

UNIVERSITY OF BRITISH COLUMBIA



2005

Strategic Transportation Plan

13 May 2005

Adopted 14 July 2005

2005 Strategic Transportation Plan

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EXECUTIVE SUMMARY

UBC's Strategic Transportation Plan (STP) was approved by the Board of Governors in November 1999, following two years of preparation and consultation. The STP describes a wide range of transportation initiatives intended to reduce automobile traffic, increase transit ridership and manage travel demand. When the STP was prepared, it was intended that it be updated after five years to account for what had been accomplished and what changes had occurred on campus during that time. This document presents an updated STP — the 2005 Strategic Transportation Plan.

Achievements To Date

Through the implementation of Strategic Transportation Plan (STP) policies and a wide range of transportation initiatives, UBC has achieved considerable success in managing transportation demand and travel patterns — a success which is unprecedented in the region. Key achievements include:

- A 163% increase in transit ridership to 49,900 daily transit trips and a 41% transit mode share since 1997. This extraordinary increase is the result of the student U-Pass program, adjustments to class start times, and a substantial increase in transit service to UBC.
- A 22% reduction in daily single occupant vehicle (SOV) trips per person since 1997. Overall, daily SOV trips have been reduced 4.8% despite an unexpected 22% increase in student enrollment (with an associated increase in staff and faculty).
- A 25% reduction in the commuter parking supply, and a doubling of minimum daily parking rates. Since 1996, UBC has eliminated more than 3,000 commuter parking spaces.
- A wide range of programs and facilities to encourage travel by non-automobile modes, including new bicycle lanes, additional bicycle parking, carpool and vanpool programs, an emergency ride home program, campus shuttles and a car-sharing program.

UBC has met all but one of the transportation-related commitments in the Official Community Plan (OCP) and associated Memorandum of Understanding (MoU), upon which the STP is based. The only one which has not been achieved is a target 20% reduction in daily SOV trips, due primarily to unexpected growth in student enrollment, as well as a shift from carpools to transit. As indicated below, the 2005 STP proposes a revised SOV target which reflects growth, as well as a new target which reflects a desire to maintain automobile volumes at or below 1997 levels.

Goals, Objectives and Policies

Four primary goals are proposed for the Strategic Transportation Plan, based on UBC's commitments in the OCP/MoU and the direction provided by TREK 2010 and other strategic plans:

- Provide a wide range of transportation choices for everyone at UBC.
- Shift travel from automobiles to transit and other modes of transportation.
- Improve safety for all modes of transportation, particularly for vulnerable road users — pedestrians and cyclists.
- Mitigate the impacts of heavy truck traffic.

The objectives and policies below are based on these goals, and provide more detail as to how UBC intends to achieve each of these goals. A detailed discussion of these objectives and policies is provided in the main body of the 2005 STP document.

AUTOMOBILES	
Objectives	Proposed Policies
Reduce SOV trips	Long-term target to reduce daily SOV trips/person by 30% from 1997 levels
	Maintain existing carpooling and vanpooling programs
Minimize automobile traffic	Maintain daily automobile traffic at or less than 1997 levels

TRANSIT	
Objectives	Proposed Policies
Implement and support U-Pass programs	Continued support for student U-Pass program
	UBC, Faculty Association, staff representatives and TransLink jointly implement U-Pass programs for staff and faculty
	UBC, UNA and TransLink jointly implement a U-Pass program for UBC residents
Implement community shuttle service	UBC and TransLink develop a Community Shuttle Implementation Plan
Reduce bus noise	Encourage TransLink to use quiet, clean-fuel vehicles for community shuttles, and quieter diesel and alternative fuel buses
Plan for rapid transit at UBC	UBC, TransLink and City of Vancouver jointly undertake a study to define a preferred route/alignment and station locations
	Design of below-grade transit station will be compatible with future rapid transit

CYCLING	
Objectives	Proposed Policies
Implement on-street bicycle facilities	Bicycle lanes on all major roads on campus
	Shared wide travel lanes on Marine Drive between Gates 4 and 8
Increase bicycle end-of-trip facilities	Annual surveys of bicycle rack usage to identify locations for additional bike racks
	Minimum 25% of bicycle racks are covered
	End-Of-Trip Facilities Plan for secure bicycle parking and amenities

WALKING AND WHEELING	
Objectives	Proposed Policies
Improve safety at crossings	Upgrade intersections and key marked crosswalks on campus
Preserve the pedestrian core	No through travel in pedestrian core by UBC vehicles
	Redesign Main Mall to deter motor vehicle use
	Install passable barriers in key locations on perimeter of pedestrian core to limit access to authorized vehicles only

PARKING	
Objectives	Proposed Policies
Manage the commuter parking supply	Maintain commuter parking supply at 0.20 parking stalls/person
Index parking prices	Index minimum daily parking prices to transit fares
Provide additional payment options	Implement a flexible parking pass which enables payment for parking only when used
Manage the residential parking supply	Maintain current maximum parking ratios for residential development
	Any additional parking for neighbourhood residents is provided within neighbourhoods at an additional cost to residents
	Support car-sharing initiatives
Discourage UBC commuters from parking off-campus	Request that MoT implement further parking restrictions and prohibitions on Marine Drive and 16th Avenue
	Continue education efforts to encourage commuters not to park in Vancouver neighbourhoods

HEAVY TRUCKS	
Objectives	Proposed Policies
Manage truck traffic and truck safety	Continue to manage construction truck traffic through truck management program
Minimize truck traffic	Target of a maximum annual average of 300 heavy truck trips/day to/from UBC
Disperse truck traffic	Trucks travelling to/from UBC will use only designated truck routes
	No more than 50% of annual construction truck trips will be via any one route
Monitor truck traffic	Monitor construction truck traffic based on reports from contractors, verified with periodic counts/audits
	Estimate daily non-construction truck traffic from one or more annual counts

1. INTRODUCTION

UBC's Strategic Transportation Plan (STP) was approved by the Board of Governors in November 1999, following two years of preparation and consultation. The STP describes a wide range of transportation initiatives intended to reduce automobile traffic, increase transit ridership and manage travel demand. UBC has pursued these STP initiatives with considerable success, and has become a leading example of transportation management in the region.

When the STP was prepared, it was intended that it be updated after five years to account for what had been accomplished and what changes had occurred on campus during that time. The update of the STP was initiated in January 2005. This document is the updated STP, with proposed transportation objectives and policies which UBC will pursue over the next five years.

1.1. Context

In July 1997, the GVRD adopted an Official Community Plan (OCP) bylaw for UBC. The OCP described a number of transportation objectives which UBC would pursue. An accompanying Memorandum of Understanding (MoU) described in more detail how these objectives would be achieved and how key objectives would be measured. The original MoU was prepared in July 1997, and was updated in December 2000.

One of the commitments which UBC made through the OCP and MoU was to implement a "comprehensive and integrated transportation management strategy." The Strategic Transportation Plan is the result of that commitment, and was approved by UBC's Board of Governors in November 1999.

In the years since the OCP was adopted and the STP was approved, UBC has prepared other plans which affect travel demand and transportation services and facilities at UBC. These include:

- **Trek 2010** is the strategic vision for the kind of university that UBC aspires to be. Prepared through widespread community consultation, TREK 2010 establishes that UBC's vision is to be one of the world's best universities, to prepare students to become exceptional global citizens, to promote the values of a civil and sustainable society, and to conduct outstanding research to serve the people of British Columbia, Canada, and the world. The TREK 2010 objectives focus around five pillars of a sustainable, complete community — people, learning, research, community and internationalization.
- The **Comprehensive Community Plan (CCP)** establishes the principles for detailed neighbourhood planning in the eight neighbourhoods identified in the OCP. The principles outlined in the CCP pertain to housing types, open space, urban form, and circulation (transportation). To date, detailed neighbourhood plans have been prepared for six of the eight neighbourhoods, in accordance with the OCP. Each neighbourhood plan incorporates

transportation features consistent with the STP, such as pedestrian and bicycle facilities, provision for transit services, traffic calming features, and maximum parking ratios.

- The **Campus Transit Plan** describes how the UBC campus will be served by transit in the future, including transit routes and facilities. The key outcomes of the Campus Transit Plan are construction of a new below-grade transit station on University Boulevard, retention of existing regional bus routes on campus, and implementation of a campus-wide community shuttle service. The Campus Transit Plan is consistent with the transit-related policies of the STP.

1.2. Implementation

With the exception of the long-term target for SOV trip reduction, it is intended that the policies and initiatives described in the 2005 STP will be implemented within the next five years — by 2010. At that time, the STP will be updated again, and UBC's performance in achieving the 2005 STP policies will be evaluated. Even though the timeframe of the STP is five years, it can be expected that many of the policies and initiatives will be implemented much sooner.

The next update of the STP in 2010 will provide an opportunity to review the policies and targets in the 2005 STP. At that time, policies can be revised as appropriate, and new policies added to address specific transportation issues which might arise at that time. As well, targets can be adjusted to reflect transportation trends at that time, and to reflect the experience gained over the five years from 2005 to 2010.

Primary responsibility for implementing the Strategic Transportation Plan rests with UBC's TREK Program Centre. The Director and staff of the TREK Program Centre work with other departments within UBC and with other agencies to implement various transportation initiatives. Examples of initiatives which have been implemented to date include:

- The student U-Pass program.
- A reduction in the commuter parking supply and an increase in parking prices.
- Carpooling and vanpooling programs.
- Bicycle lanes on University Boulevard and 16th Avenue.
- Additional bike racks and secure bicycle parking.
- An emergency ride home program
- Changes to class start times to spread the transit demand in the morning peak period.
- A comprehensive truck management program.

A key responsibility undertaken by the TREK Program Centre is monitoring UBC's performance with respect to transportation objectives. Travel patterns to and from UBC are monitored on an

on-going basis through a variety of different data collection methods. The majority of the data are collected during the fall, which provides a consistent basis for year-by-year comparisons of travel patterns, mode shares and traffic volumes. Additional data collection activities are undertaken at other times of the year to obtain information regarding specific modes of travel, seasonal variations and localized traffic volumes. Annual data collection activities are summarized in Table 1.1.

Table 1.1 — Annual Data Collection Activities

Data Collection Activity	Locations	Description
Screenline traffic counts	Screenline	Automatic counters (tubes) on road for 7 days, 24 hours/day
Campus traffic counts	Roads throughout campus	Automatic counters (tubes) on road for a minimum of 48 hours
Intersection counts	Intersections throughout campus	Manual observation for 8 hours (3 in AM, 2 in midday, 3 in PM) for one day
Vehicle occupancy and classification	Screenline	Manual observation for 8 hours (3 in AM, 2 in midday, 3 in PM) for one day
Transit ridership	Screenline	Manual observation from 6:00 AM to 4:30 PM for one day
Bicycles and pedestrians	Screenline	Manual observation for 8 hours (3 in AM, 2 in midday, 3 in PM) or 15 hours for one day
Heavy construction trucks	All construction projects	Weekly reports from contractors for entire year, verified with periodic audits/counts
Heavy non-construction trucks	Screenline	Manual observation for 12 hours for one or more days

In addition to these annual data collection activities, the TREK Program Centre undertakes a campus-wide transportation survey every two years. The survey provides information regarding the travel patterns, attitudes and needs of students, staff, faculty and residents on campus.

1.3. Consultation

Community consultation and input was an essential part of the update of the Strategic Transportation Plan. Consultation activities included:

- Meetings with the Transportation Planning Advisory Committee (TPAC), comprising representatives of the following groups, organizations and UBC departments:
 - Alma Mater Society
 - Graduate Student Society
 - Faculty Association
 - University Neighbourhoods Association

- University Endowment Lands Administration
 - University Endowment Lands Ratepayers Association
 - West Point Grey Property Owners Association
 - Dunbar Residents Association
 - Southwest Marine Drive Residents Association
 - City of Vancouver
 - TransLink
 - Greater Vancouver Regional District
 - Ministry of Transportation
 - UBC Campus and Community Planning
 - UBC TREK Program Centre
 - UBC Plant Operations
 - UBC Campus Sustainability Office
 - UBC Parking and Access Control Services
 - UBC University Town
 - UBC Properties Trust
- Community open houses held on March 1 and 2, and April 5 and 6, 2005. The open houses were advertised in the Ubysey and the Vancouver Courier, on the University Town, Campus & Community Planning and Trek Program Centre website calendars, as well as through notices distributed to all UBC departments, to the TPAC and posted across campus. Information presented at the open houses was also available on-line.
 - Community input solicited through feedback forms distributed at the open houses and submitted on-line.
 - Briefings to community groups as requested, including the University Neighbourhoods Association on May 3, 2005, and the UEL Ratepayers Association on April 6, 2005.

All feedback regarding the Strategic Transportation plan will be conveyed to the Board of Governors when the STP is presented for approval.

2. ACHIEVEMENTS TO DATE

Through the implementation of Strategic Transportation Plan (STP) policies and a wide range of transportation initiatives, UBC has achieved considerable success in managing transportation demand and travel patterns — a success which is unprecedented in the region. This section highlights UBC's key achievements to date, which provides a basis for the STP goals, objectives and policies presented in Section 3. Unless otherwise indicated, the results presented in this section are based on benchmark conditions in Fall 1997, and results for Fall 2004, which is the most recent available travel data.

2.1. OCP/MoU Targets

UBC has met all but one of the transportation-related commitments in the OCP and MoU. The only one which has not been achieved is the target 20% reduction in SOV trips, due to unexpected growth in student enrollment as well as a shift from carpools to transit. Table 2.1 provides a summary of the status of key OCP and MoU transportation targets.

Table 2.1 — Key OCP and MoU Targets

Target	Status
Integrated transportation demand management strategy	✓ Strategic Transportation Plan
Work with other agencies and neighbours	✓
Reduce SOV trips by 20% from 1997 levels	✗ SOV trips reduced 4.8% SOV trips/person reduced 22%
Increase transit ridership by 20%	✓ Transit trips increased 163%
U-Pass program	✓
Adjust class start times	✓
Reduce parking supply	✓ Commuter parking supply reduced 25% (1996–2004)
Increase parking prices	✓ Daily parking prices doubled
Truck management program	✓
Bicycle routes and bicycle parking	✓
Carpooling, car-sharing, telecommuting and other travel alternatives	✓

To achieve the OCP and MoU targets, UBC has implemented a wide range of transportation demand management programs and facilities — many in partnership with TransLink, the Ministry of Transportation, the City of Vancouver, the UEL and other organizations. Highlights of these include:

- **Student U-Pass program.** This program was introduced in September 2003. All 38,000 undergraduate students purchase a U-Pass, which provides unlimited use of transit services throughout the region.
- **More transit service.** Since 1997, TransLink has substantially increased the level of transit service to UBC. The majority of the increase has been on the Route 99 B-Line, plus new routes including the Route 43 express along 41st Avenue, the Route 44 express from downtown, and Route 480 from Richmond Centre.
- **New below-grade transit station.** The University Boulevard Neighbourhood Plan (approved in January 2004) provides for a new below-grade transit station on the site of the former bus loop at the University Boulevard/East Mall intersection. The design for this new station is currently being prepared by TransLink and UBC, and is intended to accommodate transit ridership to 2021 and beyond.
- **Class start times** were adjusted in September 2001, in order to spread the transit demand in the morning peak period. Previously, all morning classes started at 8:30 a.m. Now, some students begin classes at 8:00 a.m., some remain at 8:30 a.m., and the remaining students begin classes at 9:00 a.m. As a result of this change, 12% more daily transit ridership was accommodated on the same number of buses.
- **Parking supply and prices.** UBC has eliminated more than 3,000 commuter parking spaces on campus from 1996 to 2004. This reflects a reduction in the commuter parking supply of approximately 25%. At the same time, the price of parking on campus has increased. Minimum daily parking rates doubled from \$2.00 in 1997 to \$4.00 in Fall 2004, and prices for parking permits and other parking on campus have also increased. UBC does not provide any free parking spaces on campus for commuters.
- **Bicycle routes and facilities.** New bicycle lanes were implemented on several roadways leading to the University. Most notable is the conversion of University Boulevard west of Blanca, from two lanes in each direction to one travel lane and one bicycle lane in each direction. Bicycle lanes were also been added on 16th Avenue. On campus, changes include the addition of over 200 new bicycle racks bringing the on-campus total to over 500 racks, plus bicycle lockers and services to encourage and support the UBC cycling community.
- **Alternative modes of travel.** UBC has encouraged the use of non-SOV modes of travel through a range of programs, including a comprehensive carpooling program (which includes a web-based ride-matching service, preferred carpool parking and a rewards program), an

emergency ride home program, additional campus shuttles, a car-sharing program, a public bike program, bicycle carts and traffic calming measures.

2.2. Travel To and From UBC

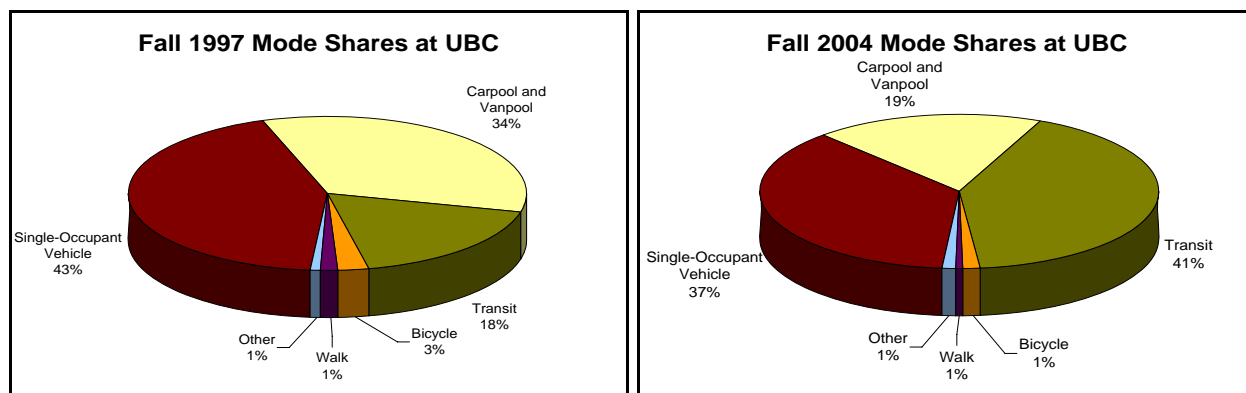
Key changes in travel patterns at UBC from 1997 to 2004 are summarized in Table 2.2 and Figure 2.1, and include:

- **Transit use has more than doubled.** From Fall 1997 to Fall 2004, the number of daily transit trips to and from UBC increased 163%. In the first year of the U-Pass program, transit ridership increased 53% from the previous year.
- **Single-occupant vehicle (SOV) trips.** Since 1997, the number of daily SOV trips has decreased 4.8%, even with a 22% increase in student enrollment. The total number of SOV trips in Fall 2004 is 2,200 trips per day less than in Fall 1997.
- **Carpool and vanpool trips** have steadily decreased each year. By Fall 2004, carpool and vanpool trips had decreased by 13,700 trips (6,200 automobiles), equivalent to a 38% reduction from Fall 1997 levels.
- **Bicycle and pedestrians trips** remained relatively constant until Fall 2004, when they decreased substantially.
- **Other trips have increased.** This increase is primarily due to increased motorcycle trips and light truck (trucks with two axles) trips.

Table 2.2 — Weekday Person Trips Across UBC/UEL Screenline

	Fall 1997	Fall 2004	Change from 1997 to 2004	
SOV	46,000	43,800	-2,200	-4.8%
HOV (carpool and vanpool)	36,100	22,400	-13,700	-38%
Transit	19,000	49,900	+30,900	+163%
Bicycle	2,700	1,600	-1,100	-41%
Pedestrian	1,400	600	-800	-57%
Truck and motorcycle	900	1,400	+500	+56%
Totals	106,100	119,700	+13,600	+12.8%

Figure 2.1 — Weekday Mode Shares Across UBC/UEL Screenline

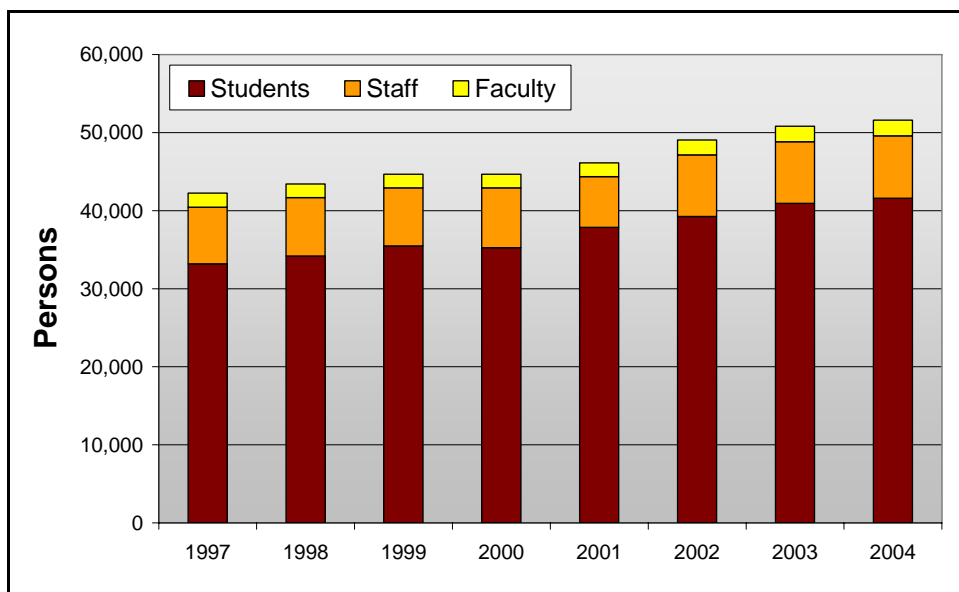


2.3. Automobiles

UBC has reduced single occupant vehicle trips to and from UBC by 4.8% — from 46,000 daily SOV trips in Fall 1997 to 43,800 daily SOV trips in Fall 2004. UBC has not achieved the target 20% reduction in SOV trips indicated in the OCP and MoU, for two key reasons:

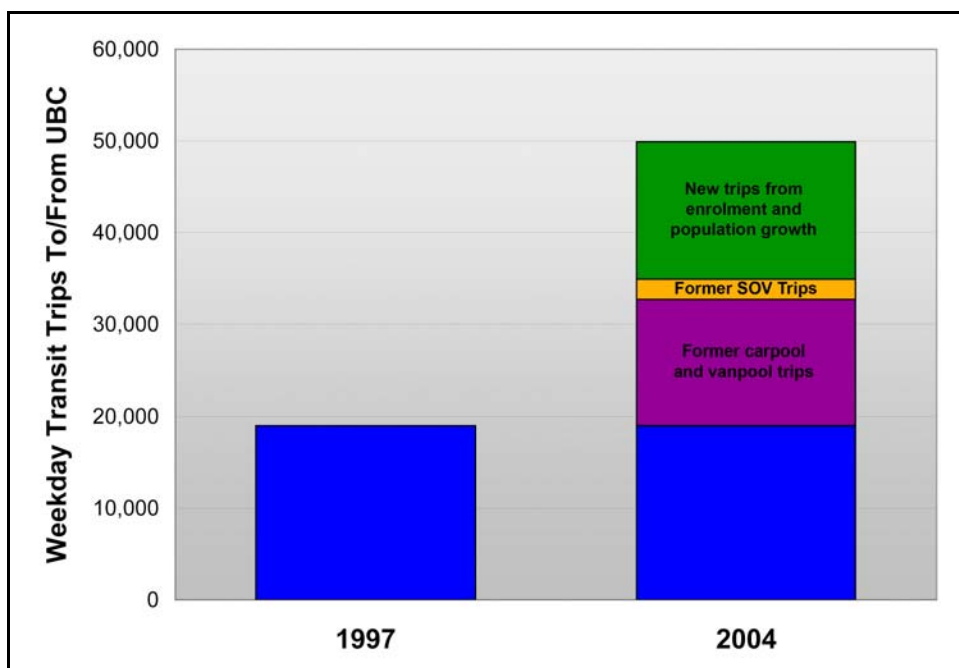
- **Student enrollment grew 22% from 1997 to 2004**, with an associated increase in faculty and staff levels, as illustrated in Figure 2.2. At the time the OCP was prepared, it was not anticipated that UBC's student enrollment would increase significantly. The unexpected growth in student enrollment was the result of initiatives by the provincial government to increase the number of spaces for students at post-secondary institutions in B.C.
- **The increase in transit ridership has come from carpools rather than SOV's.** As illustrated in Figure 2.3, almost all of the shift to transit from other modes has been a shift from carpools, rather than a shift from SOV's. A total of 13,700 former carpool trips (equivalent to 6,200 automobiles) shifted to transit, whereas only 2,200 former SOV trips shifted to transit. In response to declining HOV use, UBC conducted a series of focus groups with students, staff and faculty which clearly indicated that for current and former carpools, transit is a preferred mode of travel.

Figure 2.2 — Daytime Campus Population (Students, Staff and Faculty)



Source: *Planning and Institutional Research, UBC*

Figure 2.3 — Sources of Transit Ridership Increase



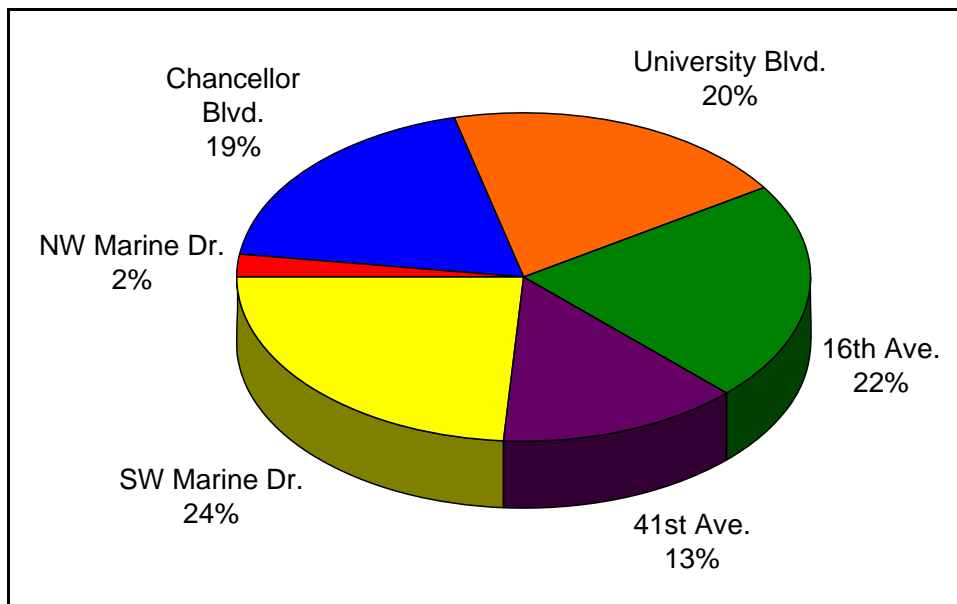
Although UBC has not achieved the target 20% reduction in SOV trips, UBC has been quite successful in restraining SOV use and automobile traffic. UBC has reduced SOV use measured in trips per person by 22% — from 1.09 SOV trips/person in 1997 to 0.85 SOV trips/person in 2004. As indicated in Table 2.3, the daily volume of automobiles travelling to and from UBC

has decreased by 8,000 vehicles since 1997 — a reduction of 12.8%. Overall traffic volumes have decreased 9.1%, with decreases on all roadways leading to UBC. Figure 2.4 illustrates the distribution of daily traffic across these roadways (a portion of the screenline traffic volume for Southwest Marine Drive has been allocated to 41st Avenue to reflect traffic which uses 41st Avenue through the City of Vancouver).

Table 2.3 —Weekday Traffic Volume Across UBC/UEL Screenline

	Fall 1997	Fall 2004	Change from 1997 to 2004	
SOV vehicles	46,000	43,800	-2,200	-4.8%
Carpool and vanpool vehicles	16,400	10,600	-13,700	-35%
Total Automobiles (SOV + carpool/vanpool)	62,400	54,400	-8,000	-12.8%
Total Motor Vehicles (SOV + carpool/vanpool + bus + light truck + heavy truck + motorcycle)	64,600	58,700	-5,900	-9.1%

Figure 2.4 — Distribution of Weekday Traffic Across UBC/UEL Screenline



2.4. Truck Management

In addition to programs and facilities to encourage the use of non-SOV travel modes, UBC has also implemented a comprehensive Truck Management Program to manage heavy truck traffic. The majority of heavy trucks travelling to and from campus are associated with construction on campus. Of these, most are associated with construction of institutional buildings, which account for more than 80% of construction activity (in financial terms).

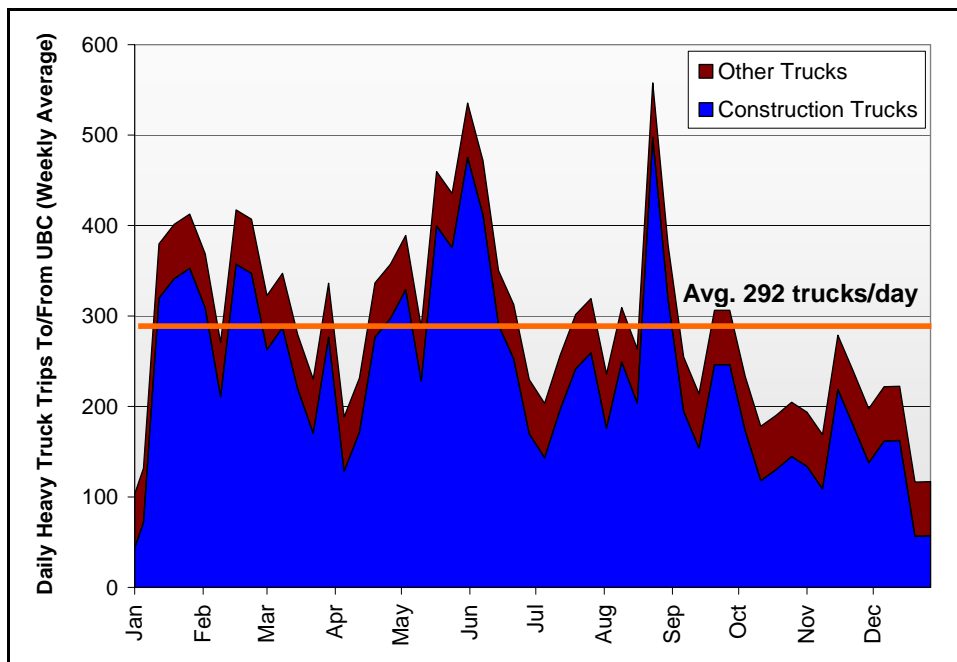
Highlights of UBC’s Truck Management Program include:

- A Truck Management Coordinator who works with the City of Vancouver and other agencies, and who monitors construction truck traffic on a daily, weekly and annual basis.
- Construction contracts require that truck operators adhere to all applicable UBC, City of Vancouver and MoT regulations, and are fined for violations. Fines are as high as \$1,000 for a first offence, and double for subsequent offences.
- Truck trips are minimized through recycling of materials on campus and use of pup trailers. For example, re-using materials for two projects avoided 500 truck trips. Using pup trailers and transfers for excavation and delivery of materials has reduced truck trips by as much as 44%.
- Truck traffic is dispersed by route and by time of day. Operators of heavy trucks are restricted to the four designated truck routes in the City of Vancouver which connect to UBC — 4th Avenue, 10th Avenue, 41st Avenue and SW Marine Drive.

As illustrated in Figure 2.5, heavy truck trips in 2004 averaged 292 truck trips/day, comprised of an average 232 construction truck trips/day and an average 60 non-construction truck trips/day. Proportions of construction truck trips by truck route in 2004 were:

- 9% via 4th Avenue.
- 7% via 10th Avenue.
- 35% via 41st Avenue.
- 49% via Southwest Marine Drive.

Figure 2.5 — 2004 Average Daily Heavy Truck Trips



3. GOALS, OBJECTIVES AND POLICIES

UBC wishes to continue the success it has achieved during the first five years of the Strategic Transportation Plan (STP). This section identifies goals, objectives and specific policies which UBC wishes to achieve during the next five years.

3.1. Goals

Four primary goals are proposed for the Strategic Transportation Plan, as identified below. These goals are based on UBC's commitments in the OCP, the MoU, and the direction provided by TREK 2010 and other strategic plans. The objectives and policies described in the remainder of this section are based on these goals, and provide more detail as to how UBC intends to achieve each of these goals.

- Provide a wide range of transportation choices for everyone at UBC.
- Shift travel from automobiles to transit and other modes of transportation.
- Improve safety for all modes of transportation, particularly for vulnerable road users — pedestrians and cyclists.
- Mitigate the impacts of heavy truck traffic.

3.2. Automobiles

Currently, automobiles are the primary means of travel to and from UBC — single occupant vehicles (SOV's), carpools and vanpools account for 55% of daily person trips to and from campus. Consistent with the goal of shifting travel from automobiles to other modes of transportation, the 2005 STP establishes two key objectives for automobiles:

- **Reduce SOV trips.** Consistent with the direction established in the OCP, UBC will continue with efforts to reduce single occupant vehicle travel to and from campus, and to encourage SOV commuters to shift to carpooling and vanpooling.
- **Minimize automobile traffic.** UBC recognizes that for many, the number of automobiles travelling to and from UBC is a more important consideration than the number of people in each automobile. Consequently, UBC will also work to minimize automobile traffic overall, in addition to SOV travel.

Table 3.1 summarizes the policies associated with these objectives.

Table 3.1 — Automobile Policies

Objectives	Policies	Description
Reduce SOV trips	Long-term target to reduce daily SOV trips/person by 30% from 1997 levels	<ul style="list-style-type: none"> • Calculation is based on persons = students + staff + faculty as reported by PAIR • 1997 level = 1.09 SOV trips/person/day • Target is to be achieved by 2021
	Maintain existing carpooling and vanpooling programs	Programs are available for all persons on campus, including non-UBC employees, and include: <ul style="list-style-type: none"> • Ridematching • Priority carpool/vanpool parking locations reserved for carpools until 9:30 a.m. • Emergency ride home program • Carpool reward package for new carpools
Minimize automobile traffic	Maintain daily automobile traffic at or less than 1997 levels	<ul style="list-style-type: none"> • Automobile traffic = SOV + HOV vehicles • 1997 level = 62,400 automobiles/day • Target is based on future students + staff + faculty ≤ 63,500 persons, as reported by PAIR

As discussed in Section 2, the only OCP/MoU target which UBC has not achieved is the 20% reduction in SOV trips. As stated in the MoU, the target is to “reduce[e] single occupant vehicles by 20% from the 1997 level, which was 46,000 single occupant vehicle trips per day.” Achieving this target would mean reducing SOV travel to 36,800 daily SOV trips.

In Fall 2004, there was a total of 43,800 daily SOV trips, which represents a reduction of 4.8% from 1997 levels. The reason the 20% target has not been achieved is that student enrollment (plus numbers of staff and faculty) has increased 22% since 1997. At the time the OCP was prepared, no significant growth in student enrollment was anticipated. Although UBC has achieved a substantial reduction in the number of SOV trips which each person makes, this reduction has been almost entirely offset by the growth in student enrollment.

Because of past and future growth in student enrollment, the OCP/MoU target of a 20% reduction in daily SOV trips is not a feasible nor meaningful target. The 2005 STP addresses this issue with a revised SOV target which accounts for growth. The 2005 STP proposes a target reduction of 30% from 1997 levels in SOV trips per person. The two significant features of this revised target are:

- The revised target is based on trips per person, which provides a consistent basis for monitoring SOV travel regardless of how much or how little growth in student enrollment

occurs. The number of persons is calculated as the student enrollment plus the number of staff and faculty, as reported by UBC's Planning and Institutional Research (PAIR) department. The number of persons in 1997 was 42,300, and in 2004 was 51,600.

- The revised target is for a 30% reduction. To date, UBC has achieved a 22% reduction from 1.09 SOV trips/person in 1997 to 0.85 SOV trips/person in 2004. Long-range forecasts indicate that as a result of implementing the transportation initiatives identified in the STP, SOV trips per person could be reduced by as much as 30% from 1997 conditions.

The 2005 STP also includes a new target for overall automobile traffic. This target recognizes that one of the key considerations underlying the original OCP/MoU target was a concern that an increase in campus residents at UBC would result in increased traffic. Consequently, this new target indicates that daily automobile traffic will not exceed 1997 levels of 62,400 automobiles per day. Automobiles include all private vehicles — SOV's plus carpools and vanpools. Automobiles do not include buses, motorcycles and commercial vehicles.

Although UBC has reduced daily automobile traffic by 13% since 1997, continued growth in student enrolment and residents in new campus neighbourhoods will increase automobile traffic volumes in the long-term from current levels. The new STP policy indicates that despite these population increases, automobile traffic volumes will not exceed 1997 levels.

As indicated in Table 3.2, this policy is consistent with the OCP and MoU. The targets in the OCP/MoU for a 20% reduction in SOV trips and a 20% increase in transit trips would have resulted in almost the same automobile traffic volumes in 2004 as in 1997. Automobile traffic volumes beyond 2004 would exceed 1997 levels under the OCP/MoU targets, whereas the new STP policy will maintain automobile traffic volumes at or less than 1997 volumes. It is worth noting that future increases in automobile traffic will be primarily due to increases in numbers of on-campus residents. As a result, increases in traffic will be predominantly reverse-direction traffic — traffic leaving campus in the morning and returning to campus in the afternoon — rather than adding to peak direction traffic.

Table 3.2 — Automobile Traffic Volumes — OCP/MoU Compared With 2004 Actual

		Fall 1997	Fall 2004	
			OCP/MoU	Actual
Daytime population		42,300	51,600	51,600
Weekday person trips	SOV	46,000	36,800	43,800
	HOV	36,100	55,100	22,400
	Transit	19,000	22,800	49,900
	Other	5,000	5,000	3,600
	<i>Total</i>	<i>106,100</i>	<i>119,700</i>	<i>119,700</i>
Weekday traffic	All vehicles	64,600	64,800	58,700
	Automobiles	62,400	61,800	54,400

3.3. Transit

Transit ridership at UBC has increased considerably. Since 1997, ridership has increased 163% to a total of daily 49,900 transit trips to and from UBC. This increase has been the result of the student U-Pass program, significant improvements in transit service levels, new routes to UBC and extended hours of service. Consistent with the goals of offering a wide range of transportation choices and shifting travel from automobiles to transit, the 2005 STP establishes the following objectives for transit:

- **Implement and support U-Pass programs.** UBC will continue to support the student U-Pass program, and wishes to expand the program to include others at UBC — staff, faculty and residents on campus.
- **Implement community shuttle service.** UBC and TransLink have committed to implementing a Community Shuttle service providing coverage of the entire campus.
- **Reduce bus noise.** UBC recognizes that one of the few impacts of increased transit service has been the noise generated by diesel buses, and to this end wishes to reduce the impacts of bus noise on campus and in neighbourhoods adjacent regional bus routes.
- **Plan for rapid transit at UBC.** TransLink has identified a rapid transit connection to UBC as part of its long-range plans. Although this will not be implemented within the five year duration of the 2005 STP, UBC wishes to begin planning for rapid transit service so that campus plans and development are consistent with future rapid transit.

Table 3.2 summarizes the policies associated with these transit objectives.

Table 3.2 — Transit Policies

Objectives	Policies	Description
Implement and support U-Pass programs	Continued support for student U-Pass program	
	UBC, Faculty Association, staff representatives and TransLink jointly implement U-Pass programs for staff and faculty	
	UBC, UNA and TransLink jointly implement a U-Pass program for UBC residents	

Table 3.2 — Transit Policies (continued)

Objectives	Policies	Description
Implement community shuttle service	UBC and TransLink develop a Community Shuttle Implementation Plan	The plan will address: <ul style="list-style-type: none"> • Implementation staging • Integration with regional services which provide shuttle functions on campus • Interim changes to Parking Services' shuttle service
Reduce bus noise	Encourage TransLink to use quiet, clean-fuel vehicles for community shuttles, and to purchase quieter diesel and alternative fuel buses	
Plan for rapid transit at UBC	UBC, TransLink and City of Vancouver jointly undertake a study to define a preferred route/alignment and station locations	
	Design of below-grade transit station will be compatible with future rapid transit	

The student U-Pass program was implemented in September 2003 and has been a tremendous success. Transit ridership increased 53% in the first year of the program. Student support for the U-Pass program was clearly indicated by the results of the February 2005 referendum, in which 93% of students supported continuing the program in the highest turnout ever for a student referendum on campus.

UBC will continue to support the student U-Pass program. UBC will continue to work with TransLink, staff and faculty representatives and the University Neighbourhoods Association to implement U-Pass programs for these groups.

At this time, the most significant transit issue on campus is a Community Shuttle service. Currently, shuttle service on campus is provided by UBC Parking and Access Control Services. Scheduled service is provided every 30 minutes, day and night, with one vehicle. Shuttle buses follow a different day route and night route, and neither route provides complete coverage of the campus.

TransLink and UBC have committed to implementing a Community Shuttle service on campus. TransLink and UBC jointly prepared the Campus Transit Plan in June 2003. One of the key

features of the Campus Transit Plan is a campus-wide Community Shuttle service, providing service throughout the day and night to destinations throughout the campus. Implementation of a Community Shuttle service at UBC is included in TransLink's current Three-Year Plan and in the Vancouver/UBC Transit Plan. Figure 3.1 illustrates a TransLink Community Shuttle mini-bus.

Figure 3.1 — Community Shuttle Bus



Although the commitment has been made to implement a Community Shuttle service, no plans have yet been developed which describe how and where the service will operate, and how the service will be implemented. Consequently, a key policy of the 2005 STP is that TransLink and UBC will jointly prepare a Community Shuttle Implementation Plan. This plan will identify:

- Target markets for community shuttle services.
- The extent to which regional transit services will provide shuttle service on campus.
- Community Shuttle routes and bus stops.
- Hours and frequencies of service.
- Facilities and amenities required on campus — bus bays, shelters, seating, information and so forth.
- Timing and phasing of implementation of Community Shuttle services.
- Changes to shuttle services provided by UBC Parking and Access Control Services in the interim period until Community Shuttle services are introduced.

It should be noted that regional bus routes on campus (routes operated by diesel buses and trolley buses) are indicated in the Campus Transit Plan, and will remain on Wesbrook Mall and 16th Avenue. It is intended that the existing evening diversion of Route 41 buses via Thunderbird Boulevard and West Mall will be discontinued by the time Community Shuttle service is introduced.

3.4. Cycling

Until this past year, cycling trips to and from UBC ranged from 2,700 to 3,900 trips/day. In Fall 2004, cycling trips dropped to 1,600 trips/day. The likely cause of much of this decrease is the student U-Pass program — the experience at UBC is similar to the experience at the University of Victoria, where cycling trips decreased 37% following implementation of a U-Pass program.

UBC wishes to reverse this recent drop in cycling trips, and encourage cycling for trips to and from campus, as well as on campus. Consistent with the goals of providing a wide range of transportation choices, shifting travel to cycling and other non-automobile modes and improving safety for cyclists, the 2005 STP establishes the following objectives for cycling:

- **Implement on-street bicycle facilities.** UBC will ensure that cyclists can safely share the roads with motorists by continuing to implement bicycle lanes and shared wide travel lanes on major roads on campus. In addition, as described in Section 3.5 — “Walking,” UBC will also improve crossings of major roads, including crossings on multi-use pathways which will benefit cyclists as well as pedestrians, in-line skaters and others.
- **Increase bicycle end-of-trip facilities.** UBC recognizes that bicycle theft is a potential deterrent to cycling, and to this end will continue to implement secure bicycle parking facilities on campus, as well as amenities for bicycle commuters such as showers and clothing lockers.

Table 3.3 summarizes the policies associated with these objectives.

Table 3.3 — Cycling Policies

Objectives	Policies	Description
Implement on-street bicycle facilities	Bicycle lanes on all major roads on campus	Bicycle lanes to be added to: <ul style="list-style-type: none"> • University Boulevard, east of East Mall • Wesbrook Mall • East Mall, between Thunderbird and 16th Ave • Thunderbird Blvd, between East Mall and Wesbrook
	Shared wide travel lanes on Marine Drive	Between West Mall (Gate 4) and approx. 200 m north of Gate 8 (Stadium Road)

Table 3.3 — Cycling Policies (continued)

Objectives	Policies	Description
Increase bicycle end-of-trip facilities	Annual surveys of bicycle rack usage to identify locations for additional bike racks	
	Minimum 25% of bicycle racks are covered	
	Prepare a Bicycle End-Of-Trip Facilities Plan	End-of-trip facilities include secure bicycle parking and amenities (showers, clothing lockers) throughout campus

Bicycle lanes and paved shoulders exist on all four major roads leading to UBC. Implementation of bicycle lanes on University Boulevard, Chancellor Boulevard and 16th Avenue through the UEL was initiated by UBC. On campus, however, most major roads do not yet have bicycle lanes. On-street bicycle facilities exist only on University Boulevard west of West Mall, on Chancellor Boulevard, on 16th Avenue and on Southwest Marine Drive.

UBC will implement bicycle lanes on all major roads on campus, including:

- University Boulevard between East Mall and Wesbrook Mall
- Wesbrook Mall from Chancellor Boulevard to 16th Avenue
- East Mall between Thunderbird Boulevard and 16th Avenue
- Thunderbird Boulevard between East Mall and Wesbrook Mall
- On Marine Drive between Gate 4 (West Mall) and approximately 200 m north of Gate 8 (Stadium Road), wide shared travel lanes will be implemented rather than bicycle lanes. The constrained right-of-way and proximity to the cliffs in Pacific Spirit Regional Park precludes widening the road to create bicycle lanes.

For many cyclists at UBC, bicycle theft is a significant concern. Bicycle racks are provided at almost all buildings on campus, but do not provide security against bicycle theft. Bicycle lockers provide secure parking, but there are only 70 lockers on campus — most at the War Memorial Gym. Secure bike rooms are provided in new residential developments, but are available only to residents of these developments.

The 2005 STP recognizes the need for additional secure bicycle parking on campus, as well as amenities such as showers and clothing lockers. UBC will prepare an End-of-Trip Facilities Plan to identify locations on campus where additional secure bicycle parking and amenities can be provided in a variety of ways, including bicycle lockers, bicycle cages and attended facilities. UBC will also continue to conduct periodic surveys of bicycle rack use to identify areas where

additional bicycle racks are required, and will increase the level of weather protection over bicycle racks to at least 25% of racks.

3.5. Walking and Wheeling

Walking is the primary means of travel on the UBC campus, and UBC wishes to support and encourage walking and wheeling for trips on campus. Consistent with the goals of providing a wide range of transportation choices and improving safety for pedestrians and other non-motorized modes, the 2005 STP establishes the following objectives for walking and wheeling:

- **Improve safety at crossings.** UBC recognizes that pedestrian safety crossing major roads is a barrier to walkability and increased walking and wheeling, and to this end will continue to improve safety at pedestrian crossings on campus. Improvements to crossings on multi-use pathways will not only benefit pedestrians and persons in wheelchairs, but will benefit cyclists, in-line skaters and other non-motorized modes of travel.
- **Preserve the pedestrian core.** A common complaint among all groups on campus is that motor vehicles intrude into the pedestrian core along Main Mall and adjacent pedestrian areas. UBC will pursue a range of initiatives intended to preserve the pedestrian core by limiting motor vehicle access.

Table 3.4 summarizes the policies associated with these objectives.

Table 3.4 — Walking and Wheeling Policies

Objectives	Policies	Description
Improve safety at crossings	Upgrade intersections and key marked crosswalks on campus	Upgrades to include, as appropriate: <ul style="list-style-type: none"> • Improved illumination • Raised crosswalks • Median islands • Flashing lights • Audible and tactile indicators
Preserve the pedestrian core	No through travel in pedestrian core by UBC vehicles	UBC vehicles not travelling to/from locations in pedestrian core must travel around pedestrian core
	Redesign Main Mall to deter motor vehicle use	
	Install passable barriers in key locations on perimeter of pedestrian core to limit access to authorized vehicles only	

UBC has upgraded a number of crosswalks on campus, including raised crosswalks on East Mall, Agronomy Road and other locations, and flashing lights at the crosswalk on Wesbrook Mall at the hospital. Upgrades to other marked crosswalks on campus will include, as appropriate:

- Improved illumination, including internally-illuminated overhead pedestrian crossing signs which cast a band of light onto the crosswalk.
- Raised crosswalks, which slow vehicles and increase the visibility of the crosswalk to motorists.
- Median islands, which reduce pedestrian exposure to traffic, increase the visibility of the crosswalk to motorists, and provide a safety refuge.
- Flashing lights activated by pedestrians, which increase the visibility of the crosswalk to motorists, and encourage motorists to yield to pedestrians.
- Features to accommodate persons with disabilities, including curb ramps, tactile surfaces and audible indicators.
- Features to accommodate cyclists, such as pushbuttons located where they are accessible to cyclists.

To preserve the pedestrian core of the campus and restrict motor vehicle access, UBC will establish a policy that UBC vehicles can only travel into the pedestrian core when travelling to and from a destination in the core area. UBC vehicles will not be permitted to travel across the pedestrian core to and from other locations on campus. The existing prohibitions which are intended to prevent private vehicles (including UBC-sponsored vehicles such as vanpools) from driving through the pedestrian core will be maintained. Cyclists and other non-motorized modes will continue to be accommodated in the pedestrian core.

In addition to policy changes, physical changes will be implemented to discourage motorists from driving into the pedestrian core. Main Mall between Agronomy Road and Crescent Road will be redesigned to maintain a pedestrian-oriented campus, that encourages social interaction and non-motorized travel modes. Passable barriers will be installed in key locations. These will obstruct motor vehicle access but will retract or otherwise be passable by emergency vehicles and other authorized vehicles.

3.6. Parking

The supply and pricing of parking at UBC has a significant effect on travel demand. Consistent with goals to provide a wide range of transportation choices and to shift travel from automobiles to transit and other modes of transportation, the 2005 STP establishes several objectives for managing parking at UBC:

- **Manage the commuter parking supply.** UBC will continue to manage the supply of commuter parking on campus in support of transportation objectives and other university objectives.
- **Index parking prices.** UBC will continue to index minimum daily parking prices to transit fares.
- **Provide additional payment options.** Currently, the majority of commuters pay for parking on a monthly basis through permits, while others pay on an hourly or daily basis. UBC recognizes that paying for parking on a monthly basis creates an incentive to drive to UBC, and consequently UBC will provide additional options for paying for parking as a means of achieving the goals of providing additional transportation choices and shifting travel from automobiles to other modes.
- **Manage the residential parking supply.** UBC will continue to limit the amount of parking provided for residential developments, in support of the goal of shifting travel from automobiles to other modes. UBC will manage the residential parking supply and pursue other initiatives to encourage residents to use non-automobile modes of travel.
- **Discourage UBC commuters from parking off-campus.** UBC does not want commuters to park in locations adjacent the UBC campus, and to that end will work with other agencies to discourage off-campus parking.

Table 3.5 summarizes the policies associated with these parking objectives.

Table 3.5 — Parking Policies

Objectives	Policies	Description
Manage the commuter parking supply	Maintain commuter parking supply at 0.20 parking stalls/person	<ul style="list-style-type: none"> • Calculation includes all commuter parking stalls, including but not limited to those managed by Parking Services • Calculation is based on FTE students + staff + faculty as per Facilities and Capital Planning
Index parking prices	Index minimum daily parking prices to transit fares	<ul style="list-style-type: none"> • Indexed daily parking price = twice the one-zone adult cash fare = \$4.50 • Excludes effects of any future GVRD parking stall levy (from which UBC is currently exempt)
Provide additional payment options	Implement a flexible parking pass which enables payment for parking only when used	

Table 3.5 — Parking Policies (continued)

Objectives	Policies	Description
Manage the residential parking supply	Maintain current maximum parking ratios for residential development	
	Any additional parking for neighbourhood residents will be provided within neighbourhoods at an additional cost to residents	
	Support car-sharing initiatives to reduce automobile ownership among residents	
Discourage UBC commuters from parking off-campus	Request that MoT implement further parking restrictions and prohibitions on Marine Drive and 16 th Avenue	
	Continue education efforts to encourage commuters not to park in Vancouver neighbourhoods and the UEL	

Since 1997, the majority of the surface parking stalls on campus have been eliminated. As a result, the commuter parking supply on campus has been reduced from 0.34 stalls/person in 1997 to 0.22 stalls/person in 2004. UBC has established a long-term target of 0.20 commuter parking stalls/person. As additional surface parking lots are eliminated, some parking stalls will be replaced through construction of one or more parkades. Even with the construction of new parkades, the overall supply of parking will be maintained at the target 0.20 stalls/person. Some variation in the number of parking stalls per person will occur from year to year as existing parking facilities are eliminated and new parking facilities are added.

Commuter parking stalls include parking facilities managed by UBC Parking and Access Control Services, as well as other parking stalls on campus which are managed by others and are available for use by commuters. This includes, for example, the 150 parking stalls in the Technology Enterprise Facility III (TEF 3) building, which are currently managed by Imperial Parking. Commuter parking stalls do not include parking at commercial, cultural and

community facilities, such as the parking at the Museum of Anthropology or parking at the planned commercial village centre in South Campus.

The calculation of parking stalls per person is based on the number of FTE students plus numbers of staff and faculty as reported by Facilities and Capital Planning.

Currently, the majority of automobile commuters pay for parking with permits, which are sold on a monthly, per term or annual basis. Purchase of a permit can create an incentive for commuters to drive as many days as possible, in order to maximize the value of the permit. In other words, purchasing a parking permit can create a disincentive to use other modes of transportation on some days. The only other payment options at present are to pay for parking on an hourly or daily basis.

UBC recognizes that the lack of additional payment options for parking is not consistent with goals to shift travel from automobiles to other modes and to offer additional transportation choices. Consequently, UBC will introduce a flexible parking pass, which permits commuters to pay for parking only when it is used. Commuters will then be able to choose which mode of transportation to use each day. Commuters who choose to travel by non-automobile modes on some days will not pay for parking on those days.

Commuter parking is not the only parking on campus — parking is also provided for residents in neighbourhoods. UBC has adopted maximum parking ratios for residential developments which limit the amount of parking which is provided for residents and visitors. Unlike the parking ratios used in most municipalities which specify a minimum amount of parking which is to be provided, the parking ratios used at UBC specify a maximum amount of parking. This approach ensures that there is not an over-supply of parking within residential areas.

UBC's residential parking ratios are maximums based on the direction provided by the 1999 STP, and are summarized below:

- Non-market staff/faculty units — a maximum of 1.0 parking stalls per unit, a portion of which may be provided on-street.
- Non-market family student units — a maximum of 0.8 parking stalls per unit, plus up to 0.2 shared parking stalls if needed.
- Non-market single student units (student residences) — a maximum 0.25 parking stalls per bed.
- Market townhouses — a maximum of 2.0 parking stalls per unit.
- Market apartments — a maximum of 1.0 parking stall for each 70m² of gross floor area, to a maximum of 1.8 parking stalls per unit.
- Specialized parking for visitors and persons with disabilities are provided in addition to the residential maximums at a ratio of 0.1 stalls per principal dwelling unit.

In addition, for all residential buildings where parking is provided in a common parking garage or area, one parking stall per unit may be included within the base purchase or rental price for a dwelling unit, and a second parking stall may be made available to building residents for an additional payment or fee. A second parking stall is not to be included in the base purchase or rental price. This means that residents who want only one parking stall are not automatically assigned two stalls, which could otherwise encourage higher automobile ownership and use.

Residents who do not have sufficient parking for all their vehicles often look to UBC to provide additional parking within institutional facilities. To ensure that the residential parking supply is managed in accordance with the goals and objectives of the STP, the 2005 STP establishes a policy that residential parking needs will be accommodated within residential areas.

Many of the policies and initiatives included in the STP will help to encourage residents to use non-automobile modes of travel, thereby reducing the need for parking in residential areas. These include a community U-Pass (also known as COMPASS), a campus shuttle system, bicycle and pedestrian facilities, and a car-sharing program. The University Neighbourhoods Association will be an activate partner in many of these initiatives.

3.7. Heavy Trucks

Construction activity at UBC and the day-to-day operations of the university generate truck traffic. The City of Vancouver — through which all trucks must travel to reach UBC — manages heavy truck traffic through a number of bylaws and regulations. “Heavy trucks” are defined by the City as vehicles with a gross vehicle weight (GVW) of more than 4,500 kg, and three or more axles. Trucks with three axles have GVW’s of as much as 25,000 kg, and trucks with more than three axles have GVW’s of as much as 75,000 kg. All trucks with three or more axles exceed the 4,500 kg specified in the City of Vancouver’s bylaws, which means that the GVW limit is redundant. Consequently, for the purposes of the STP, the definition of a heavy truck is simplified as “vehicles with three or more axles.” This simpler definition makes it easier to monitor heavy truck traffic, as it is only necessary to count the number of axles on a truck to determine whether it is a “heavy truck.”

In support of the goal to mitigate the impacts of heavy truck traffic, STP objectives for heavy trucks are:

- **Manage truck traffic and truck safety.** UBC will continue to manage heavy truck traffic to and from the university and require truck operators to follow safety practices.
- **Minimize truck traffic.** UBC will continue to implement measures to minimize the number of heavy truck trips to and from UBC — construction-related trucks as well as non-construction trucks.

- **Disperse truck traffic.** UBC will continue with practices to disperse truck traffic over all designated truck routes serving UBC.
- **Monitor truck traffic.** UBC will continue to monitor heavy truck traffic and report the results of the monitoring.

Table 3.6 summarizes the policies associated with these objectives.

Table 3.6 — Heavy Truck Policies

Objectives	Policies	Description
Manage truck traffic and truck safety	Continue to manage construction truck traffic through truck management program	Truck management program includes: <ul style="list-style-type: none"> • Compliance with Vancouver and MoT requirements • Actions to minimize and disperse heavy truck trips • Fines for non-compliance • Full-time truck management coordinator
Minimize truck traffic	Target of a maximum annual average of 300 heavy truck trips/day to/from UBC	<ul style="list-style-type: none"> • Calculated as an annual average • Average daily construction truck trips calculated based on a six-day week (reflecting the Monday–Saturday construction schedule)
Disperse truck traffic	Trucks travelling to/from UBC will use only designated truck routes	Designated truck routes include: <ul style="list-style-type: none"> • Provincial roadways • City of Vancouver routes — 4th, 10th and 41st Avenues, SW Marine Drive
	No more than 50% of annual construction truck trips will be via any one route	
Monitor truck traffic	Monitor construction truck traffic on an on-going basis, based on reports from contractors, verified with periodic counts/audits	
	Estimate daily non-construction truck traffic from one or more annual counts of weekday non-construction trucks	

The 2005 STP includes policies which clarify how heavy truck traffic at UBC is managed and monitored, and what the targets are for heavy truck traffic.

The 1999 STP indicates a target of “300 maximum” heavy truck trips per day to/from UBC, “monitored annually.” A truck trip is defined as a one-way trip to or from UBC. The 2005 STP retains this target, and clarifies that it is calculated as an average over a one year period. The calculation of average daily construction truck trips is based on the number of construction truck trips reported by contractors, divided by six days per week (reflecting the Monday through Saturday construction schedule). This means, for example, that if there were 1,000 construction truck trips during one week, the average number of construction truck trips per day would be $1000 \div 6 = 167$ trips/day. Average daily non-construction truck trips are estimated based on one or more counts per year of weekday non-construction truck trips.

Construction truck trips reported by contractors will be verified with periodic counts and audits of all truck trips to and from all construction sites on campus. Counts and audits will be undertaken quarterly during times when numbers of heavy truck trips are in the range of the target maximum 300 heavy truck trips per day.

Four truck routes in the City of Vancouver serve UBC — 4th Avenue, 10th Avenue, 41st Avenue and Southwest Marine Drive. UBC will continue to distribute construction truck traffic across all four routes as much as possible, maintaining the target of no more than 50% of trips via Southwest Marine Drive or any other route. Although 16th Avenue is a de facto truck route through the UEL because it is a provincial roadway, UBC does not direct construction truck traffic via 16th Avenue because it is not a designated truck route in Vancouver. Repeated observations of truck traffic indicate that heavy trucks using 16th Avenue are travelling via UBC to and from destinations in the City of Vancouver.

4. CONCLUSION

The Strategic Transportation Plan (STP) provides a comprehensive policy framework for increasing transportation diversity and efficiency, which helps to achieve sustainability and liveability objectives for the campus community. The 2005 STP updates the original 1999 policy and commitments under the 1997 Official Community Plan (OCP) and the companion 2000 Memorandum of Understanding (MOU). The updated STP intends to build on the success in the last five years at managing automobile traffic and improving transportation choice to 2010.