Main Campus that is comprised of the core campus and is primarily located in the City of Burlington in addition to South Burlington, includes an analysis of the existing conditions, an analysis of the frameworks identified for campus planning, an overview of the design guidelines differentiated by architectural districts, and the illustrative campus master plan with conceptual drawings of proposed priority landscape projects.

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### MAIN CAMPUS: EXISTING CONDITIONS

The **Main Campus: Existing Conditions** includes an analysis of existing conditions and facilities on the Main Campus.

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The University of Vermont’s Main Campus contains the University’s primary academic core on a 459-acre tract within the cities of Burlington and South Burlington. The University of Vermont’s Main Campus grew from the original fifty-acre hilltop given to the University by its Allen in 1791. The Main Campus expanded with the addition of University Heights in the 1920’s and the A.A. Buell Estate (Redstone) in the 1920’s and other subsequent land acquisitions. The Main Campus is comprised of the following Campus Districts:

**Central District** is located within the City of Burlington and contains the majority of academic, administrative, research, and academic and student support facilities. Some residential facilities are also located within this district along with open space available for future development. Within the boundaries of this campus district is the Institutional Core Overlay (ICO) zoning district that allows for greater development flexibility with respect to building design and increased lot coverage on campus. The Central District comprises the University’s historic core and some of its most iconic buildings and open spaces, including University Row and the University Historic Green. Central District is oriented towards academic and administrative uses and is the University’s primary interface with visitors and the local community. Central District acts as a gateway to the campus from the city and forms a signature image of the University.

**Trinity District** was acquired in December 2002. Trinity District retains the character of a small residential college with clusters of residence halls and small academic buildings perched on the edge of a wooded ravine. It is a mixed-use academic and residential district.

**Centennial District** is located within the cities of Burlington and South Burlington. The Centennial District contains: the Centennial Field Athletic Complex; Centennial Woods and the designated Natural Area; the Grove Street property; the Centennial Court Faculty/Staff Apartments, which serve as faculty and staff rental housing; the Patchen Road Park, which is leased to the City of South Burlington as a recreational park; the Sheraton Inn & Conference Center parking lot, as well as research and administrative/academic support services, University parking and undeveloped open spaces. The character of Centennial District is defined by Centennial Woods and low-intensity land uses such as the Athletic Facilities, support facilities and faculty/staff residential housing.

**University Heights District** is located primarily in the City of Burlington, south of Main Street and to the west borders residentially scaled community housing and most of the University’s Redstone Walkway, an important institutional buffer with residential neighbors. To the east, the district includes the jug handle south of Main Street in the City of South Burlington. This District is one of the University’s primary residential districts and is characterized by large 60’s and 70’s era residential and dining facilities and the University Heights Student Residential Learning Complex which brings an additional 800 students to the district. This facility is currently under construction, with the North Complex scheduled to open in January 2006 and the South Complex in September 2008. This rich density of housing is offset by generous lawns and walkways that are an amenity to both students and neighbors and the overall pedestrian connectivity of the campus.

**Redstone District** is located within the City of Burlington across from residentially scaled community housing, and a University affiliated sorority to the west. The North and east boundaries are contiguous to University Heights District and the Athletic District respectively. The District is bordered by the Burlington County Club to the south. The District includes the stately turn-of-the-century mansion (Redstone Hall), carriage house (Robinson Hall), and gatehouse of the former A.A. Buell estate, and residence halls from the 1920’s and 1960’s. It houses the music department and some administrative student support functions. The Redstone District, is one of the most distinctive and rich historic landscapes of the campus. The eclectic layering of historic structures and well-established landscape impart a rich sense of place that is a much loved living and working environment for students.

**Athletic District** is located in the cities of Burlington and South Burlington and is bordered to the east by a residential neighborhood. This District contains the primary athletic/recreation indoor and outdoor facilities and commuter and visitor parking. The character of the Athletic District is largely defined by the wide-open landscape of sports fields, and a panoramic view of the Green Mountains.
ZONING

The University of Vermont functions within a regulatory environment unique among comparable universities across the country. The University is required to apply for all local and state regulatory permits, including environmental permits for any building activity, similar to any landowner or commercial for-profit developer.

Act 250 is the state’s land use environmental law which requires that all large scale development and/or small-scale projects that fall under specific criteria undergo a rigorous state review. The University must prove that the project does not adversely impact:

1. Water and air pollution;
2. Future water supply;
3. Existing water supplies;
4. Soil erosion;
5. Traffic;
6. Educational services;
7. Municipal or government services;
8. Scenic and natural beauty, aesthetics, natural areas, historic sites;
9. Conformance with capability and development plans (public and private financial and utilities capacity);
10. Conformance with duly adopted local and regional plans.

In addition to and separate from Act 250, all University development must comply with all other state permit requirements for historic preservation and environmental quality such as, stormwater quality, erosion control during construction, air and water pollution.

Finally, local jurisdictions also want to make sure that the University complies with all local zoning requirements. Both the Main and South Campuses are located within the cities of Burlington and South Burlington which both have extensive and detailed zoning review requirements, including a public process.

The University, through Campus Planning Services, has developed a system of proactive public input solicitation and communication with state and local planning staff to ensure that all projects take into consideration public needs and interests as well as the latest planning and design requirements. This system has resulted in better projects moving faster through the required approval steps.

Burlington:
Within the City of Burlington, the University’s land holdings are zoned as follows:

- **University Campus District (UC)**: Most of the Main Campus is zoned UC, including Trinity District. This designation enables the University to use its lands for academic and other institutional uses. This includes Centennial Field and a small part of Centennial District.
- **Institutional Core Overlay District (ICO)**: Within the UC District, the part of the Central District that is north of Main Street is designated as the ICO district. This designation permits a density of 60% development rather than 40% in the rest of the UC district. The ICO also increases the setbacks and buffers over the UC regulations along with encouragement to build structured parking within the ICO boundaries.

Recreation Conservation Open Space District (RCO):
Most of Centennial District within Burlington is zoned RCO. The city would like this area to remain primarily open space and natural area.

Apart from any city or state mandates, the University has designated part of Centennial District as the Centennial Woods Natural Area, thereby ensuring that it remains a natural area in perpetuity. This Natural Area is located within both cities.

**Trinity Campus Overlay District (TCO)**: Formerly a separate higher education institution, most of the Trinity District retains this historic zoning designation that is similar to the UC parameters but defines an increased setback from Colchester Avenue.

Adjacent to the University, Fletcher Allen Health Care, Mater Christi School and the Red Cross are also zoned for UC although they are not part of the University of Vermont. The neighborhoods surrounding the institutional districts are zoned for residential use. Some non-University areas adjacent to the Centennial District are also zoned RCO.

The City of Burlington is currently rewriting its zoning ordinances and the University is part of this process to ensure that future zoning changes best meet the needs of the University and the City.

**South Burlington**: Within the City of South Burlington, the University’s Main Campus land holdings are zoned as follows:

- **Recreational Commercial 1 (RC1)**: The South Burlington portion of Centennial District, contiguous to the Sheraton and the rugby field, is zoned C-1/R-12. C-1 property can be used for recreation facilities, retail, offices and residential mixed-use development. In addition to the potential commercial uses this area can be used for high density residential buildings. Any residential project is required to be a Planned Unit Development (PUD). Conditional uses include places of worship, group homes, continuous care facilities, social services and recreational facilities. The maximum lot density is 60% maximum, with a 40% maximum for buildings only. There is a maximum limit of 12 dwelling units per acre.

At present it is a mostly undeveloped area with one parking lot leased to the Sheraton and another parking lot used by commuters to the University.

The neighborhood to the east of the Athletic District and south of the jug handle is zoned for high-density residential use although at present it is all residentially scaled housing.

**Institutional – Agricultural (I-A North or South)**: This enables the University to use its lands in South Burlington for educational, conservation, research and agricultural purposes. I-A North parcels, located in the Athletic and Centennial Districts can also be used for recreational and limited retail activities.

**Commercial 1C-1/Residential 12 (R-12)**: This South Burlington portion of Centennial District, contiguous to the Sheraton and the rugby field, is zoned C-1/R-12. C-1 property can be used for recreation facilities, retail, offices and residential mixed-use development. In addition to the potential commercial uses this area can be used for high density residential buildings. Any residential project is required to be a Planned Unit Development (PUD). Conditional uses include places of worship, group homes, continuous care facilities, social services and recreational facilities. The maximum lot density is 60% maximum, with a 40% maximum for buildings only. There is a maximum limit of 12 dwelling units per acre.
ZONING

Burlington
- RH - Residential, High Density
- RL - Residential, Low Density
- UC - University Campus
- RCO - Recreation, Conservation, Open Space
- C - Commercial
- ICO - Institutional Core Overlay
- TCO - Trinity Campus Overlay

South Burlington
- IA/N - Institutional Agricultural North
- IA/S - Institutional Agricultural South
- PR - Park & Recreation
- R4 - Residential 4
- R7 - Residential 7
- C1/R12 - Commercial 1/Residential 12
- CD1 - Central District 1
- CD2 - Central District 2
- ROW - Public Right of Way
- Centennial Woods Natural Area
- UVM Boundary Lines
- City Boundary Line
The analysis of existing Campus Land Use paints a broad picture of how the University of Vermont functions 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 and pedestrian corridors.

The University’s academic, research, and administrative life is largely concentrated in the Central District, with academic facilities also in the Trinity District, Redstone District, South Campus, and Colchester Research Campus.

Residential life centers on University Heights and Redstone Districts, the Chittenden-Buckham-Wills (C-B-W) Quad, the northeast and southeast corners of Trinity District, and Fort Ethan Allen.

Athletic uses occur more at the periphery of campus in the Centennial and Athletic Districts.

Student support services are primarily located in the Central District with academic and student support services, such as the Dudley H. Davis Center that is conveniently sited at the hinge between the University Heights District and Central District near Main Street.

Additional campus facilities, such as the theater attached to the Dudley H. Davis Student Center and the Catamount Apartments have been approved for construction by the University Board of Trustees but placed on temporary hold. When completed, these additions will maintain and augment existing patterns of land use.
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.

Topographic change within the campus amounts to roughly 145’ from the highpoint of 435’ above sea-level at the northern edge of Redstone District to the low point of 290’ above sea-level at the northern end of Trinity District. A ridgeline runs on a roughly north/south axis from the Central District’s eastern edge through the center of the University Heights and Redstone Districts. There are high points on Main Street at the northern edge of University Heights District and at the border between University Heights and Redstone Districts. Central District sits on a gently sloped plane with a western exposure and views to Lake Champlain and the Green Mountains. The east side of the central ridgeline slopes gently down to Centennial Woods and Centennial Brook.

There is a dramatic 50’ grade change between Colchester Avenue and Fletcher Allen Health Care that effectively forms a wall between FAHC and the surrounding residential neighborhoods. Centennial and Trinity Districts sit at the edge of wooded ravines that slope towards Centennial Brook and the Winooski River, respectively.

Within campus, there is a significant grade change up from the C-B-W Quad to the Aiken Center hill that necessitates a switch-back walkway to allow for disabled accessibility, and presents a challenge to establishing a broader north/south pedestrian corridor.
since the 1990s 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 runoff 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 remediated 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.

UVM’s Best Management Policy (BMP):
In association with leading experts within UVM’s School of Natural Resources, the University formulated technical guidelines for the evaluation of stormwater quality to minimize any undue adverse impact of stormwater runoff affecting neighboring properties or drainage systems. The resulting policy (BMP) formally adopted in 1997, also provides evaluation methods for the acceptance of off-site flows onto university property by specific easement. The BMP states that UVM will follow state-of-the-art stormwater management practices. This includes:
• treatment and control of runoff;
• proper engineering;
• use state-of-the-art technology when economically feasible and appropriate;
• comply with all current state and federal regulations; and
• leadership role within the community to ensure that the highest standards are monitored and maintained.

In addition, the University follows a limited salt policy associated with all new development projects located peripheral to campus stormwater collection and Natural Areas. This policy states that salt will not be utilized in parking lots except for entrances and exits, as required for safety, or in the case of severe ice conditions where de-icing may be utilized in the driving lane for safety purposes.

The campus encompasses portions of nine watersheds: the North Campus Watershed, which measures 78.2 acres and encompasses much of the Central District, the Centennial District excluding the Centennial Woods; the Colchester Avenue Watershed measures 10.3 acres and encompasses the northeast quadrant of the Central District, the East Campus Watershed measures 79.36 acres and encompasses the parking lots of Fletcher Allen Health Care, University Heights District and the Athletic District excluding the fields to the south of Gutterson Fieldhouse; the Southwest Campus Watershed measures 43.1 acres and encompasses the Redstone District and a portion of the Agricultural Engineering parking lot and land adjacent to the East Avenue Rugby Field; the Trinity Watershed measures 19.7 acres and encompasses the Trinity district north of Colchester Avenue; the Colchester Research Facility Watershed, which encompasses the easterly portion of the Colchester Business Park; and the Athletic Campus Watershed, which measures 12.65 acres and encompasses the southern athletic fields in the athletic district.

There are three streams in the vicinity of the campus: Centennial Brook, Englesby Brook and Potash Brook. The beginning of Centennial Brook is located north of the East Campus Stormwater Treatment Facility and flows northeasterly combining with Wool Pullery Brook before discharging to the Winooski River. The beginning of Englesby Brook is located south of the southwest campus Stormwater treatment facility and flows southwesterly to Lake Champlain. Tributary 3 of Potash Brook bisects the Miller Research Farm located on Spear Street. The tributary flows westerly into the main branch of Potash Brook and then discharges into Lake Champlain. Portions of the University also flow to Sunderland Brook, the Winooski River, and Lake Champlain.

The table below identifies the destination for Stormwater runoff from each of the 9 watersheds.

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<th>Potash Brook (Tributary # 3)</th>
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<td>Sunderland Brook</td>
<td>Colchester Research Facility Watershed</td>
</tr>
<tr>
<td>Lake Champlain</td>
<td>Main Street West Watershed (through cistern and combined municipal sanitary/storm system)</td>
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There are four major stormwater treatment facilities that serve the University’s Main Campus. These include: the North Campus Stormwater Treatment Facility and Collection Area that serves the North Campus Watershed, the Southwest Campus Stormwater Treatment Facility and Collection Area that serves the Southwest Campus Watershed; the East Campus Stormwater Treatment Facility and Collection Area that serves East Campus Watershed; and the Main Street – East Stormwater Treatment Facility and Collection Area that serves the Main Street East Watershed.

For all four stormwater facilities on campus, UVM’s Physical Plant Department is responsible for the operation and maintenance of the stormwater treatment facilities. They also maintain the collection system and upstream watershed on University property. The University has established both baseline and ongoing monitoring of applicable physical elements for all of the four watershed areas.

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.
Microclimates are small, defined environments that are sheltered from climatic 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. Microclimates, such as the “Bailey Beach” on the south side of the Bailey/Howe Library, the lawn between Billings and Votey Halls and the Marsh-Austin-Tupper Lawn are centers of the campus’ outdoor social life.

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.
CHAPTER 4.1 – Main campus: Existing Conditions

Campus 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.

There are four dominant geometries acting on campus: The north/south oriented grid of the City of Burlington, which extends to the west side of University Historic Green, and all of the Redstone District. The Campus Grid, which runs at an angle to the City Grid. Lastly, two subsidiary geometries, derived from Colchester Avenue and Main Street are dominant on the Trinity District and around Main Street North District.
Edge Conditions describe the appearance and the character of the University of Vermont and its environs from the outside. Edge Conditions form the initial impression of the University for the visitor and are an important tool for quickly defining the character of surrounding neighborhoods and land-uses.

For the purpose of this analysis, the Campus Master Plan has defined six edge conditions that exist at the University of Vermont:

- **A Mixed-use Commercial Edge** incorporates commercial services that are not under the control of the University. The Mixed-use Commercial Edge occurs at the eastern extremity of Main Street, and on Colchester Avenue east of the Trinity District.

- **A Residential Edge** consists of primarily non-commercial uses such as housing or small-scale offices. The residential edge is the predominant edge condition on most sides of the University Campus.

- **An Institutional Edge** consists of buildings controlled by the University, or neighboring institutions such as Fletcher Allen Health Care, Champlain College and Mater Christi School. By definition, the interior edge of the whole University campus is an institutional edge. The Colchester Avenue frontage of Fletcher Allen Health Care, and Mater Christi School are also institutional edges. Main Street, west of the University Historic Green, contains a mixed institutional/residential edge with Champlain College and some University facilities intermingling with the residential fabric.

- **A Woodland Edge** consists of forests and managed or natural open space. The shared boundary between the University and the Burlington Country Club is a woodland edge, as is the edge of Centennial Woods.

- **A Transitional Landscape Edge** consists of open spaces that mark the transition between land uses. The University Historic Green continues to mark the traditional threshold between the City of Burlington and the University. The jughandle on Main Street is a more contemporary transition between the landscape of the interstate and the University.

- **A Break in the Fabric** represents a sudden change in land-use, scale of building, or in some instances a dramatic grade change. The Campus Master Plan has identified two dramatic Breaks in Fabric: the first occurs at the boundary between the University and Fletcher Allen Health Care, where the FAHC facilities are of a dramatically different scale than the neighboring residence halls. The second occurs on Main Street just north of the jughandle, where the recreation areas on either side of the road form a vacuum of undefined space between the landscape of the interstate and that of the University campus.
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 on campus include: a native American settlement in the parking lot of Centennial Field, which is thought to be 3000 years old; an early nineteenth-century farmhouse located at the southern end of the University Historic Green; a prehistoric site 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. Additionally, what appears to be an early beach line of the Champlain Sea was identified near the fountain on the University Historic Green. University Archaeologists report that very old Native American sites could be associated with such an environmental feature.

Note that all site locations are proximate and not exact boundaries of the identified archaeological sites.
The University of Vermont’s hilltop location and its natural setting between Lake Champlain and the Green Mountains frame a sequence of landscape views that are one of the most memorable features of the University’s campus. The Campus Master Plan defines key viewsheds from roadways, buildings, and walkways to protect them from being obscured by future development, and to encourage new buildings that frame key views.

The Campus Viewsheds are divided into four broad categories: Regional Views establish the University in its broader natural and urban setting and are the backdrop to the life of the University; Historic Views are the foreground and middle-ground views that include distinguished or iconic buildings and open spaces. They establish the University’s visual identity, and function as wayfinding aids. Views from Buildings and Walkways note important views of the surrounding landscape from the windows of buildings. Viewsheds Needing Improvement are those on-campus or off-campus views that are compromised by unsightly buildings, utilities or signage.

The Campus Landmarks are those architectural features that are highly-visible throughout the campus that serve to orient the visitor. The pre-eminent landmarks on campus are the steeple of the Ira Allen Chapel, the belfry of Old Mill, Converse Hall, the Watertower adjacent to the Given Building, the Redstone Watertowers, Redstone Hall and the Historic Redstone Green. The pedestrian tunnel under Main Street and the fountain at the heart of the University Historic Green represent a less prominent class of landmarks that function as navigational aids, even though they are not highly visible. The Gateway District Watertower is a regional and campus landmark.

The analysis of viewsheds and landmarks structures the future development of infill landbanks and connective open spaces as described in Chapter 4.2: Frameworks for Campus Planning and Chapter 4.3: District Design Guidelines.
CHAPTER 4.1 – MAIN CAMPUS: EXISTING CONDITIONS

REGIONAL VIEWS

1. Lake Champlain from Main Street
2. Mount Mansfield from Main Street
3. Camel’s Hump from Main Street
4. Green Mountains from Tupper Hall
5. Camel’s Hump from behind Patrick Gym
HISTORIC VIEWS

6. University Place from Colchester Avenue

7. University Place from University Green

8. University Place towards Old Mill

9. UVM Redstone Green from South Prospect Street

10. Old Mill from College Street
CHAPTER 4.1 – MAIN CAMPUS: EXISTING CONDITIONS

VIEWS FROM BUILDINGS AND WALKWAYS

11. Lake Champlain from Old Mill

12. Lake Champlain from Williams Building Fire Escape

13. View towards Lake Champlain from Waterman Terrace

14. Camels Hump from Dudley H. Davis Center

15. Looking south from Redstone Walkway

16. View of the Redstone Pine Grove from Redstone Walkway
VIEWSHEDS NEEDING IMPROVEMENT

17. Colchester Avenue looking towards Lake Champlain, Trinity on right

18. Colchester Avenue looking towards Fleming Museum

19. Looking through University Historic Green from Main Street

20. Main Street looking towards future site of Student Center

21. C-B-W Quad towards Colchester Avenue
For the purpose of analysis of existing conditions and potential future use, the Campus Master Plan divides open spaces across campus into five categories that broadly define visual and qualitative aspects of the University of Vermont’s landscape. The Existing Open Space analysis diagram looks at spaces that are working well as elements of an overall campus landscape. They contribute significantly to the social or recreational life, or green setting of the campus. The subsequent analysis diagram, Transitional Spaces with Potential (next page), looks at those open spaces, including parking lots that are not primary elements of the overall fabric of the campus that could benefit from improvement or serve as sites for future development. These two analysis diagrams are aligned with the designations and criteria for developable land as defined in the 1997 Campus Land Use Plan.

Historically Significant Open Spaces are those places that embody earlier moments in the University’s institutional past. These open spaces foster a unique sense of place, and are a link between the modern life of the University and its collective memory. These are iconic places that form an image of the University for the visitor.

Recreational Informal Gathering Spaces include places that provide open space for informal recreational use and function as gathering spots, outdoor classrooms and/or important intersections. Recreational Informal Gathering Space is designed space with clear spatial definition and may be paved plazas, traditional quadrangles, spaces with lawns and paths, and open green spaces that allow passive and active recreation.

Transitional Pedestrian Spaces are those parts of the campus that have some open space presence, but lack spatial definition. This includes the spaces in between and around buildings—the front yards and back yards—and spaces at the campus edges. Typically, these spaces are not considered gathering places, but they contribute significantly to the impression made by the campus’ green setting. The areas of campus with the most surface paving have the least amount of transitional pedestrian space.

Athletic Open Space consists of campus playing fields located at the Athletic District and Centennial Field, and the running track at the Athletic District. These open spaces contribute to the green setting of the campus and provide for active recreation, but they do not foster social gatherings or passive recreation.

Natural Areas are significant natural spaces that the University has undertaken to preserve as an ecological, recreational and educational resource. The Centennial Woods Natural Area which is a portion (66 acres) of the overall Centennial Woods parcel, has been set aside in perpetuity easement as a forested preserve both to protect the unique Natural Area characteristics, including the Centennial Brook watershed and to serve as a resource for non-intrusive passive recreational uses and education. Most of the Natural Areas within Chittenden County are open to the general public for natural history related activities and non-intrusive passive recreational use. Non-intrusive passive recreational uses include hiking, wildlife watching, and natural area study.
Transitional Spaces with Potential are those parts of the University of Vermont that have the potential to play a greater role in the cohesiveness of the overall fabric of the University campus.

Transitional spaces are largely parking lots that offer great opportunities for improvement and facilities expansion. Smaller forgotten spaces in between buildings, or areas impacted by negative environmental conditions such as noise or heavy traffic also have a great deal to offer in terms of overall campus image and connectivity. These transitional spaces are identified as sites for potential landscape improvement, or locations for potential building land banks.

A concentration of smaller transitional spaces occurs within the University’s Central District, where dense use and fine architecture are wonderful opportunities to create livable and stimulating spaces. Similarly, the approach to the campus on Main Street from Interstate-89 is another transitional landscape bounded by parking and access roads that needs a stronger University image and gateway to the University.
Full accessibility for all buildings and open spaces continues to be a guiding principle for all development at the University of Vermont and all proposed pedestrian path systems will accommodate the physically challenged by providing barrier free access in all major connective open spaces. Additionally, minimizing vehicular traffic on-campus, while benefiting all pedestrians in terms of safety and comfort, will be an even greater benefit to the physically challenged user.

The combination of a naturally hilly topography and a large concentration of historic buildings have created a number of challenges for disabled path of travel and access to facilities. The network of pedestrian walkways largely meets requirements for disabled path of travel in terms of maintaining a 5% or less grade. Inaccessible points on walkways are largely concentrated along the periphery of the University Historic Green, the grade change between the C-B-W Quad and the Bailey/Howe Quad.

For a complete listing of the locations with numbers of parking spaces for the physically challenged refer to the Joint Institutional Parking Plan, December 2005 available through Campus Planning Services. Refer to the map in the Parking Inventory by Campus Architectural Districts section within this chapter (4.1) that highlights the existing locations of these parking areas.
The University’s present standard of campus lighting presents a consistent and secure level of illumination at night along recommended walkways and around building entrances, parking lots, and bike parking areas. This current standard is the result of a comprehensive review and upgrade of campus lighting that began in 1987 to ensure best energy efficiency along with public safety. Exterior light levels throughout campus now meet the standards recommended in the American National Standard for Safety, “Practice for Industrial Lighting”, and the “Illuminating Engineering Standards” (IES).

The University’s current standard fixture, a Lumec Octagonal Streetlight (refer to Chapter 8 – Design Goals & Strategies for more details) provides adequate illumination for walkways, while also being “dark skies friendly” in not contributing to urban light pollution. The Octagonal Streetlights mimic the form of a classic 19th century fixture and harmonize well with much of the campus’ historic architecture. The University’s commitment to this standard creates a highly readable and visually appealing structure for the campus walkway network.

Campus pathways are also lit by “Code Blue” Voice Interactive Pedestals (blue lights), which are located throughout the campus, and provide emergency voice communication with the University Police Services at all times (also refer to Chapter 8: Procedures, Design Goals & Strategies). This network of blue light pedestals also does a great deal to establish a sense of safety and security on the campus walkway network at night.

Exterior lighting standards at the University are governed by the zoning laws of the Cities of Burlington and South Burlington. The University contracts with Burlington Electric Department for some of the (leased) pole mount lighting fixtures that light areas on campus.
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 & Strategies for a more indepth description of the signage hierarchy and standards.)

The signage system helps define the transitions between abutting neighborhoods and the University. The signs also help to identify the primary campus access points, but do not go so far as to formally sign campus “gateways.”

The University of Vermont coordinates its wayfinding system with other hilltop organizations and the region in an effort to achieve a highly functional system of signing. Three phases of the signage system implementation have been completed, including the most recent at Fort Ethan Allen (refer to Chapter 6.1 Fort Ethan Allen: Existing Conditions for further information), and the replacement of Trinity College signs within the Trinity District.
The University of Vermont is home to a diverse body of outdoor sculpture that represents the work of prominent local and nationally-known artists from the mid 19th-century to the present day. The University Sculpture Committee monitors the works of art and makes recommendations on all issues that relate to the outdoor sculpture and other outdoor art objects in the campus landscape.

The outdoor sculpture is heavily concentrated in the University Green District: the University Historic Green is well populated with a full cast of 19th-century notables, The Bailey/Howe Library, University Bookstore, and the entrance to the Fleming Museum host more contemporary and abstract works. A more recent work has been located in the garden of Wheeler house.

The University Sculpture Committee was formed in August 1995 to identify and report on the condition of sculpture on campus. The committee published the Survey of Outdoor Sculpture at the University of Vermont, which had expert conservators advise on the best practices for the preservation of the campus collection. These recommendations were carried out from 1995 to the present.

The Sculpture Committee currently establishes guidelines for on-going maintenance, advises on the relocation of existing sculptures on campus, potential locations for future acquisitions, and guidelines for the loan and placement of temporary installations, and contract and liability issues associated with these loans.

In order to ensure that the University purchases and accepts sculpture that is appropriately suited to the University, the Sculpture Committee established Sculpture Acceptance Criteria to guide the outdoor art acquisition process. These criteria consider:

1. Has the sculpture been professionally appraised to establish its value?
2. Is the sculpture presently insured and if not, will the University be able to insure it if accepted?
3. What is the age, composition and quality of work of the sculpture?
4. What materials did the artist use to create the sculpture - durability and deterioration issues?
5. Has an appropriate location been approved by the Campus Master Planning Committee?
6. What are the short-term maintenance requirements and frequency for the sculpture (short term, e.g., painting, removing/filling rust, etc.; long term e.g., higher levels of restoration work)?
7. Will the sculpture be accepted with an endowment to be used for restoration of the sculpture?
8. Will the sculpture adversely impact campus views of and from the location?
9. Are there impacts to the land, buildings, circulation or open spaces of the University?

The 1997 Campus Land Use Master Plan recommended the implementation of an Exterior Public Art Program to continue the University’s tradition of arts patronage and expand the breadth of art represented on campus. The Exterior Public Art Program would place contemporary art that enlivens public and circulation spaces such as the Main Street Pedestrian Underpass.
One of the most unique assets of the University of Vermont is its relative physical compactness: research and learning alike benefit from the breadth of academic fields and methodologies that are brought together on the campus. Spatially, the University has developed organically over two centuries, resulting in a rich mixture of colleges and departments that encourages a fertile discourse between disciplines.

As the campus has evolved, and research has grown more specialized, the University has recognized the benefits and efficiencies of co-locating colleges, departments, and facilities such as laboratories and libraries, for maximum efficiency, while not compromising the essential intimacy that makes the University such a unique learning and research environment.

At the University of Vermont’s core is its largest college, the College of Arts and Sciences. The College of Arts and Sciences is primarily housed in a collection of historic buildings around the University Historic Green. The sole exception are the Music and Geology departments, which are housed in the Redstone and Trinity Districts respectively.

The College of Agriculture & Life Sciences is also represented around the University Historic Green within the historic Morrill Hall. The main body of the College of Agriculture & Life Sciences is grouped together near the Rubenstein School of Environment & Natural Resources that is located within the Aiken Center at the southern edge of the Central District.

The College of Nursing and Health Sciences and the College of Medicine are housed in linked facilities at the eastern edge of the Central District next to Fletcher Allen Health Care. The College of Medicine’s Vermont Cancer Center and Psychiatry departments are housed in two facilities within Trinity District. In addition, the new Medical Education Center, owned and operated in partnership with FAHC, is located on FAHC property just north of the Given Medical Building.

The College of Engineering and Mathematics is housed in Votey Hall located northwest of the C-B-W Quad and at 16 Colchester Avenue that houses the Department of Mathematics.

The School of Business Administration is housed in Kalkin Hall located at the northwest corner of the C-B-W Quad.

The College of Education and Social Services (CESS) is housed in the Waterman Building in Central District, and in Mann Hall within the Trinity District. CESS also operates a day care center at the Ira Allen School within Trinity District.

The following two sections describe and map the student services and residential functions within campus buildings across campus.
Student Support Services at the University of Vermont, while of excellent quality, are broadly distributed throughout the campus. This distribution can prevent students from accessing services, or even knowing that they are offered. Support services, be they diversity coalitions, academic support, and/or physical and mental healthcare, are key to the recruitment and retention of top quality students. These services and their easy accessibility have a direct impact on the quality of the student’s life and experience on campus.
The University of Vermont offers a wide variety of housing types to its students, faculty and staff both on campus and in the immediate campus environs. The University’s residence halls house approximately 4,160 students in Central District, Trinity District (including four cottages), Redstone District, and University Heights District. Family Student Housing at Fort Ethan Allen provides housing to graduate students, students with families, and undergraduate students of non-traditional age (refer to Chapter 6 – Fort Ethan Allen for further information). Apartment housing for faculty and staff is provided at Centennial Court in the Centennial District.

The University considers the on-campus living experience an integral and necessary part of the total education of its first-year and second-year students. In addition, the University recognizes that attractive housing options serve as recruitment tools for the University. First and second year students are required to live on campus for four consecutive matriculated semesters. This policy grows out of research indicating that students living in college residence halls realize greater academic achievement, are better integrated into the cultural, social and extracurricular life of the University, interact more with faculty and peers, are happier with their overall college experience and have a greater chance of graduating.

The University encourages students in their third and fourth years to reside on campus by offering more independently-oriented housing options such as apartment-style accommodation. To expand independent living options for students, faculty and staff, the University has pursued cooperative relationships and agreements with private developers. For example, the University and a private developer agree that while the University maintains title to the property, a private developer builds and manages residential facilities under a long-term ground lease. Such is the case with both the Redstone Student Apartments and the Centennial Court Faculty/Staff Apartments. The University also has an agreement to house University students in privately developed apartments within the City of Winooski (the Winooski Falls Housing Project) open for Fall 2006 occupancy.

The University is also committed to working with surrounding cities and neighborhoods to maintain and retain the residential character of these neighborhoods affected by students and jointly work to develop creative approaches to the problem of affordable housing in the community.

Other faculty and staff residential apartments are located at the Living & Learning Center, University Heights Residential Complex and in houses along South Prospect Street.
The University is the steward of a rich collection of historic architecture and artifacts that are fully integrated into the everyday life of the campus. The analysis of the character and location of existing historic resources guides future development choices that are described in subsequent chapters.

Historic Resources in this context follow the state’s definition “any building, structure, object, district, area, or site that is significant in the history, architecture, archaeology or culture of this state...” (excerpt from “Rules and Regulations for Implementation of the Vermont Historic Preservation Act”). In this context, “Contributing Buildings” describes buildings whose appearance, character or historical associations have a direct bearing on the integrity of the Historic District. A “non-contributing building” describes a building that is not integral to the character or appearance of the historic district. “Non-contributing buildings” are not protected by historic preservation statutes and would be considered suitable for sensitive re-development.

Buildings
The University has 35 contributing and 6 non-contributing buildings listed on the National Register of Historic Places primarily in three historic districts on its Main Campus (University Green Historic District, Redstone Historic District, Pearl Street Historic District) located in the City of Burlington. Three buildings have been nominated for addition to the National Register of Historic Places.

An additional historic district (Fort Ethan Allen Historic District) that contains 22 contributing and 13 non-contributing buildings was added to the National Register of Historic Places in October 1995. This district is located in the Towns of Colchester and Essex. Refer to Chapter 7 – Fort Ethan Allen for further details.

Additional campus buildings, structures, objects and landscape features may be eligible for listing on the National Register and State Register, and thus, with those already listed, be subject to regulatory review under local, state, and federal ordinances, laws and regulations.

The University has recently conducted an extensive review of the “accessory” buildings that include the garages and carriage houses that serve historic main buildings to assess their historic value. This inventory is available at Campus Planning Services.

Structures
The Redstone Historic District includes two structures within the historic district. Those structures are the two water towers located east (and slightly north) of the Redstone Green. These structures are not owned by the University but by the City of Burlington.

Sites
The University has two sites on the National Register of Historic Places: the University Historic Green within the University Green Historic District, and the Redstone Green within the Redstone Historic District.

Historic structure reports are available for many of the University’s historic structures, including the actual descriptions of all University buildings listed on the National Register of Historic Places. These documents are available at Campus Planning Services.
The University’s Physical Plant Department has assessed the condition of each of the buildings on campus in terms of their deferred maintenance requirements. Deferred maintenance refers to the maintenance and repair cost required for existing building systems, such as civil, structural, mechanical, electrical, and roof components. It does not include the cost of programmatic upgrades such as new offices, classrooms or public spaces.

The diagram on the right categorizes each building by the deferred maintenance requirement as a percentage of its current replacement value (Facilities Condition Index (FCI) Index). The data for maintenance requirements, replacement values, and FCI indexes was provided by the Physical Plant Department based on 2001 Facilities Condition Assessment for the overall campus. Trinity Campus’ Facilities Condition Assessment was completed in 2004.
Central air conditioning is an important factor in the expanded use of the campus and its facilities in summer, especially for summer conferences and courses. While a number of academic buildings and the Dudley H. Davis Center will be centrally air-conditioned, no residential buildings are fully air conditioned presently. The new University Heights Residential Learning Complex will be the campus’ first fully air-conditioned residence hall.

The widespread use of individual air conditioning units in poorly insulated interiors wastes a great deal of energy in summer, has an unsightly appearance on historic structures, and creates a great deal of noise. The University’s commitment to sustainability calls for a more comprehensive approach to energy efficient building cooling systems. The University is in the process of providing central cooling towers to address air conditioning needs more comprehensively (see Chapter 8 – Design Goals & Strategies for guidelines relating to sustainability in building materials and standards).

Building control systems provide electrical savings with optimal operations and accurate scheduling of space. New air conditioning systems are energy efficient and carefully monitored by the University Physical Plant staff.
The University campus must function as a pedestrian environment throughout the year, although the winter months may challenge even the hardest walker. Walking and biking are the primary means of travel around campus, although the efficient shuttle system has become a popular alternative and has seen increasing ridership.

Currently there are a number of issues associated with the campus pedestrian and bicycle circulation network. There are a number of walkways which are underutilized insofar as they do not represent the desire lines and travel patterns and volumes of the campus community. Some pathways are redundant and add unnecessary areas of pavement when the University is trying to reduce impervious cover. Cow paths are also eroded in the lawn areas throughout the campus, creating additional impacts, although these routes often represent legitimate connections between destinations. There has not been a well developed hierarchy of pathways for those that can accommodate the multiple modes of travel that are present on campus. Surfacing and pathway widths are inconsistent. Conflicts exist among walkers, skateboarders, bicyclists and vehicles.

The University has attempted to address these conflicts in the past through policies and education but it has proven very difficult to enforce restrictions, for example, on bicyclists using sidewalks. As the density of campus development increases and the emphasis on pedestrian circulation continues, it will be imperative for the institution to improve the safety, flow and function of its pedestrian facilities and circulation system. To this end, a separate analysis has addressed bicycle circulation exclusively as a means of understanding how it currently functions and how it may be improved in the future with campus planning initiatives.

**Primary** circulation paths encompass circulation between residential districts and the academic core. They are analogous to commuter roads in the city. Primary circulation routes are likely to be longer than other walks taken on campus and to cross major roads and have points of conflict with vehicular traffic. They need to accommodate peak crowds throughout the day, in addition to cyclists, roller-bladers and skateboarders.

**Secondary** pedestrian paths encompass circulation within a given district. They are shorter journeys between major buildings. Secondary paths often accommodate large numbers of students, particularly at peak moments during the school day. These are trips between classes, dining areas, or out to the lunch carts. Their use tends to taper off with the end of the school day.

**Tertiary** pedestrian routes include paths at the periphery of campus. These journeys are generally quick trips between smaller facilities. Tertiary paths are most likely to be city pavements or even informal paths cutting across lawns.

**Informal gathering** points are key to the success of a good campus. They generally occur at intersection points on well-traveled walkways and at the entrances to major campus buildings, at spots with a good exposure to sunlight on a warm day and shelter in inclement weather. They are the setting for the random encounters that make for a rich, spontaneous, urbane university life.
Bicycling continues to be a popular form of both recreational and functional travel to and through the University of Vermont campus. The current state of bicycle travel in and around the campus is characterized by several distinct conditions and these include:

1. lack of distinction and definition between walking and bicycling routes;
2. inadequate widths of circulation routes to support multi modal travel;
3. no identification of bicycle routes;
4. confusion as to where the University system and routes connect with designated city and regional routes;
5. conflicts between bicyclists and pedestrians at certain locations within the campus; and
6. inadequate on road capacities for bicycling and inconsistent lane delineation along streets such as Main Street.

Greater Burlington has benefited from the growth of bicycling and bicycle facilities through the efforts of groups such as Local Motion, The Burlington Bicycle Council, the Metropolitan Planning Organization, and the local municipalities. CATMA has also been extensively involved in developing bicycling initiatives working in a cooperative manner with each of these groups and great strides have been made with the development, for example of the South Burlington Recreation Path System, some of which is located on University properties in South Campus.

Several student projects are currently addressing bicycle related issues including education and safety for campus bicycling and a revival of the Yellow Bike Program in the Spring of 2006 to provide free, accessible bicycles for student use.

This map identifies bicycle conflict areas within the campus where safety and traffic issues exist and a sampling of these include: the Jug Handle area, Living and Learning “Main Street”, and along South Prospect Street. Officially designated shared roadways/pathways are identified and city bicycle routes, including those with on road lanes delineated (Class 2 Bicycle Facilities) are also mapped.
Campus service access to facilities are critical for efficient operations of the campus. As activity levels or new construction has expanded, service points have been added to meet the needs. As the University campus is developed over time, it is likely that some of these locations may need to be moved and co-located so as to reduce the overall number of dedicated loading and service spaces to improve efficiencies, reduce pavement footprints and allow Physical Plant to share rather than duplicate certain resources dedicated to exterior and interior building operations. Under no circumstances, however, will relocation or redistribution of these service facilities compromise Physical Plant activities. The relocation of service access points and Physical Plant facilities will be addressed by district and with the development of new buildings and implementation of this Campus Master Plan.

This map inventories service access points that are used primarily by Physical Plant vehicles and other vendor vehicles to serve the buildings throughout campus. Also included on this map are current locations for key elements of physical plant infrastructure: collection points for recycling and refuse (dumpster locations), compactor sites and loading and service spaces which serve specific building locations. These spaces are in addition to those service spaces located in campus parking lots.
VEHICULAR & CAMPUS SHUTTLE CIRCULATION

Vehicular circulation is a necessary component of the campus circulation network at the University of Vermont. Vehicular circulation on roads and pathways is necessary to allow access for service vehicles, visitor and handicapped parking and a minimum of proximate or short term parking for faculty and staff. Currently on campus there are a number of shared use roadways or pathways that serve the multiple modes of transportation that the University community relies on to get to and around the campus.

The existing network of paths and roads within the campus lack consistent widths and are not well delineated or designed to readily accommodate the flow of shuttle and truck traffic. These routes are shared by all campus travelers including vendors, bicyclists, skateboarders and pedestrians. In some locations and instances there are safety concerns and conflicts between users. There are a range of conditions of the roads and pathways across campus. There are many locations where service and vendor vehicles have used access paths that are too narrow or lack sufficient sub-base to support these vehicles with the consequent impact to the surface and adjacent landscaped or lawn areas.

One important road through the campus is University Place, which is currently owned and maintained by the City of Burlington. The University is negotiating with the City to transfer ownership of this street and it is proposed that this section of the existing road network be redesigned as a primarily pedestrian path. Refer to Chapter 4.4 Master Plan: University Plan for the conceptual illustrative plan and perspective.

As of 2006 a Regional Corridor Study is being conducted for Route 2, which includes Main Street in Burlington and Williston Road in South Burlington. The University is participating in this study that will have the potential to support enhancements to this corridor that will improve traffic and travel conditions on this street that is the most highly traveled route through the University campus. One issue that has emerged is the condition of the median along Main Street, owned and maintained by the City of Burlington. The University supports the reestablishment of the planted median and some other means of limiting jaywalking across the busy street that creates unsafe conditions for motorists and pedestrians.

The Campus Area Transportation System (CATS) shuttle service has continued to evolve as a reliable and comprehensive on campus transportation network. It provides linkages with downtown via the free College Street Shuttle, operated by Chittenden County Transportation Authority (CCTA), as well as with the regional transit system and intercept lots such as the Lakeside Lot (Gilbane) on the Burlington Waterfront. The campus shuttle system routes do shift to respond to changes in parking strategies and locations and thus have developed with some degree of flexibility from year to year. CATS shuttle service is designed to overlap and connect with other on-campus circulation systems including bicycle, pedestrian and vehicular and serves visitor parking as well as faculty and staff parking lots throughout the campus.

Currently the CATS shuttle routes are shared with other modes of circulation through the campus and this does create some conflict areas which will need to be addressed as the University evolves towards the complete pedestrian campus.
With staff, faculty and students commuting to the campus from all over the surrounding area, the regional shuttle system plays an important role in getting people to and from campus and reducing reliance on private vehicles. The effectiveness, convenience, and connections of this transit system are central to the realization of a sustainable campus for the Environmental University.
An overlay of Pedestrian, Automobile and Shuttle Circulation Analysis reveals five major points of conflict where pedestrian passages cross heavy-traffic roads. Students, traveling to and from Central District cross fast-moving traffic on Colchester Avenue, Main Street and South Prospect Street on a daily basis. Long waits for lights obstruct the flow between campus districts, and the sense of a cohesive pedestrian circulation system.

The pedestrian underpass at the intersection of Redstone Walkway and Main Street creates a grade separation between pedestrians and traffic. The underpass is being upgraded and connected to the new Dudley H. Davis Center. This upgrade will make for a much more convenient connection for pedestrians in winter, and represents a good model of expanding the scope of capital projects to address broader issues of campus connectivity.

The difficulty of crossing heavy traffic at Colchester Avenue to get from the Central District to the Trinity District has a strong impact on the overall perception on the lack of connectivity and accessibility of the Trinity District with the whole campus. Pedestrian circulation must become a priority in the ongoing efforts to upgrade streetscape elements and traffic signals on Colchester Avenue.
Parking at the University is managed by UVM Transportation and Parking Services. The provision of parking on campus is a dynamic process, shifting on an almost yearly basis to accommodate new demands, new buildings and relocation of existing parking spaces. Parking policies are also adapted to reflect both the changing demographics of the University as well as land use changes resulting from new construction.

The current parking space capacity serves the University demand, and it is projected that the University will be able to accommodate all of the projected development and faculty/staff and student growth through 2015. The current parking inventory by architectural district is presented in the accompanying table.
Underground campus utilities form a matrix that dictates where buildings can be developed in the future and where surface access to existing utilities must be maintained. The cost of re-locating significant utilities can be prohibitive to future development sites. Many utilities, while sited on University landholdings, remain the property of the City of Burlington or its Public Utility Agencies and require collaboration with the local municipalities.

Current systems include centralized heating system and localized cooling systems.

Issues facing the University today and in the future are: growth across campus, including important research needs; systems are becoming outdated and obsolete; chilled water is not centralized; air conditioning is now an expectation; and system reliability.

For the purposes of this analysis, the Campus Master Plan has designated certain areas as Utility Corridors, where the concentration of underground utilities prohibits future above-ground development. Refer to Chapter 4.2 Main Campus: Proposed Frameworks for Campus Planning for this map and the complete Utilities Master Plan, available from Physical Plant, for further information.