

CREATING A WORLD CLASS CAMPUS  
*for the Miller School of Medicine*

June 2008

## CREATING A WORLD CLASS CAMPUS

*was possible through the work of:*

### **University of Miami Miller School of Medicine**

Dean Pascal Goldschmidt  
Associate Dean José Szapocznik  
Ron Bogue  
Betty Fleming  
Janet Gavarrete  
Richard Jones  
Jacqueline Lopez  
Maria Padron  
Tonya White

### **University of Miami School of Architecture**

Dean Elizabeth Plater-Zyberk  
Chuck Bohl  
Dougal Hewitt  
Parry LaGro  
Joanna Lombard  
Ramon Trias

### **University of Miami School of Communication**

Dean Sam L. Grogg  
Associate Dean Sanjeev Chatterjee  
Edmund Talavera  
Jim Virga

### **Dover, Kohl & Partners**

*town planning*

Victor Dover  
Joseph Kohl  
Andrew Zitofsky  
James Dougherty  
Kenneth Garcia  
Jason King  
Canan Mutlu  
Pamela Stacy  
Amy Groves

### **Gibbs Planning Group, Inc.**

*retail planning*

Bob Gibbs

### **Hall Planning & Engineering, Inc.**

*transportation planning*

Rick Hall  
Tracy Hegler

### **UrbanAdvantage**

*computer visualization*

Steve Price

*and* Hundreds of University of Miami Miller School of Medicine faculty, students and staff, community participants, and representatives from the Miami Partnership, the Health District, the City of Miami, Miami-Dade County, and the State of Florida.

**MILLER**  
SCHOOL OF MEDICINE  
UNIVERSITY OF MIAMI

## WORLD CLASS CAMPUS PLAN



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## EXECUTIVE SUMMARY

### **Walkability & Transit**

The history of the area as a golf course, estate, and early hospital campus in the courtyard tradition, established a precinct that remained distinct from its surrounding residential blocks for the first half of the twentieth century. Over time, major highways and "arterial" roadways carrying increasing traffic past and across the region further isolated the area. Meanwhile the growth and integration of the district's institutions extended beyond its original boundaries. The UM Miller School of Medicine now actively spans NW 14th Street, as well as NW 7th, 9th, 10th, and 12th Avenues. Faculty, staff, patients, and visitors criss-cross the district on numerous daily trips. With more than 67,000 daily employees and visitors, the district is now a destination as large as many city centers.

A new definition for traffic and building is essential to support the current density of population and pedestrian activity. Streets must effectively provide safety, security, and pedestrian amenities. Lower street-design-speeds, parking lanes, street trees and expansive sidewalks are essential to walkability. Buildings with first floor occupancies that contribute to a lively urbanism through active uses—shops, cafés, public offices and entrances—along with covered walkways, loggias and arcades to protect from tropical sun and rains, should work together with the streetscape to secure walkability.

Transit throughout the district should augment walkability with easy pedestrian access to predictable routes and stops for shuttles, as well as providing comfortable pathways for wheelchairs, along with internal routes for bicycles and golf carts.

### **Sustainability**

Sustainable urbanism is the foundation of successful green architecture. Sustainable urbanism provides life's essentials within a five-minute radius walk. Since fuel consumption contributes 40% of the contaminants in the air, the substantial reduction of fuel consumption through sustainable urbanism is a radical and significant contribution.

A sustainable community depends on the integration of housing, retail and workplaces to create the 24/7 dynamism that supports a productive community and increases safety and security.

Economic sustainability is the result of highly efficient land use, which requires the design of the spaces between buildings, and in some cases, the addition of new structures in front and in back of existing buildings to introduce commercial and street-oriented activities in strategic locations.

## Character

Memorable places depend on urban “fabric,” significant public spaces, and landmark buildings. The redefinition of the campus as an urban destination with streetscapes of vibrant buildings and sidewalks establishes the urban fabric. The urban fabric is then organized into well-defined plazas and greens to form significant public spaces. At specific strategic locations, a landmark building reinforces character and imageability of place.

Character of place becomes uniquely memorable when the location, climate and history of a particular place are drawn forward into the future. Architectural traditions that respond to local conditions will form a connecting language that links buildings across function and time. The history and character of the UMMSM is rooted in local traditions of shady colonnades and sunny courts.

Unifying elements appropriate to the UMMSM include continuous, active streets frontages lined with arcades, colonnades and loggias, along with clearly defined lobbies and entrances. Orchestration of supporting elements of service and distribution, along with access to internal parking structures is essential to maintaining a dynamic and memorable public realm. Landscape and garden elements of entrances, fountains and greens reinforce the distinctive urbanism of the campus.

## MILLER SCHOOL OF MEDICINE

The University of Miami Miller School of Medicine, an academic medical center founded in 1952, is proud to serve Miami, South Florida, South America, and the Caribbean in education, research, patient care, and community service.

The founders of the Miller School of Medicine were true visionaries. They anticipated the tremendous need for excellent medical care within our community and set into motion a plan for the facility that now treats more than 1,000,000 patients annually.

- University of Miami Miller School of Medicine Website, <http://www.med.miami.edu/about/index.asp>

### Mission Statement:

- *To provide excellence in medical education.*
- *To expand medical knowledge through research.*
- *To provide high-quality care to those who need it.*
- *To be a community partner.*



The Medical Campus has a variety of urban conditions, from high-rise buildings to shady courtyards.



Aerial view of campus looking northwest

## A UNIFIED VISION

In January 2007, the University of Miami Miller School of Medicine (UMMSM) initiated a process to plan the future of the campus to ensure that all future development enhances the quality of life of the faculty, staff, students, patients, visitors, and neighbors. Chief among these goals is the role of the campus as a model healthy community.

In September 2007, the UMMSM community, along with individual and institutional neighbors joined together with Dover, Kohl & Partners to create a vision for a world class campus through a ten-day, open door, community planning process.

As the UMMSM continues to advance as a leader in medical education, patient care, and research, and the need for facilities grows, it will be increasingly important to carefully craft and design the public spaces in an effort to promote a sense of well-being both inside and outside of campus buildings. An important goal is the identification and design of spaces that nurture the dynamic of the campus, while offering increased opportunities for green and gathering spaces for both the UMMSM and its neighbors.

## OBJECTIVES

### *Develop a Unified Campus Vision*

Through continued participation from the University of Miami Miller School of Medicine community, the World Class Campus Plan establishes the design guidelines for future buildings and public spaces.

### *Establish a Campus Identity*

The UMMSM is a city within the City of Miami, and should be instantly recognizable as a destination.

### *Enhance Urbanism*

The plan focuses on opportunities to foster a dynamic urbanism with a vision for the spaces between buildings and the way in which the built environment enhances the wellness of the UMMSM community.

### *Improve Circulation*

Vehicular and pedestrian connections were studied, and design solutions focus on promoting safe and easy access, while reducing congestion.

### *Increase Walkability*

Attractive, safe and connected routes are essential to campus life. Proposals enhance existing pathways and provide new, protected passageways.

### *Anticipate Future Growth*

Evaluating current development patterns and future expectations allow the plan to anticipate and accommodate the University's future.



Aerial view of campus



The Alamo, Jackson Memorial Hospital, 1933

*Photo courtesy of State Library & Archives of Florida*



Halisee Hall (John Sewell Home), 1921

*W.A. Fishbaugh, State Library & Archives of Florida*



Miami Country Club, 1933

*Photo courtesy of State Library & Archives of Florida*

## SITE HISTORY

The UMMSM campus is located on what was originally a rich landscape between the Miami river and the Allapattah Prairie. As early as 1857, the site hosted William Wagner's home (now in nearby Lummus Park) and mill along Wagner Creek. In the 1920s a number of gracious institutions grew up on the site, including Jackson Memorial Hospital, the expansive Golf Links and later the Miami Country Club. Mayor Sewell's landmark estate and home, Halisee Hall overlooked broad greens leading down to the Miami River. The adjacent 1911 housing development of Highland Park continued the emphasis towards the natural environment with tree-lined streets, circular greens and gardenesque gateposts of oolitic limestone.

Although located in what was fast becoming an urban center, the origin of the site as a golf course, country club and estate affected the development of the campus. Instead of growing within the continuity of the surrounding block structure, campus buildings were placed independent of the urban context. The newest generation of campus buildings work to rectify the eccentric placement of buildings. This can be seen in the manner in which the Lois Pope LIFE Center is positioned along the street grid and frames the Schoninger Research Quadrangle.

## SITE TOUR

During August 2007, the project team met with groups throughout the campus to identify areas of opportunity and challenge. This information was compiled into base maps that were used to analyze the site conditions. At the beginning of the Charrette, the project team annotated the maps on walking tours of the campus and Health District to fully document all aspects of the site conditions and existing infrastructure.

During the extensive August meetings and through numerous website submissions, UMMSM constituents identified the most successful public spaces of the campus-- the Schoninger Research Quadrangle and the patch of green that many call, "the enchanted forest." The team applied the characteristics of the most appreciated public spaces in the design of new public spaces.

Appreciation for the two remaining historic buildings on campus inspired further study of the history of the site. The design team analyzed "The Alamo," a building opened as the original City of Miami Hospital in 1918, and renamed the James M Jackson Memorial Hospital in 1924. It also looked at Halisee Hall, the house of John Sewell, built in 1912 and completed in 1918 to command a grand view across a 14-acre estate.



NW 7th Avenue



NW 14th Street



The Schoninger Research Quadrangle



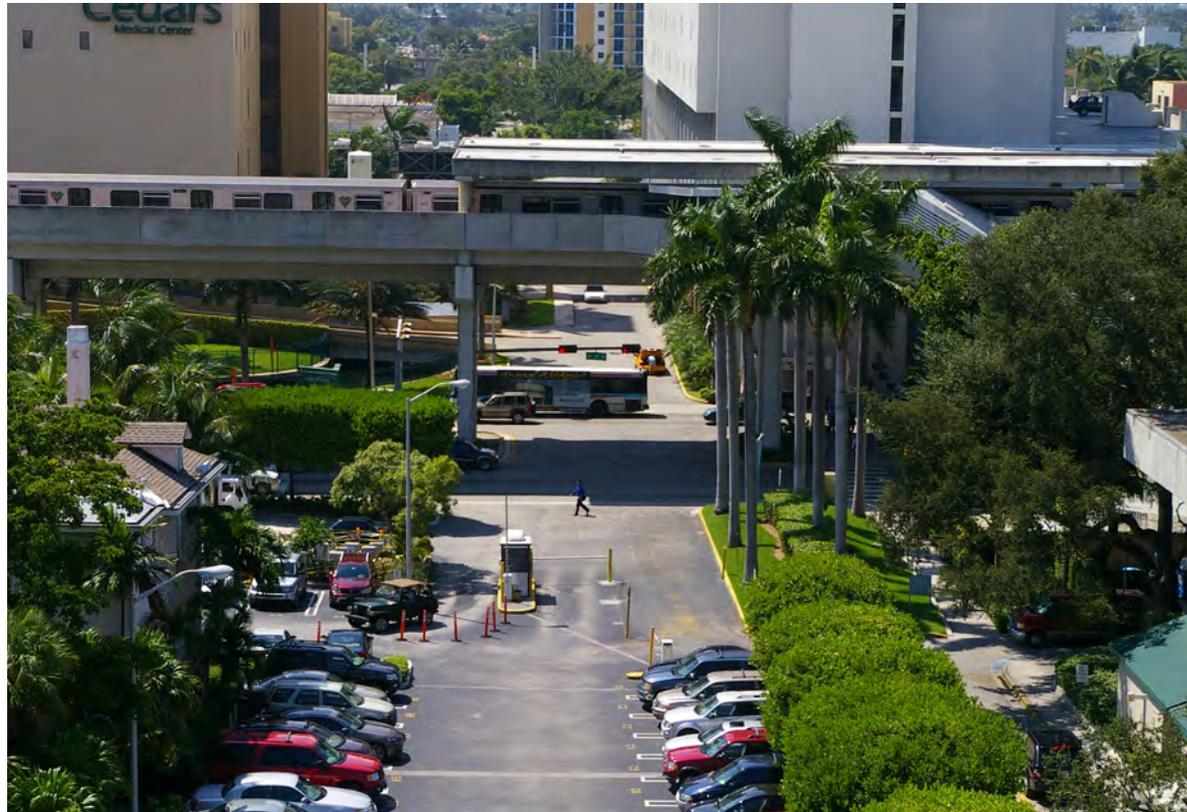
The Enchanted Forest



The Alamo



Halisee Hall (John Sewell House)



View from Park Plaza West looking east



NW 14th Street, looking east



Miami Metrorail Civic Center Station

## CONNECTIVITY ANALYSIS

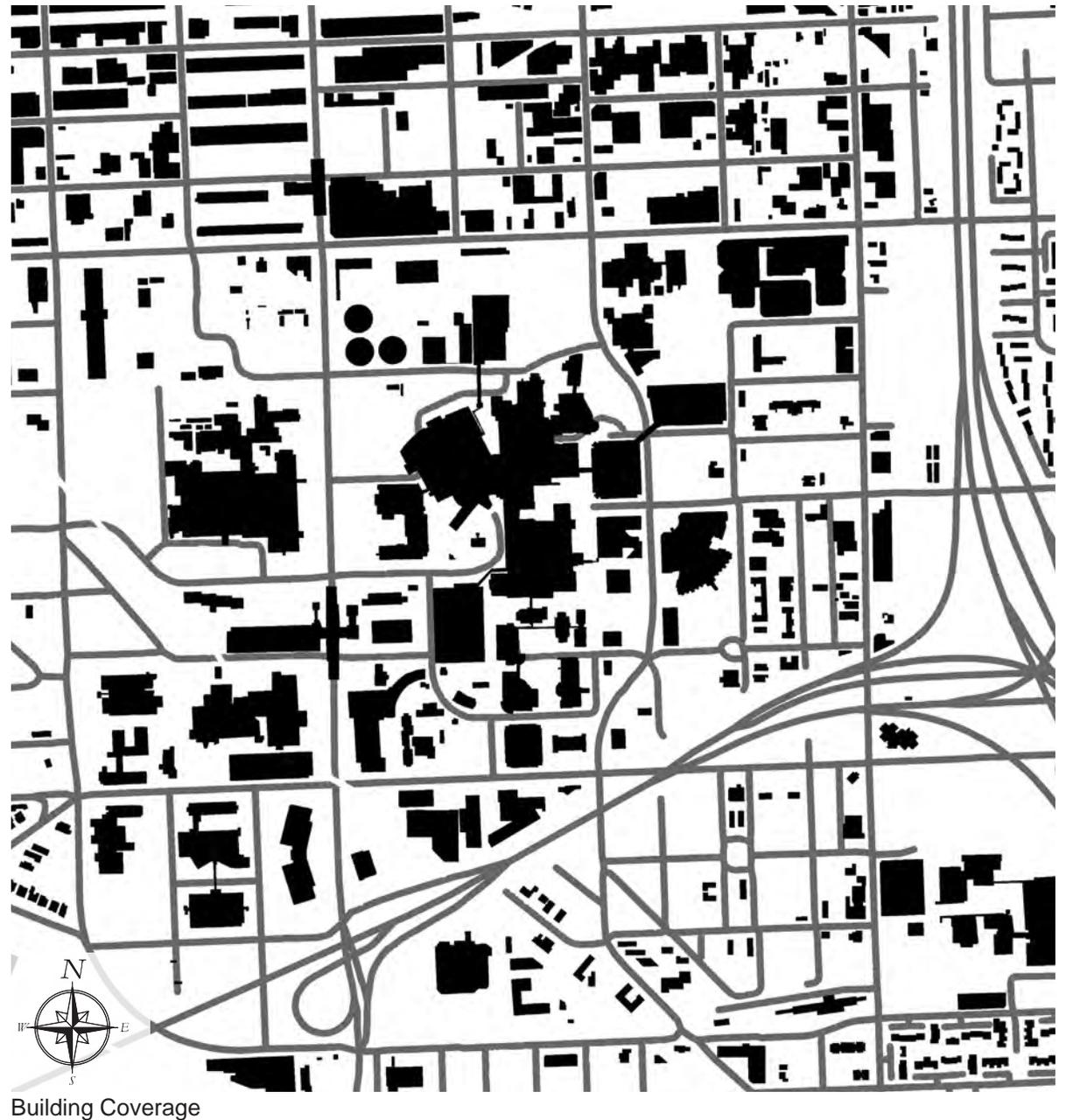
Pre-charrette meetings with the University of Miami Department of Real Estate and Facilities and UMMSM Department of Facilities and Support Services provided analysis of service and security. Campus pathways and alleys were documented on maps to identify opportunities for greater connectivity of pedestrian pathways as well as automobile and service access. The team then conducted field surveys to verify these locations and identify site opportunities.

Based on discussion with representatives of neighboring institutions, the team also surveyed the streets of the Health District to determine street dimensions and traffic flow. Understanding that the current Health District is a high-speed vehicular environment, the team identified opportunities to redesign the District as a walkable urban center.

SITE ANALYSIS DIAGRAMS

**Building Coverage**

Studying the building footprints of a given area helps identify the spaces between buildings, which allows for a thorough analysis of the public realm. On the map to the right, all buildings within the study area and its immediate surroundings have been shaded black. From this study it becomes easy to see the ill-defined resulting public spaces between them.

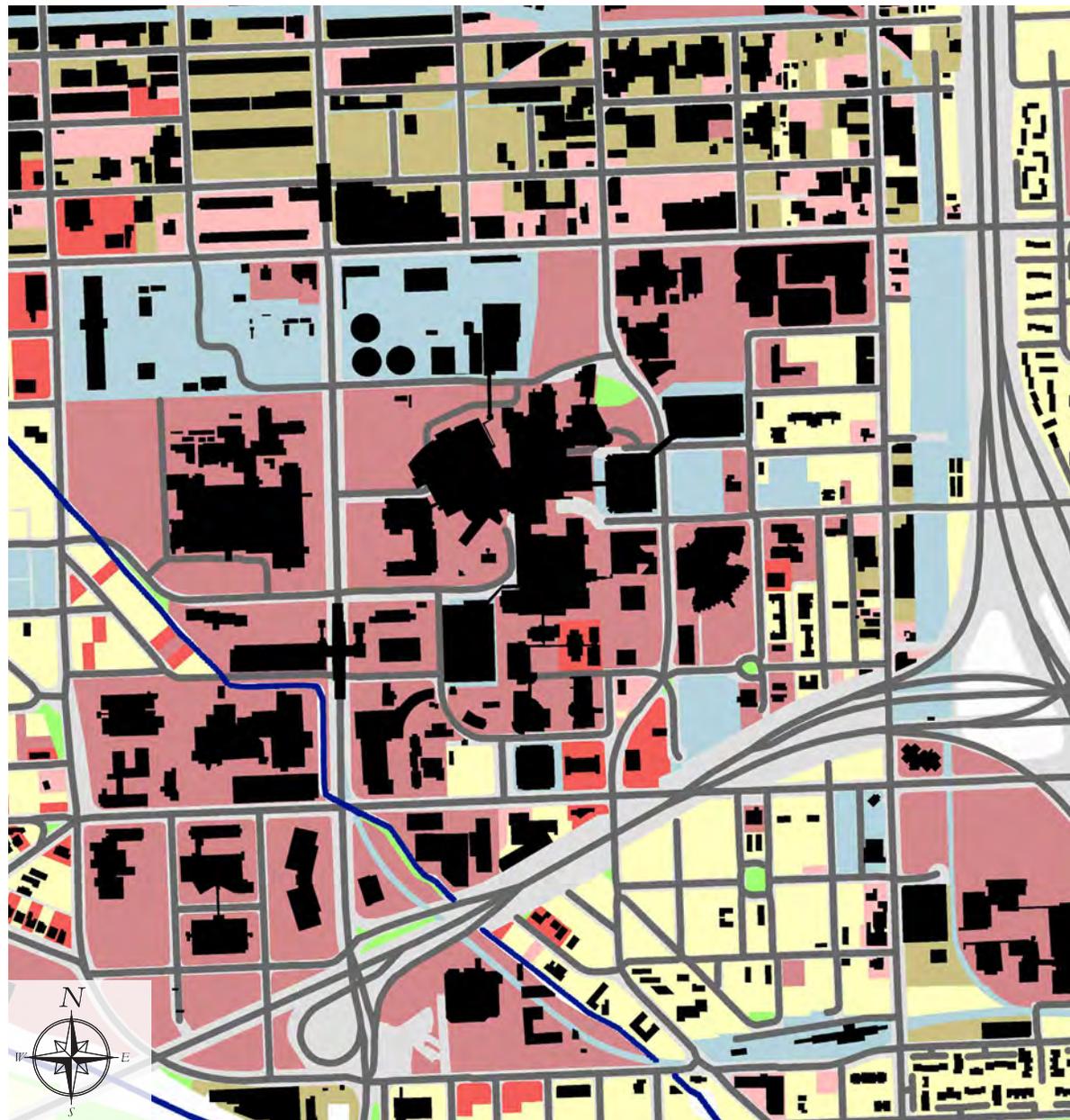


*\*The analysis diagrams are based on GIS information provided by the City of Miami; any inconsistencies with this data should be brought to the attention of the City.*

SITE ANALYSIS DIAGRAMS

**Existing land use**

Most of the UMMSM Campus is categorized as "Institutional" by City of Miami Land Use Maps (2005). Concentrations of residential uses are located across the Dolphin Expressway to the south and east. Utilities are located north of the campus and along the western edge of the highway.



- Office
- Institutional
- Utilities
- Residential
- Parks
- Industrial

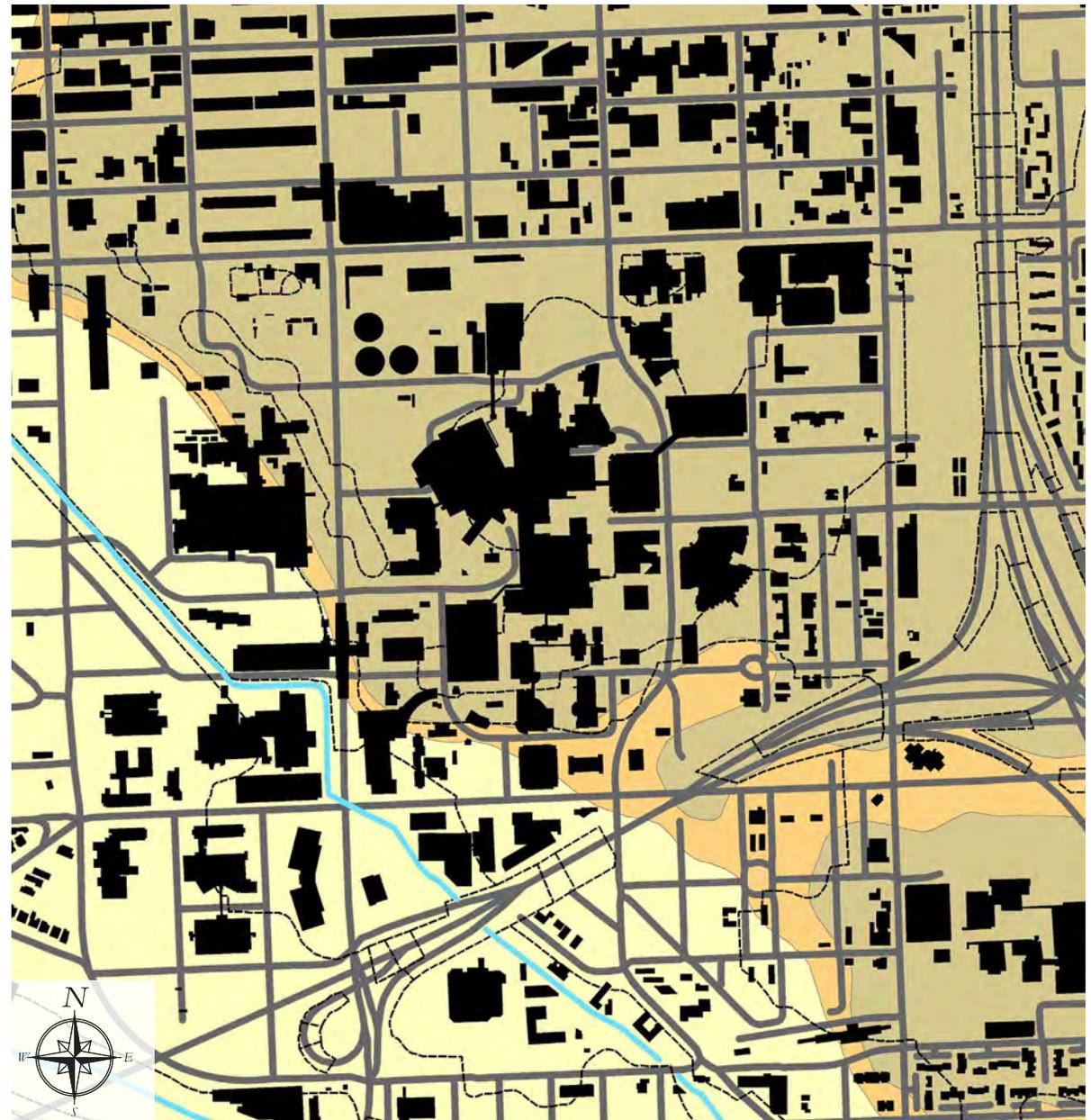
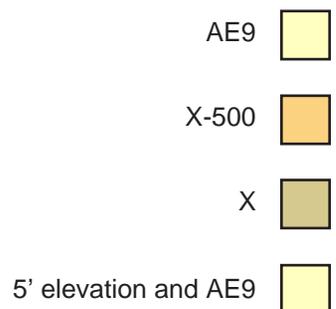
Existing Land Use

### SITE ANALYSIS DIAGRAMS

#### Flood Zones

Flood zones are geographic areas that the Federal Emergency Management Agency has defined according to varying levels of flood risk. These maps are color-coded to indicate the designated flood zones.

Most of the UMMSM Campus is located in Flood Zone X and X-500 and structures may be built on-grade. However, existing structures and potential structure locations along Northwest 14th Street are located in AE9 with an approximate elevation of 5'. A survey is necessary to determine the exact elevations but in general new structures in AE9 will be required to build their first floor 4' above the 5' elevation to the 9' requirement of AE9.



Flood Zones

SITE ANALYSIS DIAGRAMS

**Property Ownership**

The University of Miami Miller School of Medicine and its neighbors are members of the Miami Health District. While the district is composed of many entities, they hold a shared vision to create a unique and walkable district for patients, staff, visitors and residents. The map to the left indicates the UMMSM parcels, which are shaded in green.



 UM Property

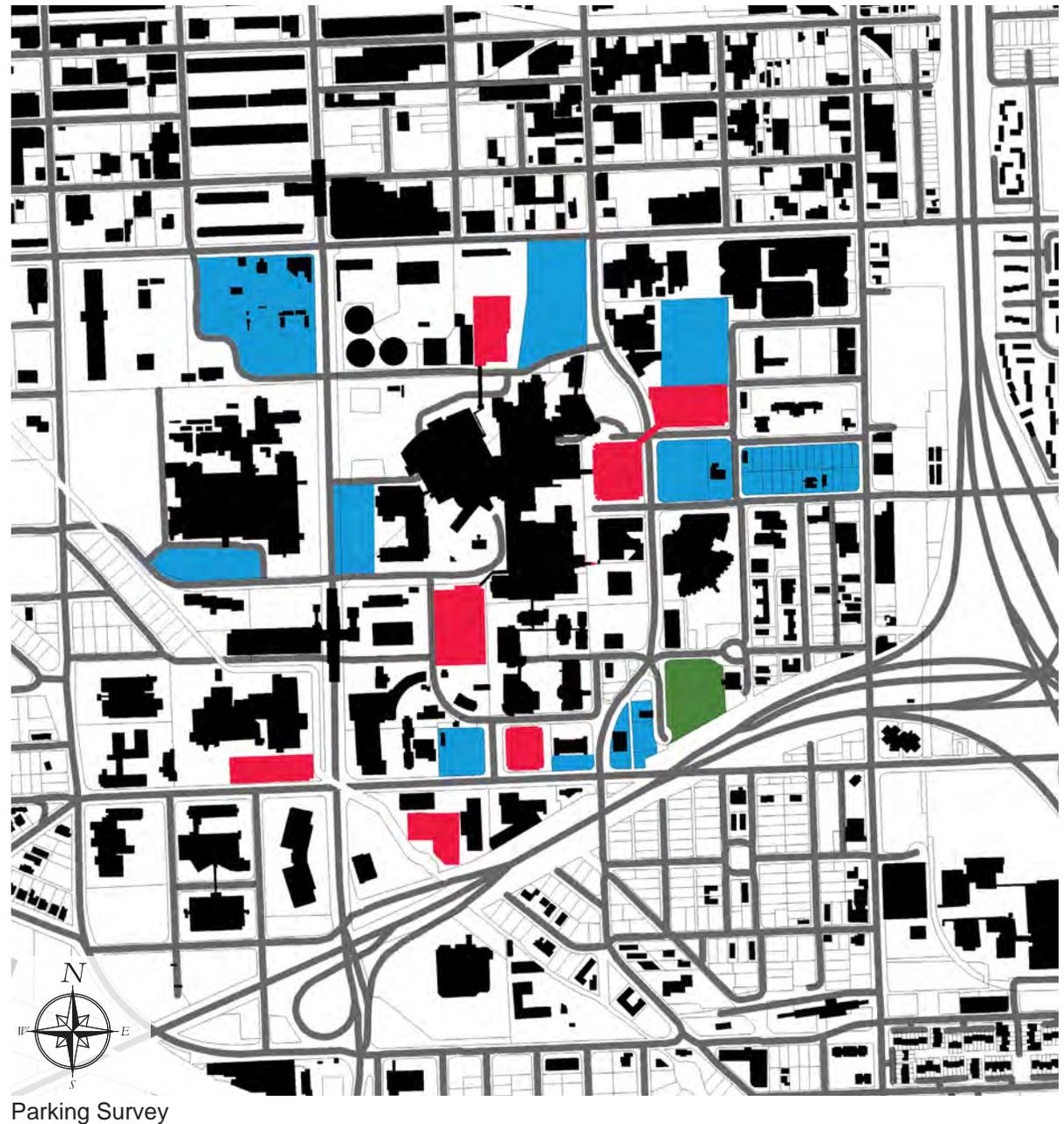
University of Miami Miller School of Medicine Property

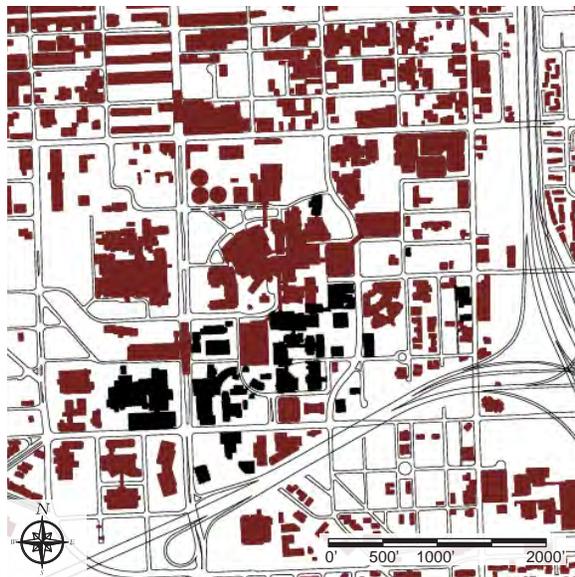
SITE ANALYSIS DIAGRAMS

**Current Parking Conditions**

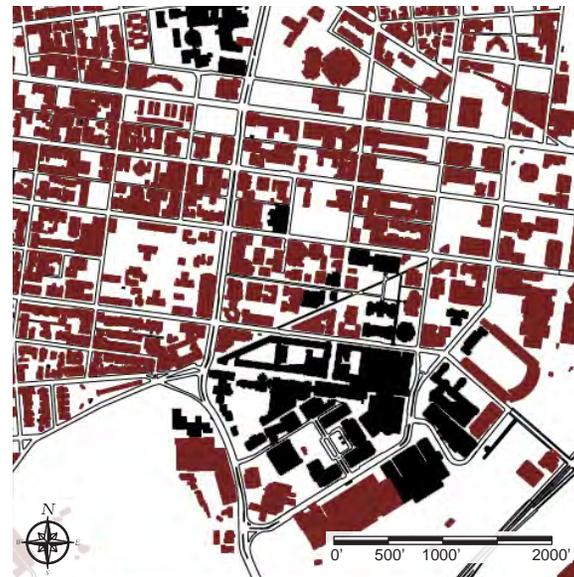
The location of accessible parking within the UMMSM campus is extremely important for all campus users. Parking must be readily available and convenient to all campus buildings. The current configuration of parking on campus works to solve parking demand issues but ignores the public realm. Parking garages with blank walls facing public spaces create safety concerns for pedestrians while surface parking lots make certain locations feel unsafe to pedestrians. Future parking solutions must address both of these concerns.

- Large Surface Parking Lots 
- Parking Garage 
- Future Parking Garage 

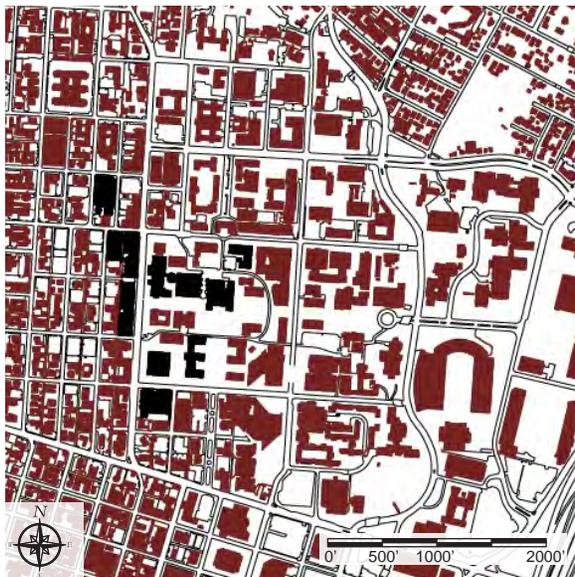




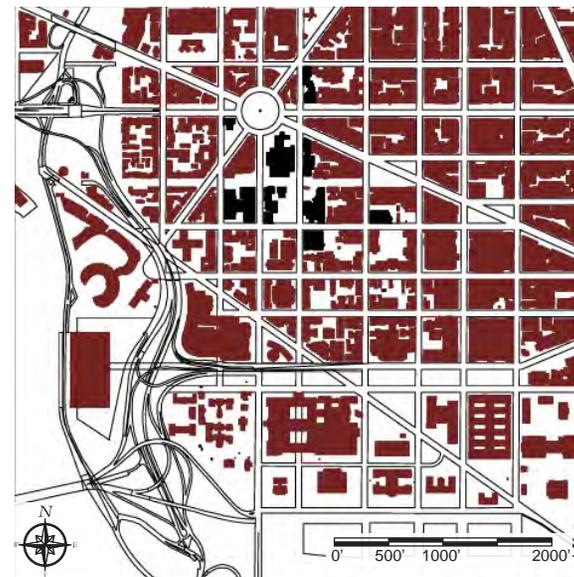
University of Miami Miller School of Medicine



University of Pennsylvania School of Medicine



University of Texas Medical School at Houston



George Washington University School of Medicine

### SCALE COMPARISONS

These figure ground diagrams compare the street and block pattern of UMMSM with other medical campus areas at the same scale as the UMMSM campus. All buildings are shaded and all streets and open spaces are left white. In these diagrams, medical school buildings are shaded black, and all other buildings are shaded sienna .

Comparing the diagrams, the UMMSM campus has a less defined public realm. There are greater areas of discontinuous and undefined space, and the street network is often interrupted. The block structure is large and irregular, and buildings do not relate to the street. This adversely affects pedestrian life, which requires continuity of blocks and streets, and continuous building frontage.

Walkability depends on specific dimensions of sidewalks and blocks, and relies on building alignment and position to create a comfortable public realm. Establishing a clear and consistent street edge through building placement and ground floor uses will enhance the pedestrian experience.

## COMMUNITY INPUT

After months of discussion, planning, meetings and analysis, the charrette opened on September 12th to an overflow audience in the Broad-Bussel Auditorium of the Gordon Center for Research in Medical Education, in the Clinical Research Building. With representatives from the City of Miami, Miami-Dade County and the Miami Partnership, Dean Pascal Goldschmidt welcomed the community and introduced the charrette process as a tool to build a vision for the future. Victor Dover explained the fundamental urban design principles relevant to the process while transportation engineer Rick Hall explained the essentials of streetscapes and walkability.

The entire UMMSM campus community was invited to visit the studio, located on the 6th floor of the Clinical Research Building and specifically to attend the hands-on design session which provided an opportunity to work in small groups to set out ideas for the design team to analyze and develop. A representative from each working group presented the group's ideas and the drawings remained posted in the studio to encourage further thought and input. In addition to the session itself, short-form surveys were posted and visitors joined the team throughout the week to share ideas.



Dean Goldschmidt welcomes the community.



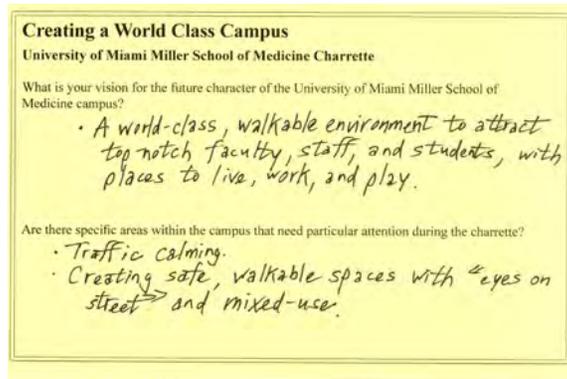
Boards of the study area displayed in the lobby.



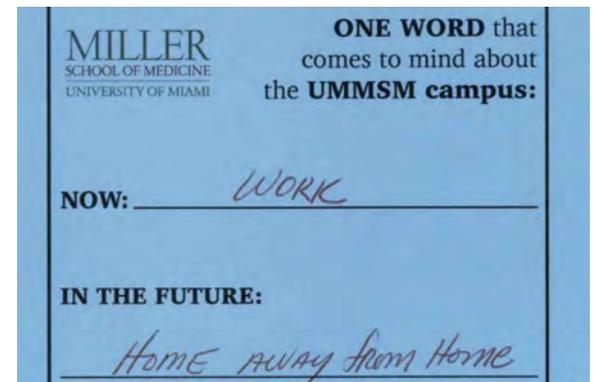
Table groups draw their vision for the campus.



A participant presents her group's work.



Participants give input through comment cards.



One-word cards reveal the community vision.



## TECHNICAL SESSIONS

Throughout the week, the team held Technical Sessions with a range of consultants to discuss specific areas important to the future of the campus. A wide range of interests were represented in these sessions which included a Developers Forum, attended by District and regional landholders, a Miami Partnership Stakeholders session, a Retail Analysis briefing, a Student Forum, a Patient Forum, and a Transportation Group, as well as sessions with representatives from the City of Miami, Miami-Dade County and the Florida Department of Transportation.

Two days before the charrette closing presentation, the team exhibited all the work to date in an Open House. More than a hundred visitors joined the team throughout that day to review the work, raise questions, and refine the ideas presented.

After internal reviews of the results of all the Technical Sessions and the discussions of the Open House results, the team revised the plans to produce a series of recommendations that represent the consensus of the University of Miami Miller School of Medicine campus community and the planning methods necessary to achieve these goals.



Developers from the area gather to discuss upcoming projects.



Technical meetings focus on specialized topics.



Stakeholders review the plan at the Open House.



## FUNDAMENTAL DESIGN CONCEPTS

### *Walkability*

Establish a fine-grained network of covered walkways, and shaded, well-lit sidewalks.

### *Fronts & Backs*

Maintain an organized pattern that distinguishes service access from public faces of buildings and eliminate "back-of-house" functions and blank walls from public spaces.

### *Street Make-overs*

Redefine the Health District as a walkable urban district and transform streets into pedestrian friendly places with lower design speeds, widened sidewalks, properly positioned street trees, on-street parking, and storefronts.

### *Mixed-Use*

Nurture residential, hotel, and retail uses; market the opportunity collaboratively.

### *Signature Places*

Establish a legible, navigable campus through a recognizable set of outdoor "rooms," linking existing and newly created greens and plazas.

### *Architectural Norms*

Create a memorable campus identity through the use of design guidelines that specify street-oriented architectural components for new projects, as well as renovations to existing buildings.

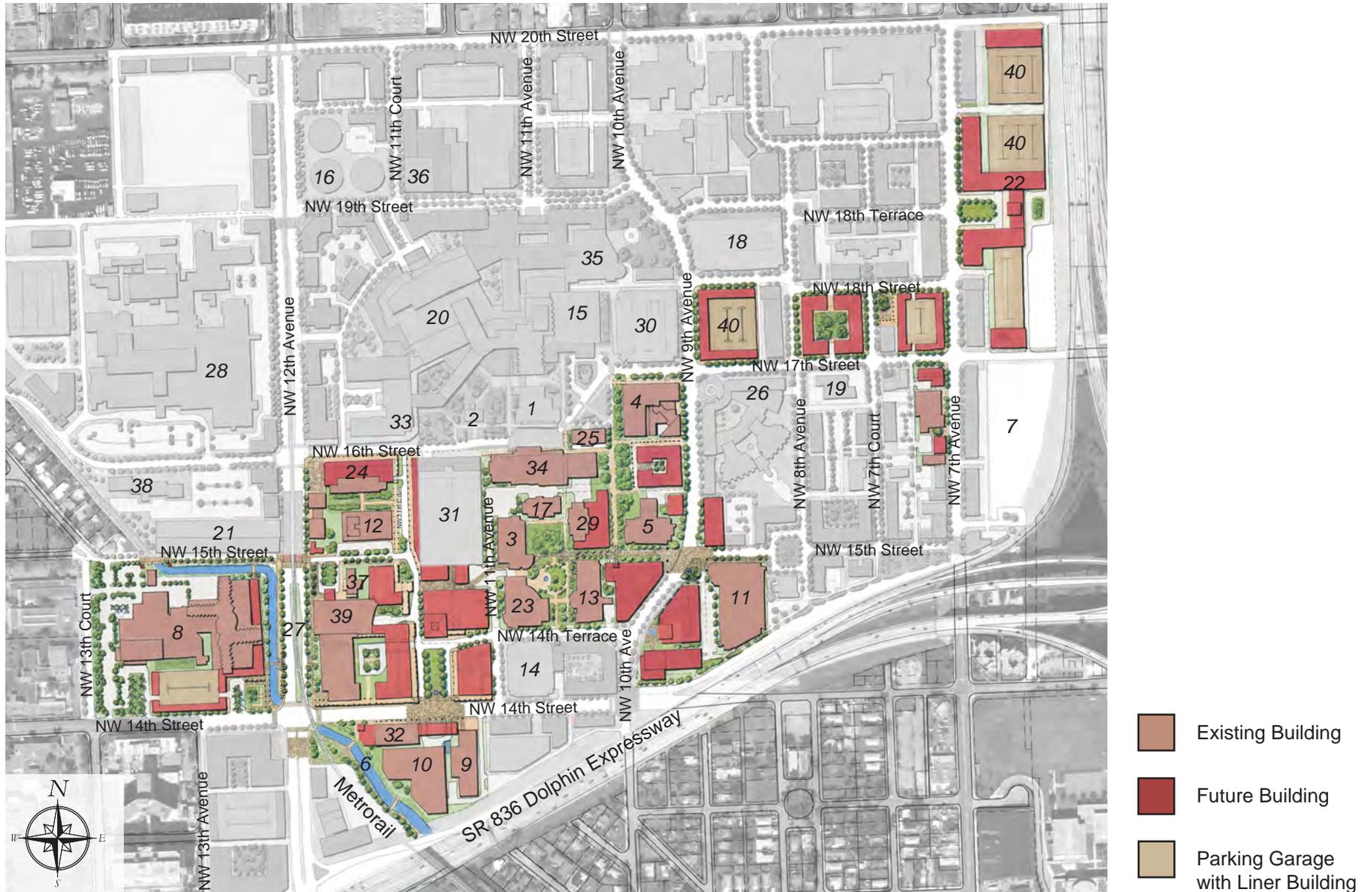
Lois Pope LIFE Center

## ILLUSTRATIVE MASTER PLAN

Highlighting the design of the streets, buildings, and open spaces of the proposed campus development, the Illustrative Master Plan locates new buildings to create dynamic gathering places and enliven the public realm. Well-situated buildings that enhance the streetscapes, plazas and greens, yield a significant return in the quality of the campus life.

All proposed buildings present a public face with doors, windows, colonnades, arcades and loggias onto neighboring streets, plazas or greens. This contributes to the life of the campus. All new streets and pathways connect to a network of public plazas and greens throughout the campus. Specific streets are designated for service functions, while other streets are designed to become signature streets within campus. New buildings respond to the character of the street so that some buildings will form pathways and plazas, and several buildings will become important and memorable focal points.

- |  |   |
|--|---|
| 1 ACC West                                 | 21 Jackson Towers                         |
| 2 Alamo                                    | 22 Life Science Center                    |
| 3 Bachelor's Children's Research Institute | 23 Lois Pope Life Center                  |
| 4 Bascom Palmer Eye Institute              | 24 Mailman Center                         |
| 5 Biomedical Research Building             | 25 McKnight Building                      |
| 6 Canal                                    | 26 Mental Health Center                   |
| 7 Camillus House Site                      | 27 Metro Rail Civic Center Station        |
| 8 Cedars Medical Center                    | 28 Miami Veteran's Affairs Medical Center |
| 9 Clinical Research Building               | 29 Pananicolaou                           |
| 10 Clinical Research Building Garage       | 30 Park Plaza East                        |
| 11 Data Center & Garage                    | 31 Park Plaza West                        |
| 12 Debbie School                           | 32 Professional Arts Center               |
| 13 Diabetes Research Institute             | 33 Rehabilitation Center                  |
| 14 Dominion Towers Parking Garage          | 34 Rosenstiel Medical Science Building    |
| 15 Emergency Care Center                   | 35 Ryder Trauma Center                    |
| 16 Fresh Water Supply                      | 36 Service Station                        |
| 17 Gautier Building                        | 37 Sewell House                           |
| 18 Highland Garage                         | 38 Singer Plaza                           |
| 19 Highland Park Pavilion                  | 39 Sylvester Comprehensive Cancer Center  |
| 20 Jackson Memorial Hospital               | 40 Parking Garage (with building above)   |

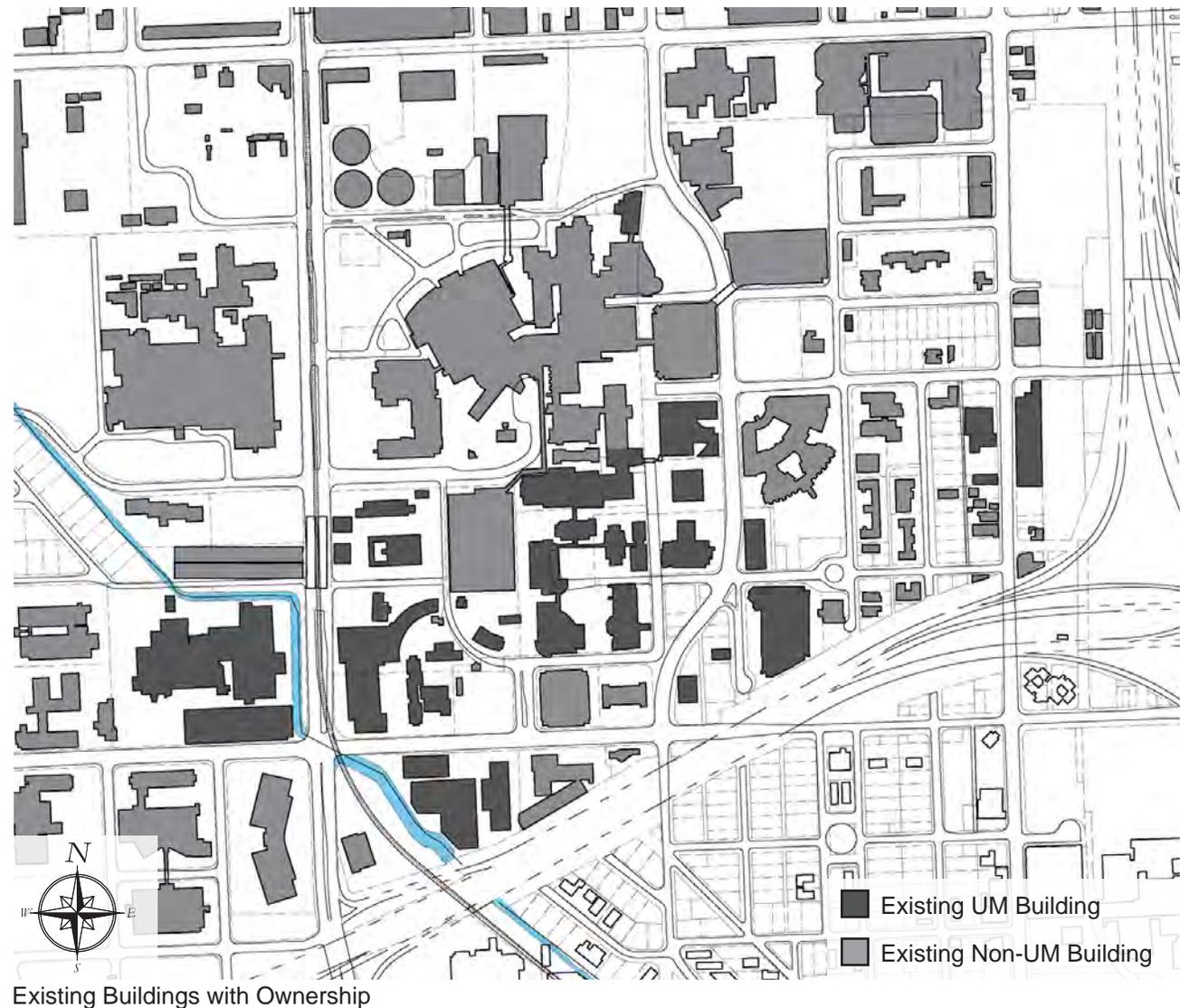


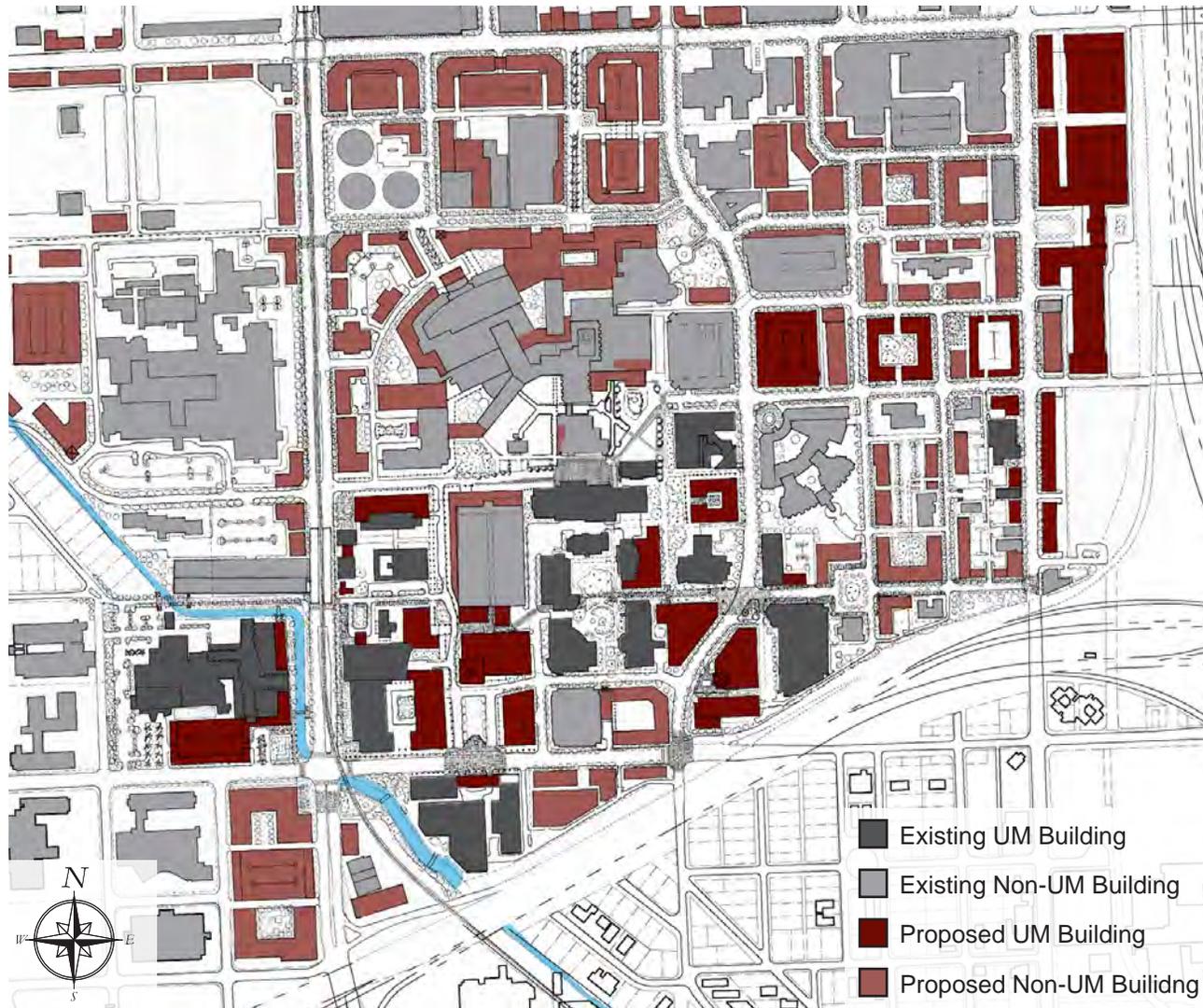
Note: The Illustrative Master Plan represents the aspiration of a completed campus. Implementation of the Master Plan can begin with renovations of existing buildings, as well as the proper siting and ground level uses of new buildings, and work toward completion on a project by project basis.

## URBAN PATTERN

The figure-ground diagrams reveal the need for buildings to define streets and public spaces and to establish the order and legibility necessary to create a comfortable and usable campus, situated in a lively urban context. Well-defined blocks and landmark buildings contribute to easy way-finding through familiar and predictable patterns of buildings and streets.

The existing figure-ground plan shows all existing buildings regardless of ownership. Constituent sessions continuously raised concerns for safety, orientation and connectivity. The diagram reveals the reasons for these perceptions- current conditions of undefined spaces and disconnected building relationships- and confirms the need for defined blocks, continuous building faces and greater connectivity.





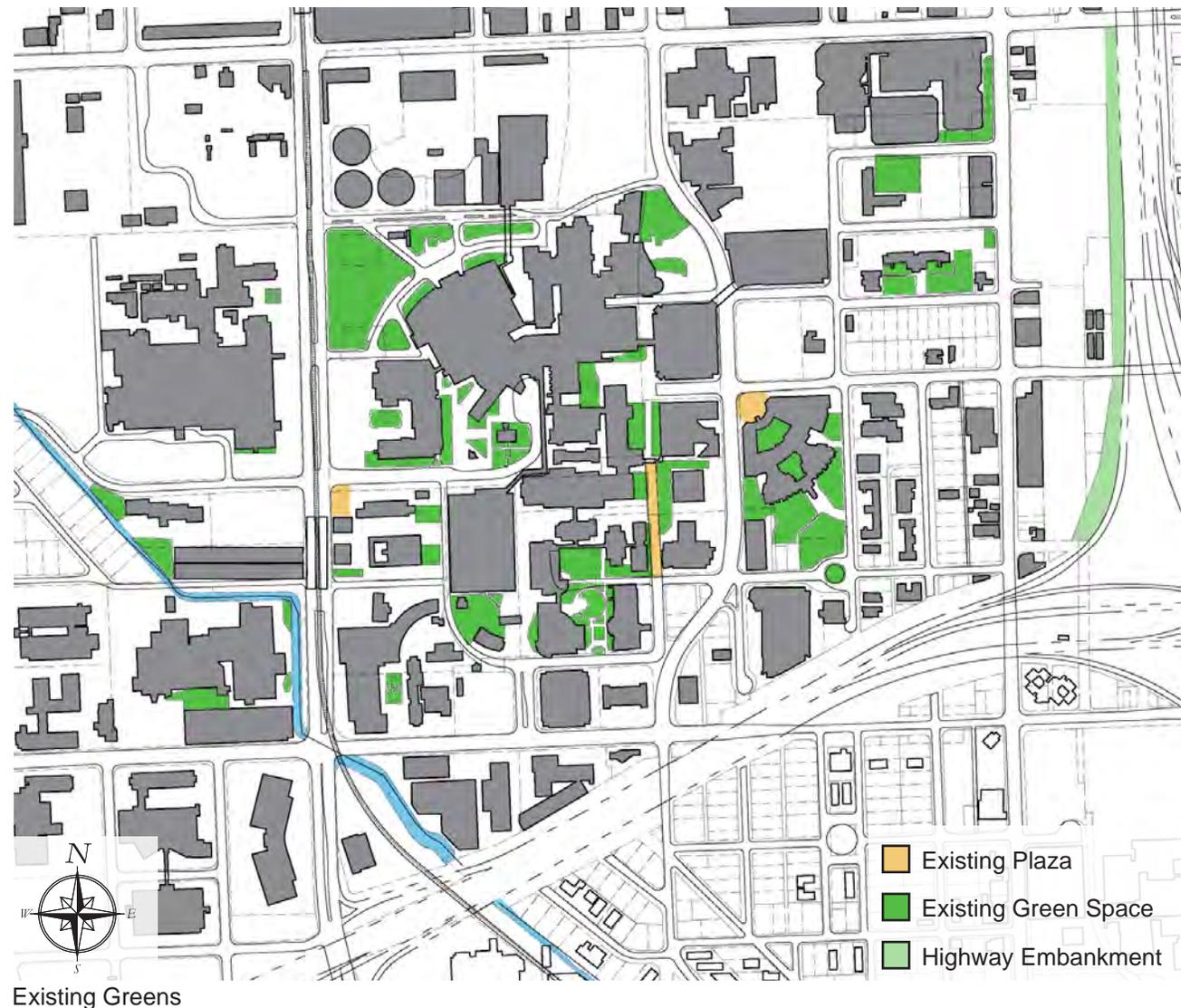
Existing and Proposed Buildings with Ownership

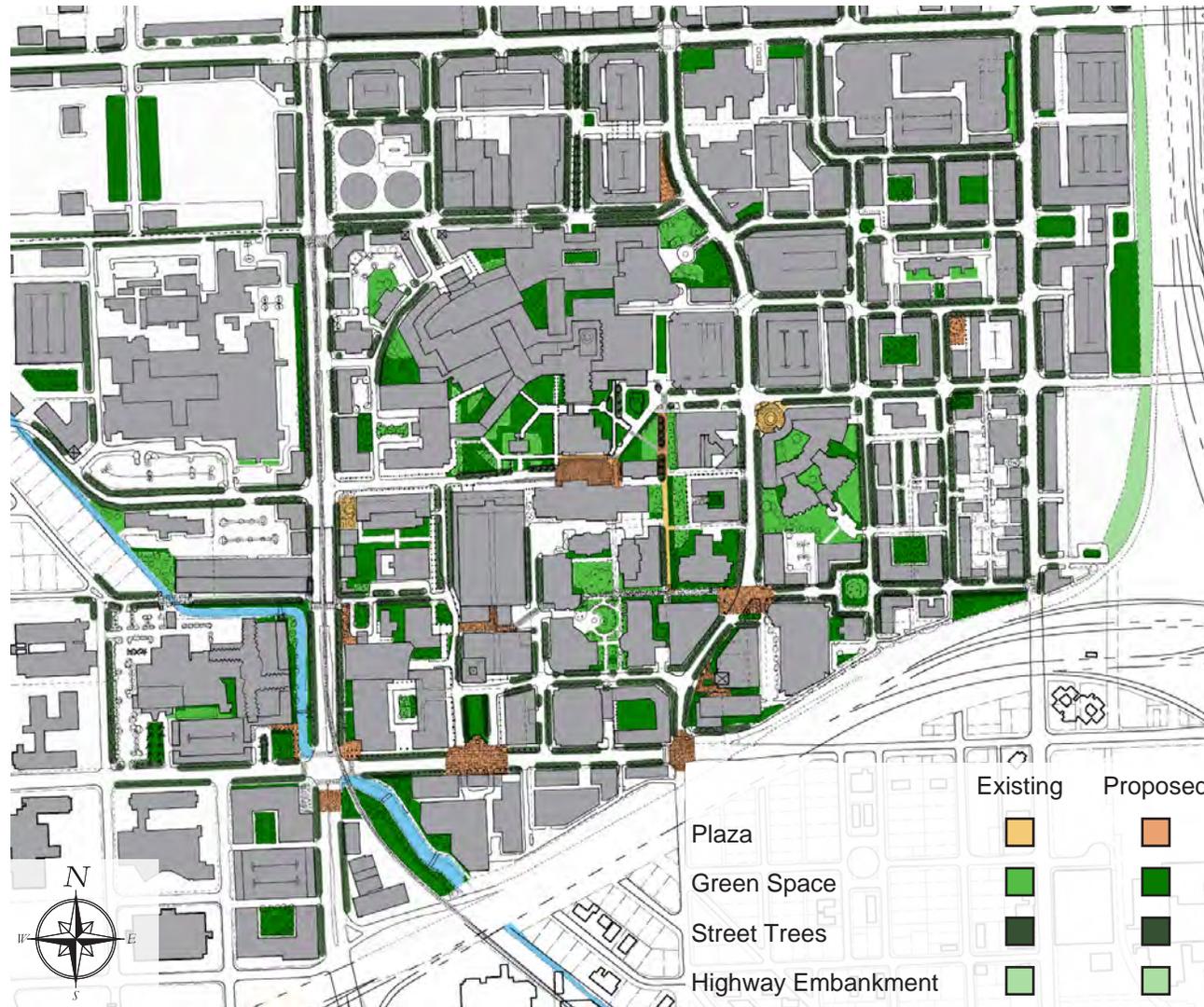
The existing and proposed buildings with ownership diagram shows how UM and neighboring property owners can work together towards a shared vision of a more walkable, connected Health District.

The Master Plan proposes in-fill buildings and streets that mend the urban fabric. These new buildings and streets define space, create new connections through the district, and provide a continuous street frontage. These elements contribute to the safety of the district, and create a more comfortable pedestrian environment.

## GREEN NETWORK

The Existing Greens diagram shows the functioning and designated greens throughout the Health District. Constituent sessions identified successful and challenging areas on campus. During these sessions, faculty, students and staff consistently called for a connected green experience to traverse the District because they spend a great amount of time walking through the campus as well as to neighboring institutions. The historic “Alamo” green, sited on the Jackson Memorial Hospital grounds is a campus favorite. Many constituents also enjoy the Schoninger Quadrangle and requested greater connectivity from the Schoninger Quad to other greens.





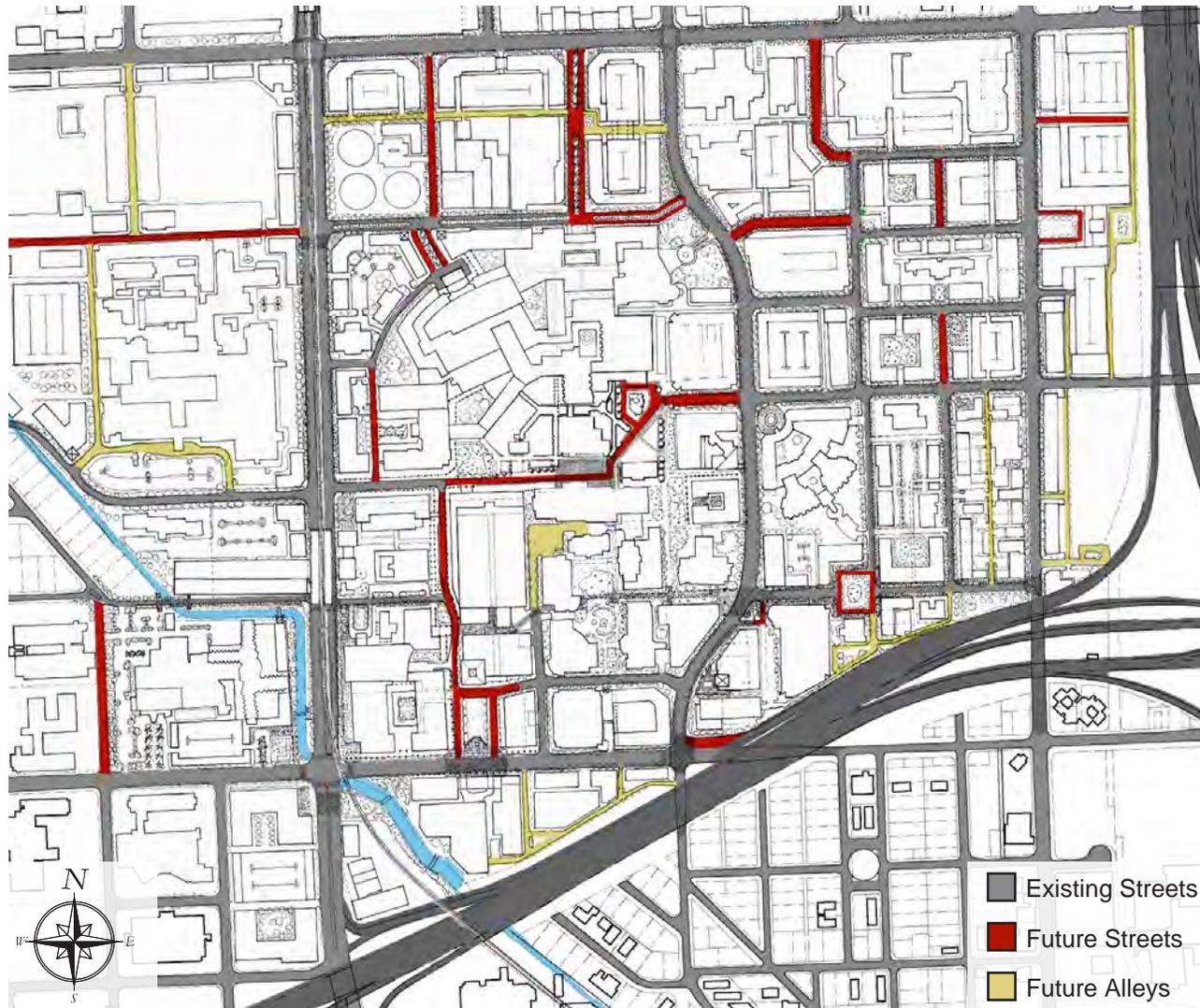
The Future Greens diagram shows a series of connected greens that make it possible to walk through park-like spaces within the campus. This concept could be extended throughout the Health District. The dimension, character and quality of the greens varies so that some spaces offer large gathering places, while others present small, quiet, or even meditative spots. Walking trails and outdoor recreation areas supplement work and eating areas to provide a range of greens that encourage greater outdoor life.

Proposed Greens

**STREET NETWORK**

Internal greens and networks depend on an outer ring of walkable streets. The Existing Streets diagram illustrates the limited streetscape presence of the medical campus.



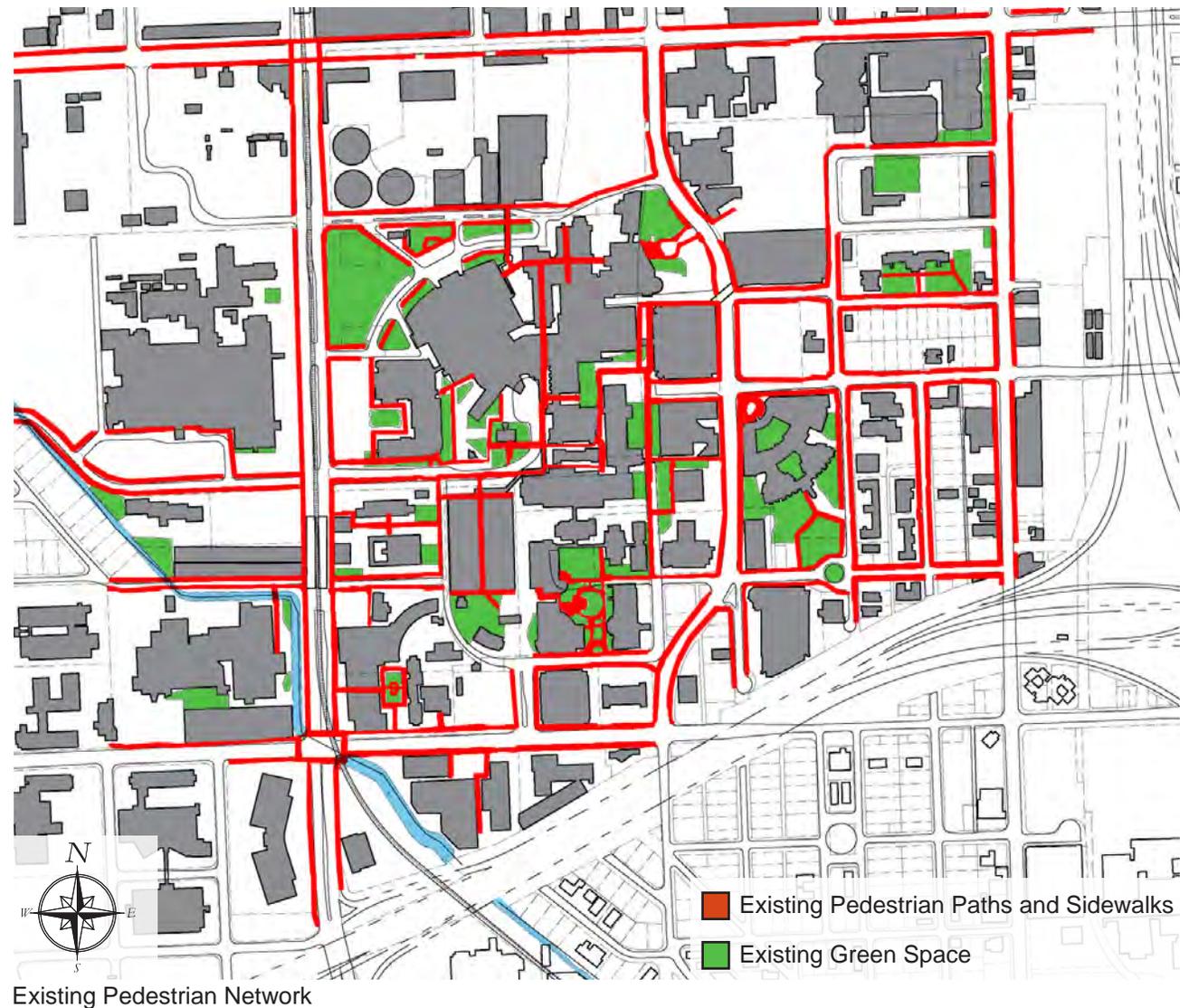


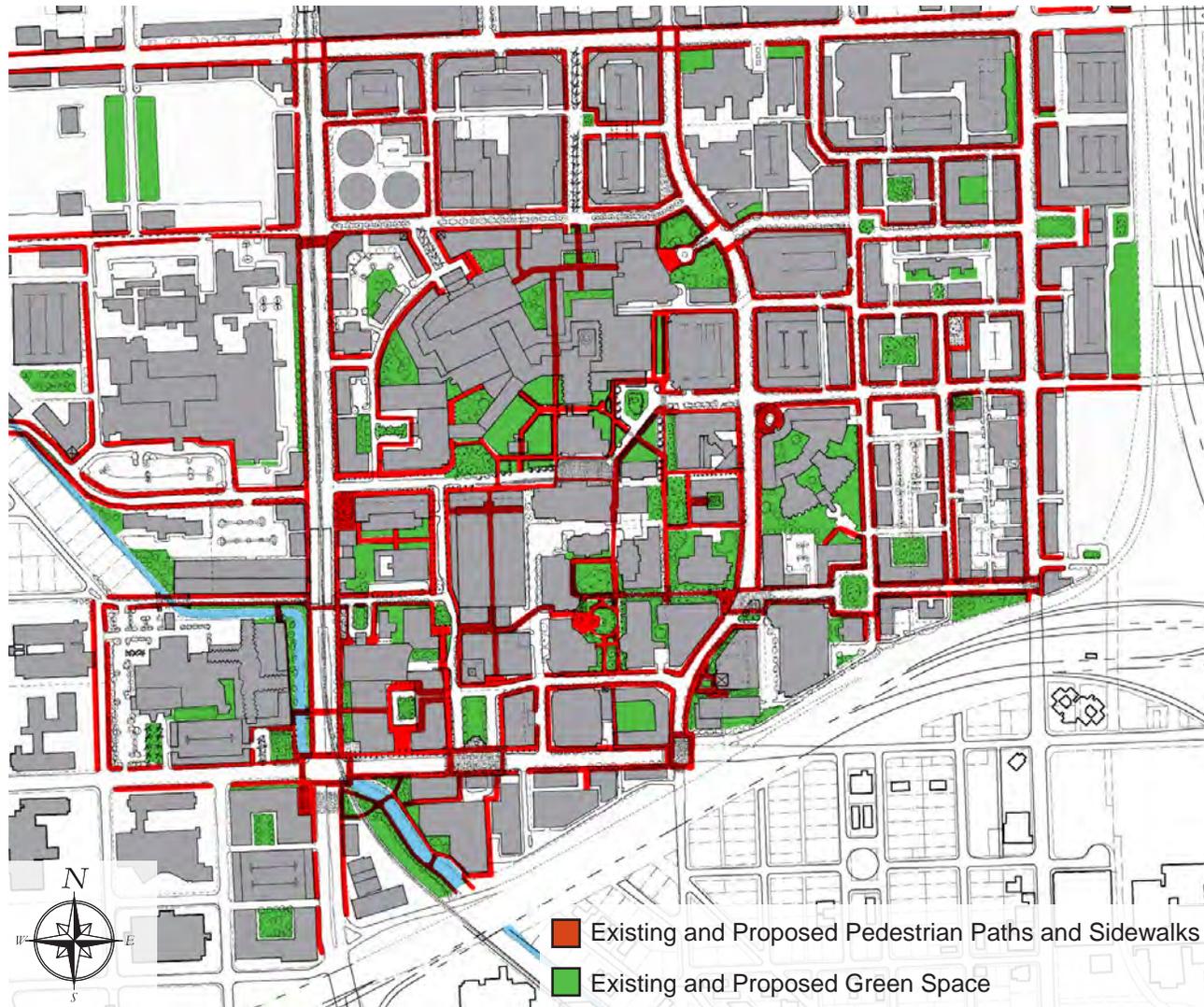
The Future Streets & Alleys diagram illustrates new connections that define the campus. Both internal and periphery streets and blocks are re-organized into walkable dimensions to encourage pedestrian life. This connected street grid reduces road congestion by providing multiple routes, resulting in better distribution and slower speeds. Implementation of these new street connections will involve coordination with Jackson Memorial Hospital.

Future Streets & Alleys

### PEDESTRIAN NETWORK

The issues of connectivity, walkability, and safety dominated constituent sessions, surveys and web entries. The Existing Pedestrian Network diagram illustrates routes that traverse service alleys and “back-of-house” functions, as well as more agreeable paths through the Schoninger Quadrangle.





The Proposed Pedestrian Network diagram addresses the need for a more extensive network that incorporates the many daily paths across busy streets and toward neighboring institutions, as well as points of arrival and departure, including parking garages and the Metrorail station. An integrated pedestrian network offers a variety of safe and inviting passageways.

Proposed Pedestrian Network

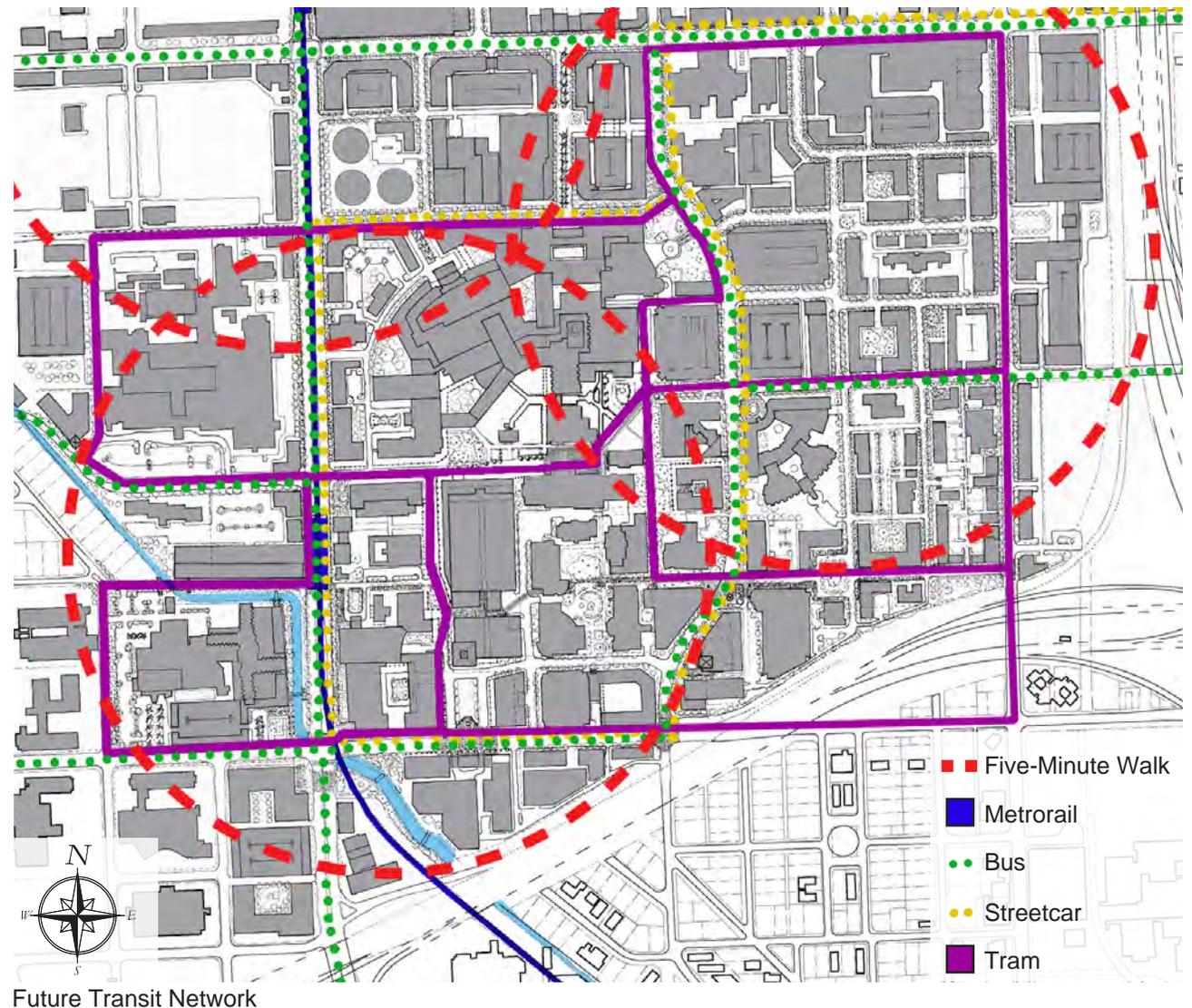
The pedestrian network connects the campus both internally and externally. Comfortable paths and walkways join the Metrorail station and the campus.

### TRANSIT NETWORK

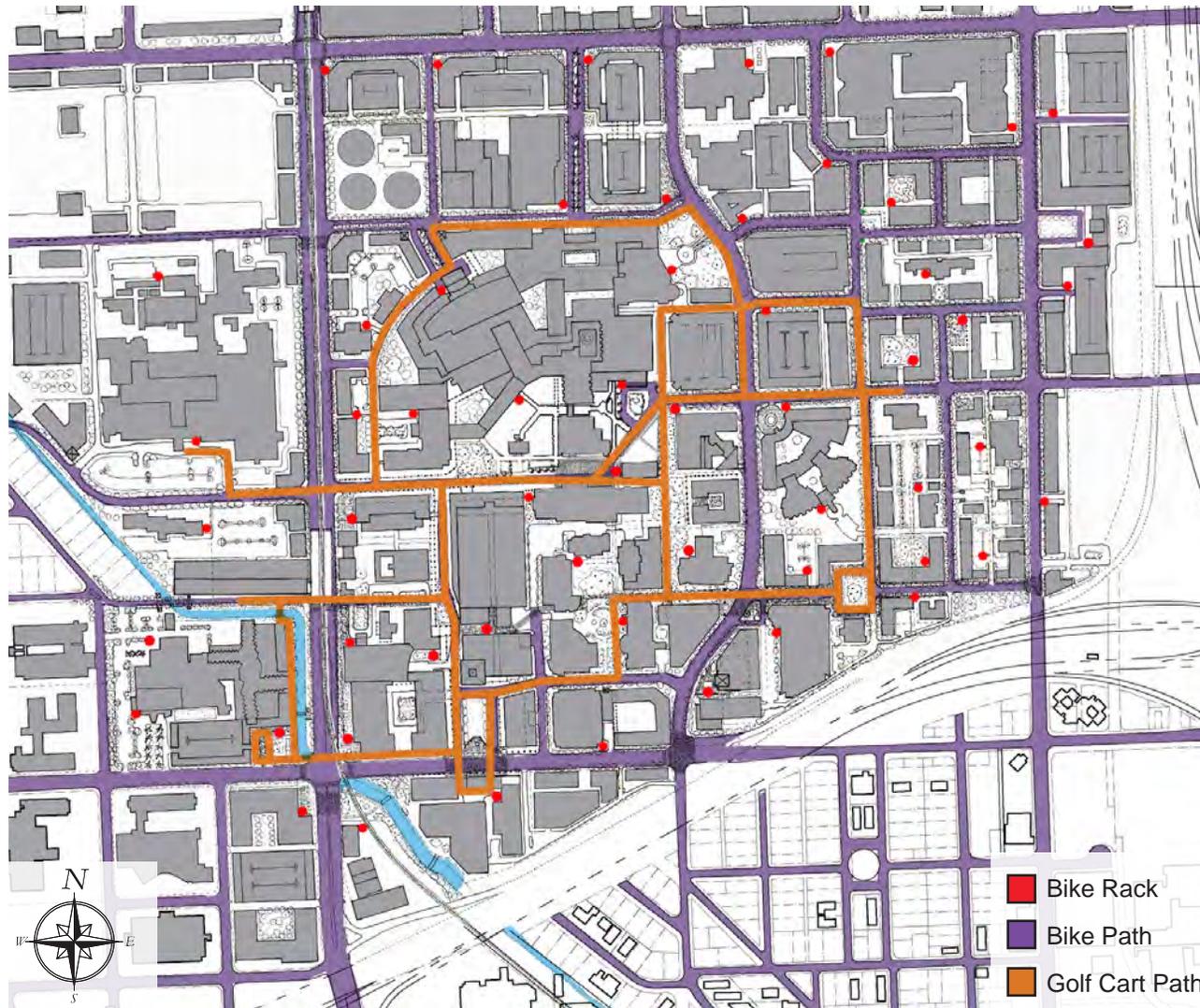
The dimension of the campus requires a Future Transit Network that engages additional modes of streetcar and local tram to provide increased mobility around and throughout the District, as well as beyond to the region. Alternative modes of transit provide options specifically suited to employee, student, and patient needs.

Augmenting the larger scale transit options of Metrorail, bus, streetcar and tram, bike and golf cart routes address individual needs for rapid connectivity across the campus. Smaller in scale, these modes of transportation provide local connections.

The network for pedestrian and bicycle circulation is also expanded within the campus itself by providing bike pick-up and drop-off locations, as well as golf-cart transport.



BIKE AND GOLF CART NETWORK

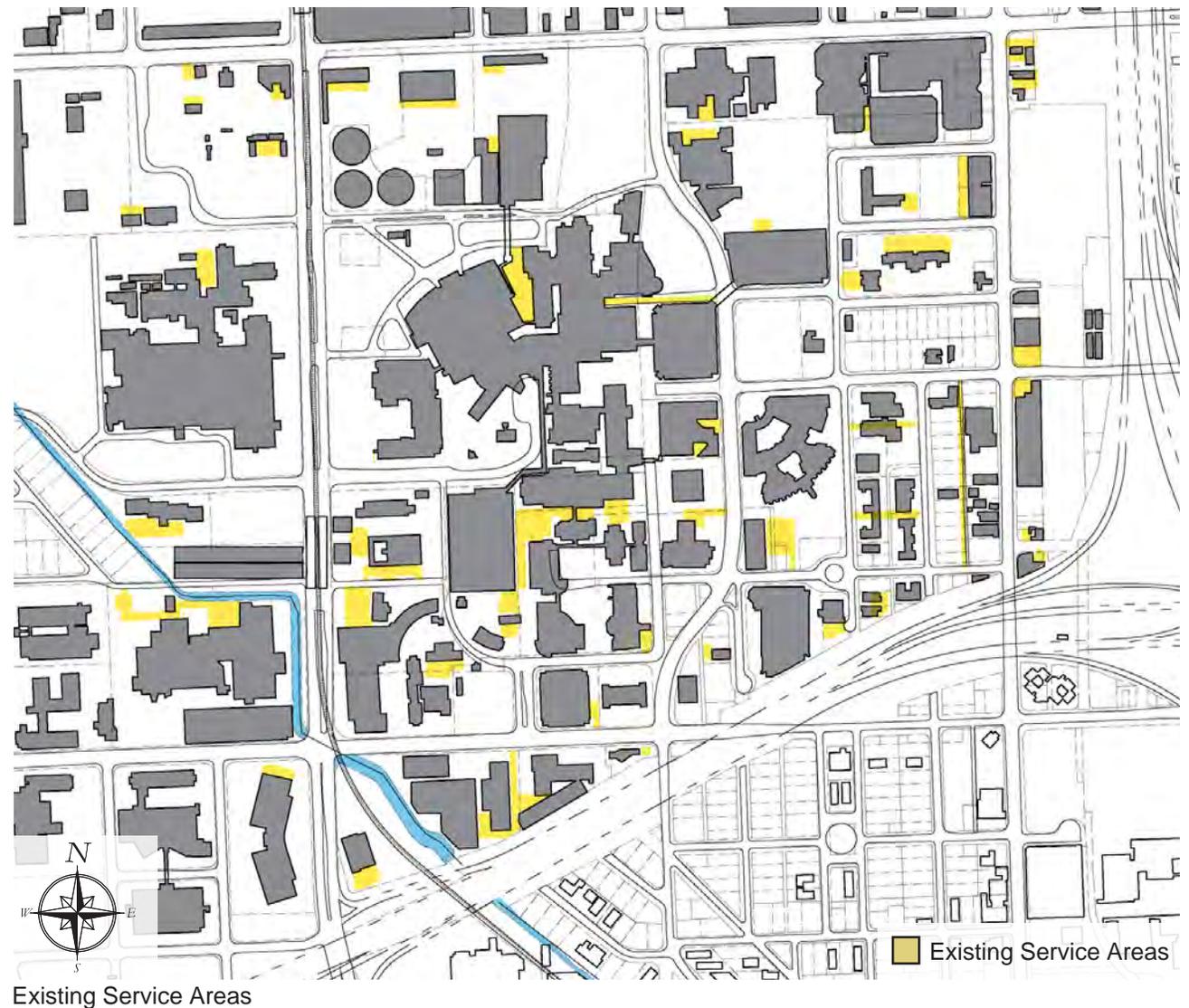


Future Campus Circulation Network

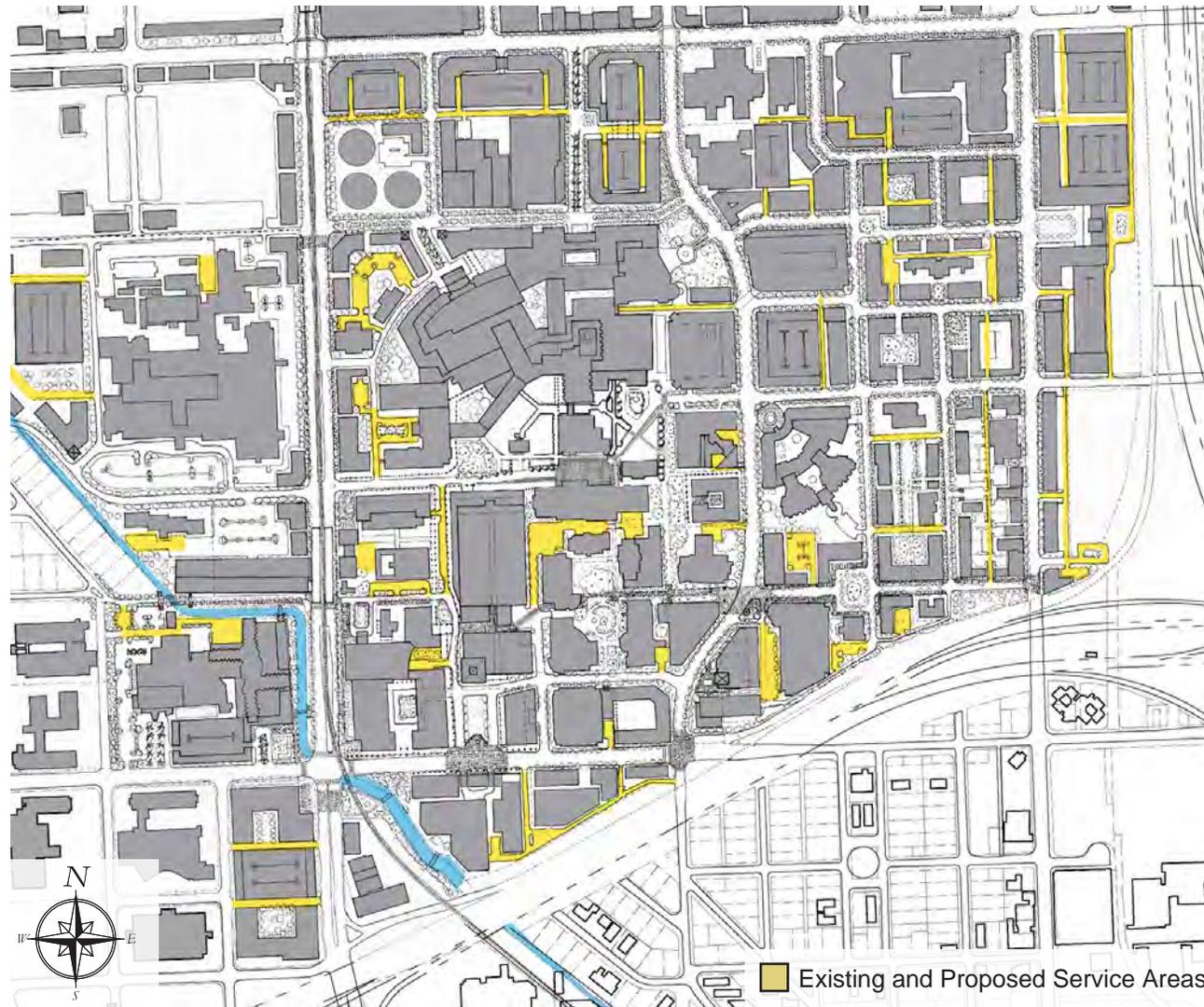
Augmenting the larger scale transit options of Metrorail, bus, streetcar and tram, bike and golf cart routes address individual needs for rapid connectivity across the campus. Smaller in scale, these activities put people in motion at the ground level where pedestrian interaction is still possible and therefore contributes to campus vitality.

### SERVICE AREAS

Defining fronts and backs and regulating that new construction follow the defined pattern will significantly enhance campus life as well as neighboring streetscapes. The Existing Service Areas diagram illustrates the current interweaving of pedestrian access with service.



A study of the existing service areas was conducted and helped to shape the configuration of the master plan. The plan calls for a reorganization of the current pattern to separate service areas from public spaces. Current service areas adjacent to the fronts of buildings will be relocated.

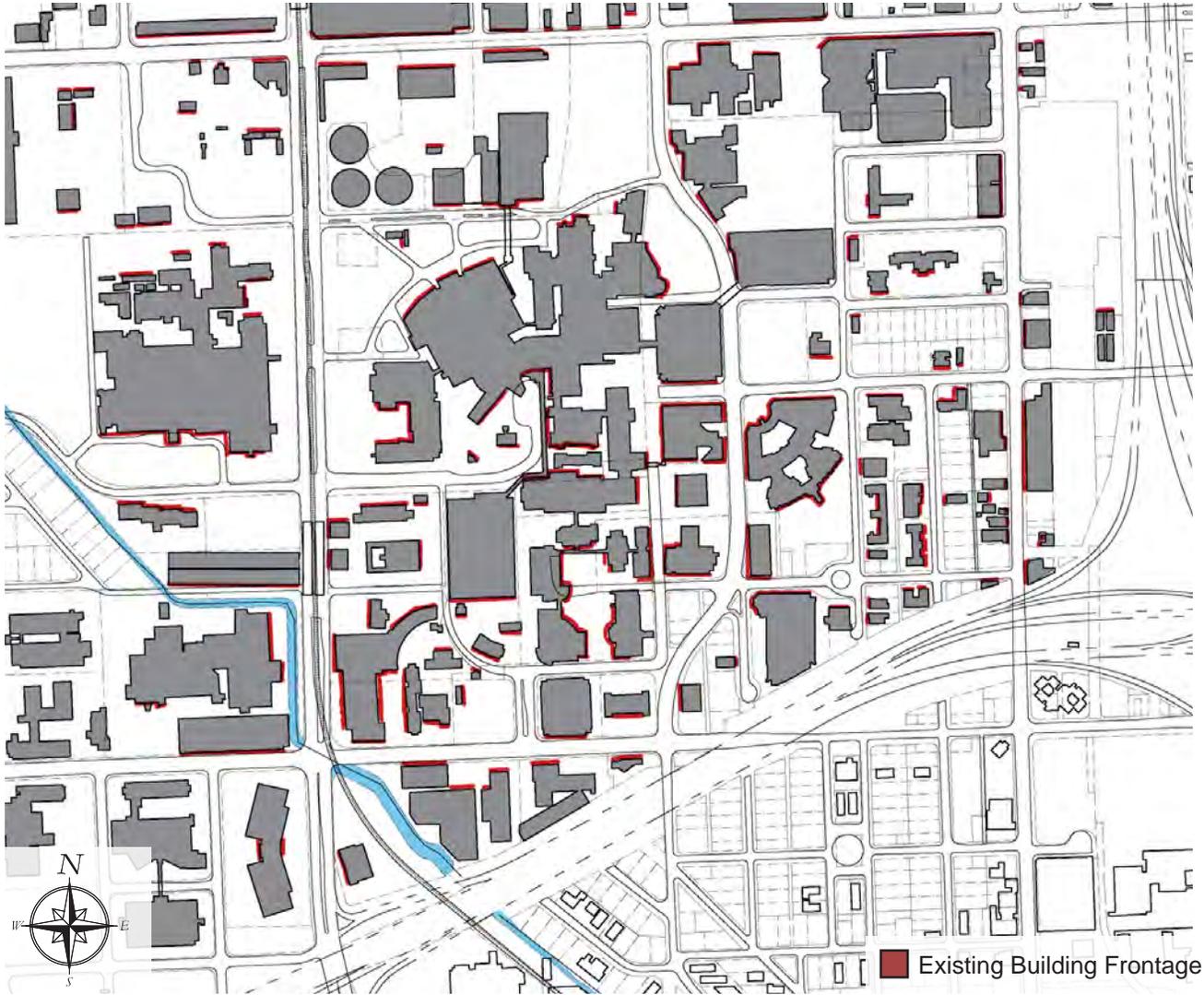


The Proposed Service Areas diagram proposes a series of internal service areas that allow for easier and more efficient movement of goods and waste, while separating this flow from pedestrian pathways and public places.

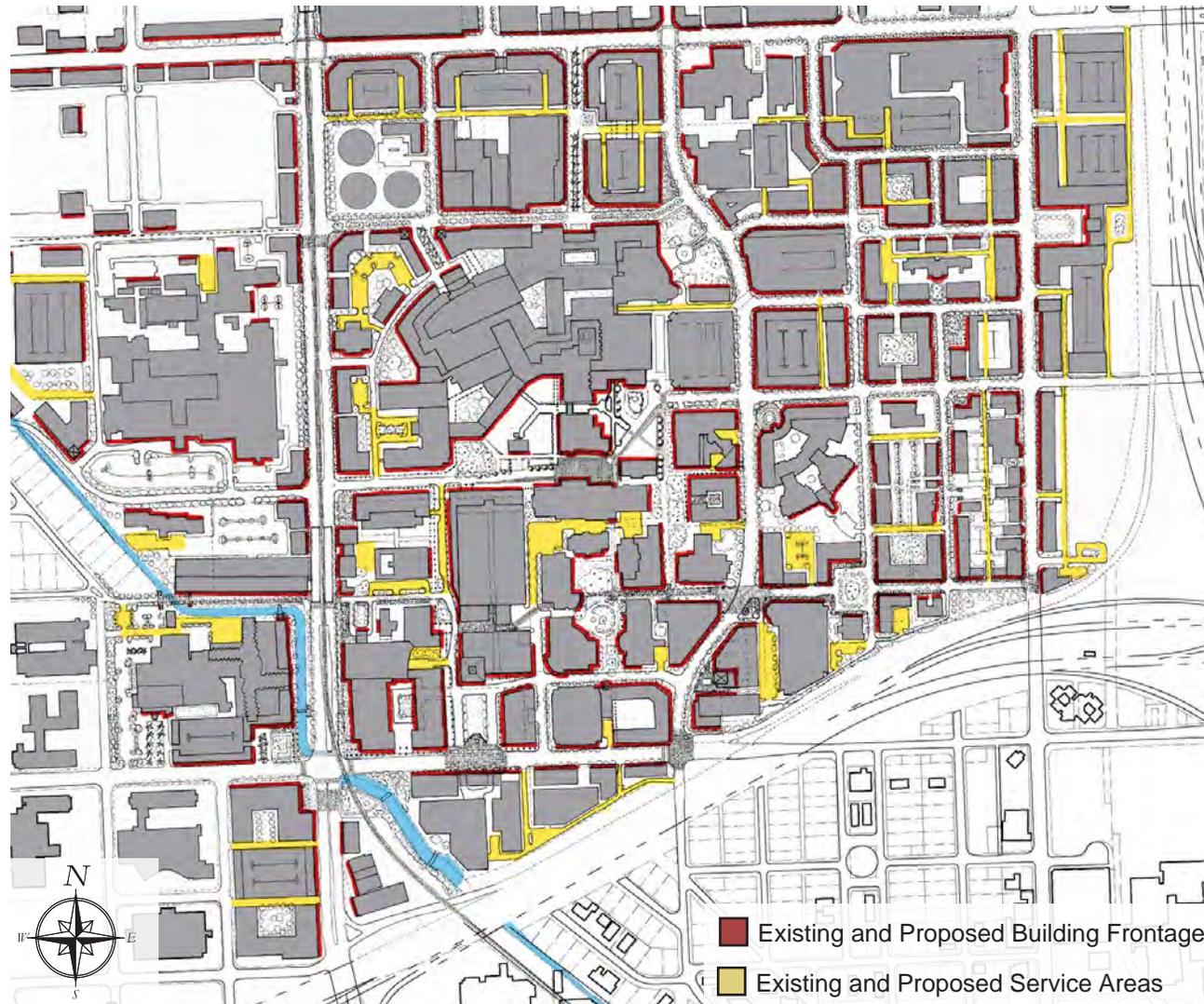
Proposed Service Areas

BUILDING FRONTAGE

The in-and-out character of where fronts occur is illustrated in the Existing Building Frontage diagram.



Existing Building Frontage



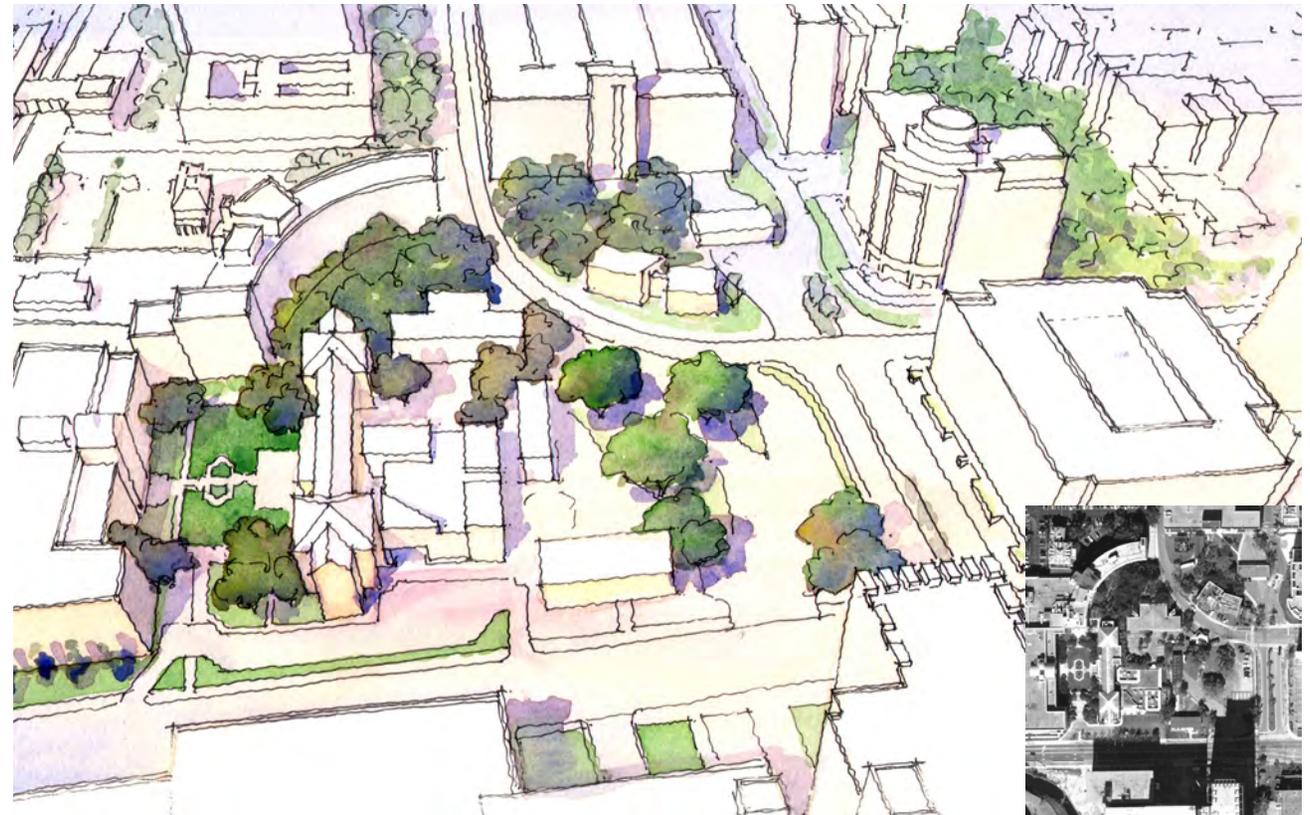
Proposed Building Frontage and Service Areas

The Proposed Building Frontage and Service Areas diagram demonstrates that reorganizing buildings to respect specifically designated frontages, forms clearly defined blocks and nurtures pedestrian life, along with increasing the legibility of the campus. This diagram adds the future service access to illustrate the internal flow of goods and waste that support the campus. Enhancing both service flow and campus identity is important to the quality of life.

## THE HEART OF CAMPUS

Threaded with a theme consistent to the constituent and technical sessions, every proposal for the Heart of Campus establishes a signature space along NW 14th Street that draws visitors and campus users into the center of the campus. This provides the UMMSM with a powerful “front door” and easy identification. Opening this plaza to NW 14th Street increases the visibility of the campus and enhances the potential for thriving retail uses to be located along the plaza and street.

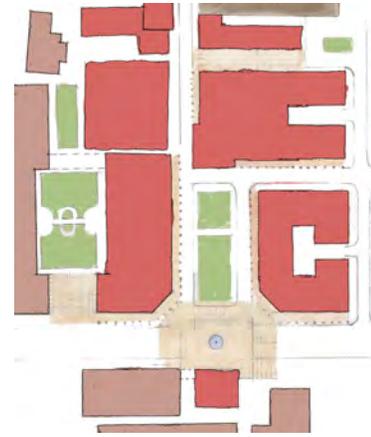
The enclosure of the colonnade is based on the study of successful public spaces. Buildings front the plaza green and provide the necessary supervision and activity by orienting windows and doors towards the space. The five alternatives include changes to the geometry and orientation of the green, as well as relationships to the existing Clinical Research Building (CRB) and its parking garage.



Existing Conditions

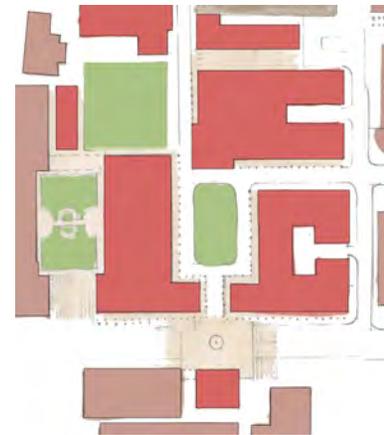
The Heart of Campus can become a place for gathering and study, as well as recreation in shopping and dining areas. Highly visible, the plaza orients the campus so that the landmark tower and arcade are always easily identifiable and accessible. Street trees, covered walkways and parallel parking are fundamental elements to support pedestrian life that are essential

to the creation of a comfortable and safe place. A new, signature building anchors the space on the northern edge providing a prominent, public, and easily identifiable destination. The new plaza and complex will establish a prominent vehicular and pedestrian entrance to the campus.



**Alternative A**

Alternative A positions a new signature green space across from the Clinical Research Building (CRB) parking garage. The green is surrounded by new buildings with active ground floor uses that help enliven the space. In integral component of this scenario is the addition of a new structure in front of the parking garage. This is essential to creating memorable 360' views from within the space.



**Alternative B**

Similar to Alternative A, this scenario depicts the signature space across from the CRB parking garage. The previous configuration has a green space which is completely open to NW 14th Street, whereas this version shows the addition of two tower elements to frame the space. While the towers help to create carefully organized vistas in and out of the space, they also limit the view from NW 14th Street.

**Alternative C**

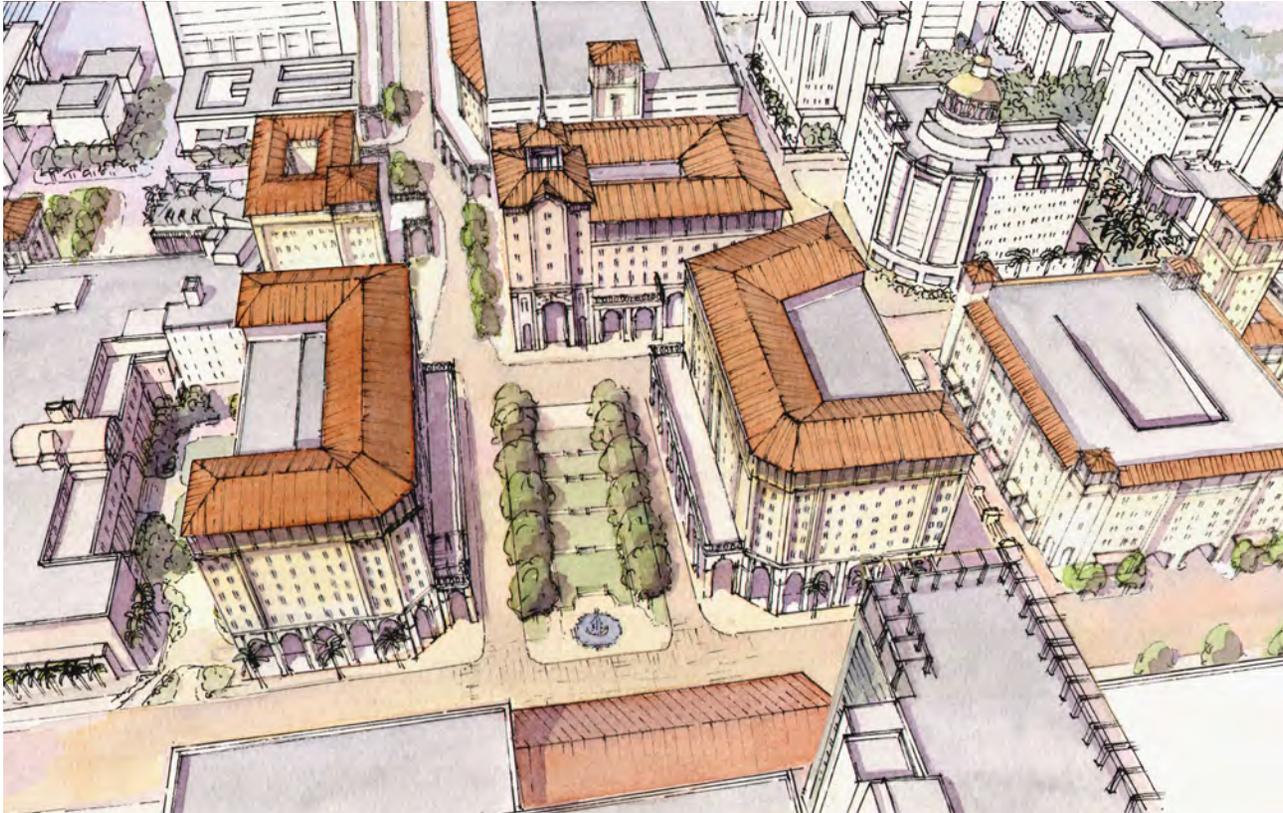
In this scenario the signature green space is located directly across from the CRB. It is anchored by new buildings on all sides including an addition to the Dominion parking garage. The implementation of this scenario is complicated by its proximity to the Dominion Towers.



**Alternative D**

In this version of the Heart of the Campus the green space is replaced by a new campus main street. The street is on axis with the CRB parking garage and creates the opportunity for signature architectural features to terminate the views north and south.





### Preferred Alternative: The Heart of Campus

After discussions among constituents and consultants, the design team evaluated Alternatives “A” through “D” and developed the current proposal which centers the heart of the campus on an expansive green positioned across from the existing drop-off area in front of the Clinical Research Building. A new “liner” building (see page 51) on the south side of the street fills the gap along the sidewalk while still allowing vehicular access to the CRB parking garage. Flanked by buildings that enclose the green and shape an urban plaza, the ground floor spaces offer opportunities for mixed use and retail to create a dynamic environment. Lined with trees and anchored by a new signature building to the north that could house some of the main UMMSM functions, the plaza fulfills the goal of providing a major, easily identifiable front of the campus, and contributes to the reconfiguring of Northwest 14th street as a beautiful boulevard.

### LIFE SCIENCES CENTER

Buildings at the Life Sciences Center (LSC) offer an important opportunity to model the ideal community. Re-configuring the “superblock” parcel into a series of walkable and economically sustainable blocks with well connected streets will provide a vibrant edge to the campus and a northeastern magnet to the District. With parking structures embedded in the center of the blocks, the streetscapes are liberated to provide the activity and supervision necessary for a safe and attractive environment.



Life Sciences Center Plan, depicting direction of view



Southwest view of the Life Sciences Center, Alternative A



Southwest view of the Life Sciences Center, Alternative B

Every building is essential to the streetscape. Continuous frontage and ample ground level activities ensure the pedestrian activity that is essential to the success of the LSC and its integration with campus life and the community. Design guidelines for the LSC must guarantee ground level facades that host not only high activity along the street, but also expansive windows and doors to provide natural surveillance.

Above the pedestal level, the buildings represent the UMMSM to the city skyline. The high degree of visibility demands that the LSC represent the aspirations of the UMMSM. Regardless of the tenants, proximity to the campus and the highway will associate the project with UMMSM and the LSC will be the face of the campus to the northeast. The LSC should ensure views through the complex to the medical campus.

## UNIVERSITY OF MIAMI HOSPITAL

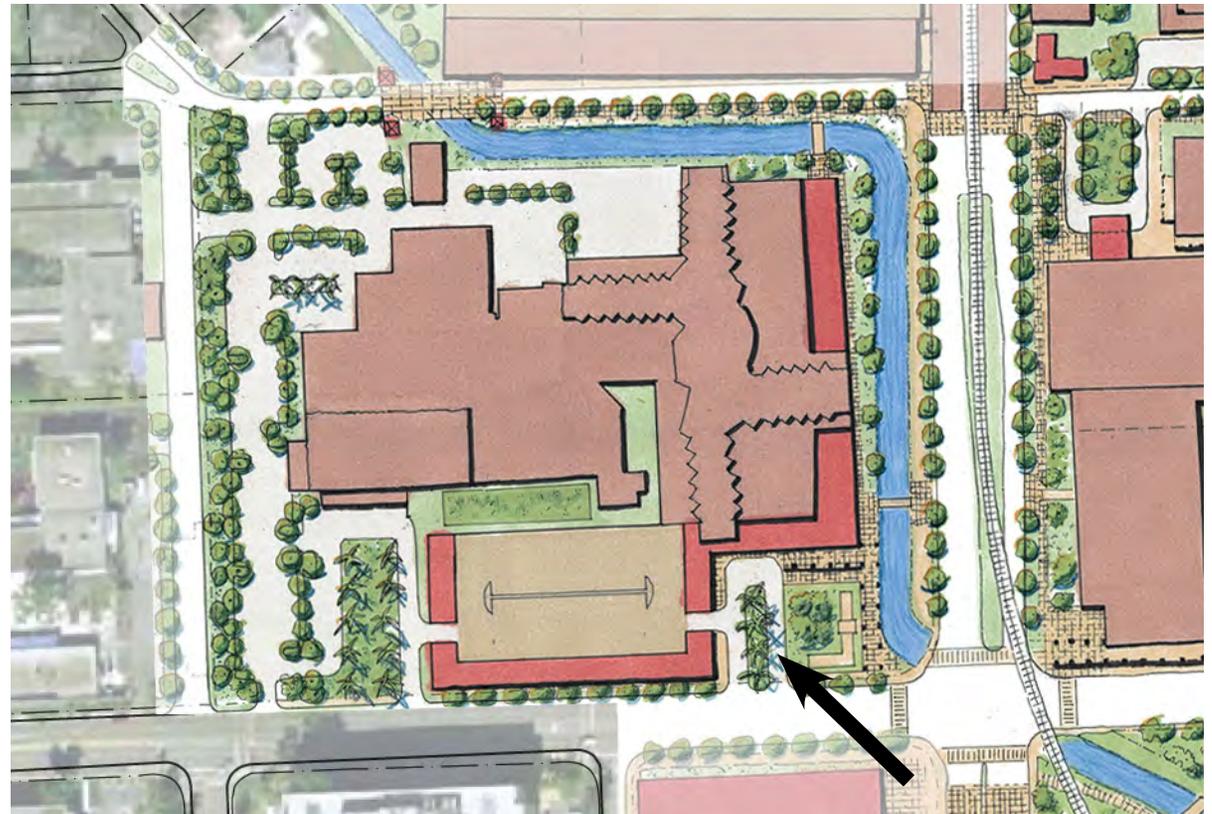
The team studied opportunities for the potential redevelopment of the University of Miami Hospital.

During the charrette the team found that the hospital's two facades – which are dominated by the parking garage and ramp – are both difficult to access and detract from the campus's overall image. The team proposed a ground-level treatment that is legible, pedestrian-friendly and features a landmark tower which provides easy identification from the car or Metrorail. The illustrated proposal can be built incrementally. The existing parking garage can be reconfigured to create a memorable entry, a drop-off area, and ground floor hospital lobby would greatly enhance pedestrian accessibility.

The removal of the existing two-story drop-off ramp and the addition of a narrow "liner building" provide a new face to Northwest 12th Avenue. Reviving the historic Wagner Creek as an urban amenity "blueway" with a corresponding green provides an opportunity for new pedestrian bridges enhancing both the campus environment and creating an inviting setting for the hospital as well as the campus and the District.



Existing UMMSM Hospital



Future Plan of UMMSM Hospital, depicting direction of perspective view on page 43



Future view of UMMSM Hospital

## STREET MAKE-OVERS

Urban centers require pedestrian friendly streets. The number of people, institutions and businesses comprises the elements thriving urban center, and yet the current streets are designed to provide maximum traffic flow, through, not to, the Health District. As a result wide travel lanes support and encourage high speeds which are in opposition to a safe pedestrian environment. The flow-through approach eliminates on-street parking and limits the possibility of street trees, wide sidewalks, and the many accommodations necessary to safe and friendly pedestrian life.

Defining the District and the campus as an urban center, similar to a central business district can allow the re-sizing of traffic lanes for effective and safe speeds. Street trees and parallel parking will further support streetside amenities and businesses, slowing traffic and creating a walkable, dynamic campus and District.



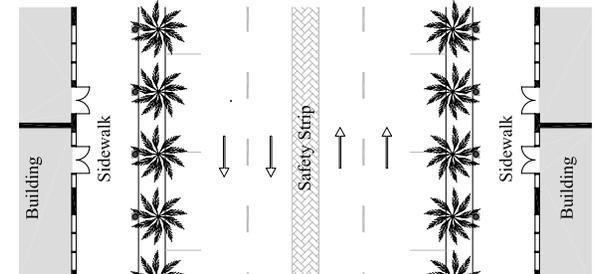
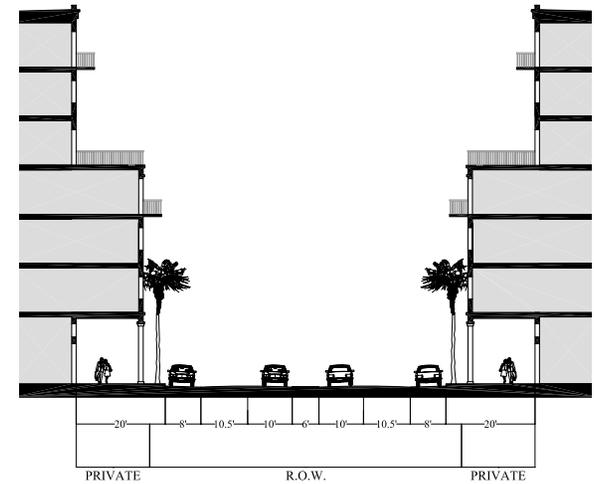
Existing View of NW 14th Street, looking west

NW 14th Street is a major through-street within the UMMSM campus and its redesign is integral to the future of the campus. NW 14th Street carries a high volume of traffic at various times of the day but less traffic during off-peak hours. The wide travel lanes allow traffic to move rapidly through the area, but impede pedestrian crossing. The width of the lanes becomes a major safety hazard during the off-peak hours, since it allows drivers to speed comfortably, regardless of pedestrian traffic.



Proposed View of NW 14th Street, looking west

This image demonstrates the potential of NW 14th Street as a pedestrian friendly campus street. The street continues to accommodate traffic at speeds that are much more suitable for a walkable district. The vision for the street includes wider sidewalks, narrower travel lanes, street trees, and colonnades. A minimally textured paving pattern lets drivers know to drive slowly and cautiously, without disturbing urgent care travel.



Future NW 14th Street Section

The proposed design for the NW 14th Street reduces the travel lane dimensions and calms traffic through the introduction of amenities that support the area as a walkable environment. These include, but are not limited to, parallel parking, street trees and a lightly-textured safety strip.

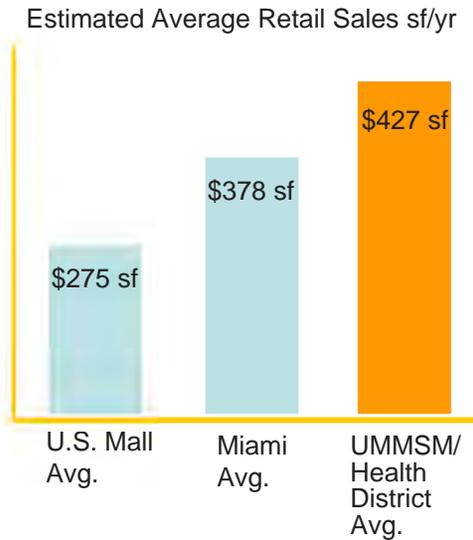
**RETAIL POTENTIAL**

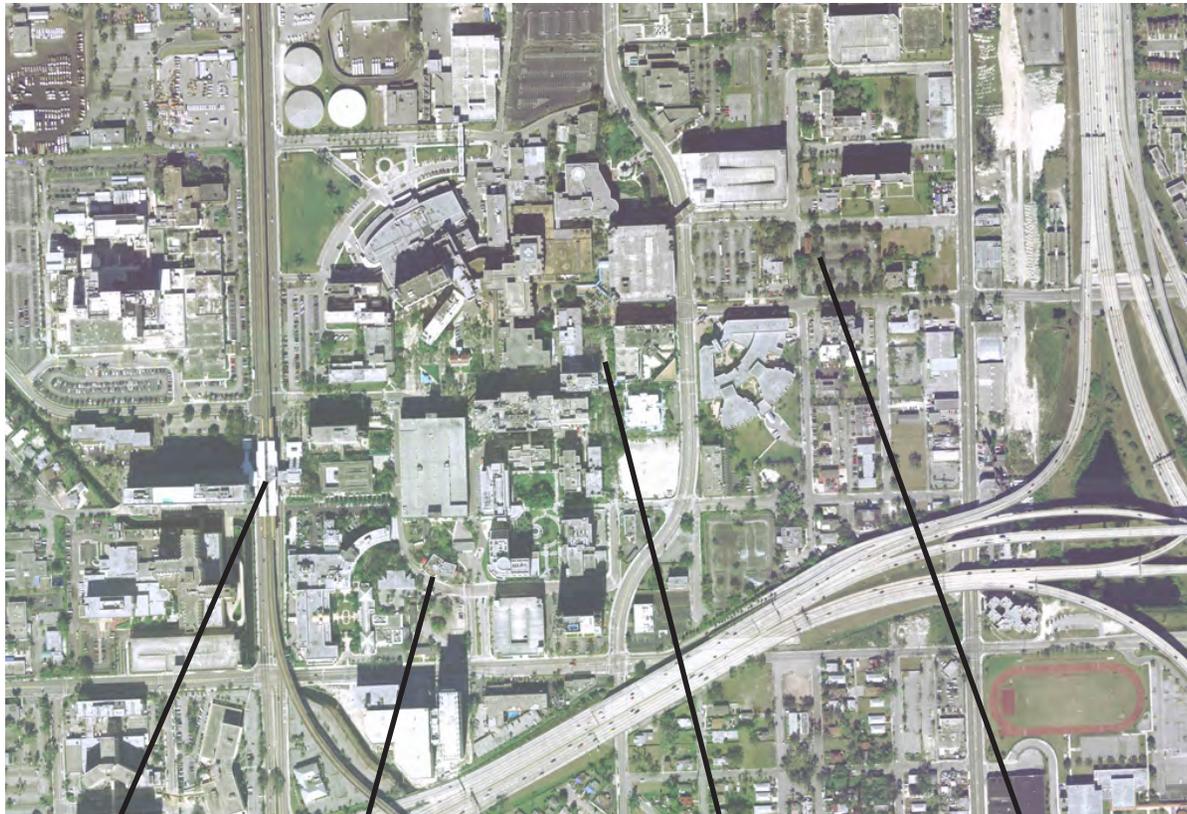
An essential component of a successful urban environment is a combination of workplaces, institutions, residential, hotel and retail uses. This blending of uses is especially important for UMMSM. Many constituents spend significant portions of the day on the campus and prize the opportunity for quick access to additional goods and services.

A “Market Void Analysis” found a large demand for many types of additional retail uses. Retail uses enliven streets and public spaces, but they must be situated where retail can thrive and meet user needs. Retail spaces should be incorporated into the public areas of the Health District at key locations indicated on the map to leverage the corresponding activity and energy. Retail consultant Robert Gibbs specified how the retail mix should be allocated in each of the retail cluster locations (Page 47).

<b>Health District Commercial Market Summary</b>	
47,200 sf	New Retail Supportable
58,200 sf	New Restaurants Supportable
17,500 sf	New Office Supportable
122,900 sf	Total
25 - 30	New Businesses

<b>Additional Supportable Retail</b>	
2,400 sf	Unisex Apparel
1,400 sf	Women’s Apparel
1,700 sf	Shoes
10,000 sf	Books and Music
3,000 sf	Electronics & Computers
11,200 sf	Specialty Foods
24,500 sf	Restaurants without Liquor
22,500 sf	Restaurants with Liquor
12,000 sf	Drug Store
2,500 sf	Card and Gift Shop
1,500 sf	Optical/Vision Care





Station Retail  
3,000 sf:  
*quick food, gifts,  
mobile carts*

Prime Retail & Restaurants  
20,000 - 30,000 sf:  
*apparel, books, restaurants  
& gifts*

Central Retail  
25,000 - 30,000 sf:  
*quick food, gifts, elec-  
tronics, restaurants,  
services*

Neighborhood-Service  
20,000 - 25,000 sf:  
*grocery, pharmacy,  
restaurants*



Estimated Primary Retail Trade Area

## TROPICAL ARCHITECTURE

Successful, tropical urban architecture makes pedestrian life possible. A consistent campus image that draws upon basic architectural components that make passage among buildings possible in the heat of South Florida's sun and the downpours that mark the rainy season will enhance campus connectivity and identity. These components may be expressed in architectural styles that range from historic to avant-garde. The importance is the continuity of proportion and dimension and the enhancement of pedestrian life. Greater consensus on style, of course will further unify the campus.

The style-neutral tropical streetscape elements illustrate a series of components that enhance the experience of the pedestrian, providing protection from the elements and surveillance from within.

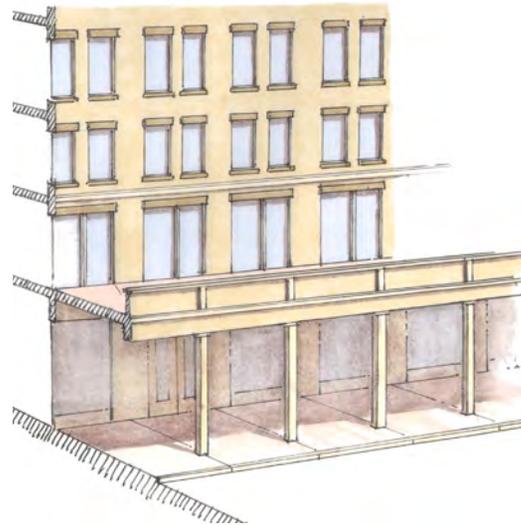


Proposed colonnade along NW 14th Street

TROPICAL STREETSCAPE ELEMENTS



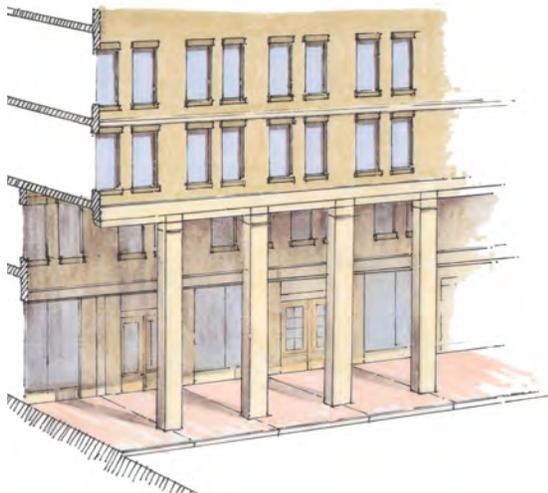
Colonnade



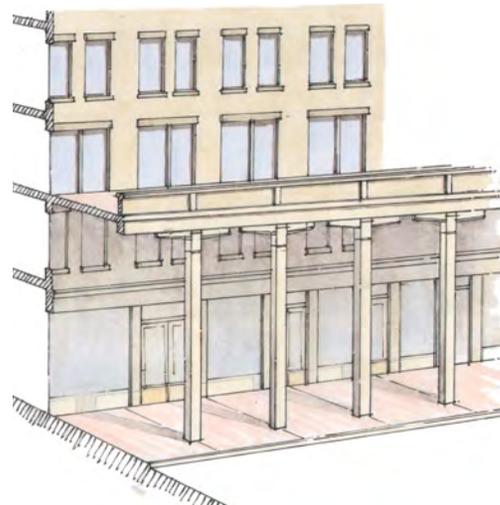
Gallery



Marquee (retrofit strategy)



Two-story Colonnade



Two-story Gallery



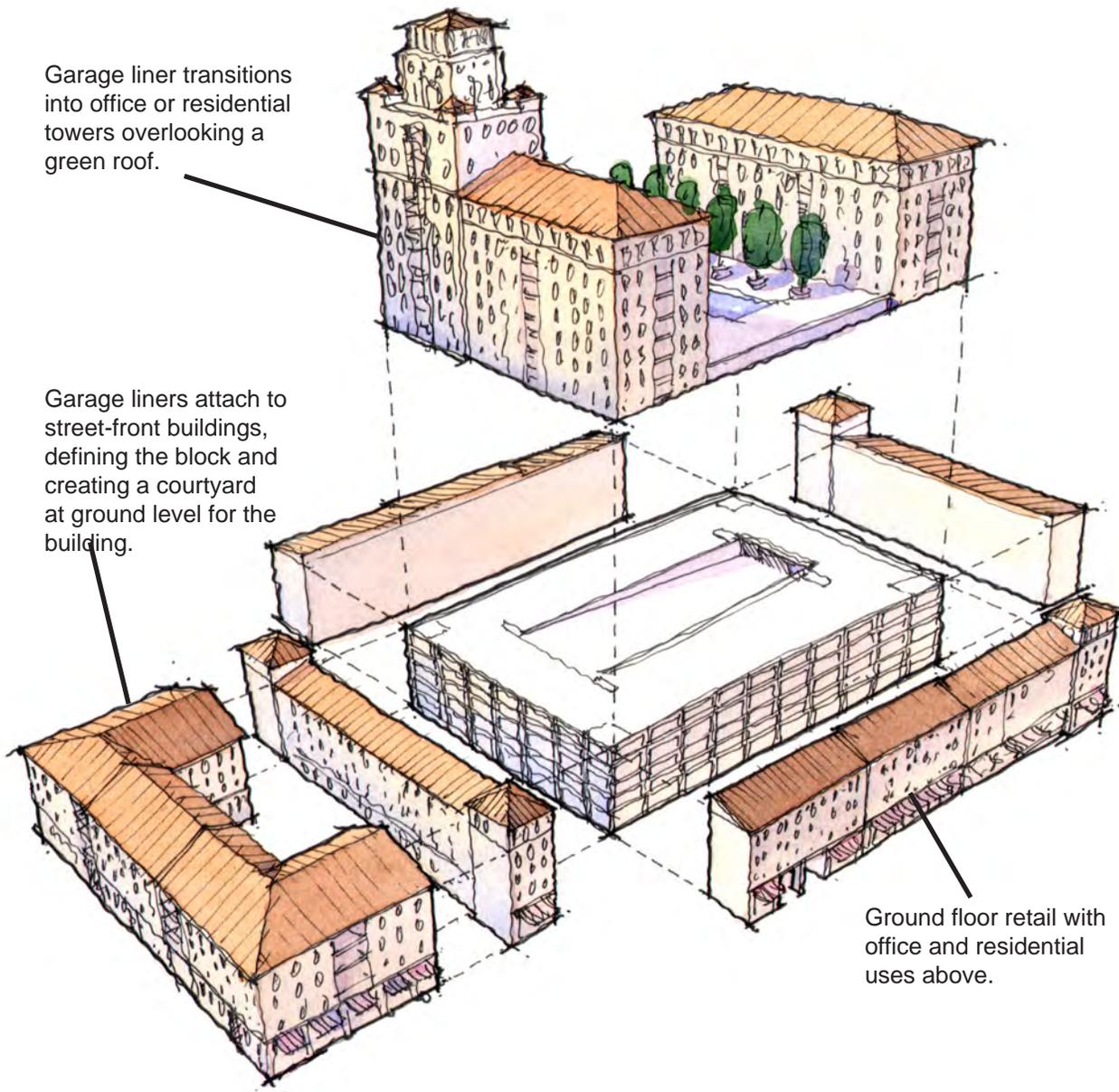
Forecourt

## PEDESTAL BUILDINGS

Major buildings of substantial height enhance pedestrian life when the base of the building responds to the needs of the streetscape. The introduction of a uniform pedestal height establishes ground level conditions that favor pedestrian life and at the same time provides an opportunity to maximize land value through tower height. The setback of the full height tower from the base allows light to reach the street level and the designated pedestal height provides continuity along the street. At the same time, individual towers are free to develop unique characteristics. The pedestal addresses the human aspects of the building, such as the need for climate protection, mixed uses and “eyes-on the street” that assures a safe and thriving streetscape.



Pedestal Building Example



## LINER BUILDINGS

Parking structures contribute to pedestrian life when properly located and lined with active uses. Existing parking structures can be renovated to accommodate liner buildings, while all future parking structures need to be planned with liner buildings from the outset.

This drawing illustrates the components of a Parking Structure Liner Building, demonstrating different types and sizes of buildings that wrap the parking. In addition to the “thin” liner which usually includes retail space along the first floor, where space permits, a new building can form a courtyard with the liner building as shown on the left hand side of the drawing. Further, the top of the parking structure can be treated as a green roof to support a courtyard building at the upper stories. The introduction of commuter-related retail and services, including day-care where outdoor play space is properly designed, provides a useful start and end to the commuter work day.

Liner Building around a Standard Parking Garage



## WORLD CLASS CAMPUS PLAN DESIGN GUIDELINES



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83	<i>Paint Types &amp; Colors</i>
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86	Definitions



## DESIGN GUIDELINES

### INTENT:

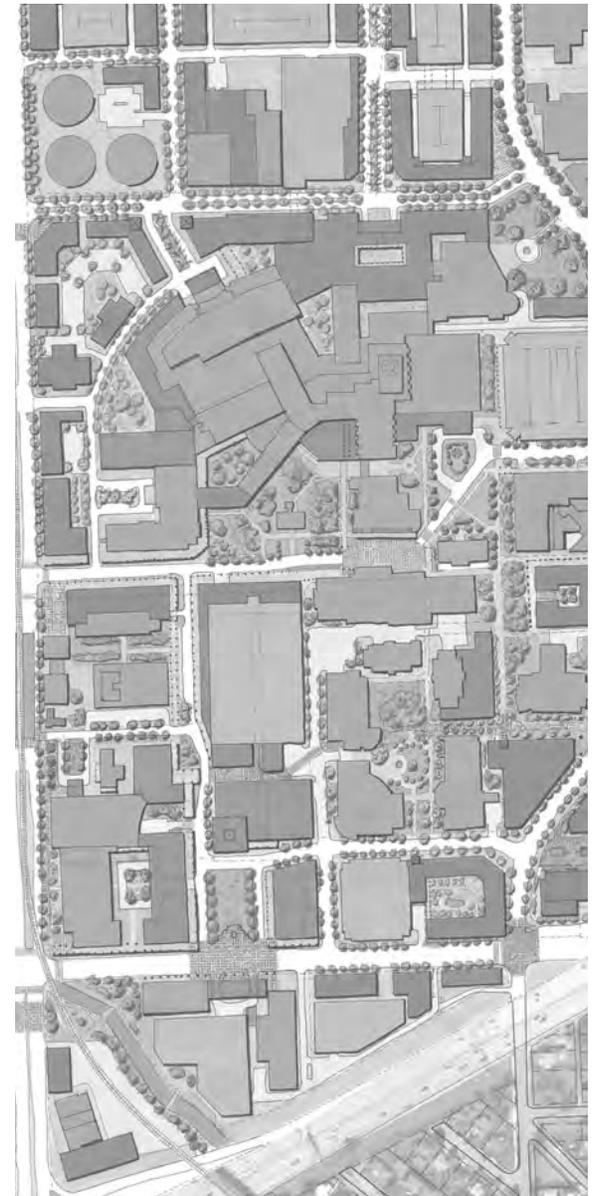
The Design Guidelines provide regulations that shall influence the design and character of the public spaces and buildings of the University of Miami Miller School of Medicine (UMMSM). The standards and regulating plans shape the alignment and configuration of buildings to form a campus environment that models an active, healthy community. The standards are based on the examination of historical precedents, campus and town planning concepts, as well as the principles of Traditional Neighborhood Design (TND), which draw upon precedents established by historic cities, particularly with respect to street layout and design, mix of uses, building placement, and architectural standards.

### UMMSM CAMPUS ARCHITECT:

This document refers to the role of a campus architect. Although these guidelines do not mandate a specific employee, it is necessary that one person is specifically responsible for the implementation of the master plan and compatibility of future projects with the guidelines. The University may allocate that responsibility as appropriate to its structure, however, for the sake of clarity that person will be referred to as the UMMSM Campus Architect throughout this document.

The UMMSM Campus Architect will work closely with the University and private developers. Responsibilities will include the review of development applications for compliance with the guidelines.

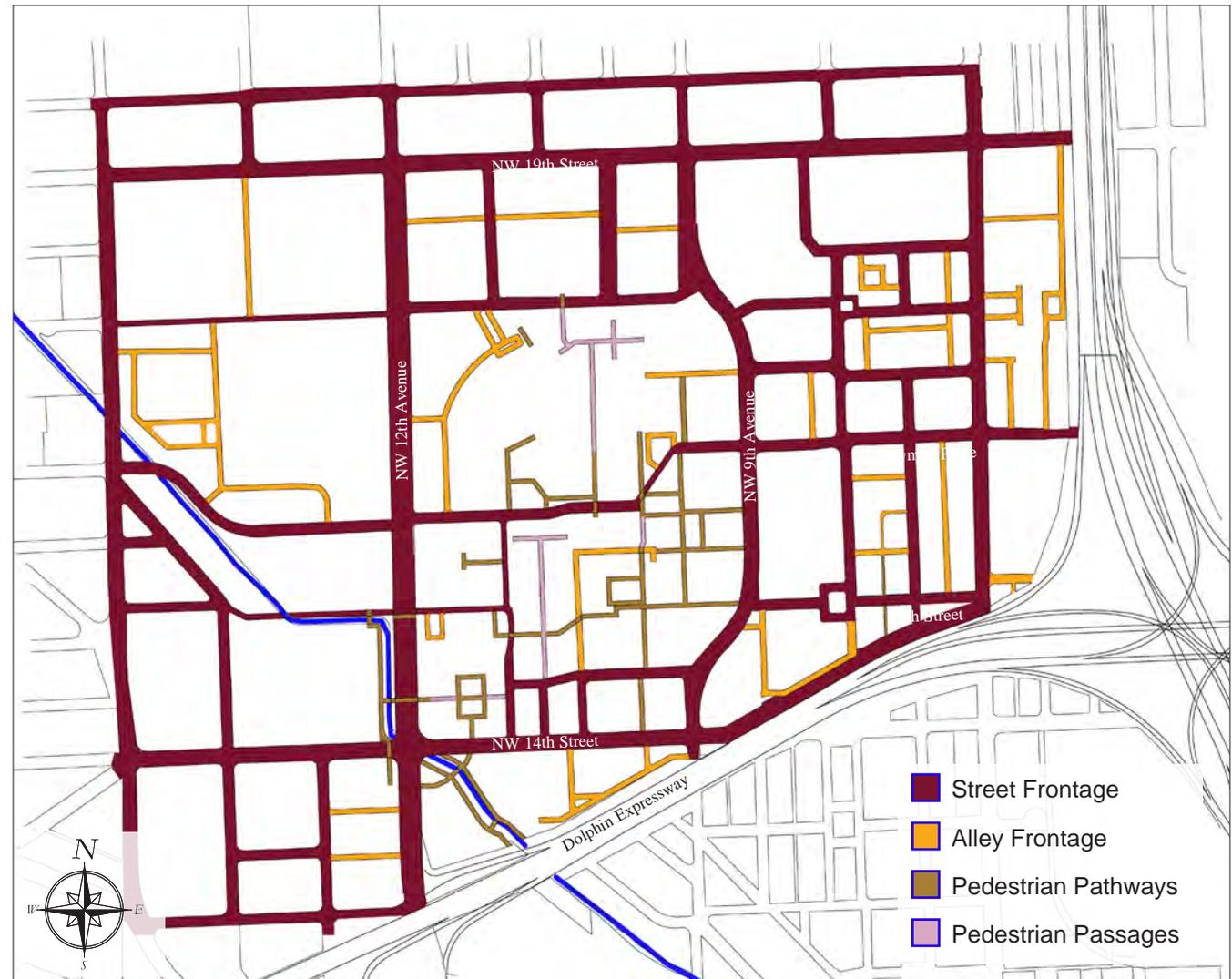
In case of contradiction with local safety codes, these guidelines shall be adjusted in collaboration with the UMMSM Campus Architect. Exemptions from compliance with these regulations may be granted at the discretion of the UMMSM Campus Architect.



## REGULATING PLANS

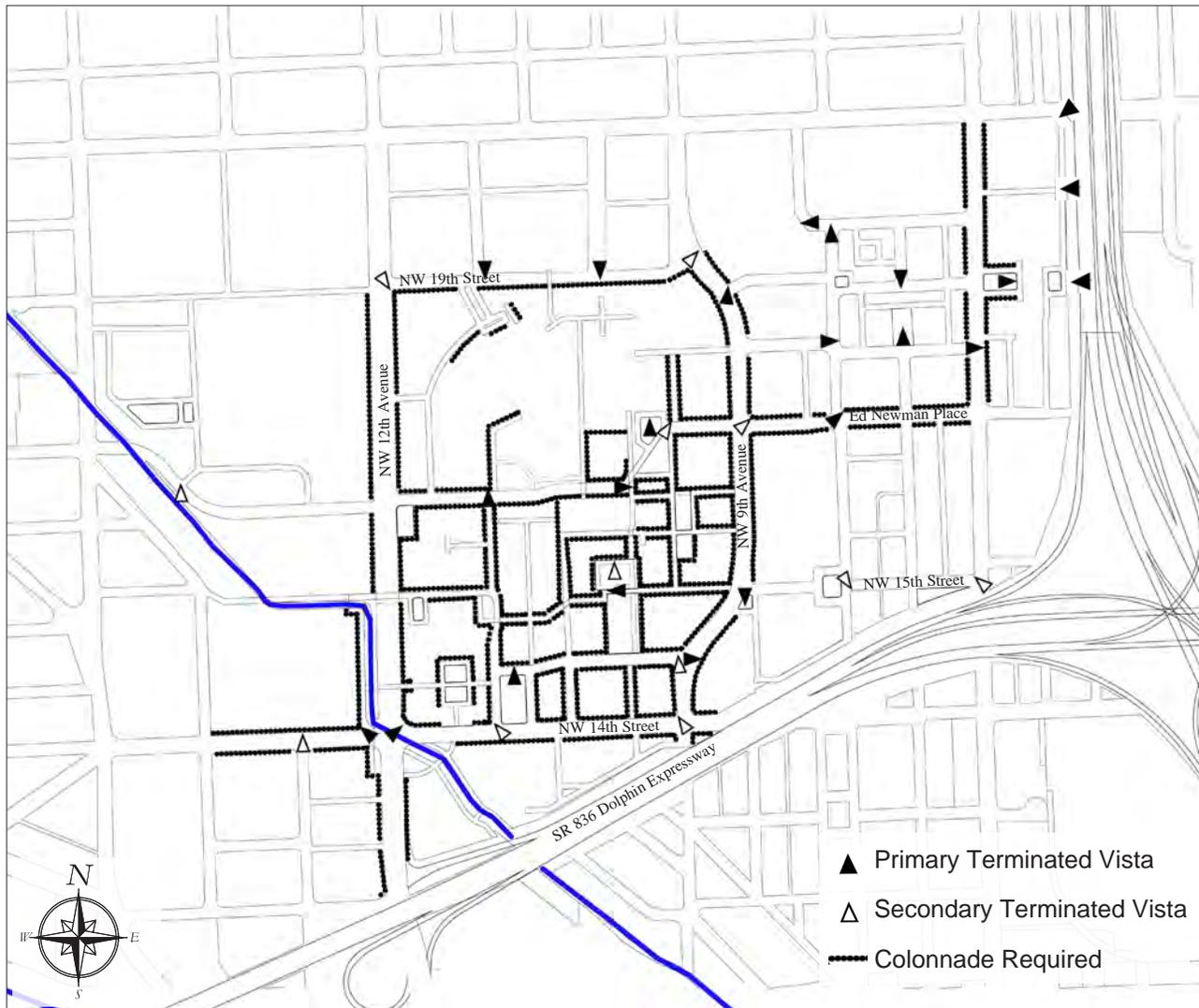
### STREET FRONTAGE PLAN

The Street Frontage Plan establishes a hierarchy of thoroughfare types in existing and future locations. Pedestrian Pathways include outdoor, non-vehicular paths. Pedestrian Passages are primarily indoor, non-vehicular passages. Primary Frontages are those thoroughfares which are the most important streets for pedestrian activity. Secondary Frontages include alleys and lanes from which services are provided to the campus buildings.



UMMSM Campus Street Frontage Plan

**COLONNADE AND TERMINATED VISTAS PLAN**  
 The Regulating Plan depicts those areas which are required to have colonnades and Terminated Vistas. Colonnades and terminated vistas are described in the Urban Standards, Page 60.



UMMSM Campus Colonnade & Vista Plan

## STREET STANDARDS

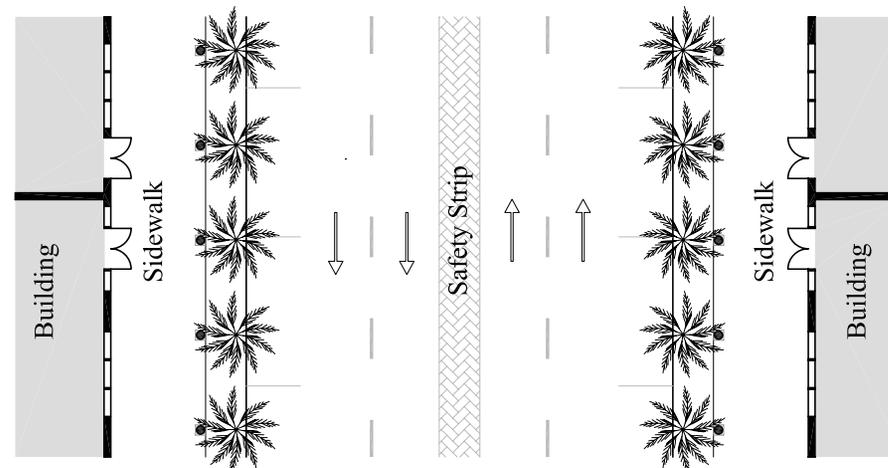
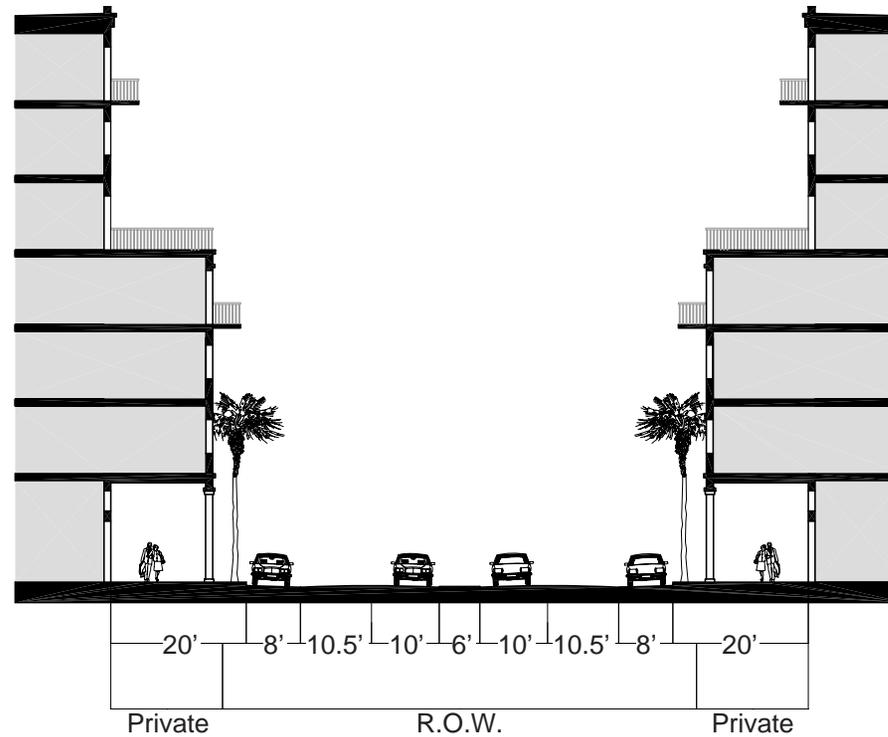
An interconnected network of walkable streets is an essential component of well-designed urban areas. Multiple routes offer opportunities for distribution of traffic as well as easier navigability and orientation. Defined pedestrian paths, along with bicycle and golf cart routes enhance options.

Streets shall be located according to the Street Frontage Plan. These locations are schematic to allow flexibility in the design of the site plan. The design of new streets and modifications to existing streets shall follow the requirements below:

1. All streets and alleys shall connect to other streets. Dead-end streets are only permitted for those shown on the Street Frontages Plan.
2. No block face shall have a length greater than three hundred and twenty-five (325) feet without a street, courtyard garden or alley providing through access to another street, alley, or Pedestrian Pathway.
3. All new Primary Frontage Streets, both public and private, shall have a minimum right-of-way width of fifty (50) feet. All new Primary Frontage Streets shall have curb and gutter, and have sidewalks on both side of the travel lanes. Where possible, there shall be on-street parking which may be used for “drop off” areas, valet stands, or bus stops.
4. All sidewalks shall have a minimum width of eight (8) feet, and a continuous unobstructed area of a width no less than sixty (60) inches. This area shall be unobstructed by utility poles, fire hydrants, benches or any other temporary or permanent structures. Free and clear public use of sidewalk area outside of the right-of-way shall be protected by a public access easement.
5. On-street parking lanes shall not be closer than twenty-five (25) feet to intersections measured from the intersecting property lines.
6. All streets shall have at least two travel lanes, one in each direction; however, streets around squares may have one travel lane with one-way traffic.
7. Curb radii at intersections shall be fifteen (15) feet.
8. A minimum turning radius of thirty-six (36) feet shall be provided at street intersections. A clear zone is required when the curb extends beyond the turn-out radius.
9. Colonnades, awnings, balconies, roof eaves, signs, porches, stoops, and ramps may encroach into setbacks. Awnings, balconies, roof eaves and signs may encroach into rights-of-way; however, they shall not extend a distance closer than six (6) inches from the curb face. All right-of-way encroachments shall be a minimum eleven (11) feet above the sidewalk. Encroachments shall not be taller than the building or pedestal, whichever is lower.
10. With the exception of fire hydrants, utilities shall run underground, and above-ground projections of utilities shall be placed in or along rights-of-way of streets of lower pedestrian quality, wherever practicable.

### NW 14TH STREET

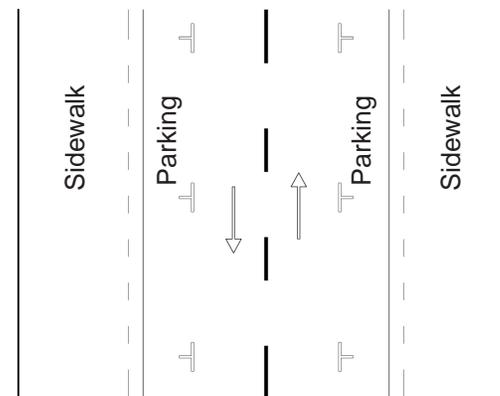
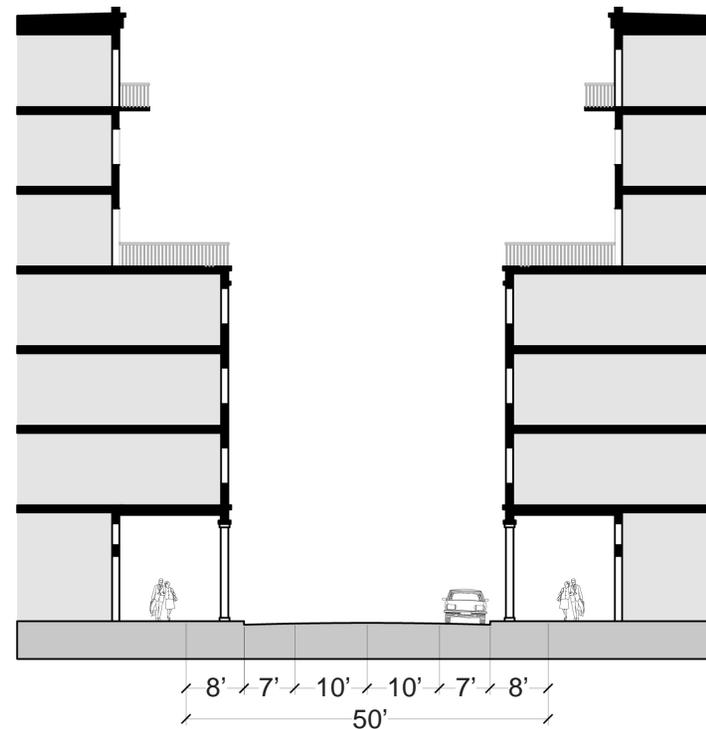
NW 14th Street is a major through-street within the UMMSM campus and its redesign is integral to the future of the campus. NW 14th Street carries a large volume of traffic at various times of the day but less traffic during off-peak hours. The wide, unencumbered travel lanes of NW 14th Street move traffic rapidly through the area, but hamper the campus as a pedestrian destination. Increasing the capacity of the road, the wide lanes create a major safety hazard during the off-peak hours, since the amply sized lanes give drivers comfort at high speeds, regardless of the amount of pedestrian traffic. The proposed design for the street reduces the travel lane dimensions and slows traffic through the introduction of amenities that support the area as a destination, including parallel parking, street trees and a safety strip. These features enhance the quality of place, reinforcing the image and behavior of an urban center, helping to control vehicle speeds in the off-peak hours, thus providing a safer, pedestrian-friendly campus boulevard.



**STREET FRONTAGES: REQUIREMENTS**

New streets on or adjacent to the UMMSM campus are to be designed based on the sections contained in the Street Standards.

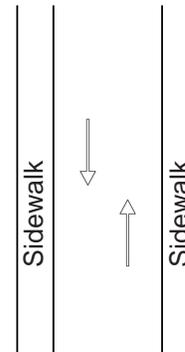
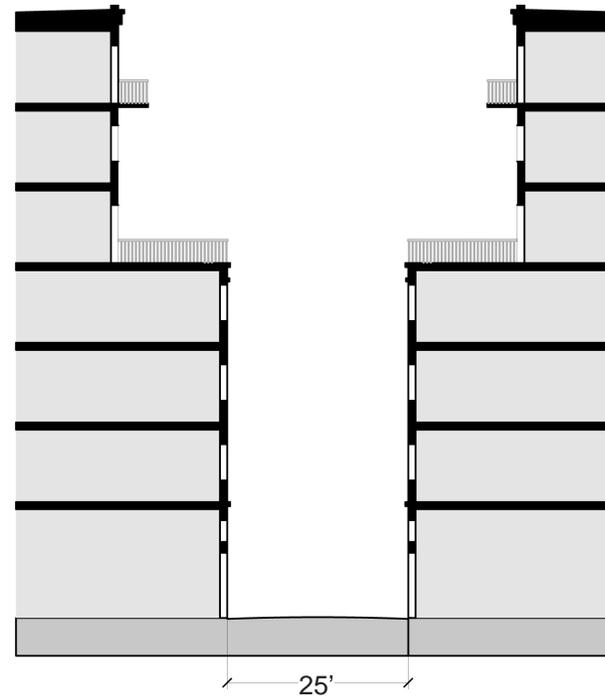
R.O.W.	50'
Paved Area	34'
Intended Movement	Slow Movement
Design Speed	20 MPH
Lanes	2 Lanes
Parallel Parking	Both Sides @ 7' marked
Travel Lane Width	10'
Walkway Type	Sidewalk under colonnade
Planter Type	n/a
Landscape Type	n/a



ALLEY FRONTAGES: REQUIREMENTS

New alleys on or adjacent to the UMMSM campus are to be designed based on the sections contained in the Street Standards.

R.O.W.	25'
Paved Area	25'
Intended Movement	Yield Movement
Design Speed	10 MPH
Lanes	2 Lanes
Parallel Parking	None
Travel Lane Width	12'
Walkway Type	6' sidewalk
Planter Type	n/a
Landscape Type	n/a



## URBAN STANDARDS

### Building Configuration

The illustrations of two buildings are shown (right) with highlights of focus respectively on the pedestal, tower, and penthouse. This is a typical building configuration; however, other building types are also permitted.

### Massing

Massing determines the height and shape of the building, defines view corridors, and supports a healthy pedestrian environment.

The building mass is described as three elements; the **Pedestal**, **Tower** and **Penthouse**:

The **Pedestal** is the first perceivable aspect of a building which shapes the street frontage.

The **Tower** is the tall structure, vertical in proportion, above the **Pedestal**, with a floorplate area less than that of the **Pedestal**. z **Tower** cannot be more than 80% of the **Pedestal** roof area.

The **Penthouse** is the visual peak of the building. Smaller than the Tower, the **Penthouse** is typically characterized by a decorative feature that distinguishes it from other buildings.

### Building Height

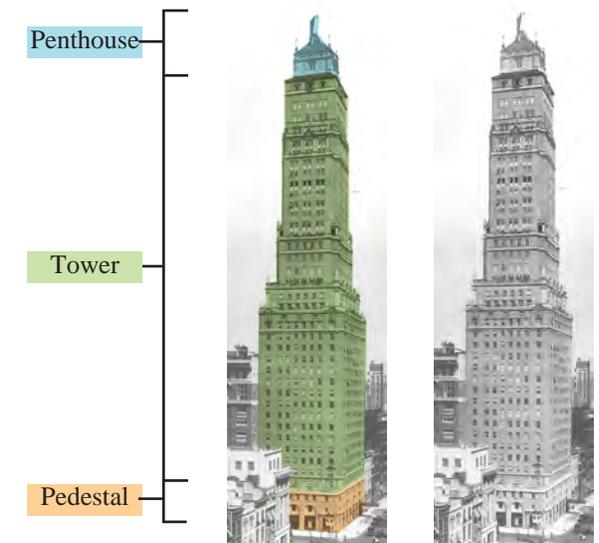
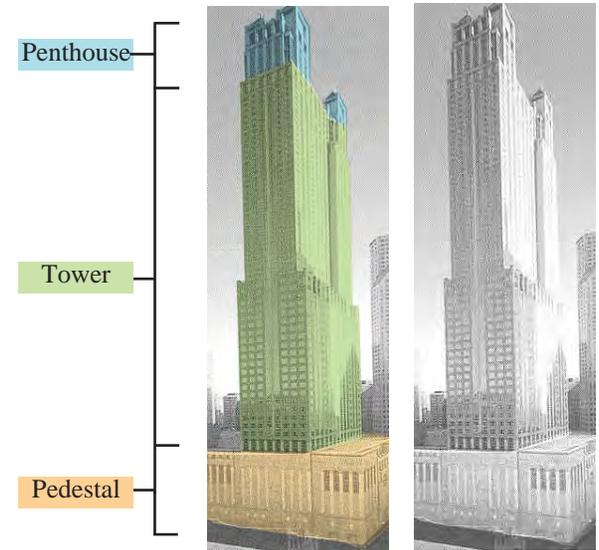
Building heights are regulated by airspace evaluation requirements established by the Federal Aviation Administration (FAA) and on file with the Aviation Planning Division of the Miami Dade Aviation Department. There is no other regulatory height limit.

#### Pedestal

Pedestal minimum/maximum height requirements vary according to the Street Frontage. The first story must be a minimum of fourteen 14 (fourteen) feet in height.

#### Parking Structures

Parking structures have no height limit, except that they shall not be taller than the buildings hiding them from view. The parking structure levels need not align with the floor levels inside the building, however, accessibility requirements for the disabled still apply.



## BUILDING FRONTAGES AND SETBACKS

### Frontages:

All primary entrances to buildings shall occur facing the street. Buildings along a courtyard or major pedestrian pathway are required to have two entrances, one at the street and one that opens to the courtyard or pedestrian pathway. Primary entrances should be distinguished architecturally through height or other architectural features from other entrances. Primary entrances to buildings shall not face parking lots, side courts, or occur inside parking garages.

Colonnades are required along all street frontages. When an entire block is to be built at once and includes a parking structure, a liner building with habitable space is required on all street frontages. No liner buildings are required along service alleys, provided the façade of the parking garage looks like a building with windows and is of a design compatible with the rest of campus.

For more detail with regard to colonnades and other frontage types see Section A (Page 65) of the Architectural Standards, Special Building Elements & Appurtenances

### Pedestrian Passages / Liner Buildings:

- Cross block passages are encouraged to provide access to mid-block parking, and should occur on block faces at a minimum of every 200 feet. Cross block passages should be at least (12) twelve feet wide, and no less than eight (8) feet wide, and are encouraged to align with one another, in order to provide access all the way across the block, and to adjoining blocks.
- A liner building is a narrow building which wraps around and is attached to a parking structure, or a narrow, free-standing building at the edge of the property that conceals the parking.
- Parking Structures must be lined on the outside of all floors by at least a twenty (20) foot-deep layer of habitable space. Ground floors of garages may contain lobby entrances, access to parking, and should also contain retail space.
- Recommended liner building depths are thirty (30) to forty (40) feet for residential and office, fifty (50) to sixty (60) feet for retail.

### Tower Setbacks:

The tower is to be set back from the building pedestal according to the Street Frontage type.

The spacing between any two towers must be no less than sixty (60) feet, unless across a narrower public right-of-way from each other.

## BUILDING STANDARDS

### STREET FRONTAGES

#### Building Height

**Pedestal** – At street front, four (4) stories minimum / eight (8) stories maximum.

**Tower** – No maximum height other than Federal Aviation Administration (FAA) Regulations. While there is no height limit the tower must terminate with a penthouse.

**Penthouse** – No maximum height other than Federal Aviation Administration (FAA) Regulations. Penthouses may be three (3) stories minimum / five (5) stories maximum.

#### Building Placement

**Front** – Zero (0) foot build-to line for pedestal / ten (10) foot minimum setback for tower and penthouse.

**Interior Side/Rear** – Zero (0) foot setback for pedestal / ten (10) foot minimum setback for tower.

**Frontage Length** – Minimum eighty (80) percent of lot width.

#### Streetfronts

**Vehicular Entries** – Not permitted, except when building is not accessible from a street of lesser hierarchy. If other frontages do not permit vehicular entries, the maximum vehicular entry width permitted shall be thirty-three (33) feet.

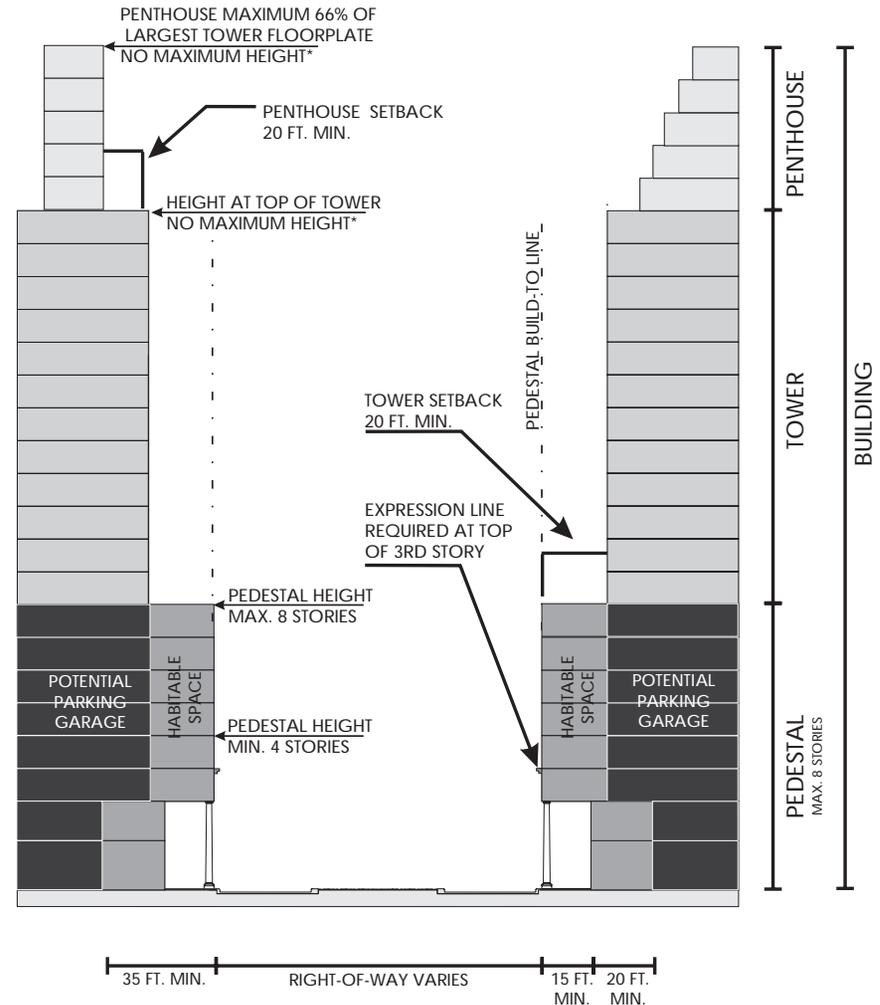
**Habitable Space** – Twenty (20) foot minimum depth for full height and length of pedestal.

**Expression Line** – Required at the top of the third story.

#### Off-Street Parking

**Colonnade Levels** – Twenty (20) foot minimum setback from interior wall of colonnade.

**Other Levels** – Twenty (20) foot minimum setback from pedestal build-to line.



\* See Federal Aviation Administration (FAA) Regulations for Maximum Heights

**ALLEY FRONTAGES**

**Building Height**

**Pedestal** – At street front, one (1) story minimum / eight (8) stories maximum.

**Tower** – No maximum height other than those imposed by Federal Aviation Administration (FAA) Regulations.

**Penthouse** – No maximum height other than those imposed by Federal Aviation Administration (FAA) Regulations. Penthouses may be three (3) stories minimum / five (5) stories maximum.

**Building Placement**

**Interior Side/Rear** – Thirty (30) foot minimum setback for tower and penthouse.

**Overhead Cover** – A maximum of twenty-five (25) percent of the street may be covered above the first floor with structures connecting buildings including roofs, upper story terraces, pedestrian bridges, or automobile bridges between parking garages.

**Frontage Length** – Seventy-five (75) percent of lot width.

**Streetfronts**

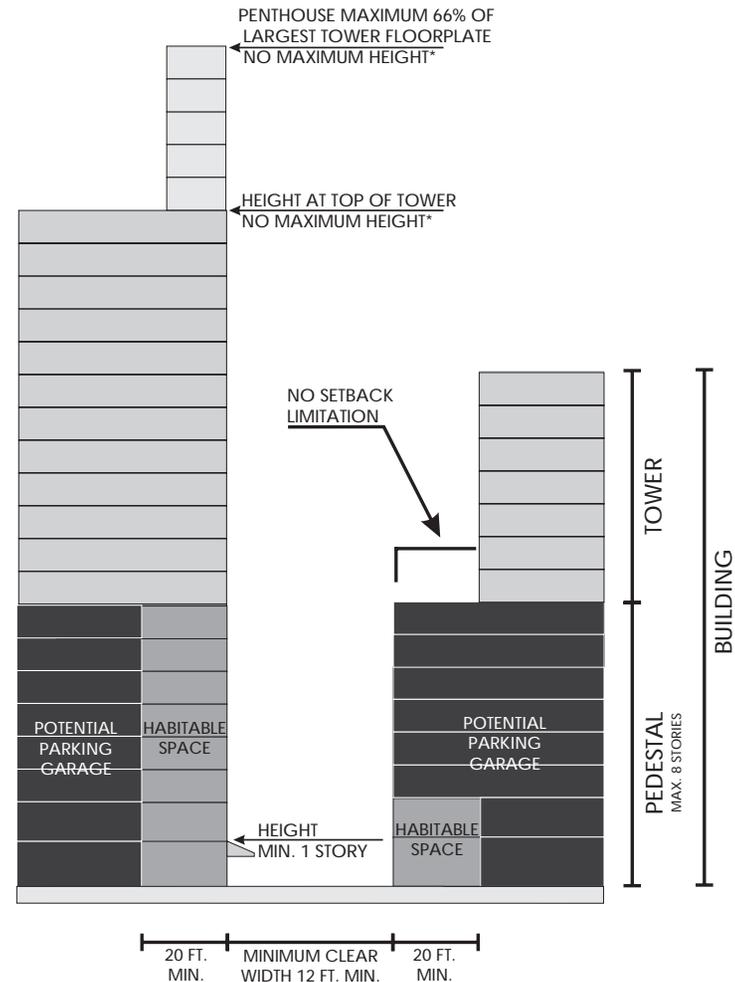
**Vehicular Entries** – Allowed. Each entry may be up to thirty-three (33) feet wide, with a minimum interval of sixty (60) feet of habitable space between each vehicular entry along frontage.

**Habitable Space** – Twenty (20) foot minimum depth for first two stories and full length of pedestal.

**Expression Line** – None required.

**Off-Street Parking**

**Street Level** – Twenty (20) foot minimum setback from pedestal build-to line.



\* See Federal Aviation Administration (FAA) Regulations for Maximum Heights

## PEDESTRIAN PATHWAY FRONTAGES

### Building Height

**Pedestal** – At street front, four (4) story minimum / eight (8) stories maximum.

**Tower** – No maximum height other than those imposed by Federal Aviation Administration (FAA) Regulations.

**Penthouse** – No maximum height other than those imposed by Federal Aviation Administration (FAA) Regulations. Penthouses may be three (3) stories minimum / five (5) stories maximum.

### Building Placement

**Front** – Zero (foot build-to-line for pedestal / ten (10) foot minimum setback for tower and penthouse.

**Interior Side/Rear** – Zero (0) foot setback for pedestal / ten (10) foot minimum setback for tower.

**Frontage Length** – Minimum eight (80) percent of lot width.

### Streetfronts

**Vehicular Entries** – Not permitted, except when building is not accessible from a street of lesser hierarchy. If other frontages do not permit vehicular entries, the maximum vehicular entry width permitted shall be thirty-three (33) feet.

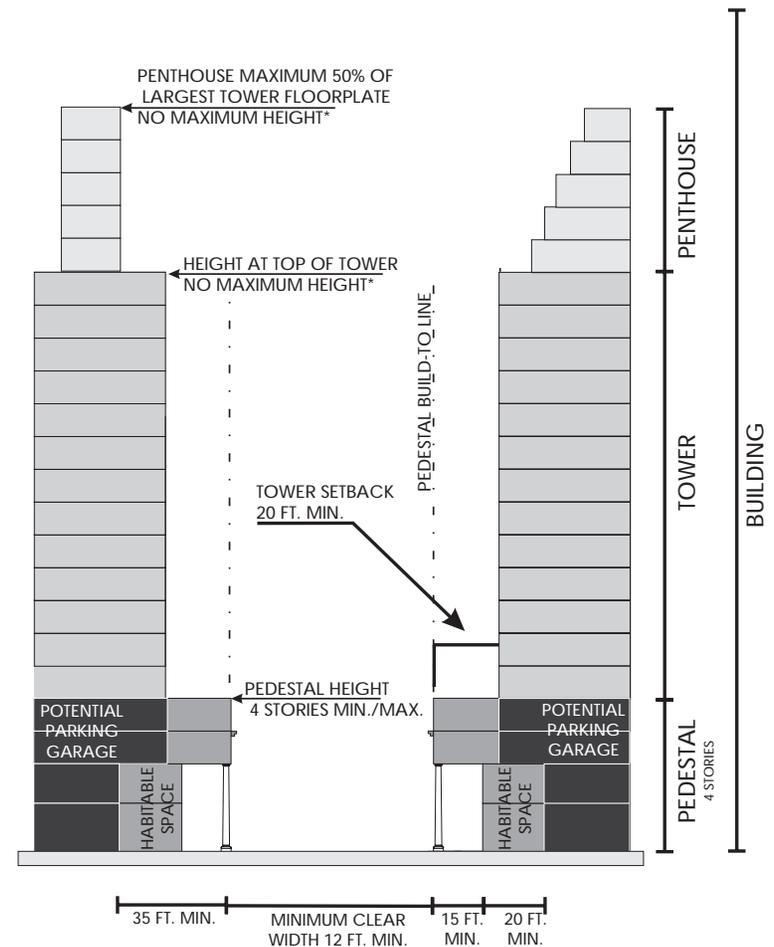
**Habitable Space** – Twenty (20) foot minimum depth for full height and length of pedestal.

**Expression Line** – Required at the top of the third story.

### Off-Street Parking

**Street Level** – Twenty (20) foot minimum setback from interior wall of colonnade.

**Other Levels** – Twenty (20) foot minimum setback from pedestal build-to line.



\* See Federal Aviation Administration (FAA) Regulations for Maximum Heights

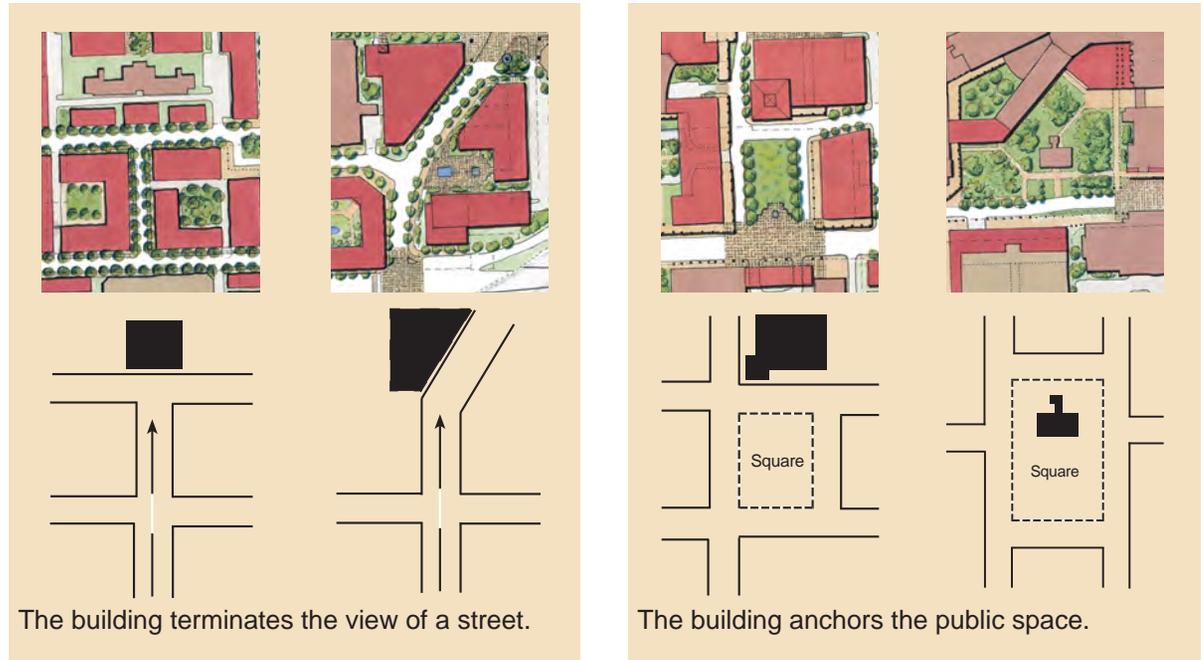
## TERMINATED VISTAS

### Generally:

- As marked on the Regulating Plan, the label Terminated Vistas refers to locations within the campus that either terminate long views, can be seen from distant locations, or frame public spaces.
- Conspicuous locations merit careful design consideration in order to express the larger message of the institution and enhance the public realm.
- Prominent roof forms, additive elements such as towers and cupolas, and other forms of architectural highlighting should be used when designing the facades of terminated vistas.
- Primary terminated vistas frame the most public and visible long views.
- Secondary terminated vistas can be seen from distances within the district and represent significant building sites.

### Building Placement:

In general, Terminated Vistas host buildings sited in locations of particular geometric importance, in order to establish the significance and character of a major public space, or to provide a prominent destination or landmark, visible from a distance.



### PRECEDENT & CHARACTER EXAMPLES:



Freedom Tower, Miami, Florida.



Biltmore Hotel, Coral Gables, Florida.



Wrigley Building, Chicago, Illinois.

## ARCHITECTURAL STANDARDS

The primary goal of the Architectural Standards is to define a character that is unique and appropriate to the climate and urban condition of the University of Miami Miller School of Medicine. The standards will support a pedestrian-friendly campus and help create a healthy community.

These standards apply to building and site components wherever these components are clearly visible from the adjoining streets or public spaces. Exemptions from compliance with these regulations may be granted on the basis of architectural merit, at the discretion of the UMMSM Campus Architect. The UMMSM Campus Architect reserves the right to reject any design for architectural inappropriateness and to waive strict compliance to Architectural Standards on the basis of architectural merit.

The illustrations and images used in this section are for illustrative purposes only and are not intended to dictate particular designs, materials or architectural styles.

### A. Special Building Elements & Appurtenances

These rules apply if any of the following special elements are included in a building design:

- Awnings / Marquees
- Balconies
- Colonnades / Arcades / Galleries
- Forecourts
- Small Footprint Towers / Cupolas

### B. Architectural Elements

Contains general requirements, permitted finish materials and configurations for the following:

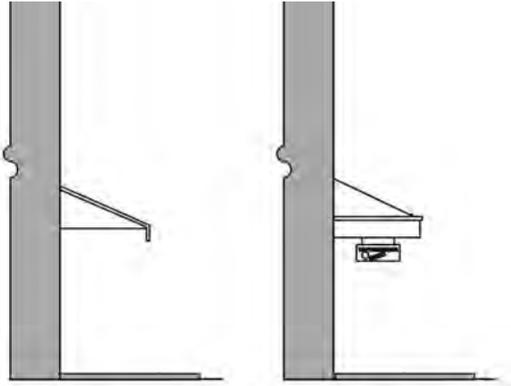
- Building Walls
- Columns, Arches, Piers, Railings & Balustrades
- Windows & Doors
- Roofs
- Parapets, Overhangs and Brackets
- Signage
- Outdoor Lighting
- Streetwalls & Garden Walls
- Solar Design Features
- Outdoor Dining
- Paint Types and Colors
- Parking



Mizner Park, Boca Raton, Florida.

**SPECIAL BUILDING ELEMENTS AND APPURTENANCES**

**AWNINGS / MARQUEES**



Awnings can be added to existing buildings.



Philadelphia, Pennsylvania

Depth = 5 ft minimum.  
 Height = 10 ft minimum clear.  
 Length = 25% to 100% of Building Front

The above requirements apply to first-floor awnings and marquees. Marquees shall not be permitted above the first floor.

Marquees and Awnings shall occur forward of the Build-to Line and may encroach within the right-of-way, but shall not extend into the planting zone.

Awnings shall be made of fabric or metal. High-gloss or plasticized fabrics are prohibited.

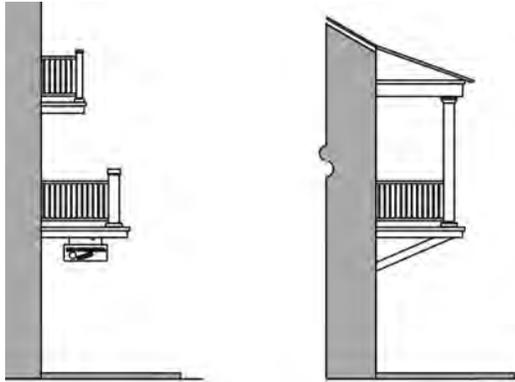


Miami, Florida



Ybor City, Tampa, Florida

## BALCONIES



Depth = 6 ft minimum for 2nd floor balconies.  
Height = 10 ft minimum clear.  
Length = 25% to 100% of Building Front.

Balconies may encroach within the right-of-way with special permission of the controlling agency for that right-of-way, but shall not extend into the planting zone.

Balconies shall be permitted to have roofs, but are required to be open, un-airconditioned parts of the buildings.

On corners, balconies shall be permitted to wrap around the side of the building facing the side street.

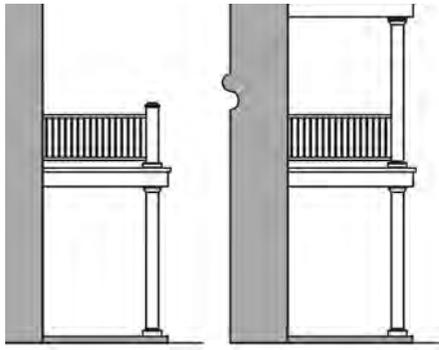


Havana, Cuba



Coral Gables, Florida

COLONNADES / ARCADES / GALLERIES

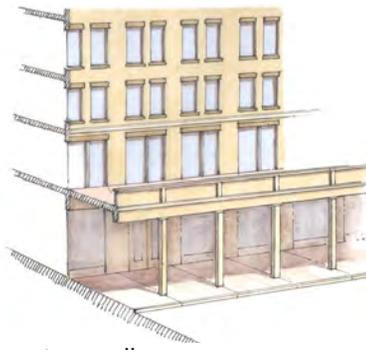


Depth = 10 ft min. from the build-to line to the inside column face. 24" from outside column face to curb.  
 Height = 12 ft minimum clear.  
 Length = 75-100% of Building Front.

Open multi-story verandas, awnings, balconies, and enclosed usable space shall be permitted above colonnades and arcades.

Colonnades and arcades can extend into a public right-of-way to within 2 ft of the curb line.

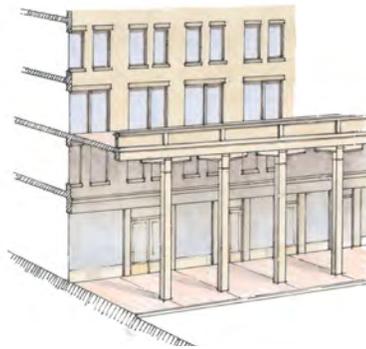
On corners, colonnades, arcades, and galleries shall be permitted to wrap around the side of the building facing the side street.



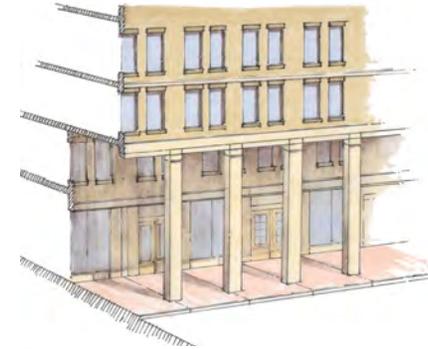
One-story gallery



One-story colonnade



Two-story gallery



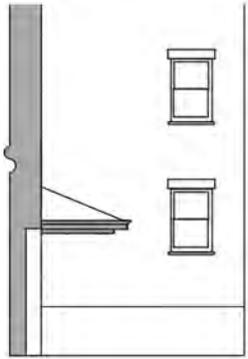
Two-story colonnade

Openings shall be of a vertical proportion where the height of the openings are greater than the width of the opening.



Mizner Park, Boca Raton, Havana, Cuba Florida

## FORECOURTS



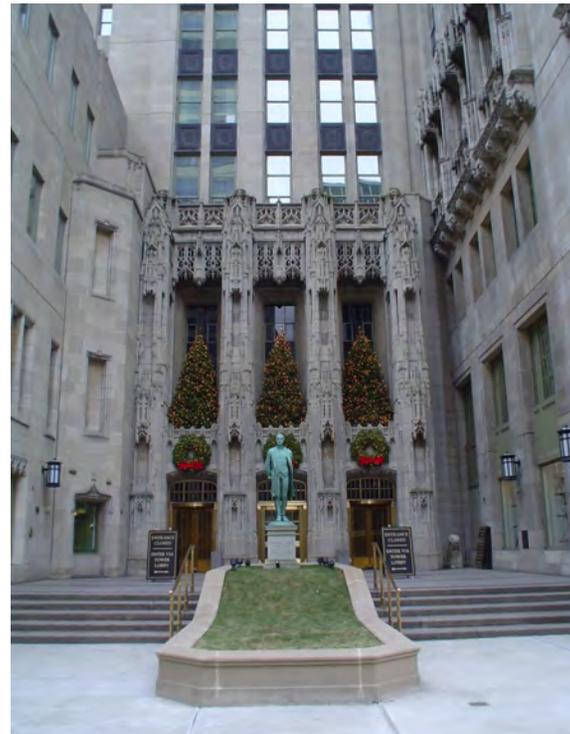
Depth = 10 ft minimum to 30 ft maximum.  
Height = Determined by the number of stories  
Length = 5% to 30% of Building Front.

Forecourts are usable open spaces that recess behind the front plane of the primary façade of the building. They are typically used as the entrance to the building and include walkways, terraces, and/or decorative landscaping. They may be open to the sky, or enclosed, but not air conditioned.

Forecourts shall not be used for storage of any kind, nor for vehicles, mechanical equipment such as ground-level electrical transformers, air conditioning compressors, pump houses, and cable and telephone cabinets.



Forecourt

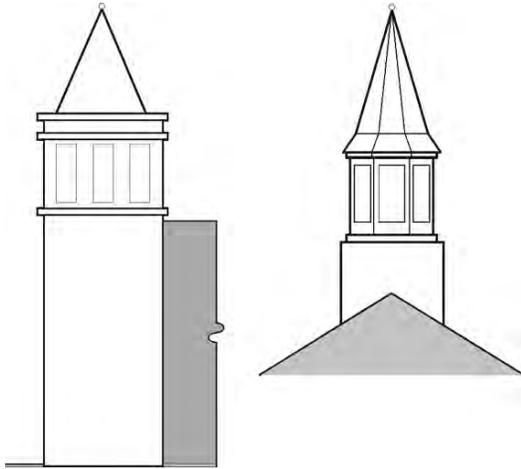


Chicago, Illinois.



Coral Gables, Florida.

## LANTERNS, CUPOLAS &amp; CAMPANILES



Plan Area = 30' x 30' Maximum Footprint  
 Height = There is no height limit, except as limited by the Federal Aviation Administration (FAA) guidelines.

Lanterns and cupolas are generally located at the top of buildings as part of the penthouse, whereas campaniles are freestanding buildings. Lanterns, cupolas and campaniles are required in locations identified on the Regulating Plan as Terminated Vistas. For other requirements on Terminated Vistas see Page 64.



Hoover Tower,  
 Stanford University, California.



Biltmore Hotel,  
 Coral Gables, Florida.

## ARCHITECTURAL ELEMENTS

The permitted materials and configurations described in the Architectural Elements section are based on the architecture of South Florida as well as best practices from other cities and campuses.

The standards encourage a language of architecture distinctive to the UMMSM, expressive of the unique climate, conditions and history of the institution. The larger message of the institution is generally given precedence over individual expressions of particular building functions, acknowledging the realities of changeability of use and the extensive time-horizon of the institution. The UMMSM Campus Architect reserves the right to reject any design for architectural inappropriateness and to waive strict compliance to the Architectural Standards on the basis of architectural merit.

### General Requirements:

The following shall be located in service areas and not facing streets or pedestrian walkways:

- Window and wall air conditioners
- Electrical utility meters
- Air conditioning compressors

The following shall be located only in the service areas as shown on Page 1.6. They shall be screened from view of pedestrian walkways by a sight-obscuring wall made of a material to match the facade of the principle building:

- Antennas
- Satellite dishes
- Loading docks
- Outdoor storage
- Dumpsters

The following are prohibited on campus:

- Reflective and/or bronze-tint glass
- Backlit awnings
- Glossy-finish awnings



Dade County Courthouse, Miami, Florida.

## BUILDING WALLS

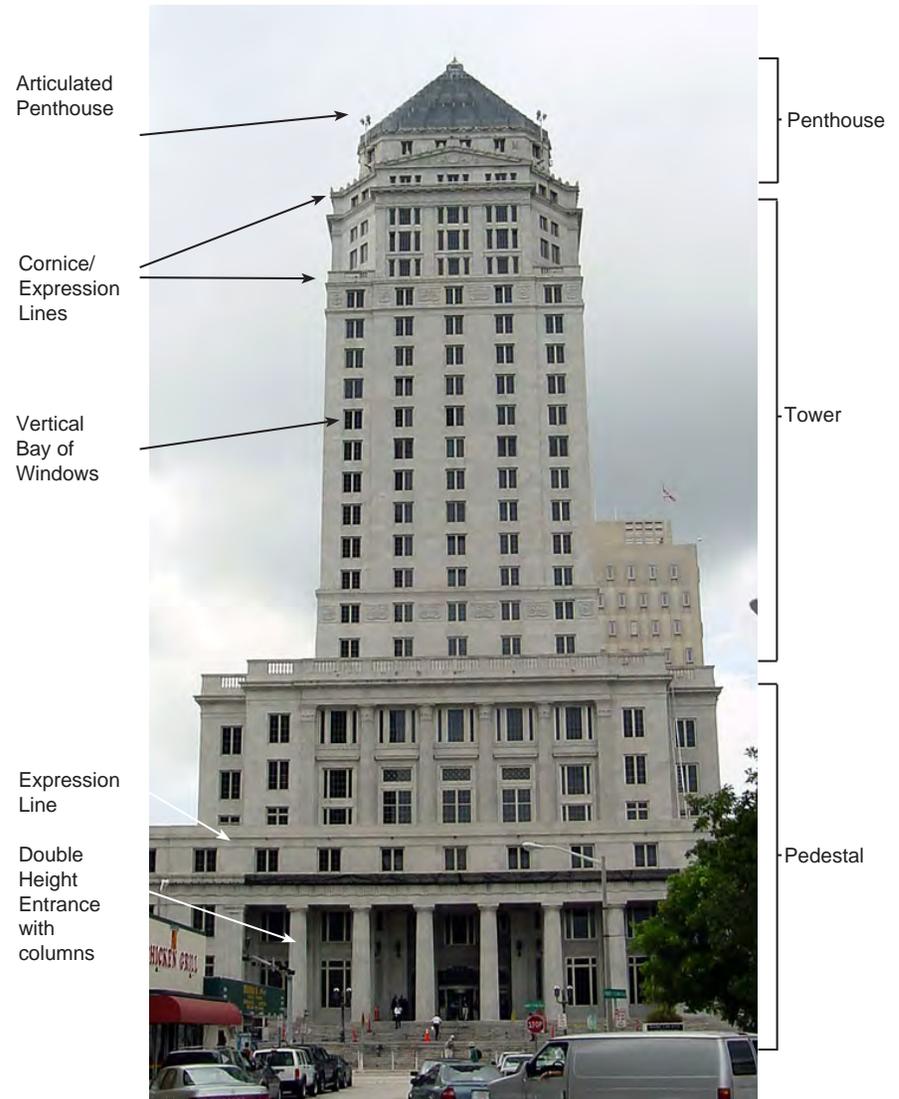
### General Requirements:

*Required for all buildings:*

- As described on Page 60, buildings shall be composed of a pedestal, tower and penthouse. The requirements of each are described here.
- An expression line shall delineate the division between the first story and the second story, or between the pedestal and the body. The tower shall be delineated from the penthouse through a cornice or other beltcourse. Expression lines shall either be moldings or a stone/brick string. Cornices shall extend a minimum of 10 inches from the building wall.
- Windows are to be organized into vertically oriented bays composed to relate to the pedestal, tower and penthouse together, and shall form a repetitive pattern across the facade.
- The penthouse shall be articulated in a way that visually terminates the building and provides a distinctive profile to the building skyline.

### Permitted Finish Materials & Wall Types:

- Stucco, Stone, Brick, Glass
- E.I.F.S., Fiberglass (as cornice material), and composite materials: must be located out of reach of pedestrians and must visually appear to have a hand trowelled finish.
- Wherever possible, architectural and structural features or other green building materials addressing LEED (Leadership in Energy and Environmental Design) criteria shall be used in the construction of building walls, including recycled-content sheathing, siding composed of reclaimed or recycled material, salvaged masonry brick or block, and locally-quarried stone.



Dade County Courthouse, Miami, Florida.

COLUMNS, ARCHES, PIERS, RAILINGS, BALUSTRADES

**General Requirements:**

Column and Pier Spacing:

- Columns and piers shall be spaced no further apart than they are tall.
- Column proportions must be consistent with those found in the *American Vignola: A Guide to the Making of Classical Architecture*, by William Ware.

**Permitted Finish Materials:**

Columns:

- Cast iron, Concrete with smooth finish
- Stone

Arches, Lintels, and Sills:

- Concrete masonry units with stucco (C.B.S.),
- Reinforced concrete with stucco Stone

Piers:

- Concrete masonry units with stucco (C.B.S.),
- Reinforced concrete with stucco, Brick, Stone

Railings & Balustrades:

- Aluminum, cast iron, wrought iron, concrete, stone

**Permitted Configurations:**

Columns:

- Square, 6" minimum, with or without capitals and bases
- Round, 6" minimum outer diameter, with or without capitals and bases

Arches:

- Semi-circular, Segmental, Pointed

Piers:

- 8" minimum dimension

Railing:

- Top Rail: 2-3/4" minimum diameter
- Balusters: 4" o.c. spacing minimum, 6" o.c. spacing maximum



Downtown Miami, Florida.



Delray, Florida.



Fort Myers, Florida.

## WINDOWS & DOORS

### General Requirements:

- Window openings shall be oriented vertically (taller than they are wide).
- Windows shall use clear glass panes and be operable for at least the first three floors. Glass should have a light tinting (10%) if any.
- A header and sill is required for all windows that are not located as part of a shopfront. See Section 4: Window Detailing.
- The following accessories are permitted: Shutters (operable only), Wooden Window Boxes, Muntins and Mullions, Fabric or Metal Awnings (no backlighting; no glossy-finish fabrics), Sliding or hinged (awning-style) sun screens.
- Mullions shall be dimensional on the exterior. True divided lites are encouraged.
- Operable doors are recommended at a maximum of fifty (50) feet spacing for commercial uses on any façades with frontage.
- Windows should be organized into vertically oriented bays that are repeated within the body of the building.

### Permitted Finish Materials:

- Windows & Storefronts: Wood, Aluminum, Copper, Steel, Clad Wood
- Glass should meet or exceed the minimum LEED standards for energy efficiency.
- Doors: Wood or Metal.

### Permitted Configurations:

- Windows: Rectangular, Transom, Sidelite
- Window Operations: Casement, Single- and Double-Hung, Industrial, Fixed Frame (36 square feet max.)
- Door Operations: Casement, French.



Maui, Hawaii.



Coral Gables, Florida.



Downtown Miami, Florida.

## ROOFS

### General Requirements:

- Permitted roof types: flat, gable, hip, and shed. Flat roofs shall be concealed with parapets along the street frontage. Applied mansard roofs are not permitted.
- Exposed rafter ends (or tabs) at overhangs are strongly recommended (See Page 76).
- Exposed brackets at wide eaves are encouraged (See Page 76).
- Downspouts are to match gutters in material and finish.

### Permitted Finish Materials:

- Metal: Galvanized, Aluminum, Zinc-Alum.
- Tile: Concrete, Clay, Glazed Ceramic Tile, Synthetic (by special approval only) .
- Gutters: Copper, Aluminum, Galvanized Steel.
- Whenever possible, use recycled-content, 30- or 40-year roofing material.

### Permitted Configurations:

- Metal: Standing Seam or "Five-v", 24" maximum spacing, panel ends exposed at overhang.
- Gutters: Rectangular section, Square section, Half-round section.

Flat roof concealed by parapet



Tampa, Florida.



New York City, New York

Deep roof overhang



Maui, Hawaii.



Downtown Miami, Florida.

## PARAPETS, OVERHANGS & BRACKETS

The following details shall be considered in the design of parapets, roof overhangs and brackets:

- The size of the overhang, detailing and depth of the cornice, soffit, brackets, and frieze should be in proportion with the design of the structure.
- Rafter tails may be cut into a variety of decorative profiles.
- Enclosed cornices should be finished with crown and bed moldings. Soffits should be finished with beaded or v-groove tongue & groove. The soffit, on an enclosed cornice, should be trimmed with a small crown or bed & cove mold at the frieze.
- Brackets that support overhanging eaves can be decorative or structural.
- Frieze boards should project beyond the siding material.
- When exposed rafters are used, it is important that vented blocking be provided between the rafters. Continuous venting in enclosed soffits with aluminum vents is permitted on new construction, but it is recommended that it be less than 3" wide and is disguised in the soffit to the extent feasible.
- Rough sawn wood, plywood and aluminum are not permitted materials for soffit or cornice detailing.

Roof Bracket Details:



Downtown Miami, Florida.



St. Petersburg, Florida.



St. Petersburg, Florida.

Decorative Cornices



New York City, New York.



Downtown Miami, Florida.

## SIGNAGE

### General Requirements:

- All signs shall be subject to review by the UMMSM Campus Architect in order that signs are consistent and in harmony with the UMMSM campus. The UMMSM Campus Architect shall use the graphics in this section as non-binding guidelines, to make a determination of appropriateness on a case by case basis.
- Signs shall be flat against the facade, or mounted projecting from the facade. Free standing monument signs are permitted only by exception from the UMMSM Campus Architect.
- Building numbers are required.
- Temporary signs, such as sandwich boards, shall be allowed, subject to a discretionary review by the UMMSM Campus Architect.
- Building names are encouraged to be placed prominently on the facade, toward the cornice, or the entrance.
- Commemorative plaques are encouraged to be proportional to the entrance.

### Finish Materials:

- Wood: painted or natural
- Metal: copper, brass, galvanized steel
- Paint/engraved directly on facade surface

### Configurations:

- Maximum gross area of signs on a given facade shall not exceed 10% of the facade area.
- Maximum area of any single sign mounted perpendicular to a given pedestal facade shall not exceed 10 square feet.
- Signs shall maintain a minimum clear height above sidewalks of 8 feet.
- Signs shall not extend beyond the curb line.
- Building numbers shall be a minimum of 6 inches in height.

Signs mounted projecting from the facade:



Philadelphia, Pennsylvania.



The Colonnade, Coral Gables, Florida.



Alfred I DuPont Building, Miami, Florida.

## OUTDOOR LIGHTING

- The treatment of architectural lighting is an important aesthetic consideration in the built environment, with an impact on public safety and welfare. Avoid intense point-sources of light.
- All outdoor lighting shall be shielded or directed so that all of the illumination falls upon either the surface of the structure to be illuminated, or on the ground.
- All outdoor lighting shall provide illumination at ground level not to exceed the range set below:
  - Average illumination: 1.5 foot candles
  - Maximum illumination: 5.0 foot candles
- In addition, outdoor lighting shall be designed so that any overspill of lighting onto adjacent properties shall not exceed one-half (1/2) foot candle vertical, and one-half (1/2) foot candle horizontal illumination to the adjacent properties or structures.

- Certain types of lights are not permitted:
  - Exposed Fluorescent Lights
  - Exposed Incandescent Lights
  - Exposed Flood Lights
  - Flashing lights
- All exterior light fixtures, whether pole mounted or wall mounted shall be Energy Star rated, and activated by way of a solar sensor (except for emergency lighting).



Winter Park, Florida.



Downtown Miami, Florida.



Downtown Miami, Florida.



Washington D.C.

## STREETWALLS

### General Requirements:

Streetwalls can be built along vacant properties at the sidewalk edge or to contain surface parking. Construction and finished materials should match the façade of the principal building, especially if they are attached in some manner to the principal building.

### Height:

- Between three (3) feet and eight (8) feet above the sidewalk for the wall. Features may be higher.

### Permitted Finish Materials:

Construction and finished materials should match the façade of the principal building, especially if the walls are attached in some manner to the principal building.

- Wrought iron
- Stone
- Concrete Masonry Units with Stucco  
*if primary structure is masonry*
- Reinforced Concrete with Stucco - *if primary structure is masonry*

### Permitted Configuration:

Streetwalls should be solid for the first three feet of height. Above three (3) feet, the streetwalls must be more transparent by using openings or adding metal pickets or balusters.

- Wrought iron: Vertical, 5/8" minimum dimension, 4" to 6" spacing
- Stone
- Stucco: with texture and color to match building walls



Charleston, South Carolina.



Coral Gables, Florida.

## SOLAR DESIGN FEATURES

### **General Requirements:**

Although new structures should present facades which address both local streets and campus pedestrian passages, the following solar considerations should be incorporated into the design of structures where possible:

- Provide south shading by installing properly sized overhangs on south facing glazing.
- Orient windows to make best use of passive solar.
- Provide east and west shading by using glazing with solar heat gain coefficient less than 0.40 or provide natural shading with deciduous landscaping.
- Roof-mounted solar hot water and/or photovoltaic panels are encouraged to reduce grid demand energy use.

## OUTDOOR DINING

- Outdoor dining is permitted and may occur forward of the Build-to-Line, including within the public right-of-way. A minimum of 5 feet of clear sidewalk access for pedestrians shall be maintained.

## PAINT TYPES AND COLORS

- A pre-approved palette of building colors, trim colors, and accent colors shall be maintained by the UMMSM Campus Architect.
- Before being applied, exterior colors must be submitted to the UMMSM Campus Architect for approval.

## PARKING

### General Requirements:

- Required parking should be provided within a five minute (one-quarter mile) radius of the site which it serves.
- Pedestrian entrances to all parking lots and parking structures shall be directly from a frontage line.
- The vehicular entrance of a parking lot or garage on a frontage shall be no wider than 33 feet.
- Bicycle racks shall be provided at entrances to buildings as warranted.

### Off-Street Surface Parking Lot Placement

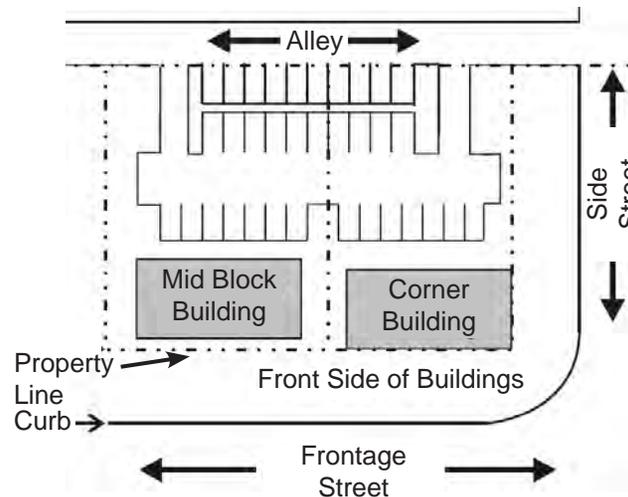
- Off-street surface parking lots shall be set back a minimum of 20 feet from any property line.
- Parking lots shall be concealed by a Liner Building, a streetwall and/or a hedge.

### Access to Off-Street Parking

- Alleys or service roads shall be the primary source of access to off street parking. Parking along alleys may be head-in, diagonal or parallel. Alleys may be incorporated into parking lots as standard drive aisles. Access to all properties adjacent to the alley shall be maintained. Access between parking lots across property lines is also encouraged.
- Corner lots that have both rear and side access shall access parking through the rear (see diagram below).

### Parking Structures:

- Parking structures shall be concealed from the frontage by a liner building.
- Parking structures have no height limit, except that they shall not be taller than the buildings that hide them from view. The parking structures levels need not align with the floor levels inside the building, however, accessibility requirements for the disabled still apply.



## PARKING

### Visibility Triangle

- Adjacent to streets, nothing shall be planted, or allowed to grow in such a manner as to form a material impediment to visibility between the heights of two and one-half (2 1/2) feet and ten (10) feet above the street grade level within visibility triangles described below:
  - At street intersections with building setbacks, visibility triangles shall be maintained to include an area bounded by the first twenty-five (25) feet along the intersecting edges of the right-of-way (or base building line) projected where rounded, and a line running across the lot and connecting the ends of such twenty-five-foot lines.
  - At intersections of driveways with streets with building setbacks: visibility triangles shall be maintained to include an area bounded by the first ten (10) feet along the intersecting edges of the base building line and the driveway, projected where rounded, and a line running across any intervening right-of-way and the lot and connecting the ends of such ten-foot lines.
- At street intersections with buildings with no setbacks: visibility triangles shall be maintained to include an area bounded by the first ten (10) feet along the intersecting edges of the base building line, projected where rounded, and a line running across the Lot and connecting the ends of such ten-foot lines.

## DEFINITIONS

**Accessibility:** Describes a site, building, facility, or portion thereof that complies with the most recent state applicable Americans with Disabilities Act Standards for Accessible Design.

**Alley:** A publicly or privately owned secondary way which affords access to the side or rear of abutting property.

**Appurtenances:** Architectural features not used for human occupancy, consisting of spires, belfries, cupolas, or dormers; parapet walls, and cornices without windows; chimneys, ventilators, skylights, and antennas.

**Arcade:** A colonnade composed of arches rather than columns.

**Awning:** An architectural projection roofed with flexible material supported entirely from the exterior wall of a building.

**Balcony:** A porch connected to a building on upper stories supported by either a cantilever or brackets.

**Baluster:** A short vertical member supporting a railing or coping.

**Build-To-Line:** A line parallel to the property line, along which a building shall be built.

**Build-To-Zone:** Range of allowable distance from the frontage or side lot line where a building may be placed.

**Building Frontage:** The vertical side of a building which faces the primary space or street and is built to the Build-To-Line.

**Building Height:** The vertical distance measured in stories from the finished grade or sidewalk at the front property line (whichever is higher), to the eave of the roof, or cornice for building with a parapet. The maximum number of stories is inclusive of habitable roofs and exclusive of true basements.

**Colonnade:** A covered, open-air walkway at standard sidewalk level attached to or integral with the building frontage; structure overhead is supported architecturally by columns along the sidewalk.

**Facade:** The elevation of a building parallel to a frontage line.

**Cornice:** Projecting horizontal decora-

tive molding along the top of a wall or building.

**Cupola:** A domelike structure surmounting a roof or dome, often used as a lookout or to admit light and air.

**Curb:** The edge of the vehicular pavement detailed as a raised curb or flush to a swale. The Curb usually incorporates the drainage system.

**Curb Radius:** The curved edge of street paving at an intersection, measured at the inside travel edge of the travel lane.

**Design Speed:** The velocity at which a thoroughfare tends to be driven without the constraints of signage or enforcement. There are four ranges of speed: Very Low: (below 20 MPH); Low: (20-25 MPH); Moderate: (25-30 MPH); High: (above 35 MPH). Lane width is determined by desired design speed.

**Expression Line:** A horizontal line, the full width of a façade, expressed by a material change or by a continuous projection not less than two inches nor more than one foot deep. Expression Lines must cast a shadow.

**Facade:** The exterior wall of a building that is set along a frontage line.

**Frontage Line:** The portion of the lot boundary line that coincides with a thoroughfare or a civic space such as a square or park.

**Frontage Street:** The public right-of-way which serves as primary access to a property.

**Frontage Wall:** A wall, fence, or hedge built to within three feet of a lot's frontage line.

**Gallery:** A frontage wherein the facade is aligned close to the frontage line, with an attached cantilevered shed roof or a lightweight colonnade overlapping the sidewalk.

**Garden Wall:** A freestanding wall along the property line dividing private areas from streets, rear lanes, or adjacent lots.

**Habitable Space:** Building space whose use involves human presence. Habitable space excludes parking garages, self-service storage facilities, warehouses, and display windows separated from retail activity.

**Liner Building:** A building specifically designed to conceal a parking lot or a parking garage from a frontage. A Liner Building, if less than thirty feet deep and two stories, shall be exempt from parking requirements.

**Lintel:** A horizontal beam that supports the weight of the wall above a window or door.

**Lot Frontage:** The property line adjacent to the frontage street.

**Lot Width:** The length of the principal frontage line of a lot.

**Marquee:** A permanent roofed architectural projection whose sides are vertical; intended for the display of signs and supported entirely from an exterior wall of a building.

**Mullions:** Strips of wood or metal that separate and hold in place the panes of a window.

**Parapet:** A low concealing wall at the edge of a roof, terrace, or balcony.

**Planting Zone:** Area on a street or thoroughfare which contains plantings (tree wells, planting strips, etc.)

**Principal Facade** (For purposes of placing buildings along build-to lines or build-to zones): The major front plane of a building, not including stoops, porches, or other attached architectural features.

**Primary Entrance:** The main entrance to a structure which is located along the frontage street.

**Retail Frontage Line:** Frontage Lines designated on a community plan that require the provision of a shopfront, causing the ground level to be available for retail use.

**Setback:** The area of a lot measured from the lot line to a building facade or elevation. This area must be maintained clear of permanent structures with the exception of: galleries, fences, garden walls, arcades, porches, stoops, balconies, bay windows, terraces, and decks (that align with the first story level) which are permitted to encroach into the Setback.

**Square:** An inherently civic and formal green space offering a potential setting for civic buildings and monuments. Squares are spatially defined by facades of buildings and formal tree planting.

**Storefront:** Building frontage for the ground floor usually associated with retail uses.

**Story:** A habitable level within a building of no more than fourteen feet in height from finished floor to finished ceiling. Attics and raised basements are not considered stories for the purposes of determining building height.

**Streetscreen:** Sometimes called streetwall. A freestanding wall built along the frontage line, or coplanar with the facade, often for the purpose of masking a parking lot from the thoroughfare.

**Streetwalls:** A freestanding wall along a property line dividing private areas from streets and sidewalks.

**Terminated Vista:** A location at the axial conclusion of a thoroughfare. A building located at a Terminated Vista is required to be designed as a landmark structure.

**Thoroughfare:** A passage for traveling that incorporates moving lanes and parking lanes within a right-of-way.