cannot circumvent BOB or IHL procedures for selection of professionals for projects on campus.
- The project professional (architect, engineer, Landscape Architect)-selection process is well-established on campus by the Office of Planning, Design and Construction Administration; and will continue to be administered by this process.

SECTION VII: GOVERNANCE

The general governance process is set forth in the Master Plan document, and what follows regarding the administration and maintenance of these Architectural Design Guidelines is intended to be consistent, complementary, and supplementary to it. This means that the Office of Planning, Design and Construction Administration will oversee all decisions related to the siting of proposed projects and the development of landscapes adjacent to these projects.

GOALS AND OBJECTIVES

The Architectural Design Guidelines are intended to govern the process of locating and designing new facilities on the campus consistent with the Campus Master Plan. They are also intended to assist the University in outlining the key design elements of future buildings that will create a hierarchy of campus open spaces and the unify the architectural expression of the campus. The following recommendations describe the procedures for the administration of the design guidelines and the design review process to be conducted by a Design Review Committee (DRC).

The charge of the DRC is set forth in Section 2: Design Review of the Master Plan Governance Document.

GLOSSARY

apse: a semicircular or semi-polygonal space terminating an axis

atrium: a multi-story court

attached column: a column that seems to be partly embedded in a wall

basilica: a rectangular space, entered along one short side and terminated on the other short side by an apse, or semi-circular space

bay: a principal lateral subdivision of a wall

belt course: a horizontal band on a façade, usually marking a floor level

capital: the top element of a column, usually decorated

cella: the sanctuary of a classical temple

cheekwalls: abutments to either side of a stair

colonnade: a series of columns supporting an entablature and a roof

coping: a protective cap or cover atop a wall

corbelled brick: brick projecting out of a wall and beyond the wall plane

cornice: a molded projection that crowns the element of which it is a part

double-hung window: a window with two, vertically sliding sash

dormer: a vertical-window assembly projecting from a sloping roof and covered by its own gable roof

dressings: masonry used to accent facing brick

elevation drawing: a drawing of one face, or façade, of a building made by direct projection onto an imaginary vertical plane and so without foreshortening or perspective

entasis: the subtle, convex curving of a column shaft

entablature: an elaborated beam member carried by columns

École des Beaux-Arts: a French school of architecture known for its multi-axial planning and affinity for the classical and medieval styles

façade: an exterior face of a building

fenestration: the arrangement and design of windows

five-part organization: a façade or massing scheme with a dominant central unit, subordinate flanking units, and terminating end units

frontispiece: the decorative surround at a building's principal entry

Gothic style: a medieval European style characterized by the use of pointed arches and popular in the twelfth to fourteenth centuries

green: a grassy open space or park

headers: masonry units laid up so as to have an end exposed and often tying together wythes of masonry

hipped roof: a roof that slopes outward toward all four sides of a building

lawn: a grassy open space in front of a building

leader boxes: reservoirs at the top of leaders

leaders: vertical tubes used for water removal from a roof

loggia: an arcaded or colonnaded structure open on one side

molding: an apparently extruded element with an elaborated profile

muntin bar: a secondary member holding panes of glass in a window

order: a column and its entablature

oriel window: a faceted window unit projecting from a wall

Palladio, Andrea: a highly influential sixteenth-century Italian architect

pediment: in classical architecture, the relatively low-pitched gable end of the roof above the entablature

picturesque: suggesting a painterly scene

pilaster: an engaged pier or pillar

portico: a porch with its roof supported by columns

pre-cast concrete: concrete cast as a unit before being placed in its final position

promenade: a public space for strolling

quadrangle: a rectangular court or grassy area enclosed by buildings

quoins: often projecting stone or differentiated brick used to visually strengthen a building corner

rock-faced: masonry with a rough, natural face or one dressed in a like fashion

rotunda: a round building or space, usually domed

Romanesque style: a medieval European style characterized by the use of semi-circular arches and popular in the eleventh and twelfth centuries

rusticated: masonry with strongly emphasized, recessed joints and smoothly textured or rough faces and intended to suggest impregnability or monumentality

section drawing: a drawing made by sending an imaginary, vertical cutting plane through a building, removing the portion of the building in front of it, and directly projecting the image of what remains onto the cutting plane

three-part organization: a façade or massing scheme with a dominant central unit and subordinate flanking units

stoa: an extended portico, usually detached, distinguished by its long file of columns

stretchers: masonry units laid up horizontally with their lengths in the direction of the face of the wall

temple: a gable-roofed sanctuary with columns at the front, front and back, or all the way around the perimeter

Tudor arch: a low-slung, four-centered, pointed arch

watertable: a belt course set at the first-floor level



EXTERIOR DESIGN GUIDELINES



MISSISSIPPI STATE
UNIVERSITY™

July 2015



Publication Notes:

This document was produced by Mississippi State University's Office of Planning, Design and Construction Administration to guide the design and implementation of the campus environment. It is intended to be updated periodically to reflect changes in campus needs.

First Publication: 6-2010

Revision Dates: 7-2015



TABLE OF CONTENTS

Introduction	4
Furnishings	7
Lighting	18
Signs	32
Fences and Railings	51
Walls	59
Walks	67



INTRODUCTION

- philosophy behind the exterior design guidelines

HOW TO USE THIS DOCUMENT



Process for Using Campus Design Resources

When considering a new project or renovation on the campus, use the following resources to understand the full impact of the design:

1. Consult the Campus Master Plan to understand the larger framework in which the project will be constructed both today and in the future.
2. Consult the relevant campus guidelines, including this document, to understand the specific intent and character of each design element.
3. Consult the standard university specifications and details to understand the specific implementation requirements for each element.

Designers should always consult the campus architect to better understand the intent of the guidelines and their relationship to other planning documents..

Guidelines vs. Standards

Most of this document represents adopted standards, which will allow the University to expedite design decisions, reduce maintenance, and ultimately make the campus look more consistent. However, every situation is unique and design decisions will have to be made that bend and in some cases break a standard.

Therefore, this document is a set of strict guidelines that should only be broken after carefully considering the site context and the pros and cons of implementing the adopted standard.

Relationship to the Master Plan

The master plan defines the flexible framework in which the campus will grow in the future. Guidelines, on the other hand, define how specific elements will be executed within the larger master plan. This document includes all University guidelines related to the exterior environment of the campus.

Example: For information on where new pedestrian malls should be located, see the master plan. For information on what they should look like and how they should function, you're in the right place.

Relationship to Campus Specifications and Details

The Office of Planning, Design and Construction Administration is the keeper of all specifications and details on the campus. This document provides the character and intent for implementing each element, while the standard specifications and details provide specific instructions on how they are to be installed. The specifications and details are technical and need to be modified frequently to stay current with regulatory requirements and changes in technologies. On the other hand, the guidelines are more subjective and provide a complete inventory of the adopted standards of the campus. They also give guidance as to where and when each element is to be implemented.

PHILOSOPHY



One Campus Guideline

The campus landscape, including all exterior design elements, is intended to be consistent across all districts of the campus. Within the MSU campus there are several distinct districts including the historical core, the athletics district, and various research districts. Each has its own architectural style, building typologies, and spatial relationships. By having a consistent character, and pallet of design elements, the campus landscape unifies each of these districts into a single campus identity.

This strategy provides an instant and consistent visual vocabulary to all campus visitors. It indicates that they are on the campus as soon as they enter it - no matter where they are within it.

Small variations are expected within this singular vocabulary that do not change the guidelines, but rather raise the quality of the experience. An example of this is that an element on the periphery of the campus may be a less ornate version of a detailed version that can be found at the campus core. This is a function of practicality and responsible resource allocation that serves to make the core the “gem” of the campus landscape.

When to Bend the Rules

There are two instances when a departure from the campus guidelines can be considered:

1. when addressing the landscape of a special building or space on campus, and
2. when the landscape “belongs” to a specific building and not to the campus.

Like any environment, there are “ordinary” and special buildings and places. Special elements vary from ordinary ones in that they are shared by the entire campus community. The Colvard Union is an example of a special building on campus. It is a common gathering place for the entire campus community.

When addressing a specific ordinary building’s landscape, there may be opportunities to modify the campus guidelines to make it more unique to the needs of its occupants. In doing so, the designer must consider the degree to which the landscape belongs to the campus or the building. A courtyard is an obvious example where the landscape is more relevant to the building than the campus.

In each of these cases, it only takes modifying one or two standard elements in order to make a landscape unique. Beyond that, visual connection to the campus context begins to get lost. Typically, variations should only occur with ground plane elements such as plantings and paving materials. Changing light fixtures or other specific elements creates significant maintenance concerns.



FURNISHINGS

- exterior furnishings and amenities such as benches and planters

FURNISHINGS



Campus Furnishing Goals

- Improve campus livability
- Improve campus aesthetics
- Standardize furnishings
- Create a unified campus identity

Selection Criteria

Any furnishing selected for the campus should be chosen with the following criteria in mind:

- Aesthetics (related to the overall campus character)
- Function
- Current investment in an element
- Initial cost
- Life-cycle cost
- Recycled content
- Manufacturer Location

Overall Campus Furnishing Guidelines

The following implementation guidelines cut across all furnishings and should be considered along with the specific recommendations provided with each element:

- Reference ADA Standards for Accessible Design.
- Reference Facilities Management standard details and specifications (if applicable).
- Locate furnishings outside of the primary walk zone.
- Consider the implementation of elements in combination with other elements. For instance, if implementing tables and chairs, receptacles will likely be necessary.

- Consider the service area overlap of elements, such as bike racks that could serve more than one building.
- Locate all furnishings on pavement for ease of maintenance.

Note on the Selection of Furnishings

It is not the intent of Mississippi State University to limit competition. However, there are certain aesthetic considerations related to design elements and themes as well as governing requirements related to product function, maintenance, and supply considerations which must be adhered to throughout the entire campus. In addition to providing items of specific function, it is mandatory that any substitutions shall closely resemble the appearance and size of the campus standard.

FURNISHINGS

Element:	Bench
Designer:	Dumor Site Furnishings Mifflintown, PA www.dumor.com
Model:	Bench 160
Finish:	Bronze
Implementation:	<ul style="list-style-type: none">• Location priorities:<ul style="list-style-type: none">Near primary building entrances.Along major pedestrian corridors.In plazas or quads, such as residential quads.• Locate benches along walks on a concrete pad outside of the primary walk zone.



Bench in Plaza



Bench on Concrete Walk Adjacent to Walk

FURNISHINGS



Typical Trash Receptacle

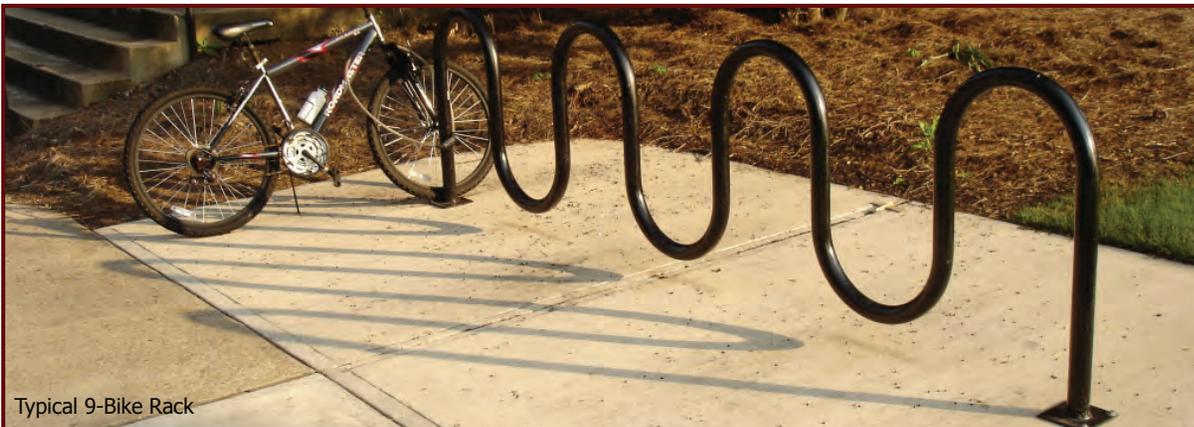
- Element: **Trash Receptacle**
- Designer: Mississippi Prison Industries
www.mpic.net
- Model: Deluxe Litter Receptacle w/ Hood and Liner
- Finish: Black
- Implementation:
- Location priorities:
 - Near primary building entrances.
 - Along major pedestrian corridors.
 - In plazas or quads, such as residential quads.
 - Locate receptacles in a plaza or on a concrete pad outside of the primary walk zone..



Typical Trash Receptacle

FURNISHINGS

Element:	Small Area Bike Rack
Designer:	Highland Products Group Boca Raton, LF www.theparkcatalog.com
Model:	Bike Wave Rack (116-1019 - 9 bike; 116-1017 - 7 bike; 116-1015 - 5 bike)
Finish:	Black
Implementation:	<ul style="list-style-type: none">• For scattered, specialized bike parking areas that serve individual buildings.• Choose appropriate parking capacity (5,7, or 9) based on building need.• Reference manufacturer's recommended bike rack spacing.• Place all racks and related bike parking zone on a concrete slab outside of primary walkway.



Typical 9-Bike Rack



Typical 5-Bike Rack

FURNISHINGS



Typical Bike Hoop



Typical Bike Parking Layout

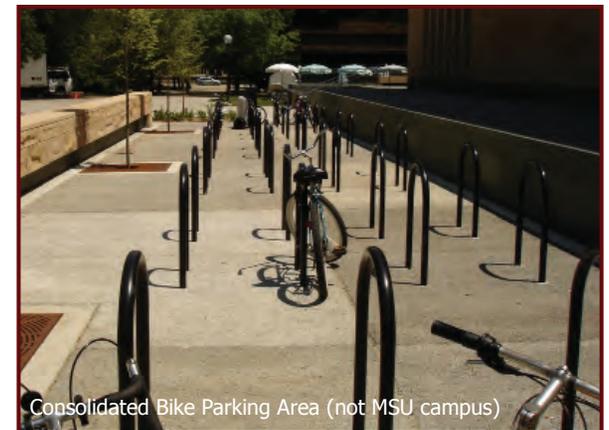
Element: **Large Area Bike Rack**

Designer: Various

Finish: Black

Implementation:

- For large, consolidated bike parking areas.
- Look for opportunities to create larger, screened bike parking areas to reduce visual clutter rather than smaller, more spread out parking areas.
- Reference manufacturer's recommended bike rack spacing.
- Place all racks and related bike parking zone on a concrete slab outside of primary walkway.



Consolidated Bike Parking Area (not MSU campus)

FURNISHINGS



Typical Bollard in Sleeve

Element: **Bollard**

Designer: Robinson Iron Works
Alexander City, Alabama
www.robinsoniron.com

Model: Cherry Street Cap with 3' (above ground), 4" steel post

Finish: Black

Implementation:

- Typically, direct bury in concrete walk or footing.
- Use sleeve in areas where bollard may have to be removed or replaced periodically.
- Place no less than 5' on center.
- Utilize reflective tape for high visibility.
- Use caution not to over use bollards when curbs or other elements would be effective.
- Use caution not to place bollards in the middle of bike or pedestrian paths.
- Use bollards modified with cables to close off parking lots.
- Reference post and chain option under the "Fences and Railings" chapter.
- Reference "No Parking on Grass" option under the "Signs" chapter.



Bollards at Intersection



Bollards with Reflective Tape



Bollard with Cable

FURNISHINGS



Ash Urn

Element:

Ash Urns

Designer:

Glaro Products
www.glaro-products.com

Model:

Cigarette Butt Disposal Unit

Color:

Gloss Black

Implementation:

- Do not locate urns near primary building entrances.
- Do not locate urns less than 25' from any building entrance or building air intake.
- Surface mount urns to (preferably) concrete pavement.
- Mount center of urn no less than 6" from edge of pavement.
- Wall-mount urns are not acceptable.

FURNISHINGS

Element: **Tree Grate**

Designer: Various

Size: 5' square, minimum

Finish: Black

Implementation:

- Tree grates are not a typical landscape element and are only appropriate for high-use plazas and therefore may vary depending on the design intent of the plaza.
- Reference manufacturer's installation details.



Tree Grate at the Colvard Union

FURNISHINGS

Element: **Table and Chairs**

Designer: Various

Finish: Outdoor Grade Wood or Bronze Painted Steel

- Implementation:
- There is no specific table and chair selected for the campus.
 - Table and chairs are not a typical landscape element and should only be used in conjunction with food and cafe functions.
 - Future selections should match the character of existing table and chair sets on campus and be highly durable.
 - Neither plastic, low grade materials, or indoor furniture are acceptable.



Bronze Steel Table and Chairs at the Bakery



Bronze Steel Table and Chairs at Colvard Union



Teak Table and Chairs at Colvard Union

FURNISHINGS



Planter at the Bakery

Element: **Planter**

Designer: Varies

Finish: Red, Clay

Implementation:

- There is no specific planter selected for the campus.
- Planters are not a typical landscape element and are expected to be maintained by the department that requests it.
- Future selections should match the size and character of existing red, clay planters on campus and be highly durable.
- Examples can be found at the dairy store.



LIGHTING

- any light element that is used outside of a building on the campus

LIGHTING

Campus Lighting Goals

- Simplify and standardize light typologies
- Improve campus appearance
- Create a unified campus identity
- Create a safe pedestrian and vehicular environment
- Minimize light pollution and energy consumption



Light Categories

There are four categories of lights presented in this chapter:

- Pedestrian
- Vehicular
- Landscape
- Exterior Architectural

Overall Campus Lighting Guidelines

The following guidelines apply to selection and installation of all exterior fixtures on campus:

- Reference Facilities Management standard details and specifications (if applicable).
- Lighting products should minimize up-light and illuminate only the subject area.
- Respect standard light levels and contrast ratios in determined settings. For instance, a parking area will always require less overall candlepower than a building entry.
- Fixtures and banners shall be installed perpendicular to the orientation of the roadway so they will be easy to read while driving into campus.
- Fixtures illuminating signage shall be controlled so as not to throw light beyond the sign.

- Gateways into the campus should be emphasized through lighting. If a campus gateway contains structural features, such as brick or stone walls or portals, designers should refer to the lighting guidelines listed in the Exterior Architectural Lighting Guidelines in this chapter; if a campus gateway includes landscaping such as trees, flowers, or shrubs, designers should refer to the Landscape Lighting Guidelines also in this chapter.

LIGHTING



Overall Campus Light Level Requirements

The following light levels are required for all exterior fixtures on campus:

- Pedestrian walkways shall be designed for an average of 1.0 foot-candle horizontally and 1.0 foot-candle vertically, as measured 6'-0" above ground, and shall maintain a uniformity ratio not to exceed 5:1. (This means that if the average number of foot-candles at the ground plane is 1.0, the minimum foot-candle level shall not be lower than .2 foot-candles.) These numbers are in accordance with the Illuminating Engineering Society Handbook, Ninth Edition.
- All parking lots on campus shall be illuminated in the same way. Maintain an average light level of 1.5 foot-candles at the ground plane and a uniformity ratio of 6:1 (this means that if the average is 1.5 fc, the minimum foot-candle level shall not be lower than .25 fc.) These numbers are in accordance with the Ninth Edition of the Illuminating Engineering Society Handbook.
- Campus roadways shall be designed for an average of 1.0 foot-candle and shall maintain a uniformity ratio not to exceed 3:1 avg./min. (This means that if the average number of foot-candles at the ground plane is 1.0, the minimum foot-candle level shall not be lower than .33 foot-candles.) These numbers are in accordance with the Illuminating Engineering Society Handbook, Ninth Edition.
- Main roadways shall be designed for an average of 1.5 foot-candles and shall maintain a uniformity ratio not to exceed 3:1 avg./min. (This means that if the average number of foot-candles at the ground plane is 1.5, the minimum foot-candle level shall not be lower than .5 foot-candles.) These numbers are in accordance with the Illuminating Engineering Society Handbook, Ninth Edition.
- Building entries shall be designed for an average of 3.0 foot-candles.

LIGHTING



Exterior Architectural Lighting Design Guidelines

The following guidelines are intended to enhance a building during the twilight hours and into the night:

- Each building has its own unique characteristics that give it texture and form. Features such as wood doors, arched window openings, detailed cornices, columns or arcades are prime elements for lighting accent.
 - Brick or stone building facades can benefit from a “close-in” lighting approach that grazes the light across the surface and calls attention to its textural quality by creating shadows and drama.
 - Emphasize the base, middle and top of the building. This allows the building to be viewed from several different vantage points, both near and far from the structure, without looking unnatural.
 - All fixtures and wiring should be well hidden in the architectural details so that the lighting has a minimal impact during the day. Fixture size, shape, color and mounting details are important considerations in the integration process.
 - Situations where a building facade is washed with bright light from a distant location are to be avoided. This approach “flattens” out the building’s texture and causes unnecessary glare to the night-time users.
 - Light fixtures should be designed so that the light goes exactly where it’s intended. Special care should be taken to include louvers, glare shields, or barn doors to the front of floodlight fixtures to prevent light pollution. Extra light bouncing into the atmosphere interferes with the work of astronomers and can disrupt the neighboring buildings.
- The intent of lighting a building is to enhance the best qualities of that building, not to become a “beacon” on campus. The brightest is not necessarily the best. Maintain an average light level of 2-5 foot-candles on illuminated surfaces, in accordance with the Ninth Edition of the Illuminating Engineering Society Handbook.
 - High Pressure Sodium has an orange tint and standard Metal Halide is blue-white. Careful consideration should be made to choose colors of light that complement the building’s materials. Different light sources render colors differently.
 - Mount light fixtures in accessible locations so that the lighting will be maintained regularly. Specify fixtures that have simple methods for lamp changing, where parts will not fall out of the fixture and get lost. Use long-life sources wherever possible. Specify tamper-resistant screws in any area that may be accessible to the public.
 - Due to the difference between summer and winter daylight hours, lighting should be connected to a photocell to turn fixtures on and a time clock to turn them off.

LIGHTING



Landscape Lighting Design Guidelines

The following guidelines are specific to lighting elements in the landscape:

- Highlight trees that have interesting compositions in both dormant and leafy conditions.
- Use up light to enhance large canopies on deciduous trees. If the tree canopy is large and impressive, simple up lighting from the ground can be very successful. “Moonlighting” effects also work well; where the fixtures are located within the tree canopy shining both up and down.
- Consider viewing angles. It is not necessary to light all sides of a tree, if it will only be viewed from one direction.
- Integrate lighting equipment into plant materials. All fixtures and wiring should be well hidden either in mature trees, or in planting materials that hide the floodlight so that the lighting has a minimal impact during the day. Fixture size, color and mounting details are important considerations in the integration process.
- Avoid frontal floodlighting. Lighting a tree or plant with bright light from a distant location is to be avoided. This approach can temporarily “blind” nighttime passersby, which can disorient them and make them more susceptible to crimes.
- Minimize light trespass and glare. Light fixtures should be designed so that the light goes exactly where it’s intended. Special care should be taken to include louvers, glare shields, or barn doors to the front of floodlight fixtures to prevent light pollution. Extra light bouncing into the atmosphere interferes with the work of astronomers and can disrupt the neighboring buildings.
- Avoid overly bright lighting. The intent of lighting landscape materials is to enhance the aesthetics of the campus, not to create “beacons”. The brightest is not necessarily the best. Use low-wattage sources.
- Choose light sources carefully. Different light sources render colors differently. Careful consideration should be made to choose colors of light that complement the color and texture of plant materials. High Pressure Sodium lighting should NEVER be used on plant materials.

LIGHTING - PEDESTRIAN



Typical Drill Field Light

Element: **Drill Field Light**

Designer: Holophane
Granville, Ohio
www.holophane.com

Model: North Yorkshire
400 Watt Metal Halide with 22'-10" Steel Pole with 20" Diameter Base
2 - Boston Harbor Style 48" Cast Aluminum Arms

Finish: Black

Implementation:

- Use Drill Field light only on the Drill Field.
- Orient fixture arms perpendicular to the face of the buildings closest to it.
- Typically locate center of pole 4' behind curb or walk.
- Mount to chamfered, 24" square concrete footing, 4" above grade.
- Provide power outlets on poles where events may need it.



Typical Concrete Footing

LIGHTING - PEDESTRIAN



Typical Pedestrian Light Fixture

Element: **Pedestrian Light Fixture**

Designer: Holophane
Granville, Ohio
www.holophane.com

Model: Washington Postlite
175 Watt Metal Halide with 12' Steel Pole

Finish: Black

- Implementation:
- Use pedestrian light along all pedestrian walks not located adjacent to streets or parking lots.
 - Typically locate center of pole 4' behind curb or walk.
 - Mount to chamfered, 24" square concrete footing, 4" above grade.



Typical Concrete Footing

LIGHTING - PEDESTRIAN



5-Globe Light at the Library

Element: **5-Globe Accent Light**

Designer: Robinson Iron Work
Alexander City, Alabama
www.robinsoniron.com

Model: Mississippi State Light

Finish: Black

Implementation:

- 5-globe fixture is not to be used for functional lighting. It is for accent and interest only.
- Mount to square concrete footing. Height may vary depending on location and need.
- Do not locate in the middle of plazas or walks.



5-Globe Light in Planting Areas

LIGHTING - PEDESTRIAN



Typical Light Bollard

Element: **Light Bollard**

Designer: Holophane
Granville, Ohio
www.holophane.com

Model: North Yorkshire

Finish: Black

Implementation:

- Bollards are not a typical landscape element and should be reserved for high visibility plazas.
- Bollards not to be used for functional lighting. They are for accent and interest only.
- Locate bollards in planting areas only.
- Mount to round concrete footing flush to pole base and 4" above grade.

LIGHTING - VEHICULAR



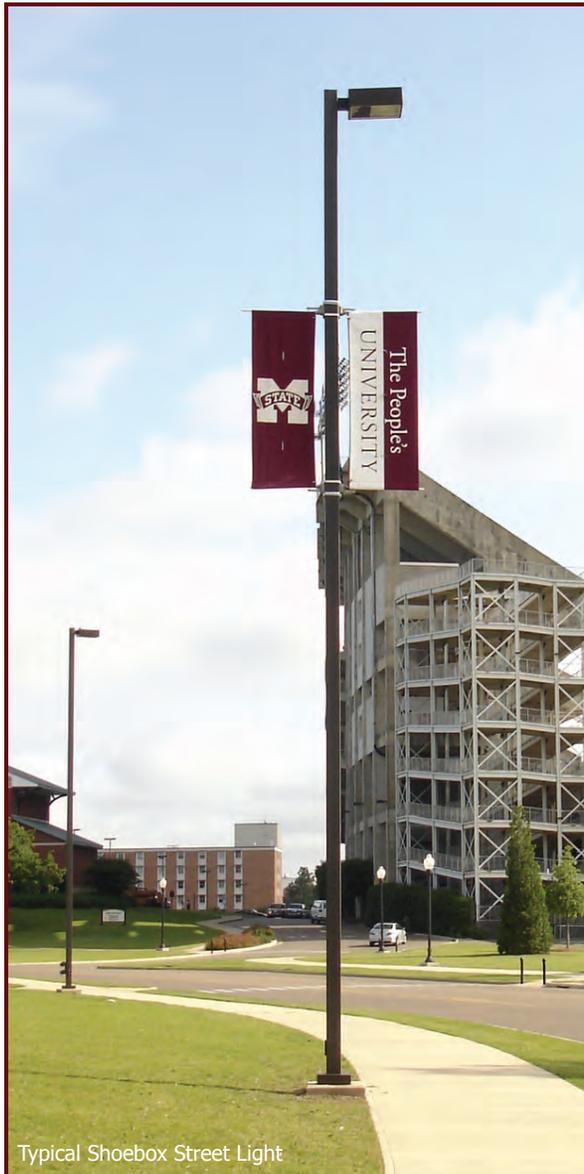
Simulation of Ornamental Street Light

- Element: **Ornamental Street Light**
- Designer: Holophane
Granville, Ohio
www.holophane.com
- Model: North Yorkshire
400 Watt Metal Halide with 22'-10" Steel Pole with 20" Diameter Base
Boston Harbor Style 48" Cast Aluminum Arm
- Finish: Black
- Implementation:
- Specify banner arms for every other pole on entrance roads.
 - Typically locate center of pole 4' behind curb or walk.
 - Mount to chamfered, 24" square concrete footing, 4" above grade.



Typical Concrete Footing

LIGHTING - VEHICULAR



Typical Shoebox Street Light

- Element: **Shoebox Street Light**
- Manufacturer: Lithonia
Conyers, GA
www.lithonia.com
- Model: 400 Watt Metal Halide Shoebox
35' Square Pole
- Finish: Dark Bronze
- Implementation:
- Typically locate center of pole 4' behind curb or walk.
 - Mount to chamfered, 24" square concrete footing, 4" above grade.

LIGHTING - VEHICULAR



Typical Parking Light Fixture

Element: **Parking Light Fixture**

Designer: Lithonia
Conyers, GA
www.lithonia.com

Model: 400 Watt Metal Halide Shoebox
35' Square Pole

Finish: Dark Bronze

Implementation:

- Use parking light fixture in all major surface parking lots.
- Mount to chamfered, 24" square concrete footing 4" above grade when outside of a parking lot and 24" above grade when in a parking lot.



Typical Concrete Footing in Parking Lot

LIGHTING - LANDSCAPE

Element: **Landscape Lighting**

Designer: Various

Finish: Dark Bronze

Implementation:

- Reference overall Landscape Lighting Design Guidelines at the beginning of this chapter.
- Always locate landscape lights in planting beds, never in lawns or in a walkway.
- Screen fixtures with plant materials.
- Avoid wall mounted or flush in pavement fixtures that are difficult to replace or maintain over time.



Landscape Light Fixtures

LIGHTING - EXTERIOR ARCHITECTURAL

Element:	Exterior Architectural Lighting
Designer:	Various
Finish:	Dark Bronze or Complimentary to Architecture
Implementation:	<ul style="list-style-type: none">• Reference overall Exterior Architectural Lighting Design Guidelines at the beginning of this chapter.• Always locate exterior architectural lights in planting beds, never in lawns or in a walkway.• Screen fixtures with plant materials.• Avoid wall mounted or flush in pavement fixtures that are difficult to replace or maintain over time.



Exterior Architectural Light Fixture



Exterior Architectural Light Fixture



SIGNS

- all directional and informational elements on campus

SIGNS

Campus Sign Goals

- Reduce sign pollution
- Simplify and standardize signs
- Improve campus appearance
- Create a unified campus identity
- Provide a clear wayfinding hierarchy



Overall Campus Sign Guidelines

The following guidelines apply to selection and installation of all exterior fixtures on campus:

- Reference Office of Planning, Design and Construction Administration standard details and specifications for all signs.
- All regulatory signs and markings on the campus must comply with MDOT standards for placement, color, finish, etc.
- Consider the actual need for each sign. Does another sign serve the same purpose?
- Use **stenciled curb markings** for a single service vehicle parking space only. Multiple spaces should be denoted with standard parking signs. No other curb or bumper stencil painting is prohibited.
- Use one **lot designation sign** at each entrance. Do not place signs internal to the lots.
- Remove **event parking barricades** to a non-visible location and stack them after each event (consider a three day baseball tournament one event).
- All **temporary event parking signs** should use the campus standard black, metal sign frame.
- All permanently **reserved parking spaces** must be approved by the director of Parking Services.
- **Temporary signs/banners** advertising an event must be removed the day after the event by the

organizer of the event.

- **Permanent Signs/Banners** on poles lining the streets and entrances are designed by Media Relations and maintained by Facilities Management.

SIGNS - GATEWAYS



Historic 1922 Pedestrian Gate

- Element: **Campus Gateway**
- Designer: MSU Office of Planning, Design and Construction Administration
- Finish: Brick columns with pre-cast concrete sign and caps.
- Implementation:
- Use consistent font size for main and sub titles.
 - Avoid using “floating” lettering to improve legibility.
 - Maintain current number of gateways, unless indicated by the master plan.
 - See map on the following page for current gateway locations.
 - Do not place signs where they will create a safety or visibility hazard.
 - Reference MDOT standards for proper visibility requirements.

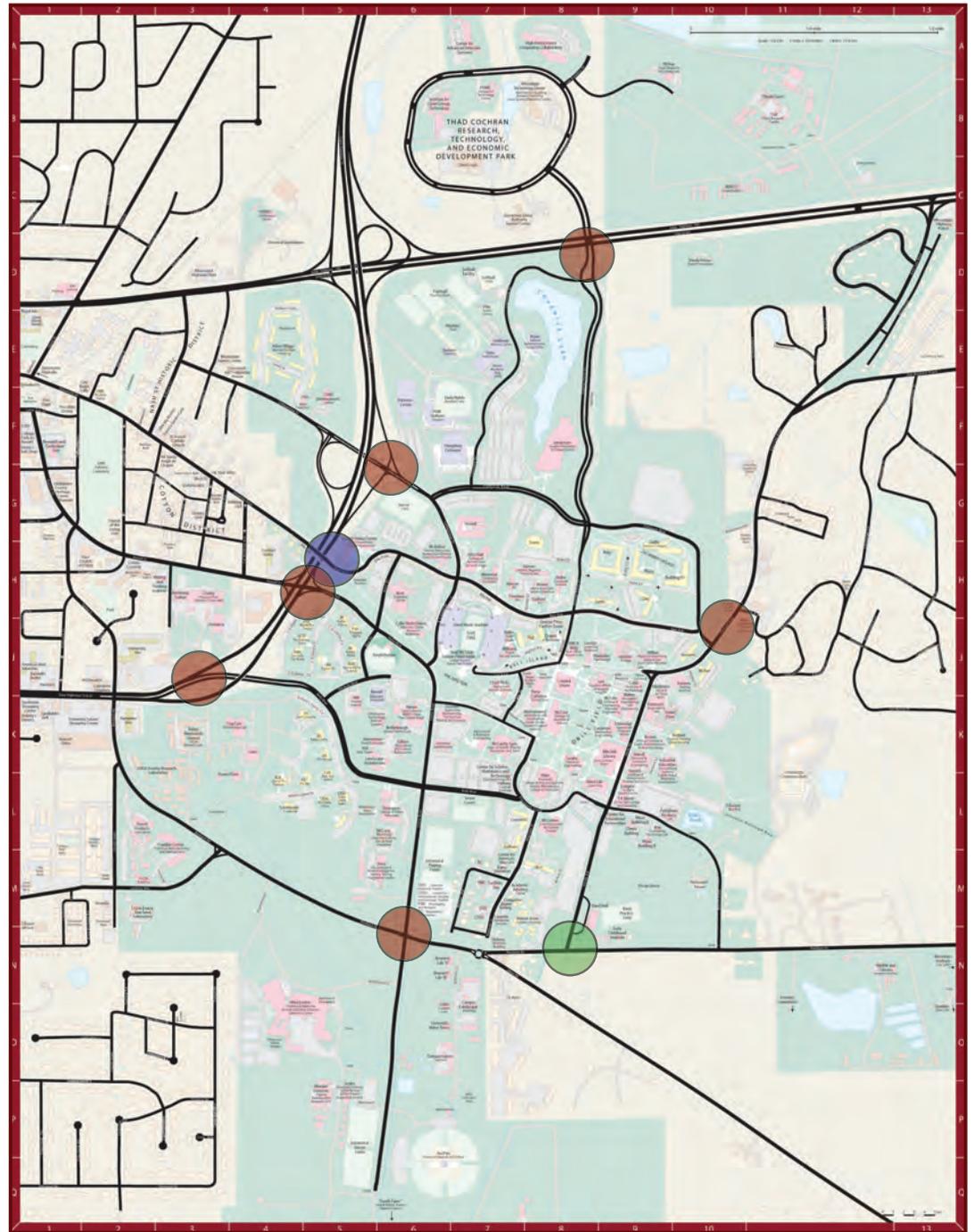


Current Gateway on Stone Boulevard

SIGNS - GATEWAYS

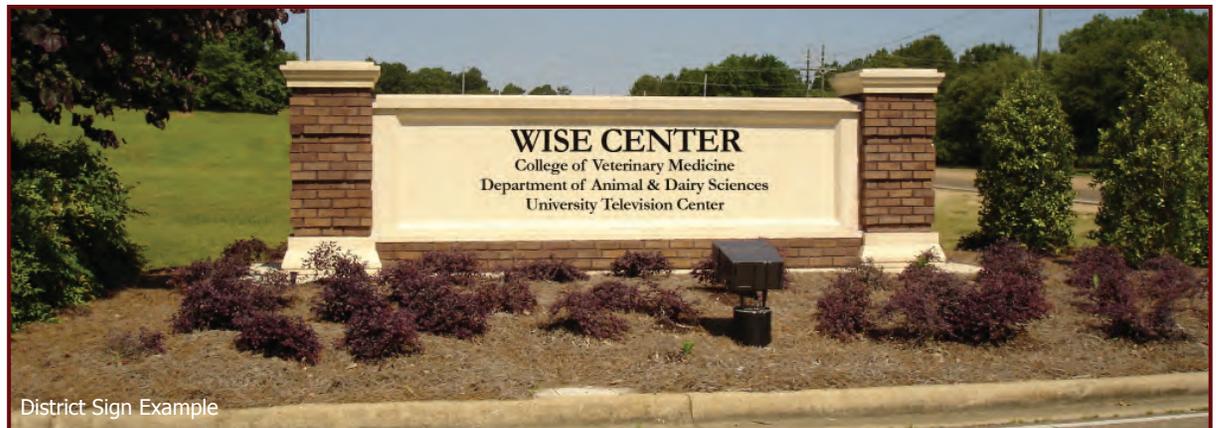
Campus Gateway Locations:

-  Campus Gateway
-  Historic Campus Gateway
-  Potential Future Gateway



SIGNS - GATEWAYS

- Element: **District Gateway**
- Designer: MSU Office of Planning, Design and Construction Administration
- Finish: Brick columns with pre-cast concrete sign and caps.
- Implementation:
- Use district gateways cautiously, to avoid over emphasizing districts within the campus.
 - Use consistent font size for main and sub-titles.
 - Avoid using “floating” lettering to improve legibility.
 - Do not place signs where they will create a safety or visibility hazard.
 - Reference MDOT standards for proper visibility requirements at intersections.



SIGNS - PEDESTRIAN WAYFINDING



Typical Sign Placement Along Major Walk

Element:

Security Kiosk

Designer:

Code Blue Corporation
Holland, MI
www.codeblue.com

Model:

Code Blue 3

Implementation:

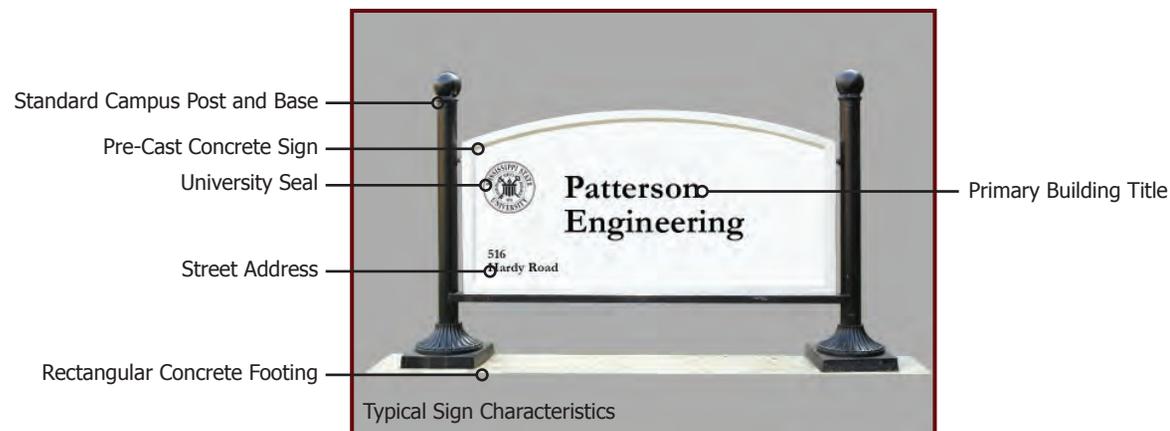
- Location priorities:
 - Along major pedestrian corridors.
 - In residential hall parking lots.
 - Near evening and night time destinations such as the Sanderson Center.
- Mount on square concrete base at back of walk.



Call Box on Security Kiosk

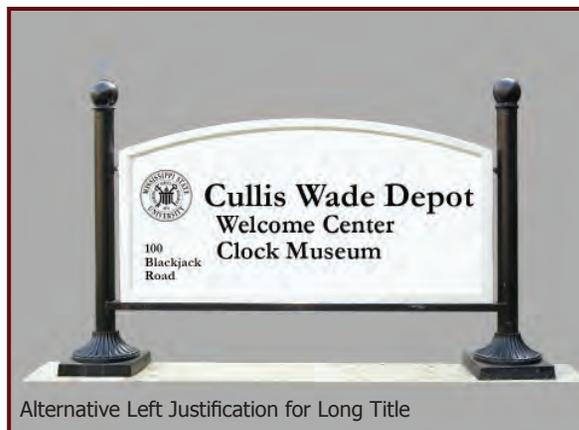
SIGNS - BUILDING

Element:	Building Identification Sign
Designer:	MSU Office of Planning, Design and Construction Administration
Finish:	Black posts with pre-cast concrete sign and black letters.
Implementation:	<ul style="list-style-type: none">• Locate one sign for each primary building facade:<ul style="list-style-type: none">Buildings that face two streets should have two signs.Buildings that face a major pedestrian corridor and a street should have two signs.• Perpendicular alignment to the building face is the typical orientation.• All perpendicular aligned signs will be double sided.• Parallel alignment may be utilized in circumstances when it is visible from more approach directions than in the perpendicular alignment.• Typically, place signs 10' behind the curb or walk line (if walk is present).• Modify placement to fit context (i.e. choose what's best for overall corridor condition).• Do not place signs where they will create a safety or visibility hazard.• Garamond is the standard font for all signs.• Reference MDOT standards for proper visibility requirements.• Mount on rectangular concrete footing.• Maintain level footing base on slopes. Modify grade to meet base.



SIGNS - BUILDING

Building Identification Sign Variations:



SIGNS - BUILDING



Typical Minor Building Sign

- Element: **Minor Building Identification Sign**
- Designer: MSU Office of Planning, Design and Construction Administration
- Finish: Black
- Implementation:
- Buildings eligible for the Minor Building Identification Sign include: departments in residential houses, facilities warehouses, and agriculture barns.
 - Update to include most recent University logo.
 - Mount sign in concrete footings below grass line.
 - Typically, place signs 10' behind the curb or walk line (if walk is present).

SIGNS - VEHICULAR MANAGEMENT



Typical Street Sign Combined with Stop Sign

Element:

Street Sign

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Black, with Mississippi State Logo

Implementation:

- Reference MDOT standards for proper regulatory sign placement.
- Combine with no more than one regulatory sign (i.e. stop sign, parking lot, etc.)
- Place street sign at most visible corner(s) of intersection (up to two).
- Mount square base to square concrete footing.



Typical Pole Base



Typical Street Sign

SIGNS - VEHICULAR MANAGEMENT



Standard Pole

Element:

Regulatory, Warning and Parking Signs

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Black

Implementation:

- Reference ADA Standards for Accessible Design for all accessible related signs.
- Reference MDOT standards for proper regulatory sign placement.
- Locate one parking sign at each entrance.
- Combine signs whenever possible to reduce poles.
- Signs may be placed on both sides of the pole.
- Combine with no more than two signs on each side of pole.
- Paint the back of all signs black.
- Install metal frames around all signs.
- Mount square base to square concrete footing.
- Use short pole option when there is a height restriction or when a grade change puts the sign at the proper height.



Optional Short Pole



Typical Pole Base

SIGNS - VEHICULAR MANAGEMENT

Selection of Regulatory, Warning and Parking Signs:



Dual Parking Information Sign



Specialty Sign on Short Pole



Accessibility Sign



Parking Lot Identifier Sign Using Stop Sign



Speed Limit Sign



Service Parking Zone Sign

SIGNS - VEHICULAR MANAGEMENT



Accessible Space Markings

Element: **Standard Regulatory, Warning and Parking Pavement Markings**

Designer: MSU Office of Planning, Design and Construction Administration

Finish: Varies

- Implementation:
- Reference MDOT standards for all pavement markings.
 - Reference ADA Standards for Accessible Design for all accessible related markings.
 - Use curb markings for a single service vehicle parking space only. Multiple spaces should be denoted with standard parking signs.
 - All pavement markings shall be typical 4 inch wide stripes and shall be equal to Sherwin Williams “Pro-Mar” B29W1 (white) or B29Y2 (yellow). White stripes shall be for parking and Yellow for caution and no parking.
 - All markings on pavement for Handicap parking shall be heat applied rubberized laminate.

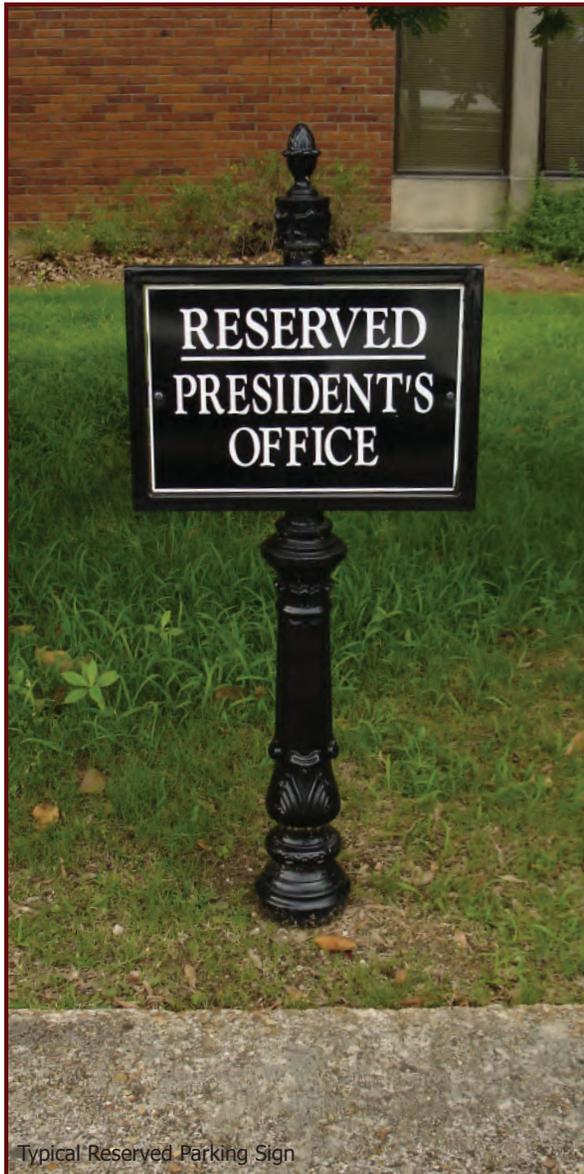


Vehicular Markings



Restricted Parking Markings

SIGNS - VEHICULAR MANAGEMENT



Typical Reserved Parking Sign

- Element: **Reserved Parking Sign**
- Designer: MSU Office of Planning, Design and Construction Administration
- Finish: Black
- Implementation:
- Locate one parking sign for each parking stall.
 - Limit reserved parking to vice president and president offices.
 - Paint the back of all signs black.
 - Install metal frames around signs.
 - Mount round base to round concrete footing.

SIGNS - VEHICULAR MANAGEMENT



Typical No Parking on Grass Sign

Element:

No Parking on Grass Sign

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Black

Implementation:

- Mount sign in concrete footings below grass line.
- Typically, place signs 10' behind the curb or walk line (if walk is present).
- Locate signs only in areas with a known parking problem.
- Use caution not to create visual clutter by implementing too many signs along a corridor.



No Parking on Grass Sign 10' Behind Curb Line

SIGNS - TRANSIT



Primary Bus Shelter

Element:

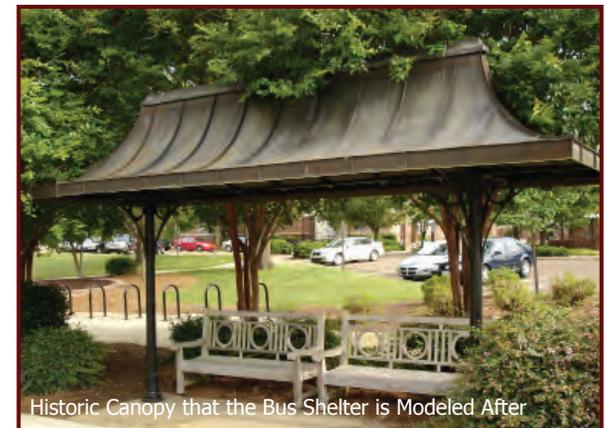
Primary Bus Shelter

Designer:

MSU Office of Planning, Design and Construction Administration

Implementation:

- The Primary Bus Shelter is the preferable shelter design in all instances.
- Locate shelter parallel to flow of bus traffic.
- Provide ample staging area outside of the shelter.
- Provide an accessible route to and from the shelter.
- Provide an emergency response phone in remote locations.
- Include bus route information and a campus map in each shelter.



Historic Canopy that the Bus Shelter is Modeled After

SIGNS - TRANSIT

Element:	Secondary Bus Shelter
Designer:	Various
Implementation:	<ul style="list-style-type: none">• The Secondary Bus Shelter is an alternative for remote stops outside the academic core.• Locate shelter parallel to flow of bus traffic.• Provide ample staging area outside of the shelter.• Provide an accessible route to and from the shelter.• Provide an emergency response phone in remote locations.• Include bus route information and a campus map in each shelter.



SIGNS - BICYCLE PATHS



Typical "Share the Road" Sign

Element:

Bicycle Path Signs

Designer:

MSU Office of Planning, Design and Construction Administration

Implementation:

- Use signs only on designated and separated bike paths.
- Reference MDOT standards for sign placement.
- Mount sign to concrete footing or pavement outside of bike route or walk zone.
- Paint the back of all signs black.



Typical "Keep Left/Right" Sign



Typical "Bike Stop" Sign



Typical "Yield to Peds" Sign

SIGNS - BICYCLE PATHS



Typical "Bike Only" Marking

Element:

Bicycle Path Pavement Markings

Designer:

MSU Office of Planning, Design and Construction Administration

Implementation:

- Reference level 1 bike paths under the "Walks" chapter.
- Coordinate "Bike Crossing" markings with bollards to allow clear paths.
- Reference MDOT standards for pavement markings placement.



Typical "Pedestrian Only" Marking



Typical "Directional Arrow" Marking



Typical "Bike Crossing" Markings



FENCES & RAILINGS

- linear elements that define edges and provide safety along walks

FENCES & RAILINGS

Campus Fencing and Railing Goals

- Improve campus aesthetics
- Provide adequate safety and security
- Meet all regulatory requirements
- Provide alternatives that allow for cost options, but still unify campus identity



Overall Campus Fences Guidelines

The following topics should be considered when implementing any fence on campus:

- Determine if a fence is necessary to provide security or screening.
- Determine if plant materials or a screen wall may be more appropriate.
- Choose a fence alternative that is appropriate for the specific area of campus.
- The campus standard, steel picket fence should be the first choice for all locations.
- Determine if the area requires a special treatment with brick columns or could be served with a vinyl coated chain-linked fence.

Overall Campus Railings Guidelines

The following topics should be considered when implementing any railing on campus:

- Reference Facilities Management standard details and specifications for all signs.
- All railings must meet ADA Design Standards.
- The standard railing is the first choice for any new railing.
- Railings may be modified to reflect the character of a specific building if it is determined that the area in which it is located “belongs” to the character and identity of the building.

FENCES



Typical High Visibility Fence

Element: **High Visibility Fence**

Designer: Various

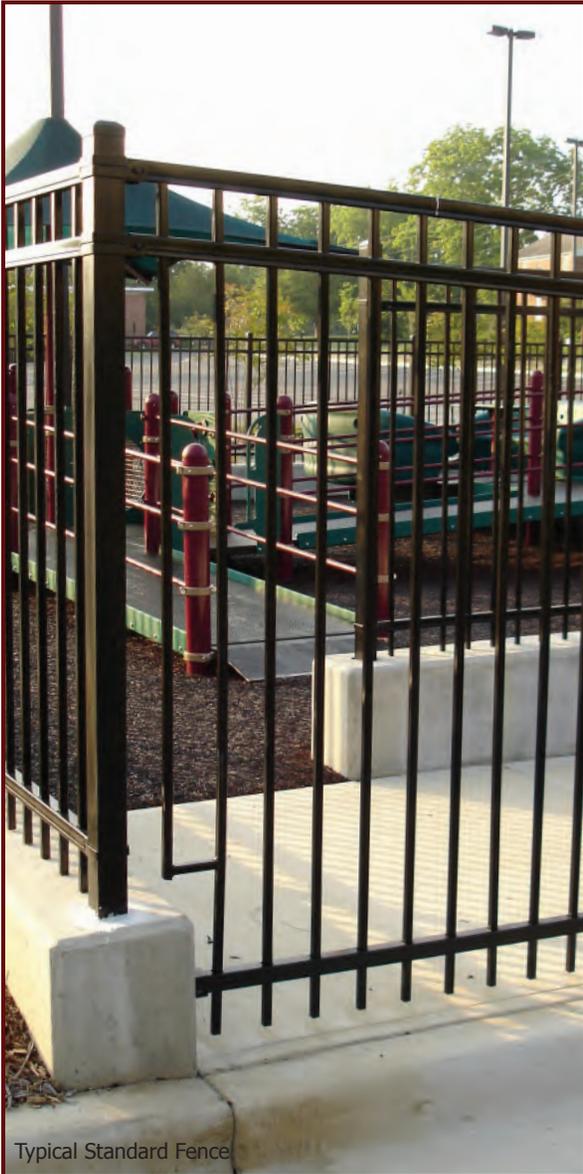
Finish: Black, steel picket fence and red brick columns with pre-cast concrete caps.

- Implementation:
- Reference the “Walls” chapter in this document.
 - Use high visibility fence in the academic core and at athletic venues.
 - Brick columns should be designed to relate to their context and the buildings within the immediate vicinity.
 - Typical fence height is 7’ however, height may vary depending on specific need.



Typical High Visibility Fence

FENCES



Typical Standard Fence

Element: **Standard Fence**

Designer: Various

Finish: Black, steel picket fence

- Implementation:
- Use the standard fence in all areas of the campus that require both aesthetics and security.
 - Only use finials where additional security is required.
 - Typical fence height is 7' however, height may vary depending on specific need.



Typical Standard Fence with Finials



Typical Standard Fence

FENCES

Element:	Functional Fence
Designer:	Various
Finish:	Vinyl coated, black chain-linked fence
Implementation:	<ul style="list-style-type: none">• For use with recreation fields, agricultural research facilities, and generally on low visibility areas of the campus.• Typical fence height is 7' however, height may vary depending on specific need.



Chain-Linked Fence Around a Recreation Field on Campus



Vinyl Coated Finish

FENCES

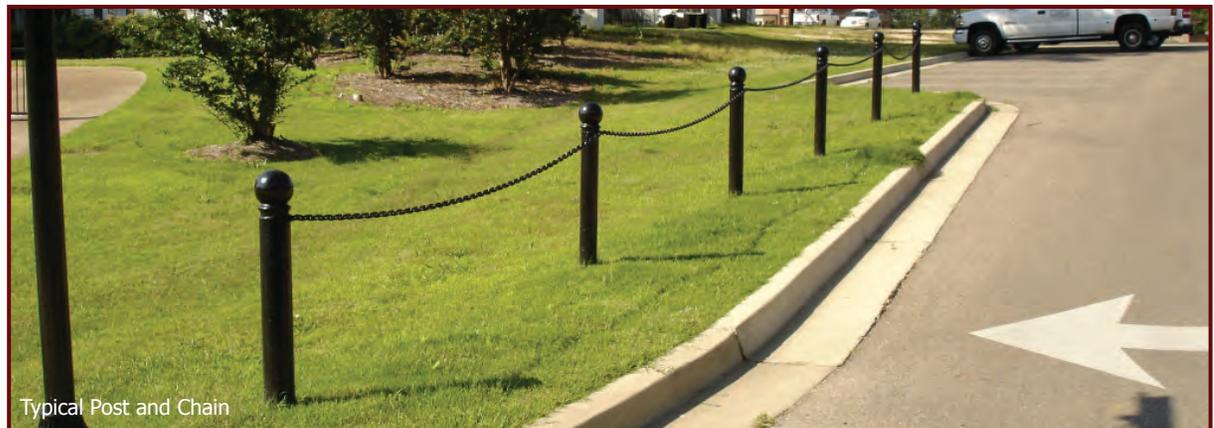
Element: **Post and Chain**

Designer: MSU Office of Planning, Design and Construction Administration

Finish: Black

Implementation:

- Reference the “bollards” section of the “Furnishings” chapter in this document.
- Reference the “no parking on grass” section of the “Signs” chapter in this document.
- Use post and chain as a low fence element to restrict or direct the flow of bikes or pedestrians.



Typical Post and Chain

RAILINGS

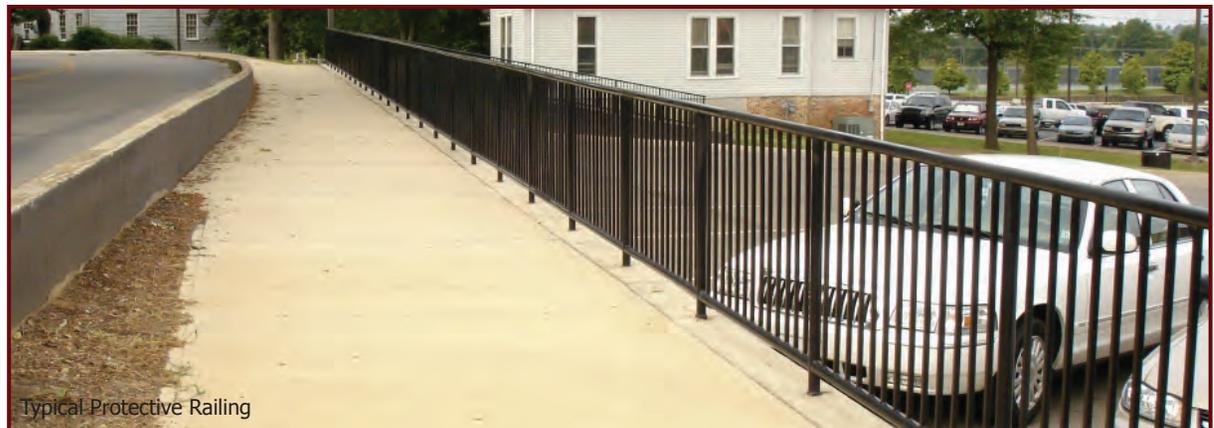
Element: **Protective Railing**

Designer: MSU Office of Planning, Design and Construction Administration

Finish: Black

Implementation:

- Reference ADA Standards for Accessible Design for proper placement and design of protective railings.
- Use protective railings any time the fall height adjacent to a walk or pedestrian area triggers the need for a railing, as defined by the ADA Standards for Accessible Design.



Typical Protective Railing

RAILINGS



Typical Accessible Railing on Stairs



Typical Accessible Railing on Ramp

Element:

Accessible Railing

Manufacturer:

MSU Office of Planning, Design and Construction Administration

Finish:

Black

Implementation:

- Reference ADA Standards for Accessible Design for proper placement and design of accessible railings.
- Use accessible railings along ramps or stairs any time it is needed as defined by the ADA Standards for Accessible Design.
- Stairs and ramps associated with a building may reflect the character of the building, but must meet all ADA Standards for Accessible Design



Typical Accessible Railing Set on Cheek Wall to Retain Grade



WALLS

- linear elements that retain grade and/or provide spatial enclosure

WALLS

Campus Wall Goals

- Provide seating opportunities
- Improve campus aesthetics
- Standardize screening and wall typologies
- Create a unified campus identity

Overall Campus Wall Guidelines

The following topics should be considered when implementing any wall on campus:

- Reference Facilities Management standard details and specifications for all signs.
- Walls should relate to their context and the buildings within the immediate vicinity.
- All retaining walls should be considered for seating.
- Maximize wall depth (18" or more) when it is to be used for seating.
- Avoid creating excessively long or tall walls without interest.
- Consider modifying walls to include niches or terraces for planting materials to break up their mass.
- Always consider lighting when creating seating amenities with walls.
- Consider if a fence or plantings would be more appropriate than a screen wall.
- Carefully locate walls to avoid restricting pedestrian and vehicular site lines.



WALLS - RETAINING



High Visibility Wall with Column

- Element: **High-Visibility Retaining Wall**
- Designer: Various
- Finish: McCool Hall Blend Brick, or to match adjacent building. Cap, granite or pre-cast concrete.
- Implementation:
- Reference “typical retaining wall” on previous page.
 - Accent retaining wall should have granite or pre-cast concrete cap.
 - Use high visibility walls only for special spaces or elements on campus.
 - Use care in design details to avoid creating a skateboard amenity.



High Visibility Wall with Granite Cap

WALLS - RETAINING



Wall with Accent Column at Colvard Union

Element: **Standard Retaining Wall**

Designer: Various

Finish: McCool Hall Blend Brick, or to match adjacent building.

- Implementation:
- Seatwalls should be 18” to top of wall.
 - Retaining walls should be brick faced to at least 6” below grade.
 - Top of wall elevation should always remain constant.
 - Brick cap (shown) is typical for all standard retaining walls.
 - Pre-cast concrete cap is optional at end columns for accent.



Typical Wall in Standard Red Color



Retaining Wall with Steps to Follow Grade

WALLS - RETAINING



Typical Low-Visibility Retaining Wall

Element: **Low-Visibility Retaining Wall**

Designer: Various

Finish: Re-used concrete.

- Implementation:
- Low-visibility walls should not be used for seatwalls.
 - Low-visibility walls can be used in areas with landscape to provide screening or in areas outside of the academic core.
 - Top of wall elevation should always remain constant.



Typical Low-Visibility Retaining Wall

WALLS - SCREENING

- Element: **High-Visibility Screen Wall Enclosure**
- Designer: Various
- Finish: McCool Hall Blend Brick, or to match adjacent building.
- Implementation:
- Reference “Standard Retaining Wall” page in this document.
 - Interior of screen wall should be brown, painted concrete masonry units.
 - Brown, painted wood fence should be used for access.
 - Screen wall should be as low as possible while still concealing dumpster or other screened element.



WALLS - SCREENING

Element: **Low-Visibility Screen Wall Enclosure**

Designer: Various

Finish: Brown

Implementation:

- Low-Visibility Screen Wall should be used outside of the academic core and out of view of primary drives or walks.
- Brown, painted wood fence should be used for access.
- Screen wall should be as low as possible while still concealing dumpster or other screened element.



WALLS - SCREENING



Alternative Screen Wall at Sanderson Center

Element:

Alternative Screen Wall

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Galvanized

Implementation:

- Use alternative screen wall for tall or large elements that are prohibitive for either plant materials or a screen wall to effectively hide.
- Plant with evergreen vine.



WALKS

- all paved areas designated for pedestrians

WALKS



Campus Walks Goals

- Create a clear hierarchy of campus walks
- Simplify and standardize walk typologies
- Improve campus appearance
- Create a unified campus identity
- Create a safe pedestrian environment
- Provide opportunities for social interaction

Walk Categories

There are five categories of walks presented in this chapter:

- Plazas
- Malls
- Sidewalks
- Bike Paths
- Crosswalks

Overall Campus Walks Guidelines

The following topics should be considered when implementing any walk on campus:

- Reference Facilities Management standard details and specifications.
- All walks must meet ADA Design Standards.
- Determine if the walk is necessary. Is there another path that makes more sense for pedestrians?
- Direct walks to designated crosswalk locations.
- Provide proper light levels for all walks.
- Consider and make accommodations for service and emergency vehicle access.
- Determine the most direct path between major destinations.
- Observe pedestrian movement during peak class changes on Tuesdays and Wednesdays.

Sidewalk Levels

There are three levels of walks described in this chapter. Levels 1 and 2 have a brick and concrete version. Brick should only be used for special, high visibility, areas.

- Level 1: 10' major pedestrian corridor
- Level 2: 8' campus standard sidewalk
- Level 3: 6' minor sidewalk

The walk level should be selected based on the following criteria:

- Relative, current pedestrian volumes.
- Expected future pedestrian volumes.
- Service access needs.
- Location within the campus. Is it in the core?

WALKS - PLAZAS



The Moseley Plaza with Standard Red Brick

Element: **Plaza**

Designer: Varies

Finish: May vary but typically Pine Hall Brick.

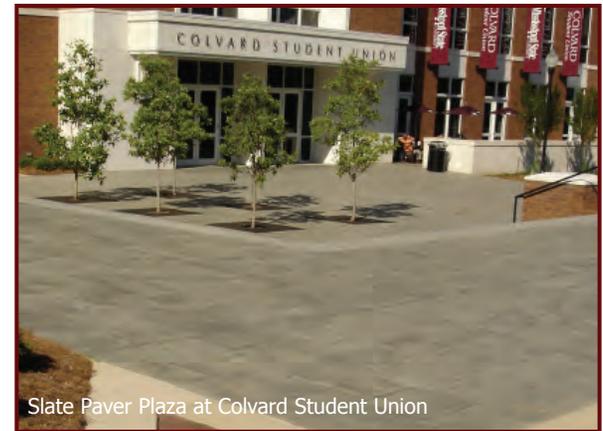
- Implementation:
- Plazas are nodes that are either associated with a building or are special places in the landscape.
 - Plazas may vary in materials to reflect the unique character of a building or place, however, nodes that are part of the campus landscape should use the campus brick pattern.
 - Typical campus brick pattern from concrete band in:
 - 1 course of header laid bricks
 - 1 course of stretcher laid bricks
 - field of herringbone bricks



Typical Campus Brick Pattern



Stained Concrete Plaza in Zacharias Village



Slate Paver Plaza at Colvard Student Union

WALKS - MALLS



The Old Main Mall

Element:

Pedestrian Mall

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Pine Hall Brick with 1' concrete bands.

Implementation:

- Malls are the highest level pedestrian corridor.
- Mall should be designed to take the place of a street, therefore will need to (at least) temporarily accommodate vehicles.
- Malls should be designed to accommodate service and emergency vehicles.
- Typical campus brick pattern from concrete band in:
 - 1 course of header laid bricks
 - 1 course of stretcher laid bricks
 - field of herringbone bricks



Typical Campus Brick Pattern



Typical Brick Pattern at Concrete Band

WALKS - SIDEWALKS



Typical Level 1 Concrete Walk

Element:

Level 1, Concrete Walk - 10'

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Light broom finish with window frame.

Implementation:

- Level 1 walks are always 10' wide.
- Level 1 walks are reserved for major pedestrian corridors.
- Level 1 walks should be designed to accommodate small service vehicles.
- Score joints every 5' and 2.5' from the edge on both sides (see pictures).
- Expansion joints not to exceed every 40'.



Level 1 Concrete Walk Meeting a Concrete Plaza



Typical "Window Frame" detail at Expansion Joint

WALKS - SIDEWALKS



Typical Level 1 Brick Walk

Element:

Level 1, Brick Walk - 10'

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Pine Hall Brick with 1' concrete bands.

Implementation:

- Level 1 walks are always 10' wide.
- Level 1 brick walks are reserved for major pedestrian corridors with high visibility.
- Level 1 walks should be designed to accommodate small service vehicles.
- Typical campus brick pattern from concrete band in:
 - 1 course of header laid bricks
 - 1 course of stretcher laid bricks
 - field of herringbone bricks



Typical Campus Brick Pattern



Typical Brick Pattern at Concrete Band

WALKS - SIDEWALKS



Typical Drill Field Walk

Element: **Level 1, Drill Field Walk - 10'**

Designer: MSU Office of Planning, Design and Construction Administration

Finish: Varies

- Implementation:
- Level 1 walks are always 10' wide.
 - Level 1 drill field walks should only be used on the drill field.
 - Level 1 walks should be designed to accommodate small service vehicles.
 - The standard materials for future drill field walks is clay brick with granite insets and black stained concrete borders.



Drill Field Walk with Concrete Memorial Pavers



Drill Field Walk with Brick Memorial Pavers (Standard)

WALKS - SIDEWALKS



Typical Level 2 Concrete Walk

Element:

Level 2, Concrete Walk - 8' (Campus Standard)

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Light broom finish with window frame.

Implementation:

- Level 2 walks are always 8' wide.
- Level 2 walks are the campus standard walk and should be the first choice for any situation.
- Level 2 walks should be designed to accommodate small service vehicles.
- Score joints every 8', typical.
- Expansion joints not to exceed every 40'.



Typical Level 2 Concrete Walk Along Street



Typical Level 2 Concrete Walk



Typical "Window Frame" detail at Expansion Joint

WALKS - SIDEWALKS



Typical Level 2 Brick Walk

- Element: **Level 2, Brick Walk - 8'**
- Designer: MSU Office of Planning, Design and Construction Administration
- Finish: Pine Hall Brick with 1' concrete bands.
- Implementation:
- Level 2 walks are always 8' wide.
 - Level 2 brick walks are reserved high visibility campus walks.
 - Level 2 walks should be designed to accommodate small service vehicles.
 - Typical campus brick pattern from concrete band in:
 - 1 course of header laid bricks
 - 1 course of stretcher laid bricks
 - field of herringbone bricks



Typical Campus Brick Pattern



Typical Brick Pattern at Concrete Band

WALKS - SIDEWALKS



Typical Level 3 Concrete Walk

- Element: **Level 3, Concrete Walk - 6'**
- Designer: MSU Office of Planning, Design and Construction Administration
- Finish: Light broom finish with window frame.
- Implementation:
- Level 3 walks are always 6' wide.
 - Level 3 walks should only be used for minor walks that do not need to provide service vehicle access.
 - Level 3 walks should be designed to accommodate pedestrian traffic.
 - Score joints every 6', typical.
 - Expansion joints not to exceed every 40'.



Typical "Window Frame" detail at Expansion Joint

WALKS - BIKE PATHS



Typical Bike Path

Element:

Off-Street Bike Path

Designer:

MSU Office of Planning, Design and Construction Administration

Finish:

Light broom finish.

Implementation:

- Reference the bike paths section of the “Signs” chapter in this document.
- Off street bike paths are 10’ wide, 5’ for each lane.
- Bike paths that parallel walks should be separated by at least 5’ of planted area.
- Bike paths should be separated from the street by at least 5’ of planted area.
- Walks that parallel bike paths should be at a minimum a level 3 walk.
- Do not locate bollards in bike path lanes.
- Score joints every 10’, typical.
- Expansion joints not to exceed every 40’.



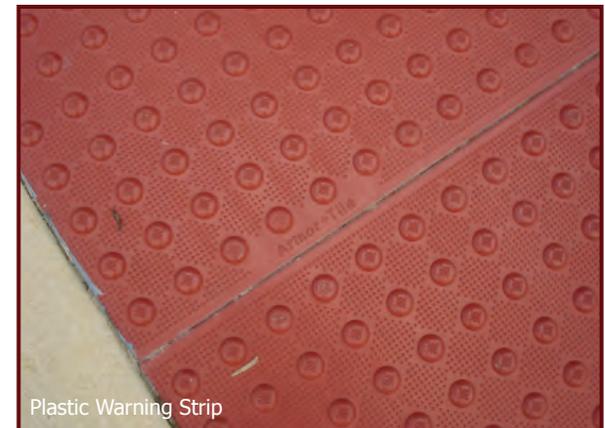
Typical Bike Path Parallel to 6’ Walk

WALKS - CROSSWALKS

Element:	Curb Ramp
Designer:	MSU Office of Planning, Design and Construction Administration
Finish:	Varies
Implementation:	<ul style="list-style-type: none">• Reference ADA Standards for Accessible Design for proper placement and design of accessible curb ramps.• At intersections, create one ramp per travel direction (no flush curbs on whole corner).• Only place mid-block curb ramps when:<ol style="list-style-type: none">1. it connects a major pedestrian corridor, and2. there is a marked crosswalk.• Curbs of ramp should always be concrete.• Use maroon, plastic warning strip when ramp meets concrete walk.• Strips are only required on curb ramps along streets (refer to U.S. Department of Transportation - Federal Highway Administration {Designing Sidewalks and Trails for Access - Part II of II: Best Practices Design Guide}). They are not required internal to any site.



Typical Curb Ramp



Plastic Warning Strip

