VI. Plan and Major Recommendations

The recommendations of the 2010-2030 Plan are set forth under the three primary issue areas: Environmental Stewardship and Sustainability; Landscape Design and Land Use; and Vehicular and Pedestrian Circulation Systems. Implementation of the recommended actions is then detailed for each of eight campus districts plus the outlying properties.

A. Environmental Stewardship and Sustainability

For the past decade the University of Maryland has been recognized for its leadership in environmental stewardship and sustainability. Not content to merely follow regulations and recommendations, the University intends to be a model in innovation, consistency, and completeness of stewardship and sustainability measures. Projects and activities will be used to educate students, faculty, and staff and encourage a paradigm shift in the behavior and attitudes of members of the University family. The goals and objectives listed below emphasize control of carbon emissions and commitment to regional efforts to maintain low levels of pollutants in the water and air. They will advance the University’s position at the forefront of institutions taking a proactive stance for efficient and judicious use of natural resources.

**Goal 1:** Transition to a campus of buildings and facilities that support the strategic goal of carbon neutrality.

**Recommended Actions:**
- Design new buildings and major renovations to be carbon neutral through a combination of energy-efficient design, appropriate and efficient on-site energy technologies, or by offsetting emissions through purchase of Renewable Energy Certificates (RECs) from off-site projects.
- Reconcile all facilities design with existing policies on lighting levels, building temperatures, and environmentally preferable procurement.
- Increase on-campus renewable energy generation including the use of geothermal, micro-wind turbines, solar hot water and photovoltaics.
- Conduct feasibility study for a biogas combined heat and power facility. Build biomass as major priority on or off campus.
- Conduct study for an expanded geothermal program to support campus heating requirements.
- Reduce fossil fuel consumption by campus-owned facilities, vehicles, and equipment.
- Conduct study for an expanded geothermal program to support campus heating requirements.
- Reduce fossil fuel consumption by campus-owned facilities, vehicles, and equipment.
- Expand campus facilities to increase diversion of recyclable and compostable materials from the solid waste stream that goes to landfills.

**Goal 2:** Reduce total and per capita energy demand on campus.

**Recommended Actions:**
- Utilize Energy Performance Contracting to improve energy efficiency of existing buildings.
- Implement energy conservation projects including relamping public spaces, hallways, classrooms, and offices.
- Install motion and daylight sensors to minimize indoor lighting.
- Relamp outdoor areas to energy efficient fixtures when technology is reliable.
- Expand energy submetering and encourage energy conservation behaviors by installing energy dashboards in major use buildings.
- Update building controls to reduce energy use during low occupancy use through remote operations.

**Goal 3:** Reduce total and per capita water consumption on campus.

**Recommended Actions:**
- Eliminate discharge of mechanical systems wastewater (i.e. condensate, blowdown, etc.) to storm sewers by maximizing reuse of this water wherever feasible for beneficial purposes.
- Upgrade campus irrigation technologies to reduce water demand (match actual soil conditions).
- Install efficient fixtures in all buildings on campus.
● Develop a water and wastewater master plan that will review current and future water demand, specify strategies and goals for using alternative sources of water supply and reducing discharges to surrounding streams and the Washington Suburban Sanitary Commission.
● Conduct a feasibility study to identify opportunities to capture stormwater, gray water, and industrial wastewater for reclamation and beneficial reuse.

**Goal 4:** Incorporate Life Cycle Assessment into decision-making for all construction projects.

**Recommended Actions:**
● Assess environmental impacts of materials and products for new construction and major renovation and give preference to those that minimize environmental impacts and reduce total costs over the life of the building.
● Provide preference to the purchase of building materials and products that support local and regional businesses.
● Seek opportunities to minimize construction and demolition waste and divert all construction-related waste from landfills.
● Expand telecommuting and use of flexible schedules to address space constraints.
● Consolidate scheduled classes, office space and events to maximize potential of existing buildings and reduce the need for new buildings.

**Goal 5:** Design with educational opportunities in mind to maximize use of campus as a living laboratory of sustainability best practices and to become a model sustainable community.

**Recommended Actions:**
● Incorporate outdoor teaching spaces with integrated examples of sustainability best practices.

**Goal 6:** Realize and reveal the ecosystem service potential of the urban landscape.

**Recommended Actions:**
● Maximize environmental benefits of the urban tree canopy by increasing canopy coverage to 40%.
● Increase diversity of the urban understory layer and rainwater infiltration rate with intensified planting schemes in targeted areas as turfgrass replacement.

**Goal 7:** Conserve and interpret the campus forest as a key component of the Climate Action Plan.

**Recommended Actions:**
● Identify, quantify and map campus forest areas according to Department of Natural Resource definitions.
● Plan appropriate trail development to permit use of forest and wetland ecosystem resources in academic study.

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**FORESTS** • additional conservation opportunities
Goal 8: Increase the ability of the campus natural hydrologic cycle to deal appropriately with stormwater run-off.

Recommended Actions:
- Implement mitigation measures such as Low Impact Development (LID) and Environmental Site Design (ESD) projects to control 100% of the stormwater runoff from campus, exceeding the requirements of the Maryland Department of the Environment.
- Maximize use of stormwater as a stored resource for irrigation by capturing rainwater and stormwater through installation of cisterns and underground recharge facilities.
- Restore the University Golf Course ponds as needed to reduce potable water use for irrigation by 50%.
- Decrease the percentage of impervious surface on campus through pervious paving, green roof applications and appropriate landscapes not associated with construction.
- Convert appropriate lawns into meadow, forest, gardens, or other landscapes that more effectively manage stormwater.
Goal 9: Plan and manage utility systems to avoid conflict with landscape and environmental improvements.

Recommended Actions:
- Incorporate stormwater into the landscape through ESD and decorative features with interpretation.
- Identify and construct utility corridors to concentrate utilities into predictable and manageable systems, and maximize botanical and environmental development where improvements can be sustained without utility disturbance.

B. Landscape Design and Land Use

The campus was designated as an Arboretum and Botanical Garden in 2008, and the University has used this special opportunity to create a comprehensive design for the entire campus. The landscape defines the campus as a unique and attractive place for students, faculty, staff, alumni, and visitors. It is the images of campus — the white oak on the Chapel Lawn, the willow oak allées on McKeldin Mall, the Wooded Hillock, the Garden of Reflection and Remembrance, and myriad other settings — that form a common bond for all those who have made the campus their home.

The aim of this plan is to organize landscape and open space, together with campus architecture, in ways that promote community and social interaction, facilitate outdoor learning, and provide spaces for recreation. Landscape design will be used to expand awareness of the natural contours, typologies, and ecological systems that surround us and our role in environmental stewardship. The existing and proposed gardens, urban forest canopy, natural forest stands, protected streams, and pedestrian walkways will increase the aesthetic appeal of the campus and preserve the space as an oasis in a complex urban environment. Finally, the strategies in this section are designed to conserve, preserve, develop and restore land in the best interests of the environment, the University community and the citizens of the region.

Goal 1: Identify, prioritize, fund and implement key environmental, open space and landscape projects as a critical part of the campus infrastructure.

Recommended Actions:
- Design and implement signature gateways to create a sense of arrival and welcome.
- Develop a diverse yet integrated campus network of open spaces.
- Establish a hierarchical and articulated network of primary accessible walkways, pervious wherever possible.

REGIONAL OPEN SPACE NETWORK • UMD is a critical link
Goal 2: Recognize and carefully assess the intrinsic natural value, the cultural value, the pedagogical value, and the commercial economic value of University land.

Recommended Actions:
- Maximize use of land and natural resources in education and research and coordinate awareness of this use through the ABG.
- Collect information on academic use of the land and landscape and incorporate into botanical collection information while strengthening programmatic relevance of landscapes throughout campus.
- Inventory historical assets, including heritage tree designations, significant architecture and planning examples, and implement historic preservation policies.
- Evaluate and quantify the ecosystem services provided by natural resources.

Goal 3: Reveal campus heritage significance and develop strategies to preserve and enhance valued existing campus landscapes and plan and develop new open spaces and botanical gardens.

Recommended Actions:
- Inventory historical assets.
- Implement historic preservation policies.
- Interpret campus heritage through print, landmarks, and web sites.

CAMPUS OPEN SPACE FRAMEWORK

- existing green network
- existing campus open spaces
- proposed campus open space connections
- campus corridors
- proposed campus open space connections
Goal 4: Develop a landscape plan that uses the ABG to promote ecological awareness and celebrate and communicate a sense of place unique to the campus.

Recommended Actions:
- Use landscape interpretation and outreach to encourage human connectivity with the land, promote environmental awareness and increase understanding of the campus’ relation to the region and the Chesapeake Bay.
- Establish a network of botanical collections, representations and ecosystem replications which enhance the educational value of the ABG collection while enhancing aesthetic appeal, wayfinding and campus identity (for example, teaching collection focused on mid-Atlantic native, adapted and appropriate non-invasive exotic vegetation of ornamental or environmental interest).
- Design and construct a series of trails through natural areas to encourage academic study and understanding of these systems.
- Adopt a land stewardship plan to comprehensively monitor and manage environmental qualities such as degree of sedimentation, proliferation of invasive species, presence of wildlife, and health of the forest canopy, as well as maintenance of LID and ESD facilities.
- Update campus Tree Care Plan to strengthen protection for existing specimen trees.
- Strengthen design and construction standards to reflect arboretum collection policy and consistent environmental site design.
- Support the continued greening of the University Golf Course, including maintaining its certification as an Audubon International Cooperative Sanctuary, and its use as a natural laboratory for education and research.
Goal 5: Establish the ABG landscape as inclusive and accessible space that celebrates the University heritage, enhances personal security, and brings aesthetic pleasure to all campus citizens and visitors.

**Recommended Actions:**
- Use planning concepts such as gateways, districts, centers and edges, and campus landmarks to support wayfinding, connectivity and branding as well as to increase personal security.
- Develop a diverse, yet integrated campus network of open spaces that serve as gathering spaces with outdoor seating, appropriate lighting and programming to increase use and address security.
- Create landmarks, milestones and landscape features that attract and engage pedestrians including art, fitness goals and historical features and interpretations to improve the pedestrian environment.
- Incorporate streetscapes that physically separate modes of travel with barriers or vegetative buffers where space permits.
- Connect the North Gate Park pedestrian bridge to Regents Drive and the center of campus through a pedestrian and bicycle enhanced series of plazas and modified roadway along Stadium Drive from Paint Branch Drive to Regents Drive while retaining service access.
- Integrate into the landscape opportunities for appropriate exercise and recreational activities such as recreational trails through woodlands and wetlands and along Campus Creek.
CAMPUS NATURAL SYSTEMS • topography

- upland botanic gardens
- lowland botanic gardens
EXISTING ARBORETUM & BOTANICAL GARDEN • existing gardens

1. Garden of Reflection and Remembrance
2. West Chapel Garden
3. McKeldin Native Shade Garden
4. Rossborough Gardens
5. Tawes Placza
6. Garden of Peace and Friendship
7. The Garden Walk at CSPAC
8. Moxley Gardens
9. Comcast Native Sun Garden
10. Comcast Rain Gardens
11. Greenhouse Native Sun Garden
12. Henson Garden
VI PLAN AND MAJOR RECOMMENDATIONS

ARBORETUM & BOTANICAL GARDEN • future corridors

- natural systems
- existing botanical expressions
- future botanical expressions
- proposed arboretum corridors
VI PLAN AND MAJOR RECOMMENDATIONS

CAMPUS SYSTEM ENHANCEMENTS

- corridors
- natural systems
- existing formal open space
- existing informal open space
- existing recreation athletic space
- proposed recreation/athletic space
- proposed open space
- proposed landscape corridors
C. Vehicular and Pedestrian Circulation Systems

The University of Maryland is an urban campus with students, faculty and staff who live both on campus and throughout a large metropolitan area. As a result, the University requires a multi-modal system of vehicle and personal circulation systems for those who need to access the campus and to move across it. Safe, pleasant, and efficient ways to move around the campus are a priority. Equally important is the integration of campus systems with the transportation systems that serve the neighborhood and surrounding communities. This plan calls for universally accessible walkways, campus roads, campus and transportation systems that create a positive experience for pedestrians, bicyclists, and those using scooters, motorcycles or other motorized vehicles. The goals below acknowledge the importance of all modes of transportation and suggest ways to improve their connectivity.

Goal 1: Support a campus-wide network of effective transportation.

Recommended Actions:
- Ensure a network of well-designed and maintained sidewalks, bicycle paths, bicycle lanes, and roads (considering grade, materials, and water run–off) which serve pedestrians, people with mobility challenges, bicyclists, transit, and other motorized vehicles.
- Integrate transit with campus features to support seamless connections between transit (Shuttle-UM busses, regional busses, and the Purple Line), pedestrians, bicycles, and vehicles.
- Use consistent environmental wayfinding signage throughout campus for pedestrians, bicyclists, and vehicle drivers.
- Redesign parking lots (e.g., Parking Lot 1) to improve the safety, access, and comfort for pedestrians and bicyclists:
  - Implement speed reducing features
  - Ensure pedestrians and bicyclists have a designated pathway to travel
  - Accept reductions in the number of parking spaces when parking loss results in gains for pedestrians and/or bicyclists and/or as part of parking garage construction
- Explore demand for and feasibility of an intra-campus shuttle system to facilitate movement throughout campus.
- Ensure safe and convenient connections to East Campus development.

Goal 2: Provide a coherent network of road and traffic patterns using a whole-system approach.

Recommended Actions:
- Facilitate movement on and along Campus Drive to enhance the pedestrian experience, accommodate bicycles, and maintain access for vehicles.
- Extend Campus Drive through Parking Lot 1 as part of the implementation of the Purple Line.
● Limit vehicular access on Campus Drive between Tawes Hall and Anne Arundel Hall to support the pedestrian connections on campus.
● Implement restricted vehicular access on Stadium Drive between Regents Drive and Paint Branch Drive to enhance the pedestrian environment.
● Realign Stadium Drive by Byrd Stadium to accommodate indoor practice facilities.

Goal 3: Promote communication strategies that support a smooth system of transportation and movement across campus.

Recommended Actions:
● Reduce vehicular congestion on campus by directing and assisting drivers in arriving at their destination without traversing campus through the dissemination of travel information and signage describing alternative routes, parking locations, and transportation mode options.
● Inform the University community (including prospective students, employees, and visitors) about the University’s interconnected campus transportation network: walking, bicycle, transit (Shuttle-UM, regional buses, Metro, and Purple Line) and alternative vehicle options (scooters, motorcycles, carpool, vanpools and short-term auto rental cars).
● Develop campus “rules of the road” which include a transportation right-of-way hierarchy for pedestrians, bicyclists, scooters, and other motorized vehicles; educate the campus community about the rules and enforce the rules consistently and continuously.
● Provide transportation information (pertaining to commuting and parking) to all new members of the University community: undergraduate, transfer, and graduate students, and employees. Provide information electronically and in other forms to all members of the University community (particularly during orientations).

Goal 4: Collaborate with regional entities to enhance movement to and from campus.

Recommended Actions:
● Coordinate with the Washington Metropolitan Area Transit Authority (WMATA) regarding signage and wayfinding at off-campus WMATA stations.
● Collaborate with the Maryland State Highway Administration (SHA) and other entities regarding access to campus and implications for pedestrians, bicyclists, and users of transit and private vehicles.
● Work with appropriate federal, state, and local agencies to find solutions to help alleviate Baltimore Avenue congestion caused by traffic to and from campus.
● Collaborate with regional transit providers to implement a marketing campaign encouraging transit use by the University community.
● Share demographic and other data with regional transit providers to encourage the provision of service to the University community.
● Work with regional transit providers to eliminate service redundancies between Shuttle-UM and other services.

Goal 5: Support a more pedestrian-friendly campus that encourages and supports efficient, pleasant, and safe walking experiences.

Recommended Actions:
● Establish a network of pedestrian pathways and spaces connecting campus entries, parking lots, transit hubs, residential communities, and major campus destinations.
● Improve intersections (particularly Stadium Drive and Regents Drive intersection) to reduce conflicts between pedestrians, bicyclists, and vehicles through signage and consistent traffic control techniques, including recognized crosswalk and curb ramp design, pedestrian “table crossings” at high-volume crosswalks, narrowed vehicle lanes, and dedicated bicycle lanes.
● Implement physical changes in parking lots to improve safety and comfort for pedestrians.
● In conjunction with redevelopment of athletic facilities, redesign the north-south pedestrian pathway between the North Campus and the Stamp Student Union.

Goal 6: Ensure that campus walkways are appealing and comfortable places.

Recommended Actions:
● Improve pedestrian thoroughfares by providing a series of consistent design elements.
● Locate gardens adjacent to important thoroughfares and provide pleasant landscapes, gathering places, seating, and other amenities.
● Support initiatives to improve pedestrian safety and security on campus particularly after dark ensuring walkways are sufficiently lit, have adequate sightlines, and have security infrastructure.
● Widen and improve any shared-use paths so that pedestrians and bicycles can utilize them safely.
● Use landscaping along streets for traffic calming and as a buffer between pedestrians and other transportation modes.
● Use wayfinding elements of landscaping,
lighting, sound, and art to support pleasant walking experiences.
● Use building design and open space design to facilitate community activity within the pedestrian network.
● Install bicycle dismount zones in heavy pedestrian areas, for example the front of South Campus Dining Hall, to decrease conflicts between bicyclists and pedestrians.

Goal 7: Reduce barriers for pedestrians and ensure sidewalk design and crosswalks are accessible to all.

Recommended Actions:
● Provide paths from accessible (handicap) parking to accessible building entrances.
● Continue to reduce/remove barriers for wheelchairs on pathways.
● Ensure an appropriate number of accessible parking spaces are convenient to desired locations.
● Develop and maintain accessible path wayfinding for those using wheelchairs.
● Install in-road “Stop for Pedestrians” bollards where yielding to pedestrians has been problematic.
● Establish 11 foot vehicular travel lanes as the standard, preferred lane width throughout campus to reduce pedestrian crossing distances, minimize impervious surfaces, and provide traffic calming benefits.
Goal 8: Partner with adjacent jurisdictions to ensure paths, sidewalks, and roads in the surrounding communities facilitate walking to campus.

**Recommended Actions:**
- Support the installation of traffic signals that facilitate pedestrian crossings on Baltimore Avenue and University Boulevard.
- Enhance access to campus on the periphery by enhancing campus entry intersections: improve crosswalks, accommodate accessibility needs, create median refuges, and install signage and lighting.

Goal 9: Support the growth of a bicycle culture that entices more commuters to ride bicycles to campus.

**Recommended Actions:**
- Publicize direct, safe and attractive bicycle routes to and from campus.
- Partner with adjacent jurisdictions to ensure paths and roads in the surrounding communities facilitate bicycling to campus.
  - Identify preferred campus access points from the surrounding area for bicyclists.
  - Support the development of bicycle paths, bicycle lanes, and shared roadways adjacent to campus and in the region.
  - Support the inclusion of bicycle facilities in the design of the Purple Line.
- Provide a continuous network of bicycleways throughout the campus by installing shared roadways, bicycle lanes, bicycle paths, and shared-use paths which are multi-modal yet segregated by mode and designated with appropriate signage.
- Provide wayfinding for bicyclists indicating ways of accessing and traveling through campus.
- Provide and promote bicycle-related programs (e.g., bicycle registration, limited-use car parking passes, contingency ride home programs, and initiatives allowing bicycles on transit).
- Support bicycle rental and bicycle sharing programs.
- Designate secure, protected, short- and long-term bicycle parking throughout campus that is accessible to bicycle routes and convenient to buildings and respectful of any bicycle dismount zones.
- Publicize services which facilitate bicycle use (e.g., Campus Recreation Services’ pass for use of shower facilities).
- Ensure that bicycle thoroughfares include safety and security features, and are continuous, appealing, and comfortable for bicyclists.

Goal 10: As part of a multi-modal transit friendly
campus, support a high quality Shuttle-UM system that provides service to and across campus. 

**Recommended Actions:**

- Support the reconfiguration of existing Shuttle-UM routes and the implementation of new routes to serve the maximum number of people who currently drive cars to campus, particularly those people living within a one to two mile close range of campus.
- Examine the residential locations of the campus community (students, faculty, and staff) living further than one to two miles from campus to determine transit service requirements.
- Implement a more efficient campus circulator system that takes passengers point to point.

**Goal 11:** Install infrastructure which supports and enhances the use of transit. 

**Recommended Actions:**

- Ensure bus shelters complement campus aesthetics, protect from inclement weather, are comfortable and well lit, are pleasantly situated in the landscape, are sufficient in number and location, and have appropriate connections to pedestrian and bicycling routes.
- Enhance existing technology and install additional technology to support transit use including fare card machines, electronic schedules, real-time route tracking, and other services.

**Goal 12:** Provide programs and practices to encourage the use of transit, carpools, and other alternatives to single occupancy vehicles.

**Recommended Actions:**

- Expand the use and availability of convenient and cost-effective occasional parking permits.
- Publicize the use of pre-tax funds and payroll deduction for transit and parking at transit sites.
- Support flextime and teleworking as practical strategies for reducing vehicular congestion.
- Implement and encourage the use of incentive programs such as guaranteed contingency ride home programs and occasional parking passes.

**Goal 13:** Reduce personal vehicle congestion on campus. 

**Recommended Actions:**

- Use parking policies and availability to reduce the need and ability to park on campus.
- Locate new garages on the periphery of campus to reduce vehicle traffic in the Campus Core.
- Continue and expand dedicated Shuttle-UM service to specific apartment and housing areas.
- Reduce surface parking from the center of campus to reduce vehicular traffic in heavy pedestrian areas.
- Utilize selected green areas to support episodic large scale parking needs at special events without requiring additional surface parking lots be built on campus.
- Encourage provision of chartered shuttle bus service to nearby hotels and parking areas during high volume visitation events.
- Implement existing policies restricting freshmen and sophomore students from having cars on campus.
- Maintain Union Lane Parking Garage on its current site or some similarly located alternative parking opportunity to meet the exceptional needs for private vehicular access to nearby facilities (i.e., Stamp Student Union), the increased demand for parking if surface lots on the interior of campus are eliminated, and to serve as a location for bicycle parking.
- Communicate appropriate campus entrances for personal vehicle access to parking lots or destinations to minimize unnecessary cross-campus traffic.
- Support carpooling and vanpooling.

- Develop and publicize a range of carpooling and vanpooling incentives including driver-rider matching systems, preferred parking locations, reduced parking permit fees, and pre-tax parking payments at park-and-ride facilities.
- Explore feasibility of vanpools where demand for services exists and implement if possible.
EXISTING GATEWAYS, CENTERS AND PEDESTRIAN NETWORK

- Major gateway
- Minor gateway
- Centers
- Major pedestrian networks
PROPOSED MAJOR PEDESTRIAN BICYCLE ROUTES

- major gateway
- minor gateway
- centers
- proposed major pedestrian routes
CAMPUS BICYCLE ROUTES • planning period 1 enhancements
VI PLAN AND MAJOR RECOMMENDATIONS

CAMPUS BICYCLE ROUTES ● planning period 2 enhancements
VI PLAN AND MAJOR RECOMMENDATIONS

CAMPUS VEHICULAR ROUTES • planning period 1 enhancements
CAMPUS VEHICULAR ROUTES ● planning period 2 enhancements

- existing roadways
- proposed roadway modifications
- proposed limited access roadway
- purple line
**PROPOSED CAMPUS CIRCULATOR** ● short run

- Mowatt Lane Garage to Stamp to Paint Branch lot
- Stadium Drive Garage to Stamp to Chapel Field
- circulator bus stop
VI PLAN AND MAJOR RECOMMENDATIONS

PROPOSED CAMPUS CIRCULATOR • long run

- Mowatt Lane Garage to Stamp to Paint Branch lot
- Stadium Drive Garage to Stamp to Chapel Field
- circulator bus stop
EXISTING PARKING INFRASTRUCTURE

- surface lot
- existing parking garage
- existing buildings
VI PLAN AND MAJOR RECOMMENDATIONS

POTENTIAL NEW PARKING GARAGES
VI PLAN AND MAJOR RECOMMENDATIONS
D. The Campus Districts and Campus Growth: An Overview

The campus is comprised of eight districts on the main campus plus outlying University-owned properties. The districts have developed over time, reflecting the history, growth, and evolution of the campus. The landscape has evolved from natural woodland and meadows, to agrarian fields, to the romantic and classical character of campus open spaces, to more urbanized areas, resulting in the general orthogonal orientation with greater density of buildings found in some areas.

Each district has its own culture and character, evidenced in the district’s natural features, open spaces, building types, and their uses. Plans are designed to recognize and celebrate the uniqueness of each district, embrace the most positive characteristics of the campus, and extend them forward into the future.

Plans will support the identity of each district as defined by the landscape and architectural character, topography, use, and density. The districts’ identities will be reinforced by emphasis on gathering spaces and significant buildings. Implementing the recommendations for landscape design and circulation patterns will improve the visual and physical connectivity of the districts and emphasize their relationship to surrounding landscapes and neighborhoods.

To enhance connectivity across campus the Plan recommends creating a more coherent and consistent signage system with appropriate hierarchy for pedestrians, bicycles, and vehicles. Signage and wayfinding cues will be extended beyond the physical campus onto surrounding roads and included in websites. Plans call for more consistent streetscapes, including sidewalks, street trees, bioswales and rainwater infiltration and on-road bicycle lanes. To improve the sense of place and identity of the entire campus, plans are to improve the campus gateway images, particularly at University Boulevard, Campus Drive, and Mowatt Lane.

Campus growth will continue according to the established framework: when new programs demand growth, facilities will be located generally with 1) academic structures in the central area primarily in the Northeast and South Districts; 2) residential and support services such as dining and recreation primarily in the Northwest and South Districts; 3) Intercollegiate Athletics and Campus Recreation Services in the North, Northwest and West Districts; and 4) parking at the perimeters.

Improvement projects in each campus district are described and depicted on charts and district maps. Significant projects for landscape (open spaces, botanical gardens and natural systems), transportation and infrastructure system network enhancements are identified and stand alone in the charts and maps.

New capital building projects are inclusive where practical, and include associated:

- landscape-place enhancements such as open spaces, front yards, service areas, street trees, foundation, understory, local gardens and area plantings;
- ecological enhancements such as applicable techniques addressing stormwater management, water capture systems, associated plantings, etc.;
- linear circulation and transpiration modes adjacent streets, bicycle and pedestrian networks, including considerations for the disabled, lighting, and site furnishings; and,
- utilities renewal and enhancements in conjunction with new development and facilities renewal.
E. District Plans
CAMPUS • existing land use

- academic
- housing/residential services
- ICA facilities (athletics)
VI PLAN AND MAJOR RECOMMENDATIONS

*CAMPUS* - land use growth pressures

- academic
- housing/residential services
- ICA facilities (athletics)