

WESTERN OPEN SPACE STRATEGY

FINAL DRAFT REPORT

MARCH 6TH, 2018

GSP group | NELSON NYGAARD | PERKINS+WILL | Western Open Space Strategy

LAND ACKNOWLEDGMENTS

Western University is situated on the traditional territories of the Anishinaabeg, Haudenosaunee, Lunaapeewak and Attawandaron peoples who have longstanding relationships to the land and region of southwestern Ontario and the City of London. The local First Nation communities of this area include Chippewas of the Thames First Nation, Oneida Nation of the Thames, and Munsee Delaware Nation. In the region, there are eleven First Nation communities and a growing Indigenous urban population. Western values the significant historical and contemporary contributions of local and regional First Nations and all of the Original peoples of Turtle Island (North America).

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ACKNOWLEDGMENTS

Western University Project Team

Wade Boye	Communications Specialist, Human Resources
Chris Bumbacco	Director, Facilities, Housing & Ancillary Services
Karen Campbell	Vice-Provost, Academic Planning, Policy & Faculty
Ruban Chelladurai	Associate Vice-President, Institutional Planning & Budgeting
Helen Connell	Associate Vice-President, Communications & Public Affairs
Dale Laird	SCUP Representative
Martin Lefebvre	Society of Graduate Students Representative
Lynn Logan	Vice-President, Operations & Finance (Chair)
Mike Lunau	Manager, Landscape Services
Glenn Matthews	Housing & Ancillary Services
Mike McLean	Director, Facilities Planning & Design
Lesley Oliver	Equity Services
Dan Redmond	Director, Campus Community Police Services
Alan Salmoni	School of Kinesiology
Sab Sferrazza	London Health Sciences Centre
Landon Tulk	Vice-President, University Students' Council
Peter White	Executive Director, Government Relations & Strategic Partnerships

Consultant Team

Paul Kulig	Perkins+Will
Safdar Abidi	Perkins+Will
Janice Cheung	Perkins+Will
Eunice Wong	Perkins+Will
Tom Kwok	Perkins+Will
Karina Ricks	Nelson\Nygaard
Bob Williams	Nelson\Nygaard
Iain Banks	Nelson\Nygaard
Glenn Scheels	GSP
Mark Zuzinjak	GSP
Chris McBride	GSP
Sandrina Dumitrascu	GSP
Justin Whalen	GSP

Resource

Danielle Lapkowski	Coordinator to the Vice President (Resource & Operations)
Stephen Ledgley	Senior Media Relations Officer

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FOREWORD

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1 EXECUTIVE SUMMARY

1.0 EXECUTIVE SUMMARY

RATIONALE

Western's academic mission is intrinsincally tied to the landscape within which it exists. The campus landscape shapes its public image, pedagogical approach and physical growth. This landscape is changing as the university continues to grow and expand; mobility patterns on and off campus are shifting; and attitudes to the surrounding natural environment evolve. The Western Open Space Strategy aims to anticipate these changes and position Western for future success.

PURPOSE + PROCESS

The purpose of the Open Space Strategy is to accommodate future growth on campus, increase pedestrian safety, and integrate rapid transit through campus. This Strategy started with an exhaustive inventory of existing conditions that identified key opportunities to improve the campus including the need to improve pedestrian safety, accomodate rapid transit and improve the quality of open spaces. A series of Principles were developed in consultation with the campus community, followed by a comprehensive Strategy.

THE PLAN

The Western Open Space Strategy consists of:

- 1 Vision;
- 6 Principles;
- 10 Big Moves;
- 15 Strategic Areas; and
- 42 Specific Actions.

Collectively, these elements outline a long-term vision for a pedestrian priority campus that provides a safe and beautiful environment in support of Western's academic mission. Rapid transit is accomodated on campus providing a range of mobility options for students, faculty and staff. Natural areas will be rehabilitated and new connections to the Thames River established. A series of Strategies and Design Guidelines provide additional direction for on-going maintenance and implementation.

SCOPE

The Open Space Strategy focuses on the main campus, including properties owned by Western on the west side of Western Road. It does not specifically address Discovery Park or Platts Lane Estates. Properties not owned by Western, including the Affiliate University Colleges and the London Health Sciences Centre University Hospital are not included in this Strategy. City streets including Richmond Street, Windermere Road, Western Road, Sarnia Road and Philip Aziz Avenue are referenced only in the context of the Open Space Strategy. Any and all work on those streets is the responsibility of the City of London.

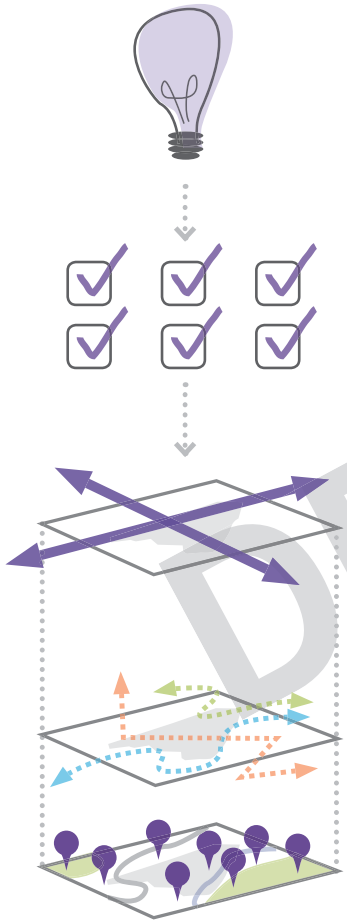
NEXT STEPS

The proposed Strategy establishes a broad vision that allows for immediate and on-going incremental implementation. A series of short-term 'quick wins' can be implemented immediately, while other projects can be tested and evaluated through a pilot-project process. Medium and long-term capital projects will be incorporated into the development program, in conjunction with funding strategies. An ongoing monitoring program will be established to ensure compliance.

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1.1 WESTERN OPEN SPACE STRATEGY





1 VISION

The Western Open Space Strategy will build on the natural beauty of Western's campus and legacy of landscape stewardship to deliver a safe and beautiful campus that will foster learning and promote Western as a destination of choice for world class education and research

6 PRINCIPLES

HUMAN PLACE **ACCESS TO UNIVERSITY** **EQUITY**
MOBILITY **RESILIENCE** **PEDAGOGY**

10 BIG MOVES

+ Prioritize Pedestrians
+ Accomodate Bus Rapid Transit
+ Reduce Cut-through Traffic
+ Position Parking on the Perimter
+ Maintain Vehicle Access
+ Allow for Service Access
+ Improve Accessibility
+ Complete Bicycle Network
+ Emphasize Landscape
+ Return to the River

15 STRATEGIC AREAS

+ Woodlots and Natural Areas
+ Stormwater Management
+ Planting Design
+ Parking Management
+ Servicing
+ Safety
+ Campus Lighting
+ Wayfinding
+ Accessibility
+ Site Furnishings
+ Paving and Paint Standards
+ Walls and Structures
+ Public Art
+ Maintenance
+ Commemorative Considerations

42 ACTIONS

Specific projects, design recommendations and standards to implement the Vision.

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2 INTRO + PURPOSE

FOR THE WESTERN OPEN SPACE STRATEGY

2.1 HISTORY, EVOLUTION + GROWTH OF THE CAMPUS

Since its opening, the Western campus has been shaped by the land upon which it is founded.

Located outside the built up area of London at the time, the early campus of the 1920's was oriented towards the Thames River, and the new bridge at University Drive. The first buildings – University College and the Physics Building were located at the most privileged position on the prow of University Hill – with a view to the river and the morning sun.

Throughout the 1930's, the University engaged in a concerted effort to transform the old farms into an English style landscaped campus. Existing woodlots were rehabilitated, and another 12,000 trees were planted, setting the tone for the campus' reputation for high-quality landscapes that continues to this day. During the same period, the campus expanded around University Hill, establishing the core of the current campus.

Expansion of the campus accelerated in the 1950's and peaked in the 1960's with new buildings spreading to the east of the river and south of Philip Aziz/Sarnia Road. Over the same period, the city of London expanded to the boundaries of the campus and eventually to the north and west.

Increased automobile use and the need for parking led to a steady growth in the number of surface parking lots that now characterize large portions of the campus and the widening of roads for use as serving and on-street parking facilities.

Recent growth has concentrated along the Western Road corridor, shifting the centre of gravity of the campus away from the river. This trend is expected to continue as future growth is targeted towards surface parking lots along Western Road further shifting the campus' relationship to its landscape.

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TIMELINE

1916 Western University's Board of Governors purchase the 150 acre Kingsmill Farm property for $25,000, just beyond the northern limits of the City of London. A year later, it increases the holdings with the purchase of the adjacent 36-acre Flanagan-Fitzgerald farm.



1924 The official opening of the present day campus takes place on October 16th and 17th, 1924. Graduates gather in the Sciences Building and form a procession to the Convocation Hall in the Arts Building. This tradition carries on until 1932 when the JW Little Memorial Stadium is built.

1925 First graduating class from the new campus, Arts '25, originates the long lasting tradition of planting a tree to commemorate the occasion - a Ginkgo tree is planted at the North West end of University College.

1929 12,000 trees are planted for a cost of under $2,000 under the direction of William Marsden. 10,000 trees gifted by the Forestry Department of Ontario.





1930 J.B. Maclean (President of the Maclean Publishing Company, Toronto) is intrigued by the possibilities of landscape development offered by the campus landscape contours and remnants of forest, and decides to finance a plan to fix the location of future buildings and landscaping.

- Maclean commissions Gordon Culham of Toronto, a pupil of Olmsted, to design the campus landscape in the style of English landscape.
- Landscaping implementation is carried out under the unemployment relief system and supported by the municipal, provincial and federal governments.
- Woodlots are cleared of dead trees, river bank is improved to prevent erosion, main approach is filled and replaced.

1934 Culham continues to work as a consultant on the Western University Campus throughout his career. He becomes the founding president of the Canadian Society of Landscape Architects.

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TIMELINE



1937 The 1937 spring flood threatens the stability of the original university bridge. In 1955, the Fanshawe dam is built to prevent floods and regulate flow along the course of the Thames river.



1956 The remainder of the forest cut down to make space for the construction of the Richard G Ivey School of Business Administration Building

1935 Tug of war contest across the Thames river tradition is discontinued in 1934. The Thames River banks naturalization and reforestation begins in 1935.



1947 Graduating Class procession from University College to the JW Little Memorial Stadium.



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Graduating Class in Medicine organizes the first official planting of a Plane tree on Campus, and later on officially catalogued as part of the Sherwood Fox Arboretum.

1973



Development of Open Space and Landscape Mobility Strategy

1959

London Hunt Club and golf course remains an integral part of the campus grounds until 1959, when the rise in student enrolment leads to campus expansion. Over two acres of sod are removed from the old 10th hole fairway and used in landscaping around Middlesex College.



2001

JW Stadium is replaced by the TD Waterhouse Stadium south of the Huron Flats following a successful bid for the 2001 Summer Canada Games. The Little stadium is demolished in 2002 to make space fro the new Health Sciences Building

2017

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2.2 PAST PLANNING SUMMARY

This Open Space and Landscape Plan builds on a number of recent initiatives, strategies and plans, including:

STRATEGIC PLAN (2014)

For the past 20 years, the University of Western Ontario has established a reputation of being Canada's best student experience at a research-intensive university, as well as a hub for international research collaborations.

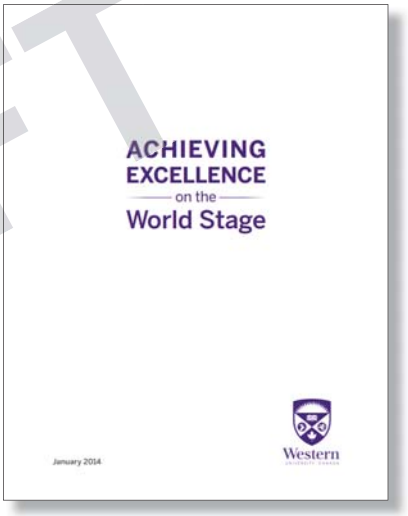
The Strategic Plan (2014) aims to transform Western from being "Canada's Best" to a renowned University on the global stage. Building on this reputation, the University believes that it will be able to recruit and retain the brightest talent, enhance the value of a Western degree for current and future students, and create an environment that fosters a culture of learning and problem solving amongst scholars, researchers, students, and alumni.

An overall mission and vision of the Strategic Plan are noted below:

Mission: *Western creates, disseminates and applies knowledge for the benefit of society through excellence in teaching, research and scholarship. Our graduates will be global citizens whose education and leadership will serve the public good.*

Vision: *Western will be a destination of choice for the world's brightest minds seeking the best learning experience at a leading Canadian research university.*

This Western Open Space Strategy will serve to create open spaces and an overall campus that supports the fundamental priorities within this Strategic Plan,



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CAMPUS MASTER PLAN (2015)

The Campus Master Plan (2015) sets out a vision for the development potential of Western over the next 25-30 years. It is rooted in the following principles: master planning, space planning, and sustainability.

While focusing on the development potential on the campus, the Campus Master Plan also outlines preliminary strategies for open space on the campus. This includes a series of transformations to transportation corridors like Oxford Drive and Western Road as well as key open spaces like Alumni Circle and Social Science Plaza.

The Western Open Space Strategy compliments this work by elaborating upon these preliminary strategies to articulate a comprehensive vision for open space and mobility that supports the anticipated development and growth of the campus, while simultaneously supporting the academic experience.



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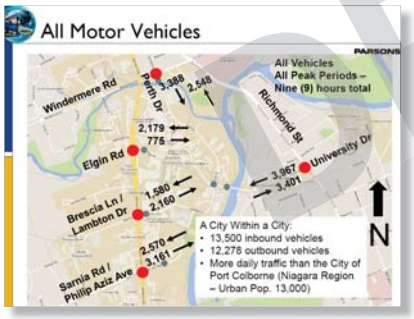
SHIFT (LONDON TRANSIT PLAN)

Shift, or London's Rapid Transit Initiative, is the embodiment of strategic planning activities to develop rapid transit as a core mobility option in a multmodal transportation system. The identification of a rapid transit system for London has yielded a two-corridor, 23.7 kilometer alignment that will connect almost 40% of London's future population and 65% of London's employment opportunities.

In addition to connecting economic activity, other key benefits include addressing existing transit capacity shortfalls, supporting a healthy community via active transportation, connecting to intercity transportation modes, reducing costs associated with anticipated roadway network expansion, and to help achieve GHG emission reduction goals.

The current routing is based on the use of private rights-of-way on the Western University campus and is still subject to change.





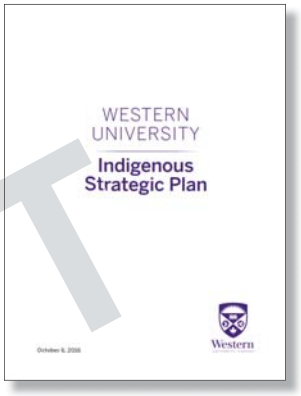
WESTERN TRANSPORTATION STUDY

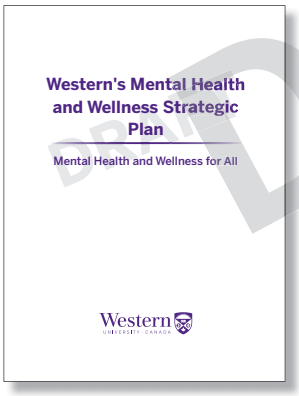
The Western University Traffic Study is an ongoing effort intended to support the Traffic/ Rapid Transit Task Team, benchmark existing conditions, characterize road use, and model future Master Plan scenarios. It is cited extensively in this work due to its analysis of linked and cut-through trips.

Potential solutions to issues raised in the presentation include rerouting cut-through traffic via Windermere Road, implementation of pickup and drop off loops, rerouting transit vehicles, and restricting vehicle access entirely based on permits/visit purpose.

INDIGENOUS STRATEGIC PLAN (2016)

As the University is situated on the traditional lands of the Anishinaabeg, Haudenosaunee, Lunaapeewak and Attawandaron peoples, it is of tremendous importance that active and continuous partnership exists. Engaging and planning for Indigenous students, faculty and staff is a top priority for Western University at every level of study, work and research. This includes a responsibility and respect for the land, its history, heritage, and importance of creating meaningful spaces. This Western Open Space Strategy will incorporate the strategies and objectives outlined in this plan into its site-specific guidelines.

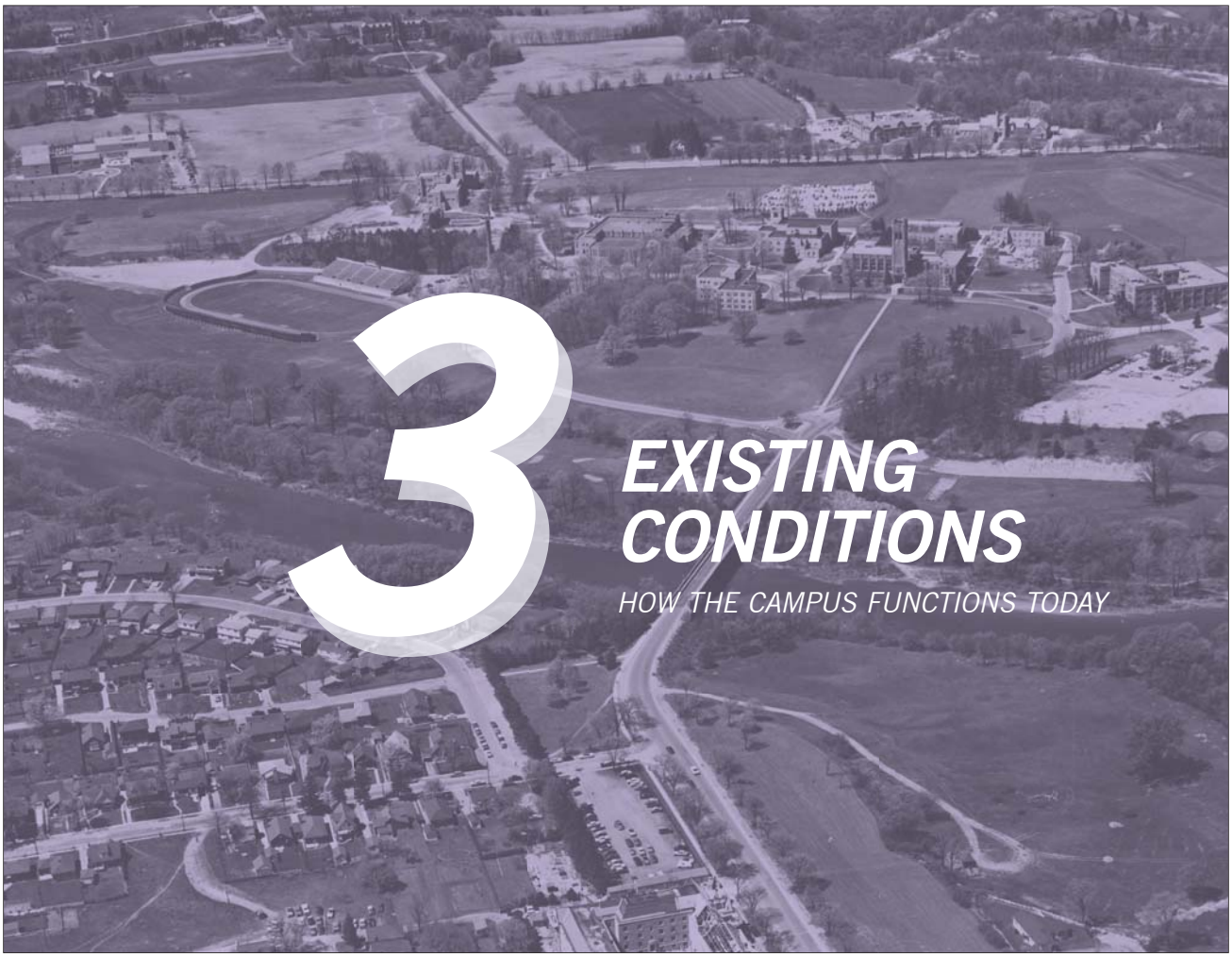




WESTERN'S MENTAL HEALTH AND WELLNESS STRATEGIC PLAN (2018)

The promotion of mental health and wellness for all members of the Western University community is central to the educational success and continual long-term growth of the university. However, factors such as stress and adversity can have negative impacts on individual long-term mental health and functioning. Western University plays an integral role in building a supportive and inclusive campus environment that promotes health and wellness of those who learn and work within them. Opportunities exist to identify and address gaps in the current physical environment to fosters a resilient campus community. It is a collective and shared responsibility to ensure, support and uphold a healthy learning and working environment for all members of the Western University community.

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3 EXISTING CONDITIONS

HOW THE CAMPUS FUNCTIONS TODAY

3.1 GENERAL OBSERVATIONS

Western University is comprised of a wide range of high-quality open space and landscape character which provide students, faculty, staff, alumni, and visitors with a distinct experience and impression for the overall campus. The integration of the natural environment, existing site topography, and organization of built form provides a unique set of influences, challenges and opportunities for the organization, design, and maintenance of the open spaces and circulation network across the campus.

The following section is an inventory of Western's existing open space and circulation networks. The observations have been organized into a series of categories that chronicle the existing conditions and evolution of the campus. These observations contributed to design solutions, guidelines and strategies outlined in later chapters of this report.



CAMPUS CORE + QUALITY OF OPEN SPACES

The campus' collection of historic buildings, natural amenities and public open spaces are fundamental to the image of Western, and are highly valued. Although the campus is well established, maintained and cared for by the campus community, changes to the open spaces will be necessary to ensure Western continues to provide a collective and cohesive network of connected, sustainable and attractive outdoor spaces to meet the demands of pedestrians as they move through the campus.

Changes to Western's public open spaces will evolve in response to the reorganization of parking, traffic and transit, in order to place a priority on safe pedestrian movement, connectivity and comfort across the campus. While ensuring that all changes are sensitive to the program and use requirements of the existing spaces, the implementation of these recommendations will enhance the collective connectivity, experience and image of Western University's public domain.

The Western Open Space Strategy will provide direction on the recommended enhancements for the campus' public domain and specify priorities and initiatives for improvements related to gateways and entrances, sustainability and the natural environment, accessibility, and landscape materials including planting, paving and site furnishings.

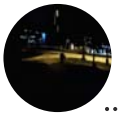
The open space network of Western is comprised of a hierarchy of spaces, with various roles and functions to support and encourage pedestrian movement, congregation, and activity. These spaces include edge (gateway) areas that are the interface between the campus and the greater community, campus corridors that provide connectivity between pedestrian open spaces, a mix of newly created and renovated sitting and gathering areas (including Concrete Beach or the Social Sciences plaza as per the Campus Master Plan) which provide opportunities for levels of outdoor programming and social interaction, enhancement and preservation of the sports fields and natural trails for recreational opportunities to promote outdoor activity and interaction with the natural environment, and historic/iconic landscapes and vistas which collectively create the lasting 'image' and iconography of the campus.



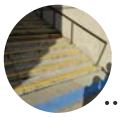
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3.2 INITIAL OBSERVATIONS AND OPPORTUNITIES

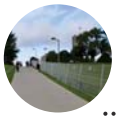
OBSERVATIONS



INADEQUATE LIGHTING:
Pedestrian gateways, and corridors are examples that have low visibility due to inadequate lighting conditions



TOPOGRAPHY AND ACCESSIBILITY:
Overall topography and localized grade change in some areas create challenges for accessible travel.



WALKWAY DESIGN STANDARDS:
The current network of pedestrian walkways does not meet the scale of use in some areas based upon observed pedestrian flows.



CAMPUS ORIENTATION:
Campus signage and wayfinding elements are provided but are not consistent in style or provision through the campus to orient visitors.





GATEWAYS:
Implement a collective system of gateway treatments for levels of vehicular and pedestrian access points, as opportunities to extend branding and increase sense of entry and arrival to the main campus.

OPPORTUNITIES

UNDERUTILIZED SPACES:
Plans for the area surrounding the University Community Centre should look to improve pedestrian amenities and capitalize on its central location on campus.



UNIVERSAL ACCESS:
Ensure that convenient accessible travel routes are provided where localized elevation change occurs through the implementation of materials and standards for crosswalk treatments, walkways, stairs and ramps.



ENHANCE PLAZAS AND COURTYARDS:
Implement design initiatives to animate spaces and create new opportunities for outdoor and specialized learning and intellectual exchange.



CANOPY COVERAGE:
Identify and fill gaps in canopy coverage across walkways, drives and open spaces in an effort to support public and mental health, sustainability and bio-diversity.



WAYFINDING SIGNAGE:
Determine a signage hierarchy for both vehicles and pedestrians, to assist in campus orientation at all major nodes and entrances.



Figure 1. Existing initial observations and opportunities identified within campus.

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GATEWAYS

Western University is accessed from a number of points from the surrounding community. Each entrance functions as a unique access into the campus for pedestrians, cyclists and vehicles. The character of each of these gateways vary through the provision of signage, built form and landscape that frame sight lines into the campus.

The bridge on University Drive was the original gateway to the campus and frames the iconic view towards University College. Although internalized into the larger campus, it will continue to serve as an important threshold in the campus.

The major pedestrian gateways into the campus are at Philip Aziz Avenue and Western Road at the south end of campus; at Lambton Drive where it meets Western Road; through the pedestrian tunnel beneath Western Road connecting the Springett Lot with the Student Services Building and Weldon Library; the Elgin Drive entrance from Western Road which collects traffic from the residences and Support-Services buildings at the north end of the campus; and the University Drive and Richmond Street entrance which collects traffic from the east side of the campus. Other connections including locations where fence breaks are provided along Western Road, trail access points on the south end of campus from Western Road, or Perth Drive from the London Health Sciences Centre (LHSC) provide secondary pedestrian entrance points to the campus.

Gateways for cyclists are provided via dedicated bike lanes that extend from Windermere Road at the north end of campus, which continue along Western Road to entrances at Elgin Drive and the Springett Parking Lot, and south along Wellington Drive into the student residence area. On-street bicycle lanes which extend from Richmond Street along University Drive creates a gateway for cyclists on the east side of the campus. The Thames Valley Parkway which connects with University Drive on the east side of the Thames River also creates a gateway onto the campus for cyclists.

Vehicular connection points are provided at gateway entrances at the intersection of Philip Aziz Avenue and Western Road, Lambton Drive and Western Road, Richmond Street and University Drive at the east side of the campus, and Perth Drive from the north. Accesses to parking areas or student residences off of Western Road and Windermere Road via Wellington Drive provide secondary vehicular entrances to the campus.



View from University Drive towards University College.



View of the Gateway Pier at Lambton Drive and Western Road.

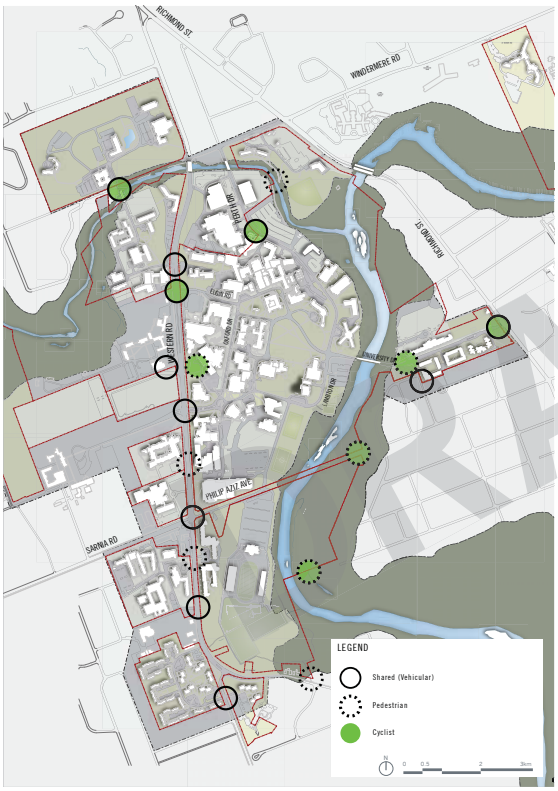


Figure 2. Campus Map identifying gateways.



View looking north along Western Road across Elgin Drive entrance.



View looking west through the Gateway Piers at University Drive and RIchmond Street.

SIGNAGE + WAYFINDING

The current organization of the campus' signage and wayfinding system varies across the campus. Gateway signage associated with the entrance piers at the Lambton Drive and University Drive entrances are a contemporary approach adding purple coloured panelling on the historic stone piers to establish the brand and identity of the campus. Many of the other entrances to the campus are without branding elements, and offer an opportunity to extend levels of this treatment to all gateways across the campus.

Wayfinding signage within the campus is provided through campus key maps that are provided at three locations across the campus: at the Lambton Drive entrance, on University Drive, and on Elgin Road. These signage elements and are located at lay-bys along the roadways with focus towards driver use.

Additional wayfinding signage is provided as pole mounted directional signage, or back-lit street signs to orient visitors across the campus. Moving further into the core of the campus, ground-mounted building demarcation signage helps to orient pedestrians on campus.

The recommendations and guidelines within this Western Open Space Strategy will outline opportunities to implement a consistent standard of wayfinding elements at all entrances and key nodes of the campus to assist with pedestrian orientation.



1. Gateway signage at the Lambton and University Drive gateways.
2. Campus maps at the Lambton, University Drive and Elgin Drive entrances.
3. Directional pole mounted signage .
4. Street signs with backlit decals provided within the campus.
5. Signage elements common at each building location.
6. Directional signage with similar style to the building signage features.
7. Walkway location indicator found throughout the campus.
8. Moveable signage panels found throughout the campus.
9. Directional signage implemented in the Western Discovery Park.
10. Street flag signage to indicate campus area.

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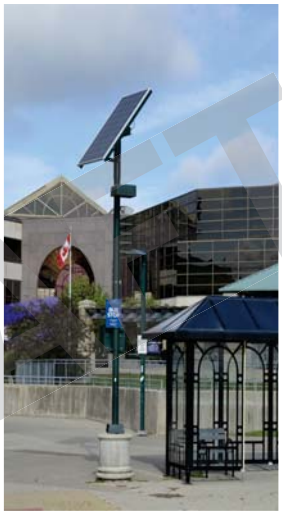
SUSTAINABILITY

Sustainable initiatives can be found across the campus including preservation areas, planting, paving and use of solar technology.

Existing tree areas, including the remnant woodlot off Lambton Drive between the Music Building and the International Graduate Affairs Building (IGAB), include signage to protect the area from pedestrian use. Interpretive signage on trees, and in garden areas such as those used at the Indigenous Garden at the B&G Greenhouse, or within the TD Bio-Dynamic Garden offer information on sustainable initiatives, and help to educate others on the benefits they provide.

Walkways and roads on campus are generally surfaced with concrete and asphalt, however permeable pavers such as those used in the TD Bio-Dynamic Garden at the Spencer Engineering Building help to reduce stormwater runoff generated on campus. The recommendations of the Western Open Space Strategy will outline strategies to reduce stormwater runoff and increase opportunity for retention and infiltration in landscaped areas including campus corridors, parking and pedestrian amenity areas.

Alternative energy opportunities are also implemented on campus, as solar panels are used to power signage at the existing bus shelter on Oxford Drive between the UCC and Thames Hall. The guidelines provided in this Western Open Space Strategy will provide recommendations on other energy saving opportunities including self charging or energy efficient site furnishings, paving techniques to reduce solar reflection, manipulation of micro-climate, naturalization through plant selection and other Leadership in Energy and Environmental Design (LEED) compliant initiatives for implantation in existing areas and to guide design for open spaces associated with future development.



Solar panel station at the bus shelter on Oxford Drive and UCC.



Covered bike parking provides shelter at Ontario Hall Residence.



Permeable paving aligning the frontage of TD BioDynamic Garden along Engineering Drive.

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PEDESTRIAN FLOWS

The major pedestrian flows into the campus are generated from surrounding residential areas to the southwest (Philp Aziz Avenue), east (University Drive), and northwest (Elgin Drive).

In addition to the residential areas surrounding the campus, parking areas and buildings on the west side of Western Road generate pedestrian traffic across this road at signaled intersections, and through the pedestrian tunnel leading to the University Community Centre. Western Road was observed to have a high amount of use by pedestrians along the on-street sidewalk on the west side of the road, and the internal walkway along the east side of the road.

Intersections including Philip Aziz Avenue and Western Road, Lambton Drive and Western Road, Elgin Drive and Western Road, University Drive and Richmond Street, and University Drive and Lambton Drive/Middlesex Drive also have high volumes of pedestrian traffic.

Once on campus, the flow of pedestrians generally follows a north-south movement along Oxford Drive (between the Thompson Recreation and Athletic Centre, Alumni Hall, the Weldon Library, University Community Centre and the Natural Sciences transit hub along Oxford Drive), and an east-west direction between the UCC and across University Hill down to University Drive.

Recommendations on initiatives to strengthen the campus' pedestrian network by enhancing entry ways and internal travel routes that create a safer and better connected experience for students, faculty, staff, alumni and visitors will be provided in this Western Open Space Strategy.



Pedestrians walking west from Oxford Drive.



Pedestrians walking east along Campus Community Police Service

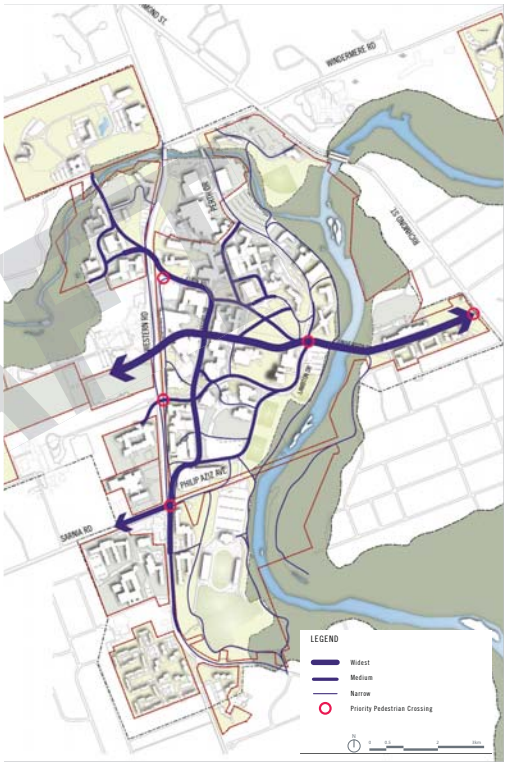


Figure 3. General Campus Pedestrian Flows.

ACCESS ROUTE HIERARCHY

The campus access routes provide a variety of service levels for connection into and through the campus. Vehicular traffic is currently permitted through the campus via University Drive, Philip Aziz Avenue and Huron Drive, Lambton Drive, Perth Drive, Middlesex Drive, and Elgin Drive. Oxford Drive is open to transit vehicles during evening hours, with controlled access points for vehicles entering Engineering Drive or Kent Drive from Lambton Road. Many of the existing routes internal to the campus are required to accommodate service vehicles and provide connection to building loading areas and the various parking areas scattered throughout the campus. Roadways across the campus are designed with typical road profiles, including wide asphalt laneways catering to vehicular movement, creating an interrupted pedestrian and cyclist network.

The traffic and access recommendations of this Western Open Space Strategy will outline strategies to reduce vehicular traffic impacts, and create conditions which are more favourable to a connected campus that prioritizes pedestrian and cyclist movements.



Pedestrian walking east from the underground pedestrian tunnel at Western Road.



Cyclist using shared traffic lanes at University Drive bridge crossing.



Transit and vehicles maneuvering through Alumni Circle.

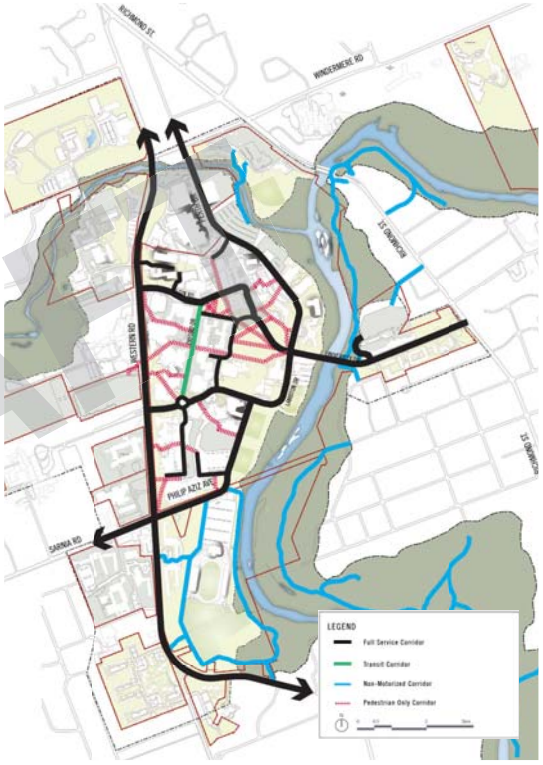


Figure 4. Access Hierarchy plan showing existing levels of travel corridors through the campus

PARKING SUPPLY

At the time that the Campus Master Plan was released, there were 5,810 total parking spaces on campus. Not included in this number are additional spaces associated with Western affiliates, including public metered spaces, that raise the effective total.

Access to these facilities is primarily achieved from Western Road, Huron Drive, and Perth Drive. Relatively few surface lots can only be accessed from the core campus streets.

The 2013 Parking Master Plan shows that many lots were operating close to capacity at that time. Core and Perimeter permitted spaces as a group reported 90% occupancy during early afternoon hours. Since the completion of the plan update, the South Valley Lot has been expanded, introducing additional inventory to the southern end of the campus core. Conversely, inventory in the Visual Arts Lot was lost due to the construction of the Western Interdisciplinary Research Building.



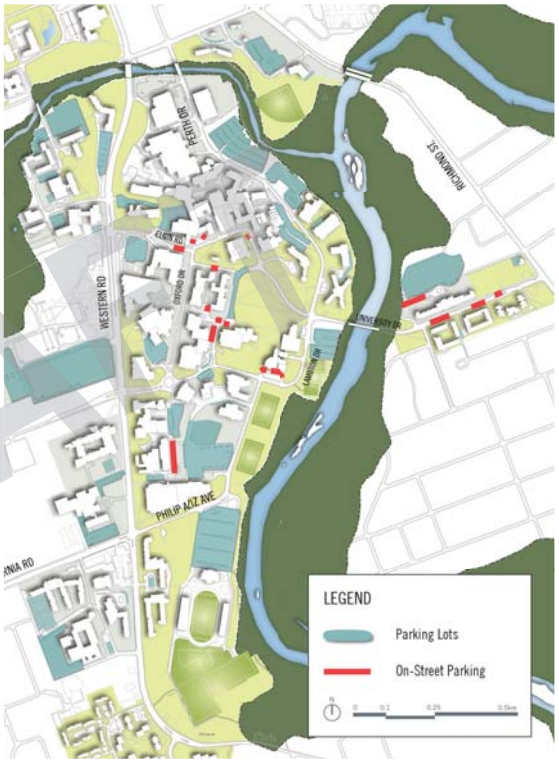


Figure 5. Existing Parking Facilities

SCALE OF USES AND MATERIALS

The majority of Western's existing walkways are concrete sidewalks. These are generally associated with internal roadways, following routes of vehicular travel. Where associated with the campus' internal roadways, walkways are generally 1.50 to 1.80m in width, widening up to 3.00m in open space areas.

The configuration of walkways in relation to the street edge varies, but most walkways are separated from the curb by a landscaped sod strip.

In certain areas on campus where pedestrian travel volumes are high, the existing sidewalks are not able to accommodate the volume of use, especially where narrow width sidewalks are provided. This was specifically noted along the walkways running along the west side of the Thompson Recreation and Athletic Centre (TRAC), those extending from University Drive to UC Hill north and west of Talbot College, and along pathways through the McIntosh Gallery Greenspace and Social Sciences Plaza.

Wearing of the sod areas adjacent the walkways, or the development of foot paths where no walks are currently provided are found in many instances, specifically at the intersection of University Drive and Lambton Drive, in front of the Thompson Recreational and Athletics Centre walkways along Western Road, in front of the Social Sciences Centre crossing Oxford Drive and leading into the McIntosh Gallery Green.

Asphalt surfaced walkways are used sparingly, but where provided are generally limited to open space areas. Permeable pavers, unit pavers and decorative concrete are also implemented in various locations across Western's campus, and are generally used in courtyards, plaza and building entrance areas.

The recommendations included within this Open Space Strategy will identify opportunities for the effective placement and design standards of walkways on campus, including direction on surface materials, textures and patterning that is appropriate for their location, easy to maintain, with a long lifespan to reduce the need for maintenance and repair. This approach will provide consistency in walkway treatment across the campus.

Examples of typical paving materials and site furnishings found on campus:



Concrete walkway.



Mix of concrete and cast in place tiles between Weldon Library at UCC.



Permeable pavers at TD BioDynamic Garden.



Pedestrian bench at Oxford Drive.



Garbage/Recycling receptacle.



Bicycle parking.

DRAFT

ACCESSIBILITY ACROSS WESTERN'S OUTDOOR SPACES

The existing topography creates challenges which limit Western's ability to provide pedestrians with a fully barrier-free network of travel routes across the entire campus. Although overall grade change occurs in both the north-south and east-west directions of the campus, it is most evident when travelling from west (high) to east (low), falling towards the Thames River. The change in grade creates a distinct vertical separation, and provides an accessibility barrier which extends from the west end of the South Valley parking lot, along the east side of Alumni Hall and the Power Plant and across University Hill. On the north end of the campus, the existing buildings including Natural Sciences, Biological and Geological Sciences, the Collip Building and Middlesex College retains the change in grade between Middlesex Drive, Dental Circle and Perth Drive to the east.

Stairs and steeply sloped walkways such as the ones connecting Essex and London Hall Residences to TD Stadium, or the highly used pedestrian routes down University Hill towards University Drive present significant accessibility challenges. Although handrails are provided in these and other localized grade change areas, the slopes exceed current AODA public space standards of 6.7% for exterior walkways.

Western's Facilities Management group has been addressing these issues as part of the Campus Accessibility Review and Enhancement Committee (CARE) - an ongoing initiative in which funds are raised to address and help create a barrier-free environment across campus.

Accessibility provisions are evident across the the campus including drivelanes and crosswalk locations, where audible tones are provided at signalized intersections, and a mix of tactile detection strips and pavement markings (generally surface painted) are provided to define crossings.

Buildings across the campus have a range of standards for ramping at entrances set forth by Western's Ontarians with Disabilities Act Committee. The committee's goal is to remove all physical and architectural barriers from the campus infrastructure. Locations such as the Physics and Astronomy Building, Delaware Hall Residence and Richard Ivey Building provide excellent precedents of how accessible design can be integrated into building entrance ways.

Stairways across the campus also vary in standard with some instances providing tactile or coloured banding along treads and top landings.

Recommendations to establish a cohesive set of paving, furnishing and layout standards for accessibility that can be applied to the campus and meet the standards of the AODA will be outlined in the landscape design guidelines (Appendix A) of this Western Open Space Strategy.

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Street pedestrian ramp path connecting Essex Hall Residence (EHR) to TD Stadium Lot.



The bright red plates and yellow concrete ramps located at the edge of road crossings provides aid for the visually impaired.



Curb cuts provide accessible routes.



Staircase running between Alumni Hall and the power plant.

DRAFT

LIGHTING + SAFETY

Western's campus provides a completely different experience during evening hours, as the character and experience of the campus changes dramatically at night.

The majority of the pedestrian areas across the campus are lit with older high pressure sodium fixtures, which emit a lower level of light, and cast a dull orange colour on the spaces around it.

When put in contrast against the modern higher output metal halide or LED lighting that is provided within portions of the Western Road right-of-way, along University Drive, in parking areas or at the University Community Centre, these high pressure sodium lit areas appear much darker and can create dark pockets along walkways or around corners.

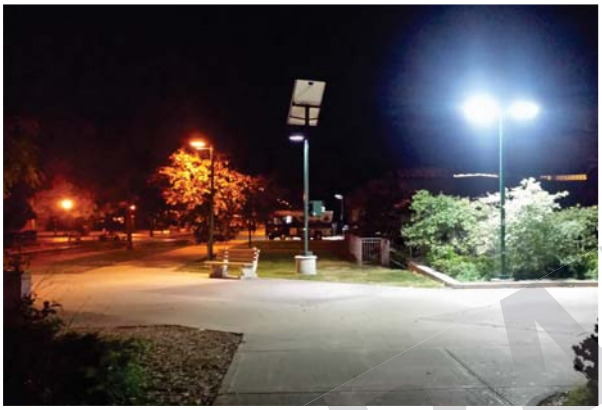
Lighting is generally provided along all internal roadways and walkways, but there are noticeable dark areas along major pedestrian routes and open spaces including the South Valley/ Engineering Drive, along Lambton Drive between Thames Hall and the Music Building, University Hill and the open space between the Weldon Library and Western Road.

The intersection at Philip Aziz Avenue is as a major pedestrian gateway, but the walkways and open space connection extending from this high volume pedestrian area into the campus provides very low lighting levels, and does not create a comfortable experience upon arrival into the main campus.

The recommendations provided in this Western Open Space Strategy will assist Western in creating an ongoing lighting strategy that will increase visibility and safety for everyone on campus. The recommendations will also identify opportunities to highlight the variety of open spaces and landscaped pedestrian areas to enhance campus character.



Figure 6. Campus Map identifying areas of low lighting.



*Difference between LED and High Pressure **Sodium fixtures** on **Oxford** Drive.*





Existing light stantards at Talbot Parking Lot (Left) and University Drive (Right).



Nightime lighting conditions at the U.C. Hill walkway.



Bollard lighting at Ontario Hall Residence.

DRAFT

NATURAL ENVIRONMENT

The existing campus provides an array of natural areas including the Thames River, Medway Creek, and remnant woodlots along the river corridor and through the campus.

Trails through the river areas area provided in some locations, however they are currently not-defined as a continuous network with the campus and are under-utilized by pedestrians.

The variety of mature trees in the woodlots and plantings across the campus are the backdrop for Western's natural character. Preservation of the existing canopy to avoid further fragmentation of natural areas by development, and opportunities to enhance these areas with additional plantings of broad-leaf species such as oak, maple, beech and other indicator species of Carolinian Forest ecosystems will be important to provide greater connectivity and strengthen the natural environment along the riverfront and throughout the campus.

The recommendations of the Western Open Space Strategy will provide guidelines to create a connected network of pathways to encourage pedestrian interaction with the natural landscapes of the campus, while ensuring protection of these areas through appropriate enhancement and preservation approaches. These guidelines will also help Western to further refine its approach to conservation, to ensure the long-term success of the campus' natural environment and enjoyment of its features by the campus community.



Figure 7. Campus map identifying existing river courses, trails and woodlot canopy.



Sherwood Fox Arboretum (SFA) inventory tags showing tree species.



View looking south along the Thames River towards the Baldwin Flats.



View of the natural conditions along the Thames River Corridor.

CAMPUS LANDSCAPING

The sense of heritage and history of Western is reinforced not only by built form, but also by the mature trees and established landscapes across the campus. The maturity of any variety of trees across the campus frame travel routes and create a picturesque backdrop for the various views and vistas through the campus.

Not all open spaces can or should be planted, especially those areas which have been identified for development within the Campus Master Plan. However there are some areas on campus where opportunity for tree plantings and increased canopy may be provided. Some specific areas noted include parking lots, Western Road from Phillip Aziz Avenue to the Lambton Drive entrance, along the pedestrian walkway running on the south side of University Hill, and along the east side of Huron Drive adjacent the sports fields.

Trees on campus generally appear to be in good health. Those trees which appear to be in poorer condition were generally located in areas where soil volumes seem to be limited such as raised planters, narrow boulevards, or where soil areas have been compacted from zones of pedestrian travel. In some areas on campus, existing tree plantings (including donor trees) may be in conflict with proposed development opportunities.

New tree plantings on campus have been installed with watering bags, continued use is recommended, and should form part of the combined planting strategy (layout, species type, and soil infrastructure) proposed as part of this Strategy Document.

The guidelines presented in this Western Open Space Strategy will provide recommendations on opportunities to create a connected canopy across the campus, with focus on the selection, placement and preservation of trees to best provide long term health. Opportunities including adequate soil volumes, root zone protection and approval of tree protection measures prior to construction nearby existing trees will be considered.



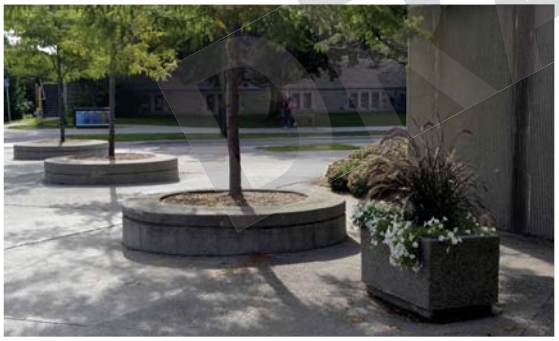
Figure 8. Campus Map identifying exisiting landscaped areas.



Planting beds lining the pathway from the UCC to Western Road.



Planting with the median at Alumni Circle.



Trees in raised concrete planters in the UCC Plaza.



Ornamental plantings framing the Gateway Pier at the Western Road and Lambton Drive entrance to campus.



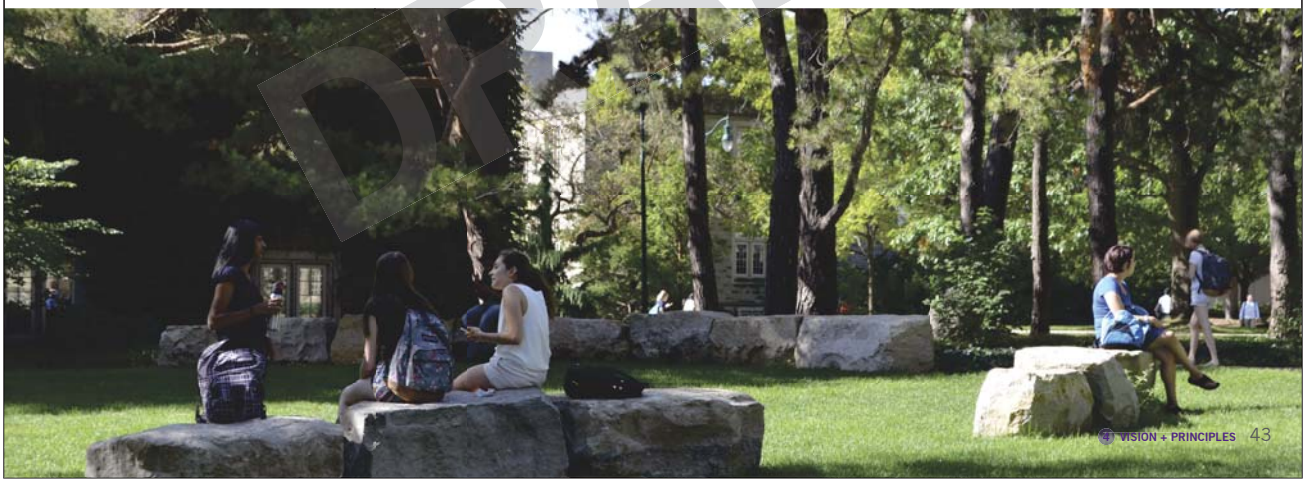
4 VISION + PRINCIPLES

FOR THE CORE OF THE CAMPUS

VISION

The Western Open Space Strategy is founded on a Vision and a series of Principles developed in consultation with staff, faculty and students. The Vision and Principles serve as a touchstone for detailed decision-making as the Plan works its way through implementation over the coming years.

"The Western Open Space Strategy will build on the natural beauty of Western's campus and legacy of landscape stewardship to deliver a safe and beautiful campus that will foster learning and promote Western as a destination of choice for world class education and research."



DRAFT

PRINCIPLES



HUMAN PLACE

- Prioritizes pedestrians and encourages accessibility throughout the campus
- Encourages safety and comfort through environmental design
- Creates a sense of place and history
- High quality spaces for a variety of uses and functions



EQUITY

- Equal opportunities for the University community to experience the campus regardless of gender, age, background, ability
- Recognize cultural differences and how they impact transportation and mobility choices.
- Provide access to the public offerings on campus; democratize access
- Access for all ages and abilities that reduces transportation burden on the most vulnerable campus community members
- Prioritize an inclusive campus that values people from all backgrounds including Indigenous members



SUPPORTING PEDAGOGY AND RESEARCH

- Create campus spaces that support its academic mission
- Educate students through environmental design
- Provide positive environments and open spaces that foster creativity and organic learning spaces
- Investigate ways in which indoor and outdoor spaces can enhance the learning environment on campus
- Investigate the impact of outdoor and public spaces and the role it plays in student experiences and their mental health



ACCESS TO UNIVERSITY

- Provides strong bus connectivity to the campus
- Integrates the campus with its surrounding context
- Connected to the City and the community
- Creating porosity in the University borders and encouraging access and collaboration with industry partners



MOBILITY

- Maximize connectivity and accessibility by providing clear and efficient routes for all travel
- Minimize unnecessary vehicle trips, reduce traffic cutting through the campus and enhance public safety
- Create a safe pedestrian environment across campus
- Improve multi-modal connections and expanded choices



RESILIENCE

- Support Health and Wellness of the university community
- Provide efficient and cost effective Operations and Maintenance of the open space system
- Create a sustainable environment (economically, socially, physically)
- Ability to recover as a campus from weather events related to climate change

DRAFT

BIG MOVES

The Western Open Space Strategy is comprised of these respective "Big Moves" that serve to turn the Vision and Principles into physical reality on campus. The Big Moves together, form the structure of the transformation that the campus will experience over the coming years.



Prioritize Pedestrians

Establish a core precinct on campus, within which priority in design, function and use will be given to pedestrians.



Accommodate Bus Rapid Transit (BRT)

Prioritize transit as a means of travel by welcoming BRT on campus. Provide attractive transit stops at the edges of the campus core.



Allow for Service Access

Use a permitting strategy that considers vehicle types, campus locations, and the time of day to facilitate service and emergency functions.



Improve Accessibility

Provide a high level of access to members of the Western campus community with disabilities. Preserve accessible parking in the core.

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Reduce Cut-through Traffic

Restrict non-university private vehicle traffic on campus by limiting access on key routes.



Position Parking on the Perimeter

Consolidate surface parking outside the core and construct parking structures on existing perimeter lots including the Chemistry, Huron Flats and Springett lots.



Maintain Vehicle Access

Implement multiple drop-off facilities to reduce both core campus traffic and overall campus parking demand, while maintaining access.



Complete the Bicycle Network

Establish a comprehensive network of safe bike routes. Support this initiative with a comprehensive bicycle program.



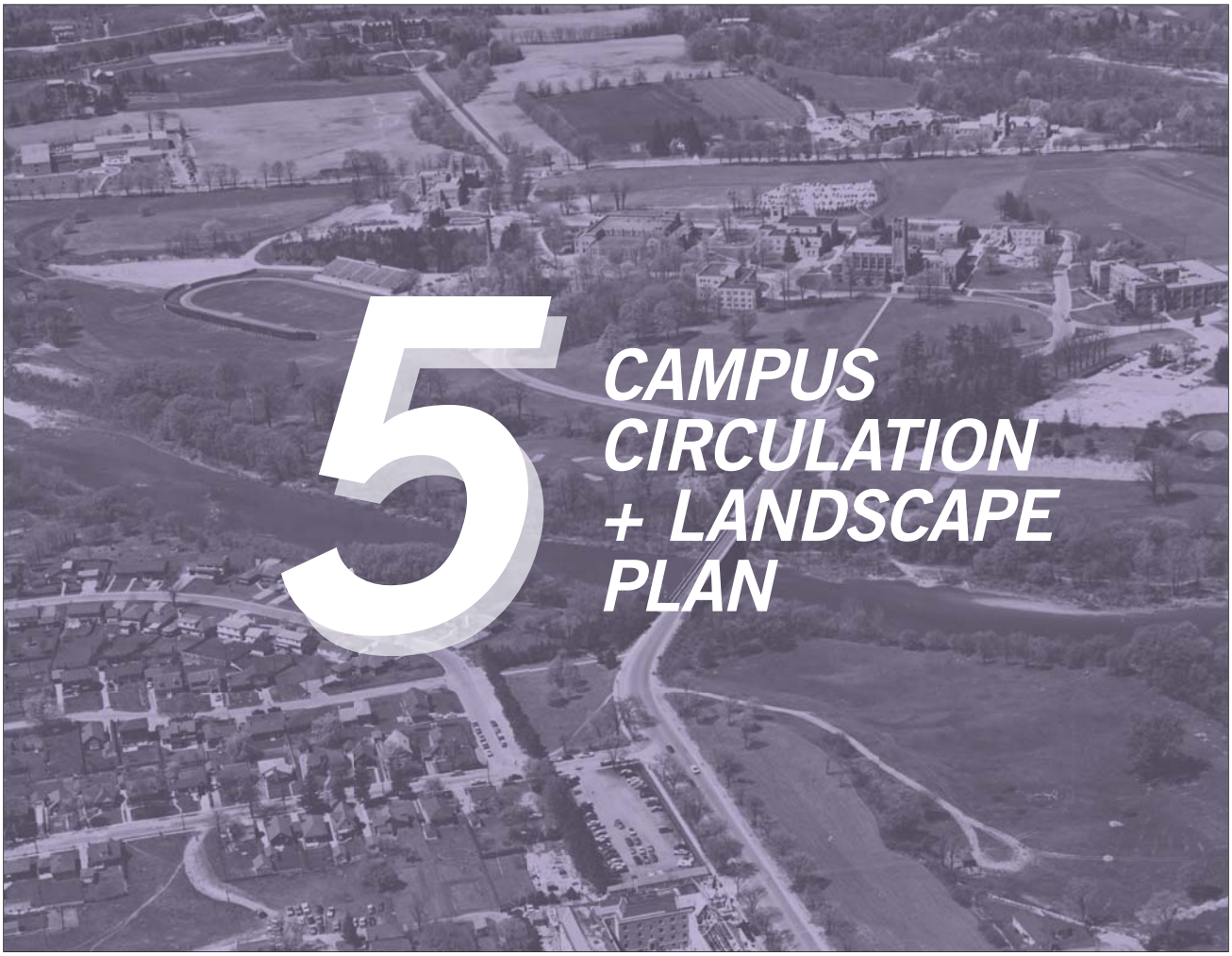
Emphasize Landscape

Focus on the spaces between buildings and how they contribute to learning, mental health and well-being and campus identity.



Engage the River

Reconnect Western to the natural topography and amenity provided by the Thames River and Medway Creek.



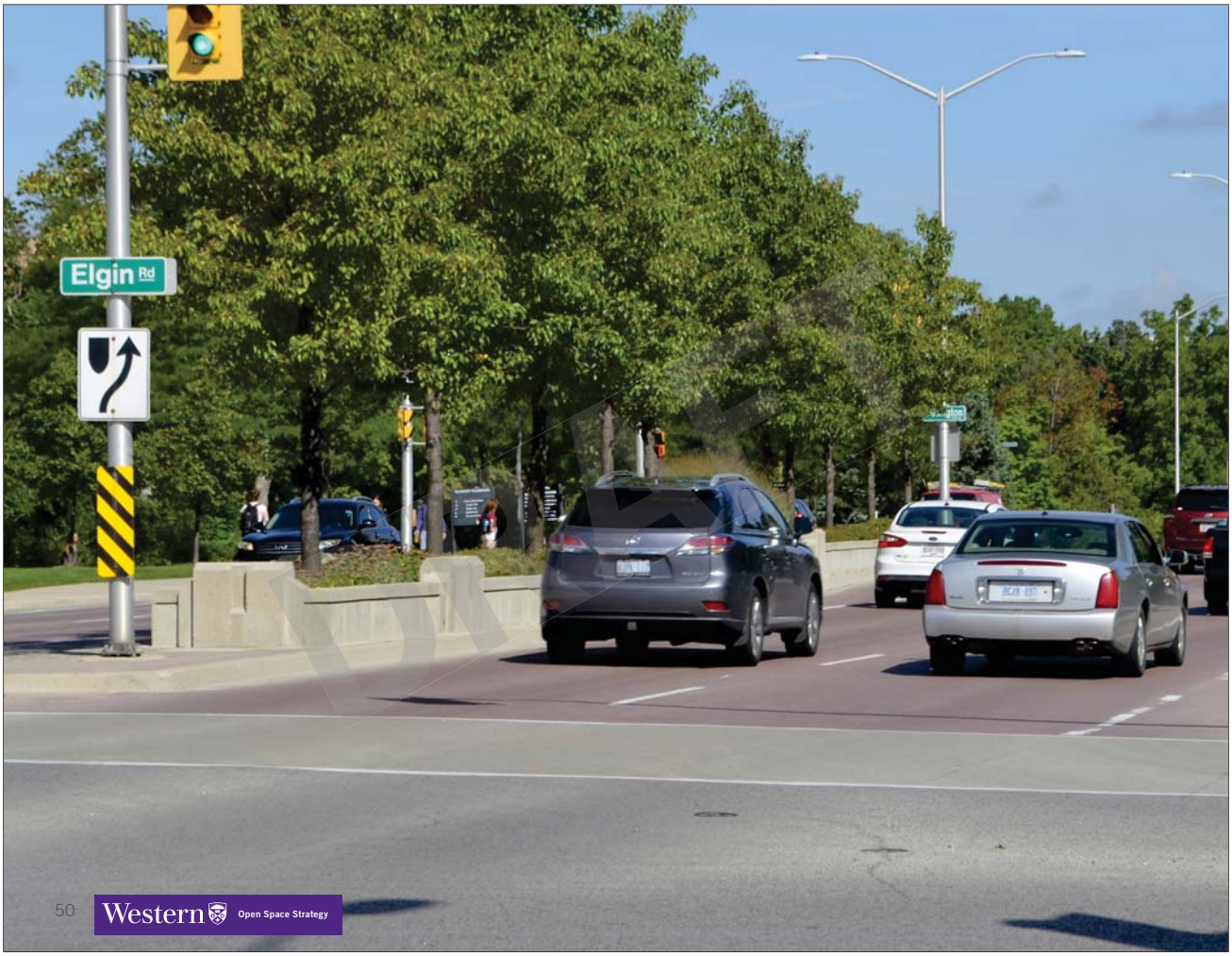
5 CAMPUS CIRCULATION + LANDSCAPE PLAN

5.1 ACTIONS + RECOMMENDATIONS

The Big Moves are further defined by a series of specific actions that elaborate in detail how the Western Open Space Strategy is to be implemented. These actions are grouped in the following major categories:

- A Gateways
- B Corridors
- C Transit Access and Circulation
- D Pedestrian Routes
- E Bicycle Circulation and Parking
- F Courtyards and Gardens
- G Plazas
- H Open Lawns
- I Woodlots
- J Riverfront

DRAFT





A. GATEWAYS

Gateways provide visitors with a formal arrival point, by framing the various entrances into the university and offering a preliminary sense of the character for a campus. The existing gateways for Western vary in their application, as some entry points to the campus are clearly identified through a mix of signage, landscaping and built form, but others are not as well defined or emphasized. Opportunities to establish a hierarchy of gateway treatments and consistent approach on how gateway elements are applied to the various entrances of the campus will assist Western in creating and emphasizing arrival to the campus.

General Gateway Guidelines include:

- Repetition of materials and signage
- Wayfinding element provided to orient pedestrians upon arrival
- Seating opportunities
- Delineation of pedestrian and vehicular where combined gateways
- Scale of gateways appropriate for function and volume of use



1. Philip Aziz Avenue / Western Road
2. Lambton Drive / Western Road
3. Elgin Drive / Western Road
4. Perth Drive / Hospital
5. University Drive / Richmond Street
6. University Drive (Sunset Drive)
7. Springett Lot / Western Road
8. Platt's Lane / Western Road
9. Windermere Road / Western Road

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A.1 Philip Aziz Avenue / Western Road

Existing Conditions



Existing crosswalk/intersection at Philip Aziz and Western Road.



Existing campus gateway at Philip Aziz and Western Road.

Defining Characteristics

The gateway at Western Road and Philip Aziz Avenue intersection accommodates high volumes of pedestrian and vehicular traffic. This creates the potential for conflict between pedestrians and motorists, as well as transit vehicles stopping just north of the intersection.

The entrance to the campus is framed by an existing masonry pier and digital signboard welcoming pedestrians to the campus, with concrete walkways extending towards the southwest entrance of the Thompson Recreation and Athletic Centre (TRAC), or around the east and south sides of the building.

The landscaping at the entrance includes low growing plant materials along the foundation of the entrance signwall, with rolling lawn areas and mature trees populating the rest of the vista into the campus.

There are no pedestrian amenities currently provided at this entrance, and during evening hours the open space area between Western Road and the TRAC is not well lit.

RECOMMENDATIONS

a. Coordinate with the City on redesign of the intersection to increase pedestrian priority;

b. Provide a pedestrian scaled gateway which frames the entrance to the campus from the intersection. This gateway should incorporate similar materials, colour, form and landscaping provided at the Lambton Drive entrance off Western Road for visual connectivity between all gateways locations;

c. Widen pedestrian walkways extending from the intersection, and provide a direct connection to the transit location on Western Road.

d. Walkways should be framed with deciduous tree plantings, pedestrian scaled lighting, and pedestrian seating opportunities at regular intervals for pedestrian comfort. These aspects will focus on improvements towards Accesibility for Ontarians with Disabilities Act (AODA) standards.

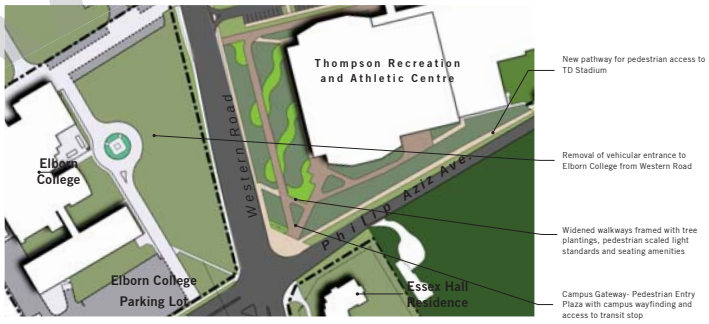
e. Wayfinding signage should be provided at this location to direct pedestrians as they enter the campus as you enter the campus to direct; and

f. Remove the south entrance to Elborn College from Western Road.

Existing



Proposed



A.2 Lambton Drive / Western Road

Existing Conditions



(Left) Existing gateway feature at the southeast corner of Lambton Drive and Western Road.
(Right) Existing view looking north across Lambton Drive crosswalk.



Existing view of Lambton Drive crosswalk, looking south.

Defining Characteristics

The gateway at Lambton Drive is a recognizable 'Front Door' into the main campus from Western Road. The combination of built form (archways), scale, colour, landscaping and lighting, provide a very distinguished sense of entry into the campus. This entrance provides a clear delineation of vehicular and pedestrian routing through existing paving and surfacing treatments for crosswalks and walkways.

The treatment of this gateway sets a precedent of design that can be integrated into each of the other campus entrances at various levels. The implementation of a continuous and connected standard for the campus will assist in creating a distinguished sense of entry at all gateways for pedestrians and motorists coming onto Western's campus.

RECOMMENDATIONS

a. This gateway should be used as the precedent for the materials, form and treatment of other shared gateways on campus;

b. Remove parking and reduce length of the median to accommodate future transit routing;

c. Wayfinding signage should be provided that is legible from the roadway and directs vehicles to a formal information area to prevent stopping on Lambton Drive. Campus mapping for pedestrians should also be provided, and located in a manner which is highly visible and oriented towards travel routes.

d. Although the Traffic Plan references this as a 'non-public' street, public access will be required to both the Weldon and Engineering parking lots. A suitable turnaround which provides access to these lots, pedestrian drop-off zone, and works with future transit requirements will need to be coordinated with future improvements to Alumni Circle.

DRAFT

A.3 Elgin Drive / Western Road

Existing Conditions



Existing campus gateway at Elgin Drive and Western Road.

Precedents





(Left) Gateway feature to illustrate campus entry. (Right) Opportunities for seating and congregation (CIGI Campus, Waterloo, ON).

Defining Characteristics

The entrance to the campus at Elgin Drive from Western Road is a shared entrance between pedestrians, motorists, transit and service vehicles which require service access for the Social Science Centre, University Community Centre, and the Western Student Services Building. Elgin Drive is currently a two-way vehicular road to the Social Science parking lot, that transitions to one-way exiting the campus beyond this point.

The entrance is framed by the existing decorative fencing and tree plantings along Western Road, and an open lawn area with a seating amenity and landscaping offset the walkway on the north side. A second walkway which cuts through the lawn area of the Siebens-Drake Research Institute shows significant wear, demonstrating the high volume of pedestrian traffic travelling through this entrance.

RECOMMENDATIONS

a. Provide vertical gateway elements to better define and frame this entry into the campus;

b. Implement landscaping including low seatwalls or fencing, with landscaping to reinforce travel routes and limit the opportunity for cut-through traffic and keep pedestrians on the walkways provided;

c. The pedestrian walkways, especially those on the north side of Elgin Drive should be widened and landscaped with street trees and pedestrian scaled lighting to emphasize pedestrian travel on that side of the roadway; and

d. Although the Traffic Plan plan references this as a 'non-public' street, public access will be required to the Social Science parking lot and service lane. Future enhancements to Elgin Drive should ensure service access requirements are accommodated while ensuring that pedestrian movement is prioritized integrates with proposed treatments for Middlesex Drive and Oxford Drive.

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A.4 Perth Drive / London Health Sciences Centre

Existing Conditions



Current conditions do not indicate boundary between campus and LHSC on Perth Drive

Precedents





(Left) Gateway feature to illustrate campus entry. (Right) Opportunities for seating and congregation (CIGI Campus, Waterloo, ON).

Defining Characteristics

Unlike other shared entrances to the University, the limit of Western's property does not extend to a municipal roadway. As a result, the Perth Drive entrance is separated from Windermere Road by the London Health Sciences Centre (LHSC) and definition of the limits of Western's property is not clearly defined.

Pedestrian access from this north gateway is provided by curbside sidewalks extending from Windermere Road, as well as multi-use path and pedestrian bridge that connects Westminster Hall and the Western Centre for Public Health & Family Medicine (PHFM) to the main campus across Medway Creek.

RECOMMENDATIONS

a. The entrance to the Chemistry Parking Lot be relocated to align with the entrance to Dental Circle to create a formal intersection and safe pedestrian crossing location;

b. Vertical gateway markers, signage and appropriate landscaping which tie into the material palette and precedent set at the Lambton Drive gateway be incorporated into this location, on either side of Perth Drive.

c. Fencing and landscaping be provided to line the extents of the Chemistry Lot along the shared property line with the LHSC to prevent pedestrian cross-through traffic;

d. The parking lot be reconfigured to include to create a formal pedestrian connection from the Medway Creek Trail to Perth Drive. The re-configuration should also consider opportunities for bio-swale integration as both a stormwater conveyance function, and to provide controlled access between visitor and permit parking spaces.

DRAFT

A.5 University Drive / Richmond Street

Existing Conditions



Existing campus gateway at University Drive and Richmond Street.

Precedents



Planting beds to enhance gateway (as found at Lambton Drive gateway).

Defining Characteristics

The University Drive entrance is a shared entrance providing pedestrian and vehicular access from Richmond Street. Similar to the Lambton Drive gateway from Western Road, it provides a defined sense of entry. The character of this entrance is different than the Lambton Drive gateway, as it is not supported by a landscaped median, ornamental plantings, or built form close to the street. The landscaping here is a mix of mature coniferous shrubs and sod areas.

RECOMMENDATIONS

a. That landscaping be provided at the gateway piers to echo the planting palette and treatment at the Lambton / Western Road entrance;

b. Additional seating should be provided at the existing lay-by and transit stop where the campus wayfinding map is provided;

c. The lay-by and paved area should be reviewed and sized appropriately with consideration for permeable paving where appropriate;

d. Extend street tree plantings along University Drive to the Richmond Street intersection;

e. Tree plantings to frame the right-of-way should be provided to fill in existing gaps and provide continuity in road-side plantings from Richmond to Sunset Drive; and

f. Any future improvements to this gateway and intersection will need to consider the impacts of the proposed BRT routing. However on-street bicycle lanes, incorporation of pedestrian amenities near transit stops, and gateway elements for the campus should be maintained.

DRAFT

A.6 University Drive (Sunset Drive)

Existing Conditions



Existing view of University Drive and Sunset Drive, looking northwest.



Existing view of University Drive and Sunset Drive, looking southwest.

Defining Characteristics

The University Drive right-of-way reduces significantly west of Sunset Drive and the entrance to the Medway parking lot in order to accommodate the width of the existing Bridge. Pedestrian accommodations include sidewalks on both sides of the roadway, which extend across the bridge to the Lambton / Perth Drive entrance but are too narrow for the volumes of foot traffic crossing the bridge. These sidewalks also provide connection from University Drive to the Thames Valley Parkway.

Framed by the mature tree canopy lining the banks of the Thames River, the physical bend on University Drive slowly reveals a formal view towards University College, and is reinforced by the existing bridge, pedestrian lighting and river corridor to create a wonderful entrance and sense of place on approach to the campus.

RECOMMENDATIONS

a. A pedestrian drop-off area should be provided at the intersection of University Drive and Sunset Drive which includes the realignment of Sunset Drive to align with the Medway parking lot;

b. Pedestrian scaled gateway elements should be provided, as well as a campus map or information station at this drop-off location;

c. The pedestrian connection to the Thames Valley Parkway (Trail) could be demarcated and integrated with the pedestrian drop-off;

d. Surface paving of University Drive from Sunset Drive to the Lambton / Perth intersection should highlight and reinforce transit / pedestrian only function;

e. Future improvements to the bridge should accommodate cycling, and provide walkways with widths that are appropriate for the high volumes of pedestrian traffic moving through this area.

DRAFT

A.7 Springett Lot / Western Road

Existing Conditions



Views of the existing pathways and pedestrian tunnels beneath Western Road

Defining Characteristics

The Springett Lot provides surface parking for a high number of students, faculty, staff, alumni and visitors on the west side of Western's campus. Two crossing options are provided for pedestrians from the Springett Lot including a pedestrian tunnel beneath Western Road (via Burnlea Walk) and an at-grade crosswalk that connects to the green area to the west of Weldon Library. Neither of the crossing options are currently defined as gateways, and opportunity exists to enhance each of these pedestrian entrances to provide a greater sense of entry and arrival into the campus.

RECOMMENDATIONS

Pedestrian Tunnel

a. Signage indicating direction to the pedestrian tunnel and Western Crossing be provided at the northeast corner of the Springett Lot;

b. The walkway width be increased from 2.00m on the east side of the pedestrian tunnel leading to the UCC to prevent a pinch point for pedestrians or maintenance equipment;

c. The landscape treatment on both sides of the pedestrian tunnel should be consistent with one another to provide interest and colour throughout the year; and

d. Surface treatments be considered to animate the face of the tunnel and to increase visibility of this entranceway.

Surface Crossing

e. That a pedestrian node be created at the entrance to the Weldon Library from Western Road, including provision for seating, hardscaping and at grade landscaping to define the space and create an enhanced entry point for pedestrians onto the main campus;

f. The existing metal fence posts be replaced with masonry clad piers to tie into the material palette of the other proposed gateway improvements;

g. Wayfinding / directional signage be provided at the entry node to orient visitors into the campus;

h. Pedestrian scaled LED lighting be provided to illuminate this entrance, and extend along the existing walkways where low lighting levels are provided; and

i. The existing trees along the Weldon Library service access be reviewed and removed to open sight lines in this area, and replaced at a more appropriate location within the area.

DRAFT

A.8 Platt's Lane / Western Road

Defining Characteristics

The intersection of Platt's Lane and Western Road is currently an undefined gateway, but provides opportunity for enhancement to distinguish a greater sense of arrival at the south end of the main campus. The widening of the Western Road right-of-way from a two lane road to a five lane road with turning lane at this intersection will introduce a major character change for the roadway. There is opportunity to emphasize this intersection as a defined entrance to the campus that will provide a safe crossing point on Western Road for pedestrians, establish a greater sense of arrival to Western's main campus and function as a recognizable gateway.

RECOMMENDATIONS

a. Extend branding elements and landscaping within the Western Road right-of-way to the Platt's Lane intersection to reinforce entry to the campus and connectivity to the main campus area.

b. A sidewalk be provided from the west side of Platt's Lane directly to the Western Road intersection to encourage pedestrians from the Platt's Lane Estates and surrounding areas to cross at the controlled intersection;

c. The sidewalk on the east side of Western Road be widened between the intersection and the pedestrian trail access from Western Road to the Huron West sportsfield, and;

d. The pedestrian walkway entrance to the Huron West sportsfield be enhanced with provision of landscaping, seating on either side of the walkway including low seatwalls to frame the entrance, and signage to distinguish this access point as a pedestrian connection into the campus.

DRAFT

A.9 Windermere Road / Western Road

Defining Characteristics

The intersection at Wellington Drive, Collip Circle and Windermere Road, at the northwest end of the campus, provides a distinguished gateway into the Discovery Park, as entry piers on either side of the roadway and at-grade signage elements reinforce this entrance for pedestrians and motorists. A pedestrian walkway that extends from Western Road to the Discovery Park is also provided, and presents an opportunity to create an enhanced pedestrian gateway which encourages pedestrian connectivity between the Discovery Park and Western's main campus.

RECOMMENDATIONS

a. Pedestrian path from the northwest corner of the Windermere Road and Western Road intersection extending through to the pedestrian trail accessing to Discovery Park be lined with landscaping and pedestrian scaled lighting;

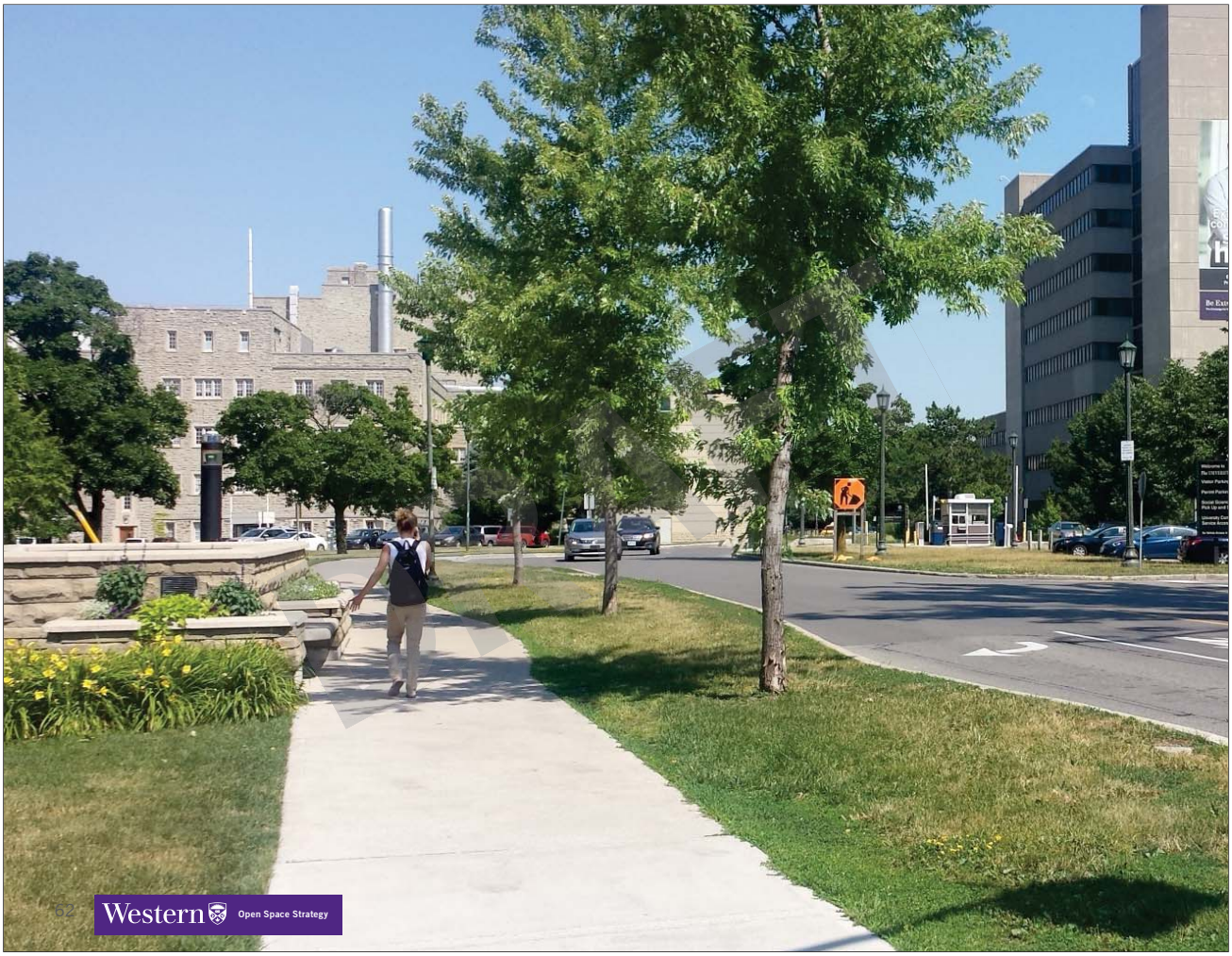
b. Pedestrian scaled piers, which replicate the gateway element at the Windermere Road and Collip Circle entrance to the discovery park be provided at the walkway connection point to Western Road;

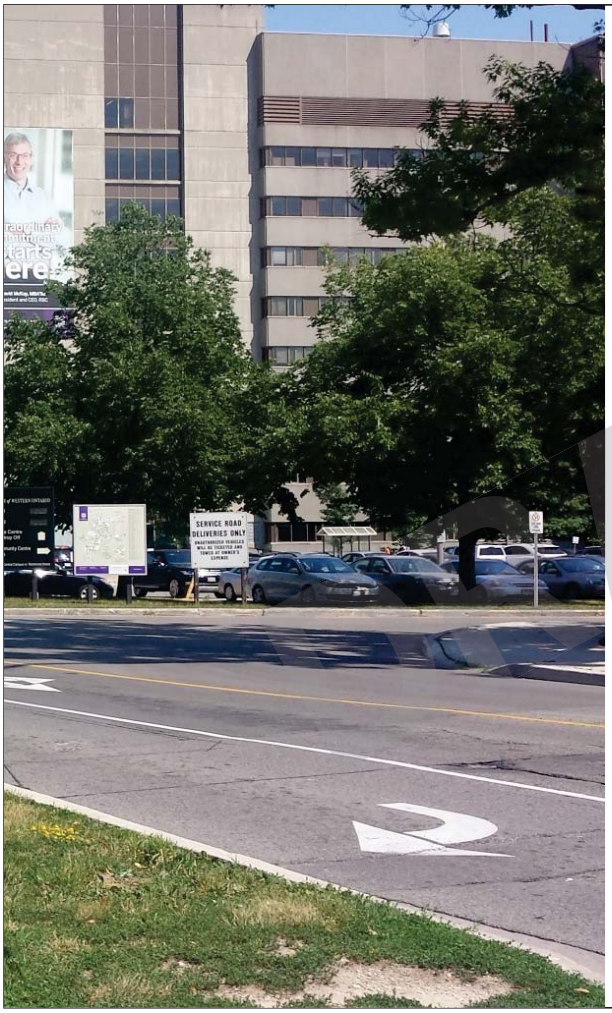
c. Pedestrian scaled signage be provided at Western Road to direct pedestrians into the Discovery Park, with wayfinding signage provided where the walkway links into Collip Circle;

d. Seating elements such as low seatwalls, or bench seating be provided at the walkway entrance, and;

e. Understory species including any invasive materials be removed along the existing tree line to maintain open sight lines along the walkway to maintain or increase natural surveillance opportunities and increase safety for pedestrians moving through this connection.

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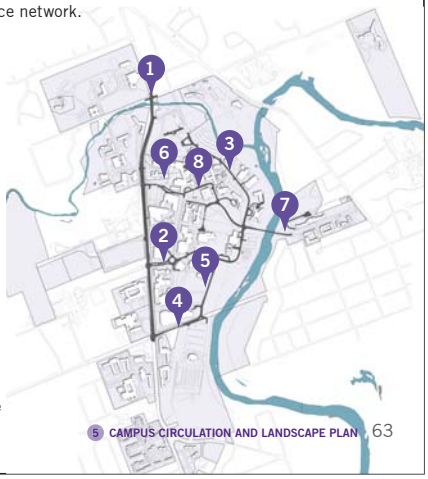




B. CORRIDORS

The network of roadways servicing Western's campus provide access for motorists, transit and service vehicles across the campus. Many of the access corridors on campus have been oriented towards vehicular use, however in an effort to prioritize pedestrian movement, connectivity and safety on Western's campus, the function and character of the existing road network will need to change to accommodate this change.

The traffic strategies outlined in Chapter 5 provide recommendations on the potential influences of the BRT, access requirements for service and public vehicles, accommodation of cycling lanes, and identification of pedestrian dedicated travel corridors. The recommendations within this section of the Western Open Space Strategy will focus on enhancements of the character and composition of these specific travel routes. These recommendations for improvements to various travel corridors will need to be implemented and sequenced incrementally over time, and will support the overall initiative of creating a pedestrian centred campus, contributing to an attractive, compelling, and safe open space network.



1. Western Road
2. Lambton Drive
3. Perth Drive
4. Philip Aziz Ave
5. Huron Drive
6. Elgin Drive
7. University Drive
8. Middlesex Drive

DRAFT

B. CORRIDORS

NETWORK RECOMMENDATIONS

a. Certain core campus streets should be closed to private vehicles in order to reduce the incidence of cut-through traffic and improve pedestrian safety. This strategy may be regulated by time of day or type of vehicle and utilize access control to allow for exceptions such as emergency vehicles, service vehicles, and vehicles driven by persons with disabilities.

b. Limit access to the University Drive bridge. Only bicycles, pedestrians, Bus Rapid Transit vehicles, and designated university vehicles would be permitted on the bridge.

c. Identify specific locations and develop functional plans for drop-off facilities on each side of the river as well as on the west side of Western Road. Consider monitoring of these facilities by campus safety staff during peak traffic periods. This may require the addition of part-time paid staff.

d. Incorporate a potential drop-off facility into future development plans for the current South Valley parking lot.

e. Preserve the Lambton Drive roadway as an active transportation corridor that accommodates Bus Rapid Transit, pedestrians, and cyclists.

f. Incorporate parking structures along motorized corridors, on existing perimeter parking lots such as Chemistry, Huron Flats and Springett.

g. Limit local bus service to corridors that also permit general vehicular traffic.

h. Adhere closely to street design recommendations set forth in the National Association of City Transportation Officials (NACTO) Urban Street Design Guide and the Ontario Traffic Manual when designing the corridors that will be shared among private vehicles, transit vehicles, bicyclists and pedestrians.

i. Follow suggested guidelines for minimum, desired, and maximum widths for all roadway features including travel lanes, bus lanes, bicycle facilities, and buffers.

j. Reserve a 14 metre right-of-way for multimodal and active transportation corridors such as Lambton Drive between Alumni Circle and Huron Drive as well as Perth Drive between University Drive and Windermere Road. This figure is based on recommended lane widths for bus travel (3.3m desired, 3.0m minimum), protected bicycle lanes (1.8m desired, 1.5m minimum plus a 0.3m buffer for paint/bollards), 2 metre sidewalks, and a curb-to-curb distance of 10.2 metres.

k. Consider roadway widening to safely accommodate all roadway users in an ideal fashion.

l. Equalize the elevation of the entirety of non-motorized corridors that previously accommodated vehicles such as Oxford Drive and Engineering Drive. Remove curbs where applicable.

m. Evaluate programming options for shared roadways. If cycle tracks are retained, they may be widened and separated by paint, bollards, or street furniture. Western may choose an arrangement where cyclists and pedestrians travel within a larger space uniquely identified with special paving material or paint treatments. The traditional sidewalk is also much wider in this configuration for those who do not prefer to use the shared space.

DESIGN RECOMMENDATIONS

a. Those which remain as shared roads should ensure that vehicular, pedestrian, and cyclists routes of travel are clearly demarcated with intersections or crossing locations high lighted to emphasize priority to pedestrians;

b. Traffic lanes where proposed should be of an appropriate width. Traffic calming elements such as bumpouts, raised crosswalk intersections, and signage provided where appropriate;

c. Those areas that will be transitioned from shared to pedestrian only should ensure that the scale of the hardscaped paths of travel are appropriate, and reductions to the existing width of hardscape paving be encouraged. This will reduce the amount of impermeable surfacing on campus that is subject to maintenance, reduce stormwater runoff generated, and provide more space along corridors for pedestrian amenities;

d. Accessibility provisions at all crosswalk locations and curb ramps should be provided as per current Accessibility for Ontarians with Disabilities Act (AODA) standards, including appropriate grading, tactile matting, and tonal contrast of paving where required;

e. Landscaping areas should be provided along all shared roadways, with adequate soil areas for root zone development. Tree and understory plantings where proposed should be setback far enough from curbs and walkways to allow room for snow storage in the winter;

f. Roadside landscaping palettes should be limited to understory plantings and single stemmed deciduous trees with high canopied form at maturity;

g. No roadside plantings should be provided in close proximity to shared road intersections or crosswalks to ensure open sight lines to on-coming traffic at all times;

h. Narrow medians should be hard surfaced with decorative paving treatments which are durable, attractive and long lasting. Options for placement of banner poles, lighting or other vertical elements for interest within paved medians are recommended;

i. Tree plantings are recommended only for medians where curb to curb widths are generous, with only tree species which demonstrate higher tolerances to salt, drought and restricted root zones planted in these areas;

j. Understory plantings should be located only in areas where the landscape median / boulevard width is sufficiently wide;

k. Seating opportunities should generally be provided at regular intervals along the road edge, be placed behind the sidewalk and oriented towards the path of travel; and

l. Seating elements and paved areas should provide textured or tonal differentiation from the path of travel. All seating areas should provide adequate clearance for positioning of wheelchairs adjacent the seating element as per AODA requirements.

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B.1 Western Road

RECOMMENDATIONS

a. Coordinate with City on proposed improvements to the Western Road right-of-ways to accommodate future BRT, Transit and pedestrian initiatives;

b. Create connected and comfortable pedestrian travel route for pedestrians along the extent of Western Road;

c. Ensure that all access points into the campus are defined to provide dedicated points of entry;

d. Provide continuity with roadway landscaping along the extent of Western Road, including tree plantings where current gaps in coverage exist. An extension of a landscaped median on Western Road to frame crossing locations and create consistency along the extent of roadway through the campus is recommended; and

e. Extend dedicated on-street bike lanes across the entire length of Western Road to connect cycling network through Western's campus.

B.2 Lambton Drive

RECOMMENDATIONS

Lambton Drive – Western Road to Oxford Drive:

a. Median to have length reduced to accommodate future transit routing and align with reconfigured entrances to the Weldon Parking Lot and Engineering Lot entrances;

b. Wayfinding signage to be provided that is legible from the roadway and directs vehicles to a formal information area on campus to prevent stopping, with campus mapping oriented to pedestrian travel routes for viewing;

c. Note – although the preferred traffic routing plan references this as a 'non-public' street, public access will be required to both the Weldon and Thompson Engineering Parking lots. A suitable turnaround which provides access to both of these lots, allows for a pedestrian drop-off zone, and works with future transit requirements needing to be coordinated with future improvements to Alumni Circle;

d. Landscape plantings to frame reconfigured Alumni Circle Plaza, entrances to Oxford Drive and Engineering Drive; and

e. Accommodation of proposed BRT, and on-street cycling.

Lambton Drive – Oxford Drive to Huron Drive:

a. Reconfiguration of the roadway to provide wider sidewalks on both sides of the roadway, that are separated by the back of curb with a landscape strip up to the intersection at Kent Drive. Sidewalk widening should not encroach into the existing Carolinian Forest along this portion of Lambton Drive;

b. Infill and extend woodlot plantings where gaps along the roadway occur;

c. Change in surface paving from asphalt to concrete to denote 'non-public' roadway;

d. Reconfiguration of the parking access lane and reconfiguration of parking lots at Thames Hall / 3M Building and Upper Heating Parking Lot to increase landscaped area behind the sidewalk and improve views looking west towards Thames Hall; and

e. Accommodation of proposed BRT, and on-street cycling lanes.

Lambton Drive - Huron Drive to University Drive / Perth Drive:

f. Removal of the crosswalks on the north and east side of the Huron/Lambton Drive intersection to emphasize crossing on the west side of the roadway, aligning with the new Music Building Walkway connection to University Hill;

g. Alignment of the Music Building parking access with the intersection of Huron Drive, and removal of the second lay-by connection to Lambton Drive;

h. Removal of the roadside walk on the north/west side of Lambton Road (fronting the Music Building) up to the service lane/Talbot College and routing of travel with a new sidewalk that is tight to the building to remove pedestrians from the Lambton Drive bend;

i. Removal of the roadside walk on the south/east side of Lambton Road to University Drive to emphasize pedestrian travel off of Lambton Drive and around Talbot College via the new Music Building walkway connection to University Hill;

j. Removal of the Talbot College Drop-Off, extension of the roadside lay-by for pick-up/drop-offs, and widening of the sidewalk adjacent the Talbot College lay-by;

k. Relocation of the Talbot Parking Lot entrance further south from University Drive;

l. Infill tree plantings where adequate space provided along the roadside, and setback from the edge of curb to permit snow loading areas during winter months;

m. Creation of a formal plaza space and intersection improvements at intersection with University Drive; and

n. Accommodation of proposed BRT, and on-street cycling lanes.

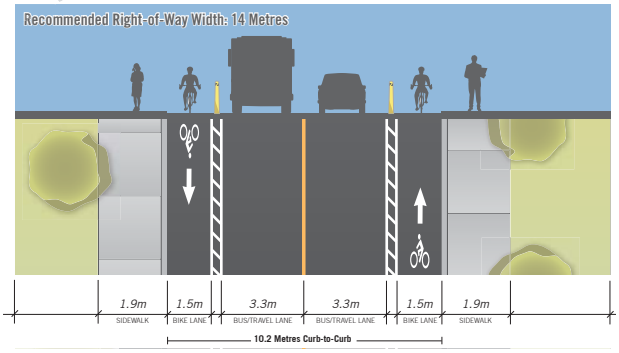


Figure 9. Example of Multimodal/ Active Transportation Corridor conditions

B.3 Perth Drive

RECOMMENDATIONS

a. Infill tree planting along the roadway where adequate space provided;

b. Roadside seating opportunities where space provided;

c. Increased landscaping at Middlesex Parking Lot to buffer from Perth Drive;

d. Reconfigure/relocate pedestrian access to align with parking lot access lane (remove stairs);

e. Relocate the Chemistry Parking Lot access to align with the Dental Circle access to create an intersection and formal crossing point for pedestrians across Perth Drive (connect to Medway Creek pedestrian trail);

f. Provide a gateway marker (both sides of street) to define entrance onto Western Property from LHSC;

g. Provide fencing around the perimeter of the Chemistry Lot (north and west side along Perth Drive to provide physical separation from the LHSC Property; and

h. Accommodate shared cycling lanes into the proposed roadway cross section.

B.4 Philip Aziz Avenue

RECOMMENDATIONS

a. Coordinate with City on proposed improvements to the Philip Aziz Avenue right-of-ways to accommodate future BRT, Transit and pedestrian initiatives;

b. Create connected and comfortable pedestrian travel route for pedestrians along the extent of Philip Aziz Avenue;

c. Ensure that all access points into the campus are defined to provide dedicated points of entry;

d. Provide continuity with roadway landscaping along the extent of Philip Aziz Avenue, including tree plantings where current gaps in coverage exist;

e. Extend dedicated on-street bike lanes across the entire length of Philip Aziz Avenue to connect cycling network through Western's campus.

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B.5 Huron Drive

RECOMMENDATIONS

a. Relocate the vehicular entrance to TD Stadium, in order to align it with the entrance to the South Valley Parking lot to create a formal intersection and crossing location for pedestrians, while acting as a traffic calming element for vehicles on this 'public' roadway;

b. The intersection and crosswalk surfacing should vary from the asphalt surfacing of the roadway for differentiation and emphasis, with consideration for a raised intersection provided;

c. The possiblity of a future pedestrian bridge over the Thames River should be reviewed with the City of London;

d. North of this intersection, street edge enhancements should provide emphasis to the West side of Huron Drive, with a landscape boulevard widened pedestrian walkway to encourage pedestrian travel along that side of the roadway;

e. Tree plantings, pedestrian light standards and furnishings such as benches oriented towards the roadway should be provided along the west side of the roadway;

f. The enhancements along the east side of Huron Drive should be limited in comparison to the west side of the laneway. Improvements should be limited to the provision of a curbside walkway or extension of the pedestrian trail. This would limit encroachment into the sports fields, and encourage pedestrian use along the opposite side of the roadway;

g. Where Huron Drive intersects with Lambton Drive, the intersection crosswalks and field should differentiate from the asphalt road paving for emphasis of the connection;

h. Crosswalks at this intersection should only be provided along the south and west ends of the crossing, to limit pedestrian conflicts with traffic exiting the Music Building parking area; and

i. Accommodate cycling lanes into the proposed roadway cross section.

B.6 Elgin Drive

RECOMMENDATIONS

a. Pedestrian enhancements including widening of the existing sidewalk, tree plantings where gaps occur in the canopy coverage, and pedestrian scaled lighting on the north side of the roadway;

b. Medical Sciences Parking Lot entry to be reconfigured to allow for a pedestrian drop-off area adjacent the Dr. Don Rix Clinical Skills Building;

c. Paving of the pedestrian extent of Elgin Drive should differentiate from asphalt paving, to emphasize restriction of public vehicles in this area, and be wide enough to accommodate full two-way traffic for emergency and service vehicles, and bicycles; and

d. Open space areas should be provided as landscaped areas to increase tree canopy in this area, and reduce hardscape paving.

B.7 University Drive

RECOMMENDATIONS

a. Removal of the paved median and parking;

b. Tree planting in landscaped boulevards where gaps occur;

c. Provision of bench seating, with preferred orientation towards the roadway provided at regular intervals along both sides of the roadway;

d. Dedicated bike lanes on both sides of roadway;

e. Curb bumpouts provided to frame on-street parking and lay-by locations where not provided (Sunset Drive);

f. Create a dedicated pedestrian drop-off area at Sunset Drive which provides access to the Medway parking lot, but restricts public vehicle access across the bridge;

g. Resurface University Drive west of the Sunset Drive drop-off area abd extending to the Lambton/Perth Drive intersection to distinguish this route as pedestrian/service vehicle only;

h. Incorporate cycling lanes into the proposed roadway cross section along the full extent of University Drive;

i. Re-align Sunset Drive with the entrance to the Medway Parking lot, to create a fully aligned, four-way intersection.

B.8 Middlesex Drive

RECOMMENDATIONS

Middlesex Drive – University Drive to Kent Drive

a. Based on the recommendations of the Campus Circulation Plan, Middlesex Drive will become a pedestrian priority corridor. As a result, it is recommended that the existing curbs be removed, and the roadway be reconfigured to an at-grade walkway for pedestrian and bicycle travel to tie into other corridor improvement areas through the main campus;

b. Width of the walkway should be sufficiently wide to allow periodic access for service and emergency vehicles as required;

c. Surfacing should be either concrete, or unit-paved on suitable subgrade;

d. Pedestrian scaled lighting should be provided to increase pedestrian and cyclist safety in these areas; and

e. The emphasis of landscaping along this section of Middlesex Drive should be on naturalization of the corridor edges to extend the edges of the woodlot areas along the periphery.

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Middlesex Drive – Kent Drive to Oxford Drive

a. Resurface as a pedestrian prioritized walkway

b. The roadway should be reduced from its current width in order to accommodate service and emergency vehicles;

c. Walkways should be removed on each side of the roadway, with landscaping in the form of deciduous trees provided to align the paved corridor;

d. Open space areas along building frontages should be converted to natural meadow areas for naturalization to reduce overall maintenance requirements; and

e. The drop-off area at the Medical Sciences Building should be removed to provide a continuous walkway on the north side of the roadway, north of the McIntosh Gallery Green, and the entrance to Oxford Drive.

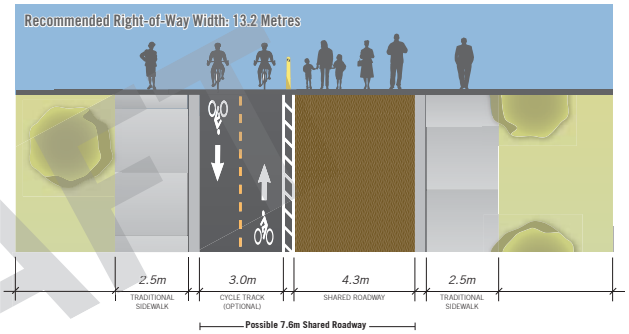


Figure 10. Example of non motorized transportation corridor

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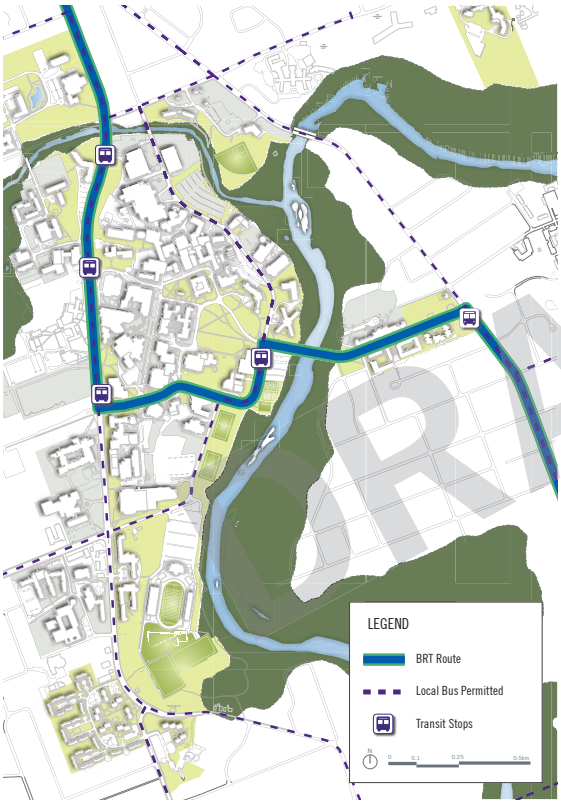


Figure 11. Transit Circulation - BRT on Lambton Drive

C. TRANSIT ACCESS AND CIRCULATION

A BRT alignment alternatives analysis forms the basis for a recommended alignment through the core of the Western University campus. The analysis rationalized the technical assessments in the City of London's Shift Plan with the goals and principles found in the university's Strategic and Campus Master Plans as they relate to promoting sustainability, a pedestrian-oriented campus, and quality of place, among other attributes.

A Lambton Drive BRT alignment represents the best balance of access to both existing and future campus destinations while minimizing impacts to sensitive activities, a significant concern of the campus community during the planning process. Primary destinations served by BRT in this alignment include the Law and Engineering buildings, Alumni Hall, Ivey Business School, and student residences on both sides of campus.

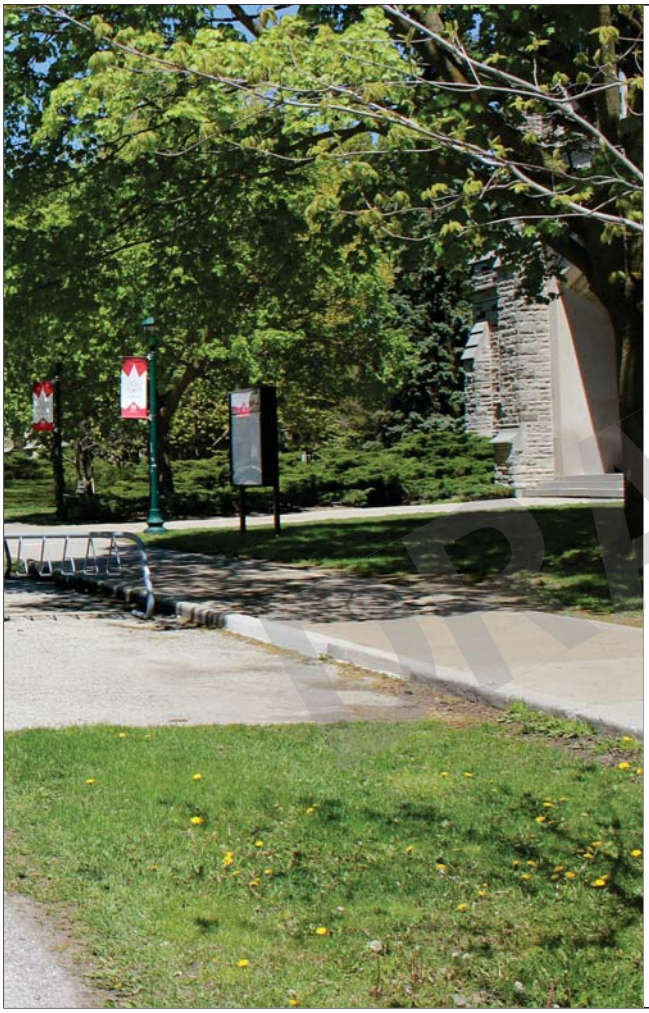
RECOMMENDATIONS

a. To attract ridership and provide maximum convenience, transit access should be prioritized as an enhancement for pedestrians.

b. Transit transfer stops should be concentrated on outer multimodal and active transportation corridors to facilitate the transfer between BRT and local bus services, including shuttles. The placement of stations respects the pedestrian-oriented principles of the circulation hierarchy while maintaining reasonable core campus access distances for transit riders.

c. Lambton Drive should become a signature active transportation corridor through a complete suite of multimodal improvements. The same is true of Western Road, where non-motorized and transit improvements can transform the corridor into a integral part of campus rather than its current perception as a western edge barrier.





D. PEDESTRIAN ROUTES

University campus streets and shared pathways are more than simple conduits for moving students between buildings and other major destinations. Streets and pathways are public spaces that contribute to social life, academic dialogue, and that create impressions before other facilities can be assessed. Large numbers of pedestrians is an indicator of a successful, competitive, and well-designed campus.

The overall initiative to achieve a pedestrian oriented campus will change the emphasis on roadway treatments within the campus. The improvements proposed to the access corridors across the campus will prioritize pedestrian connections by distinguishing them from other nearby modal movements, while providing appropriate surface materials, landscaping, signage and amenities to create a safe, accessible and comfortable network for pedestrians.



1. Oxford Drive
2. Engineering Drive
3. Kent Drive
4. Middlesex Drive, Kent Drive to Oxford Drive
5. Music Building to UC Hill Walk
6. Huron Flats to Stadium Walk

DRAFT

D. PEDESTRIAN ROUTES

GENERAL RECOMMENDATIONS

a. The Western University campus should be comfortable to cross on foot, easily navigated, and leave a lasting impression on the visitor.

b. Acknowledge that while pedestrians, bicycles, transit, and service vehicles may share certain routes through the core, pedestrians are provided separate sidewalks or paths along these routes. This provision includes the envisioned multimodal corridor along Western Road and the active transportation corridor along Lambton Drive.

c. Consider context when employing pedestrian circulation improvements along non-motorized and pedestrian only corridors.

d. Remove curbs to create shared street environments on corridors that previously accommodated vehicles, such as Oxford Drive.

e. Employ unique paint schemes or textured paving materials to create a dynamic environment which can become signature public space.

f. Invest in pathway widening where pedestrian circulation is constrained in non-motorized corridors to increase walking comfort and reduce conflicts between shared pathway modes.

g. Enhance shared spaces through the addition of street furniture, such as benches and bollards, in order to better define pedestrian only areas.



Sunset Avenue through the University of Windsor was transformed into a pedestrian-focused shared street.

D.1 Oxford Drive

Existing Conditions



Oxford Drive viewing North towards the Social Science Centre.



Informal gathering underneath tree canopies along Oxford Drive.

Defining Characteristics

Oxford Drive functions as a major north-south pedestrian spine and service lane through the centre of Western's main campus, extending from Alumni Circle up to the Social Sciences Centre. Vehicular traffic along Oxford Drive is limited to periodic use by facility and service vehicles, as well as buses during evening hours with traffic gates preventing access by public vehicles.

Although it is a primarily a pedestrian space, Oxford Drive looks and feels like a roadway. The cross section of Oxford Drive is made up of a concrete sidewalk on each of the east and west sides of the service laneway, with a dedicated bike lane that is separated from the centre lane by a barrier curb. Tree plantings line the walkways on either side of the corridor and provide a relatively consistent canopy along most of the corridor. In some instances where trees are planted in areas with limited soil volumes or have been subject to root zone compaction by pedestrians, the condition of those trees is poor when compared to other plantings in the space that are setback from the roadway and not subject to the same growth constraints.

Seating provisions for pedestrians along Oxford Drive is limited but where provided, seating opportunities mainly provided by benches appear to be in poor condition and are located within sod areas off the main walkway.

RECOMMENDATIONS

a. Consolidate separate walkways and hard surface areas into one single pedestrian promenade to reinforce pedestrian movement in a north-south corridor through the campus;

b. Oxford Drive should be surfaced with a mix of concrete and permeable paving where slopes and soil conditions permit;

c. Paving for Oxford Drive, including all crossing points, edge treatments and seating locations shall comply with tonal/textured requirements for wayfinding in compliance with AODA standards;

d. Paving depths shall be suitable to accommodate periodic use by service and emergency vehicles;

e. Buildings with entrances that are oriented towards Oxford Drive should have direct links to the main walkway. Entry paving widths provided between the building and Oxford Drive should be consistent for main entrances, as well as for secondary pedestrian entrances;

f. Pedestrian amenities including benches, waste receptacles and bike racks will be provided at regular intervals along Oxford Drive including all building entrance connections;

g. Pedestrian scaled light standards should be provided along Oxford Drive, and alternate along either side of the walkway;

h. Walkways which link Oxford Drive to building entrances should also be well lit, and consider use of a secondary bollard style lighting to light these connection points;

i. Preservation of existing tree plantings that are in good condition should be prioritized, with new plantings provided to infill areas where gaps in canopy coverage occur;

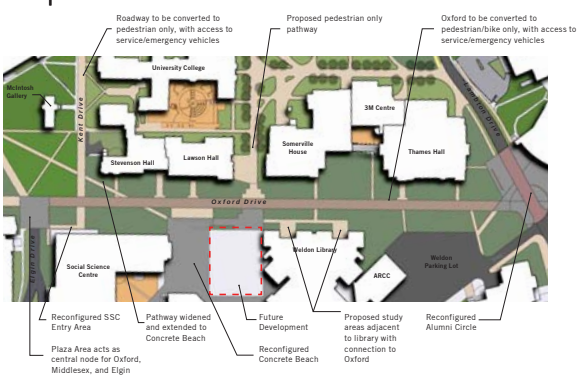
j. All new tree plantings should be planted beyond walkways and spaced away from proposed light standards to prevent conflict as tree canopies mature, and;

k. All trees should be planted in areas with adequate soil volumes. Where root zone areas may be constrained due to paving treatments, root growth conduits or soil cells to increase soil provisions should be provided.

Existing



Proposed



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D.2 Engineering Drive

Existing Conditions



Existing narrow sidewalks and high pedestrian traffic volumes along Engineering Drive.

Defining Characteristics

Engineering Drive is bordered by surface parking along the east side, while pedestrian circulation in both directions is concentrated along a sidewalk running parallel to the Thompson Engineering Building (TEB), and continuing around the Cronyn Observatory and linking into Alumni Circle.

The walkway is framed by mature trees and connects to the naturalized courtyard tucked between the Claudette MacKay-Lassonde Pavilion (CMLP), and the Spencer Engineering Building (SEB). Pause and rest opportunities are provided by bench seating located outside the main entrance of the Thompson Engineering Building, as well as by planter walls south of the Cronyn Observatory. The walkway also transitions from concrete paving at the south end, to permeable unit paving along the CMLP building.

Recent lighting upgrades have improved lighting levels and visibility in this area during evening hours.

RECOMMENDATIONS

a. Given the high volumes of pedestrians moving through this space, opportunities should be explored to create a dedicated pedestrian promenade linking the Thompson Recreation & Athletic Centre up to Alumni Circle, and tying directly into Oxford Drive.

b. Reconfiguration or removal of the parking lot south of Alumni Hall and east of TEB to aid in creating a pedestrian oriented thoroughfare;

c. Parking extension at the TRAC to connect to Western Road with a right-in/right-out access;

d. Options to remove or relocate a portion of the parking provided along the drive aisle, as well as create an enhanced drop-off area outside the Recreation Centre be provided in an effort to prioritize pedestrian traffic in this area;

e. Enhancement of plaza outside of Recreation Centre through increased size, amenities and paving surface to create an intermediate node between the gateway at Western Road / Philip Aziz Avenue and Alumni Circle;

f. Enhancement of walkway from the TRAC to Western Road including a concrete paved walkway, with provision of pedestrian seating at regular intervals along the walkway;

g. Concrete paving should be provided along the walkway and where existing parking is proposed for removal south of the service access to between CMLP and TEB, with precast paving at points of interest;

h. Tree plantings provided along the walkway to frame the walkway with sufficient provision of shared soil volume per tree;

i. Pedestrian scaled lighting provided at regular intervals along walkway.

j. Consolidation of walkways and existing vehicular roadway along Engineering Drive into one single promenade, creating a pedestrian oriented, cohesive connection with Oxford Drive which aids in reinforcing the N/S connection across campus.

k. Paving for Engineering Drive should be provided and surfaced with a mix of concrete and permeable paving where slopes and soil conditions permit;

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l. Paving for Engineering Drive, including all crossing points, edge treatments and seating locations shall comply with tonal/textured requirements for wayfinding in compliance with AODA standards;

m. Paving depths shall be suitable to accommodate periodic use by service and emergency vehicles;

n. Buildings with entrances that are oriented towards Engineering Drive shall have direct links to the main walkway. Entry paving widths provided between the building and Engineering Drive should have a consistent width for main entrances, and for secondary pedestrian entrances;

o. Pedestrian amenities including benches, waste receptacles and bike racks will be provided at regular intervals along Engineering Drive including all building entrance connections;

p. Pedestrian scaled light standards should be provided at regular intervals along Oxford Drive, and alternate along either side of the walkway;

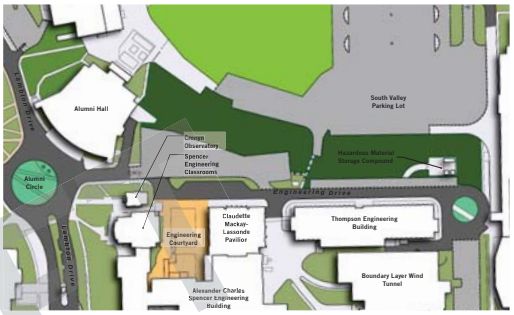
q. Walkways which link Engineering Drive to building entrances should also be well lit, and consider use of a secondary bollard style lighting to light these connection points;

r. Preservation of existing tree plantings that are in good condition should be prioritized, with new plantings provided to infill areas where gaps in canopy coverage occur;

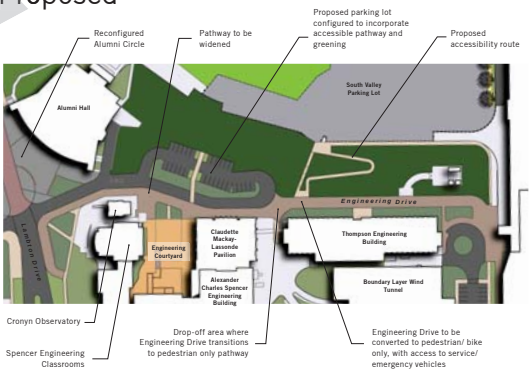
s. All new tree plantings should be planted beyond walkways and spaced away from proposed light standards to prevent conflict as tree canopies mature, and;

t. All trees should be planted in areas with adequate soil volumes. Where root zone areas may be constrained due to paving treatments, root growth conduits or soil cells to increase soil provisions should be provided.

Existing



Proposed



D.3 Kent Drive

Existing Conditions



Existing demarcated pedestrian pathway along Kent Drive, looking west.

Defining Characteristics

Kent Drive currently functions as an interior laneway providing both parking and service access to University College and other centrally located campus buildings located along Middlesex Drive and Lambton Drive.

The character of Kent Drive varies as it traverses through campus. The segment running south of University College, perpendicular to Lambton Drive serves primarily as a service lane offering loading access to Thames Hall, the 3M Centre and Somerville House. The portions of Kent Drive that extend along the east and north side of University College are more picturesque in character due to the mature tree plantings and open lawn areas surrounding them, in particular the McIntosh Gallery manicured woodlot areas.

The Kent Drive walkway running perpendicular to Oxford Drive, South of University College, and continuing along the south end of University Hill, is one of the most highly used east/west pedestrian corridors on campus. Although it is highly travelled, the Kent Drive walkway feels more like a vehicular service lane, as it shares access with service vehicles to adjacent fronting buildings. Pedestrian zones are defined solely by surface paint floating in a field of asphalt extending throughout. Landscaping in the space is also limited to the back of curb areas along the building frontages, leaving the walkway exposed and undefined between Oxford Drive and the south entrance to University College.

The alignment of the walkway provides pedestrians with direct views of Talbot College and the University Drive intersection to the east, and views to the Weldon Library and the University Community Centre beyond Oxford Drive to the west. Given the high volumes of foot traffic along this route, the opportunity to enhance this corridor and prioritize pedestrian travel along Kent Drive should be explored to create a defined east-west linkage across Western's campus. It would also allow for enhanced connections to other potential pedestrian areas including the Beryl Ivey Garden, University Hill, the Music Building Walkway and Huron Drive.

In addition to the proposed enhancements to Oxford Drive, the intersection of these pedestrian corridors would create a defined and recognizable pedestrian node at the heart of Western's Campus.

RECOMMENDATIONS

a. Integrate the removal of the underground connection to the University Community Centre with the development of the ILIC Building and creation of a hardscaped plaza space at the intersections of Kent Drive and Oxford Drive as defined nodes and pedestrian crossroads. This includes - planting, site furnishings, lighting and wayfinding signage to define this outdoor space;

b. Prioritize pedestrians along Kent Drive by creating a continuous and defined walkway which extends from Oxford Drive to Talbot College and University Drive on the south end of University College. On the north end of University College, the walkway should integrate into Oxford Drive, the McIntosh Gallery Green and extend into Middlesex Drive to provide a connection to University Drive;

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c. The paved walkway which runs north-south along the Beryl Ivey Garden, Lawson Hall and Stevenson Hall should be extended south to Kent Drive, and the existing parking area removed or reconfigured to increase connectivity with the courtyard;

d. The existing parking east of University College should be removed and the laneway reconfigured to create a pedestrian gathering space, with seating provisions overlooking University Hill to create opportunities for social interaction, outdoor learning and promote health and wellness. This connection will also increase pedestrian connectivity with the north end of campus along Middlesex Drive;

e. On-street parking areas at McIntosh Gallery and the Physics and Astronomy Building should be removed;

f. Paving provisions and access to loading areas for service vehicles will need to be provided;

g. The surface paving for these walkways should be cast in place concrete or traffic grade permeable paving slabs to distinguish the space as a pedestrian route, and provide an extension of the materials used on Oxford Drive for continuity across this pedestrian space;

h. Tree plantings where gaps in canopy occur, and pedestrian light standards should be provided in a consistent manner to delineate these walkways and work together to frame University Hill;

i. Opportunities to reduce impermeable paving areas by removing parking areas over time, and limiting asphalt to only critical loading areas should be explored, so that landscaping, site furnishings and other elements which cater to pedestrian comfort can be implemented along the walkway;

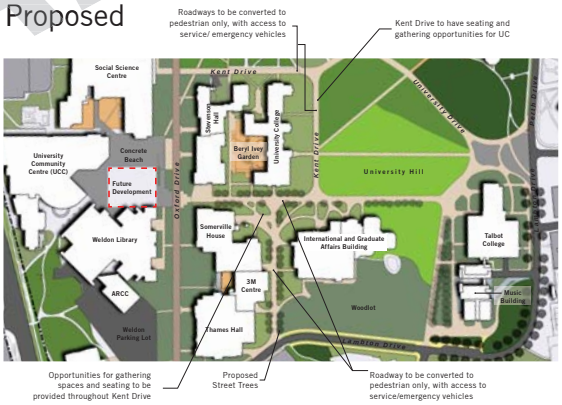
j. Regrading of walkway for consistent slope along length. Opportunities to create plateaus of even grade along the paths of travel moving down the slopes of University Hill should be explored to increase accessibility, and provide seating opportunities along the walkway; and

k. Decorative steel railings, in combination with at-grade mass plantings should be used to frame the walkway, in order to keep pedestrians on intended travel routes, and prevent the development of footpaths across open lawn areas.

Existing



Proposed



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EAST WEST WALKWAY ADJACENT TO CAMPUS COMMUNITY POLICE SERVICE

D.4 Middlesex Drive, Kent Drive to Oxford Drive

Existing Conditions



Existing bus loading zone.



Limited gathering and seating areas.

Defining Characteristics

Middlesex Drive currently provides one-way vehicular access into the campus extending from the University Drive/Lambton Drive/Perth Drive intersection to Elgin Drive. This internal roadway is currently open to public vehicles, and currently accommodates a number of London Transit bus routes which connect with the existing transit stop located at the Natural Sciences Centre.

The character of Middlesex Drive varies along its length. South of Kent Drive, Middlesex Drive is framed by mature woodlots between University Hill and Middlesex College. Sidewalks for pedestrians are not provided however signs of wear along the road edge are visible as a significant footpath has developed along the northeast side of the road from pedestrian use. A curbed bike lane follows Middlesex Drive along this segment, separating motorists from cyclists travelling in both directions along the south side of the roadway.

North of Kent Drive, the character of Middlesex Drive changes to a curbed roadway with sidewalks for pedestrians on either side, with mature tree plantings lining the street along the south curb along the McIntosh Gallery Green. This portion of Middlesex Drive provides service access to loading areas at the Physics and Astronomy Building, the Natural Sciences Building, Health Sciences Addition, and the Medical Science Building. A drop-off loop is also provided at the Medical Science Building, which exits into an intersection with Elgin Drive and Oxford Drive between the Social Sciences Building and the McIntosh Gallery Green, which creates an awkward crossing condition for pedestrians in this area.

RECOMMENDATIONS

Middlesex Drive – University Drive to Kent Drive

a. Based on the recommendations of the Campus Circulation Plan, Middlesex Drive will become a pedestrian priority corridor. As a result, it is recommended that the existing curbs be removed, and the roadway be reconfigured to an at-grade walkway for pedestrian and bicycle travel. This would tie into the proposed treatments of Kent Drive, Oxford Drive and Elgin Drive to provide a pedestrian prioritized connection from the northwest corner of the Campus to University Drive;

b. Width of the walkway should be sufficiently wide to allow for periodic two-way access for service and emergency vehicles as required;

c. Surfacing should be either concrete, or traffic grade permeable-pavers on suitable subgrade;

d. Pedestrian scaled lighting should be provided to increase pedestrian and cyclist safety in these areas; and

e. The emphasis of landscaping along this section of Middlesex Drive should be on naturalization of the corridor edges to extend the edges of the woodlot areas along the periphery.

Middlesex Drive – Kent Drive to Oxford Drive

f. Resurface as a pedestrian prioritized walkway

g. The roadway should be reduced from its current width to a minimum 6.10m wide profile in order to accommodate service and emergency vehicles;

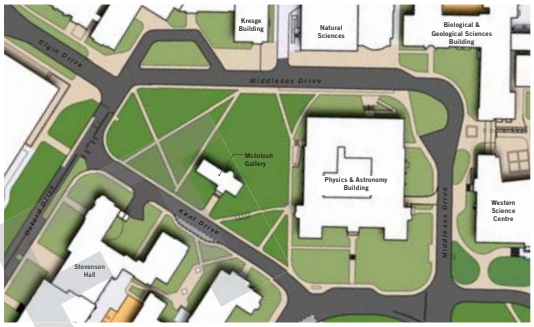
h. Walkways should be removed on each side of the roadway, with landscaping in the form of deciduous trees provided to align the paved corridor;

i. Open space areas along building frontages should be converted to natural meadow areas for naturalization to reduce overall maintenance requirements;

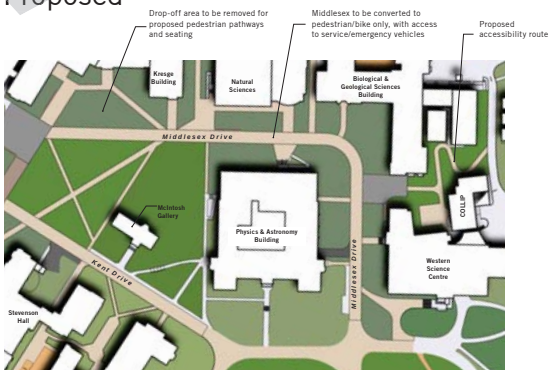
j. The drop-off area at the Medical Sciences Building should be removed to provide a continuous walkway on the north side of the roadway, north of the McIntosh Gallery Green, and the entrance to Oxford Drive; and

k. Bike lanes to be provided through this section of Middlesex Drive.

Existing



Proposed



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PHYSICS BUILDING PARKING LOT



PHYSICS BUILDING PARKING LOT

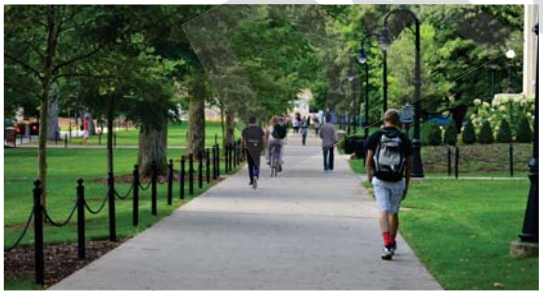
D.5 Music Building to UC Hill Walk

Existing Conditions



Existing conditions of the pathway adjacent to the Music Building.

Precedent



Wide, defined pedestrian walkways through greening and decorative bollards.

Defining Characteristics

The recent renovations and enhancements of the Music Building open up the opportunity to create a new pedestrian promenade linking Lambton Drive to the University Hill area. This pedestrian route through the lawn area was visibly marked by footpaths, and an asphalt walkway has since been installed.

RECOMMENDATIONS

a. Remove the existing sidewalks along Lambton Drive to reduce the potential for conflict between vehicles and pedestrians along the Lambton Drive bend. This would also reduce maintenance requirements; and provide additional snow storage capacity along the road edge.

b. The vehicular entrance to the Music Building off Lambton Drive should be reconfigured to align with Huron Drive intersection, with the second drop-off connection at the Lambton Drive bend removed;

c. The Music Building Walk should be aligned with the centre of Huron Drive to provide an extension of the pedestrian improvements on the west side of Huron Drive to create a defined vista towards Middlesex College;

d. The walkway should be surface paved in either concrete or unit paving to distinguish it from the roadway;

e. Pedestrian paving should be extended into the crosswalks and fields of the intersection to emphasize the stop, and support traffic calming at the intersection;

f. A pedestrian node should be created on the northwest corner of the Lambton and Huron Drive intersection, with seating opportunities and a wayfinding signage element to emphasize the crosswalk at that location;

g. Landscaping should be provided on either side of the walkway, including opportunities to extend the woodlot up to the walkway. A mix of open lawn and naturalized areas provided adjacent the music building should be provided with tree plantings located in a manner which maintain open views;

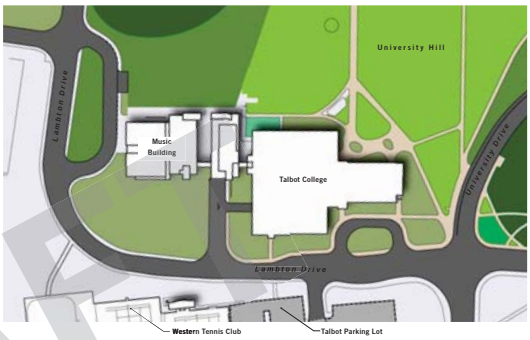
h. Tree plantings of appropriate size and form should be planted in a manner that will not impede views towards Middlesex College;

i. Entrances from the Music Building should be connected to the walkway through hardscape paving;

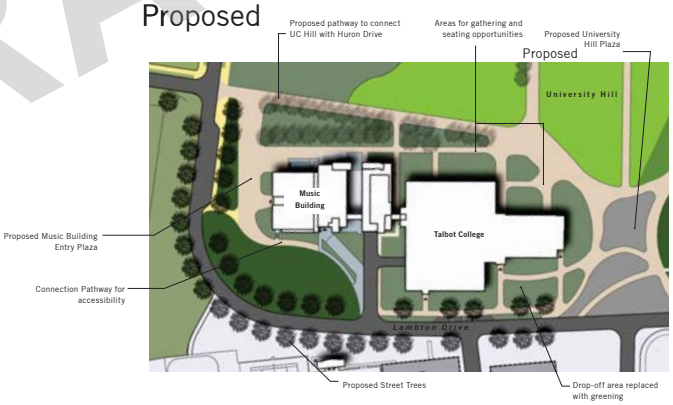
j. Seating elements should be provided along the walkway, and oriented towards the Music Building and landscaped area;

k. Pedestrian light standards provided on Huron Drive should be provided along the walkway at equal spacing, and extend to University

Existing



Proposed



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D.6 Huron Flats to Stadium Walk

Existing Conditions



Existing TD Stadium parking lot.



D Stadium entrance, looking south.

Defining Characteristics

The current access to the TD Stadium (built in 2000 to replace the J.W. Little Stadium, formerly located just north west of it along Huron Drive) is predominantly car oriented, and is accessed from Huron Drive and Philip Aziz Avenue.

The current configuration of the parking lot creates a discontinuous pedestrian access through the drive aisles and landscaped islands. This causes special event processions travelling to the stadium from Huron Drive to disperse once they reach the lot. A formal promenade that extends across the parking would provide a dedicated pedestrian connection between Philip Aziz Avenue and Huron Drive directly to TD Stadium.

This parking lot is also under consideration as a potential redevelopment site for a future parking structure.

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RECOMMENDATIONS

a. Reconfigure the east entrance to the Huron Flats parking lot to align with the entrance to the South Valley parking lot, to create a formal intersection and provide a dedicated crossing location for pedestrians;

b. The existing west entrance of the lot would be open for use to service vehicles, buses or the public during special events;

c. The west end of the lot can be used for either vehicular or bus parking;

d. Lay-by's for bus drop-offs provided on Phillip Aziz Avenue;

e. Provide a widened pedestrian walkway along the west side of Huron Drive that extends from the new parking entrance intersection, across the parking lot and directly to TD stadium, and incorporating the "Walk of Honour";

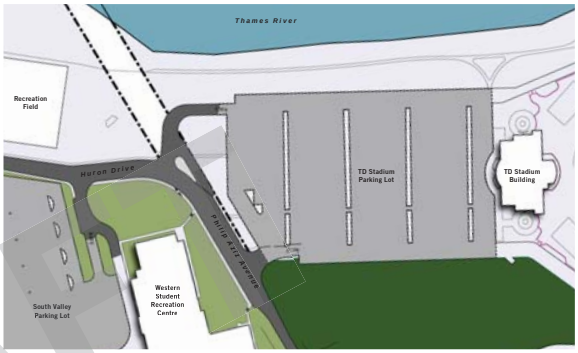
f. Plaza area, with a vertical element for interest provided at the termination of Huron Drive / Phillip Aziz Avenue as a gateway element into the stadium;

g. The walkway should be surfaced in concrete, raised from the surround asphalt (top of curb height), and extend across the parking lane aisles to distinguish the pedestrian travel route, and act as a traffic calming element;

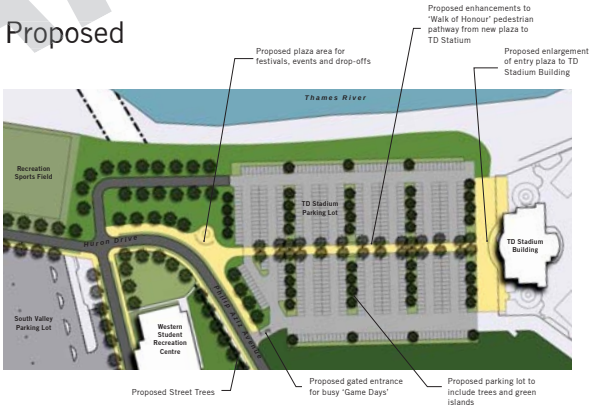
h. Adequate lighting should be provided to highlight the walkway and provide pedestrian visibility during evening hours;

i. Landscaped medians between the parking aisles should be provided, and where possible, be graded in a manner that allows for collection and conveyance of stormwater from surrounding asphalt areas.

Existing



Proposed





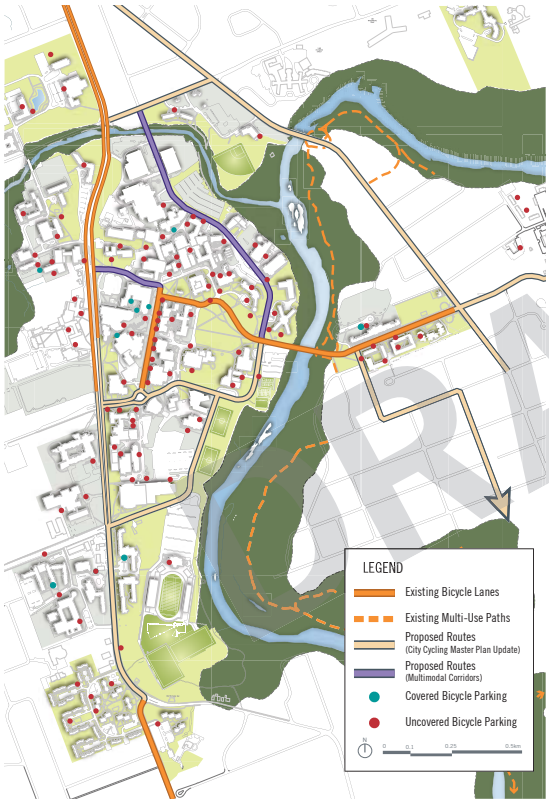


Figure 12. Proposed Bicycle Circulation Network

E. BICYCLE CIRCULATION AND PARKING

A network of comfortable bikeways coupled with secure bicycle parking provides a real alternative to driving that is affordable, space efficient and relatively easy to maintain. Bicycling is the most efficient means of transportation available for members of any campus community who live between three and eight kilometres from the Western campus.

RECOMMENDATIONS

a. Within the campus core, non-motorized corridors that accommodate cycling in a shared-use configuration. These corridors would take on the character of shared spaces where a wide roadway sits flush with the level of the sidewalk

b. Outside of the campus core, non-motorized corridors should continue to function as narrower shared use paths.

c. Protected bicycle facilities, such as the cycle track along Middlesex Drive, should be replicated on corridors identified in the City of London Cycling Master Plan.

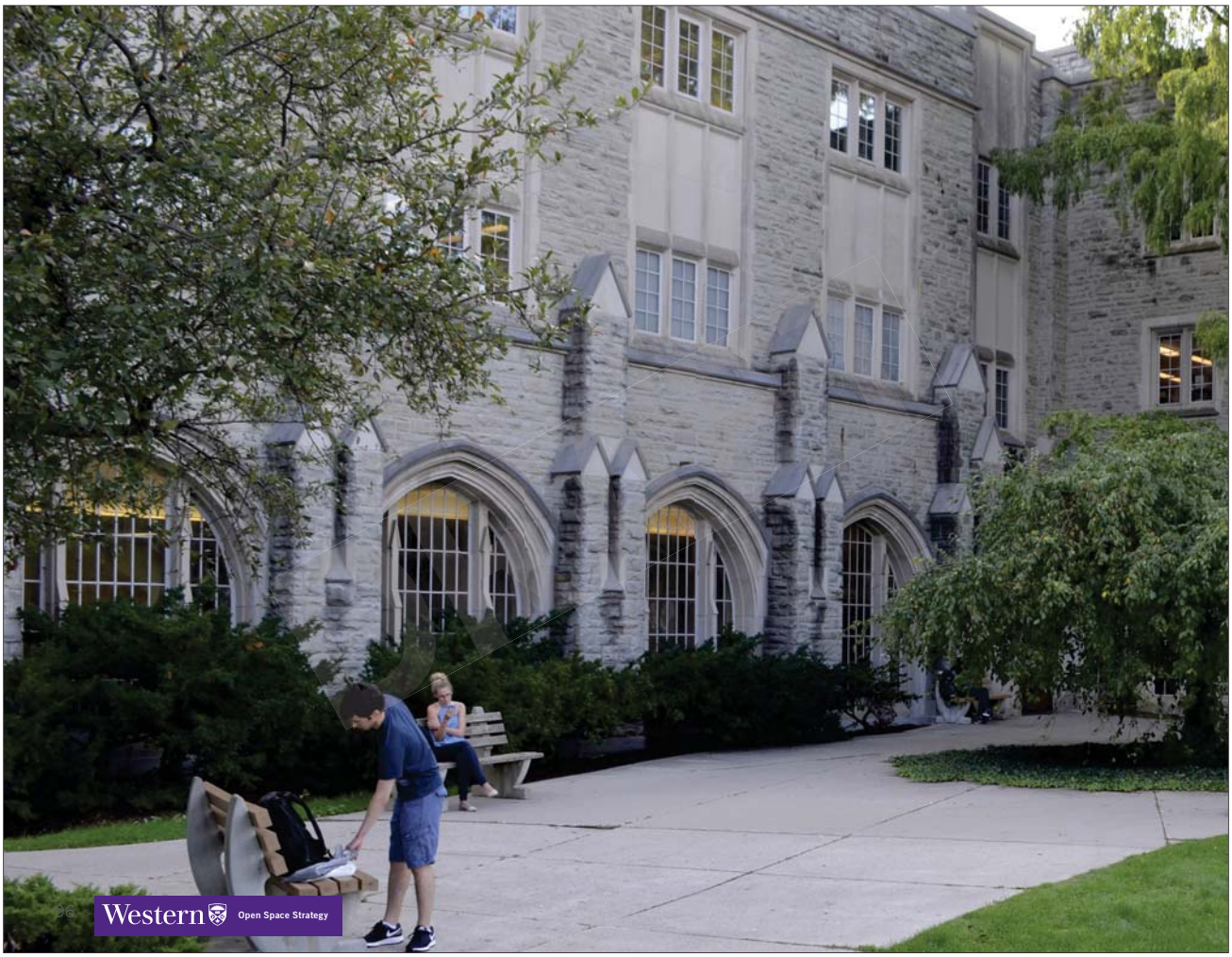
d. Western should establish standards for bicycle parking and replace existing bicycle parking that does not meet those standards.

e. Other amenities that should be provided include repair stations, a staffed bicycle centre, and shower/changing facilities.

f. Western should consider either creating a bicycle sharing program or participating in a regional effort in the longer-term.

g. Once a comprehensive bicycle program is in place, bicycle activity should be regularly monitored and evaluated to better direct resources toward future bicycle system management efforts.

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F. COURTYARDS AND GARDENS

The existing courtyards across the campus provide an excellent variety of open space area for individual contemplation, group activity or outdoor teaching across the campus' academic and residence buildings. Each courtyard provides a unique experience which collectively contribute to the University's network of outdoor spaces and opportunities to support learning and wellness.

Many of the existing courtyards such as those located at the Western Science Centre Building, the Beryl Ivey Garden at University College, or the Sydenham Hall Residence provide comfortable open spaces for users, are well maintained and appear to be well used.

Other courtyards such as the tiered courtyard and rooftop Terrace at the 3M Centre, or the north courtyard at University College appear neglected and unused.



1. Engineering Building Courtyard
2. Thames Hall / 3M Courtyard
3. Jancey Garden
4. Collip Courtyard
5. Beryl Ivey Garden
6. University College Courtyard

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F. COURTYARDS AND GARDENS

GENERAL RECOMMENDATIONS

Each courtyard and garden area provides opportunity for enhancement to reactivate and animate these spaces to increase pedestrian comfort and use. General recommendations for campus courtyards include:

a. Courtyards should provide pedestrians with a variety of seating options which cater to varying levels of use. A mix of benches, chairs, or cluster table seating should be provided to offer pedestrians options for use;

b. Moveable furnishings such as free standing chairs or tables should be encouraged to allow users the ability to manipulate these spaces to meet their needs;

c. Seating areas should also provide plug-in opportunities for charging devices. These should be located in a highly visible location, and should take advantage of sunny areas for the potential of solar powered units which do not rely on hard line connections to power sources;

d. Micro-climate is an important factor for pedestrian comfort, and should be taken into consideration when placing site furnishings, or selecting plant materials.

e. A standard provision of 25% of all seating within courtyard areas provided should be barrier-free, and where fixed seating is provided, should be spaced far enough apart to provide adequate space for maneuvering assistance devices;

f. Waste receptacles should be located away from proposed seating areas and ensure that they have a minimum 30 gallon capacity where deep well units cannot be accommodated;

g. Where maintenance access is limited, concrete paving materials are recommended for surface treatments due to durability and longevity. Textured surface treatments, which provide tonal contrast should be provided at the entrance to all ramps, or where surface paving is adjacent planting beds to assist with wayfinding and visibility;

h. Bike storage in courtyard areas is encouraged only where cyclists can enter the courtyard directly without entry to the building;. Storage locations should take advantage of building overhangs, or be placed beneath canopy structures for protection from the elements;

i. Plant materials proposed for use in courtyards should be appropriate for their conditions, and provided interest through the year

j. Preference for mass planting schemes, and use of landscape species which can survive without irrigation, and periodic maintenance should be considered for use;

k. Where possible, impervious surfacing should be removed or replaced to reduce the scale of the space and increase permeability; and

l. Lighting within the spaces should be provided which highlights entrance points and specific points of interest, such as memorial elements, signage, or specimen tree plantings to create interest in the spaces during both daytime and evening hours.

Pilot projects which implement temporary furnishings or campus activities should be considered to bring attention to these spaces, and determine program elements which may best contribute to their long term success.

F.1 Engineering Building Courtyard

Existing Conditions



Existing access to the courtyard from Engineering Drive, view looking west.



Existing seating areas - benches, picnic tables and armour stone walls.

Defining Characteristics

The Engineering Building Courtyard is a large open space located adjacent to Engineering Drive between the Claudette Mackay-Lassonde Pavilion, Spencer Engineering Classrooms and the Alexander Charles Spencer Engineering Building. Supported by TD Friends of the Environment, this courtyard has been designed with an environmental focus, utilizing materials such as permeable pavers and sustainable/bio-dynamic plantings.

While this courtyard is large in scale when compared to others found throughout campus, its recessed location and limited seating opportunities reduce the desire for pedestrians to utilize this spaces to its full potential, resulting in an underutilized space.

Based on its adjacent location to Engineering Drive, there are opportunities to emphasize the Engineering Building Courtyard as a defined gathering space.

RECOMMENDATIONS

a. Provide additional seating opportunities (both single and group seating);
b. Animate the edge of the space along Engineering Drive;
c. Incorporate interpretive signage demonstrating some of the sustainable approaches to planting and paving implemented in this space as an educational opportunity;
d. Improve lighting within the space with pedestrian scaled light standards which line the paved area extending from the Spencer Engineering Building to Engineering Drive;
e. Implement a group seating element such as a seatwall or podium along the front of the garden to create a formal edge and frame the space from Engineering Drive; and
f. Consideration of microclimate for placement of outdoor amenities.

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F.2 Thames Hall / 3M Courtyard

Existing Conditions





Existing grade level courtyard, sparsely populated and underutilized.

Precedents



Increased seating opportunities along planting bed edges.

Defining Characteristics

The Thames Hall Courtyard is an underutilized space on campus, which untapped potential for pedestrian use at the heart of the main campus, as it is currently hidden from Oxford Drive by the existing vegetation and cloistered walkway running along the front of the space.

The existing space is a multi-levelled courtyard, with access to the upper level provided by an exterior staircase, or from door leading to the space from the upper storey of the building. Hardscape paving slabs provide surfacing at grade, with tile paving covering the upper level.

Pedestrian amenities include cluster seating on the upper terrace, with no provisions in the at-grade portion of the space.

RECOMMENDATIONS

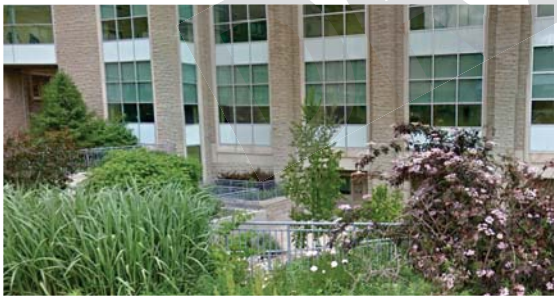
a. Reconfigure pedestrian access off of Oxford Drive to provide barrier free access to the courtyard;
b. Implement rooftop planting on the upper terrace to reduce the scale of paving and increase interest from the building;
c. Implement planting areas at-grade to reduce scale of existing paving.
d. Provide new seating opportunities on both levels of the courtyard, including moveable seating to allow users to manipulate the space for various levels of use;
e. Implement pedestrian scale and recessed lighting to highlight built form elements and increase visibility;
f. Provide bicycle storage within the at-grade level of the courtyard;
g. Ensure surface treatments and slopes of the at-grade paving are suitable for barrier-free access, and implement a barrier- free transition from the building into the upper level terrace.

F.3 Jancey Garden

Existing Conditions



Existing pedestrian access to Jancey Garden from Perth Drive and vehicular access to the Biological & Geological Sciences Shipping and Receiving Dock 7.



Existing vegetation along the garden perimeter, views looking north, towards the Biotron Experimental Climate Change Research Centre.

Defining Characteristics

Jancey Garden is located on the south side of the Biotron Experimental Climate Change Research Centre, across from the campus greenhouses. It commemorates Dr. Robert C. Jancey, who was part of the Western University Department of Plant Sciences for almost three decades, from 1967 – 1996.

The garden can be accessed from Perth drive, along a sidewalk running in parallel to the vehicular access driveway to the Biological & Geological Sciences Shipping / Receiving Dock. It is small and intimate in size, providing an area for quiet reflection.

The garden terraces from street level on to the foundation level of the Biotron Building. It consists of rocks and large plans as well as perennial and annual plants maintained by Landscape Services.

RECOMMENDATIONS

a. Pedestrian scaled signage to increase awareness of garden, placed in a manner so it is visible from adjacent walkways to identify the garden;

b. On-going maintenance and plant monitoring to ensure garden does not become overgrown;

c. Maintain the small, intimate character of the garden; and

d. Identify opportunities for commemorative or memorial installations which are integrated into the Jancey Garden landscape.

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F.4 Collip Courtyard

Existing Conditions



View looking west, towards Middlesex Drive from the Collip Courtyard..



Overview of the courtyard and surrounding vegetation from upper level area at Middlesex Drive.

Defining Characteristics

The Collip Courtyard, which is located between the Collip and Biological & Geological Sciences Buildings is an under-utilized pedestrian space. Framed by the surrounding built form and mature landscaping, the space offers a comfortable and well-lit setting for pedestrian use throughout the day. Although the space is under-utilized as a seating area, it is located along a well travelled pedestrian route, as the existing ramp and walkway extending across the north side of the courtyard provide connection between Middlesex Drive and Perth Drive.

Enhancements to the Collip Courtyard, including the walkways which connect to the space, will provide greater opportunity for use and connectivity with the north end of the campus for pedestrians, including the Jancey Garden and Indigenous Garden, while also increasing the maintainability of this walkway for Facilities Staff.

RECOMMENDATIONS

a. Implement group-seating opportunities to encourage outdoor learning/teaching opportunities;

b. Increase awareness of courtyard through mapping and campus wayfinding;

c. Maintain small, intimate courtyard character;

d. Plant maintenance to ensure garden does not become overgrown;

e. Remove stairway leading into the courtyard from Middlesex Drive; and

f. Remove and reconfigure, and widen the existing walkway running from the Collip Courtyard to the B&G Greenhouses to reduce the existing slope and make it easier to access for pedestrians and maintenance vehicles.

F.5 Beryl Ivey Garden

Existing Conditions



Overall view of the garden, looking east, towards University College





View of the Ampitheatre seating with a variety of hosta and Hydrangea plants (left). Detailed view of the public art installation 'Flight' and grass landscaping (right).

Defining Characteristics

The Beryl Ivey Garden occupies the courtyard framed by the Stevenson Lawson and University College buildings, at the heart of the Western University campus. Opened in 2004, it commemorates Beryl Ivey, BA'47, the matriarch of the Ivey family for which the business school is named.

The garden contains a circular core divided into four quadrants – *the Perennial Haven, Hosta Glade, Amphitheatre & Thymus Carpet and the Grassland & Iris Rill.* The circular core is framed by a series of gardens that incorporate regional and native plants – *The North East Carolinian Woodland Walk and Forest Edge, the South East Carolinian Woodland Walk; the Upland Wildflower Meadow, and Wildlife & Wetland areas.*

The garden is well maintained and regularly used by students and faculty alike. The amphitheatre provides generous seating and opportunities for outdoor events as well as for learning/teaching sessions. Incorporated into the garden are art installations as well as a memorial dedication in honour of Beryl Ivey,

RECOMMENDATIONS

a. Improvements with the renovations to University College will result in increased accessibility with the space;

b. Opportunities to extend the courtyard walkways directly to the East/West walk on Kent Drive;

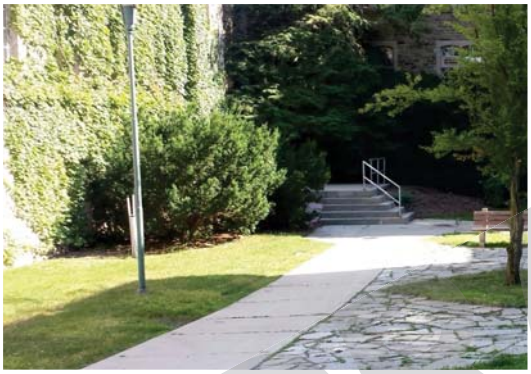
c. Removal of asphalt areas with increased landscaped spaces to reduce impermeable surfacing;

d. Provision of group-seating tables to encourage outdoor learning and teaching opportunities; and

e. Implementation of interpretive signage to identify/explain the different areas of the garden.

F.6 University College Courtyard

Existing Conditions



View of University College Courtyard prior to UC Rejuvenation Plan excavations.



University College Courtyard excavations as part of the UC Rejuvenation Plan.

Defining Characteristics

The University College Courtyard is located just north of the Beryl Ivey Garden, framed by Stevenson Hall, University College and Kent Drive. Facing the McIntosh Gallery and surrounding manicured woodlot areas across Kent Drive, it presents a key opportunity for strengthening the campus courtyard and open space network.

Currently, the existing courtyard at University College is undergoing reconstruction as part of the University College Modernization Project. A new loading dock with direct access from Kent Drive is proposed, the majority of the courtyard layout however remaining unchanged.

RECOMMENDATIONS

a. Improvements to this courtyard should integrate with the outdoor programming and lighting recommendations outlined in the University College Modernization Project;

b. The courtyard should be appealing with treatments extending to Kent Drive and the Beryl Ivey Garden for visual connectivity.

c. Provision of pedestrian seating opportunities such as benches or moveable chairs to encourage passive use in the space;

d. Implement new tree plantings to frame the space from Kent Drive, and replace those which have may have been removed during construction;

e. Implementation of additional pavements should be minimized to increase the intimacy of the space and maintain landscape coverage;

f. Opportunities to implement commemorative landscape elements for donor and memorial recognition within the landscape should be considered.

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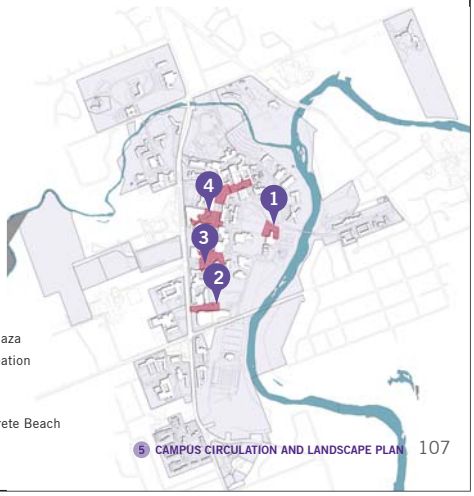
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G. PLAZAS

While enhancements to Western's pedestrian routes will improve the connectivity and comfort for pedestrians moving through the campus, design initiatives which revitalize the various plazas and courtyards will also be crucial for the success of the campus' open space network. The recommendations proposed for improvements to the plaza areas on campus will assist in distinguishing these spaces as destinations for pedestrians, while contributing to the overall sense of place of the campus.



1. University Hill Plaza
2. Thompson Recreation and Athletic Centre
3. Alumni Circle
4. ILIC Plaza/Concrete Beach

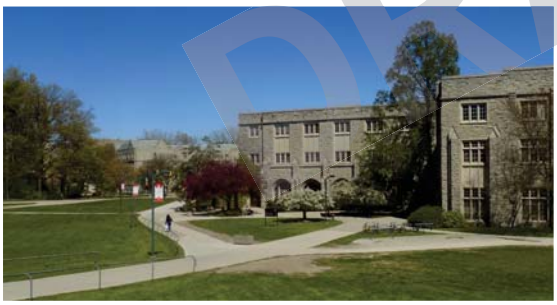
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G.1 University Hill Plaza

Existing Conditions



Existing pedestrian path at the base of University Hill looking west.



At the top of University Hill, looking east towards Talbot College.

Defining Characteristics

The open space north of Talbot College which connects to University Hill from University Drive is subject to high volumes of pedestrian traffic, and functions as an entrance to the main campus for pedestrians, cyclists and motorists accessing Middlesex Drive. Currently, the space is comprised of a series of concrete walkways and open turf areas, with significant wear of the lawn areas along the pedestrian connections visible due to the amount of foot traffic through the space. Despite the high amount of pedestrian use, there are currently no seating opportunities or wayfinding elements provided in this space.

By creating a formal entry plaza in this space, this open space can be further emphasized as a defined pedestrian entrance to the campus that accommodates the high volumes of pedestrian travel through this space, provides increased signage and wayfinding to orient pedestrians entering the main campus, frames the iconic views towards University College, and supports various programmed campus events which occur on University Hill.

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RECOMMENDATIONS

a. That a paved plaza be provided to define the entrance to University Hill from the University Drive intersection for pedestrians and visitors to the campus;

b. Plantings and structures be provided to frame the space, and define pedestrian routes extending from the space;

c. The plaza be designed for pedestrians, and flows seamlessly into the nearby pedestrian corridors including the reconfiguration of Middlesex Drive, the Music Building Walkway and University Hill/ Kent Drive walkway;

d. Pedestrian scaled lighting be provided to frame the space and highlight points of interest including signage, seating elements or plantings;

e. That the provision of vertical elements in the space do not detract from the views towards University College;

f. Pedestrian scaled wayfinding element to be provided to orient visitors into the campus;

g. The hardscape treatments of the plaza be extended into the intersection and along University Drive where opportunities exist, to emphasize pedestrian priority in this area;

h. The drop-off at Talbot College be removed and replaced with a roadside lay-by to reduce impermeable surfacing dedicated to vehicular use, and provide opportunity to extend landscaping along Lambton Drive;

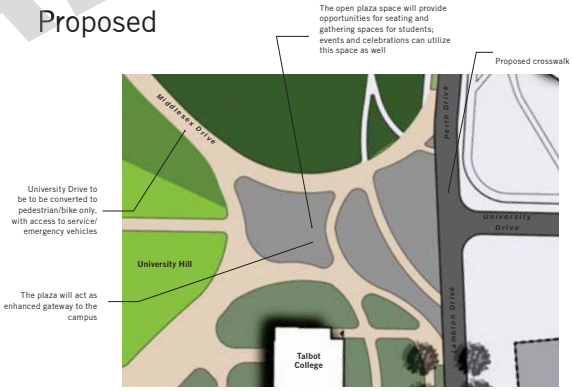
i. The plaza should be defined from the public roadway, while allowing access for service vehicles on Middlesex Drive as required; and

j. Landscaped areas should be provided in a manner to act as stormwater catchment areas to promote infiltration and conveyance of runoff where possible.

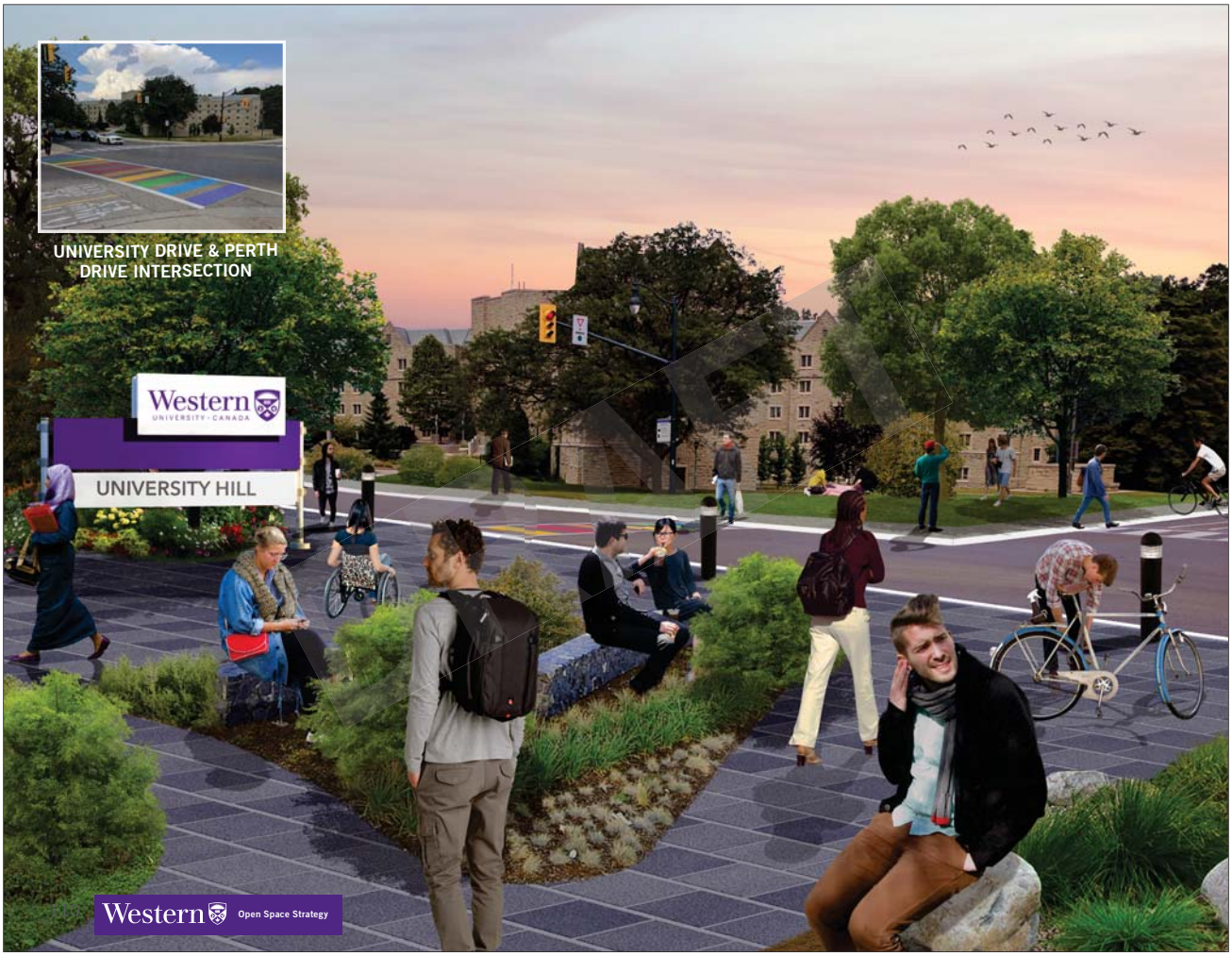
Existing



Proposed



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G.2 Thompson Recreation and Athletic Centre

Existing Conditions



Overlooking view of South Valley parking lot from Engineering Drive, looking east.



Existing bike racks along Engineering Drive at the Western Student Recreation Centre.

Defining Characteristics

The Thompson Recreation & Athletic Centre (TRAC) and Western Student Recreation Centre (WSRC) Plaza is located at the terminus of Engineering Drive and the north side of the TRAC and WSRC. Currently, this area has been designed to function as a pedestrian drop-off area between surface parking areas to the west and north. The drop-off lane wraps around a central planted median which houses a pedestrian pathway to connect the sidewalk of Engineering drive to the TRAC and WSRC plaza. This requires pedestrians to cross two drive aisles, moving through the planted median between, creating the potential for vehicular and pedestrian conflicts. The existing landscaping in the median also obstructs views to the entrance of the building from Engineering Drive. A similar situation occurs to the east, down the staircase to South Valley Parking Lot; pedestrians are required to traverse a drive aisle to access the entrance of WSRC or Huron Drive.

While this plaza area observes a high volume of pedestrian travel, little is provided in terms of site amenities; only bike racks and trash receptacles are found here. There are no seating opportunities, wayfinding elements or signage to guide, define or accommodate pedestrians. The walkway from the west, which collects pedestrians from Western Road features the same characteristics of no pedestrian amenities.

Given the high volumes of pedestrians moving through this space and the vehicular drop-off access, opportunities should be explored to establish a formal drop-off zone that separates pedestrian and vehicular functions while creating an enhanced entrance plaza to the TRAC. Increasing the plaza space at the entrance of TRAC to tie into the proposed design enhancements for Engineering Drive will aid in creating an established pedestrian node. This area should incorporate group seating opportunities to create gathering and wayfinding elements to aid pedestrians throughout the campus.

RECOMMENDATIONS

a. Extend the parking lot north of the TRAC towards Western Road and provide a right-in-right-out access;

b. Provide a pedestrian drop-off area which is offset the main entrance, to separate vehicular movements from pedestrian travel routes and the building's north entrance;

c. Extend the existing hardscaping area north into the drop-off area to create a focal point and pedestrian spaces which links to Engineering Drive and the staircase leading to the South Valley parking lot;

d. The interface between the drop-off and the pedestrian walkway on Engineering Drive should be designed in a manner to allow only service and University vehicles connection to Engineering Drive when required;

e. Provide elements such as seatwalls, signage or public art pieces to add character to the space and define the entrance to Engineering Drive for pedestrians;

f. Widen the pedestrian walkway along the north end of the TRAC to link into the walkways from the Western Road/Phillip Aziz Avenue intersection;

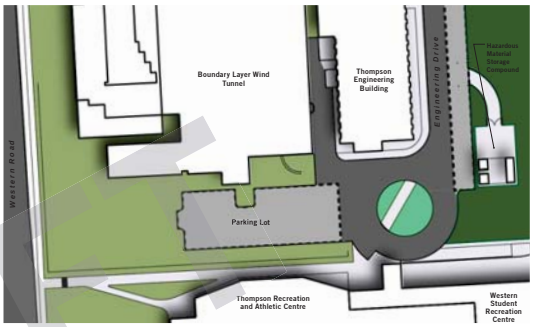
g. The surface lot should be separated from the pedestrian walkways with, tree plantings and understory landscaping, with opportunities for seating such as benches or planter walls provided along the walkway;

h. Pedestrian scaled lighting should be provided to define all pedestrian connections and building entrances;

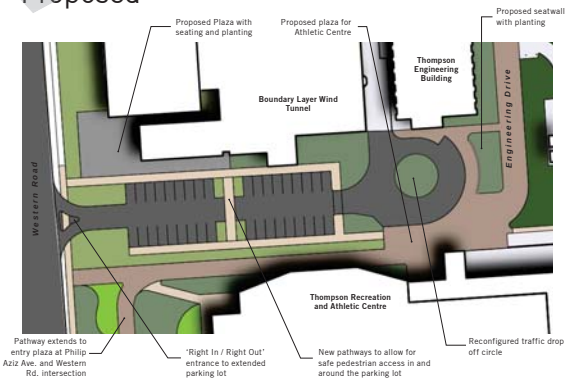
i. Opportunities to animate and enhance the TRAC's west and north facing facades should be explored, with opportunities for signage, murals, or public art to provide interest along the walkway; and

j. Parking to the northeast of the existing drop-off along the embankment should be removed and converted to landscaped areas, with the existing laneway converted to a pedestrian walkway (refer to Engineering Drive Improvement).

Existing



Proposed



DRAFT

G.3 Alumni Circle

Existing Conditions



Existing pedestrian circulation in front of Alumni Hall.



Existing roundabout in front of Alumni Hall.

Defining Characteristics

Alumni Circle currently serves as a vehicular roundabout, linking two of the primary central campus axes – Lambton Drive, the main vehicular entrance into the campus accessed from Western Road, as well as Oxford Drive, a primarily pedestrian and cycling route with controlled public transit access. The Circle is framed by Alumni Hall at the south-east corner - a multi-purpose auditorium and gymnasium housing athletic and cultural events; the Cronyn Observatory to the south west, Thames Hall to the north east and the Weldon Library Parking Lot to the north-west.

Views of Alumni Circle, Alumni Hall, and the landscaped roundabout open upon approach from Western Road. The curvature of Lambton Drive, lined with mature trees on both sides, creates a sense of anticipation and discovery. The high levels of vehicular and pedestrian traffic converging at this point however, render the area difficult to traverse. Although pedestrian crossings are demarcated with painted lines around the perimeter of the Circle, the ground plane remains predominantly vehicular in character, due to asphalted vehicular roadways.

Recent renovations, including removal of sidewalks through the Alumni Circle median, planting of perimeter landscaping, and improved pedestrian crossing signage, have helped deter cut-through pedestrian travel across the Circle. Potential for conflict between vehicles and pedestrians is still great however.

Transit stops on the northwest and southeast corners of the site, in front of Alumni Hall limit sight lines for pedestrians in these areas. Pedestrian furnishings at Alumni Hall entrance are limited and the entrance plaza is only demarcated by a narrow sidewalk.

The reconfiguration of Alumni Circle into a transit and pedestrian priority plaza, would increase emphasis of the Alumni Hall entrance, and would reinforce the character of the area as a destination upon arrival to the campus. It would also strengthen the connection between Oxford Drive and Engineering Drive, reinforcing the north-south pedestrian movements through the campus.

DRAFT

RECOMMENDATIONS

a. The alignment of Lambton Drive be reconfigured to pull away from Alumni Hall, with a portion of the existing median removed to open sight lines into the space when entering from Western Road;

b. Remove the median, and reconfigure the entrances to the Weldon and Engineering Drive parking areas so they align with one another and create an intersection with Lambton Drive;

c. A paved plaza area, with landscaping and pedestrian furnishings be provided at the entrance to Alumni Hall;

d. Dedicated transit drop-off areas, with shelters provided for protection from the elements be provided away from the Alumni Hall entrance, to prevent traffic congestion areas;

e. The entrance to Oxford Drive from Alumni Circle should be emphasized with paving patterns extending across the Lambton Drive laneway to tie into Engineering Drive and provide a continuous north-south promenade central to the campus for pedestrians. Rolled curbing should be considered to create the impression of a continuous plaza across Lambton Drive;

f. The existing landscaping and redundant walkways south of Thames Hall should be removed to encourage pedestrian travel on Oxford Drive;

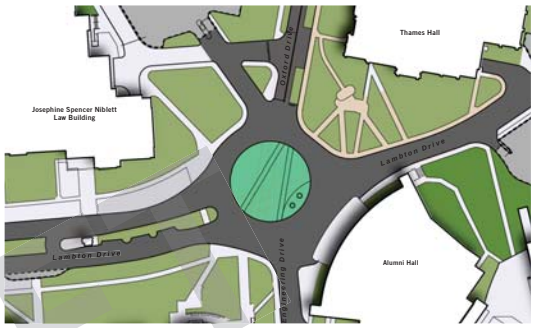
g. A drop-off area and turnaround for vehicles should be provided west of the extended link between Oxford Drive and Engineering Drive to separate vehicular and pedestrian traffic flows;

h. Wayfinding signage should be provided in close proximity to the transit stops;

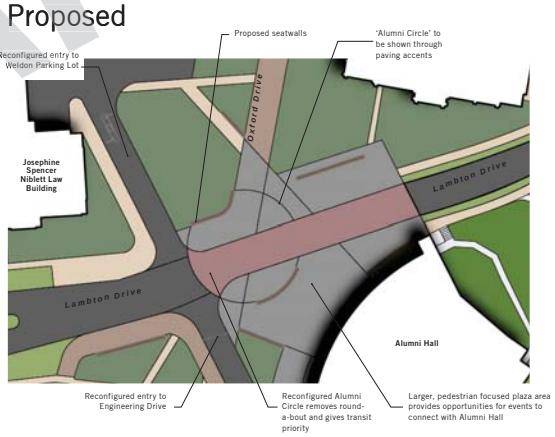
i. Flagpoles and opportunities for signage or public art should be provided to emphasize the sense of place for visitors and pedestrians; and

j. Lighting which frames all points of interest, building entrances and defines pedestrian walkways should be provided to create a safe pedestrian environment during evening hours.

Existing



Proposed



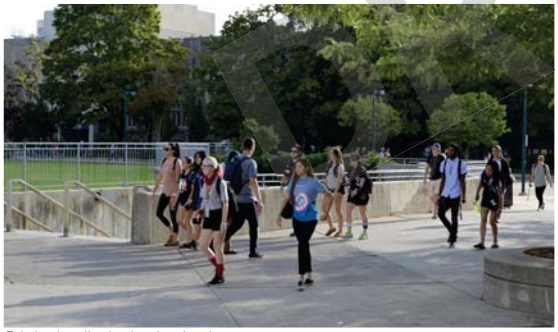


G.4 ILIC Plaza / Concrete Beach

Existing Conditions



Existing stair access and entrance to the D.B. Weldon Library.



Existing heavily circulated pedestrian route.

Defining Characteristics

Concrete Beach, the concrete area framed by the University Community Centre, the Social Sciences Centre and the D.B. Weldon Library, is the pedestrian heart of the main campus. Although it sustains a heavy flow of pedestrian traffic, it presents a limited amount of outdoor pedestrian uses. The vastly open area, predominantly devoid of vegetation or climate control elements, creates an exposed microclimate during both winter and summer months. The predominantly raw concrete materiality of the ground plane extends onto the plaza furnishings, from raised planters and benches, to parapet walls and light post bases.

The plans for the development of the new Integrated Learning and Innovation Centre (ILIC) building, presents a key opportunity to create a defined, attractive and active outdoor pedestrian space, with improved connectivity to the campus primary circulation axes, Oxford Drive and Kent Drive.

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RECOMMENDATIONS

a. Coordinate proposed improvements with the future development of the ILIC Building;

b. Active and attractive space that promotes social interaction and outdoor use for pedestrians;

c. That the building emphasizes the intersection of Oxford Drive and Kent Drive in creating a central node for the campus;

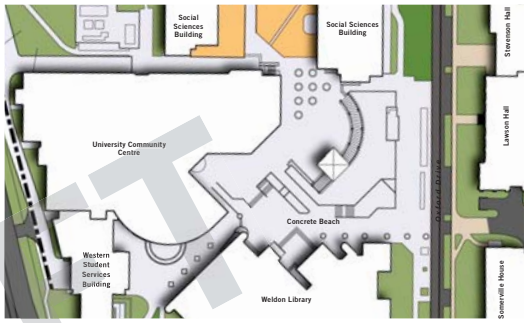
d. That the retrofitted plaza at Concrete Beach has strong visual connection and association with Oxford Drive and Kent Drive, to create one extended outdoor space for pedestrians;

e. Implement screening and landscaping to minimize effects of winds through the space for comfort of pedestrians during winter months;

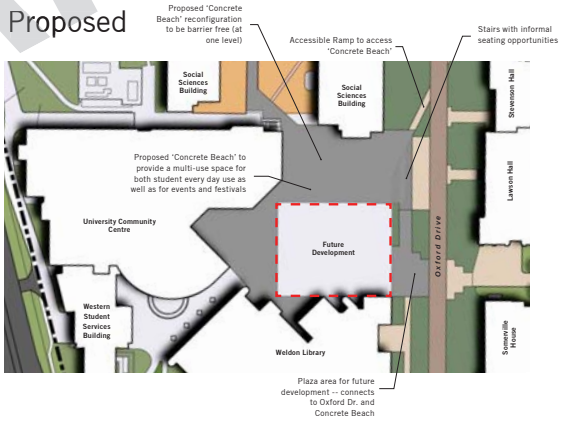
f. Placement of outdoor amenities should be coordinated with shade influences created by the new ILIC Building to take advantage of solar patterns and maximize pedestrian comfort at all times of the year; and

g. Stairs should not be provided within the retrofitted Concrete Beach.

Existing



Proposed



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H. OPEN LAWNS

The open lawn areas of the campus provide open spaces to accommodate a wide variety of outdoor programming for the Western community. Ranging in scale and purpose, open lawn areas provide the campus with:

- Formal green for major events such as orientation, special events, or convocation;
- Areas for informal social gathering on a sunny summer day; and
- Programmed recreational activities and interaction with others.

Opportunities to preserve or enhance these existing open lawn areas will contribute to the open space network of the campus, and offer the continued variety of programming available to students, faculty, staff, alumni and visitors to the campus.



1. University Hill
2. South Valley
3. Huron Flats Practice Fields

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H.1 University Hill

Existing Conditions



Existing view of University Hill, looking north.

Precedent



University of Connecticut campus centre with pedestrian prioritized walkways.

Defining Characteristics

University Hill is Western's most recognizable and culturally significant open space on the campus. The open lawn area, flanked by a pedestrian walkway to the south, a ceremonial walkway directly up the middle of the space, and pockets of manicured woodlot with intermittent walkways, and University College sitting high atop the space creates an iconic visual backdrop and sense of entry onto the main campus after crossing the Thames River. This open lawn area provides the backdrop for a number of important events on campus including orientation programming and gathering during convocation.

While the function of the open lawn area and open views of the site must be preserved, enhancements to the existing perimeter of the space will help to frame this important landmark on campus and better serve pedestrians passing through this space. One of the challenges of the space is the existing grade change across the area as the pedestrian routes on either side are subject to significant slopes, especially the walkway on the south end of the space running from Talbot College up to the Arts and Humanities Building.

Lighting across the lawn is limited to the perimeter walkways, as the ceremonial centre walk is unlit, and is noticeably dark during evening hours.

As University Hill is a major pedestrian thoroughfare, enhancements including the creation of a secondary gateway element or sitting area where the pathways converge at the lower end of the space should be provided. The north plateau along Kent Drive also offers opportunity to create a linear pedestrian oriented seating area to enhance the lawn's north end.

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RECOMMENDATIONS

a. Preservation of the central lawn space, heritage trees and commemorative walk up to University College, and the linear connection to Middlesex College;

b. Reconfiguration of existing walkways including provision of a pedestrian promenade along the south side of the site, with enhanced pedestrian lighting, tree plantings and seating opportunities that are oriented towards the open lawn in order to provide a strengthened pedestrian connection from Oxford Drive to University Drive;

c. Replacement of the existing pedestrian railing to limit access points onto the green, and provide screening for habitat modification to prevent damage by geese;

d. Removal of walkways through arboretum area off Middlesex Drive;

e. Rationalize and consolidate walkways at the bottom of University Hill adjacent Talbot College and reconfigure of the intersection with University Drive to create an enhanced pedestrian gateway onto the main campus;

f. Provide continuous and consistent pedestrian lighting to frame major walkways around the space, while not detracting from the sight line up to UC building;

g. Widening of the heritage walk running through the centre of the hill leading to University College;

h. Consideration of low-level landscape lighting to highlight this walkway;

i. Consideration for regrading of the central walk to provide a plateau for ease of access up the slope of University Hill

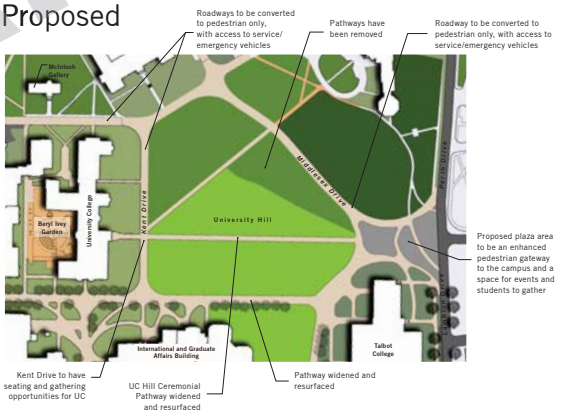
j. Reconfiguration of the existing walkways connecting University Drive, Middlesex College and Delaware Hall to remove redundant connections and direct pedestrian travel to dedicated crosswalks in order to cross the roadway; and

k. Monitor and repair of existing stairways in highly sloped areas which connect Middlesex College to Middlesex Drive and University Hill to ensure their safe use by pedestrians.

Existing



Proposed



DRAFT

H.2 South Valley

Existing Conditions



Informal pathways created by students between South Valley parking and Health Sciences.



Concrete barriers used to block vehicular access.

Precedents



Large pathways with seating aid in deterring students from making their own routes (University of Delaware, DE)

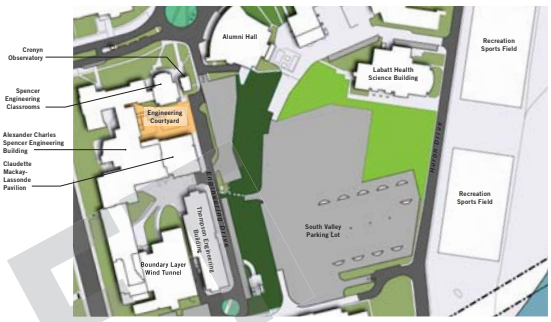


Both planting and bollards can block vehicular access while enhancing parking aesthetics.

Defining Characteristics

The South Valley open area is currently used as a pedestrian through space to provide connection between Huron Drive and the Athletic Centre, and as a space for summer camp use. This site is subject to future development as outlined in the Campus Master Plan, but in the interim provides an open area amenity for the campus.

Existing



RECOMMENDATIONS

a. Enhancment to the existing Huron Drive streetscape condition will allow pedestrians to travel along the roadway to prevent cut-through traffic

b. Widening of walkway along the west side of Huron Drive, complimented with tree plantings, and streetscape furnishings;

c. Reconfiguration and buffering of the South Valley parking lot to allow additional parking that may be displaced from the core of campus. This includes the provision of a defined and safe pedestrian connection across the parking lot.

Proposed



H.3 Huron Flats Recreation Fields

Existing Conditions



Existing recreation sports fields at Huron Flats do not provide seating or storage opportunities.

Precedents



Seating areas with shade structures and opportunities to place belongings are great additions to recreational fields.

Defining Characteristics

The South Valley includes two sports and recreational fields that are oriented towards general use and student intramurals serviced by walkways along Huron drive. This walkway is reduced in areas due to placement of the existing field standards.

Recent improvements including extension of the chain link fence along the north end of the fields at Lambton Drive have significantly reduced pedestrian cross-traffic across the field, while there are additional opportunities to enhance the space for programmed use and increase connectivity to the area.

RECOMMENDATIONS

a. Streetscape enhancements focused on the west side of Huron Drive to emphasize pedestrian travel on the north side of Huron Drive;

b. Resurface the existing granular trail into a multi-purpose walkway that will extend to the newly configured South Valley parking lot entrance intersection. A defined pedestrian crossing is provided at this intersection for users, adjacent to the existing trails between the fields and Thames River;

c. Implement fencing along south ends of the fields to prevent pedestrian cross-traffic across the fields; and

d. Opportunity for a future shelter between the practice fields to provide place for bags and equipment for field users, or seating for observers.

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I. WOODLOTS

Building upon the natural amenities of the campus which contribute to the sense of place and character of the campus, the existing woodlots reinforce the natural beauty of Western's campus, and provide visual interest throughout the year. The forested areas of the campus for the purposes of this Western Open Space Strategy have been classified into two categories including natural woodlots which include those areas along the riverfront areas including the Baldwin Flats and remnant woodlots, and manicured woodlots including portions of University Hill, McIntosh Gallery Green, and the Weldon Library Open Space. Each area contributes to the natural character of the campus, and each will require attention to the sensitive protection and enhancement opportunities to for the canopy coverage of the campus.



1. Natural Woodlots
2. Manicured Woodlots

I.1 Natural Woodlots

Existing Conditions







Existing woodlot ground cover, conditions, and overgrown vegetation.

Defining Characteristics

The natural woodlots generally consist of mature forested areas with undisturbed understory areas, or understory areas with limited design influence such as trails or informal walkways. These areas on campus are generally located along the banks of the Thames River and Medway Creek, within remnant pockets of Carolinian Forest on Lambton Drive and along areas of high slopes framing South Valley, Middlesex College, and on the west side of the campus.

RECOMMENDATIONS

a. Maintenance and succession strategies to ensure long term health;

b. Limit impact of development by:
   - Restricting future development in these areas;
   - Maintaining existing pedestrian connection points or removing those pedestrian routes which are redundant;
   - Maintaining existing edge conditions and extend treatments into existing landscaped areas where possible to buffer from adjacent developed sites or cut-through pedestrians traffic;
   - Removal of any invasive species and continued monitoring; and
   - Protection and enhancement of corridor connections where possible to link natural areas (patch connectivity).

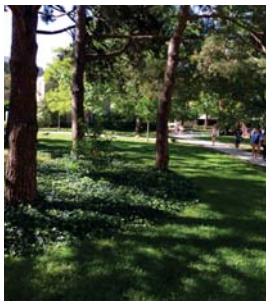
c. Develop and implement a reforestation plan including initiatives to reduce maintenance, implement native species, increase ecological value within these spaces, and establish potential outreach partnership opportunities

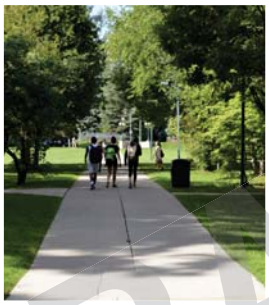
d. Provide protection and preservation of woodlot during building project construction to reduce negative impacts

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I.2 Manicured Woodlots

Existing Conditions





Manicured lawn groundcover at the McIntosh Gallery Green.



Existing pedestrian pathways traversing the McIntosh Gallery Green.

Defining Characteristics

The manicured woodlot areas of the campus consist of mature canopied areas with a mix of manicured understory or maintained sod areas. These spaces are well used by pedestrians, with high volumes of traffic moving through these spaces. These areas include the McIntosh Gallery Green, the Weldon Library Open Space, and the interpretive canopied areas on University Hill.

RECOMMENDATIONS

a. Develop a tree inventory of these areas, including monitoring of tree conditions and identification of reforestation opportunities;

b. Tree selections should provide a variety of form, colour and flowering to provide interest through the year and enhance the character of the campus as a natural arboretum;

c. Fruit bearing trees should be avoided near pathways and pedestrian areas;

d. Tree plantings placed in a manner which frames open spaces and pathways;

e. Over time, those areas which are pedestrian focused should be planted so that they create the feeling and impression of manicured woodlots;

f. Explore opportunities to increase naturalized understory areas and limit the amount of maintained lawn areas to reduce maintenance; and

g. Walkways, where provided, and significant wear beyond the width of the path is noted, should be either removed to deter pedestrian use, or be widened to accommodate travel volumes, in order limit damage to surrounding natural or landscaped areas.

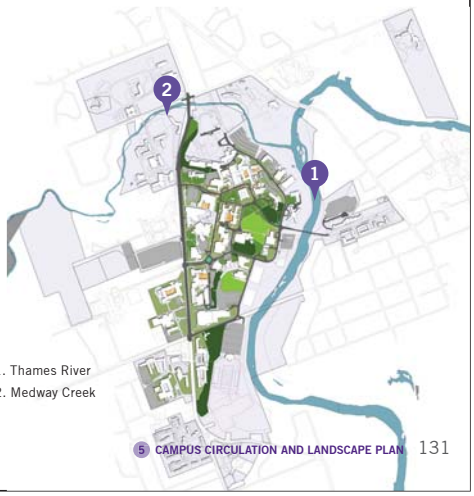
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J. RIVERFRONT

Along with the iconic built-form of the campus, Western's natural environment supports the historic sense of place of the campus. Both the Thames River and Medway Creek provide a scenic natural environment which contributes significantly to the character of the campus, and opportunities to reconnect Western with these natural features for the enjoyment and well-being of students, faculty, staff, alumni and visitors should be explored.



1. Thames River
2. Medway Creek

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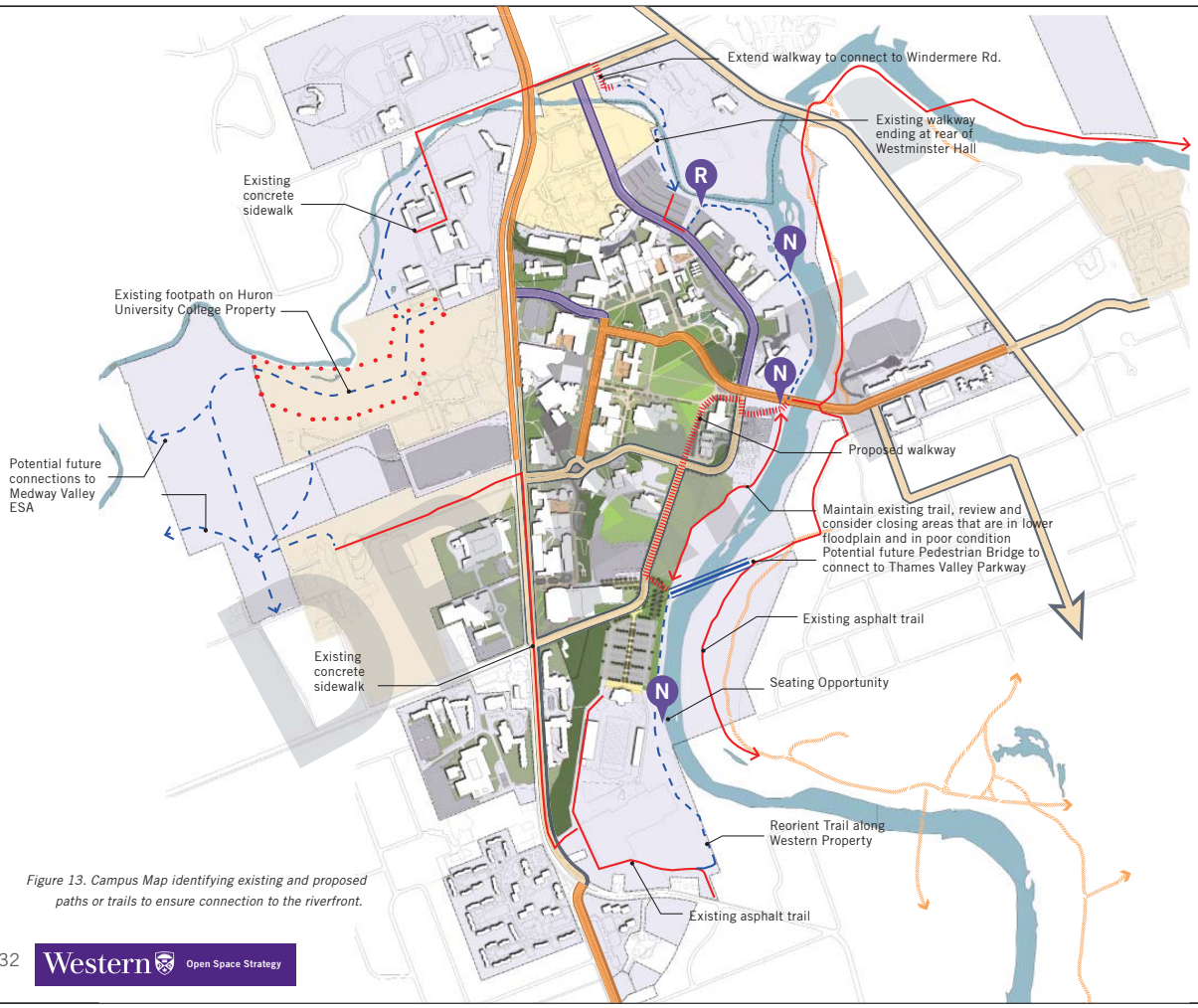


Figure 13. Campus Map identifying existing and proposed paths or trails to ensure connection to the riverfront.

LEGEND

- Existing Paved Pathway
- Existing Footpath
- Proposed Pathway
- Huron University College Property
- Trailhead / Node Opportunity
- Future Pedestrian Bridge
- Existing Bicycle Lanes
- Existing Multi - Use Paths
- Proposed Routes (City Cycling Master Plan Update)
- Proposed Routes (Multimodal Corridors)

DRAFT

J.1 Thames River

Existing Conditions



Overgrown existing trails along Thames River.



Thames River edge with views towards University Drive.



Outlooks to provide access to river's edge with less habitat disturbance.



Natural dirt trail with maintained river views.

Defining Characteristics

The Thames River runs along the east side of the main campus, separating the residences on University Drive, and the Baldwin Flats from the rest of the main campus. The Thames River provides a wonderful backdrop for pedestrians crossing the pedestrian bridge from Westminster Hall, or crossing University Drive bridge on approach to University Hill. The vista created by University Hill, along with the mature trees and open views to the river create an internal gateway into the campus.

Pedestrian trails exist on both sides of the River. The Thames Valley Parkway runs along the east side of the river connecting with University Drive and is maintained by the City of London, with a network of trails and informal footpaths extend along the west side of the river. Several sections of the trail are located along the lower bank of the Thames.

Several sections of trail are located within the floodplain, which causes deterioration during spring time flooding and creates maintenance constraints for upkeep in these areas. Another maintenance concern is the invasive species undergrowth of the mature treed areas, which significantly impact views to the river, and limit the visual connection of the Thames from Western's campus.

Through improvements to the existing condition of the Thames Riverfront, there is an opportunity to increase the connectivity between the river and the campus, both visually and physically, to provide Western students, faculty, staff, alumni and visitors with opportunity for greater interaction with this natural area.

RECOMMENDATIONS

a. Emphasize connectivity with the river to increase interaction with pedestrians and capitalize on the benefits of the natural environment experience of the campus;

b. Create a connected network of pedestrian trails and outlook areas along the river corridor that spans the periphery of the campus;

c. Improve visual connectivity with the river through removal of invasive species to open sightlines to the river, and provide seating opportunities at key areas to promote health and wellness within a natural setting;

d. Trail layout and surfacing strategy including:
   - Enhance existing trails through resurfacing;
   - Define routing along the west side of the Thames to reduce shoreline and slope disturbance, providing a direct connection from Western Road to the Western Interdisciplinary Research Building (WIRB) and connection to the Medway Creek trail;
   - Demarcation and enhancement of trail entry points, including proposed seating opportunities along trail routings; and
   - Resurfacing of the trail for consistency along its length in compliance with trail best practices and standards of the Environmentally Sensitive Area (ESA).

e. Lighting provision at key nodes or maintained sections of the trail, emphasis of where trails are to be used during evening hours;

f. Signage:
   - Wayfinding at campus entrance points at Western Road and University Drive; and
   - Trail signage markers denote areas of steep grade, surfacing changes, etc.

g. Future consideration of a pedestrian bridge extending from the Baldwin Flats to TD Stadium to add a second pedestrian connection point from the surrounding community on the east side of campus.

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J.2 Medway Creek

Existing Conditions





Existing standard 1.4m concrete pathways traverse the Medway Creek area.

Precedents



Large concrete pathways for bike, pedestrain and accessibility use (Primary Pathway).



Stonedust pathways for both bike and pedestrain use (Secondary Pathway).

Defining Characteristics

Medway Creek runs along the north side of the main campus, separating Westminster Hall to the east, and extends beneath the entrance to the campus residences on Wellington Drive before extending south east across the Huron University College campus. Like the Thames River, Medway Creek provides a natural backdrop entering the campus along Perth Drive, Western Road, or Glenmore Drive from Windermere Road to the north.

Pedestrian trails also exist along Medway Creek, as informal footpaths extend west from the parking lot of the Support Services Building, continue along the creek, before heading south towards Brescia University College and Ramsay Road. Similar to the Thames, invasive species have influence on the views to the creek.

One major challenge to the improvements along Medway Creek is the segmentation of the trail across various properties. However there are a number of improvements to increase connectivity with the creek and connecting the various segments of the travelled paths into one continuous loop to better integrate it with the campus.

RECOMMENDATIONS

a. Emphasize connectivity with the creek to increase interaction with the natural environment for pedestrians and capitalize on the benefits of the natural environment experience of the campus;

b. Remove invasive species along the existing footpaths which fall on Western University property;

c. Create a continuous pedestrian trail extending along portions of Medway Creek to create a continuous pedestrian loop including:

- Widen the existing walkway connecting the Westminster pedestrian bridge to Westminster College, and extending that walkway north to connect with Windermere Road;
- Partner with the City of London to widen the existing municipal walkway between Perth Drive to Western Road before tying in to the multi-use trail east of Western Road to Wellington Drive;
- Utilize the existing sidewalk along Wellington Drive to Beaver Hall, and implement new walkway connections to link to the Avian Research Building;
- Partner with Huron University College to resurface the existing footpath extending west from the Avian Research Parking Lot and provide an intermediate connection to Burnlea Walk;
- Continue to resurface the existing footpath southward to Ramsay Road;
- Partner with Brescia University College to extend the trail to link with Brescia Lane and extend to Western Road; and
- Partner with the City of London to extend the trail southward along Western Road and link with the existing connection to the Huron West practice field, and/or the trail connection opposite Hollywood Crescent to connect with the trail network along the Thames River.

d. Trail layout and surfacing strategy including:

- Enhance existing trails through resurfacing appropriate for the various segments along the trail network;
- Demarcation and enhancement of trail entry points; and
- Resurfacing of the trail for consistency along its length in compliance with trail best practices and standards of the ESA.

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6 CAMPUS STRATEGIES

The key design area recommendations outlined in Chapter 6 provide guidance on potential improvements to Western's landscape and open spaces to create an enhanced pedestrian experience on campus. The development of a pedestrian prioritized campus environment will provide a variety of outdoor spaces which support overall safety, barrier-free access as well as social gathering, educational and recreational opportunities. The implementation of this cohesive and consistent approach to landscape improvements will provide students, faculty, staff, alumni and visitors with a distinct experience and enhance the lasting sense of place of the campus through their interaction throughout these spaces.

The assembly and application of the various elements used to design or recreate these spaces will be essential to developing connectivity across the campus' pedestrian realm. The design guidelines presented in this chapter of the Western Open Space Strategy outline recommendations of the specific landscape components that will be required to support the design principles and initiatives of this Plan, including:

- Provide defined entrances for the overall University campus and each of the campus' buildings and open spaces;
- Provide a series of outdoor seating areas to support outdoor gathering and social interaction amongst those on campus;
- Provide pedestrian linkages that allow for ease of movement across the campus, support a barrier-free environment, and act as an extension of the existing corridors and connections to the surrounding community;
- Create opportunities for the inclusion of Indigenous narratives and perspectives through various strategies such as public art;
- Create a palette of high quality landscape and paving materials which supports overall cohesiveness and continuity of the campus' aesthetic;
- Implementation of landscaping and paving materials in a manner to support sustainability and ease of maintenance of the campus;
- Provide an outdoor campus experience that is safe for users at all times of day, throughout the academic year;
- Provide a physical environment that promotes mental health and wellness; and
- Provide a barrier-free campus experience for all users.

The implementation of these design guidelines towards creating a high quality outdoor environment for Western University will provide students, faculty, staff, alumni and visitors with an enhanced campus experience and sense of place through their interactions across the campus. The following describes the proposed components and considerations of the overall landscape design that will help to achieve this experience and deliver upon the expectations put forward by Western.



6.1 CAMPUS SAFETY STRATEGY

Every member of the campus community walks along Western's network of paths and sidewalks at some point during the day–whether they arrive on campus by car, bus, or bicycle. As a result all are exposed to conflicts with vehicles and other transportation modes as the quality and extent of walking supportive infrastructure varies throughout the campus. This variation results in gaps and barriers that negatively affect safety and comfort.

To better ensure mobility safety for not simply pedestrians, but the entire campus community, the university should rationalize movements where modes come into conflict. This can be accomplished via paint treatments, bollards, planters or other channelization devices. Curb radii should be minimized wherever possible, but especially at vehicle conflict points. Finally, an evaluation of facility gaps should steer the implementation of additional crossovers in priority locations based on collision/safety data, movement counts, and campus building utilization. Other factors may be identified and included in this assessment.

Parking lots at Western are primarily designed for automobile circulation—without consideration for pedestrian and bicycle movement. All students, faculty, staff, alumni, and visitors that arrive on campus via car need safe walking infrastructure to connect to their final destination. Where there are conflicting movements between people walking and vehicles, marked crossings and pavement treatments should be applied to indicate pedestrian priority. These indications and the provision of pedestrian infrastructure extending into surface parking lots may be accomplished through landscape controls, adhering to similar circulation design goals as those described as part of the pedestrian and bicycle circulation networks. Parking lot improvements will need to demonstrate compliance with City of London Official Plan policies and the Site Plan Control Area By-law.





Safe pedestrian facilities missing from campus roadways such as Philip Aziz Avenue, and at desired parking lot access points.



Missing crossovers and large curb radii characterize Elgin Drive and Western Road.



Well executed modal separation along Middlesex Drive.

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6.2 CAMPUS ACCESSIBILITY STRATEGY

A key indicator of a truly accessible campus is the ease of navigation of its least mobile users. Mobility impaired campus community members should be afforded the same level of access and dignity as the university's able-bodied students, staff, and faculty. A fully accessible campus will accommodate persons who are visually and hearing impaired, persons with developmental disabilities, and those who may require the use of mobility aids.

The first step to establish a universally accessible campus is to understand where barriers exist. Western should update any previous accessibility studies and ensure that the following steps are taken:

- Inventory non-compliant features and facilities through a comprehensive campus review of the dimensions and condition of all access points
- Develop a project list and action plan for implementation
- Create a map that displays accessible walk routes as a result of current barriers and guides the placement of detour signage.

From a technical perspective, Western University should ensure that:

- All pedestrian crossings should include accessible curb ramps and detectable warnings where individuals enter the crossing
- Sidewalks and pedestrian paths should meet dimensional requirements
- Sidewalks and pedestrian paths should be free of encumbrances such as pavement upheaval, physical obstructions, stairway barriers and other chronic maintenance issues such as foliage overgrowth
- Signalized intersections should be furnished with signal recall devices, audible signal features, and pedestrian signal heads with countdown
- Community members with disabilities that access the campus by car should be afforded accessible pathways to reserved parking facilities
- Community members with disabilities that access campus by transit should have direct and accessible pathways to LTC and shuttle stops



An example of direct and intuitive handicapped access



Automatic door actuator at the preferred height and side of doorway to avoid door opening conflict (Georgia Southern University).



Wayfinding signage denoting an accessible building entrance.

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6.3 PARKING MANAGEMENT STRATEGY

Further expanding the campus parking inventory–either by paving over more open space or by building structured parking–is an option that only temporarily addresses shortages. As the campus continues to add academic and research buildings, addressing issues of parking scarcity through increased supply not only becomes more and more expensive, but also compromises the goals and principles of this and previous plans. A wider-reaching transportation management approach that seeks to understand the underlying reasons that encourage members of the campus community to drive, and offers them additional viable options, will better serve the Western University community.

While Western currently employs the best practice of varying the price of parking permits based on lot location, user distinctions between students, faculty, and others complicate the system. Flattening the number of user groups would add flexibility into the system and improve its ability to respond to demand by providing drivers with more price/convenience decision options. As part of ensuring that parking management works in concert with pedestrian-oriented campus principles, all street parking within the campus core, with the exception of spaces reserved for campus community members with disabilities, should be removed and replaced at perimeter locations. This strategy is a long-term vision that is phased in nature. Future studies will be required to identify both the locations and the specific numbers of accessible spaces retained in the core.

As future campus growth requires the development of current parking lot sites, Western University should develop an aggressive transportation demand management program to promote and incentivize the use of other transportation modes to and from the campus. BRT will be a pivot point in managing transportation demand by providing fast and efficient transit to and through campus. Staff and faculty TDM programs typically require higher levels of subsidy and year-round investment. An initial program should at a minimum include the following elements: guaranteed ride home, walk/bike incentives such as a monthly reimbursable bike benefit and transit promotional programs such as discounted/free short-term transit passes. A student TDM program should initially focus on promoting offerings such as the University Students' Council bus pass, Regional Rideshare, and the creation of an expanded shuttle service combining the Affiliate Shuttle, Exam Shuttle, and the Mustang Express. Western should also consider hosting car share services such as Zipcar in the core and assess the role that ride-hailing companies would play in a campus configuration that incentivizes not having a vehicle on campus.



On-Street pull-in/pull-out parking detracts from and creates conflicts on the potential non-motorized transportation corridor on Kent Drive.



Parking and vehicle movements along the Engineering Road restrict pedestrian flows and compromise potential high-quality shared space.

6.4 SERVICE ACCESS STRATEGY

When vehicle access is intended to be limited, but required to perform service functions such as material loading, waste removal, and emergency/public safety services, an access restriction strategy should be developed and adopted. This strategy would:

- Restrict the size and types of vehicles allowed on campus in a service capacity
- Restrict the times of day during which certain vehicles may operate on campus
- Administer vehicle permitting procedures

A number of physical interventions can be employed to regulate access including mountable curbs, retractable bollards, and gates which raise for holders of permits in the form of ID cards or vehicle-mounted RF devices.



Access gate regulating vehicular access to Oxford Drive at certain times of day.



Figure 14. Service and Emergency Access - Preferred Campus Access Configuration

6.5 WAYFINDING STRATEGY

University campuses serve multiple user groups. Each of these groups require specific information and visual cues to reach destinations. A campus with consistent and easily understood signage ensures that students, staff, faculty, alumni, and visitors are able to easily navigate corridors and locate facilities. Wayfinding signage is considered a campus' first opportunity to provide high-quality customer service.

- All signage for the university should be appropriate to the scale of the use and user – pedestrian signs vs. vehicular signs.
- All signage should share a cohesive design, creating a uniform signage family and indicating they represent the university.
- The design of the signs should draw from the rich historical elements of the university, but also take initiative to find innovation. They should also fit with the character of the university.
- To enhance signage, use materials for colour, texture, light, sound and scale when appropriate.
- When placing wayfinding signage, be strategic and only place what is required. These elements can become intrusive and redundant when multiple signs are located in one area that could otherwise be consolidated into one sign.
- Signage relies on communication and must communicate effectively. In order to achieve this, signs must indicate only important information or what is necessary. An overabundance of information can create confusion with users.
- Signage should clearly differentiate parking areas between public and pass holder lots, with directional signage to public parking areas provided from points of entry into the campus from public streets.
- Directional signage should be placed where major pedestrian paths of travel intersect to direct pedestrians across the campus.
- In order to achieve and maintain a campus wide wayfinding strategy which is unique to the university, a plan must be created, adopted and implemented, while ensuring maintenance and consistency are met.
- All signs should be constructed of durable materials, with preference for powdercoated or stainless steel framing. The information presented must be clear and legible for the intended user.
- Conformance with OPS Design Standards for all traffic and pedestrian oriented signage
- Compliance with City of London Bylaws for signs and parking
- Campus Wayfinding Signage should be categorized into 6 main groups:
  - Primary Gateway, Secondary Gateway, Vehicular Wayfinding, Pedestrian Wayfinding, Building Identification Markers, Kiosks and Interpretive Signage



Signage to be placed strategically, using the correct scale, materials and colours.

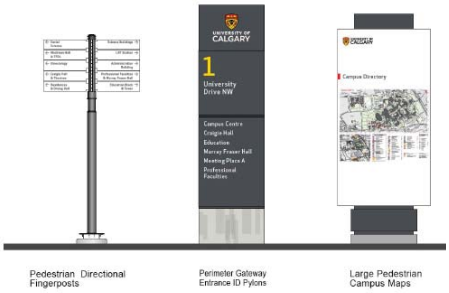


Vehicular wayfinding.

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The University of New Mexico (UNM), and their prioritization of a comprehensive wayfinding system as essential for the success of the university, embodies an example to follow. As a result of a master plan update, a wayfinding and signage program was developed, codifying sign standards and guidelines in order to provide a consistent information strategy that would help orient not only the student population, but also first time visitors to the campus. The guiding principles of UNM's wayfinding and signage program ensure that university identity standards are adhered to, that all federal guidelines regarding legibility are followed, and that viewing distance, placement, and sign reflectivity are considered. The program is flexible and easily updateable in the event of future construction. The university also placed an emphasis on installation techniques, cost-efficiency, and material availability/modularity in order to be compliant with their own sustainability policies.

Contemporary wayfinding consists of a range of visual and audible navigation tools including interactive and digital platforms. Western should consider the creation and implementation of interactive touch screen displays as well as a mobile wayfinding and information application that integrates campus content such as event schedules.





Best practices in consistently branded wayfinding signage design are presented above. From University of Calgary and University of New Mexico signage standards and guidelines documents.



Building identification marker.



Pedestrian wayfinding signage.

6.6 WOODLOTS, MANAGEMENT OF NATURAL AREAS AND CAMPUS ECOLOGY STRATEGY

The preservation and protection of Western's natural environment is paramount to maintaining the outdoor character and sense of place of the campus. The following design guidelines are provided to assist with the protection of the natural amenities of the campus, including:

- Preservation of existing woodlots as a priority for determination of suitable development areas outlined in the Campus Master Plan to avoid fragmentation of remaining natural areas;
- Emphasis on opportunities to increase canopy coverage for the campus by planting trees in appropriate spaces, or enhance existing canopied areas with succession plantings;
- Landscape approaches including form, placement and planting species proposed for a particular area should complement the natural environment and contribute positively to natural processes;
- Opportunities such as extending woodlot coverage through new tree massings, transitioning maintained sod areas into naturalized meadow areas, or replicating understory conditions with groundcover plantings should be considered.
- Ornamental landscaping should be limited to campus gateways, to frame and direct routes of travel across the campus, or to highlight significant points of interest on campus such as building entrances, wayfinding signage, or other focal locations on campus where they are easily maintained;
- Landscaping should prioritize the use of species that are appropriate for the conditions where they are proposed to reduce long-term maintenance requirements and upkeep;
- The understory of woodlots and natural areas along river corridors should be reviewed to identify and remove any potential invasive species that may harm local plant communities;
- Where subject to future development, trees should be preserved where possible. Any distinctive trees (those with calipers of 50 cm or greater) that may be influenced by the limits of proposed development should be evaluated by a certified arborist to determine appropriate tree preservation opportunities including protection or relocation measures to ensure existing trees are preserved, and to meet the City of London's Tree Protection By-Law for protection of forest health;
- Where distinctive trees must be removed for future development, site planting designs should look to replace (at a minimum) or exceed the number of trees removed. The development of standards for canopy coverage of new development sites should be considered. Where the minimum standard cannot be accommodated on site, the equivalent amount of canopy coverage should be planted elsewhere to contribute to the overall canopy of the campus;
- Trail enhancements along the Thames River and Medway Creek corridors should be limited to those areas already disturbed by pedestrian traffic to prevent additional encroachment into understory areas;
- Trail enhancement areas should consider layout options which reduce future opportunity for erosion of potentially sensitive slopes within the river corridor;
- Trail surfacing in natural areas should conform with the City of London's trail design standards, with preference for use of natural surfacing materials such as stone dust or mulch for permeability; and
- Placement of seating elements within the river corridors should be limited to natural elements such as stone or wood structures, and be placed in areas which take advantage of vistas of the river / creek.



View looking south along the Thames River towards the Baldwin Flats.



Example of an outlook that could be installed to provide physical and visual connection to the existing river corridor.



Existing natural edge along the Thames River Corridor.

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6.7 STORMWATER MANAGEMENT STRATEGY

As the impermeable surfaces created by built form and hardscape paving areas increase the potential for stormwater runoff, it will be important to implement an overall strategy to increase permeable surfacing for stormwater infiltration or collection as Western transitions to a transit/pedestrian oriented campus. The strategy to capture, treat, and infiltrate through site design and implementation of at-point solutions will help to reduce stormwater runoff volumes generated.

Building Solutions:

- Where new buildings on campus are proposed, rooftop greenroof areas should be implemented to capture rainfall; and
- Implementation of outdoor cisterns should be provided for collection of stormwater from rooftops for re-use, including watering of greenroof or grade-landscaped areas, courtyards or plaza areas.

At-Grade Paving Recommendations:

- Strive to remove redundant sidewalks, parking areas, and reduce existing roadway widths that will become pedestrian only areas to increase landscape coverage of the campus;
- Implementation of permeable paving solutions for pedestrian corridors or parking lot areas associated with future development should be considered only for areas which are easily accessible by maintenance vehicles for periodic upkeep;
- Permeable paving use is not recommended for smaller courtyards areas where maintenance access is limited. In these areas, surface runoff should be diverted to infiltration beds or swales where possible;
- New parking areas, or existing parking areas that are to be resurfaced should be graded in a manner which directs water to overland drainage swales or detention basins for temporary storage;
- Implementation of open bottom storage tanks and prefabricated soil cell units below grade should also be considered for the collection and slow release of stormwater runoff from large paved areas including parking lots, roadways, pedestrian corridors and plazas or covered bike parking areas to promote infiltration and reduce requirements for servicing infrastructure; and
- Curb cuts, or perimeter trench drains which outlet to drainage swales or infiltration beds should be provided around the perimeter of paved areas such as parking lots and plazas

At-Grade Planting Recommendations:

- Strategies for new developments should include the implementation of rain gardens at downspouts and bioswales along parking areas or pedestrian paved areas where space and drainage intent permit;
- Increase tree canopy coverage where possible on campus, including new plantings in underutilized landscaped areas, or succession plantings in established canopy areas;
- Where possible, currently maintained sod areas that are not deemed as 'pedestrian spaces' should be considered for conversion to naturalized meadow areas to increase stormwater interception and promote infiltration; and
- Planting strategies for landscaped beds, swales, and open spaces not deemed as 'pedestrian spaces' should aim to replicate natural meadow or woodlot understory conditions to decrease runoff volumes generated and increase maintainability.





Examples of curb cuts and drainage swales channel which would allow rainwater to infiltrate into planting areas during rain events.



Example of an infiltration bed, allowing rainwater to collect and infiltrate.



Planting at grade slows overland flow and permeable materials such as stone increases permeability.



7 IMPLEMENTATION

7.1 IMPLEMENTATION PHASING + STRATEGY RECOMMENDATIONS

PILOT PROJECT OPPORTUNITIES (QUICK WINS)

B. CORRIDORS

- **B.2 - LAMBTON DRIVE****
  Traffic calming to transit corridor and streetscape improvements
- **B.6 - ELGIN DRIVE**
  SSC to Oxford Drive - Protected bike lane along wall to be added
- **B.8 - MIDDLESEX DRIVE (UNIVERSITY DR TO KENT DR)**
  Road painting scheme to reduce the width of Middlesex Drive, on-street parking lanes, and bus loading areas.
  Create Jersey barrier separated sidewalk along east curb, 3 way stop at intersection, and addition of bike lanes

D. PEDESTRIAN ROUTES

- **D.2 ENGINEERING DRIVE**
  Phase 1 - Alumni Hall to Thompson Engineering Building
- **D.3 KENT DRIVE**
  Streetscape improvements to east side of University College and removal of parking to convert into pedestrian promenade. Includes landscaping improvement components
- **D.5 MUSIC BUILDING TO UC HILL WALK**
  Phase 1: Temporary path (evaluate use and cut-through traffic), addition of walkway to pave goat path

I. WOODLOTS

- **I.2 MANICURED WOODLOTS**
  Removal of redundant walkways at northwest corner of Physics and Astronomy Building and replace with seeded meadow area

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* City of London Scope
** BRT Scope

SHORT TERM PRIORITIES (2-3 YEARS)

A. GATEWAYS

- **A.4 PERTH DRIVE / LONDON HEALTH SCIENCES CENTRE**
  Reconfigure Chemistry Parking Lot entrance to align with Dental Circle and provide a formal crossing point for pedestrians, place gateway signage on south side of intersection noting entry onto Western Property.
- **A.7 SPRINGETT LOT / WESTERN ROAD**
  Implement an entry node (seating / possible signage feature) at-grade pedestrian entry from the Western / Springett Lot controlled intersection by Weldon Library Green
- **A.8 PLATT'S LANE / WESTERN ROAD**
  Overall gateway improvements

D. PEDESTRIAN ROUTES

- **D.3 KENT DRIVE**
  Streetscape improvements at Oxford Drive to Talbot College (EW axis), University College to Lambton Drive (NS axis).
  Oxford Drive to Kent Drive (EW axis south of McIntosh Gallery)
- **D.5 MUSIC BUILDING TO UC HILL WALK**
  Implementation of fully scoped improvement to the open space west of the Music Building, including new walk behind forest patch.
  Include a new walk at the east side of Music Building behind the forest and remove curb sidewalks

E. BICYCLE CIRCULATION AND PARKING

- Addition of a secured and covered bike parking facility

F. COURTYARDS AND GARDENS

- **F.1 ENGINEERING BUILDING COURTYARD**
  Furnishings and minor improvements
- **F.2 THAMES HALL / 3M COURTYARD**
  Furnishings and minor improvements
- **F.3 JANCEY GARDEN**
  Signage and minor improvements
- **F.4 COLLIP COURTYARD**
  Removal of staircase and reconfiguration of ramp from Middlesex Drive; regrading of open space from Collip to the B&G Greenhouses
- **F.5 BERYL IVEY GARDEN**
  Minor improvements
- **F.6 UNIVERSITY COLLEGE COURTYARD**
  Furnishings and minor improvements

H. OPEN LAWNS

- **H.1 UNIVERSITY HILL**
  Widening of heritage walk running through the centre of the hill, leading to University College
- **H.2 SOUTH VALLEY**
  Relocation of displaced parking from campus interior
- **H.3 HURON FLATS RECREATION FIELDS**
  Addition of benches and trails

I. WOODLOTS

- **I.1 NATURAL WOODLOTS**
  Improved or realigned trails

J.RIVERFRONT

- J.1 THAMES RIVER
  Improve trail connectivity and routing, and invasive species control

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MEDIUM-TERM PRIORITIES (5-9 YEARS)

A. GATEWAYS

- **A.1 PHILIP AZIZ AVENUE / WESTERN ROAD***
  City Road Improvements
- **A.2 LAMBTON DRIVE / WESTERN ROAD****
  BRT Scope
- **A.3 ELGIN DRIVE / WESTERN ROAD****
  Gateway improvements
- **A.5 UNIVERSITY DRIVE / RICHMOND STREET****
  BRT Scope
- **A.6 UNIVERSITY DRIVE (SUNSET DRIVE)****
  Sunset Drive Reconfiguration (tied to traffic plan when bridge is no longer for public use)

B. CORRIDORS

- **B.1 WESTERN ROAD***
  Western Road (north of Recreation Centre); includes removal of entrance to Elborn College
- **B.2 LAMBTON DRIVE****
  Lambton Bend Phase 2: reconfiguration of curb, creating of dedicated lay-by's, removal of drop-off at Talbot College
- **B.4 PHILIP AZIZ AVENUE***
  Philip Aziz Avenue Streetscape Improvements
- **B.6 ELGIN DRIVE**
  Streetscape Improvements
- **B.7 UNIVERSITY DRIVE****
  Streetscape Improvements + Bridge

D. PEDESTRIAN ROUTES

- **D.1 OXFORD DRIVE**
  Streetscape improvements in conjunction with completion of ILIC Building. Phase 1: Alumni Circle to ILIC Building, Phase 2: ILIC Building to Middlesex Drive
- **D.2 ENGINEERING DRIVE**
  Phase 2: Thompson Engineering Building to TRAC
- **D.4 MIDDLESEX DRIVE, KENT DRIVE TO OXFORD DRIVE**
  Streetscape improvements
- **D.6 HURON FLATS TO STADIUM WALK**
  Reconfiguration of parking lot with central pedestrian promenade linking to Huron Drive; reconfiguration of TD Stadium Lot entrance to align with South Valley entrance for a controlled intersection and defined pedestrian crossing

G. PLAZAS

- **G.1 UNIVERSITY HILL PLAZA**
  Intersection at UDR to IGAB including connection to Huron Drive, redevelopment of pedestrian spaces and regrading to improve accessible slope, include Orientation Week facilities for Stage
- **G.2 THOMPSON RECREATION AND ATHLETIC CENTRE**
  Western Frontage & Parking Area Improvements
- **G.3 ALUMNI CIRCLE****
  Improvements in conjunction with BRT alignment
- **G.4 ILIC PLAZA / CONCRETE BEACH**
  ILIC Concrete Beach

* City of London Scope
** BRT Scope

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MEDIUM-TERM PRIORITIES (5-9 YEARS)

J. RIVERFRONT

- **J.2 MEDWAY CREEK**
  Phase 1: Entrance at Avian Research Building – extend sidewalk from Beaver Hall residence to Avian Research Building / SSB Parking lot to tie into existing footpath
  Phase 2: Formalize paths to Ramsay Road / Brescia College Lane, link to Western Road

LONG-TERM PRIORITIES (10+ YEARS)

B. CORRIDORS

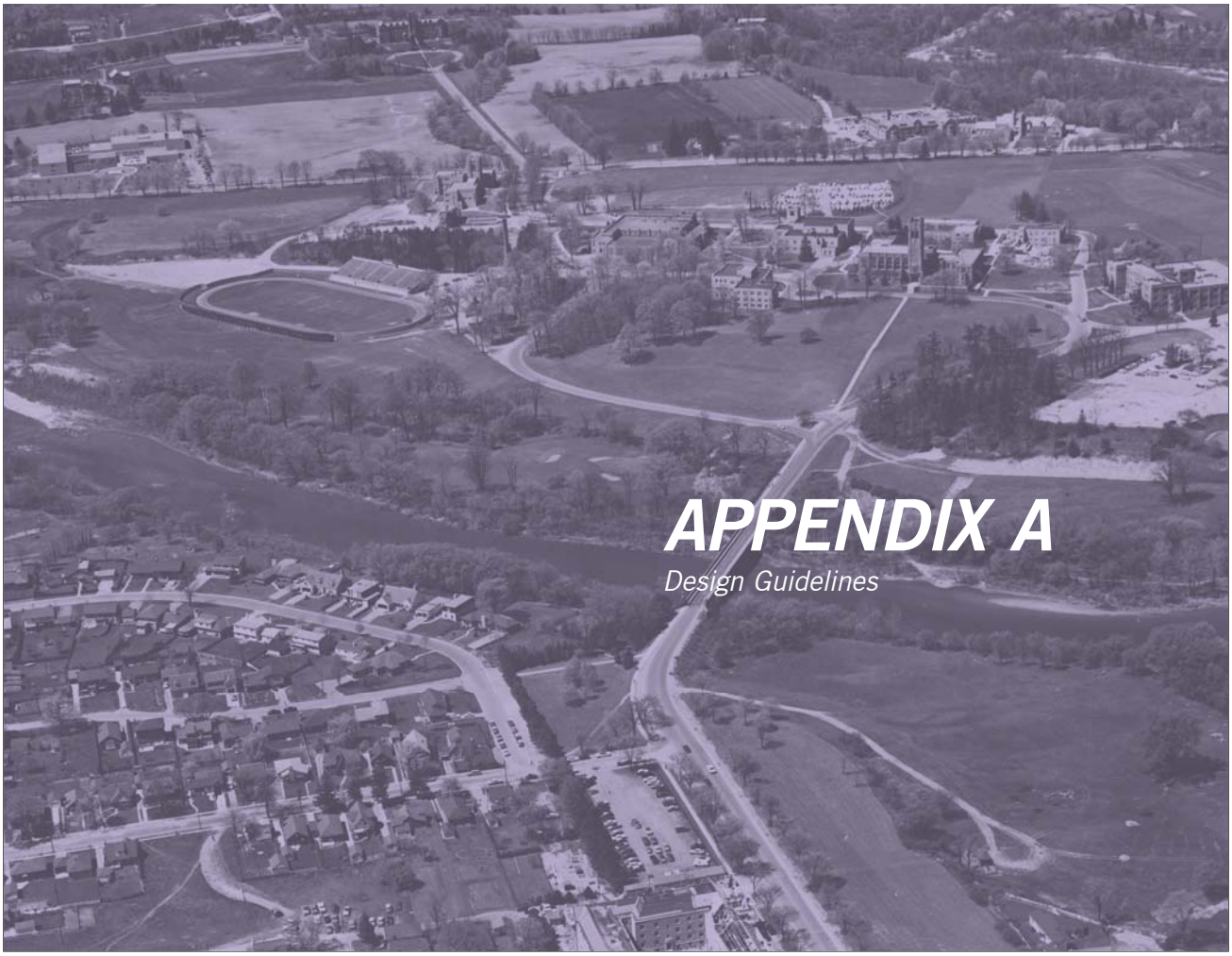
- **B.3 PERTH DRIVE**
  Streetscape Improvements
- **B.5 HURON DRIVE**
  Streetscape Improvements

J. RIVERFRONT

- **J.1 THAMES RIVER**
  Pedestrian Bridge Connection - Baldwin Flats to TD Stadium / South Valley Intersection (would require UTRCA approval)

A funding strategy that aligns with the implementation strategy will consider various funding sources including approved annual capital funds allocated for campus-wide pedestrian safety, along with the approved annual capital Maintenance and Modernization of Infrastructure (MMI) funds identified for campus general road work, sidewalk work, roadway and pathway lighting, landscaping, signage and wayfinding. Additional funding will be realized through major capital building projects that will include budgets for landscape and open space enhancements. All University projects will require detailed scopes, budgets and funding sources prior to receiving approval to proceed.

The City of London BRT project is responsible for improvements to the public realm along the proposed BRT route, including but not limited to boulevards, sidewalks, landscaping, gateways, lighting, wayfinding and signage. This will realize landscape and pedestrian safety enhancements along the entire lengths of University Drive and Perth Drive. In addition, City road improvement projects along Western Road and Philip Aziz Ave will provide landscape and pedestrian safety improvements along Western properties.



APPENDIX A

Design Guidelines

PLANTING DESIGN GUIDELINES

The planting schemes proposed across key enhancement areas will be consistent in their design and approach, with species chosen based on their suitability for the local conditions. Although the general planting direction for the campus has been to implement mass planting schemes of low-maintenance plant materials, extra attention has been given to those plants that are proposed for use within parking areas, courtyards, and at building entrances.

The plant palette for the campus gives preference to plant materials and species which will:

- Highlight building entrances to define and highlight access points;
- Form mass planting clusters rather than elaborate patterns which require higher maintenance;
- Have increased resistance towards salt, drought, heat and disease resistance to reduce maintenance requirements and ensure long-term success on this site; and
- Provide seasonal interest through varying leaf and fall colour, bloom period, and leaf drop.

General planting guidelines are as follows:

- Plant species selected will be appropriate for the local conditions. Preference will be given to species which demonstrate higher tolerances to wet conditions, drought, salt, soil compaction, sun, shade, etc. where relevant site influences will be a factor to promote successful growth of the plants in those areas and increase maintainability;
- Use of invasive plant species will be avoided. In locations where existing invasive species have established, specifically those located in the natural areas of the campus, these plants should be removed;
- High branching deciduous species should be selected where open sight lines are required;
- Avoid use of coniferous tree plantings or shrubs with high mature heights near walkways to limit views across walkways or open spaces. Coniferous tree plantings should be limited to natural areas, or open areas where adequate spacing from walkways can be achieved;
- New tree plantings adjacent walkways and paved areas should include a minimum of 30 cubic metres of soil volume, or 15 cubic metres where shared soil pits occur;
- Soil cells to assist with root zone establishment in paved areas should be considered with new tree plantings;
- At grade plantings such as shrubs, perennials or grasses should be planted at points of interest such as building entrances or in courtyards where protected;
- Plant species which provide seasonal interest through form, texture or colour should be considered for added character during all seasons;
- Form mass planting clusters rather than elaborate patterns which require higher maintenance for upkeep and care;
- Major walkways and circulation routes should be lined with turf, with trees appropriately setback from walkway edges to allow for snow storage during winter months;
- Open space areas with steep banks should be mass planted to prevent weed growth, stabilize slopes and reduce overall maintenance requirements;
- Where possible, planting beds within paved areas should be raised to reduce contact with salt; and
- Mulch should be used in all ornamental planting beds to inhibit weed growth and increase maintainability.

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Incorporating planting into landscape features can enhance and soften hard structures.



Planting used to enhance building facades and highlight entrances.



High branching decidous trees provide shade in hardscape areas, still providing open sightlines.



A variety of plant material provides visual interest in all seasons.

PARKING LOT LANDSCAPING GUIDELINES

Landscaping applications within parking areas provide a number of site control and environmental benefits including delineation of parking lots and screening of parked vehicles, emphasizing entrances and travel routes through parking lots for pedestrians, as well as providing opportunities for stormwater interception through the provision of canopy cover and at-grade infiltration areas. A major challenge to the long-term success of landscaping in these areas relate to the maintenance requirements for upkeep, especially where landscaping is provided in raised medians or in close proximity to back of curb areas which are subject to extreme heat and drought conditions, limited soil volumes, and exposure to salt during winter maintenance periods.

The landscaping proposed within Western's parking areas should be designed in a manner which considers these constraints as well as maintenance processes when determining appropriate locations for landscaping, species types and arrangements for use. The coordinated layout and design of parking lots with appropriate landscaping will assist in reducing the level of maintenance for upkeep, promote long-term success of plant materials installed, and contribute positively to the overall character of the campus.

General parking lot landscaping guidelines include:

- In general conformance with City of London Site Plan Control By-laws
- Parking lot landscaping should take a minimalist approach to reduce the level of maintenance required for upkeep, and to maximize space available for snow storage;
- High canopy deciduous trees should be planted with an on-centre spacing of no more than 8.00m within parking islands, to add canopy to parking areas, and add colour during growing seasons;
- Understory plantings should only be provided at parking area entrances, or to frame sidewalk access locations for pedestrians to maintain open sight lines and increase maintainability;
- Where proposed in islands, plantings should be installed as massed groupings and avoid intricate patterning to increase maintainability and replicate natural conditions;
- Plant species that demonstrate tolerances towards heat, drought, salt and urban conditions will given preference within parking areas to better ensure their long-term success and reduce the amount of on-going maintenance required for their up-keep;
- Where at grade shrub or grass masses have been proposed, species that grow to 60cm or less have been selected to maintain open sightlines and visibility for drivers;
- Naturalized bioswales should be incorporated into all new parking areas, or where retro-fitting of existing parking areas permit, to collect and treat surface runoff in place of traditional catch basins and underground infrastructure;
- Bioswales should be placed strategically at low points of parking areas, and should be planted in a manner which provides access control to parking areas, frames pedestrian entry points, or separates visitor and permit parking areas;
- In order to provide appropriate separation between vehicles and proposed tree plantings or light standards, bioswales in parking areas should have a minimum width of 5.50m or the equivalent depth of a parking stall width, with side slopes no greater than 20% for maintainability;
- Bioswales should be lined with curbs, with curb cuts or trench drains provided at low-points to accept runoff. Channels lined with filter fabric and river stone should extend from the inlet to the bottom of the swale to prevent erosion of the swale embankments;
- Perimeter treatments which incorporate peastone, or stone screenings should be avoided due to potential problems with material migration

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during larger storm events;

- Pedestrian connections across bioswales should be indicated with tactile patterning, and connections across drive aisles painted for visibility; and
- The proposed layout of parking areas including stall and drive aisle dimensions, turn radii, signage, road markings, and landscape requirements shall conform to the design standards as outlined within the City of London's Site Plan Control By-Law.
- Provision and consideration for snow storage and plowing operations



Plants chosen are to be drought and salt tolerant, and easily maintained.





Parking islands provide opportunities for infiltration beds and shade trees.

WALLS AND STRUCTURES GUIDELINES

- Where required, walls should be proposed which provide both a retaining element, as well as seating opportunities.
- Walls with significant heights should be tiered at the pedestrian level, to reduce the overall scale of the element in the landscape.
- Seatwalls should be designed in a manner (through either coping elements or form work) so that they are accommodating for pedestrian use, while not requiring the addition of skateboard deterrents.
- Where walls tie into paved surfaces, texture differentiation, material cladding, or use of colour should be implemented to provide contrast from surrounding paved surfaces.



Elements can be incorporated into seatwall design that enhance the wall while deterring use by skateboarders.



A stepped slope also functions as seating.



Wall and seat material varies with ground plane, providing visual contrast.

CAMPUS SITE FURNISHINGS GUIDELINES

The various site furnishings implemented throughout Western's landscape and open space areas will offer amenities to support pedestrian comfort and safety. The coordinated and consistent application of these site furnishings, together with landscaping and paving materials across the campus will enhance the visual connectivity, accessibility, and overall sense of place throughout Western's network of open spaces.



All benches, including those that are custom designed are to be made of durable material.





Left: Benches are to not impede traffic flow.
Right: Benches with varying back and arm configurations are to be provided per AODA standards.

BENCHES

- Benches provided should be constructed of durable materials, with preference for powdercoated aluminum, stainless steel or exterior woods;
- Bench seating proposed should conform to current AODA guidelines design and provision standards, including:
  - 25% of all seating should be barrier free;
  - Barrier free standards shall include those benches which have backs, side or centre-arms, with top of seat portion of the bench set within 450-550mm above finished grade;
  - Benches should be cane detectable and accessible via paved surfacing;
  - Where provided along walkways, benches should be offset the walkway on paved surfacing which provides tonal contrast from the adjacent walkway;
  - Benches should be provided in a manner where 1.50m of unobstructed paved surfacing is provided adjacent the bench to accommodate wheelchairs or asisstive animals; and
  - Where grade change is abrupt immediately beyond the accessible bench pad, a 75mm high curb will be provided along the perimeter of the pad.
- Benches should be placed in a manner which does not impede pedestrian routes of travel with adequate space around the bench provision for maintenance access; and
- Benches should be placed with an appropriate distance from all waste collection receptacles.

TABLES AND CHAIRS

- Recommended for use in plaza and courtyard areas, or where space permits at building entrances;
- Fixed cluster seating should be provided in a manner that does not impede pedestrian flows, or limit maintenance vehicle movement and access;
- Tables should be appropriate for their intended use. Preference for picnic style or harvest style tables should be used where space permits to accommodate opportunity for seating larger groups and spaced to provide barrier free access at their ends;
- All seating standard should aim to be barrier-free, however no less than 25% of all seating provisions should be barrier free to meet current AODA requirements;
- In larger plaza or courtyard areas which have high visibility, provision of movable tables and chairs are recommended to allow pedestrians to manipulate and change the space based on their intended use, catering to individual or larger group use;
- Plazas, courtyards and other areas programmed for outdoor gathering should provide furnishings to support various levels of use from individual to group seating;
- In areas which are exposed to the sun, shade structures such as umbrellas or retractable canopies are encouraged to increase pedestrian comfort;
- Tables or shade elements should be surface mounted onto concrete pads or set into sleeves inset into the surface paving for easy removal when not in use, and spaced appropriately from adjacent elements, planting beds or adjacent walkways to permit travel around their perimeter; and



Picnic table style seating and table with barrier free access at table ends.



Example of seating that allow use by individuals or groups, with adequate shade.

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BIKE RACKS

- Bicycle racks should be provided in close proximity to all building entrances, transit stops, or programmed outdoor spaces, and placed in locations which are highly visible;
- Cluster racks, with access provided on all sides of the unit, with suitable clearances from buildings or other site furnishings are recommended. Where space is limited, single unit elements which provide appropriate points of contact for securing bicycles should be provided;
- Bike lockers, similar to those installed at the Labatt Health Sciences Building should be provided at the ends of nodes and major pedestrian promenades, including areas such as Concrete Beach, TRAC, Social Sciences Plaza, Kent Drive, Talbot College/UC Hill Plaza, Alumni Circle, and at all proposed campus drop-off areas;
- Bike racks should be surface mount as opposed to direct burial, to allow for easier removal when required;
- Bike rack locations which are protected from the elements via existing building overhangs or structures, or underneath stand-alone structures are preferred to provide shelter from the elements for cyclists;
- Develop covered and secure bike parking facilities in key areas
- Seating provisions should be provided in close proximity to bike racks for cyclists; and
- Bike maintenance stations which include repair tools and air pumps should be provided at all major plazas and pedestrian nodes on campus, in areas which are highly visible. These stations should be coloured and well lit to increase their visibility at all times of the day.



Freestanding bicycle racks.



Bike repair station with pump.

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BOLLARDS

- Bollards should be provided to delineate pedestrian areas and prevent access from vehicles, including access control within parking areas.
- Unlit bollards should have footings appropriate for their intended location. Bollards which are intended to protect building elements, storage areas or structures or provide security should be direct burial, where-as decorative landscape bollards should be surface mount or removable for flexibility.
- Lit bollards are recommended for use only where taller pedestrian standard or area lighting is not provided. Preference for unlit bollards, which are easily replaced should be used to delineate landscaped areas where proposed;
- Complimentary lighting for use to illuminate pedestrian walkways or points of interest;
- Pedestrian style, low-level light bollard use should be limited to plaza spaces, courtyard areas or at building entrances and use LED technology;
- Lit bollards should be located offset walkways in landscaped areas to minimize damage from vehicles or vandalism;
- Lit bollards should employ full cut-off options including louvers to light spillage, and spaced appropriately to spread even amounts of light across walkways and avoid the creation of 'hot spots' along routes of travel;
- One specific type of bollard should be used for new open space areas on campus, with other existing standards replaced to match the selected style at the end of their life-cycle;
- Colour and form of all bollard types should be complimentary to other site furnishings, light standards and building styles;
- Where a mix of lit and unlit bollards are required, preference for a standard which offers both options is recommended; and
- Bollards should be spaced appropriately with clearances no less than 1.50m between elements in hardscaped areas to provide barrier free access between them. Finishes which provide tonal contrast provided between the bollard and surrounding paving will be selected to meet requirements of the AODA.



Light bollards illuminate pedestrian areas.





Matching bollards are available with lighting or without.

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WASTE / RECYCLING

- Waste and recycling units should be provided at pedestrian open spaces, and at regular intervals along pedestrian travel routes;
- Cluster units, which separate waste, recycling and organics should be provided to assist with waste collection and sorting;
- In areas which are accessible by maintenance vehicles, deep well waste units which are scaled appropriately should be implemented. Existing units are to function as outdoor containers and a combination of Molok's (which include 3 or 4 recycling streams) and environwirx units (landfill stream) for building waste removal functions.
- Pedestrian standard units in outdoor spaces or walkways, or larger collection units for buildings should be considered in order to increase storage capacities, increase maintainability and for building collection;
- Appropriately scaled waste units will also reduce the footprint required for loading areas when compared to traditional bin collection units;
- Waste units should be placed with appropriate spacing from pedestrian seating elements;
- Where units need to be manually maintained by staff, standards with side opening options for ease of content removal, and louvers to prevent water accumulation within storage containers should be selected;
- Waste units should be constructed of durable materials, and be complimentary to other site furnishings. A standard unit for the campus, including a standard multi-unit and single unit element should be selected for all new building and open space developments, with other locations retrofitted as other waste units need to be replaced; and
- Waste units models selected shall be barrier-free, and placed within hardscape paving areas with appropriate clearances for access to meet requirements as outlined in the AODA



Waste receptacles to be made of durable materials.



Waste receptacles to be placed on a hard surface along paths of travel.



An example of a deep well garbage receptacle.

FENCING, RAIL AND GUARDS

Fencing:

- Fencing proposed for new development sites must adhere to Western's standard (Aristocrat double top rail, 5' height, series 8000);
- Fencing should be limited to use along property boundaries, secure areas, or to prevent travel across 'non-pedestrian' areas;
- Where fencing is proposed in highly visible areas, opportunities to integrate surrounding building materials should be explored including use of cladding or stone for decorative fence pillars;
- Fencing should only be proposed where alternative landscape treatments or decorative screening panels cannot be accommodated, or where security needs require it;
- Fencing should be setback from proposed walkways, and separated with sod or landscaping from the path of travel to limit damage from vehicles or maintenance equipment;
- Where higher fencing standards or privacy fencing is required, landscaping should be provided along its length to soften the visual impact of the fence; and
- Where proposed adjacent to pedestrian walkways, opaque fences should be avoided. Instead, fencing or privacy screens styles should include gaps for transparency, and mounted with a minimum clearance of 150mm from finished grade to meet Crime Prevention Through Environmental Design Standard (CPTED) requirements.

`Rails and Guards:

- Guard rails or fencing will be provided at any abrupt grade changes adjacent pedestrian accessible areas which exceed a 600mm fall height to finished grade;
- Guard rail sizing should comply with all Ontario Building Code and AODA standards in terms of heights, spacing, placement and tonal requirements at stair, ramp and wall locations;
- Guards and rails should be constructed of durable high quality materials including aluminum or stainless steel;
- Guard rail patterning should provide openings suitable for snow removal through the face of the guard at stairs and ramps during winter maintenance periods; and
- Railings and guards should be bolted to faces of building or curb walls where provided to minimize opportunity for entanglement by pedestrians, or damage to ground mounted coring applications.



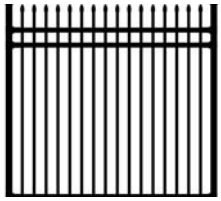
Fences to be constructed of durable material.



Stone pillars to match surrounding architecture.



Rails and guards per accessibility standards.



Medallion Fence Series 8500 DR, 60'' high

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CAMPUS LIGHTING GUIDELINES

- A campus wide implementation of LED lighting and replacement of high pressure sodium is underway

Future initiatives should consider:

- Implement appropriate levels of lighting and avoid over-illumination of areas that are not intended for night time use. Provide greater levels of lighting at pedestrian congregation points such as crosswalks or walkways, and lower levels in parking areas;
- Lighting standards which are of appropriate scale for their intended use - pedestrian level fixtures and spacing on walkways, higher poles and fixture heights in parking areas;
- Light standard types should complement one another and be appropriate in style with the existing built form and aesthetic of the campus;
- Ensure all building entrances are well lit for visual connectivity and safety;
- Select fixtures with full cutoff options for dark skies compliance, with photo cell/time control option;
- Light standards should be placed in a manner which does not impact pedestrian routes or travel, or provide opportunity for conflict with vehicles in parking areas. Suitable offsets from walkways or back of curb locations should be provided.



Pedestrian scale lighting to light paths of travel.



Alternate lighting options to be considered as to not impact travel routes.



Lighting to compliment site furnishings throughout the campus.

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CAMPUS PAVING AND PAINT GUIDELINES

Flatworks:

As Western transitions to a pedestrian focused network of open spaces, the treatment of surface paving will be an important element towards providing continuity of and connectivity across the campus. The surface materials will provide a unifying element to the pedestrian network, help to define outdoor plaza and courtyard areas of special interest, and provide barrier free access across the campus.

Design guidelines for the surface paving of the campus are as follows:

- Surface paving for the campus should be limited to durable materials with non-slip, with broom or textured surface finishes which comply with AODA requirements for public spaces;
- Preference should be given to the use of concrete for all new walkways, and where existing walkways are replaced;
- Where roadways are proposed to be converted to pedestrian priority corridors, permeable pavers should be considered for those areas where soil conditions and hierarchy of use permits, and are easily accessible by maintenance vehicles in an effort to decrease stormwater runoff;
- One standard paver series should be implemented across the campus, with preference for a product which offers multiple blends and finishes for highlighting points of interest through field differentiation or banding;
- Where pavers are implemented random field patterns should be avoided for ease of maintenance and ability of the pavers to hold water;
- Permeable pavers within pedestrian only areas should be have a minimum thickness of 80mm with appropriate base as per local soil conditions. Where traffic access is required, including service, maintenance, or emergency, the thickness of paver should increase to 100mm thickness to prevent damage from vehicles;
- All walkways should be sloped to direct runoff to stormwater catchment areas where space is provided;
- Sloped access points such as walkways or ramps should be designed and installed where space permits in order to avoid the requirement for stairs;
- Walkways should be implemented consistently across the campus. All new walkways should be designed and installed in a manner which provides suitable widths for the intended volume of use they will receive;
- New pedestrian walkways should be a minimum of 2.40m in width. Where space is limited, no walkways should be narrower than 2.00m;
- Where walkways meet with other paths of travel, an appropriate radii should be provided to prevent hard angles at points of intersection to limit pedestrian cut-throughs, and allow appropriate turn allowances for maintenance vehicles to prevent damage to adjacent landscaped areas;
- Where associated with a roadway, walkways should be separated from the curb area with a landscaped strip to allow for snow storage and ease of maintenance during winter months.
- Where space is limited and a landscape strip cannot be accommodated, curbside walkways should be installed with a minimum width of 2.40m;
- Walkways should be provided only where required and with purpose.

Multiple walkways providing redundancy should be avoided, and strategies to consolidate walkways should be explored across the campus to increase maintainability and increase permeable landscape cover; and

- All surface paving strategies should comply with AODA guidelines to promote barrier free access across the campus, including:
    - Preference for coloured, steel tactile mats or stair tread insets should be used where required at curb ramps, crosswalks, stairways and accessible parking areas.
    - Where abrupt grade changes occur beyond the walkway, either pavement banding along the perimeter of the walkway, or the use of curbing (min 75mm height) with tonal contrast should be used to bring awareness to pedestrians with limited or impaired vision.
    - All crosswalks and access aisles in barrier-free parking areas should be treated with a ladder patterned surface paint application with highly visible traffic paint.
    - All newly installed or retrofitted walkways should be provided with gradients of less than 5% slope, with cross slopes no greater than 2%. Where slopes of less than 5% are not achievable, ramps with appropriate handrails should be provided as per AODA guidelines, where no other accessible walkway is provided.





Walkways to be provided where required.



Walkways to be minimum 2.4m wide and new walkways are to have less than 5% slope.



Permeable paving to be used to allow for groundwater infiltration.

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OPERATIONAL GUIDELINES- DESIGNING FOR MAINTENANCE

In order to effectively maintain Western's collection of outdoor spaces and landscape areas, new development areas will need to consider the implications of maintenance throughout the year. Open spaces for the campus should be designed to incorporate maintenance considerations, in order to ensure long term success.

Design considerations for increasing maintainability include:

- Cumulative tree and planting inventory for the campus should be undertaken to assist in monitoring tree conditions, identify gaps in plantings and forecast replacement requirements.
- Green approach to turf maintenance - allow unused turf areas or tree understory areas to naturalize to scale back on cutting schedules and reduce maintenance requirements
- Where new turf areas are proposed, consider eco-lawn or meadow variety mixtures to reduce overall maintenance requirements
- Paving provisions for walkways and outdoor spaces should be appropriate for their intended location.
    - Concrete paving should be used for walkways, plaza areas with limited maintenance vehicle access, or areas that will require periodic access for delivery and service vehicles, such as loading areas.
    - Precast unit paving should only be used for wider promenades or plaza areas where access for maintenance vehicles is not limited.
    - Asphalt paving should be limited to roadways, or multi-use trails which extend across open space areas.
- Stairways as grade change devices should be avoided where possible, with preference for sloped walkways or ramps to negotiate grade change.
- Where ramps are required, they should be designed with adequate widths for snow removal equipment, with switchbacks at direction changes provided that accommodate turn radii. Where ramp widths or space for larger switchbacks are limited, ramps wall heights and opacity of guard rails should be limited to allow for snow removal by hand.
- Where stairs are required, sidewall heights and railing / guard rail opacity should be limited, and space adjacent the stair should be provided to allow for snow storage beyond the stairway.
- Stairways should be designed to provide frequent landings and avoid extensive runs of risers to provide reprieve for pedestrians.
- Safe access points and parking areas should be provided for maintenance vehicles where landscaping within right-of-ways are provided. Lay-by parking areas, or paved areas within landscaped medians should be provided where space permits.
- Waste units which are installed as deep well modules are recommended for use in loading areas in order to limit space requirements for traditional front loading vehicles. Receptacles should be provided which have higher storage volumes (min 30 gallon), and are side opening to allow for easier removal of waste containers by facilities staff.

Winter Design Considerations:

- Consider characteristics of surface materials in relation to winter maintenance requirements. Precast concrete pavers, stone and tile have freeze points that differ from standard concrete and asphalt and their use should be avoided on stairs, ramps and walkways with significant slopes.
- Consideration should be give to redundant walkways and staircases that could be removed to limit salt requirements

- Walkways should be made wide enough to permit maintenance vehicles access along their length. Where walkways occur along dedicated roadways and space permits, walkways should be separated from the curb with a landscape strip no less than 1.50m in width to allow for temporary snow storage, and a buffer between pedestrians and the roadway. Where space does not permit the provision of a landscape strip, wide curbside walkways should be implemented to provide a suitable width for maintenance vehicles during winter months.
- Snow storage locations should be placed strategically to improve ease of access for all vehicular traffic, in including snow plows.
- Walkway intersections should avoid 90 degree angles to improve maneuverability for snow plows during snow clearance. Where possible, pathways should include radius corners and transitions, and should extend as straight lines without irregular jogs and bends.

Summer Design Considerations:

- Irrigation on campus should be avoided. Opportunities to collect stormwater via cisterns should be explored for courtyard areas to reduce water use. Hose bibs for roof garden areas, watering bags for newly planted trees, and self-watering inserts within raised/moveable planters should be provided to help plants establish upon planting.
- Landscaped areas with ornamental plantings should be designed in a manner which uses species which are appropriate for their intended location, with considerations for drought or extended wet conditions, impacts of snow storage and exposure to salt. Mass planting schemes with mulch covering should be implemented to reduce weed growth, protect against extended periods of drought, and reduce overall maintenance requirements for upkeep.
- Opportunities to reduce frequency of sod cutting for open lawn areas, or naturalize lawn areas should be explored to reduce efforts on mowing during summer months.



Low maintenance, native plant material that is drought and salt tolerant.



Paths that allow for easy snow removal.

PUBLIC ART GUIDELINES

The continued incorporation of public art into Western's landscape areas will be another important element in enhancing the sense of place and character of the campus.

- A strategy for public art on campus should be developed to direct where art installations are provided on campus as a continuation of the installations currently found on campus;
- Public art elements should be encouraged in highly visible areas including campus gateways, pedestrian open spaces, courtyards and plazas to create focal points of interest and continue to enhance the character of these spaces;
- Public art placement and display should consider how the piece is experienced both during daytime and evening hours, ensuring adequate lighting and visibility is provided; and
- Functional art pieces, such as seating elements, or bike racks should be encouraged for integration and use within pedestrian gathering spaces.
- Increase visibility of Indigenous symbols and artwork.



Wall murals installed on building exteriors.



Sculptural art work in open space.



Indigenous art installations in public spaces for increased visibility.



Opportunity to utilize blank surfaces for public art.

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COMMEMORATIVE CONSIDERATIONS

Commemoration of students, faculty, staff, and alumni of the University is an important part of its heritage, and recognition of contributions to the campus community. Methods of memorial and donor recognition should adhere to Western's policy (draft form) which informs opportunities and outlines guidelines for commemoration on campus.

- Due to infill development opportunities and conflicts with donor trees, the tree current process for donating trees should be modified to provide the planting of donor trees on campus, with memorial/donor walls erected near specific buildings or points of interest to accept placards of those who are recognized.
- Explore continued opportunities for the incorporation of memorial and donor recognition into commemorative landscape elements such as benches, seat walls, or within at-grade surface paving in pedestrian courtyard areas.



Memorial garden.



Memorial bench.



Memorial donor wall.

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UNIVERSITY · CANADA

Facilities Planning & Design
Western University
1393 Western Road
London, Ontario, Canada, N6G 1G9
Tel: 519-661-2111, ext 88778