

5 SOUTH CAMPUS

South Campus that is comprised of multiple tracts totaling 495 acres of external campus and is primarily located in the City of South Burlington in addition to Burlington, includes an analysis of the existing conditions, an analysis of the frameworks identified for campus planning, an overview of the design guidelines and an illustrative campus master plan.

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5.1

SOUTH CAMPUS EXISTING CONDITIONS

The **South Campus Existing Conditions** section includes narratives and maps that inventory and assess existing facilities, uses and the physical attributes of the campus to provide information that informs the master planning process.

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LOCAL CONTEXT

The University of Vermont's South Campus contains the University's agricultural, environmental, and geological perspectives on multiple tracts totaling 495 acres. The South Campus is currently utilized primarily for instruction and research focused on bio-research, agricultural, horticultural and natural areas management. Refer to the Zoning section for descriptions of the land use purposes of the zoning districts.

The South Campus land holdings include:

The **Miller Research Farm Complex (1)** (commonly known as the "UVM Farm") is a 68-acre parcel of land located east of Spear Street and west of Interstate 89 in the City of South Burlington. The tract contains the main farm buildings and is used for education, research, and outreach opportunities for researchers, students, agricultural producers and the public. Other buildings include the Ellen A. Hardacre Equine Center and the Luisa A. Tamayo de Ortega Arena. Research at the UVM Farm is aimed at improving the productivity and sustainability of Vermont agriculture. Some of the activities at the UVM Farm include: a computer teaching lab focused on farm management; the CREAM Barn, a cooperative of UVM students managing a dairy herd as a business; EQUUS at the Horse Barn, a cooperative barn for horses modeled after CREAM; the Solar Barn, a plastic greenhouse barn that serves as a model of low-cost animal housing for raising healthy calves; and the Nutrition Lab, where researchers experiment to better understand how animals use the food they eat. The constructed wetland is a new experimental program that receives and treats the effluent from the milk house, milking parlor and the rainwater runoff from the cattle yard.

The **Deslauriers 1963 and 1980 Tracts (2)** comprise 31-acres of open field located on the east side of Spear Street, west of Interstate 90 and north of Interstate 189 in the City of South Burlington. The Deslauriers Tracts are used by the College of Agriculture and Life Sciences (CALs) for agricultural cropland.

The **Bio-Research Complex (3)** is a 51 acre (Hoag 1944 and Edlund 1962 Tracts) combined tract, and is located west of Spear Street and north of Interstate 189 and primarily located in the City of Burlington. A portion of the tracts (12 acres) is leased to USDA Forest Service Northeastern Forest Experimental Station's (NEFES) George D. Aiken Forestry Sciences Laboratory, and to the Burlington Country Club. There is also a Green Mountain Power easement on the properties. The remaining portions are used by the College of Agricultural and Life Sciences (CALs) for entomology research and instruction, the Chittenden County Extension Office, and for agricultural cropland for research and demonstration plots for the Experimental Station and CALs. Additionally, the Environmental Safety Facility (ESF), the College of Medicine research freezers, and the Large Animal & Storage Building are located within this complex. License agreements have been granted from the University for the South Burlington Recreation Path (10' wide) that travels through the property along Spear Street.

The **Edlund 1969 Tract (4)** represents 34 acres and is located west of Spear Street and south of Interstate 189 in the City of South Burlington. It is currently forested space and undeveloped.

The **Martin 1996 Tracts (5)** are comprised of a 10-acres containing some miscellaneous outbuildings, and is located west of Spear Street in the City of South Burlington and abuts the Edlund 1969 Tract. CALs currently uses a portion of the property for agricultural cropland and research.

The **Whittlesey 1987 Tract (6)** is an 18-acre parcel of agricultural cropland located east of Spear Street in the City of South Burlington. The tract is currently used by CALs for agricultural cropland and research.

The **VonTurkovich Tract - 1998 (7)** consists of 4 acres of primarily open space and is located on the north side of Swift Street (300 Swift Street) and east of All Saints Church on Spear Street in the City of South Burlington. This parcel provides access to the Whittlesey Tract from Swift Street.

The **Wheelock Tract - East (8)** is a 10-acre parcel, located at the southeast corner of Spear Street and Swift Street in the City of South Burlington. The property is currently used by CALs for agricultural cropland and research.

The **Wheelock Tract - West (9)** is a 94-acre parcel located at the southwest corner of Spear Street and Swift Street in the City of South Burlington. The property is currently used by CALs for agricultural cropland and research, and the University's Adventure Ropes Course has recently relocated in the woods within the southwest portion of the tract. The Wheelock Barn is used for Physical Plant storage and surplus equipment. In addition, easements have been given to the City of South Burlington for the South Burlington Recreation Path, a nature trail, and Burlington Area Community Gardens.

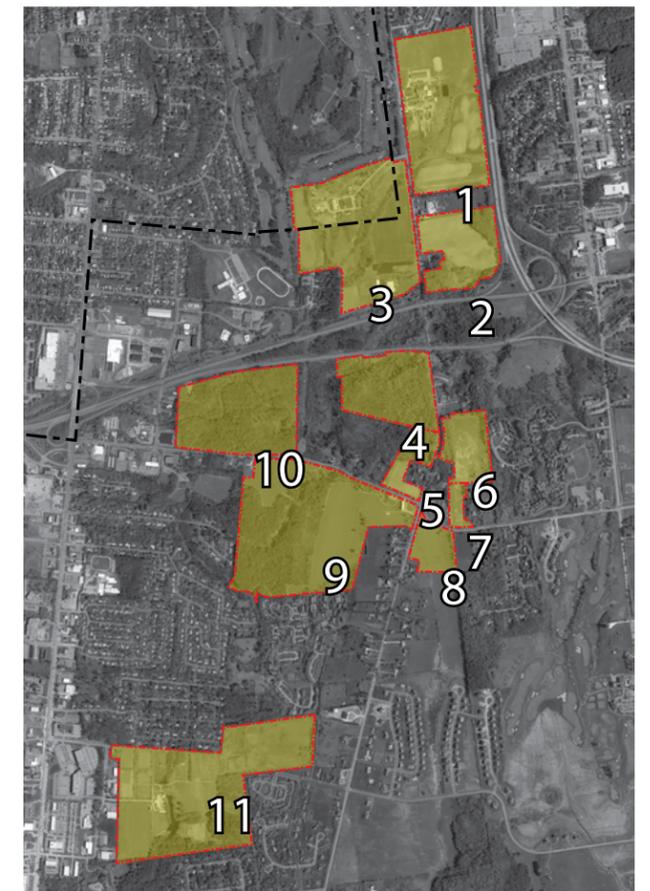
The **East Woods Natural Area (10)** consists of 50 acres of mixed hardwoods and conifers located on the north side of Swift Street in the City of South Burlington. The variety of woody and herbaceous plant life, many large mature trees, several streams and its relatively undisturbed character make East Woods a popular site for students studying forestry, botany, zoology and wildlife biology.

The **Blasberg Horticultural Research Center (11)** (commonly known as the "Hort Farm") is a 97-acre farm located west of Spear Street accessible from Green Mountain Drive that runs east of Shelburne Road in the City of South Burlington. The property is used by the College of Agriculture and Life Sciences (CALs) for croplands, agricultural instruction, and research. The Hort Farm contains special collections of ornamental trees and shrubs that are uncommon or unique and represent some of the largest known collections in the Northeast.

South Campus Properties

1. Miller Research Complex
2. Deslauriers 1963 and 1980 Tracts
3. Bio-Research Complex
4. Edlund 1969 Tract
5. Martin 1996 Tract
6. Whittlesey 1987 Tract
7. VonTurkovich Tract - 1998
8. Wheelock Tract - East
9. Wheelock Tract - West
10. East Woods Natural Area
11. Blasberg Horticultural Research Center

For over 50 years, University horticulturists have been testing new and unusual plants for their adaptation to the Vermont environment, especially to Vermont's cold winters. Also located on the property is an Community Supported Agriculture (CSA) farm, known as the Common Ground Student-Run Educational Farm. It is organized and run by UVM students with the guidance of faculty & staff advisors. Easements have been granted to the City of South Burlington for the South Burlington Recreation Path on the northerly north boundary, drainage on the north and east side of the property, and an 80' right of way on the easterly side of the Hort Farm.



South Campus Properties
City Lines/Boundaries

ZONING

South Campus Properties

1. Miller Research Complex
2. Deslauriers 1963 and 1980 Tracts
3. Bio-Research Complex
4. Edlund 1969 Tract
5. Martin 1996 Tract
6. Whittlesey 1987 Tract
7. VonTurkovich Tract - 1998
8. Wheelock Tract - East
9. Wheelock Tract - West
10. East Woods Natural Area
11. Blasberg Horticultural Research Cen-

SOUTH BURLINGTON

Within the City of South Burlington, the University's land holdings within South Campus are zoned as follows:

Institutional and Agricultural-South (IA/S):

Most of the University's South Campus land holdings are located within this district. The purpose of the IA district is "to provide for the educational, conservation, research and agricultural operations of the University of Vermont..." The district is defined by a 10-acre minimum lot size. Where a residential district is adjacent to the IA-South Zone, a minimum one hundred (100) foot undeveloped area must be maintained, and the yard must be kept free of buildings, structures, parking lots and facilities, and access drives other than those required to cross through the required yard.

Residential 1 (R1): The **Martin 1996 Tracts** are located in the Residential 1 district, which encourages low-density single-family residential uses. This district is located in areas where low densities are necessary to protect scenic views and cultural resources, and to provide compatibility with adjacent natural areas. All types of residential land uses are permitted with a minimum lot size of 40,000 SF (1 unit maximum).

Residential 2 (R2): The **Whittlesey** and **Von-Turkovich Tracts** are located within the Residential 2 district, which encourages moderate-density residential use. This district is located primarily in transition areas between higher density residential districts and low-density districts. Dimensional criteria for the R2 district include: Single-family 20,000 SF; Two-family 22,000 SF; and, Multi-family 11,000 SF. Planned Unit Developments may also be permitted in this district with a maximum density of four (4) units per acre

Neighborhood Residential (NR): The **Wheelock Tract - East** is located within South Burlington's

Neighborhood Residential Zone, formerly the Southeast Quadrant (SEQ) Zone. Key elements of this zone are to preserve areas of ecological significance, create a cohesive and publicly accessible open space system, and encourage neighborhood development patterns that create walkable neighborhoods, a range of housing choices and a strong sense of place.

Interstate Highway Overlay (IHO): There is an approximate 100-foot buffer along the eastern boundary of the Miller Research Complex, which is located within the Interstate Highway Overlay district. Thus, this portion of the parcel may not have a building or structure of any kind, but is generally allowed agriculture activities, recreation paths, utilities and access drives.

BURLINGTON

Within the City of Burlington, the University's land holdings within South Campus are zoned as follows:

University Campus (UC): The **Bio-Research Complex** is located within the City of Burlington's medium density UC district. This district is "intended primarily to accommodate educational and medical institutions and their respective campuses while preserving the residential character of existing neighborhoods within and adjacent to the district. In order to evaluate and mitigate the cumulative impacts of institutional growth within this district, all allowed uses other than single detached dwellings and duplexes require conditional use approval." The maximum allowable residential density for this district is 20 dwelling units/acre, inclusive of new streets but exclusive of existing streets. For purposes of non-residential density calculations, each one thousand five hundred (1,500) square feet of non-residential gross floor area not contained within a dwelling unit or within hallways, stairwells and elevator shafts serving said dwelling units is counted as one dwelling unit.

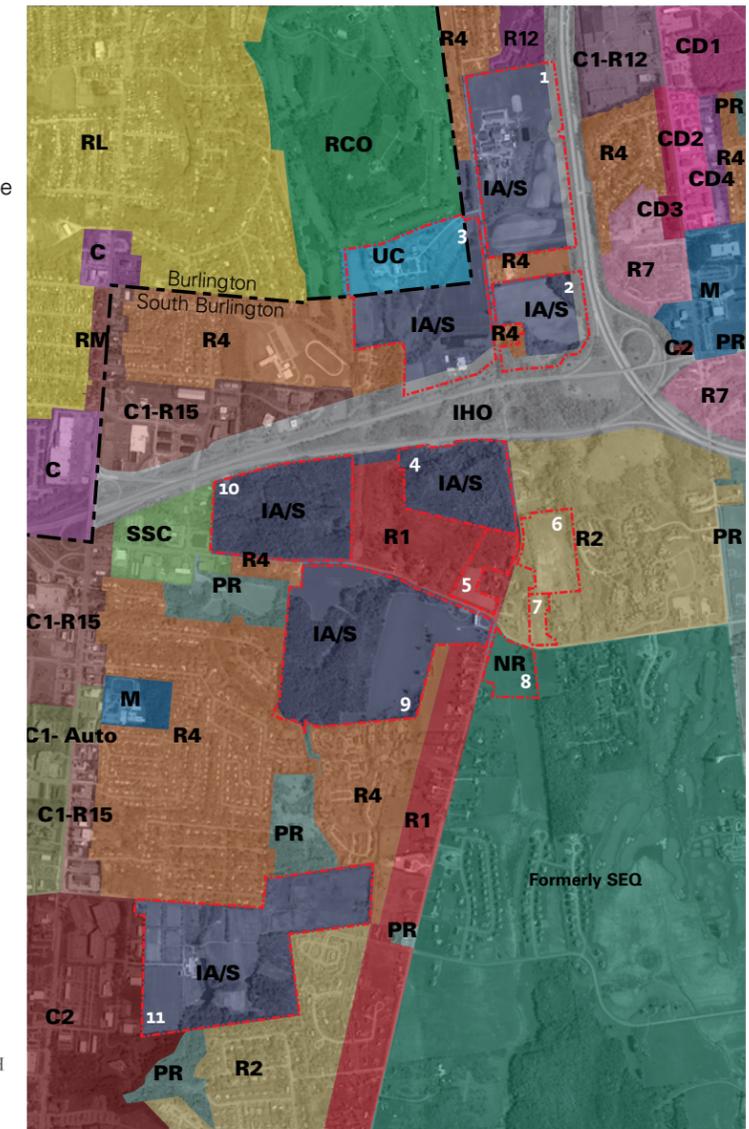
- UVM Property Lines
- City Lines/Boundaries

Burlington

- UC - University Campus
- RL - Residential, Low Density
- RM - Residential, Medium Density
- RCO - Recreation, Conservation, Open Space
- C - Commercial

South Burlington

- IA/S - Institutional Agricultural South
- PR - Park & Recreation
- R1 - Residential 1
- R2 - Residential 2
- R4 - Residential 4
- R7 - Residential 7
- R12 - Residential 12
- M - Municipal
- C2 - Commercial 2
- SSC - Swift Street Commercial
- C1/R12 - Commercial 1 / Residential 12
- C1/Auto - Commercial 1 / Automobile
- C1/R15 - Commercial 1 / Residential 15
- CD1/R15 - Central District 1
- NR - Neighborhood Residential
- IHO - Interstate Highway Overlay



CAMPUS LAND USE

The analysis of existing South Campus Land Use paints a broad picture of how the University of Vermont's properties function day-to-day on a macro-scale. It allows us to understand daily patterns of movement around campus, destinations and points of departure, and to evaluate current and future locations for key services.

The University's agricultural research and undeveloped lands are located throughout the South Campus properties. Croplands, including agricultural research plots, are located at the Miller Research Farm, Deslauriers tracts, Bio-Research Complex, Martin Tracts, Whittlesey Tract, Wheelock Tracts East and West, and at the Blasberg Horticultural Research Center. There are pasture lands with a range of quality/productivity at the Miller Research Farm for the equine program and dairy herd. Other agricultural research uses include land for entomology research at the Bio-Research Complex, a constructed wetland at the Miller Research Farm, and a stormwater pond and ornamental plantings at the Blasberg Horticultural Research Center. Undeveloped lands are located at the Edlund Tract, a portion of the Martin Tracts, and at the VonTurkovich Tract.

The University leases land within the Bio-Research Complex property to the USDA Forest Service Northeastern Forest Experimental Station (to the south) for their George D. Aiken Forestry Sciences Laboratory, and to the Burlington Country Club (a narrow strip along to northern property boundary.)

The East Woods Natural Area is forested land that remains in its natural state for educational use in forestry, botany, zoology and wildlife biology. It is open to the public.

Academic and research uses are the primary uses at the

Miller Research Farm Complex, Bio-Research Complex and the Blasberg Horticultural Research Center. There are also some administrative facilities located at the Bio-Research Complex.



CAMPUS TOPOGRAPHY & GEOMETRIES

Topography

Topography and the natural setting of the University of Vermont define the unique character of the campus. Changes in elevation can play a positive role in defining the character of the campus landscape by creating views and defining districts, and present challenges from the point of view of pedestrian access.

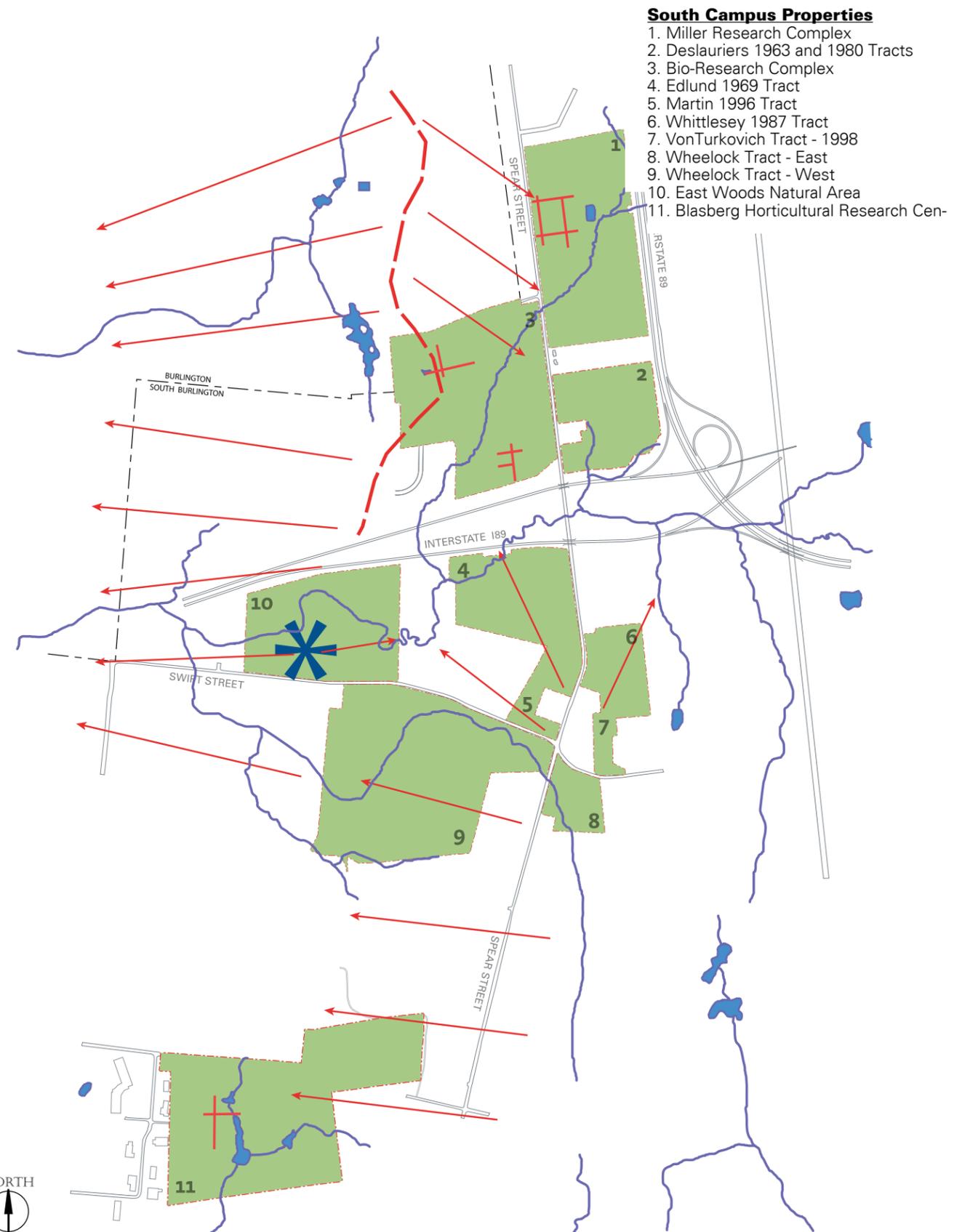
The topography of the South Campus is primarily composed of gently sloping terrain which readily accommodates the University's current agricultural and institutional uses. The topography south of the Interstate slopes in a westerly direction towards Lake Champlain. North of the Interstate a subtle height of land parallels Spear Street to the west, creating a minor drainage divide. There are several watercourses present on or in the vicinity of South Campus properties, and these create distinct topographic features that do affect surrounding land uses.

Geometries

The Campus Geometries are those three-dimensional alignments and axes generated by roads, buildings, landforms and vegetation that organize the physical structure of the campus. It is this subtle, underlying geometry that binds the University of Vermont's eclectic blend of architectural styles into a coherent campus fabric.

South Campus, which is less developed than the Main Campus, has only subtle geometries which have emerged over time primarily in the building patterns and road layout. A simple grid and de facto quadrangle is present at the Bio-Research Complex, and the site and building development pattern at the Miller Research Center is distinctly rectilinear in nature.

-  High Point
-  Ridge Line
-  Streams and Brooks
-  Slopes
-  Lakes and Ponds
-  Campus Grid
-  UVM Property Lines
-  City Lines/Boundaries



CAMPUS WATERSHEDS & HYDROLOGY

Since the 1990's the University of Vermont has taken a proactive role in stormwater management with the development and adoption of a comprehensive stormwater management policy (Best Management Policy (BMP)) and plan. The University's goal is to mitigate the impacts of stormwater run-off from existing facilities, any future projects, and non-University sources onto the University's property. The University expects stormwater from non-University adjacent development to be re-mediated to the same standards as on-campus stormwater in alignment with the University's Best Management Policy (BMP), the City of Burlington and City of South Burlington policies, and with the applicable regulatory permits of record.

The University's South Campus properties are contained in two watersheds, the **Potash Watershed** and the **Bartlett Brook Watershed**. Streams passing through the South Campus properties discharge directly into Lake Champlain through two stream networks, the Potash and Bartlett Brooks.

The Potash Brook flows westerly to Lake Champlain, combining with its tributaries to cross through the Miller Research Farm Complex, the Deslauriers Tracts, the Bio-Research Complex, the Edlund and Martin Tracts, the East Woods Natural Area, and both of the Wheelock Tracts. The beginning of Bartlett Brook is located in the Blasberg Horticultural Research Center and flows southwest to Lake Champlain, and collects into two ponds within the property.

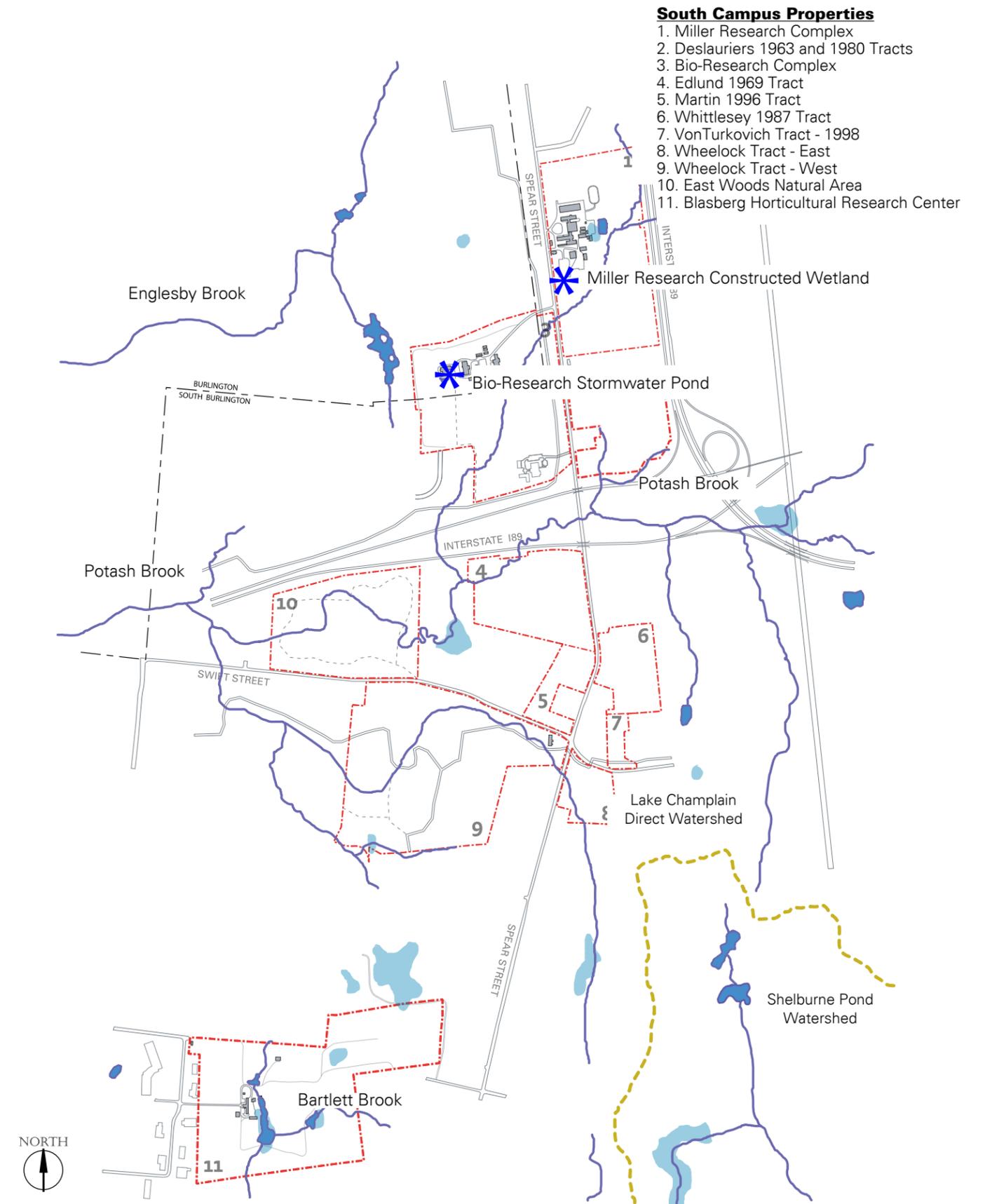
Both of these brooks are Stormwater-Impaired Watersheds, designated by the Vermont Agency of Natural Resources, due to urban stormwater runoff. The Uni-

versity is working in a public-private partnership with the City of South Burlington to improve and prevent future damage to these waterways, and efforts are underway.

The University has two stormwater treatment facilities that serve the South Campus. A newly-constructed stormwater pond is located to the southwest of the Bio-Research Complex. This pond collects runoff from the Complex. The Miller Research Farm constructed a wetland in 2003 and serves experimental research while collecting and treating effluent from the milk house, milking parlor and stormwater runoff from the cattle yard. Besides research, the constructed wetland is being used to inform and educate local farmers on ways to treat and reclaim nutrients from agricultural runoff in an ecologically beneficial manner.

As part of the BMP, UVM will continue to monitor the conditions ensuring effective means of treatment and control of runoff along with continuing its leadership role in the regional watershed planning.

-  Watershed Boundary
-  Stormwater Facility
-  Lakes and Ponds
-  Streams and Brooks
-  Wetland
-  UVM Property Lines
-  City Lines/Boundaries



MICROCLIMATES

Microclimates are small, defined environments that are sheltered from climactic conditions that prevail in the larger landscape. A microclimate can be formed by landscape features such as, topography, water bodies, vegetation, or man-made elements such as, buildings, planted windbreaks or landforms.

Optimal microclimates at the University of Vermont offer shelter from the prevailing winter winds from the northwest and southern exposure for sunlight throughout the day. The prevailing winds and storm systems in the summer in the Champlain Valley are from the southwest. In the heat of the summer, breezes from this direction can provide a cooling effect.

Microclimates are important considerations within the South Campus. Buffering winds and taking advantage of solar access can improve conditions for outdoor activities including informal gathering, walking and bicycling. Microclimate can also impact or benefit agricultural production. For example, cool air flowing downslope can settle around fruit trees and damage crops, and south facing slopes typically are warmer, more productive and dry out more quickly after rainstorms.

The analysis of existing microclimates informs the design of new spaces on campus. Well-established and beloved spaces are protected and augmented, and new spaces and structures capitalize on the lessons learned to establish a more user-friendly climate.



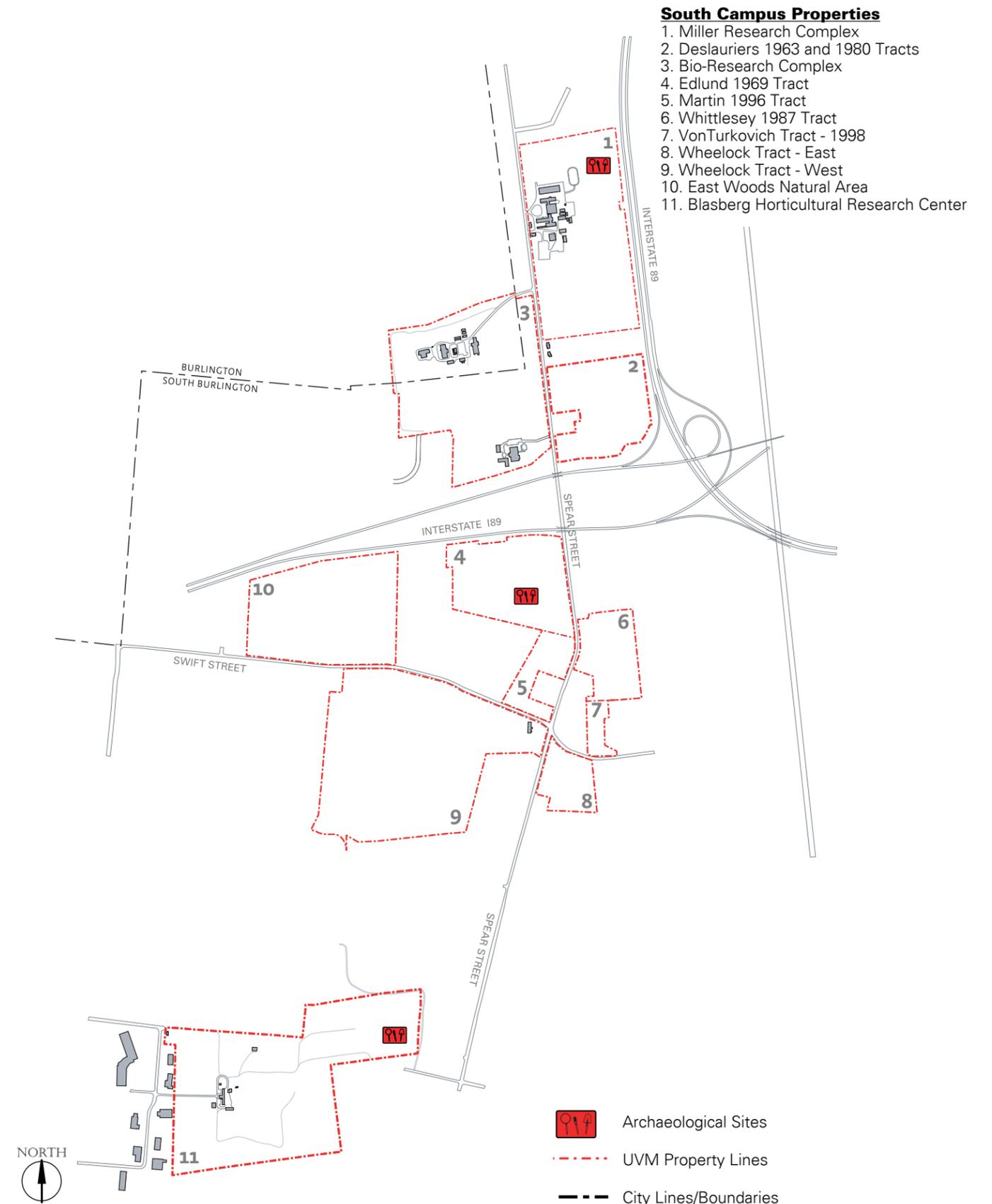
ARCHAEOLOGICAL SITES

Archaeological Sites

A number of sites of archaeological significance have been identified on the Main and South Campuses of the University of Vermont. As part of the State of Vermont Act 250 regulations, all capital projects are reviewed in relation to the historic preservation and archaeological assessments. The University is committed to identifying specific archaeologically sensitive areas when evaluating plans for a proposed development site. If the site is determined to be archaeologically sensitive, the University will conduct an archaeological evaluation and proceed as appropriate. The evaluation will follow the general procedures contained within the Guidelines for Archaeological Studies (1989).

Archaeologically significant sites in South Campus include: a prehistoric site (VT-CH-27) at the UVM Horticultural Research Complex between Spear Street and Shelburne Road that contains evidence of at least two periods of occupation, one dating to within 1,000 years and the second to roughly 5,000 years ago; a site known as the "UVM Dairy Site" (VT-CH-19) located on the northern side of a tributary of Potash Brook, east of Spear Street, plotted just west of Interstate 89; and a sand dunes site representing the former shoreline of Lake Champlain located east of Spear Street and north of Swift Street.

Note that all site locations on the accompanying map are proximate and not exact boundaries of the identified archaeological sites.



CAMPUS VIEWSHEDS & LANDMARKS

Views and landmarks which are part of the University campus contribute to the image of the institution, orient visitors and enhance the daily life of the community. South Campus has a different landscape character than the more urbanized Main Campus situated on an hilltop with expansive views to Lake Champlain and the Green Mountains.

South Campus viewsheds are more internal, framed by wooded edges and with extensive open areas of meadow, pasture, and cropland. This area has a more rural feel and is evocative of the classic Vermont landscape of farmland and forest. While most views are internal or localized, a viewshed from Swift Street provides a regional view of Lake Champlain and New York State's Adirondack Mountains. The views from the road seen by the traveling public on Spear Street and Interstate 89 looking towards South Campus are particularly important. These are views of the farm complex at the Miller Research Center, with its classic silo and barns that is an important icon representing the agricultural legacy of both the University and the State of Vermont.

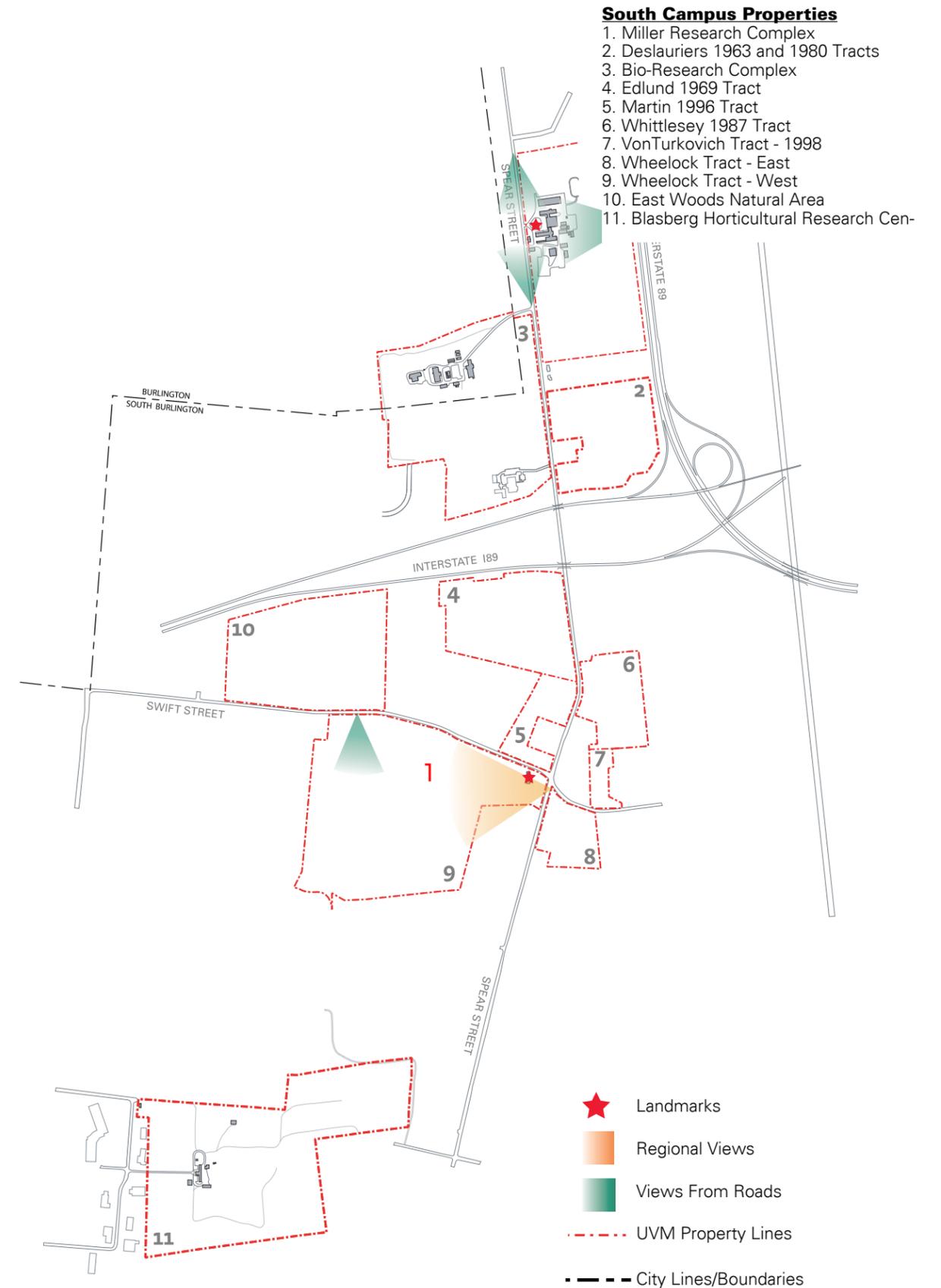
Another agricultural landmark is also present in South Campus, the Wheelock Barn, situated at the intersection of Swift and Spear Streets. The gambrel roofed dairy barn is a last remnant of traditional farming in South Burlington and now contrasts with the suburban development which has rapidly developed in this area of the city. This historic view of the Wheelock Barn is also from the road, and in essence it serves as a gateway landmark for the South Campus, and the University campus as a whole.



1. View looking west from Wheelock Barn.



★ View of Wheelock Barn landmark from Spear Street.



EXISTING OPEN SPACE

For the purpose of analysis of existing conditions and potential future use, the *Campus Master Plan* divides open spaces across campus into a number of categories that broadly define visual and qualitative aspects of the University of Vermont's landscape. In analyzing open space for the South Campus, several distinct types of land use categories emerge.

Agricultural Open Space represents the extensive lands in South Campus devoted to agricultural research and production. This land use characterizes a large extent of the South Campus landscape and will be maintained in this use for the foreseeable future as an integral part of the mission of the University and its College of Agriculture and Life Sciences. All available cropland owned by the University is in use.

Recreational Informal Gathering Space includes areas that function as arrival areas, building foregrounds or as outdoor spaces for informal activities. These areas include lawns, pathways and may also be delineated by internal roadways.

Natural Areas are significant natural spaces that the University has undertaken to preserve as an ecological, recreational and educational resource. The East Woods Natural Area is 50 acres of mixed hardwoods and conifers, and serves the University as well as the public as a passive recreational open space. Students use this natural area as an outdoor classroom and laboratory for field studies in various disciplines.



CAMPUS SIGNAGE, WAYFINDING & LIGHTING

Signage & Wayfinding

Today's wayfinding system is the result of long-range planning defined in the 1997 Campus Land Use Master Plan goals that integrates strategic campus orientation with a unified and recognizable graphic image. The universal design that was developed for the wayfinding system redefines and strengthens the University's "sense of place" and identity statewide.

The wayfinding system is based upon a hierarchical approach to wayfinding: directing motorists from the Interstate into areas of the campus; then into parking lots; and then to individual buildings. The University's wayfinding system places an emphasis on key destinations and building names rather than individual colleges/schools, departments or offices. (Refer to Chapter 8 – Design Goals and Strategies for a more indepth description of the signage hierarchy and standards.)

The University sign and wayfinding system extends to South Campus and reinforces and extends the University's identity to this external campus. The signing here is also important as a guide for visitors and vendors. Implementation of the signage system has been completed at the Bio-Research and Miller Research Complexes. Additional signs at the Blasberg Horticultural Research Center may be developed as part of a future implementation phase of the wayfinding system.

Lighting

Outdoor lighting fixtures on South Campus will remain utilitarian in nature, with an emphasis on function, safety and security. The decorative lighting standards of the Main Campus are not appropriate for South Campus applications, and thus there are no plans to install these

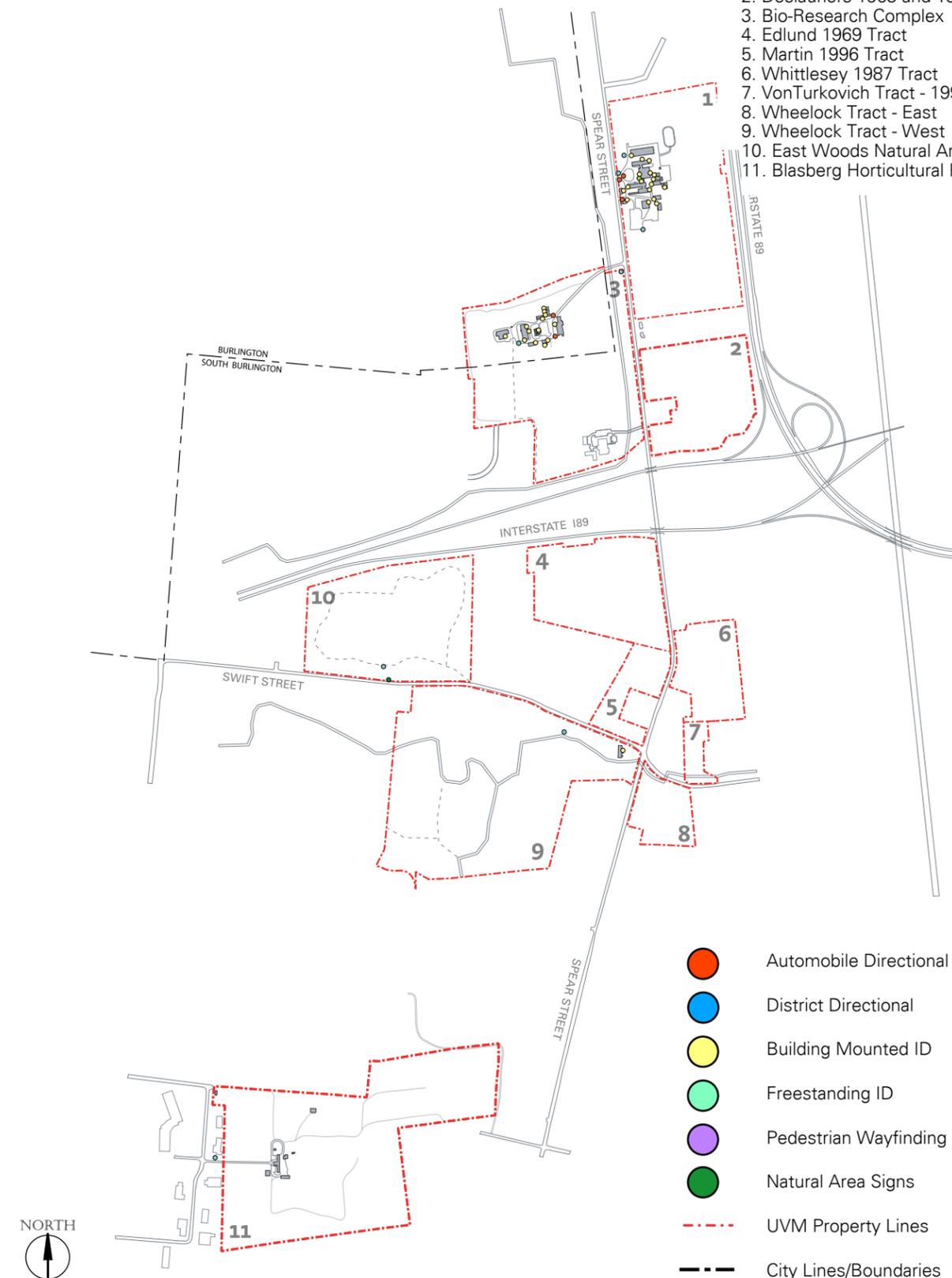
fixtures on South Campus. Nonetheless, outdoor lighting requirements for the developed areas of South Campus should be evaluated as uses change and expand. Functional, energy efficient lighting should be installed with building or post mounted fixtures when and where additional lighting is necessary.

Gateways

Two gateway areas have been identified on South Campus. Consideration should be given to developing some form of gateway element or sign in one or both of these locations that reinforces the University presence and conveys the image of the institution.

South Campus Properties

1. Miller Research Complex
2. Deslauriers 1963 and 1980 Tracts
3. Bio-Research Complex
4. Edlund 1969 Tract
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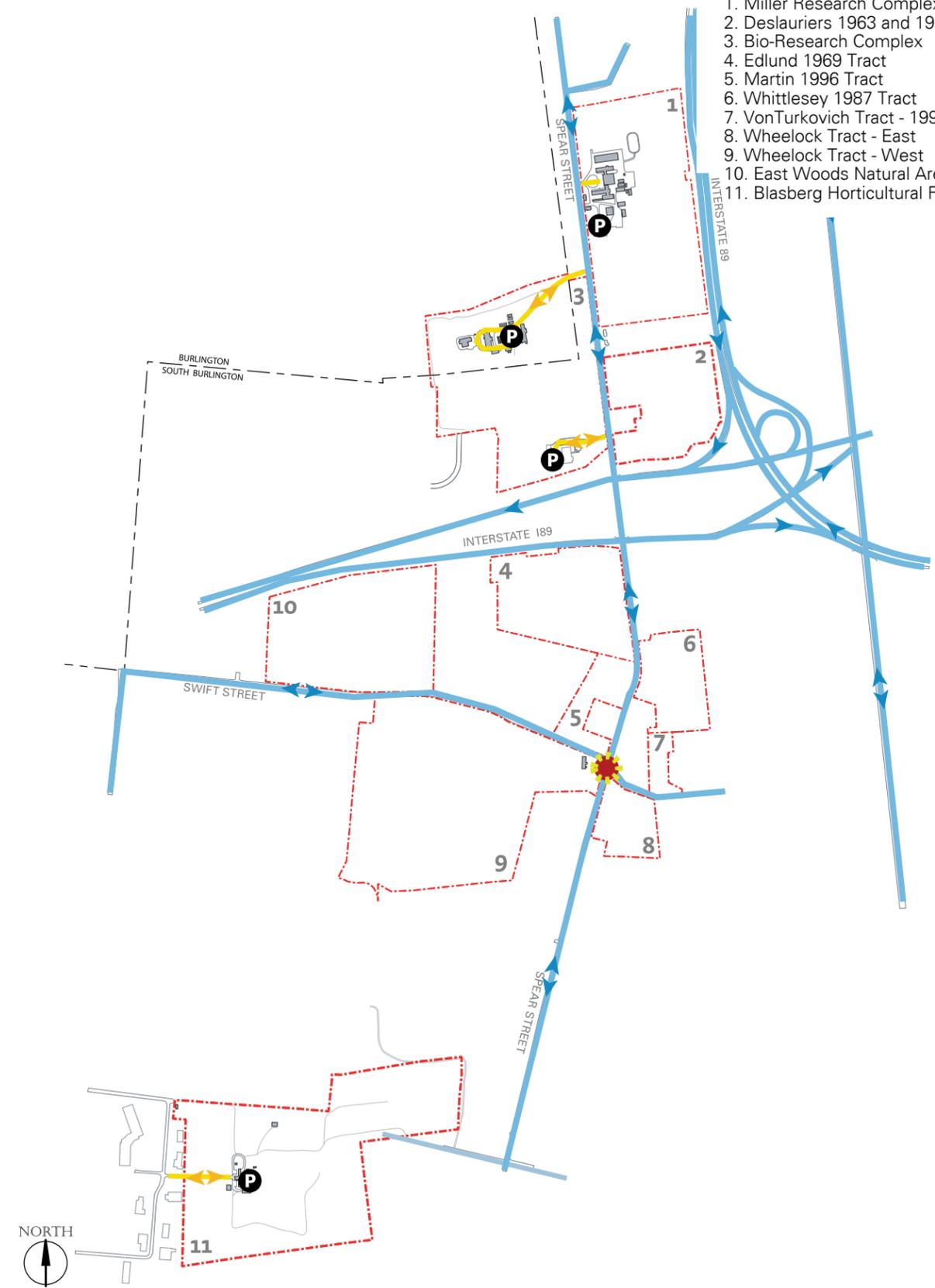


VEHICULAR CIRCULATION & PARKING

Vehicular Circulation in the South Campus is primarily on the city roads and the short public access campus roads which serve the individual complexes. Small parking lots are located adjacent to University buildings within each complex. At this time there is no shuttle or public transit serving the South Campus.

- South Campus Properties**
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 8. Wheelock Tract - East
 9. Wheelock Tract - West
 10. East Woods Natural Area
 11. Blasberg Horticultural Research Center

-  Public Roads
-  Public Access Campus Roads
-  Stop Lights
-  Parking
-  UVM Property Lines
-  City Lines/Boundaries



HIGH VEHICULAR/PEDESTRIAN TRAFFIC PATTERNS & PEDESTRIAN AND BICYCLE CIRCULATION

High Vehicular/Pedestrian Traffic Patterns

Spear Street and Swift Street are the primary city roads which serve South Campus. Both of these roads experience heavy traffic particularly during commuter periods between Shelburne Road and Spear Street. The width of these roadways coupled with the lack of sufficient shoulders create less than ideal conditions for pedestrians and bicyclists.

The Spear Street Corridor Study prepared in 2004 for the City of South Burlington focuses on traffic flow and safety and has identified and addressed many of the pedestrian and bicycle deficiencies that occur in this segment of the corridor. Although not designated for Bicycles/Pedestrians, the underpass is a point of conflict due to the confined and narrow passages. Another conflict area is at the signalized intersection at Spear and Swift Streets where pedestrian and bicycle conflicts can occur with the various vehicular turning patterns. The corridor study provides specific details on these conflict areas

Pedestrian and Bicycle Circulation

Pedestrian and Bicycle Circulation has been identified. South Campus is not a pedestrian oriented campus at this time, although the properties north of Interstate 189 are connected via an established recreation path. Few, if any internal walkways exist within the South Campus complexes as they are primarily served by internal roadways.

For South Campus, the developed recreation paths serve bicyclists, walkers and joggers and provide con-

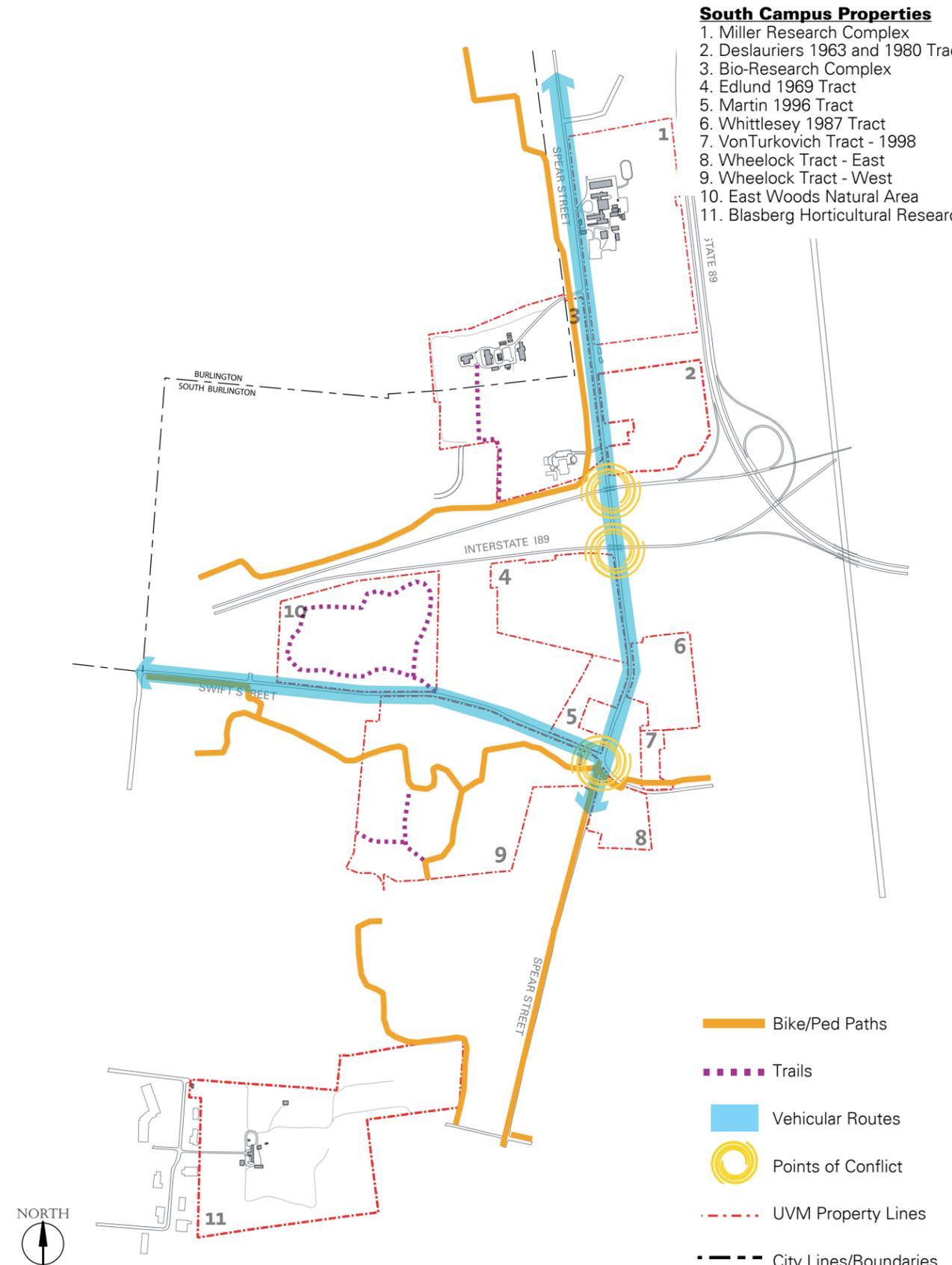
nections to and through University properties which are part of South Campus. Two segments exist, the route along Spear Street north of Interstate 189 and the network south of Swift Street, which is located in part of the Wheelock West tract.

The University granted license agreements to the City of South Burlington to locate a portion of the South Burlington Recreation Path in South Campus. There are two portions of this path that run through University landholdings. The portion of the path north of Interstate 189 heads north along Spear Street and through the Bio-Research Complex parcel to Main Campus. It also heads south to Farrell Street, which is parallel to Shelburne Road. This connects to the portion of the South Burlington Recreation Path that is south of Swift Street and runs through the Wheelock-West Tract as it heads east.

A designated bicycle route that shares the lane with traffic is present along Spear Street south of the Swift Street intersection. Pedestrian trail networks (no bicycles allowed) are located within the East Woods Natural Area and the undeveloped open space of several tracts.

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5.2 SOUTH CAMPUS PROPOSED FRAMEWORKS FOR CAMPUS PLANNING

The Proposed Frameworks for South Campus are derived from the inventory and assessment information presented in the previous section on existing conditions. These frameworks, in concert with the Architectural and Landscape Design Guidelines set forth in Chapter 5.3, will guide future improvements and development projects on this campus.

Land Banks	161
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LAND BANKS

The *Campus Master Plan* has identified a number of infill land banks to organize future development since the University's needs for academic, housing, administrative and support space will continue to evolve. When the University chooses to develop projects, these land banks for infill uses will accommodate that need while providing a flexible framework that is adaptable for changing needs. The land banks have also been designed to provide convenient linkages to pedestrian and transit nodes without infringing on existing viewsheds. Adding buildings within this framework becomes a process of infill that strengthens the campus image and fabric. This strategy will help ensure that new building massing will physically relate to both old and new structures.

It is important to note that for the purposes of this *Campus Master Plan*, "land banks" are defined as sites that have the potential for:

- Accommodating new buildings, with the programs for these buildings and related site development identified and defined in the future;
- Providing circulation needs for pedestrians, bicycles, emergency access, and service vehicles;
- Providing informal recreation space needs; and
- Providing special event outdoor space needs.

In addition, one category of land bank projects contain open spaces as no-build zones.

In all cases, building replacement and new construction

must be based on a due diligence analysis that assesses current conditions and the potential for adaptive re-use of existing facilities versus the long-range cost of new construction to meet current and future needs.

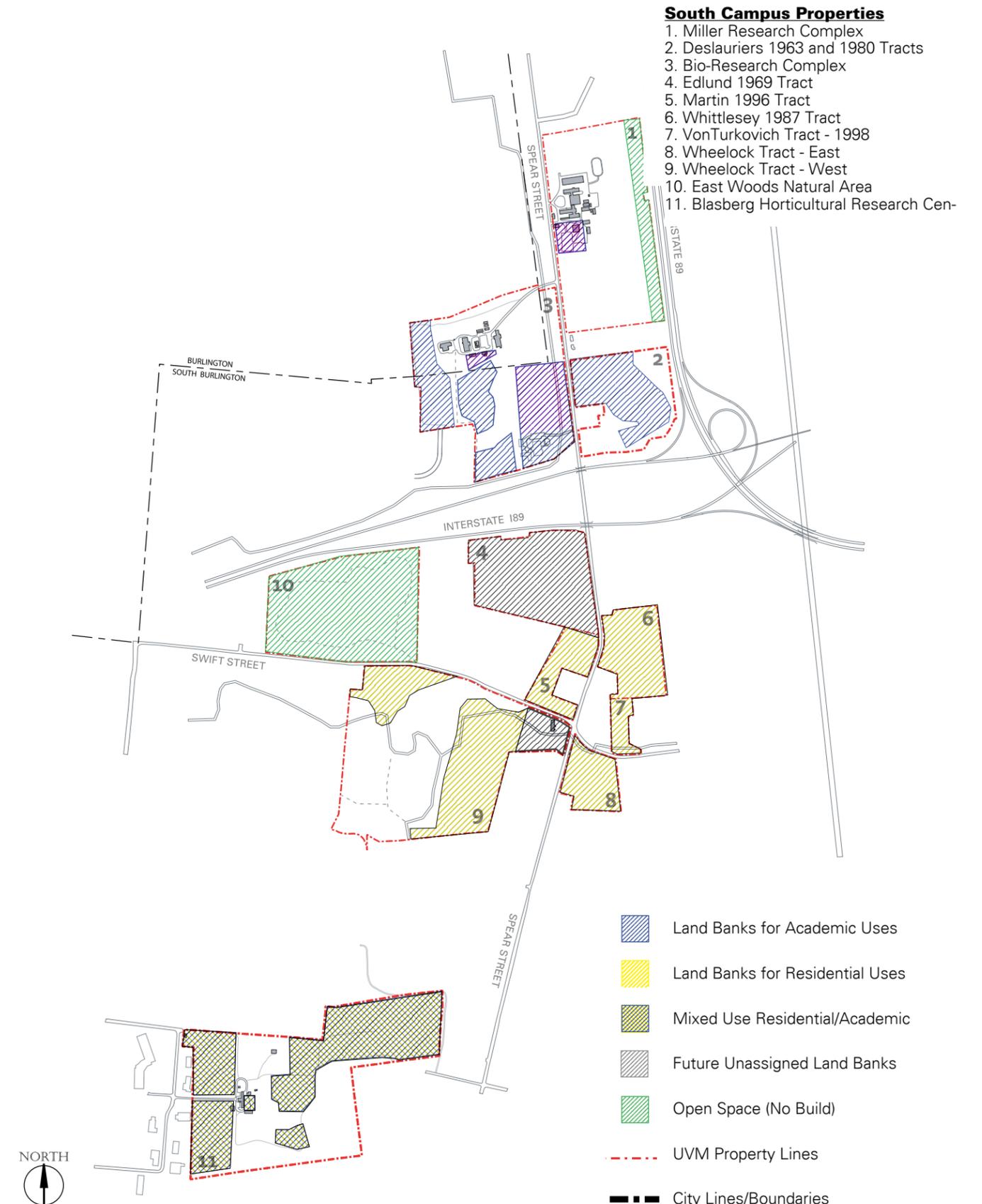
Land Banks in the South Campus are delineated primarily for two uses: academic and residential. Buildings and their associated infrastructure will fit within these designated areas when and if the University proceeds with a specific development initiative.

The residential land banks might have some academic or institutional use associated with them but at this point in time there are no specific plans for such properties. Alternative housing strategies and joint community partnerships may be a possible consideration for these sites. The residential land bank designations generally reflect the South Burlington Zoning District within which these parcels are located.

The East Woods Natural Area serves important environmental and community purposes and is considered a no build zone. There is an approximate 100-foot buffer along the eastern boundary of the Miller Research Complex, which is located within the Interstate Highway Overlay district. Thus, this portion of the parcel may not have a building or structure of any kind, but is generally allowed agriculture activities, recreation paths, utilities and access drives.

South Campus Properties

1. Miller Research Complex
2. Deslauriers 1963 and 1980 Tracts
3. Bio-Research Complex
4. Edlund 1969 Tract
5. Martin 1996 Tract
6. Whittlesey 1987 Tract
7. VonTurkovich Tract - 1998
8. Wheelock Tract - East
9. Wheelock Tract - West
10. East Woods Natural Area
11. Blasberg Horticultural Research Cen-



PROPERTY ACQUISITION & DISPOSITION

South Campus Properties

1. Miller Research Complex
2. Deslauriers 1963 and 1980 Tracts
3. Bio-Research Complex
4. Edlund 1969 Tract
5. Martin 1996 Tract
6. Whittlesey 1987 Tract
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The Property Acquisition and Disposition Plan for the South Campus reflects the University's desire to maintain connectivity of agricultural lands to support the research activities and mission of the land grant institution.

Acquisition

The University will continue to accept gifts of land in this area that complement current and long term interests and on-going programs. The University Board of Trustees previously identified the following properties for consideration of acquisition should they become available:

- Property south of the Miller Research Farm and north of the University owned Deslauriers Tracts (1963 and 1990) and east of the residences between 596 – 600 Spear Street currently owned by Couillard and Herbert;
- Buildings of the George D. Aiken Forestry Sciences Laboratory on UVM land leased to the USDA Forest Service;
- Two residential properties across from George D. Aiken Forestry Sciences Laboratory (696 Spear Street and 700 Spear Street);
- 3 Parcels on the north side of Swift Street contiguous to University Property;
- The All Saints Episcopal Church property (1250 Spear Street) on the east side of Spear Street; and
- A residential house located at 1201 Spear Street.

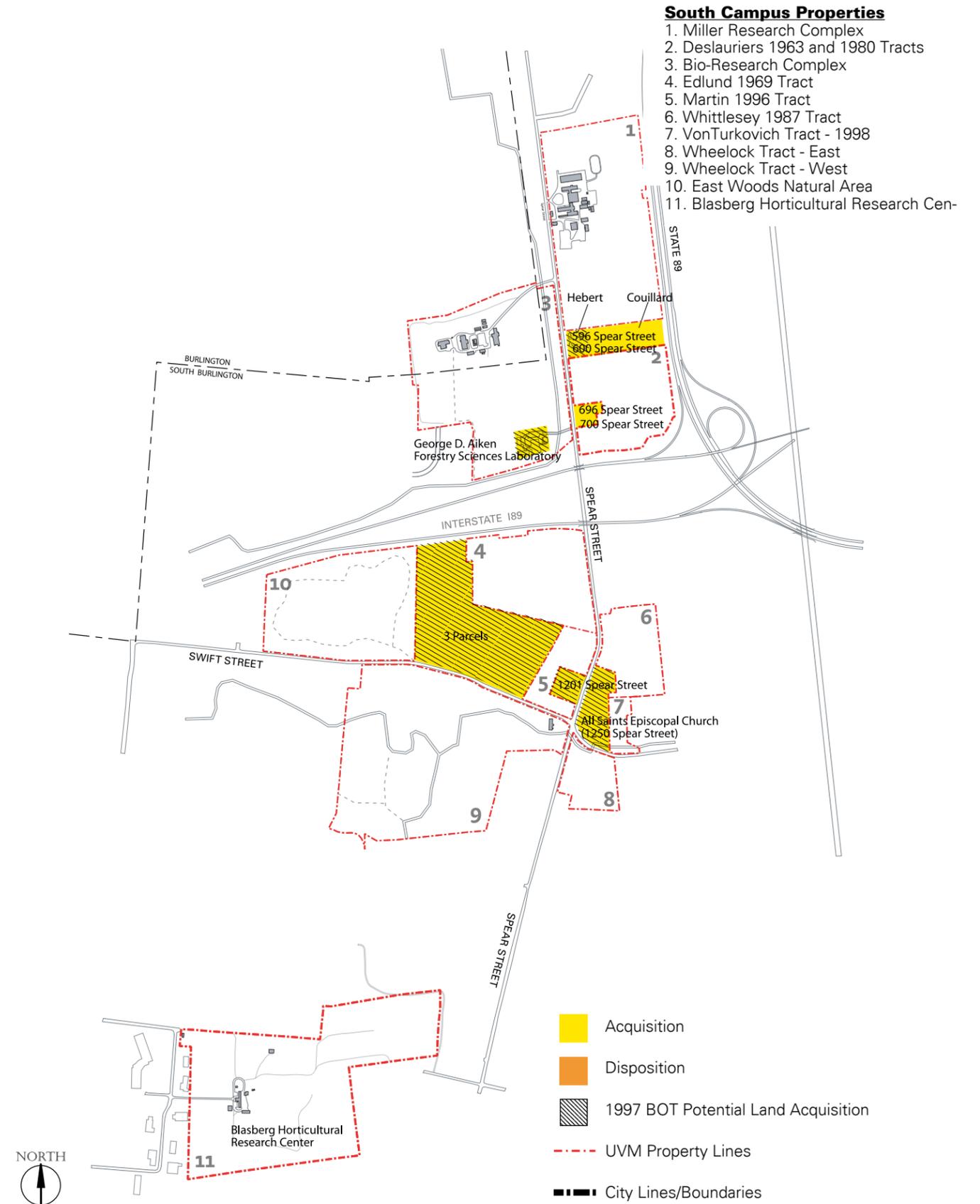
The University is adding to this approved list the two residential properties at 596 – 600 Spear Street. These particular acquisitions, including the east property previously approved and noted above would link, in one con-

tinuous parcel, the lands of the Miller Research Farm with the croplands and open space of the Deslauriers Tracts property.

Disposition

No disposition is planned at this time for this campus.

This is not a static master plan, therefore the list of potential acquisitions or dispositions may change. Should conditions or forecasts change, there may be additional properties that the University would consider acquisition or disposition of beyond this list of properties. Unique circumstances, like the availability of the Trinity College campus, may arise in the future and will require a separate campus master planning process.



OPEN SPACE & GATEWAYS

Open Space

The South Campus open space network will remain essentially intact although the University will explore in the future any potential for future development on those properties where it is appropriate to do so.

Connective

The recreation path corridors provide connective open spaces which are experienced and appreciated by the University community and the general public. The agricultural landscapes contribute to the overall character of the South Campus.

Informal Gathering/Open Space

There are only a few areas which serve the function of gathering space and building foreground. These areas are to be maintained and enhanced as appropriate as an integral component of the pedestrian environment for the South Campus.

Natural Areas

The East Woods Natural Area is an important component of the University's open space holdings and serves the community of South Burlington as well. This Natural Area is of increasing value as the neighborhoods around it continue to develop and is one distinct way in which the University contributes to the City's quality of life. This Natural Area also serves a critical watershed function as the natural landscape attenuates and filters stormwater runoff and helps to cleanse the impaired waterways.

Gateways

Two gateways have been identified on South Campus for northbound travelers along Spear Street. This corridor constitutes, in a sense, the University's southern entry although this access to the Main Campus is clearly secondary to other approaches. The Wheellock Barn and property constitutes the first gateway and the Miller Research Complex represents a second gateway. Both of these locations provide a sense of arrival and convey the University's agricultural identity to the public. Some form of additional gateway articulation using a consistent vocabulary of design and materials, as set forth for the Main Campus, will further enhance these gateway locations.



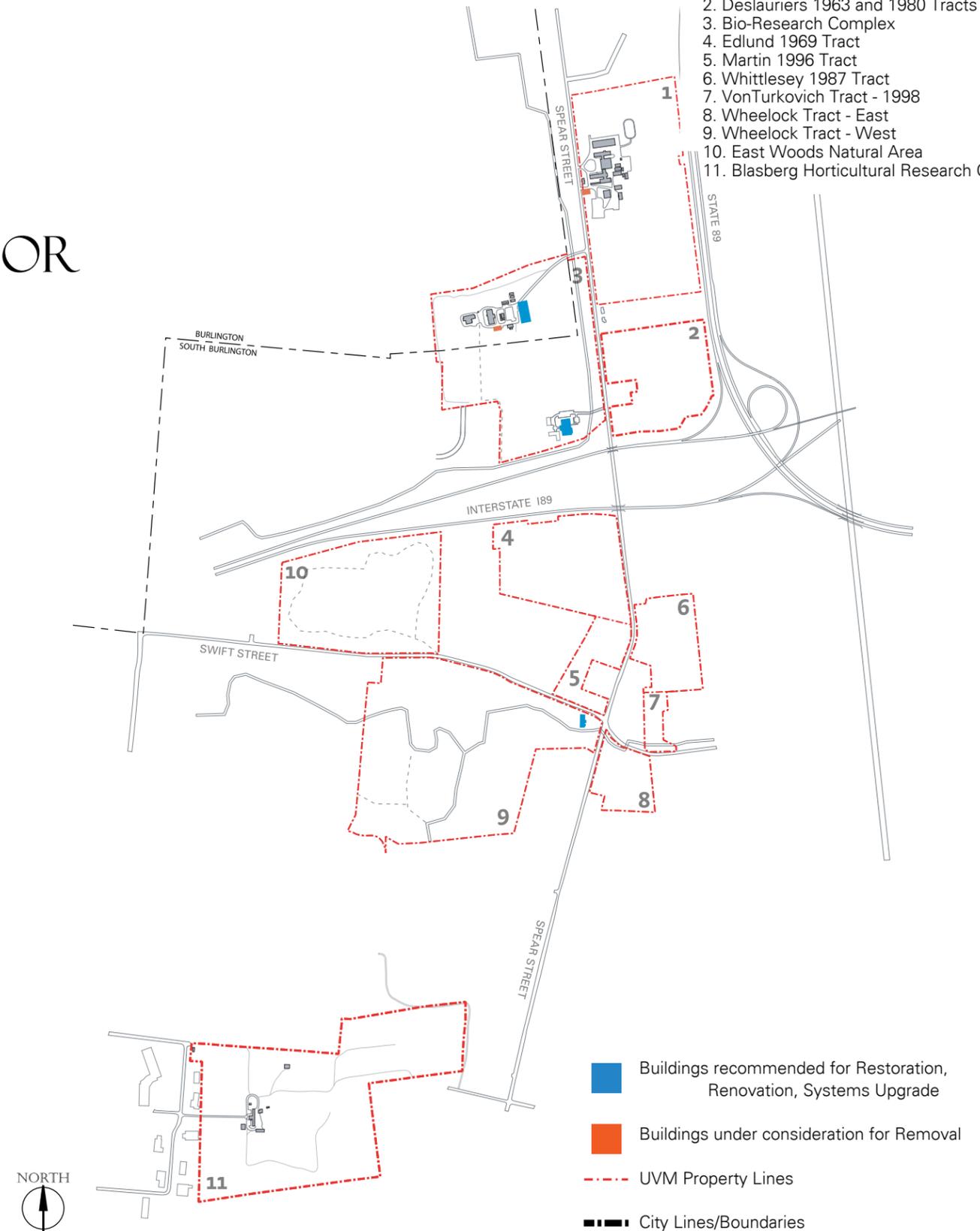
BUILDINGS RECOMMENDED FOR FUTURE RESTORATION, RENOVATION, ADDITIONS OR REMOVAL

As with the Main Campus, there are several buildings within the South Campus that have been identified for renovation, additions or removal. In the future this may apply to the George D. Aiken Forestry Sciences Laboratory, a facility owned by the U.S. Forest Service under a ground lease with the University. The U.S. Forest Service currently leases the land from the University. At the end or termination of the lease, possible future use would likely require some renovation. The Wheelock Barn is a large facility that will also need renovation for any future academic, administrative and/or conference/community uses.

Removal is another option for certain buildings on South Campus. The white farmhouse at the Miller Research Complex has deteriorated to the point where it is not cost effective to rehabilitate. An existing freezer/storage facility at the Bio-Research Complex will be replaced by an improved and expanded freezer facility. Several other structures at the Bio-Research Complex need to be evaluated for long term use and renovation versus removal or reconstruction.

South Campus Properties

1. Miller Research Complex
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8. Wheelock Tract - East
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10. East Woods Natural Area
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5.3 SOUTH CAMPUS DESIGN GUIDELINES

The **Architectural Design Guidelines** describe the architectural qualities of South Campus buildings and provide guidance for the design of new buildings, additions and renovations in this district. Design parameters are set forth in a conceptual manner so as to allow some flexibility in the design expression of individual architects selected for future projects.

The **Landscape Design Guidelines for South Campus** provide an understanding of the landscape context in this district and recommend landscape initiatives that will enhance the functional and aesthetic qualities of the campus. The guidelines are intended to provide continuity in the design approach while allowing flexibility for specific design solutions crafted by selected landscape architects.

Architectural Guidelines	167
Landscape Design Guidelines	169

ARCHITECTURAL GUIDELINES

Architectural Characteristics

There are currently three properties within South Campus with substantial building development: the Miller Research Complex, the Bio-Research Complex, and the Blasberg Horticultural Research Center. A fourth has a landmark structure, the Wheelock Barn on the Wheelock West property. Only the buildings of the Miller Research Complex, commonly known as the University Farm, are readily visible from external highways and thus subject to extensive visual exposure.

The farm buildings in the **Miller Research Complex** are the most distinctive structures on South Campus not just for their form, but also for their arrangement on the site as part of a farm building pattern. The Miller Research Complex presents an orderly collection of single story structures with red siding and red metal roofing that have primarily gable roofs although one main barn is a quonset style roof and a residential bungalow-style structure has a hip roof. The Ellen A. Hardacre Equine Center, recently added in 1999, continued the gabled farm building style and added small cupolas on the roof peak. The silos are prominent visual elements and provide the farm with classic agrarian icons.

The **Bio-Research Complex** has a rectilinear site plan of structures that are primarily utilitarian in nature, with several small barn type buildings and greenhouses present on the site. These single story buildings tend to be clad in reddish brown wood siding with metal barn type roofing. A newer building, the Environmental Safety Facility constructed in 1993, departs from this pattern with concrete and metal siding, and is set apart from the rest of the buildings.

The **Blasberg Horticultural Research Center** (Hort Farm) has a cluster of simple light blue colored steel frame and panel buildings that house storage, office and classroom space and garage bays for the Hort Farm. The original Blasberg Center was constructed in 1961, and the storage structures and field lab buildings were added in the 1970s. A small kiosk is a focal point at the entry and off to one side is a greenhouse. There is a small historic building at the northwest corner of the property that is currently used for farm implement storage.

The **Wheelock Barn** is a prominent architectural landmark. It is a gambrel roofed dairy barn on the Wheelock West property, situated at the intersection of Spear and Swift Streets. This is an important cultural icon that should be retained and adaptively reused in the future for an appropriate academic, administration and/or conference/community function.

New Buildings

New buildings proposed for the Miller Research Complex should respect the agricultural architecture and color schemes present on the site, and reinforce the farm as a visual landmark. Scale, roof pitch and footprint need to complement existing site and building patterns. New structures should not compromise the visibility and centrality of the silos.

A proposed new Freezer Storage Facility for the Bio Research Complex retains the simple, straightforward, functional design characteristics of the existing facilities and integrates concrete and metal siding construction



Miller Research Farm Complex looking North from Spear Street



Miller Research Farm Complex



Bio-Research Complex, Entomology Research Laboratory



East Woods Natural Area, entrance off Swift Street, looking North

to mimic the utilitarian forms present along with the materials of the Environmental Safety Facility. Any future buildings should continue this basic approach.

If the Blasberg Horticultural Research Center is further developed, a new building complex may be desirable to address current shortcomings in design and function. A goal would be to create new buildings with an agrarian or gardening theme which better reflect the mission of the farm and its relationship to the community with welcoming, state of the art facilities for horticulture and research.

If any of the undeveloped sites such as Wheelock East, the Von Turkovich or Whittlesey Tracts are proposed for future development, site planning and architectural design will need to be sensitively developed in a manner that is consistent with the local landscape and settlement context. Vernacular design motifs along with ecologically sensitive site development will be guiding principles for the future use of these properties.

Additions and Renovations

Additions and renovations are to be considered carefully due to the potential costs exceeding the potential benefits or use to be derived from renovating inexpensive buildings not initially designed for their current purpose. Nonetheless, with these buildings serving as much needed storage facilities for the College of Medicine, as well as for other research functions, some investment will continue for maintenance and change of use, and further renovations should maintain the utilitarian quality and modest scale of the buildings and architecture.

Interior renovations should reflect the uses it will support along with integrating current technologies.



Blasberg Horticultural Research Center



Ropes Course, in Wheelock West Tract



Wheelock Tract West, Burlington Community Garden looking west



Blasberg Horticultural Research Center Greenhouse



Martin Tract, Spear Street looking northwest



Wheelock Tract West, Wheelock Barn

LANDSCAPE DESIGN GUIDELINES

Landscape Guidelines

The South Campus area is a largely agricultural landscape surrounded by wooded areas, open fields and cultivated croplands. The distinct properties within the South Campus typically have very little in the way of formal or well developed landscape plantings, with the exception of the Blasberg Horticultural Research Center (Hort Farm). Additional landscaping or site enhancements at the Hort Farm should complement the planting collections as well as the mission and research activities of the programs it supports, primarily in the College of Agricultural and Life Sciences.

Landscape guidelines for the South Campus should stress the maintenance and enhancement of existing vegetation within and particularly at the edge of open space areas. Native vegetation and native plant associations are encouraged for any new plantings and these plantings should be developed with an eye towards their contribution to stormwater retention and filtration. Invasive species should be removed or controlled where opportunities exist to do so.

Landscape Initiatives

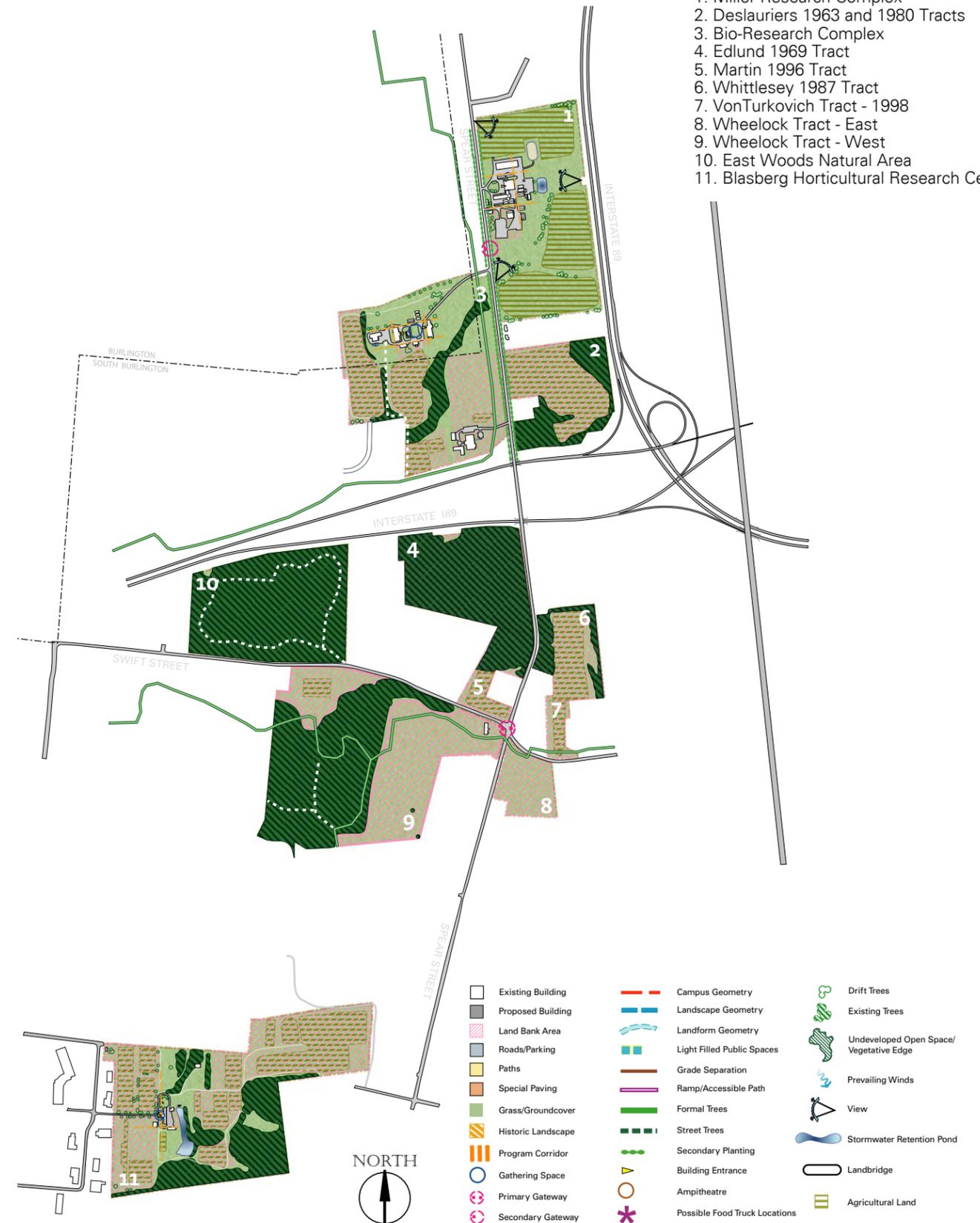
The South Campus will continue as a natural resource environment and agrarian landscape. Landscape plantings may enhance the Bio-Research Complex and the central green area should be retained and enhanced as an organizing element and structure for the building layout and orientation. Colorful perennial and annual flower plantings at the Miller Research Complex should continue to add interest and aesthetically pleasing focal points at the farm entry. Continued maintenance of the ornamental collections at the Hort Farm is an important short term practice, while long term landscape enhancements will be dependent on the future use and disposition of that property.

Where the University borders residential properties, buffer plantings and maintenance of existing vegetation are important considerations.

Linear or street tree type plantings may be appropriate along roadways and recreation paths. The University should continue to support the planning of additional recreation path facilities that has been initiated by South Burlington.

South Campus Properties

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5.4 SOUTH CAMPUS MASTER PLAN DEVELOPMENT

South Campus Master Plan Development provides an illustrative representation and narrative summary of the vision for the future planning and development of South Campus properties. The illustrative plan presents the physical changes that would be implemented in concert with the planning frameworks and design guidelines for the campus.

Master Plan Development	173
South Campus Illustrative Plan	174

SOUTH CAMPUS MASTER PLAN DEVELOPMENT

The presence of the **Miller Research Complex** (UVM Farm) on Spear Street, with its visibility from Interstate 89, represents an important landmark for the community and the region, sustaining the connection to the University's origins as the State Agricultural College and land grant institution. The University of Vermont is unique among land grant institutions with regard to the proximity of its working farm to its Main Campus less than a mile away, and the presence of that working farm within a rapidly growing urban area. Investment in the UVM Farm will further enhance the University's leadership in animal science research and its mission of state-of-the-art agricultural education. The institution is committed to maintaining a farm presence at this location. A comprehensive assessment of croplands has been conducted by the University Farm that describes and evaluates productivity of each field.

Future opportunities include the replacement of the existing main barn with a larger facility to house the CREAM (the Cooperative for Real Education in Agricultural Management) program and research herd. An existing farmhouse building is in poor condition and deteriorating and is being assessed for possible demolition and future land uses.

To support the UVM Farm operations, many of the South Campus properties are used for croplands. In addition, the University leases other crop lands and purchases grain for its operational needs. To augment the in-house cropland production, the University will consider accepting future gifts of cropland as well as explore easements adjacent to areas of residential uses rather

than purchase additional properties for this need.

Currently, the future expansion of the **Bio-Research Complex** is constrained by easements, wetlands and existing buildings. However, additional opportunities for expansion will exist when the lease terminates with the US Forest Service Northeast Forest Experiment Station located in the southern portion of this landholding, thereby combining the two parcels.

The northern portion of this parcel will be primarily infill development, including an expanded Freezer Storage Facility that is already being planned and developed for the College of Medicine research needs. In addition, an assessment of the conditions of other facilities need to be completed, anticipating that some will need to be demolished. Responsibilities for maintaining facilities that remain will need to be clearly delineated and defined.

Connections between the north and south portions can be strengthened when the land reverts to the University's use in the future.

The future of the **Blasberg Horticultural Research Center** (Hort Farm) is under consideration by the University administration. It is recognized that this is an important property and future decisions with regard to its use and development will balance the University's mission and academic and research needs in conjunction with community interests.

Continued University ownership will require building upgrades with the improvement of classroom and

greenhouse spaces being a priority. Public access and compatibility with on-going research projects must be addressed to ensure research requirements are met.

Also located in the South Campus area is the **East Woods Natural Area**. This area will continue to be managed by the University's Natural Areas Center and serves an important function in the sub watershed in its capacity for stormwater attenuation and filtration. An important issue that needs to be monitored and addressed in the near future is the impact of dogs on the Natural Area and the subsequent negative impact to the watershed.

The **Whittlesey, Wheelock East** and **Von Turkovich** tracts are all zoned for potential residential development. While the University has no current plans, it intends to keep its options open for the future development of these properties. The newly adopted Neighborhood Residential (NR) Zoning category in the former Southeast Quadrant, which affects the Wheelock East tract, presents opportunities for more dense residential development as well as for participation in a Transfer of Development Rights (TDR) program.

All other properties within the South Campus are to remain as open space and agricultural cropland where currently farmed by the University. This land use helps to reinforce the mission of the University and support on-going long term research activities. Additional gifts of land would also be desirable to promote the connectivity of South Campus properties and to provide additional cropland needs. With extensive renovation, the

Wheelock Barn site may be suitable for relocation of academic and research function or a conference/community center.

The City of South Burlington's Spear Street has become an important corridor and serves a growing volume of commuter traffic. The Spear Street Corridor is the primary spine and linkage for South Campus. The University will continue to explore and support ways in which to further enhance the flow and safety of this corridor, along with aesthetic and pedestrian/bicycle enhancements and connections. When the critical mass of University faculty, staff and students working on South Campus reaches the appropriate threshold, a shuttle bus route may be considered as an alternative means of connectivity with the Main Campus.

SOUTH CAMPUS ILLUSTRATIVE PLAN

- South Campus Properties**
1. Miller Research Complex
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