CHAPTER 5
Final Plan and Phasing

The final campus master plan is a compilation of the ideas generated throughout the master plan process. The following pages focus on the key features of the plan as well as the phasing and steps necessary for its implementation over time. It should be noted that the Campus Master Plan is a dynamic guide for future development that will change over time. It is not prescriptive and does not included details of specific projects, timelines or budgets. Project details are developed as part of the university's biennial capital budget and a rolling horizon, six-year capital development plan approved by the Campus Planning Committee every two years.

The 2005 Campus Master Plan guides development for the next 20 years and beyond. Growth in our facilities will occur without significant increases in our student populations. We will expand our capacity for cutting edge research, replace obsolete and costly to maintain facilities and decompress overcrowded spaces where needed. We will restore and reuse many of our most historic buildings and continue to expand and improve our facilities for student services.

The planning process has been highly interactive, resulting in significant consensus and support from a wide range of constituency groups both on and off campus. We analyzed our facilities to assure they are being used for their highest and best use in support of our academic and research mission. We need to recreate ourselves in place without expanding our official campus boundary. To accomplish this, we will increase building density on the west campus creating a more traditional campus setting for the health sciences. We will build more compact structured parking across campus replacing inefficient surface parking in order to open up land for more green space and future building development.

2005 Campus Master Plan Graphic – Main Campus

A. MASTER PLAN GOALS

A series of goals were developed to direct the plan's four major components including recommendations for buildings, open space, transportation and utility systems. Those goals include:

Goal #1 - Sustainability
Protect, enhance and celebrate our lakeside setting. Develop sustainability guidelines using "green" building materials and techniques. Reduce our impact on the land and better manage energy use.

Goal #2 - Community, Academic and Research Connections
Promote the Wisconsin Idea by enhancing community connections on the main campus. Define our borders and enliven streetscapes with more trees and more public gathering places. Make boundaries inviting and transparent, providing a sense of arrival. Enhance academic connections by replacing aging buildings, adding research space, improving the quality and providing more room in our existing academic facilities. Promote interdisciplinary learning and research with new facilities.

Goal #3 – Student Life
Renew a commitment to student-life by renovating, rebuilding or restoring our unions and adding recreation facilities. Add on-campus housing space and continue to promote learning communities. Create new outdoor spaces for informal student gatherings.

Goal #4 – Buildings and Design Guidelines
Renew campus by removing obsolete buildings that cannot be renovated. Provide new buildings that are flexible enough to be used for at least a century. Preserve significant historic buildings. Organize the near-west campus to connect the central campus with the west campus. Improve connections in the south campus to the Vilas and Greenbush neighborhoods and Regent Street. Define existing neighborhoods of design to ensure that new buildings fit into their campus context. Develop comprehensive design guidelines to provide architectural coherence.

Goal #5 – Open Space
Protect and enhance existing open spaces and create new gathering areas across campus. Maintain lands in the Lakeshore Nature Preserve as natural areas that support our mission of teaching, research and outreach. Protect and enhance known historic cultural landscapes, quadrangles and courtyards.

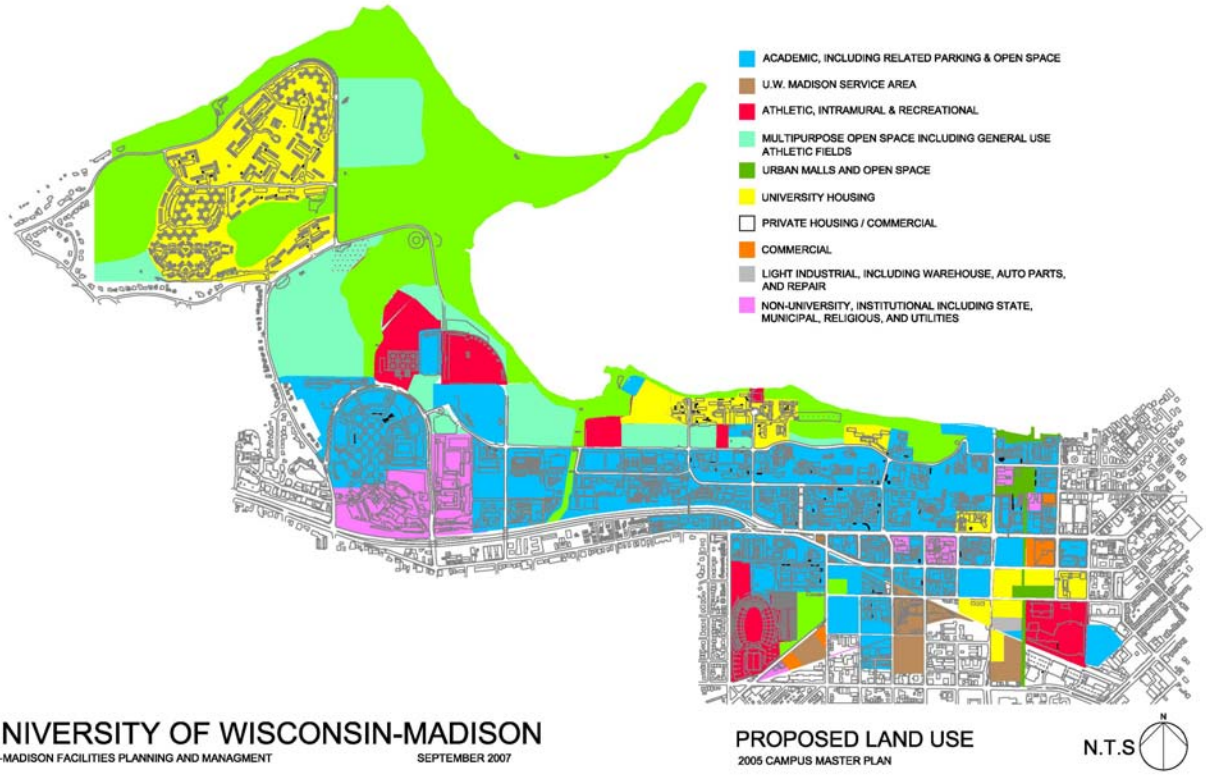
Goal #6 – Transportation and Utilities
Provide attractive options to driving alone. Maintain parking capacity at approximately 13,000 spaces, yet free up land by building more structured parking ramps. Provide more pedestrian areas, bike lanes, connected paths and bicycle commuter facilities. Plan for future development of commuter rail and streetcars. Improve streets, making them safer and pedestrian friendly. Provide a reliable utility network to meet current and future demands. Plan for future utility

corridors, taking into account new building needs and existing corridors. Investigate use of alternative fuel sources for heating plants and fleet vehicles.

B. CAMPUS MASTER PLAN RECOMMENDATIONS

Proposed Land Use

Below is a generalized map of the campus showing proposed land uses based on the details of the Campus Master Plan. This is a basic guide to land use patterns.



For the detailed master planning process, the campus was divided into four major planning areas (west, lakefront, north and south campus). A detailed listing of all major initiatives follows after the overview summary. In each section, where a new building is proposed, it is referenced to a map by a key location and building number. For example, “W-8” would be a new building on the west campus. The numeric numbers are in a simple geographic sequence and does not signify a timeline or sequence as to how the buildings would be built over time.

West Campus Area

The general goals for the west campus (approximately all land west of Babcock Drive except the lakeshore residence halls) are to:

- increase building density provide for potential future growth in the health sciences
- maintain existing recreation fields and open space connections
- improve wayfinding
- change the general character of the west campus from suburban to more of a traditional campus with large buildings organized around quadrangles green spaces
- replace single-story buildings in the near west campus to tie the west and central campus together in a more traditional campus setting building
- heights should general reflect existing buildings in the area, respecting the view sheds the UW Hospital and the VA Hospital toward the lake

Health Sciences Neighborhood and the West Campus

<u>The Health Sciences Neighborhood</u>

The Health Sciences campus, basically described as the land west of Walnut Street, is centered around the UW Hospital and the School of Medicine and Public Health. The area also includes the Rennebohm School of Pharmacy, the Lot 76 Parking Ramp, the Health Science Learning Center, the Waisman Center and Nielsen Tennis Stadium. The Health Science Learning Center,

home of the Ebling Library, medical school classrooms and the administration offices for the medical school acts as a central focus to the health sciences campus with the Rennebohm School of Pharmacy, the Interdisciplinary Research Complex (a.k.a. IRC, phase I under construction in 2006-08) and the Waisman Center all radiating out from that central point. With the development of these facilities, the migration of the medical school and UW Hospital from its original home on the central campus nears completion. Outlined in earlier campus master plans, the IRC moves the medical research and teaching facilities out near the teaching hospital to facilitate a closer bench to bed technology transfer. The consolidation of the hospital and medical school on the west campus continues what was initially envisioned in the original hospital master development plan developed in 1970 by HOK (Hellmuth, Obata and Kassabaum).

One of the main questions on the west campus is what happens when the IRC is done and the health sciences need more room to grow. The IRC project really finishes the building development inside the ring road of Highland Avenue. Clearly, growth in the research arm of the health sciences will continue to be viable and have moderate growth, perhaps up to 2% per year as we move into the future. With this growth comes the eventual need for additional facilities.

The Pharmacy School, having lost 2 floors in their building design process of the mid-1990's (to maintain views from patient rooms in the hospital to the lake) have already noted a need for additional space. The medical school also continues to request additional space in the WARF building for its Populations Health units. The UW Hospital (aka Clinical Sciences Center) itself continues to remodel and shift units/wards around to facilitate upgrades to their facilities. They too need room to moderately grow and decompress. Swing space for remodeling is always needed to help make grow and redevelopment work efficiently.

The big question then for the health sciences campus then is where do we provide room for future growth. One clear option would be to look at the 40-some acres of federal property that is south and east of the hospital. Unfortunately, both the USDA Forest Products Lab and the Veterans Hospital are consolidating their functions from around Wisconsin and the Midwest to their facilities here in Madison making them even more viable then in the past. Purchasing land from the federal government will be difficult, if not impossible. Potential does exist however for joint development projects between these two entities and the university.

Another option is to look at the 1,200+ car Lot 60 parking lot. With its sea of surface parking next to the lake, it clearly cries out for a higher and better use. The 2005 Campus Master Plan therefore suggests the relocation of the McClimon Track/Soccer complex to the Lot 60 area to finally provide a more green pervious surface next to the lake. In order to facilitate this proposal, replacement parking for the cars in Lot 60 would need to be developed first. New parking ramps are shown in the plan for the Biotron site (W-13) (700 cars with a "wrapper building of offices") and an interior parking structure in the development of expanded health science buildings (W-9A) (1,350 spaces) on the former track location. This, along with potential joint parking at the VA hospital, would provide the necessary replacement parking for the loss of Lot 60.

The new track would provide a fully developed outdoor track complex (W-5) with a competition soccer field in the center. A soccer practice facility would be developed to the east toward the

lake, again providing infiltration capacity for on-site stormwater needs. One additional option would be to provide a center, two-sided spectator seating complex that would serve a separate competition soccer field and a separate competition track complex. This concept will be studied further as detailed plans are developed.

Additionally, on the west campus, a need for increased wayfinding has always been a high priority. It has consistently been difficult for users of the UW Hospital to find the official front door as it is hidden behind the visitor/patient parking ramp. In order to present a better image, the master plan suggests rebuilding the parking ramp underground (W-2) (1,225 spaces) and providing an open roof top garden on top. This would open up the view shed to the front door and provide a more welcome and inviting entrance. This too allows for the development of addition permeable surfaces (a green roof perhaps) that would mitigate stormwater management issues. A glass covered walkway at the hospital entrance is also shown as a possibility.

On the hillside to the south of the visitor/patient ramp, is noted a potential joint development with the VA Hospital. This would provide again additional underground parking (W-3B) as well as swing space for both hospitals (W-3A). All would be overlooking the new underground parking structure and rooftop garden to the north, as described above.

On the west side of the hospital, toward University Bay Drive, lies the former MedFlight heliport and garage. This master plan proposes that a large substation (W-4B) be developed in this area to provide redundant power supply to the hospital (see 2005 Utility Master Plan) in the area of the former garage, tucked back into the hillside. (Note: In 2007, this plan was later dropped as an underground electrical feed is planned by Madison Gas & Electric coming in from the west along the rail corridor. This negates the need for an additional substation in this location.)

Also in this area is a proposed Medical School office building for medical school faculty. Currently shown as an addition module to the UW Hospital (W-4A), south and east of the American Family Children's Hospital (under construction in 2005-07). (Note: it was later suggested by the UW Hospital that they would like to reserve this space for an additional hospital module and not turn it over to the UW School of Medicine and Public Health. A new concept has emerged in 2007 that provides for a Medical School Office building in this same general location west of the old emergency department entrance.)

Off the northwest corner of the UW Hospital toward the Waisman Center, it the proposed third tower of the Interdisciplinary Research Complex (W1). Currently tower one and the base of tower two are in construction with planned completion of tower one in the summer of 2008.

Moving east of Highland Avenue, two new buildings are proposed south of the existing Rennebohm School of Pharmacy. The east-west bar shaped-shaped building (W-7) is proposed as the new home for the School of Nursing. The north-south building (W-8) being a potential expansion for the School of Pharmacy.

With the proposed West Campus Utility Extension project (in construction in 2007), Observatory Drive will be reconnected with Highland Avenue with a four way stop light at the intersection.

Also, a new road alignment is proposed due north of the existing Forest Products Lab driveway running north to Marsh Lane (formerly the east-west portion Walnut Street), just to the east of the Pharmacy Building. This new road would provide access to the proposed parking structure and provide service access to the new buildings planned for each side, east and west.

The proposed relocation of the track complex then allows for future development of academic and research facilities for the health sciences. A newly created parking structure (W-9A) would be wrapped with potential office spaces (W-9B) and have a proposed academic/research facility to the north (W-9C). Additional health science office-based research space could be created around the base of the existing WARF building. (W-11)

Also in this area, the campus master plan proposed the development of a new West Campus Union (W-6). In many of the public meetings and core group meetings with constituents in the area, we heard clearly that a west campus presence for the Wisconsin Union is needed. Meeting rooms, food service and general social space for both faculty, staff and students is needed on the west campus and the Union could have provide this type of service. The building may or may not be all Union facilities as it could be combined with academic or office spaces as well. The important connection would be to have outdoor terrace seating areas that face the lake off the northeast corner of the building. A second level terrace would also be provided that overlooks the soccer complex to the north and the recreation fields to the east.

In general, on the Health Sciences campus, fairly large buildings are being planned around new quadrangles of green space. The proposed green roof above parking at the UW Hospital connects nicely to the green space created between the existing Rennebohm building and the proposed School of Nursing, which then connects to a green space created by the new West Campus Union facility and then connects out to the recreation spaces and on to Lake Mendota. These connections of green spaces are key to the overall connectedness of the plan for the west campus and starts to create a more campus-like neighborhood rather than a suburban neighborhood that exists today with huge buildings with no formal outdoor spaces.

The West Campus Recreation Fields, north of the Waisman Center and northwest of the Nielsen Tennis Stadium, remain as recreation fields in this master plan. The large outdoor fields continue to serve an important function for the campus and will remain to do so in the future. The Class of 1918 Marsh in this area also is an important open space feature that will remain. Current work with the Department of Biology, the Department of Landscape Architecture and the College of Engineering continue to look for ways to increase learning opportunities in and around the marsh as well as develop a long term plan for renovating the marsh as an urban wetland field research station. Much of this discussion is covered in the Lakeshore Nature Preserve Master Plan which is being developed concurrent with the Campus Master Plan.

Before photo of west campus view to southwest with UW Hospital in the background.

After photo of proposed west campus development.

Other proposed facilities on the west campus include a potential joint venture with the USDA Forest Projects Lab (W-10) and a proposed addition to the Walnut Street Greenhouses (W-12)

The Federal Neighborhood

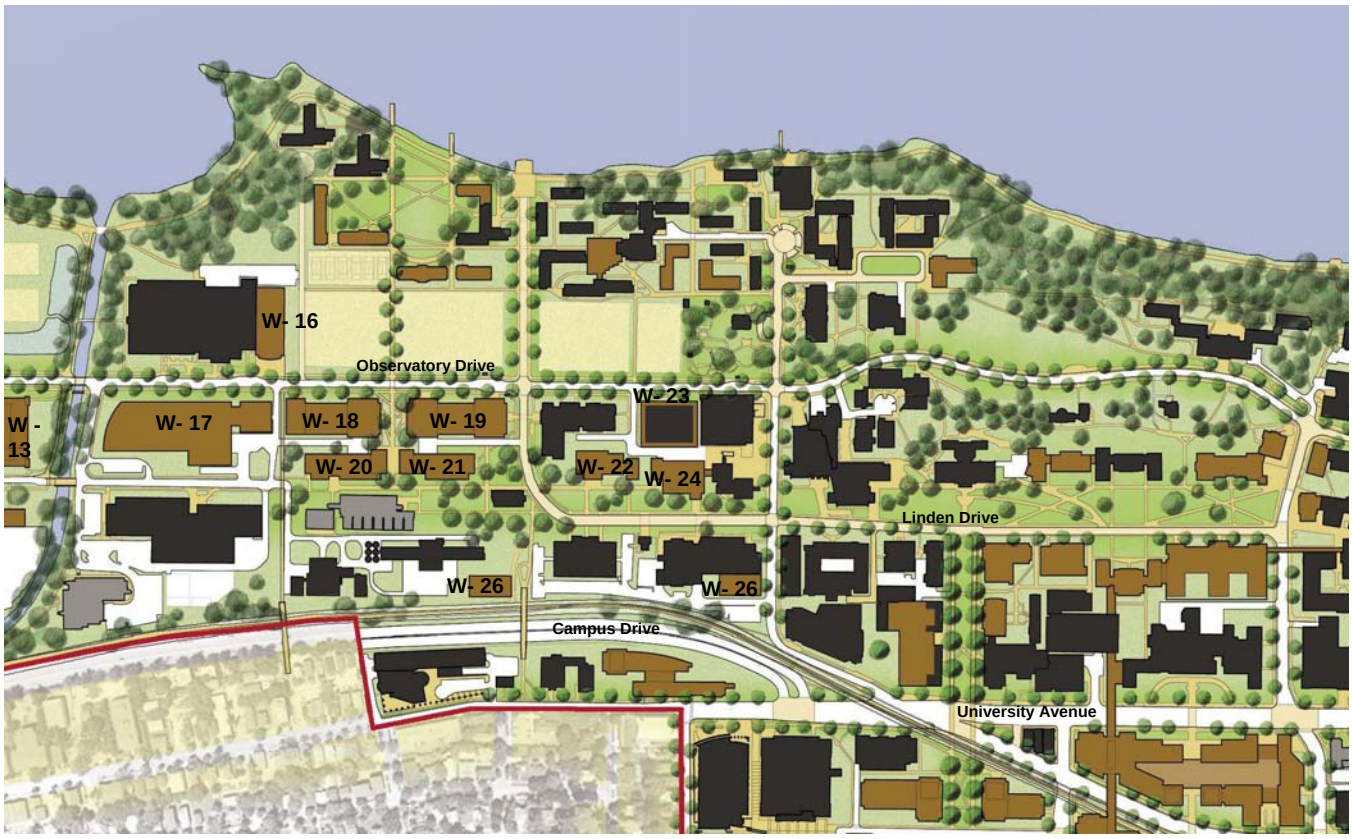
The USDA Forest Products Lab and the William S. Middleton Veterans Memorial Hospital comprise over 45 acres of land within the campus boundary. These two federal properties are shown to be continuing without significant changes. During the campus master plan process, we did approach both entities to understand their long term needs and programmatic growth potential. One known change is at the USDA Forest Products Lab, south of the WARF building, where a large research facility is proposed to be constructed. Also, a new Cereal Crops Lab was built (2006) south of Gifford Pinchott Drive replacing the Malt & Barley Lab just to the east of Walnut Street and south of the Walnut Street Heating Plant.

Joint facility development is shown as noted above, as a joint parking and office/hospital facility south of the existing patient/visitor parking ramp at the UW Hospital (W-3A and W-3B). No definitive numbers were included in the plan as to how many parking spaces would be provided. At minimum it would replace the existing surface parking lot of around 250 spaces, but could be expanded up to 500 spaces to accommodate additional replacement patient/visitor parking spaces if needed when the existing patient/visitor ramp is developed below grade. In all cases, parking numbers overall on the west campus will remain stable.

On the Forest Products Lab campus, a joint research facility is suggested along the south side of the newly extended Observatory Drive. The bar shaped building (W-10) would align with Observatory Drive on its long side to better frame the roadway and provide a welcoming entrance to the campus from the west off Highland Avenue.

The Service & Infrastructure Neighborhood

Several areas on campus are set aside in the master plan as major service and infrastructure points. This is one of several that mainly houses the Physical Plant Operations/Grounds facilities as well as two heating plants. As you move east of Walnut Street toward Willow Creek, the land use changes from one of Health Sciences to Service oriented buildings (Physical Plant services) with a proposed addition for chillers at the West Campus Cogeneration Facility (W-14). Also in this area, south of the Biotron, is a proposed new Grounds/Physical Plant Operations building (W-15) and a proposed addition to the west campus substation (W-25).



Animal & Plant Sciences Neighborhood and CALS campus

The Animal and Plant Sciences Neighborhood

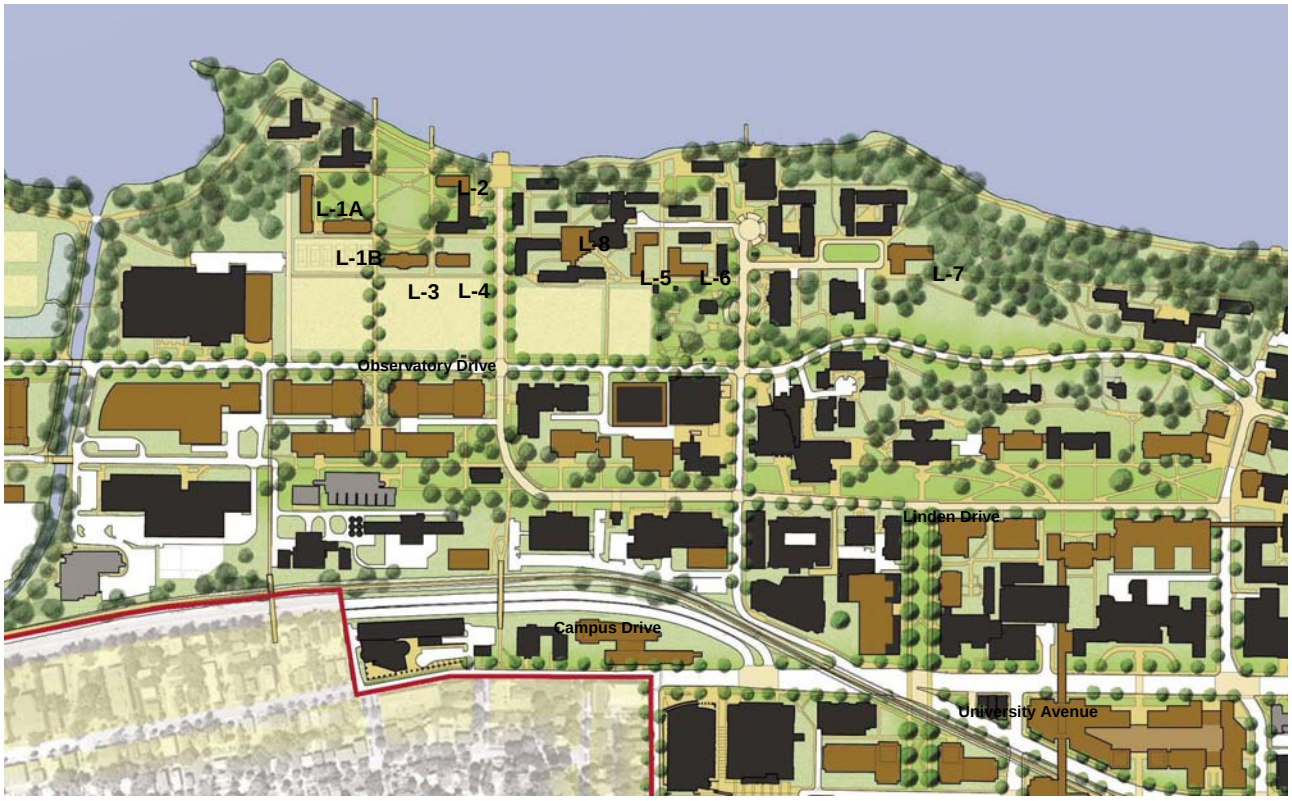
Moving east of Willow Creek, the largest proposed facility is a new Veterinary Sciences Medical Hospital (W-17) on the site of the existing Parking Lot 62. Clearly, parking here would be displaced again either under the new building or in the adjacent new parking structure west of Willow Creek on the Biotron site (W-13). Service to the new Veterinary Medical Hospital would be along the south end of the building and provide drop-off parking for the small animal hospital from the west off Easterday Drive and large animal loading and drop-off from the east off a new north-south service drive.

Also, in this entire area, the goal is to increase overall density of the campus buildings. Currently the site is a mixture of low or single story agricultural farm buildings and higher density research and academic facilities. The campus will continue to maintain its land grant agricultural buildings but clearly in some areas, density can be increased to allow for additional new research facilities to be constructed. Mainly this will occur along the south side of Observatory Drive, west of Elm Drive. The plan calls for two large academic/research facilities (W-18 & W-19) along Observatory Drive and two smaller facilities to the south of them, one for Poultry Sciences (W-20) and one for a new, rebuilt Livestock Laboratory (W-21). Service and delivery to these two building is shown to be from the east and west south of the two proposed buildings. The easterly building (W-19) would be serviced off of Elm Drive and the westerly building would be serviced off a new service drive between the proposed (W-17) Veterinary Hospital and the proposed research facility (W-18).

To the east of Elm Drive, north of the existing historic Stock Pavilion and north of Linden Drive, two new buildings are planned, both for potential new Plant Sciences buildings (W-22 & W-23). The latter of which requires the redevelopment/removal of the westerly portion of Russell Labs.

To the north of these two sites, lies the existing Lot 36 Parking Ramp which is proposed to have a two-story vertical addition to accommodate an additional 117 vehicles. These spaces would be replacement parking for spaces lost to the proposed lakeshore residence halls in the area of parking lot 58 (see below) where we will lose approximately 131 spaces.

Finally, to the south and east of the existing Dairy Cattle Center, a site for a proposed Meat & Muscle Laboratory has been shown on the plans (W-26). This could also be a small addition to the southeast side of Babcock Hall (also shown as W-26). At the time of the master plan process, a final decision could not be made on siting of the Meat & Muscle Biology Laboratory. (NOTE: Subsequent to the master plan process, a more detailed discussion was had with the College of Agricultural & Life Sciences on all of their facilities on campus. A decision was made to integrate the Meat & Muscle Lab into a new building north of Linden Drive on the proposed Poultry facility site (W-20) and that the two would be developed within the same building. The livestock from the Poultry facility would actually be relocated to the Arlington Ag Research Station and the Poultry meat processing would be part of the Meat & Muscle Lab.



Lakeshore Residences Neighborhood and CALS campus

Lakeshore Campus Area

The general goals for the lakeshore campus, mainly made up of the lakeshore residence halls north of Observatory Drive, are:

- add approximately 500 to 800 beds of new housing in the lakeshore residence hall area to alleviate the chronic shortage of on-campus housing capacity for first-year students
- buildings should be residential in scale and of materials similar to the existing limestone residence halls constructed in the 1940's
- buildings should be organized around major areas of green space and maintain the existing active recreation fields for student enjoyment and active exercise
- views toward Lake Mendota should be created, enhanced and made to be an integral part of the overall master plan, especially at the north ends of streets and walkways

<u>The Lakeshore Residences Neighborhood</u>
An addition is shown to the east off the existing Gym II/Natatorium facility (W-16) which is in preliminary planning with the School of Education, Recreation Sports and Intercollegiate Athletics. To the north and east are shown proposed new residence halls (L-1A, L-1B, L-3 & L-4) to meet the continued demand for first year student on-campus housing. Also shown in this area is a small addition to Bradley Hall (L-2) which is suggested to help provide community rooms for this 1950's era dormitory that doesn't provide such space in its existing configuration.

Note in this area that a pedestrian walkway is being proposed to connect the new residence hall complex discussed above with Observatory Drive. That in-turn then connects to a larger green space south of Observatory Drive between the two new Ag research facilities discussed above in the Plant & Animal Sciences Neighborhood.

Currently, UW Housing has had a wait list of anywhere from 600 to 800 students annually who want to live in UW administered housing on campus. This proposed expansion of residence hall beds would provide up to 500 beds towards meeting that goal in a series of phases over time. UW-Madison also ranks last in the Big 10 in providing on-campus, university administered housing.

Also in this area is shown a remodeling/addition to Holt Commons (L-8), the dining facility that serves a majority of the lakeshore residence halls. (NOTE: During further detailed planning for the new lakeshore residence halls, it was decided to add a new dining facility as part of the new residence hall complex south and west of Bradley Hall. The addition to Holt Commons has been take off the table for discussion and a remodeling/small addition to the Kronshage complex is being investigated in place of the Holt Commons addition. The main concern is a lack again of community room space in these older residence halls. Space for community gatherings was planned as part of the Holt Commons remodeling and addition. It would now be part of the Kronshage complex development.)

Before photo of Lakeshore Residence Halls and CALS campus.

After image of proposed Lakeshore Residence Halls and CALS campus.

The second phase of additional residence hall beds would be see in the area south and east of Kronshage Hall, west of Humphrey Hall and Jorns Hall in the area of Parking Lot 32. This

facility made up of one or two interconnected buildings (L-5 & L-6) would fulfill the need for up to 500 additional residence hall beds in the lakeshore area. Finally, if additional beds are still needed to meet the demand for housing first year students on campus, a final phase would be developed east of Tripp Hall on what is currently Parking Lot 34 (L-7). This would be perhaps an additional 250 to 300 beds depending on final design and layout.

North Campus Area

General goals for the north campus (roughly defined as Babcock Drive on the west, Lake Street on the east and University Avenue on the south) are:

- maintain the traditional campus arrangement of buildings around sweeping lawns and quadrangles of green space
- create a new pedestrian environment along Linden Drive west of Charter Street recalling the Greater Mall concept from the 1908 Campus Master Plan
- infill with new research/academic facilities where necessary but always in an understanding of the open spaces created with the new spaces
- maintain and reuse the historic building fabric whenever possible
- remove buildings from the 1960's and 1970's that have outlived their useful life and can not be reprogrammed or renovated for a higher and better use

North Campus from Babcock Drive to Park Street

<u>The Historic Campus Neighborhood</u>

Buildings along the south side of Linden Drive, from Charter Street to Henry Mall, will be redeveloped to better meet program needs and create a more pedestrian-friendly environment along Linden Drive. Recommendations are to change the paving in Linden Drive and add more

trees to help with this goal. Vehicles would still be able to drive on Linden Drive, especially buses, service/emergency vehicles and cars parking in the area, but in general it should look more like a pedestrian environment than a street for cars. General traffic should use Observatory Drive as the main east-west thoroughfare on campus.

A major initiative is to renovate and expand facilities for the Biochemistry Department (N-1) to complement the 1985 wing of Biochemistry. This needs to be done in a sensitive manner to maintain the historic character of the National Register Historic District as well as maintain the architectural character of Henry Mall (a.k.a. the Lesser Mall in the 1908 Campus Master Plan). The Cultural Landscape Project report also suggests maintaining this historic character of the Henry Mall district, including keeping the Ag Journalism building along the west side of Henry Mall.

North of Linden Drive, the campus master plan shows the development of an addition to the existing School of Human Ecology building (N-2), east of Ag Hall. This project will renovate the existing building and provide an addition to the west side, replacing the existing Home Management House and the Preschool Lab in this area. This proposed building addition respects the setback from Linden Drive as established in the Great Mall concept from the 1908 Campus Master Plan by Laird & Cret.

Also following that same principal is a new academic facility on the site of Van Hise Hall (N-3A & N-3B). The project could be developed in two phases with one being taller than the other (N-3B) as it goes up the hill to take advantage of the lake views to the north. In general, this tower would not be more than 8 stories tall.

On the east side of Henry Mall, the two northerly most buildings (Stovall Hall and Old Genetics) are proposed for removal with a replacement of a new academic/research facility on the Stovall site for Nutritional Sciences (N-4). The southerly building is a new academic/research facility that is not programmed to date (N-7). Both buildings would be designed in keeping with the massing and scale of the other buildings along Henry Mall but be of a tan brick or limestone color. Henry Mall continues to be the dividing line between buildings in the Ag campus that have red-brown brick colorations and the cream city brick that lies east of Henry Mall.

On the former Nutritional Sciences site then would a space for a new academic/research facility (N-5A) and on the former site of the Middleton Library building, home for another yet to be programmed academic/research building (N-5B). Both could be up to 6 stories tall but not set as far back from Linden Drive as the buildings along the north side of the street. The latter building (N-5B) could also connect south to the top of the Lot 20 parking deck which could then also connect in an overhead bridge to the proposed Wisconsin Institute of Discovery.

At the corner of North Charter Street and Linden Drive, the existing Bradley Memorial Hospital, Bardeen Labs and the Service Memorial Institute will all be removed for a future large new 300,000 GSF academic facility (N-6A). This proposed building complex would include underground parking for up to 600 cars (N-6B) and allow the removal of several parking lots in the area including Parking Lot 34 near the lake and the majority of all street parking along

Observatory Drive between Charter Street and Babcock Drive. This new central location for parking allow those that park in the existing lots and typically work in the central campus location to park closer to their offices. The new building would also allow for the development of a potential overhead bridge from the upper floor to the higher elevations to the east and the back (west) side of Bascom Hill, perhaps even at a level that would increase accessibility in this part of the campus.

Across Charter Street, the campus master plan proposed that an addition(s) be built on the west side of Ingraham Hall (N-14) creating a potential interior green courtyard.

North Campus from Charter Street to Lake Street

On Bascom Hill, the Education Building (a.k.a. Old Education, Old Engineering, etc.) will be remodeled under a historic renovation project. The project will also include an addition to the north off the east end of the building (N-8) as envisioned in the original building plans.

The Lakefront Neighborhood

The lakefront neighborhood is one of the most public and highly used neighborhoods on the campus, anchored by the Memorial Union, the Memorial Union Terrace and the Red Gym. The campus master plan recommends that the historic renovations to the Memorial Union continue and that a proposed addition to the north end of the Theatre wing be investigated (N-9). A small

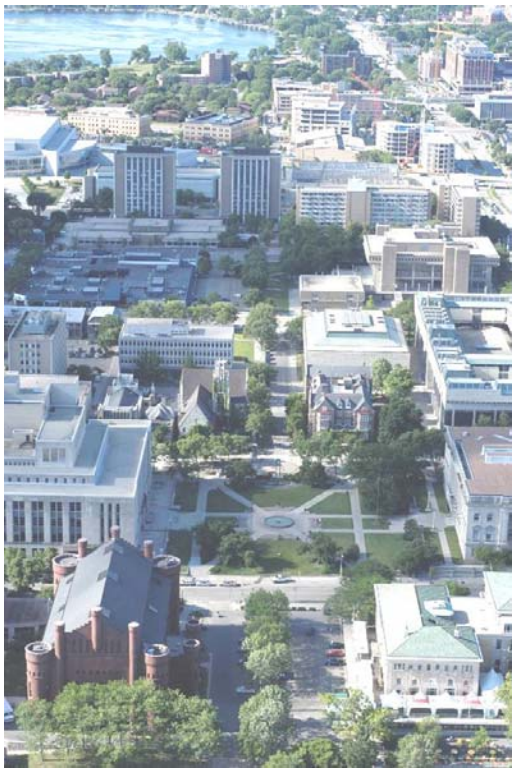
addition to the south end of the Theatre wing is also proposed to help with wayfinding and event ticketing (N-10). The Wisconsin Union developed a complete master plan document to guide these develops as a separate planning exercise at the same time the campus master plan was evolving. See appendix and related available documents.

The East Campus Mall Neighborhood

The East Campus Mall neighborhood blends across both the north and south campus (see below). The concept for an east campus pedestrian promenade has been around for many decades as was most recently defined as "Murray Mall" in the 1995 JJR Campus Master Plan. With the development of several large projects along the mall now in 2005, 2006 & 2007, the opportunity to develop the pedestrian (and bicycle) mall has finally come to fruition. The East Campus Mall links many of the student services facilities along with one of the major student housing areas on campus and at the interface of the university and city. The new 1 million GSF University Square development project (in construction in 2006-2008) between University Avenue and West Johnson Street, west of Lake Street, will provide a new home for University Health Services, the Registrar, Bursar & Student Financial Aids as well as a home for many of the student organizations on campus in the new Student Activities Center. At the northerly end of the mall will be a renovated landscape next to the Memorial Union with an underground loading/access dock and a small amount of accessible parking spaces.

Midway through the mall is the proposed addition to the Chazen Museum on the east side of Murray Street, east of the existing Chazen Museum of Art in the Elvejhem building (N-13A) (proposed for design in 2007) with an overhead connector at the upper floor. Also in this area is the future Music Performance Facility (N-13B) at the corner of University Avenue and Lake Street. North of that is the proposed Music academic facility on Lake Street (N-13C). Both of the latter two building projects allow for the eventual removal of the Humanities building as the Music Department moves out and into their new facilities.

The Humanities building, built in 1966 and designed by Chicago architect Harry Weese, will be removed and replaced with two smaller academic facilities, one of which will be a classroom building (north of the two) (N-11A) with parking below grade (N-11B) for approximately 70 cars. The southerly building will be a new Humanities Center or potential space for a proscenium theatre development at the corner of North Park Street and University Avenue (N-12A). This too would be built with parking below grade for 400 cars (N-12B) which could be interconnected with the 70-car lot noted above.



Before East Campus Mall looking south

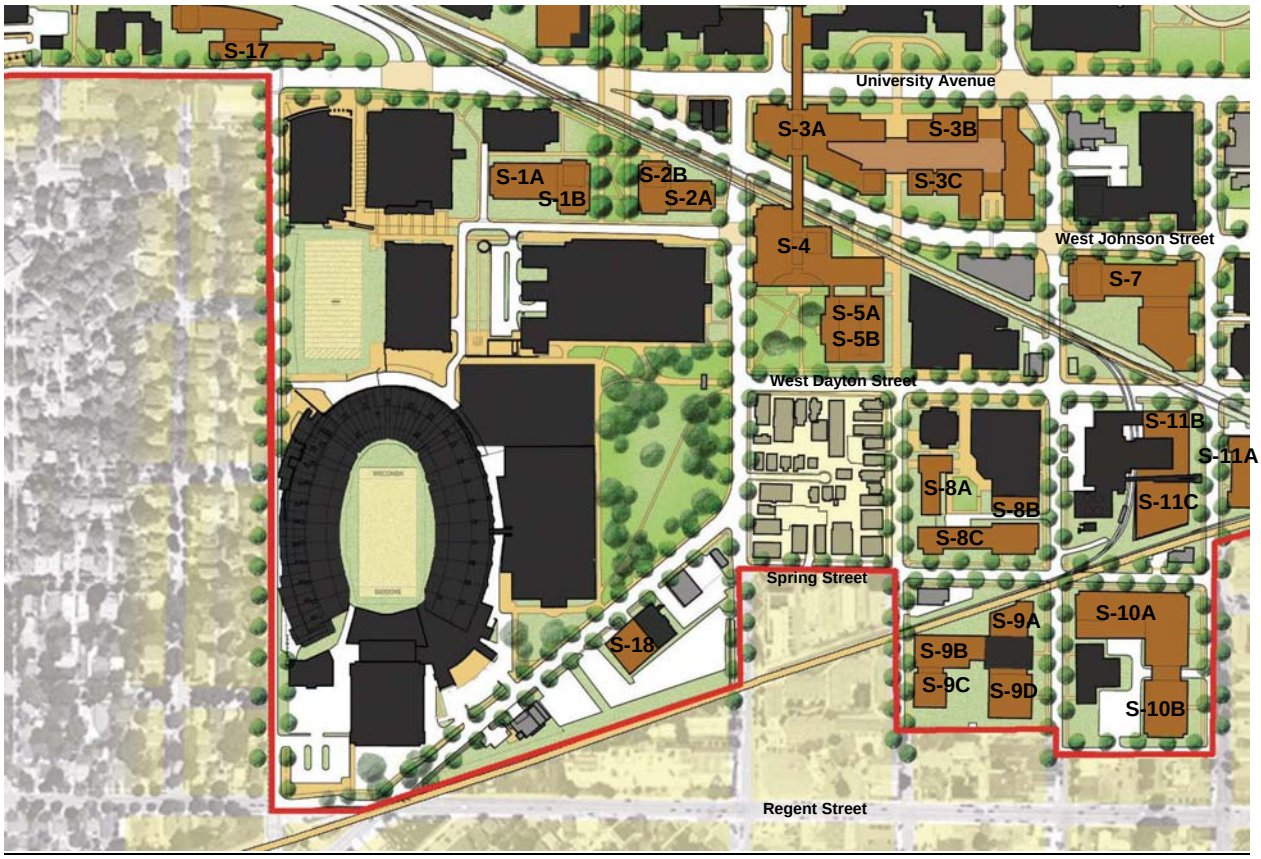
Proposed development East Campus Mall

1. Red Gym
2. Memorial Union
3. Proposed Music Performance Facility
4. Proposed Chazen Museum of Art Addition
5. Proposed Classroom Building
6. Proposed Humanities Building (new)
7. Proposed University Square (new)
8. Grainger Hall Addition
9. New Academic Building

South Campus Area

General goals for the south campus (roughly defined as everything within the campus plan boundary south of University Avenue including the existing University Health Services site, Enzyme Institute and UW Foundation building on Old University Avenue) are:

- maintain and develop the urban campus with higher and more dense buildings (8 to 10 stories tall between University and Dayton Street)
- add a double row of street trees on all major streets to help slow traffic
- provide green space in small urban "parks" and maintain the existing street grid network
- redevelop the 1200-1300 blocks of University Ave for the Wisconsin Institutes for Discovery
- redevelop the Union South block including a new parking ramp for replacement parking
- consolidate and move Physical Plant Services to the Lot 51 parking lot area
- provide growth space for additional academic/research facilities buy purchasing private parcels within the campus plan boundary



Urban Campus (west) from Breese Terrace to North Brooks Street

The Urban Campus Neighborhood

In this area of the campus, the master plan calls for redevelopment of the Union South area and the 1200 and 1300 blocks of University Avenue in support of the Governor's initiative for the Wisconsin Institutes for Discovery (S-3A), a planned interdisciplinary research center. Physical Plant services will need to be consolidated and moved the Lot 51 area to make way for the construction of the second phase of the Institutes (S-3B). The Brogden Psychology Building will need to be removed for the third phase of the development (S-3C). Overhead pedestrian bridges were discussed as an option during the development of the master plan which would provide access over University Avenue and Campus Drive, connecting the Institutes for Discovery, the new South Campus Union and facilities north of University Avenue (namely the Lot 20 parking ramp). Final decisions on when and if these 2nd level bridges would be developed and how they would be funded has yet to be made. There is some concern that bridges would take away from the vitality and street life created by pedestrians using the street level crossings in this area.

The Union South block will be redeveloped to support student and faculty needs for meeting space, guest facilities, food service, open space and parking. The new South Campus Union (S-4) will provide a new home for the Wisconsin Union on the south campus replacing the outdated Union South originally built in 1969. Connected to the new South Campus Union will be a

parking garage for 270 cars in phase one (S-5B) and an additional 230 cars in phase two for a total of 500 cars. These may be underground/under building garages or a combination thereof. Part of the new South Campus Union, including the discussion of guest/hotel rooms (S-5A), would be connected to or over a portion of the parking garage with potentially its own entrance and a port-a-corche for arrival/drop-off of guests off of Dayton Street.

As part of the overall redevelopment of the Union South block, the master plan proposes to relocate the Wendt Engineering Library to the main core of Engineering on Engineering Mall. This site (S-1B) would provide a more central location and easier access to all of the engineering students in the area. It would also open up and connect green spaces for the new South Campus Union to the green space of Camp Randall Memorial Park. Under phase two of the South Campus Union parking development, this should be designed with underground parking and a green roof for outdoor use at the Union.

Additionally, as part of the continuing redevelopment of the Engineering campus, two additional buildings are proposed on each side of the Engineering Mall in conjunction with the move of Wendt Library. These two buildings (S-1A) and (S-2A & S-2B) would provide for future replacement space for the Engineering Research Building and some minimal potential growth for the engineering campus. Additional engineering campus growth or other academic/research facilities may also occur across University Avenue on the old University Health Services site (S-17). This site is a key, heroic and visual focal point for the campus being at the terminus of University Avenue as you head west and on to Campus Drive. Any development on this site would also need to respect the historic character and visual importance of the First Congregational Church across the street on Breese Terrace.

Further south, in the triangular block south of Monroe Street and west of North Randall Avenue, a proposed addition or redevelopment of the UW Police Department facilities is planned including a redevelopment of Parking Lot 16 to correct storm drainage and vehicular circulation problems.

Moving east in the Urban Campus Neighborhood, plans include the total redevelopment of the Noland Hall and Zoology Research Building block (S-7) to replace these two buildings built in the 1972 and 1963 respectfully. Both have outlasted their useful life and integrative biology buildings are greatly needed on campus which could be sited in this location.

To the south, on North Orchard Street just south of the Atmospheric, Oceanic and Space Sciences Building, is currently the site of two former residence halls, the Rust-Schreiner Hall complex. These buildings, currently used as swing space for a variety of on campus units, was discussed in the master plan process as a potential site for a campus-wide child care facility (S-8A). It has easy access off of West Dayton Street via North Orchard Street. Convenient off-street drop-off and pick-up parking facilities could also easily be accommodated in this area for use by the child care parents.

Further development in this block includes a planned museum addition to the Weeks Hall for Geological Sciences (S-8B) and a future academic/research facility along the north side of

Spring Street (S-8C). The latter would require the acquisition of several privately owned parcels which the university would pursue on an as-offered basis. No current academic program expansion is driving the need to purchase these properties. They do however remain within the university's long range campus development plan boundary.

The residential block to the west of this block, bounded by Spring Street, North Randall Avenue, North Orchard Street and West Dayton Street, continues to be shown as private housing but also within the campus development plan boundary. At some point in the distant future (+25 years), it is expected that the university may need further space for academic or research facilities in this area of the campus. This block continues to be held as an option for potential acquisition if it is ever needed in the future. Plans for acquisition would most likely not start until all other options for land acquisition within the present boundary are completed.

Further south lies the Primate Research facilities which have a planned consolidation and phased expansion of their facilities included in the master plan (S-9A, B, C & D). A detailed master plan was completed for these facilities in 2005 by Flad & Associates.

To the east of this block, east of North Charter Street, is Parking Lot 51 and the campus Fleet and Service Garage. The master plan shows further development of this block for Physical Plant services, as outlined in the 1996 Campus Master Plan. This development would include a parking ramp (S-10A) surrounded by an office/shops facility for Physical Plant (S-10B). The development could possibly include small private retail space(s) on the first floor as well as some meter parking on the first floor of the parking garage for public use.

The block to the north of Lot 51 is the Charter Street Heating Plant where the master plan shows planned additions and renovations for potential coal/solid fuel storage and facility expansions (S-11A & S-11B). Fuel storage and heating plant capacity expansions could also be done across North Mills Street to the east (S-11A).

Urban Campus (east) from North Brooks Street to North Francis Street

Moving east of North Mills Street, a proposed addition to the Educational Sciences complex completes this block with the Teacher Education building. This new building (S-12) in the southeast corner of the block, requires the acquisition of three private parcels of land. The master plan also shows that in this area a potential closing of this block of North Brooks Street between West Dayton Street and West Johnson Street to facilitate pedestrian movements in the area. This will need to be negotiated with the City of Madison before final implementation can occur.

The block immediately to the east of North Brooks Street, in the block south of Grainger, the university has additional private property to acquire before moving ahead with potential projects here. The master plan suggests a 3-wing building (S-13A, S-13B, S-13C) as an open U facing west to capture the afternoon sun. This project could include an interior courtyard as part of its

development. The 3-part building could also be done in phases as land becomes available. No specific program has been identified for this facility.

Further to the east, a proposed redevelopment is shown for Gordon Commons with possibly two small additions to the west (S-19). *(Note: Current plans in 2008 suggest a rebuilding of Gordon Commons to the south on the site of former Ogg Hall allowing the existing Gordon Commons to remain in operation until the new facility is complete thereby allowing no down time in the commissary function of the building. This new plan further suggests that the proposed green space could then be on the north half of the site with perhaps underground parking.)*

To the north is the newly redeveloped University Square project (*under construction in 2007-08)* and to the east of that, a potential addition to the existing Fluno Center (S-20) as originally proposed with the initial design of that facility. To the south of Fluno, is the Lot 46 Parking Ramp which is proposed to have two additional floors (S-15) added for increased capacity for parking in this area of campus.

Further south, around the Kohl Center, a proposed underground chiller plant expansion is proposed (S-14) to provide additional chilling capacity in this are of campus. This would be located under parking Lot 88. (*Note: In 2007, after the completion of a comprehensive master plan, the Athletic Department is suggesting the development of an expanded hockey practice facility immediately adjacent to this site just south of the SERF building. This is not shown on the 2005 Campus Master Plan but was suggested later as a way to provide a new home for women's Hockey and to provide a practice facility for the men's hockey team when basketball is practicing in the Kohl Center.)*

To the east of the Kohl Center is the Mifflin Street Warehouse. The master plan suggests a total renovation of this facility for the Art Department in the School of Education. A proposed major addition (S-16A) would also be for the Art Department and necessitate the relocation or consolidation of parking in this area (Lot 91). A new facility for Tandem Press would also be included in the redevelopment of the warehouse block (S-16B).

The Event Centers Neighborhood

For the major Event Centers on campus (Camp Randall Stadium and the Kohl Center), updates continue to occur in the stadium to address interior remodeling needs for offices and workout/training facilities. The Camp Randall Memorial Sports Complex (a.k.a. The Shell) is in need of a complete analysis and potential renovation or rebuild. The UW Athletic Department is currently developing a comprehensive master plan that will look at all of their facilities on and off campus for potential redevelopment and/or renovation. No significant changes are expected at the Kohl Center. (*Note: In 2007, the Athletic Department completed their study which recommended the development of a hockey practice facility to the northwest of the Kohl Center, south of the SERF; a new Athletic Performance facility between the Lot 17 parking ramp and Engineering Hall and a small addition and upgrade to the exterior tennis courts at the Nielsen Tennis Stadium. Additional work was suggested as well at the University Ridge Golf Course complex to include an indoor practice facility.)*

The Service & Infrastructure Neighborhood

Specific to the Service and Infrastructure Neighborhoods, and as noted in above areas, on the west campus development is proposed to include a new consolidated Grounds facility (W-15), chiller plant expansions at the West Campus CoGeneration Facility (W-14), expansion of the Walnut Street Greenhouses (W-12) and a redevelopment of the existing Biotron site into replacement parking (W-13) wrapped with potentially other potential physical plant office type spaces. On the south campus, development in the Service and Infrastructure Neighborhood includes a redevelopment of the Charter Street Heating Plant (S-11A, B & C) with a new Physical Plant complex being built on Lot 51 (S-10A & B). No proposed changes are being suggested for the MG&E substation south of the new Dayton Street Residence Hall (newly renamed Ogg Hall).

A summary of all proposed building sites is included below.

2005 Campus Master Plan Proposed Building Sites by Neighborhood

Map Ref.	Builidng Use	Area per floor GSF/ cars	Number of Floors	Parking Spaces	Total Area GSF	Comments	Needed GSF	PHASE
MAJOR OPEN SPACES								
W5	McClimon Track / Grandstand Facility	39,000	2		78,000		61,000	Phase 3
HEALTH SCIENCES								
W1	IRC Final Build Out	44,000	7		308,000		308,000	Phase 2
W2	Garden/ Parking Ramp		3	1,225			NA	Beyond
W3A	VA/ UW Hospital Joint Venture	162,000	8		1,296,000		NA	Phase 2
W3B	VA/ UW Parking Ramp Joint Venture			0			NA	Phase 2
W4a	Medical School Office Building	12,100	5		60,500	Med School needs 61,200 gsf	NA	Phase 1
W4b	Substation, west of UW Hospital	20,000	1		20,000		NA	Phase 1
W6	Academic/ Union West/ Child Care	40,500	4		162,000		NA	Beyond
W7	Nursing Building/ Health Sciences Research	27,000	6		162,000	Nursing needs 154,300	154,300	Phase 1
W8	Health Sciences Research	28,000	6		168,000		NA	Beyond
W9a	Parking Ramp		7	1,350			NA	Beyond
W9b	Health Sciences Research	25,000	6		150,000		NA	Beyond
W9c	Health Sciences Research	22,000	6		132,000		NA	Beyond
W11	WARF addition	32,000	6		192,000		NA	Phase 2
FEDERAL NEIGHBORHOOD								
W10	USDA/ FPL Joint Venture	30,000	6		180,000		NA	Phase 3
SERVICE AND INFRASTRUCTURE								
W12	Walnut Greenhouse II	24,000	1		24,000		22,200	Phase 2
W13	Parking Ramp/ Office (Old Biotron)		6	700				Phase 2
W14	CoGen Chiller Expansion	22,000	2		44,000		17,000	Phase 2
W15	Physical Plant Operations	16,000	3		48,000			Phase 2
W25	Substation Expansion, Walnut Street	10,000	1		10000			Phase 1

Map Ref.	Builidng Use	Area per floor GSF/ cars	Number of Floors	Parking Spaces	Total Area GSF	Comments	Needed GSF	PHASE
S10a	Physical Plant Parking Ramp (Lot 51)			135		~350 add'l spaces are for service/fleet		Phase 1
S10b	Physical Plant	72,000	3		216,000			Phase 1
S11a	Charter Street Plant Expansion	15,000	2		30,000		30,000	Phase 2
S11b	Charter Street Plant Expansion	19,000	2		38,000			Phase 2
S11c	Charter Street Plant Expansion	19,000	2		38,000			Phase 3
ANIMAL AND PLANT SCIENCES								
W16	Natatorium Addition	23,000	4		92,000		40,000	Phase 1
W17	Vet Med Hospital / Research /AHABS	90,000	6		540,000		363,000	Phase 2
W18	Academic/Research	38,000	6		228,000		Need	Beyond
W19	Academic/Research	41,000	6		246,000		NA	Phase 3
W20	Poultry Research Building	24,000	2		48,000		24,000	Phase 3
W21	Livestock Pavillion	21,000	2		42,000		35,000	Phase 3
W22	Plant Sciences	17,000	5		85,000		390,000	Phase 3
W23	Parking Ramp 36 Addition		2	125			NA	Phase 2
W24	Plant Sciences	20,000	5		100,000		30,000	Phase 3
W26	Meat and Muscle	10,000	3		30,000		Need	Phase 3
LAKESHORE RESIDENCE								
L1a	Housing	9,000	4		36000	100 beds (25 beds/floor)		Phase 1
L1b	Housing	8,000	4		32000	88 beds 22 beds/floor)		Phase 1
L2	Housing	6,000	4		24000	68 beds (17 beds/floor)		Phase 1
L3	Housing	8,000	4		32000	88 beds (22 beds/floor)		Phase 1
L4	Housing	6,000	4		24000	68 beds (17 beds/floor)		Phase 1
L5	Housing	8,000	4		32000	88 beds (22 beds/floor)		Phase 1
L6	Housing	9,000	4		36000	100 beds (25 beds/floor)		Phase 1
L7	Housing	11,000	4		44000	124 beds (31 beds/floor)	724 beds total	Phase 3
L8	Holt Commons Addition	12,500	2		25000		25,000	Phase 1
HISTORIC CAMPUS								
N2	SoHE Addition	16,000	4		64,000	Additional floor below grade needed for program	80,000	Phase 1
N3a	Academic	19,000	6		114,000			Beyond
N3b	Academic	6,000	8		48,000			Beyond
N4	Nutritional Sciences	18,000	4		72,000		70,000	Phase 3
N5a	Academic/ Research	16,000	6		96,000			Beyond
N5b	Academic/ Research	19,000	6		114,000			Beyond
N6a	Academic/ Research	50,000	6		300,000		210,000	Phase 3
N6b	Parking Ramp		3	600				Phase 3
N7	Academic/ Research	10,000	3		30,000			Phase 3
N8	Old Education Addition	3,500	4		14,000		18,250	Phase 1
N14	Ingraham Additions	13,000	3		32,500		40,000	Phase 1
URBAN CAMPUS								
N1	Biochemisty II, Phase II	36,000	6		216,000		250,000	Phase 1
S1a	Wendt Library Replacement/ ERB	20,000	6		120,000	192,000 total S1a,S1b	100,000	Phase 3

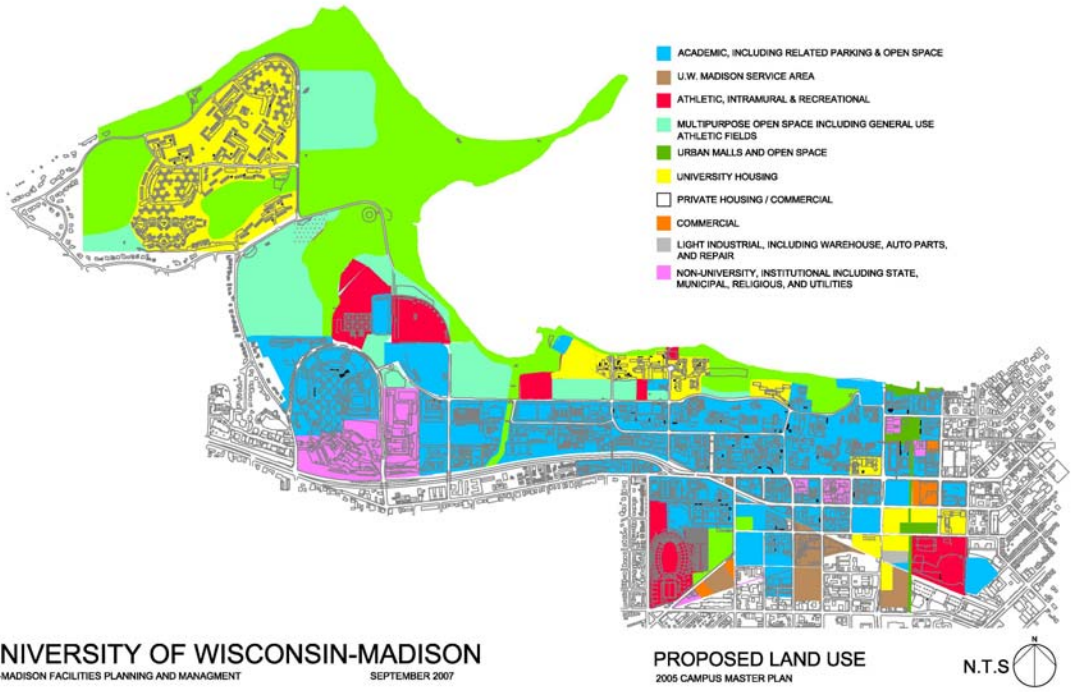
Map Ref.	Builidng Use	Area per floor GSF/ cars	Number of Floors	Parking Spaces	Total Area GSF	Comments	Needed GSF	PHASE
S1b	Wendt Library Replacement/ ERB	12,000	6		72,000	86000 for ERB		Phase 3
S2a	Engineering Research Building	18,000	6		108,000	138,000 total S2a,S2b	224,000	Phase 3
S2b	Engineering Research Building	12,000	6		72,000	86000 short (to S1b)		Phase 3
S3a	WID, Phase I	54,000	7		378,000		440,000	Phase 1
S3b	WID, Phase II	37,000	7		259,000		225,000	Phase 1
S3c	WID, Phase III	19,000	7		133,000		400,000	Phase 2
S4	Union South	54,000	4		216,000		146,000	Phase 1
S5a	Union South Hotel	31,000	6		186,000		100-120 beds	Phase 1
S5b	Union South Parking		7	775				Phase 1
S7	Zoology Research and Noland Hall	61,000	8		488,000		200,000	Phase 3
S8a	Child Care Facility	11,000	2		22,000		18,500	Phase 1
S8b	Weeks Hall Addition	5,000	1		5,000		2,275	Phase 2
S8c	Academic Research	25,000	6		150,000			Beyond
S9a	Primate Center/ Harlow Expansion	10,000	6		60,000			Phase 1
S9b	Primate Center/ Harlow Expansion	17,000	6		102,000			Phase 1
S9c	Primate Center/ Harlow Expansion	10,000	6		60,000			Phase 2
S9d	Primate Center/ Harlow Expansion	16,000	6		96,000		147,100	Phase 3
S12	Education Research Center Building	17,000	8		136,000		100,000	Phase 2
S13a	Academic	16,000	4		64,000	332,000 total	210,000	Phase 3
S13b	Academic	32,000	6		192,000			Phase 3
S13c	Academic	16,000	4		64,000			Phase 3
S15	Parking Ramp #46 Expansion		2	250				Phase 1
S16A	Art Building	31,000	6		186,000		140,000	Phase 1
S16B	Art Building	17,000	3		51,000			Phase 1
S17	Academic Research	39,000	5		195,000		150,000	Phase 2
S18	Police Addition	12,000	3		30,000		20,000	Phase 2
EAST CAMPUS MALL								
N11a	New Classroom Building	21,000	6		126,000		123,000	Phase 3
N11b	Parking Ramp		1	70				Phase 3
N12a	New Humanities Center	27,000	5		135,000		120,000	Phase 3
N12b	Parking Ramp, at Humanities site		2	400			120,000	Phase 3
N13a	Museum Addition	19,000	3		57,000		63,000	Phase 1
N13b	Music, Phase I: Performance Space	45,000	3		135,000		53,400	Phase 1
N13c	Music, Phase II: Rehearsal/Instructional	15,000	5		75,000	4 stories S, 6 stories N	164,600	Phase 2
LAKEFRONT								
N9	Memorial Union- NW addition	7,000	3		21,000	Union Study	20,000	Phase 1
N10	Memorial Union-SW entry	1,300	0		0	Union Study	20,000	Phase 1
S19	Gordon Commons Addition	10,000	2		20000		102,000	Phase 1
EVENT CENTERS								
S14	Chiller Plant	20000						Phase 2,3

C. Master Plan Components

1. Introduction

The main theme of the 2005 Campus Master Plan, "Recreating Ourselves in Place" sets the tone for the entire master plan process. From sustainability initiatives and reusing, reprogramming and renovating our existing buildings whenever possible, to how we build our new buildings and open spaces for long term use, recreating our campus to sustain our mission of teaching, research and outreach is paramount in ever thing that we do. It also speaks to our sustainability initiatives in that the first steps in being sustainable is to reduce, reuse and recycle. As we try to reduce our footprint on the land, reuse the buildings we have and recycle (and use recycled materials) we help sustain our precious environment.

2. Proposed Land Use Plan



In general, the proposed land use plan looks very similar to the existing land uses of the current campus. Minimal changes are proposed in moving large areas of land into different uses. The major changes include:

- changing Lot 60 from parking to the site for a new Track & Soccer complex
- changing the existing McClimon track to academic/research buidings and parking to support the Health Sciences campus
- changing the tennis courts location northeast of the Natatorium to "housing"
- expanding the tennis courts west of the Allen Centennial Gardens, changing from "multi-purpose open space" to "athletic/intramural/recreation"

- expanding academic/research areas into the block south of Grainger Hall
- changing the Park Street area, south and north of the rail road tracks from "service area" to "housing"

3. Proposed Open Space Structure

The open space structure of the campus also remains relatively the same in the master plan but with the distinct advantage of adding over 17 acres of new open space to the campus. Those areas are mainly added by the change from surface parking to structure parking and result in the following proposals:

- building the visitor parking ramp at the hospital under ground and providing a new green roof plaza at the front door
- changing Lot 60 from surface parking to a new Track & Soccer complex
- removing the former impound lot (north end of Lot 60) and changing it to open space to be used for stormwater management purposes
- new quadrangles around Pharmacy & the proposed west campus buildings east of Pharmacy
- new quadrangle at the new Lakeshore Residence Hall complex
- new open space and Lakeshore Nature Preserve lands at the former site of Lot 34 along the lakefront, east of Tripp Hall
- new pedestrian mall (with limited vehicular traffic) along Linden Drive
- new open space quadrangle at Union South with the removal of Wendt Library
- new open space at the redeveloped Noland/Zoology block
- new open space quadrangle in the block
- new open space along Linden Drive "Greater Mall"
- new open space at Van Hise replacement site supporting the "Great Mall" concept
- new open space and pedestrian mall along the East Campus Mall
- new open spaces around a redeveloped Humanities site

One of the major concepts coming out the 2005 Campus Master Plan related to open space is the idea of the "Great Mall" along Linden Drive. This pedestrian dominated space which allows for vehicular traffic (buses, service vehicles and infrequent cars dropping off/picking up visitors or parking in the area) is meant to recall the theme from the 1908 Laird & Cret plan from the first turn of the century. The wide setbacks of Agriculture Hall and the School of Human Ecology are to be preserved and enhanced to maintain this linear quadrangle effect. The view from Bascom Hill looking west along the "Greater Mall" should be more pedestrian and open than as it currently exists today as a street thorough fare.

Also, much of the urban campus that is dominated by the urban street grid will rely heavily on urban setbacks, smaller urban plazas and linear open spaces to provide more of a sense of "campus" to these vehicle dominated spaces.

Please see the "Open Space Needs" and projects list at the end of this chapter for further information on proposed open space projects.

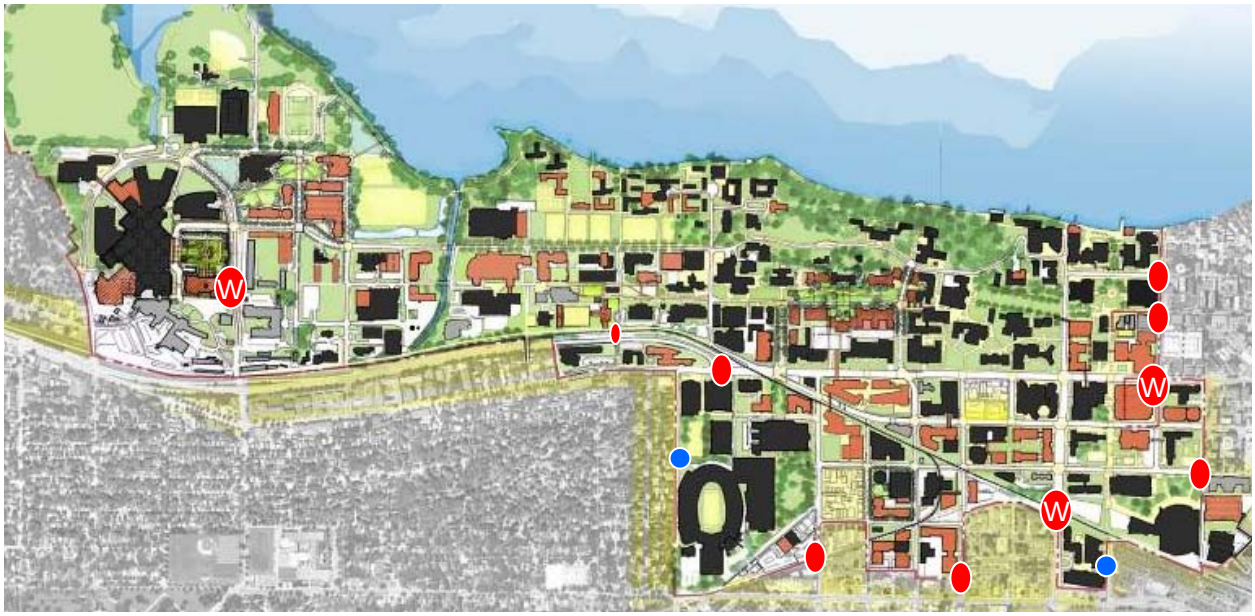
Proposed Open Space Structure

4. Entries, edges, and boundaries

Entries, edges and boundaries are important physical features of the campus that help identified when you have arrived to campus. They also set apart the campus from the surrounding community visually without becoming obtrusive and a visual barrier. This could be something as simple as street banners and as structured as a series of fences, piers and gates. In some areas, were security is a concern (like around Camp Randall Stadium) the edges of the campus are more hardened and do include a fence with brick piers. Penetrations in the fence are included to assure pedestrian access at key locations.

In other areas it is important to blend the campus into its immediate surrounding neighborhood where the campus edge becomes less identifiable and more integrated into the city fabric. This occurs mostly in the south campus, south of University Avenue where the urban street grid is dominate.

Key entry points for the campus are also critical. The following graphic identifies these key points of entry where major campus signs could be located to help announce your arrival onto campus. The red circles with "W"'s are major points of entry. The smaller red circles are secondary entry points and the blue circles are tertiary entries for smaller signage.



Proposed Campus Entry Points and Major Signage

5. Long Range Transportation Plan Summary

(NOTE: Information in this section is excerpted from the 2005 UW-Madison Long Range Transportation Plan and can be found in its entirely on the FP&M website.)

As its 2005 Master Plan unfolds, the University will continue to lead the nation with a campus transportation system that supports more productive interconnections among programs and members of the campus community, as well as between the campus and the communities that surround it. Campus transportation linkages will become more effective at the same time that they contribute to enhanced and more attractive open spaces that form a key element of the campus' sense of place.

The University is committed to a sustainable environment and will use this Long Range Transportation Plan (LRTP) to make significant improvements in the programs and infrastructure by which it provides the campus with customer-oriented alternatives to driving alone. *Above all, the University aims to make it possible for nearly all members of the campus community to choose a TDM alternative that fits their needs.* Although a portion of the campus community will always need to drive to the campus and park here, the University will look for ways to make options to driving alone not only feasible, but also convenient for more of those who work and study here.

The campus' network of roadways will be improved and maintained to provide both for the efficient circulation of motor vehicles as well as for the safer and more convenient circulation of pedestrians, bicyclists, and transit riders. In particular, the University will provide faster ways to travel without driving between the east and west parts of campus as well as safer and more convenient pedestrian crossings to link the north and south

parts of the campus across University Avenue and West Johnson Street. Parking will be maintained and relocated as needed to serve members of the campus community who must drive as well as support the future development of the University within its limited boundaries.

a. Goals for improving travel to and from the campus

1) Prioritize alternatives to driving alone as the preferred modes for accessing the campus for the maximum number of commuters.
2) Make transit an attractive option for those commuters living within the transit service area by improving frequency, hours of operation, reliability, and service quality.
3) In the longer term, serve the campus with fast, commuter rail transit.
4) Provide transit service that conveniently links outlying campus facilities.
5) Make vanpools, express buses, and park-and-ride service available for longer-distance commuters wherever feasible.
6) Make it possible for pedestrians and bicyclists to travel more safely and conveniently to and from the campus and all surrounding neighborhoods.
7) Provide amenities to bicyclists, such as covered parking, that make bicycling more attractive, including in winter and extreme weather.
8) Locate and design potential rail transit stations to maximize pedestrian, bus, and bike accessibility.
9) Provide and efficiently manage 13,000 parking spaces, the same number of spaces as currently exists, to accommodate members of the campus community who must drive, and fulfill the University's commitment to the City of Madison and the Village of Shorewood Hills that it will minimize traffic impacts to surrounding neighborhoods.
10) Set parking fees to reflect the full cost of building, maintaining, and operating the parking system and sustaining supporting elements of the campus transportation system.
11) Consolidate parking in structures to allow surface parking areas to be redeveloped into needed buildings and open space.
12) Make it possible for campus visitors and hospital patients to travel conveniently to

the campus, including by driving and parking within a five-minute walking distance of their destination.

13) Continue to amplify Transportation Services' customer service and advance technology to stay on the cutting edge.

b. Goals for improving travel on the campus

1) Provide transit service that makes it possible to travel to and from all parts of the campus within 15 minutes (including the maximum waiting time) between 7:00 AM and 5:00 PM on weekdays.

2) Provide off-peak hour transit service that allows members of the campus community to travel safely between campus destinations at reasonable frequencies.

3) Explore the feasibility of streetcars with the City of Madison as a potential part of an efficient city and campus transit system.

4) Make it possible to travel more safely, conveniently, and quickly to and from all parts of the campus by foot and bicycle.

5) Make improvements to University Avenue, West Johnson Street, and other City streets on campus to create a more pedestrian-friendly environment and ensure that travelers through the University understand that they are on the campus.

6) Make it easier and safer for pedestrians and bicyclists to move from the north campus to the south campus across University Avenue, West Johnson Street and other City of Madison streets within the campus boundary.

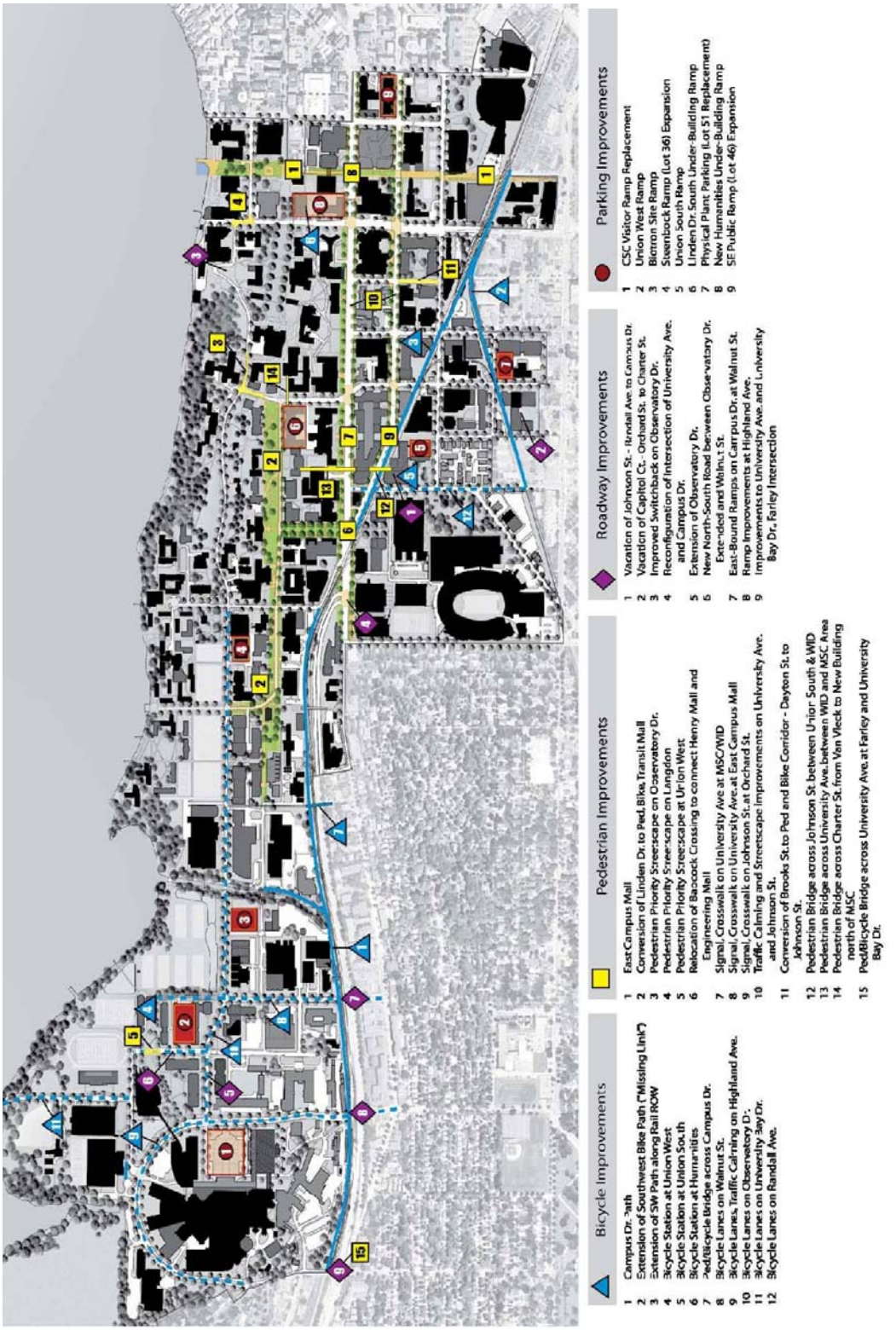
7) Minimize the amount of private vehicular traffic, including delivery and service trucks, on the campus and direct it to designated roadways so as to reduce conflicts with pedestrians and the emission of pollutants.

8) Make improvements in roadway connections to allow vehicular traffic to move more efficiently around the campus and onto regional arterials.

9) Manage the use and parking of mopeds to reduce conflicts with pedestrians, improve safety, and ensure fulfillment of the landscape goals of the campus.

10) Ensure accessibility for persons with disabilities in all related transportation facilities.

Long Range Transportation Plan Improvements



6. Utilities Master Plan Summary

(NOTE: The following information was excerpted from the 2005 Campus Utility Master Plan. Please see the full report available for download from the FP&M website at: www.fpm.wisc.edu).

There are a number of existing system upgrades requiring action in the utility systems to improve reliability and system operation. These deficiencies involve some renewal and replacement of old, aging equipment as well as correction of current system shortcomings. There are a substantial number of early phase projects required to support the new building growth and minimize any re-excavation of streets for future phased work. A brief listing of some of these items are as noted below:

- Upgrade Boiler Controls for increased efficiency and operation
- Alleviate piping bottlenecks in select areas of campus in the thermal utility piping distribution network
- Replace aging equipment in central plants
- Add metering and instrumentation at all buildings to improve monitoring and benchmarking of consumption
- Reinforce the electric distribution system by re-circuiting to relive overloaded circuits, removing power cabling from steam tunnels and separating primary and back-up feeders into different manholes
- Improve electric system monitoring to mitigate outages
- Add substation capacity to increase flexibility and reliability
- Relocate signal cabling from steam tunnels to minimize outage potential and increase cable life
- Upgrade the signal system to a 21st century network
- Improve water and sewer system reliability by replacing older, obsolete piping materials where failures are imminent
- Add isolation valves in domestic water system to improve reliability and minimizes impact of outages
- Improve quality of storm water effluent through the following methods:
    - Rain gardens, Cisterns or water quality ponds
    - Swales, green roofs or pervious pavement
    - In-line water treatment units

Even with the current energy conservation efforts actively in place, the increased utility demands on campus imposed by the facilities master plan expansion require several major utility system improvements. This will involve expanding existing and adding additional utility plants and substations, as well as major improvements to existing plants and expansion of the utility distribution systems. The major efforts are as described below and locations of new utility plants and major utility corridors are as shown below:

- Construction of a new substation on the west end of campus to serve new loads and improve system reliability

- Construction of a new 350,000 PPH (potentially solid fuel) boiler plant at Charter Street Heating Plant to accommodate future growth as well as aging equipment
- Construction of the planned expansion of the West Campus Cogeneration Facility to increase the chilled water production output from 20,000 tons to 50,000 tons
- Construction of a new 10,000 ton chilled water plant on the east end of campus to satisfy new load and hydraulic limitations at that end of campus
- Conversion of existing electrical substations to switching stations for select units that are impacted by proposed building construction

Construction of major utility distribution system extensions to serve the proposed building plan. This includes the creation of loops in the system to improve reliability, most notably at the west end of campus around the Hospital (Highland Avenue loop) as well as on the east end of the campus in the East Campus Mall utility tunnel.

A fundamental goal for the campus involves overall beautification and 'place-making". While this objective is not necessarily a direct end product of utility systems expansion and improvement, careful planning and design will allow utility project implementation to further aesthetic objectives by incorporating aesthetic components and by focusing utility construction and site disturbance to discreet corridors.

- Non-paved open space is a premium resource on campus. In light of functional, aesthetic and potential storm water management objectives, non-paved open spaces should not become primary underground utility corridors. Therefore, utilities should be incorporated below paved areas whenever possible. Roads and major walkways should be viewed as first option utility zones.
- Terraces zones, the area between roadways and pedestrian circulation corridors whether paved or unpaved, should not be high priority utility zones. A primary objective for the campus is to incorporate and aggressive street tree planting program that will separate pedestrians and vehicles and begin to restore the campus, especially the more urban areas to a more collegiate and beautiful environment. Street tree planting concepts and detail guidelines are included in the campus master plan. These guidelines focus on improving and protecting street tree root zone characteristics.
- Above ground utility structures, enclosures and buildings have significant impact visually and spatially. Nothing on the UW campus should be viewed as too insignificant to be well designed, and all above ground utility infrastructure must consider what the community will see from the ground or from adjacent buildings.

In addition to system expansions, several options for increasing efficiency and improving system reliability will be considered. These options are:

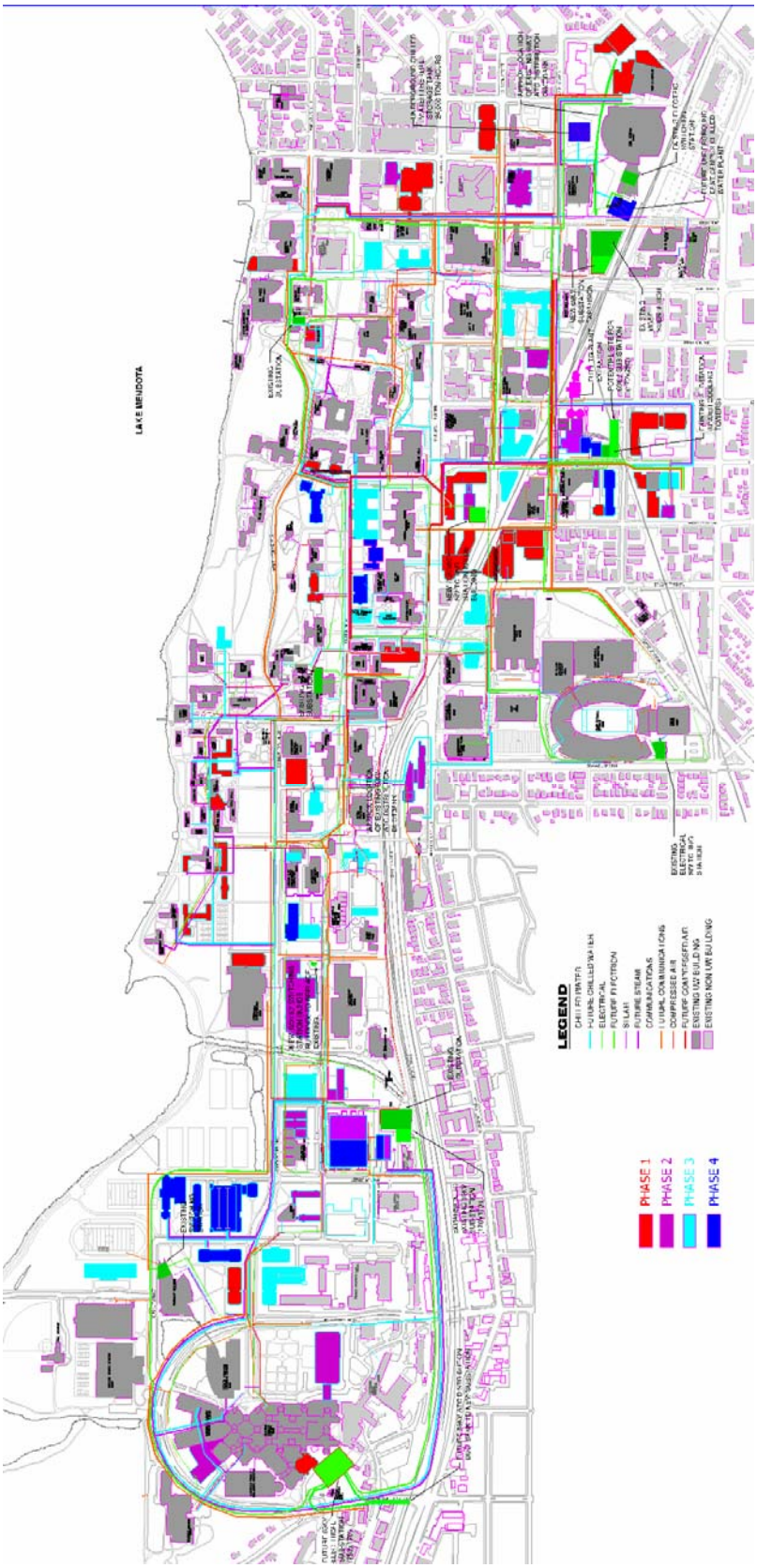
- Construction of a 24,000 ton-hour underground chilled water thermal energy storage system near the new proposed East Campus chiller plant. The use of thermal storage will allow generation and storage of chilled water during non-peak hours for use during peak hours, helping to level the load on the electrical consumption on campus

- Replacement of the solid fuel stoker boilers at Charter Street with new higher efficiency boilers potentially using "clean coal" technology. This would include conversion of the fuel storage system from an exposed exterior yard to an enclosed silo located east of Mills Street to visually "clean" up the site. Newer boilers will reduce fuel consumption and emissions through increased efficiency and technology
- Use of additional cogeneration of power and steam at Charter Street with new boiler addition. This will reduce reliability on local utilities and increase the efficiency of the heating plant.
- Use of steam turbine generators in larger buildings having base loads above 5,000 PPH most of the year
- Continue to proactively enhance Charter Street Heating Plant with emissions controls setting the bar for other coal heating plants in the region for a cleaner environment
- Consideration of purchasing electrical power at a higher voltage (69 kV) to reduce rates and allow flexibility in future electrical power procurement

In addition to these improvements, the University remains committed to investigating options for renewable energy and sustainable design. Some of the options to be considered include:

- Incorporate renewable energy into campus design and purchase "green power" or renewable energy from the electrical grid as much as possible:
    - Increase the co-firing of coal boilers with renewable biomass energy or waste resources in solid fuel boilers
    - Wind Power (Purchased off-site through utility provider)
- Increase efficiency usage of non-renewable energy
    - Use of steam turbine generators at larger buildings to generate electricity
    - Investigate Fuel Cell Technology. Costs continue to decrease.
- Increase implementation of sustainable design techniques:
    - Storm water reuse or use of reclaimed water source
    - Daylighting
    - Heat Recovery
    - Chilled beams in high heat load spaces to reduce air flow

The following is a detailed map of the proposed utility projects across campus recommended in the 2005 Utility Master Plan.


LAKE MENDOTA
LEGEND
PHASE 1
PHASE 2
PHASE 3
PHASE 4

D. Phasing of the Campus Master Plan

In order for a master plan to be successful, it must be appropriately phased and implemented over time. To assist with this process, the following phasing breakdown has been developed. Note that the projects listed are not a definitive comprehensive list of project and in no way suggests that these projects will be approved as part of the standard capital budget process with the State of Wisconsin. Each project will need to be reviewed and prioritized within the context of the six-year capital plan and within a two-year biennial capital budget. Clearly some projects may move between phases as funding becomes available. Some may move more quickly and others may move slower. This is a summary of the project phasing, including both building and open space projects as well as selective building demolition projects.

1. Building Projects

Phase 1 - potential projects identified in red

Phase 1:	2007 - 2013
Total Losses of building space:	-1,020,000 GSF
Total Gains of building space:	+2,720,000 GSF
Net Gain in this phase:	1,700,000 GSF

Buildings Suggested for Removal in Phase 1

- Biochemistry Building – 1912 partial renovation
- Biochemistry Building – 1937 addition, partial renovation
- Biochemistry Building – 1956 addition
- 45 North Charter Street (UW Extension Bulk Mail Center)
- 1308 West Dayton Street (Hi Ray Hall)
- 1430 Linden Drive (Home Management House)
- Food Research Institute

- Harlow Primate Laboratory
- Meat & Muscle Biology Lab
- Meiklejohn House
- Ogg Hall
- Peterson Office Building
- Pre-School Laboratory
- Primate Center, 1971 & 1988 wings
- 317 North Randall Avenue (Old Safety/Post Office Building)
- 329-333 North Randall Avenue & 1357 University Avenue (Rennebohm)
- Air Force ROTC Building, 1327 University Avenue
- Rust-Schreiner Hall
- Schuman Shelter (near Goodnight Hall)
- Seeds Building
- Service Building
- Service Building Annex
- Union South
- 710, 714, 716 University Avenue (old storefront)
- 720, 722, 724 University Avenue (old storefront)
- 730-736 University Avenue (old storefront)
- 1301-1307 University Avenue (old storefront)
- 1313-1315 University Avenue (old storefront)
- 1319 University Avenue (old storefront)
- 1323-1325 University Avenue (old storefront)
- University Health Services, 1552 University Avenue

Potential Projects included in Phase 1 (not in priority order)

West Campus District Development

- School of Nursing Building
- Electrical Substation southwest of the UW Hospital complex
- Medical School Faculty Office Building
- Walnut Street Electric Substation Expansion
- Natatorium Addition
- Parking Ramp 36 Expansion (125 spaces)
- Lakeshore Residence Hall District Development
- Expansion or redevelopment of Holt Commons

North Campus District Development

- School of Human Ecology Building Addition and Remodeling
- Education Building Restoration and Addition
- Ingraham Hall Addition for Letters & Science Social Science programs
- Biochemistry Addition & Renovation
- Chazen Museum Building Addition and Renovation
- East Campus Pedestrian Mall development

- Memorial Union Renovations and Additions
- Music Performance Facility

South Campus District Development

- Wisconsin Institutes for Discovery, Phase I
- Union South Block Redevelopment including parking ramp
- Campus wide Childcare Facility on site of Rust-Schreiner Hall
- Primate Center Phase I of a multi-phased construction program to replace Harlow Primate Lab.
- Physical Plant Relocation and Consolidation to Lot 51 (may move to later phase)
- Art Department Development on Lot 91
- Parking Ramp 46 Expansion (125 spaces)
- Gordon Commons Redevelopment

Phase 2 – potential projects identified in red

Phase 2:	2013 - 2019
Total Losses in building space:	- 700,000 GSF
Total Gains in building space:	+3,220,000 GSF
Net Gain in this phase:	2,520,000 GSF

Buildings Suggested for Removal in Phase 2

- Bradley Memorial Hospital
- Brodgen Psychology Building
- Extension Building
- King Hall Greenhouse
- 1910 Linden Drive, Army ROTC
- Middleton Building (a.k.a. Middleton Library)

- Old Genetics Building
- Poultry Research Laboratory
- Stovall Hall (non-university department moves off campus)

Potential Projects included in Phase 2 (not in priority order)

West Campus District Development

- Interdisciplinary Research Complex, Phase III (a.k.a. Wisconsin Institute for Medical Research)
- Joint Venture with VA Hospital and UW Hospital - includes underground parking (1,225 spaces) and new entry to the hospital
- Walnut Street Greenhouse, Phase II
- West Campus Cogeneration Chiller Expansion
- Physical Plant Operations Building on Herrick Drive to consolidate Grounds
- School of Veterinary Medicine Hospital/Research Building
- Parking ramp on site of Biotron (700 spaces) with possible office buildings

North Campus District Development

- Music Academic/Rehearsal Space
- Classroom Building on northern end of removed Humanities site

South Campus District Development

- WID Phase II & III
- Weeks Hall Expansion for Geology Museum
- Continuation of Primate Center Facility redevelopment
- Charter Street Plant Expansion
- Education Research Center Building Addition
- Academic/Research building opportunity on Old University Ave & Campus Drive
- Fluno Center Addition
- UW Police Department Addition

Phase 3 – potential projects identified in red

Phase 3:	2019 - 2025
Total Losses in building space:	-1,220,000 GSF
Total Gains in building space:	+2,860,000 GSF
Net Gain in this phase:	1,640,000 GSF

Buildings suggested for Removal in Phase 3

- 115 North Mills Street (Physical Plant)
- 1410 Engineering Drive (Old Highway Lab)
- Agriculture Engineering Laboratory
- Animal Health & Biomedical Sciences Building
- Zoe Bayliss Co-op
- 206 Bernard Court (Bernie's Place)
- Biotron Laboratory
- 209 North Brooks Street
- 215-217 North Brooks Street
- Susan B. Davis Hall
- Mosse Humanities Building
- Engineering Research Building
- 505 Herrick Drive (Beet & Carrot Lab)
- 509 Herrick Drive (Beetles & Saplings Research)
- 525 Herrick Drive (Electrical Storage Facility)
- 925-927 West Johnson Street (old house)
- 931-933 West Johnson Street (old house)
- 2105 Linden Drive (Pesticide Storage Facility)
- 2115 Linden Drive (Horticulture facility)
- Livestock Laboratory & Silo

- McClimon Memorial Track, press box, ticket booth and stands
- Bardeen Medical Labs
- Medical Sciences Center, Medical Sciences
- Medical Sciences Center, Service Memorial Institute
- Noland Zoology Building
- Nutritional Sciences
- Physical Plant, Grounds Storage Facility
- School of Social Work
- Kurt F. Wendt Library
- Zoology Research Building

Potential projects included in Phase 3 (not in priority order)

West Campus District Development

- WARF Building Addition (may be moved up to earlier phase)
- Move McClimon field to Lot 60
- Joint Venture with USDA Forest Products Lab (may be move up to earlier phase)
- New Animal Science facilities south of Observatory Drive
- New Meat & Muscle Lab on Linden Drive
- New Plant Science facilities on site of existing AHABS building
- Replacement/renovation of Russell Labs

North Campus District Development

- New Academic/Research Building on the east side of Henry Mall (possibly for Nutritional Sciences)
- New Housing Building east of Tripp Hall (if needed)
- New Parking Ramp/Garage at corner of Linden and Charter Streets
- New Academic Building for Languages, Area & Ethnic Studies & International Studies south of Linden Drive to replace Van Hise
- New Humanities Building (south site) – possibly also site for Proscenium Theatre
- New parking facility under Humanities building site (400 spaces)

South Campus District Development

- Engineering Buildings on Engineering Hall to replace Engineering Research Building and 1410 Engineering Drive
- Replacement of Wendt Library
- Charter Street Plant Expansion, Phase III
- Completion of Primate Center/Harlow Lab facilities master plan
- Redevelopment of the Noland Hall/Zoology Research quadrant to provide new academic/research facilities for College of Letters & Sciences
- New Academic/Research buildings in the block south of Grainger Hall

Phase 4 – potential projects identified in red

Phase 4:	2025 + beyond
Total Losses in building space:	- 360,000 GSF
Total Gains in building space:	+1,360,000 GSF
Net Gain this phase:	1,000,000 GSF

Buildings suggested for Removal in Phase 4

- Van Hise Hall

Potential projects included in Phase 4 (not in priority order)

West Campus District Development

- New academic/research for Health Sciences southeast of Pharmacy
- West Campus Union facility
- Additional Health Science Academic/Research facilities with integrated parking ramp on site of existing McClimon Track/Soccer complex
- New Academic/Research facility south of Observatory Drive for CALS

North Campus District Development

- New L&S Social Sciences facility on Van Hise site
- New CALS facility on site of existing Nutritional Sciences
- New Academic/Research facility on site of existing Middleton Building

South Campus District Development

- New Academic/Research building north of Spring Street between North Orchard and North Charter Streets

All phases of development – proposed projects identified in red

Final Draft Plan

Total Losses in building space:	- 3,300,000 GSF
Total Gains in building space:	+10,160,000 GSF
Net Gain in all phases:	6,860,000 GSF
2005 GSF:	+18,500,000 GSF
Full Build-Out:	25,360,000 GSF

2. Open Space Projects

At final build-out of the campus master plan, The University of Wisconsin-Madison will have a net gain of 6,860,000 gross square feet of building space, as well as an additional 17 acres of new and improved open space, mainly through the consolidation of surface parking lots into structured parking. This includes 35,000 linear feet of streetscape improvements and various site development projects outlined below. Funding of these potential projects will need to be identified to assure they are implemented in a timely fashion. As with any development on campus, additional funds will be necessary to keep them maintained and viable into the future. Some projects will be included with major capital building projects, others will need to be separately funded as a stand alone site development project. Projects are not listed in any order other than in their particular phase. Phasing could change as funds become available or major projects drive the timeline faster or slower.

Open Space Needs – Phase 1 (2007-13)

- Nursing/Pharmacy Quadrangle
- Impound Lot Redevelopment
- Picnic Point Entry Improvements
- Lakeshore Residence Halls Quadrangle

- Re-install sand volleyball courts near Natatorium
- Henry Mall Master Landscape Plan
- Engineering Multi-Purpose Area
- University Avenue Streetscape Enhancements
- Grainger Hall Courtyard Redevelopment
- East Campus Mall, Dayton Street to Johnson Street
- East Campus Mall, Johnson Street to University Avenue
- East Campus Mall, University Avenue to State Street
- State Street Mall, Lake Street to Park Street
- Dayton St Residence Hall east courtyard and west rain garden courtyard
- Old Education Site Development
- Chazen Museum Entry Courtyard
- Campuwide street banner program
- New main campus entry signage

Open Space Needs – Phase 2 (2013-19)

- 1918 Marsh Improvements
- Lakeshore Nature Preserve Tailhead/Visitor Center
- Elm Drive Redevelopment
- Observatory Hill Office Building - remove parking lot and create period garden for major donor recognition
- Wisconsin Institutes for Discovery, south open space along West Johnson Street
- Charter Street/Observatory Drive Redevelopment (enhanced street paving to improve the pedestrian zone)
- Observatory Drive at Bascom/Social Science/Ingraham (enhanced street paving system to improve the pedestrian zone)
- Education Administration block quadrangle
- East Campus Mall, State Street to Langdon Street
- East Campus Mall, Langdon Street to Lake Mendota
- Art Building open space & sculpture garden

Open Space Needs – Phase 3 (2019-25)

- McClimon Track & Soccer Field Relocation to Lot 60
- Redevelopment of Linden Drive from Babcock Drive to Observatory Drive (enhanced street paving systems to improve as a pedestrian zone)
- Redeveloppment of Linden Drive from Charter Street to Babcock Drive (enhanced street paving systems to improve as a pedestrian zone)
- Observatory Hill Overlook Hillside restoration
- Remove parallel parking along Observatory Drive
- Greater Mall redevelopment (Charter Street to Agricultural Hall)
- Union South Quadrangle & Open Space
- New academic quadrangle, block south of Grainger
- Noland/Zoology Block quadrangle

Open Space Needs – Phase 4 (2025 + Beyond)

- UW Hospital Parking Ramp Roof Garden & Entry Quad
- Pharmacy East Quadrangle
- Removal & redevelopment of Lot 34 as part of the Lakeshore Nature Preserve
- New open space south of Linden Drive, south of the School of Human Ecology (main entry greenspace to new academic/research building)

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