

6.0 CHALLENGES AND OPPORTUNITIES

Before a list of options for TDM can be effectively developed, the barriers to using alternative modes of transportation must be identified as well as the areas where there is the greatest potential for change in travel behaviour. The results of the review of the “existing conditions”, outlined in the previous sections, certainly reveal some areas where improvements can be made, but as TDM is about changing habits, it was important to interview the actual commuters as a way of gaining insight into why or why they do not use the various modes of transportation. A summary of the results of the Focus Groups is available in **Appendix B**, as are the interview transcripts. The following section describes the challenges and opportunities that have been identified as a result of the review of the existing conditions, and the results of the interviews in the Focus Group sessions (see Section 3.0 Methodology for details).

A series of Focus Groups were conducted with persons who would use and who would be affected by new and modified transportation services and facilities in an effort to identify the “fertile ground” for change in travel behaviour.

6.1 Automobile

The role that parking plays in determining how people travel to and from campus, consistently came up in the focus group sessions. The following chart illustrates the issues, with respect to parking, that were brought up by which group.

Identified Issue	Community	Staff	Faculty	Students
Parking rates are too low	X	X	X	X
Increased parking revenues should go to alternative modes	X	X	X	X
Should be able to pay for shorter time periods		X		X
Do not want to lose green space	X	X		X
More convenient ways to pay for parking	X	X	X	
Increase in parking prices may cause barriers	X		X	X

The next sections explore further the issues raised by the Focus Groups and is dedicated to understanding further, the dynamics surrounding parking on campus so as to fully understand how and what parking management practices might support TDM objectives.

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6.1.1 Cost of Parking

The existing price structure does not encourage the use of alternative modes over single occupant driving. Most commuters who expect to drive just one day a week will find it cost effective to purchase a long-term pass. Once a pass is purchased, vehicle owners have little financial incentive to use other travel modes.

While somewhat lower fees may appear to be justified for parking passes due to their lower administrative costs, the current level of discount appears excessive - far higher than is justified by economics. This rate structure offers no affordable option for students and staff who occasionally need to drive but would like to use alternative modes part time, such as one to four days a week. Such part-time use of alternative modes is common and all probability, represents a major portion of potential mode shifting by students and staff.

6.1.2 Factors That Increase Use of Parking Passes

Several other practices tend to encourage the use of parking passes. The University issues parking permits to individuals, not vehicles. The permit is transferable to any vehicle that the holder drives to campus. Interviews with Campus Security Services staff suggest there is a concern that it is likely that passes are often shared by more than one motorist, increasing their use and reducing revenue. (This assumption cannot be proven or quantified; therefore it is based upon anecdotal information).

In addition to regular permits sold to staff and students, a growing number of permits are given or cheaply sold to UVic donors, retired University staff and volunteers. Approximately 300 annual general parking permits are given to individuals who donate a minimum \$1,000 to the University. The Engineering Faculty has 8 permits that they provide to retired professors volunteering at the University. An additional 300 reserved parking permits are sold for \$27/year to University retirees on the condition that they restrict its use to no more than 10% of the time. Originally only offered to retired UVic faculty and staff, it is currently available to any retired Canadian university employee. These special permits are intended for use by a specific recipient, but they are also subject to abuse because there is no mechanism to enforce this restriction. Checks by campus parking staff indicate that these passes are often loaned to others.

By policy, the University restricts parking services to be "revenue neutral" thereby influencing the setting of parking rates.

6.1.3 Parking Supply - Permit to Stall Ratio

Maintaining the existing permit-to-stall ratio appears to be unnecessary. As mentioned earlier, (Section 5.2 - Parking) current parking facilities are almost never fully used, and the number of

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parking passes issued per parking space is lower than is generally considered acceptable by transportation professionals. Many college and University campuses issue 50% more parking passes per parking space than UVic. This suggests that a 15-25% reduction in per capita vehicle trips to campus over the next decade is a reasonable objective that would maintain an acceptable level of service while using parking facilities efficiently and avoiding excessive costs.

This decline in per capita vehicle trips indicates that it is unnecessary to maintain the current ratio of parking spaces per Full Time Equivalent employee (FTE) particularly if the University implements parking and transportation management programs to encourage further mode shifting. Although the University has not yet had to “manage” the ratio, as demand increases over time, the University can opt to allow for a greater ratio of parking spaces per Full Time Equivalent employee.

6.1.4 Price Impacts on Parking Demand

To accommodate 2% annual population growth without increasing parking supply, per capital parking demand will need to be reduced by approximately 20-25% over the next decade. When parking is priced it has a direct impact on commuter travel and parking habits. Commuters tend to be more sensitive to per-trip parking fees than to most other vehicle charges. Studies show that for each 10% increase in parking fees parking demand is reduced by 1% to 3%. The total number of vehicle trips to the University will change in response to parking price adjustments because students tend to be price sensitive and the University has good travel options, including frequent transit service, student UPass, ridesharing and cycling.

To achieve the reduction, and to avoid increasing parking supply, by just using price disincentives, UVic would require that parking fees increase 50-100% over inflation. For example, current annual fees would need to increase from \$142 to between \$213 and \$284 during the ten year period, representing increases averaging 5-7% per year.

Even after these increases, parking fees would be relatively low compared with those at other campuses and commercial centres, and compared with the marginal cost of increasing parking supply. Smaller price increases may be needed if other TDM strategies are also implemented. More detailed analysis will be required to better predict the price changes needed to achieve specific objectives.

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6.1.5 Parking Facility Costs

As mentioned earlier, the campus would need to add about 1,500 parking spaces in ten years and nearly 3,500 parking spaces in 25 years to maintain current parking ratios. Adding this number of parking spaces would involve a number of direct and indirect costs. These costs are discussed below.

Land

A typical parking space is 8-10 feet (2.4-3.0 meters) wide and 18-20 feet (5.5-6.0 meter) deep, totalling 144-200 square feet (13-19 sq meters). Off-street parking typically requires 300-350 square feet per space, including access lanes and landscaping, allowing 100-150 spaces per acre (250-370 per hectare), depending on design.

The campus currently treats land devoted to parking as free, that is, current parking fees are designed to recover past facility construction and operating costs, but there is no effort to recover rent or property taxes from the land used for parking facilities. This is a common practice but it is not economically justified, since virtually all land has an opportunity cost, either for facilities or for greenspace.

The University has three options for obtaining land to build additional parking: pave greenspace, purchase more land, or use structured parking to provide more parking on existing land. The campus does not plan to displace any existing greenspace for parking facilities, and the University has no intention of purchasing nearby land to accommodate a surface lot. Therefore, the only option is to integrate structured parking into new buildings. This option is described below.

Construction Costs

A surface parking space typically costs \$2,500 per space, while above ground parkades typically cost \$12,000, and underground parking \$25,000 per space. Construction costs increase if construction conditions are difficult or if facilities require special features, such as special landscaping or aesthetic amenities. In addition to these “hard” costs, facility development usually involves “soft” costs for project planning, design, permits and financing, which typically add 20-30%.

Operation and Maintenance

Operation and maintenance (O&M) costs include cleaning, lighting, maintenance, repairs, security services, landscaping, snow removal, access control (e.g., entrance gates), fee collection, enforcement, insurance, labour and administration. Multi-story parkades may require additional costs for fire control equipment and elevators, and underground parking may require mechanical ventilation. These

The cost of NOT working towards reducing parking demand on campus could be more than 1.5 million dollars per year if a parking structure were installed and the current rates were maintained.

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costs typically range from \$100 to \$500 per stall per year depending on facility design and management practices.

Total Direct Costs

Significant investment will be required to increase the on-campus parking supply. Table 12 illustrates estimated costs of building three different types of parking facilities: surface lots, parkades, and underground parking. Although the building of a surface lot is not an option for the University, it is included to enhance the comparison and illustrate the varying costs attributed to parking. The right hand column is the estimated cost per space of providing the facility annualised over 20 years and financed at 7% real interest rate. Estimates for surface lots and parkades are quantified with and without land costs. Land costs have been included, according to standard practice by transportation planners, so that the "opportunity costs" of the land can be included in the equation. The establish land costs were based on standard costs for institutional real estate in Greater Victoria (\$20 per square foot). Construction, operation and maintenance cost estimates are from the International Parking Association.

If land is considered free and operating costs are minimal, the annualized cost of a parking space can be as low as \$383. This is the estimated cost range that is typically assumed when setting campus parking fees. However, if land costs are considered, or if structured parking is built, total annualized costs range from about \$1,000 to almost \$3,000 per space. Load factors (i.e. the average number of parking passes sold per space) and parking fees would need to increase substantially to recover these costs. For example, for structured parking with no incremental land costs, assuming three parking passes were sold per space (currently, 1.6 permits are sold per space, therefore demand would have to increase substantially before a parkade would have sufficient demand to be financially feasible) annual fees would need to increase from \$142 to \$539 to recover the \$1,616 annualized construction and operating costs. If a parkade were built with the current subscription rate of 1.6 permits sold per stall, then the annual fees would have to be \$1,010 to cover the annualized costs. These costs would be reduced after the 20 year amortization expires, however the operation and maintenance costs could be expected to rise somewhat as the building would be older.

Indirect Costs

In addition to direct costs, increasing parking capacity may impose a variety of indirect costs. Parkade construction can change traffic patterns in and around the UVic campus that would require additional expenditures for road modifications. Paving land for parking can impose environmental costs, including loss of green space and aesthetic degradation, and added stormwater management costs from increased impervious surface. Parking structures are difficult to patrol, and so may increase security

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risks. Additional vehicle travel on certain roads could increase traffic congestion, affecting level of service.

Avoided Costs

The cost estimates described above can be used to calculate the spending parking and transportation management strategies by offsetting the need to increase parking supply, either by using existing parking capacity more efficiently, or by reducing vehicle traffic demand to campus.

As described earlier, population growth and displacement of existing parking facilities would require that about 1,500 additional parking spaces be constructed on campus, over the next 10 years, to maintain the current ratio of spaces per FTE. This would cost about \$22.5 million in direct construction costs (1500 x \$15,000) if parking structures are built on existing parking lots in order to avoid using more land for parking. Including operating and maintenance costs, total annualized costs are estimated at \$1,616 per space (opportunity costs of \$22 million dollars capital plus O&M) or \$2,424,000 per year for 1,500 additional parking spaces. Even If the campus sold three annual permits per stall at current rates (\$142 per year), the parking revenue would be only \$639,000, resulting in a net annual loss of approximately \$1.7 million dollars.

Commonly, net revenue from older, existing parking facilities is used to subsidize construction costs for new parking facilities. This makes increasing parking capacity an end in itself, and contradicts other strategic planning objectives such as providing affordable service and minimizing vehicle traffic growth. It fails to consider investments in other strategies to address parking and transportation problems that may be more cost effective. Using a least-cost planning approach allows the University to evaluate both demand management and capacity expansion approaches to determine the best course to follow.

In this case, increasing parking supply is estimated to have a direct, annualized financial cost of \$1,616 per space, plus indirect costs. Any parking or transportation management strategy that reduces the need to add one parking space can be considered to be worth at least this amount.

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Table 12: Typical Parking Facility Financial Costs per Stall

Type of Facility	Land	Construction	Annual Operation & Maintenance	Total Annual Cost per Parking Space
Surface, no land costs	\$0	\$3,000	\$100	\$383
Surface, \$20/sq. ft.	\$7,920	\$3,000	\$100	\$1,131
Parkade, no land costs	\$0	\$15,000	\$200	\$1,616
3-Story Parkade, \$20/sq. ft.	\$2,420	\$15,000	\$400	\$2,044
Underground, no land costs	\$0	\$25,000	\$500	\$2,860

6.1.6 User Perspective

An important factor to consider when setting parking policy is to identify the different types of system users and evaluate the impact it has on their behaviour. Users all place a value on convenient and inexpensive parking. Every vehicle trip requires parking at its destination, so parking facilities are an integrated component of the roadway system. Parking is one of the first experiences that people have when travelling to a destination. Convenient and affordable parking are considered a sign of welcome.

Except in major commercial centres and campuses, most parking is non-priced. What the University charges for parking has been perceived as inconvenient, unfair and expensive to many motorists, even though the parking fees are low when compared with rates at other campuses.

In addition its direct financial costs, paid parking tends to be inconvenient to use. Conventional parking meters require users to have the correct change, predict how long they will be parked, and pay in fixed increments. As a result, motorists are often forced to pay for parking they don't use, or suffer fines and vehicle towing.

Parking subsidies are a traditional way that community members give themselves a valuable gift. Lower-income motorists, such as students living on a budget, consider non-priced parking desirable, since a given parking fee represents a relatively large cost to lower-income motorists. On the other hand, higher-income motorists consider non-priced parking desirable because they tend to drive more and so are more likely to encounter parking fees.

Unlike shopping or recreation centres, UVic staff, faculty and students are "captive" commuters; they have to travel to the campus at specific times. Those that live on-campus require different parking services. The following is a brief description of different groups at UVic and their respective parking needs.

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Staff and Faculty

Unionized University staff includes both full-time and part-time workers. Canadian Union of Public Employees (CUPE) Local 951 represents full-time, temporary and casual workers in the office, technical and child care fields. Educational employees including sessional instructors, teaching assistants, and other non-faculty teaching specialists are represented by CUPE Local 4163. The Professional Employees Association represents non-faculty professionals in the academic departments. Faculty includes full-time and part-time professors.

All staff and faculty are eligible to purchase General, Reserve or Parkade parking permits. As the spaces inside Ring Road are eliminated, Reserve permits will no longer be as convenient. Full-time staff and faculty generally work fixed regular weekly schedules and, if they drive, will mostly require day-long parking including at peak hour. Because they utilize spaces during peak demand this group should be a priority to encourage utilizing transit or ridesharing.

Part-time faculty and staff are more likely to be travelling to campus at off-peak hours, either mid-day or evening, and, consequently, are harder to match with ridesharing and have less choice for convenient transit. However, they are parking for shorter periods and more likely at off-peak times. Because they need to park less, part-time staff may prefer time-based or per use parking if favourable options, such as a faculty UPass, are made available.

Students

There are five significant sub-groups of students with distinct travel and parking behaviours: graduate students; full-time undergraduate students; part-time undergraduates; on-campus single residents; and on-campus married housing residents.

All students living off-campus are required to travel to UVic for classes and to access campus services. The only permits they are able to purchase are General permits. Full-time students generally travel to school 4-5 times per week. Because General parking permits are currently so low relative to daily permits the incentive for students who own a car is to purchase one, even if they don't intend to commute by car every day. There are significant numbers of students who must have their vehicles for family, employment, disability or distance and poor transit opportunities. Additional efforts should be made to assist these students in locating affordable and convenient parking.

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On-campus students are either first or second-year students living in the Cadboro residences off Sinclair Road or in the family quarters off Finnerty Road. Residents in the married housing complex are provided with a space along with their rent. Most of these students own automobiles for reasons of family, employment or recreation. Because of their location these spaces would not be suitable to add to the general campus parking stock. Students who own vehicle and live in the Cadboro Residences however, are able to store their automobiles on-campus with the purchase of a General pass. Parking in this lot is suitable to the general parking stock. Therefore, efforts that lead to the reduction of car-owning students on-campus will increase the number of spaces available to commuters.

6.1.7 Administrative Challenges

Many of the parking and transportation management strategies being considered in this study require new administrative responsibilities and activities. Existing UVic campus parking policies and practices have evolved over time, but are currently not structured to deliver many of the services required for more efficient management. Some of these constraints are described below.

Limited Scope and Resources

The UVic Campus Security Services department currently has a limited scope of responsibilities and resources. It does not have authority or influence over broader transportation issues, and lacks many of the basic tools commonly used for parking and transportation management such as automated license plate readers that assist in accurate parking enforcement and crucial data collection.

Pricing and Funding Policies

The current UVic parking policy minimizes parking fees and limits the use of parking revenue to repaying parking facility costs. It does not allow parking fees to pay rent or taxes on land used for parking facilities. By policy, the University does not allow parking revenues to be used for other mobility management strategies, however, in practice, the University is seen to support cycling (\$10,000 annual grant) and transit (annual subsidy of \$170,000). The policy should be altered to reflect the practice, and to support measures which are a more cost effective way to reduce parking problems.

Limited Data Collection

The campus currently collects general data on specific parking trends. Although the parking department regularly performs parking utilization surveys to determine what portion of parking spaces are being used at a particular time, it has no way to measure the levels of use based on different types of passes and user groups.

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Parking Pass Policies

Current policies, such as those listed below, result in a large portion of students and employees having long-term parking passes with minimal restrictions on the use of the pass. Once a motorist has such a pass they have little financial incentive to use alternative travel modes. The following represents reasons for purchasing long-term parking passes:

- Low rates for long-term parking passes relative to hourly payment options. Paying by the day costs about five times as much as a long-term pass, making it financially unattractive to use a combination of driving and alternative modes.
- There are few restrictions on the use of passes, and no way to track or enforce restrictions. Parking permits are assigned to people rather than individual vehicles, which allows permits to be shared.
- All parking, regardless of convenience, is identified as General Parking with no fee stratification, resulting in high competition for most convenient stalls, and little incentive for motorists to use less accessible parking lots.
- Complimentary parking passes are distributed for a variety of reasons, with few restrictions on their use. Campus agencies may be unaware of the full cost of these passes.
- There is little extra effort to encourage alternative modes during peak times (such as registration week). This creates pressure to increase parking supply to accommodate peak periods, even if the additional parking is only needed a few times a year.

6.1.8 Community Impacts

The University's 2003 Campus Plan will have a variety of traffic and parking impacts which will affect nearby residents and businesses. To be successful, the campus must anticipate and respond to potential problems, such as traffic and parking spillover on residential streets, increased traffic congestion on arterials, and competition for nearby land.

Each of these problems is also an opportunity for developing cooperation among stakeholders, including the campus community, nearby residents, nearby businesses and local municipal officials. Transportation and parking management programs can be implemented in ways that provide broad community benefits and build partnerships.

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6.2 Transit

Transit enjoys the second highest mode share amongst commuters to UVic and is widely understood to be the most likely alternative mode choice for travellers who currently commute by SOV. The following chart illustrates the issues, with respect to transit, that were brought up by which group.

Identified Issue	Community	Staff	Faculty	Students
Travel times are too long		X	X	X
There should be more and longer hours of service		X	X	X
There is crowding of buses during peak times		X		X
There should be Park and Ride facilities	X			X
Should be service to the Airport, and more service to the Ferry				X
Improved Schedule Information	X		X	X
Cost of too high (comparatively)		X	X	

6.2.1 Level of Service

Although the statistics (provided by BC Transit) suggest that the overall utilization of the transit services is approximately 60%, anecdotal evidence suggests that ridership demand exceeds capacity during the peak travel (inbound and outbound) hours. (BC Transit could not provide Peak Hour ridership rates, rather average utilization rates only, but is in the processes of implementing technologies that will be able to provide that data). Students identified a number of gaps in service such as little or no service returning from downtown late at night, poor service to the Western Communities and no service to the Victoria International Airport.

To keep up with the increasing demand, especially after the introduction of the UPass, BC Transit has increased service and capacity (double decker buses), but the demand still appears to exceed the supply.

The costs for the Universal Bus Pass system (UPass) are determined by anticipating the expected utilization, and dividing those costs by the number of students registered at the University. Each student is then charged that assigned portion, whether they use the service or not. The result is, of

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course, that those who do not use the bus, subsidize those who do. Everyone benefits because transit users ride more affordably and presumably automobile drivers benefit because there are less cars on the road and more parking spaces available to them. (The avid cyclist, however, presumably does not benefit significantly from this scenario, as they pay for a service that has very little impact on improving their conditions, with the exception of reducing the number of automobiles on the road).

However, transit ridership has exceeded expectations, yet the costs to improve the service have already been determined, thereby creating a financial dilemma: how might the costs of increased transit be realized.

6.2.2 Costs of Transit

The costs of transit currently exceed the costs of driving for staff and faculty at UVic. For example:

- A daily transit fare, without the benefit of a monthly or annual pass, is \$5.00 which is the same cost as a daily parking permit, without the benefit of a monthly permit. There is no incentive, under this scenario, to take the bus.
- The pro-rated cost of taking the bus with the benefit of a ProPass (10% discounted fare for those who commit to an annual pass) is \$2.36 per day, where as the cost of parking, with a General parking permit is only \$0.59 or \$1.03 for a Reserved stall. Again, there is no incentive, under this scenario, to take the bus.

6.2.3 Schedule Information

Issues concerning obtaining and understanding transit schedule information were raised. There were also anecdotal reports during the focus group sessions that the transit schedule is not strictly adhered to resulting in buses leaving earlier than scheduled. The inconvenience this causes impacts the commuters decision on whether they can rely on transit to get them to their destination in a timely manner.

6.3 Cycling

Although the statistics suggest a decrease in cycling to and from the University, the interest in cycling by focus group members appears to be strong. The following chart illustrates the issues, with respect to cycling that were brought up by which group.

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Identified Issue	Community	Staff	Faculty	Students
Safe Bicycle Routes	X	X	X	X
Difficult to cycle and carry heavy books, files etc.			X	X
More covered and secured bicycle parking, showers and lockers	X	X	X	X

6.3.1 Bike Facilities

No one likes sitting on a wet bicycle seat. Rain also causes bicycle chains to rust and can wash grease from bearings. Leaving a bike open to the elements, also makes the bike vulnerable to theft. Currently, some staff and faculty get around these problems by sneaking their bikes into their buildings but this raises concerns regarding fire safety and access as well as repair and maintenance issues to the building itself.

6.3.2 Road Safety

Safety concerns were raised, suggesting that the major corridors are narrow and congested making cycling a dangerous mode of transportation. The availability of separated bike paths or designated bike lanes and routes on roads is certainly a draw to new cyclists, but the costs are extensive and the multi-jurisdictional orchestration or developing a comprehensive network are monumental (albeit, they are underway). In the meantime, great successes in have been achieved in converting drivers into part-time and full-time cyclists through road safety training.

6.4 Carshare/Carpool

Carsharing and carpooling strategies have not, in other similar institutions, elicited a great deal of interest, presumably because the effort to organize a shared commute does not match the effort assigned to the commute. That is, most people can arrive on campus in under 10 minutes, whereas most carshare programs attract members who's commute is greater than 30 minutes. Despite this, carshare and carpooling programs are still an important component to a comprehensive TDM program. The following chart illustrates the issues, with respect to carsharing/carpooling, that were brought up by which group.

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Identified Issue	Community	Staff	Faculty	Students
Schedules/activities are variable and unpredictable	X	X	X	X
Cycling/transit more attractive		X		X
Requirements to qualify for a Carpool Only stall are too restrictive				X
Lower the parking fees for carpooling			X	X
Improve ride matching		X	X	

6.4.1 Carpooling as a Viable Commute Option

Campus Security Services staff feel very strongly that carpooling is only functional for staff who hold regular work hours, and does not work for students as they have a number barriers. Issues mentioned include¹⁴:

- 80% of students live outside the Greater Victoria area, of which 50% live off island, therefore a car is necessary to commute home on weekends.
- Most residents have cars (on campus or in Victoria.)
- Personal safety issues impact travel decisions of vulnerable users.
- Transit is good, but not entirely convenient for student's rigorous and unpredictable schedules.
- Schedules change from semester to semester.
- Carpool.ca (a national ridematching registry) has voluntarily registered UVic for the past 3 years but very little use has come of this service because there has been no marketing campaign to raise the profile.

6.4.2 Qualifying Age for Car Coop Membership

The Victoria Car Cooperative has a minimum age requirement of 21 years due to insurance restrictions. This limitation presents a barrier to a significant portion of University students

6.5 Pedestrian

The following chart illustrates the issues, with respect to carsharing/carpooling, that were brought up by which group.

¹⁴ Information gathered from interviews with Campus Security Services staff in November, 2002.

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Identified Issue	Community	Staff	Faculty	Students
Live too far away		X	X	X
Conflicts between cyclists and pedestrians			X	X
Safety concerns crossing Ring Road			X	X
Convenient showers		X	X	

6.5.1 Pedestrian Safety

From the driver's perspective, the extensive delays caused by pedestrians crossing at many locations, creates an environment where drivers are less likely to yield to pedestrians, as the delays become exasperating. Pedestrians may, however, feel they have the priority over the roadway, and may assume vehicles will stop as they begin crossing the road. Although any pedestrian crossing, by its very nature, presents a potential for conflict between vehicle and pedestrian, efforts can be made to reduce the risk or mitigate the vulnerability of the pedestrian by such measures as increasing visibility, slowing traffic and increasing driver cues regarding crossing behaviour.

6.5.2 Affordable Housing Close to Campus

It is difficult for students to find affordable housing near the campus as secondary suites are, for the most part, illegal in Saanich and Oak Bay municipalities. Every year, students purportedly arrive in Victoria early, to "scoop up" the best units. The unlucky ones must seek out affordable housing which are invariably not on transit routes and not within walking distance.

There is however, a promising development trend emerging which is seeing, for the first time in over a decade, zoning applications for high density rental units. There is a pending development undergoing the final stages of approval for a mixed-use development at the corner of McKenzie Ave. and Shelbourne St. which has identified the target rental group of university students.¹⁵

6.5.3 Few Amenities on Campus

UVic staff, faculty and students need their cars to do errands off campus. Attempts have been made in the past to lure private businesses which offer essential services, (eg: pharmacy, small grocery store) to set up stores on campus, thereby reducing the number of errand related trips to and from campus. However, such enterprises have not proven financially viable because the current population of the campus, cannot support a stand alone business.

¹⁵ *Tuscany Village Development*

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6.5.4 Access on Ring Road

Concerns regarding pedestrian access on the Ring Road were raised consistently in the focus group sessions. Complaints centred around the road itself, and the apparent increase in the volume of traffic, as a major obstacle which divides the campus now that development has spread outside the original containment boundary.

There may be an opportunity to re-envision the original role of the Ring Road to reconfigure the one-way plan and the associated parking accesses in an effort to reduce traffic volumes on the Ring Road, thereby encouraging walking and cycling on campus.

SECTION II – LIST OF OPTIONS

7.0 DEVELOPING A LIST OF OPTIONS

This section of the report describes a range of transportation demand management (TDM) options which could be considered at the University of Victoria, as a means of discouraging drive-alone travel and encouraging the use of alternative transportation modes.

It is clear that the key to a successful TDM strategy at the University of Victoria will depend upon the methods by which parking is managed. If TDM measures are made up of a series of “carrots and sticks”, parking represents the “stick.” No amount of promotion or incentive based programming will garner changes in travel habits if parking remains relatively inexpensive, abundant and overly convenient.

The priority strategies therefore focus on parking management. Supporting options include, by order of priority, enhancements to transit services and facilities, improved bicycle facilities, ridesharing services, pedestrian facility improvements and other supporting TDM options.

8.0 PARKING BASED OPTIONS

8.1 Combine Synergies of Parking and Transportation Demand Management Goals

8.1.1 The Issue

Although parking and TDM responsibilities fall under the Vice President Finance and Operations they are currently divided between two departments: Campus Security Services and Facilities Management. To maximize the effective implementation of the TDM options presented in this report, it is essential that those required to manage these responsibilities share common parking and transportation demand management objectives. The formal integration of TDM into both Campus Security Services and Facilities Management, enhances the University's commitment to sustainable planning and ensures sustainable transportation planning is included in the overall growth strategy.

8.1.2 Recommended Action

8.1.2.1 Option 1

Improve coordination of campus parking and TDM responsibilities by establishing a campus "Transportation Services" department which would work toward mandated parking and transportation demand management objectives that are in full support of the University's Strategic and Campus Plan. This option would require re-structuring of the Facilities Management and Campus Security Services departments as well as investments in organizational clarity, capacity building and staff professional development. A full-time position should be created within this new department to coordinate and oversee the implementation of the TDM strategy.

8.1.2.2 Option 2

Improve coordination of campus parking and TDM responsibilities by establishing a "high level parking and TDM advocate" who would clearly outline parking and TDM objectives for both departments that are in full support of the University's Strategic and Campus Plan. This option would require investments in organizational clarity, capacity building and staff professional development but would not compromise the current management structure of Campus Security Services and Facilities Management. The TDM advocate's position should be designated a full time position.

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8.2 Increase Parking Fees

8.2.1 The Issue

Long-term parking passes including monthly, term and annual are relatively inexpensive and lower than most other comparable campuses.

With the current parking fee structure hourly parking is far more expensive than long-term parking. Daily rates are five times more expensive for employees who purchase reserve parking permits, eight times more expensive for students and employees who purchase general parking permits (based on 5 days per week, 50 weeks per year), five times more expensive for students who purchase general term parking permits (based on 5 days per week, 32 weeks in total). Students and employees who may drive only one day a week will find it more cost effective to purchase a monthly, annual or term pass rather than pay day by day. Once these commuters purchase an annual or a term pass they have little financial incentive to use alternative modes of transportation.

Similarly, parking fees are currently structured in such a way that daily cost of employees commuting to campus by automobile are considerably cheaper than those commuting to campus by transit. As commuting by automobile is currently more convenient than commuting by transit, there is no incentive to choose transit over the automobile.

To maximize the effective implementation of the TDM options presented in this report, it is essential that parking fees be structured in a way that is, comparable to other campuses, well received and encourages commuters to choose alternative modes of transportation.

8.2.2 Recommended Action

Establish a parking fee structure aimed at:

- the long term goal of achieving a no net increase in parking,
- increasing the use of alternative modes of transportation,
- ensuring the fees are generally well received, and
- being comparable to other institutions.

It is imperative that the University illustrate “good faith” by embarking on other TDM strategies and investing in alternative modes, before any parking fees are dramatically increased.

8.2.2.1 Option 1

Encourage commuters to choose alternative modes of transportation by increasing fees for long-term parking (monthly, term and annual) to be more consistent, but slightly lower than hourly parking. The

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current discrepancy between hourly parking fees (equivalent to \$5.00 per day) and the annual parking fee (equivalent to <\$1.00 per day) make the long term parking passes very attractive and therefore takes away the financial incentive for commuters to choose alternative modes of transportation. The following fee structure is the **minimum** increase to parking fees, which are expected to garner change in travel habits.

It should be noted that all fee increases are above the standard rate of inflation.

Table 13: Parking Fee Increases

	Current Rate	Year One	Year Two	Year Three	Year Four
Daily		\$5.00 (current)	No increase	No increase	No increase
General Parking Monthly	\$30	↑16% (\$35)	↑10% (\$38.50)	↑10% (\$42.35)	↑10% (\$46.60)
General Parking Annual	\$142	↑30% (\$185)	↑10% (\$203)	↑10% (\$224)	↑10% (\$246)
Reserved Annual	\$248.50	↑30% (\$323.50)	↑10% (\$356)	↑10% (\$392)	↑10% (\$430.00)
Parkade	\$568	No increase	No increase	No increase	No increase

8.2.2.2 Option 2

Encourage commuters to choose alternative modes of transportation by eliminating hourly and long term parking and providing only daily parking fees equivalent to a variable \$2.50 to \$3.00 per day. The variable rate will accommodate the recommendation in section 1.4.2 which suggests the lots with the greatest demand be assigned higher fees and the less convenient lots be made available for a lesser fee.

A parking fee of \$2.50 per day would be in line with the daily parking rate at Camosun College. The elimination of permit passes will force commuters each day to consider how they will travel to the campus.

8.2.2.3 Option 3

Encourage commuters to choose alternative modes of transportation by considering a “hybrid” version of the two previous options, whereby an annual pass is sold, for the sake of convenience, but commuters are rewarded for travelling by alternative modes of transportation. For example, permits

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could be issued with a limited utilization varying from 1 to 3 times per week. The less the permit is used the cheaper the daily cost of parking would be to the commuter.

8.3 Comparison of the Options for Increasing Parking Fees

The options were reviewed with respect to how the fee increases compare with the cost of using transit as well as what the net revenue effect of the various options. The following compare the cost of taking transit to the cost to drive an automobile to the campus. (It should be noted that the exercise is very basic as the complete costs of owning a car, such as insurance, repair and maintenance, leasing costs etc., have not been included in the comparison, because the average driver does not think about the true or complete costs when trying to decide which mode to use. Furthermore, every driver's circumstances would be different, thus making a consistent comparison difficult.)

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Comparison: Cost of Transit to Cost of Parking Fees

Daily Charge Comparisons: Current Scenario

Currently, daily parking rates are eight times more expensive than General permit fees and five times greater than Reserved. Transit for students is generally on par with the cost of a general permit, however for staff and faculty, transit is twice as expensive if they are on the ProPass versus a Reserved permit or four times versus a General permit. If staff and faculty purchase a daily transit fare, it is on par with the cost of a daily parking permit

Commuter #1 – SOV, 5 days per week, 25 km. per day, round trip. General Parking

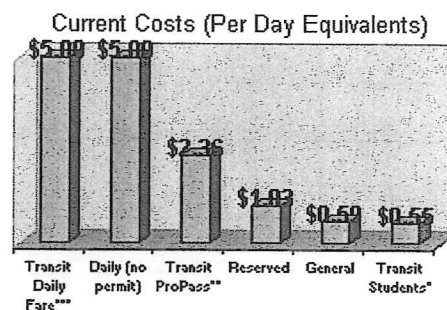
Parking: 5 x \$.59	\$ 2.95
Fuel: .07 x 125 km	<u>\$ 8.75</u>
	\$11.70 travel costs per wk.

Commuter #2 – SOV 1 day per week, Alternative modes 4 days per week

Parking: 1 x \$5.00	\$5.00
Fuel: .07 x 25 km:	\$1.75
Transit ProPass 2.36 x 5	<u>\$11.80</u>
	18.55 travel costs per wk

Result: Cheaper to travel by SOV than by alternative modes

Transit Daily Fare***	\$5.00
Daily (no permit)	\$5.00
Transit ProPass**	\$2.36
Reserved	\$1.03
General	\$0.59
Transit Students*	\$0.55



* Based upon Upass Fee of \$44 for two terms equalling 80 days

** BC Transit's existing programme: based upon \$566.52 per year, with a savings of \$93.38

*** 2-Way Fare

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Daily Charge Comparisons: Future Scenario

Option 1: Four Years of Incremental Increases

One solution is to increase the rates of long term parking. The following chart illustrates that even with substantial increases, (See Section 2 - 1.2) for four years, the discrepancies between the mode costs and the price of daily parking is still vast.

Daily parking rates, after four years of increases, would be reduced to five times more expensive than general permit fees and three and half times greater than reserved. Transit for students would remain on par, however for staff and faculty, the gap between transit and parking closes with the ProPass being one and half times more expensive than reserved and a little over twice as expensive as general parking.

Commuter #1 – SOV, 5 days per week, 25 km. per day, round trip

Parking: 5 x \$1.02	\$ 5.10
Fuel: .07 x 125 km	<u>\$ 8.75</u>
	\$13.85 travel costs per wk.

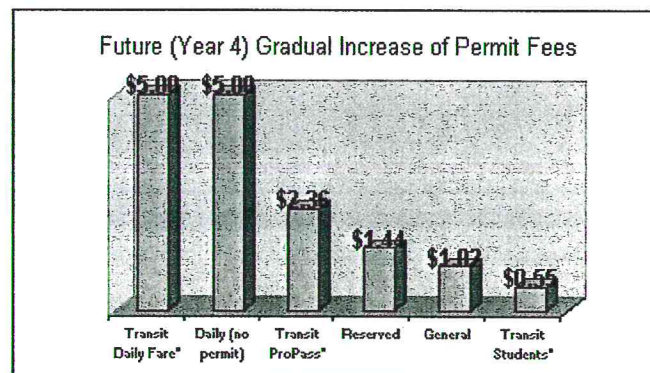
Commuter #2 – SOV 1 day per week, Alternative modes 4 days per week

Parking: 1 x \$5.00	\$5.00
Fuel: .07 x 25 km:	\$1.75
Transit ProPass 2.36 x 5	<u>\$11.80</u>
	18.55 travel costs per wk.

RESULT: Cheaper to travel by SOV than alternative mode.

Transit Daily Fare*	\$5.00
Daily (no permit)	\$5.00
Transit ProPass*	\$2.36
Reserved	\$1.44
General	\$1.02
Transit Students*	\$0.55

* Assumes fares do not increase in the next 4 years



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Daily Charge Comparisons: Future Scenario -

Option 2: Daily Passes Sold Only

An alternative solution is to not sell long term parking permits. If passes are not sold anymore, and daily rates are reduced from \$5.00 per day to \$2.50 for outlying lots and \$3.00 for the more convenient lots, then the gap between the cost of transit and parking disappears, and transit gains a financial advantage over parking, with the remarkable exception of daily transit fare prices.

Commuter #1 – SOV, 5 days per week, 25 km. per day, round trip, Outer parking lot

Parking: 5 x \$2.50	\$12.50
Fuel: .07 x 125 km	<u>\$ 8.75</u>
	\$21.25 travel costs per wk.

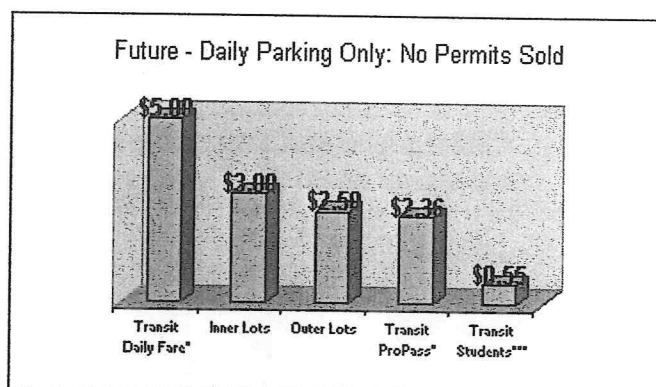
Commuter # 2 – SOV 1 day per week, Alternative modes 4 days per week

Parking: 1 x \$2.50	\$2.50
Fuel: .07 x 25 km:	\$1.75
Transit ProPass 2.36 x 5	<u>\$11.80</u>
	\$16.05 travel costs per wk.

Result: Cheaper to travel by alternative modes than SOV

Transit Daily Fare*	\$5.00
Inner Lots	\$3.00
Outer Lots	\$2.50
Transit ProPass*	\$2.36
Transit Students***	\$0.55

*** Assumes fares do not increase
in the next 4 years



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Option 3 - Commuter "FlexPass"

Another option would be to fuse the two solutions together - increase long-term permits while offering a financial incentive to park daily. This could be accomplished with any number of technologies (such as the Smart Card) which have the capability of supporting a programme that can record a commuter's daily use of the various facilities (parking, bike lock up, transit etc.) and is able to charge according to use. Under such a scenario, a commuter could purchase a long term permit but would be re-imbursed at the end of the term according to how often they use the parking lot. For those commuters who only use the lot a few times per month, the fees would be substantially lower than those commuters who chose to travel to the campus everyday by SOV.

The flexibility of this programme will depend upon the sophistication of the technology used. It may be only appropriate to offer this programme to FTE's to ensure fairness and equity. If, however, a multi-mode transportation card is implemented, then it may be possible to expand this programme to everyone, as each commuter would establish their own profile, and sensitivities could be developed to ensure that part-time commuters are assessed on a level playing field. Below is an example of the net cost of commuting, under this programme.

Commuter #1 – SOV, 5 days per week, 25 km. per day, round trip, Outer parking lot

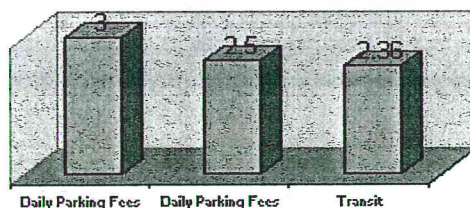
Parking: 5 x \$2.50	\$12.50
Fuel: .07 x 125 km	\$ 8.75
	\$21.25 travel costs per wk.

Commuter #2 – SOV 1 day per week, Alternative modes 4 days per week

Parking: 1 x \$1.00	\$1.00
Fuel: .07 x 25 km:	\$1.75
Transit ProPass 2.36 x 5	\$11.80
	\$14.55 travel costs per wk.

Result: Cheaper to travel by alternative modes than SOV

Parking fees and transit rates are comparable under FlexPass scenario



8.4 Reform Parking Policy – Integrate TDM Objectives

8.4.1 The Issue

The current parking policy minimizes parking fees and limits the use of parking revenue to repaying parking facility costs. It does not allow parking fees to pay rent or taxes on land used for parking facilities. It does not explicitly allow parking revenues to be used for other mobility management strategies, however, practically, the University has already begun the process of supporting alternative modes with parking revenues (annual cycling grant, annual UPass subsidy)

8.4.2 Recommended Action

Change the campus parking policy to allow greater flexibility in how parking fees are structured and how revenues are used. Set parking fees to pay for parking facility construction and operating costs, parking facility land costs, and funding for transportation services that help achieve parking and transportation objectives.

8.5 Parking Data and Enforcement Strategies

8.5.1 The Issue

Campus parking administrators lack needed data for the various types of parking passes issued. They have no efficient way to enforce restrictions on their use. There is no information about the frequency that “complimentary” parking passes, given to major contributors and special alumni, are actually used. There is not any way to restrict their use to the intended recipient only. Parking enforcement officers know that the complimentary parking pass system is being abused, but need better information in order to efficiently and effectively control the established limitations.

Parking patrols are currently completed with parking patrol personnel physically counting vehicles and looking to see if there is a valid parking pass on each vehicle. Due to the number of parking lots, stalls, distance between the lots and limited personnel available, officials are forced to focus on only a few lots at a time. A resulting parking lot “lottery” mentality has developed with some motorist’s, intent on avoiding purchasing valid parking passes and or avoiding parking infraction penalties in order to save money. UVic parking managers have no choice but to alternate parking lot patrol times due to parking personnel limitations. This results in a loss of significant parking revenue and an underlying mentality among parking system abusers that the current parking system can be cheated. Although the majority of parking lot users do not abuse the system and the Campus Security Services department is efficient with the tools and personnel currently available, there are still noticeable gaps in the enforcement of parking policy.

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8.5.2 Recommended Action

Invest in automated license-plate recorders, (parking enforcement and security vehicles can be retrofitted with the equipment) to facilitate parking management and to allow enforcement of restrictions on the use of parking passes. Perform regular parking vehicle license data collection with the license plate reader, particularly during peak periods to determine the level of use of different types of parking passes. Issue parking citations as violations are identified by the license plate reader. This process will save significant amounts of time and give the parking department the capability of efficiently collecting usable data, expedite parking violation citations, dramatically reduce parking system abuses, free up parking personnel to attend other needed duties and capture revenue that would have normally been lost.

8.6 Prioritize Convenient Parking Spaces

8.6.1 The Issue

The UVic campus currently has adequate parking supply, but there are often conflicts over the most convenient spots. Parking lots that are situated closest to the campus centre and the parking spaces within the lots that are closest to popular destinations are filled first. This creates the impression that parking is very scarce during peak times. The current parking prioritization system does not facilitate needed parking turnover.

The current parking prioritization is as follows:

- General parking and ticket dispenser controlled hourly parking are combined to make up 76% of all available parking. All parking in this category is outside of Ring Road.
- Coin operated metered parking (up to 2 hours) consists of 4.3% of all available parking on the campus. Metered parking consists of 16.5% of available parking within Ring Road.
- Reserve parking consists of 17.5% of all available parking.
- Parking within Ring Road consists of 13.2% of all available campus parking.
- Reserved parking consists of 79.4% of parking available within Ring Road, and 11% of all combined campus parking.

8.6.2 Recommended Action

Identify popular parking lot spaces that are considered most convenient. Prioritize use of these spaces during peak periods using the following criteria:

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- Parking for vehicles with disabled-user passes should remain the same at 1.7 to 2% of overall parking availability. Situate these stalls closest to building entrances.
- Metered parking should remain the same at 4.3% of overall parking availability.
- Ticket dispenser hourly parking up to 4 hours should be made available within Ring Road. Convert an additional 20% of parking within Ring Road situated near the most popular UVic destinations within to hourly ticket dispensed parking. Metered parking should remain the same. General and Reserved permits should not be allowed to park in the hourly ticket dispenser parking located within Ring Road.
- Longer-term parking for staff and faculty should remain constant at 17.5% of overall availability but will be partially displaced by hourly parking within Ring Road. Displaced reserve parking will be moved to other UVic lots outside of Ring Road.
- General long-term parking outside of Ring Road consists of 76% of overall availability situated at the outer parking lots and should remain the same.
- Provide discounted fees for parking in less convenient lots.

The outcomes will result in a parking strategy that:

- Gives higher-priority access to convenient parking before lower-priority uses.
- Increases the number of convenient parking spaces (located close to major destinations, such as large buildings) designated for hourly (up to 4 hour maximum) use.
- Encourages long term permit holders to use less convenient parking spaces by offering discounted parking passes good for use at less-convenient parking spaces during peak periods (weekdays during academic year). Such passes could still allow use of any parking space during off-peak periods (e.g., evenings, weekends and holidays). This should be implemented when parking pass rates increase, allowing motorists the option of lower rates should less convenient parking be chosen.
- Enforce parking turnover of the most convenient spaces thereby reducing overall convenient parking congestion.

8.7 Control Use of Complimentary Parking Passes

8.7.1 The Issue

Campus officials' use complimentary parking passes as a reward to special groups on the assumption that these impose little cost, and the pass users will abide by the restrictions regulating the use to 10% or under. However, passes are frequently used during peak periods and contribute to the need to increase parking supply. They can impose significant marginal cost. A structured parking space has

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an annualized value of \$1,600, so a pass that is used once-a-week during peak period imposes direct annual parking costs of \$320. Often these passes are loaned to other people and used more often resulting in parking system abuses and lost revenues to the University. There are few capabilities in place to enforce the restricted use of complimentary parking passes. Recipients are expected to only use them occasionally; there is no way to determine when they are loaned to others.

8.7.2 Recommended Action

Enforce established regulations on limits governing the complementary parking passes and perform regular parking audits to insure that these regulations are followed. This can be effectively and efficiently processed through the use of the recommended license plate reader.

It is recognized that this may pose some political and economic harm if a UVic "financial donor" becomes offended about the new efficient enforcement capabilities of the parking department. UVic will need to implement this process through a written warning system for the first month of stepped up enforcement. During the second month the University will need to move to established parking violation citing procedures to adequately solve this problem.

8.8 Negotiate with Saanich and Oak Bay to Implement a Parking Spillover "Hotline"

8.8.1 The Issue

With the implementation of the recommended parking price increases, the planned growth without adding additional parking, the temptation for staff, faculty and students will be to park in neighbouring communities. Saanich and Oak Bay will be faced with parking spillover problems that have the potential of straining relationships with the University. One of the main motivations for generous parking supply and low parking fees is to avoid spillover parking problems. Although Saanich and Oak Bay officials support UVic's goals to reduce vehicle trips and parking, they are concerned about potential parking and traffic spillover problems. If such problems develop, the municipalities will be reluctant to vary their minimum parking requirements. The Saanich Planning and Engineering Department commented:

"If it is the intent of the University to seek a relaxation in its parking needs as a consequence of the TDM, then a Memorandum of Understanding should be developed which clearly ties the justification for such relaxations to verifiable, long term, sustainable reductions in use of the automobile as the

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means of transportation to and from the University, with the need to provide additional parking if the TDM measures are shown to have failed”.¹⁶

8.8.2 Recommended Action

UVic will need to lobby the surrounding municipalities to implement a “parking hotline” for streets that will be affected by possible UVic spillover parking. This hotline will need to be published on the District of Saanich and Oak Bay’s web sites. Nearby residents complaining about the spillover parking will be referred to this phone number. This hotline can be managed by either an answering system capable of taking messages and checked every half hour, or by a person that answers the phone and takes down the information in person. Once a spillover parking violation is reported, a Saanich parking enforcement officer is dispatched. If the parking violation is verified, a parking fine is issued to the vehicle.

The parking hotline system will work provided that the following criteria are met:

- Surrounding communities cooperate to coordinate effective parking spillover strategies.
- Parking enforcement officers respond within a reasonable amount of time relative to the reported violation.
- Parking enforcement is continuous and ongoing.
- Recommended TDM and parking strategies are fully in place.
- Surrounding municipalities will need to consider changing the current 3 hour non-resident parking bylaw to a more strict measure in order to cut down on parking “cheaters”.

Other benefits include improved relationships with the Municipalities of Saanich, Oak Bay and the residents, and empowering residential capabilities aimed at reducing and eliminating spillover parking problems.

8.9 Improve Parking and Transportation Information

8.9.1 The Issue

Many complaints about inconvenient, inadequate or overpriced parking actually reflect inadequate information available to users concerning parking availability, options and policies. For example, it is difficult to find parking information on the University website, and parking ticket dispensers can be difficult to find and use.

¹⁶ Letter From Municipality of Saanich to J Falk Sept 5 02

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Furthermore, during peak parking periods (10:00 AM to 12:00 PM) parking appears to be at capacity although some parking is still available at more remote lots. Motorists will circle popular parking lots in search of an available stall. This results in frustration on behalf of the motorist, perceptions that all available parking lots are full, congested roads around the university, and traffic congestion complaints from the nearby neighbourhoods.

8.9.2.1 Option 1

Review campus maps and signs to identify ways to help motorists find parking and ticket dispensers and to encourage use of less-convenient parking lots during busy periods. Include information on transportation alternatives in student registration packets. Invest in large easy to read electronic road billboards capable of displaying daily parking information in order to minimize parking spillover and assumed parking capacity problems.

8.9.2.1 Option 2

Display hourly updated parking information by installing parking detector loops at the entrance and exits of all parking lots. This will instantly convey the available parking stall information to large easy to read electronic billboards located at the major entrance points to the University. The information is conveyed in real time and is constantly automatically updated. This will assist in decreasing traffic congestion due to finding an available parking stall. The information can be transmitted via a data communications link to a computer system that controls the information on the electronic billboards. Motorists will be able to see the information as they arrive at the campus and park accordingly. Motorists will also be instantly made aware of other UVic parking lots that may not have been considered otherwise.

8.10 Peak-Period Transportation and Parking Management

8.10.1 The Issue

Campus parking problems are greatest at certain times, particularly during September and during major events. It is worthwhile to have special parking and transportation management programs during these periods to reduce parking problems and avoid the need to increase parking supply to accommodate occasional peaks.

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8.10.2 Recommended Action

Implement specific management programs for those periods should include the following:

- Encourage staff, faculty, students and visitors to use alternative travel modes during the September registration week.
- Provide transit discounts and arrange with transit additional temporary service. This will be most needed during September registration week.
- Provide a temporary shuttle-bus service to access outer parking spaces and nearby destinations (commercial centres and recreation centres where additional parking has been prearranged).
- Work with BC Transit to improve information resources, including more signs and maps for motorists to better identify less-visible park-and-ride lots and information for new students and visitors about transportation alternatives. Registration packets for new students will need to include information on transit, ridesharing and cycling to encourage their use during registration week. Publicity for special sport and cultural events should also include information on alternative transportation options.

8.11 Introduce “High Tech” Payment System

8.11.1 The Issue

Currently UVic does not have a parking or combined transportation “smart card” system which can accurately monitor commuting choices and charge accordingly. As such, there are limits to incentives that can be applied to motorists to encourage them to either restrict the amount of parking they currently use or to encourage them to use an alternate form of transportation.

8.11.2 Recommended Action

UVic should investigate the use of a high tech payment system or “smart card” system where students, staff and faculty have the option of using the card for transit, parking and other transportation related services. The technology to support such a program currently exists, and because there is such a demand, is undergoing an intensive development race amongst innovators. It would not be appropriate to recommend any one technology at this time, as the options are ever changing and evolving. The University may wish to take this opportunity to review its payment systems as a whole, and possibly integrate a transportation card system with other systems such as the Library, food services, etc.

By way of example, however, the current leader in this field is Smart Card Technologies, based out of Sidney, BC. This system supports programming that is capable of closely and efficiently tracking how people use the card. The following options can be implemented:

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- Smart cards can be programmed for any amount of money or “credits” that can be put towards other services (software capability permitting).
- “Unloaded” smart cards can be sold for \$10 each (administration costs) and then users can continuously put money on the card to be used towards the purchase of the service needed. Replacement cards (to replace lost, stolen etc.) can be issued for an additional \$10, and the lost or stolen card can be instantly deactivated upon reporting the loss.
- Incentives can be programmed on the card such as: parking less than 10 times per month, the user gets a free large coffee at one of UVic’s specialty coffee shops, or a certain amount of free photocopying etc.
- The Smart Card will alleviate the inconvenience created by the elimination of monthly permit passes, as recommended in Section 1.2, Option #2.
- By amalgamating the smart card into the transit system and if the user also has a parking permit, the person can be rewarded for using transit based on the percentage of trips. For example, if 20 trips are made in one month, and 30% of those trips are made with transit, the user can be awarded “points” that can be saved up, or used at other campus stores and or services for discount applied savings.
- Smart cards can be adapted to campus wide parking systems that allow convenience to users, and instant information to campus parking officials (linked by computer network) as to parking stall uses and exact time of day.

8.12 Introduce Fees for Night Parking

8.12.1 The Issue

The issue was raised regarding the apparent inequity of parking fees between those who attend the University during the day and those who use it at night and do not have to pay for parking.

8.12.2 Recommended Action

In an effort to bridge the inequities between day and evening attendees, and to encourage alternative transportation even outside peak travel times, fees for parking should be applicable at all times.

However, the issue of extending the parking fees into the evening requires careful consideration as there are circumstances which present the possibility of reversing the identified inequities which currently favour evening attendees.

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For example, transit service is not as frequent in the evenings, and therefore may not be an option for some. It should also be acknowledged that cycling may not feel safe under dark, and is therefore will be ruled out as a feasible option. And finally, some people may choose to drive to the campus for reasons of personal safety – circumstances which are not applicable to those who attend the campus during the day.

Therefore, before any policy changes to night-time parking fees are implemented, stakeholders should be consulted, and measures developed which would serve to mitigate any undue and unfair hardships which could potentially be created by this measure.

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9.0 TRANSIT OPTIONS

Transit services to UVic are provided by BC Transit. Since UPass was implemented in 1999, BC Transit has substantially increased the capacity of transit services to UVic, and in response, transit ridership has increased more than 50%. However, the focus group sessions revealed a number of opportunities for BC Transit to further improve services, as described in this section. There are also options which UVic can consider as a means of encouraging greater transit use, however until the service is improved substantially, there is little point in improving other conditions which will only serve to increase the demand against service that is already at capacity.

9.1 Improvements to BC Transit Services

9.1.1 The Issue

Although ridership has increased significantly since the introduction of the UPass, the results of the Focus Group suggest that ridership would improve if service was increased, thereby reducing traffic and parking demands on campus. BC Transit is not able to increase service to the University without taking away service from another area of the region, due to Provincial budget cutbacks.

9.1.2 Recommended Action

Transit services are provided and funded by BC Transit. UVic can work with BC Transit to identify opportunities to improve transit services and facilities for persons travelling to and from the University. Examples of opportunities include:

More frequent service. On some routes, crowding is a problem at many times, even with double decker buses. More frequent service on these routes would reduce crowding. On other routes, service is infrequent — a bus every 30 minutes or 60 minutes, for example. More frequent service would increase the attraction of these routes and would increase ridership to UVic.

Extended service hours on some routes, service could be extended later in the evening, and could be continued through the midday. For example, one of the routes serving downtown Victoria could operate until after 2 a.m. on weekends to accommodate students (currently, the last bus to UVic leaves downtown just after midnight).

Express services which provide fast, direct service to UVic. There would be potential for express services to UVic from downtown Victoria, Town and Country, Esquimalt and the Western Communities.

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Park-and-ride lots in suburban and rural areas, on routes which provide direct connections to UVic. Locations where new or expanded park-and-ride lots would benefit persons travelling to UVic include the Canwest Mall exchange in Langford and the Western Exchange in Colwood, the Royal Oak exchange in Saanich, and a location on the Peninsula in Central Saanich.

9.2 UPass for Staff and Faculty

9.2.1 The Issue

The student UPass program has been a great success, and most students consider UPass an important benefit. Many staff and faculty see the benefits of UPass, and would like the opportunity to participate in the UPass program. Providing UPasses to staff and faculty would increase transit use, and would reduce vehicle trips to campus and parking demand on campus.

9.2.2 Recommended Action

The UPass program could be extended to staff and faculty in different ways, as described below.

A Mandatory Pass

All staff and faculty in defined groups would be required to purchase a UPass. Groups could be defined based on union membership, faculty associations or other geographic area. The price of the pass could be paid entirely by staff and faculty, or could be partially subsidized by UVic, in the same manner as the student UPass is partially subsidized with funds generated from parking operations.

A Voluntary Pass

At the University of Washington (UW) in Seattle and at the Southern Alberta Institute of technology (SAIT) in Calgary, staff and faculty can purchase a UPass on a voluntary basis. In other words, only those persons who want a UPass purchase one. Both institutions subsidize a substantial portion of the cost of the UPass for staff and faculty. At UW, 60% of staff and faculty purchase UPasses at a cost of Cdn \$24.00 per month. At SAIT, approximately 25% of staff and faculty purchase UPasses at a cost of \$17.50 per month.

An Employee Benefit

UVic could provide a UPass to all staff and faculty at no cost, as an employee benefit. The cost of the passes would be financed entirely by the university - one option would be to pay for passes with revenues generated from increased parking prices.

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At the University of Washington, UPass reduced the proportion of staff and faculty who drive alone to UW by more than 10%, and increased transit use by more than 50%.

9.3 Passenger Amenities

9.3.1 The Issue

The University already has a high profile transit hub on-campus. However, transit is not integrated into throughout the campus resulting in an "out of sight, out of mind" dynamic.

9.3.2 Recommended Action

In order to increase the attraction of transit services at UVic and encourage more people to use transit, amenities can be upgraded for passengers waiting to board buses on campus. Improvements to transit amenities on campus could include:

Transit Exchange

Additional shelters could be installed at the transit exchange to provide protection from rain and wind, and large canopies could be used to protect platforms from rain. Additional seating could be provided, as well as transit route and schedule information.

Bus Stops

An important means of improving access to transit is to add and relocate bus stops on the Ring Road and on roads adjacent the campus so that every location on campus is within a 400 m walk of a bus stop.

Improvements to amenities at bus stops include a hard surface pad for persons boarding or alighting from buses, shelters, seating, curb cuts and accessible pathways for disabled persons, increased illumination, emergency telephones and transit information.

Although not within direct control of the University, bus stop improvements near the campus (Gordon Head, Cadboro Bay, University Heights Centre) will serve the needs not only of the University community who live and shop near by, but will also serve the needs of neighbouring residents, resulting in increased demand on non-peak runs thereby ensuring continued, if not, improved service to the campus. The University may wish to work with neighbouring Municipalities and advocate for improved bus stop facilities off campus.

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9.4 Passenger Information

9.4.1 The Issue

People who use transit infrequently may be discouraged or prevented from using transit because they don't know which bus to take or when the bus operates. Currently, the only location on campus where transit route and schedule information is provided is at the transit exchange adjacent to Campus Security Services and the bookstore. Although there are bus stops elsewhere on campus, no information is provided at these stops.

9.4.2 Recommended Action

Transit route and schedule information provided on campus should be specific to UVic. A map of the campus should be provided, indicating the location of the transit exchange and all bus stops, as well as routes through campus and along the perimeter of campus. Schedule information should highlight routes that specifically serve UVic to facilitate ease of use and understandability.

Locations where transit route and schedule information could be provided on campus include:

Bus stops - All buildings, including classroom based buildings and especially major public gathering places such as the Student Union Building, University Centre, the Bookstore, Centennial Stadium, David Lam Auditorium, the library, etc.

Student Residences

9.5 Special Event Buses

9.5.1 The Issue

Students who live on campus may only actually require a car to travel home during breaks or on special trips such as ski week-ends, etc. The presence of a car, being 'stored' on campus, is more likely to be used over the available alternatives.

9.5.2 Recommended Action

Several post-secondary institutions operate special event buses for students and others on campus. Examples include the University of Colorado in Boulder, which operates buses on weekends to nearby ski resorts, and UBC, which is planning to introduce direct airport shuttle buses for students travelling to UBC at the beginning of the term, and travelling home at the end of the term.

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Currently, BC Transit operates express buses on Fridays and Sundays between UVic and the Swartz Bay ferry terminal. With financial support from UVic, this service could be expanded to include additional trips on Fridays and Sundays, and new trips on other days. There is no bus service to the airport. An alliance could be made with existing Airporter bus services and taxi companies to overcome the barriers to providing affordable transport for students to the airport.

9.6 Integrate Transit Route Information with Housing Services

9.6.1 The Issue

Currently, the mad rush during the beginning of the school year, finds students driving all over the regional district endeavouring to find and secure reasonable housing. It is only until after the fact, that they discover their new home has very inadequate service to the campus.

9.6.2 Recommended Action

Integrate transit route information, as a matter of policy, into the housing services provided by Student and Ancillary Service. Students could be directed to the neighbourhoods in the region which benefit from direct and frequent bus service to the University.

10.0 BICYCLE OPTIONS

This section identifies programs and facilities which to encourage cycling trips to and from UVic and to improve safety for cyclists.

10.1 Covered Parking

10.1.1 The Issue

No-one likes sitting on a wet bicycle seat, and this common sentiment was echoed by UVic cyclists who attended the focus group sessions. Rain also causes bicycle chains to rust, and can wash grease from bearings. Covered parking provides protection for bicycles from rain and other poor weather, and as a result encourages cycling to, from and on campus.

Currently, some bicycle racks on campus are covered, including racks at the Student Union Building and at the University Centre. However, the majority of bicycle racks are exposed to the elements.

10.1.2 Recommended Action

The simplest way to provide covered parking is to locate bicycle racks under existing canopies, awnings and overhangs on buildings.

Groups of bicycle racks accommodating 50 or more bicycles can be covered with fabric or metal canopies supported by poles.

Covered parking can also be provided inside parking structures, in spaces unusable for motor vehicle parking.

Covered parking can also be provided inside buildings, typically in areas used for storage or mechanical purposes.

Existing and prospective cyclists benefit from reduced maintenance and wear on their bicycles while parked at UVic. UVic benefits by increasing the number of commuter cyclists, thereby reducing parking demand and the need for additional parking.

The only significant implications associated with providing covered parking is the potential need to provide adequate drainage from a new canopy, and the additional maintenance associated with a new canopy.

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The cost of providing covered parking under existing coverings and in existing buildings is essentially limited to the cost of new bicycle racks, which typically cost approximately \$100 per bicycle. The cost of constructing a new canopy ranges from \$10,000 to \$50,000, depending on the material, design and size.

10.2 Secure Parking

10.2.1 The Issue

Issues of bike theft were consistently raised during the focus group sessions and identified as a significant deterrent to cycling. University campuses in particular are perceived as high-theft areas. Secure bicycle parking is a means of overcoming this deterrent and encouraging more people to cycle to UVic.

Currently, racks for parking bicycles are provided in locations throughout the campus. Racks are not considered "secure" parking, however, as they do not provide much protection against theft, and provide no protection against vandalism or damage.

Secure bicycle parking eliminates concerns about theft and vandalism, and consequently eliminates a significant barrier to cycling.

The Bicycle User's Committee commissioned and installed 32 lockers on campus but report that they are under-utilized at this time. This may be due to a lack of promotion or the rental rates may pose a barrier:

Students:	\$32 per semester	\$18 per summer term
Staff:	\$40 per semester	\$24 per term
Monthly:	\$10	

10.2.2 Recommended Action

UVic install more secure bicycle parking to ensure that commuters can safely leave bicycles parked on campus without fear of having their bicycles or accessories on their bicycle stolen.

Some different types of methods to provide secure parking are listed below.

Controlled access parking is typically provided in the form of a locked room or enclosure that is only accessible to the owners of the bicycles. The room or enclosure also contains bicycle racks to provide

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additional security against theft. Enclosures are often constructed in parkades, where more than ten bicycles can be stored in the space occupied by one motor vehicle, and are best located in view of the parking attendant. Secure rooms are typically constructed in basements of buildings, and depending on the size of the room can provide parking for as few as a dozen or as many as 100 bicycles. Controlled access bicycle parking is best limited to a small group of cyclists who commute on a regular basis, rather than being also accessible to persons who cycle infrequently, so as to minimize concerns of theft.

Bicycle lockers provide secure enclosure around a bicycle, and include space to store other items such as helmets and clothing. Although multiple lockers can be used to provide secure parking for any number of bicycles, lockers are generally used in locations where the demand for secure parking is relatively low — in the range of 5 to 50 bicycles per day.

Attended bicycle parking facilities operate similar to a coat check, with an attendant who checks in and checks out bicycles. Because there is no risk of theft, bicycles do not need to be locked to individual racks, and as a result, the storage space required per bicycle is much less than with other types of secure parking. Examples of attended bicycle parking facilities include Chain Chain Chain in downtown Victoria, and BikeStations in Palo Alto, Berkeley and Long Beach, California.

Creating these types of parking opportunities will benefit existing and prospective cyclists by reducing the likelihood that their bicycles and accessories will be stolen or damaged while parked at UVic. Cyclists also benefit because they can choose to ride a more expensive bicycle to work — one which might be more comfortable or faster to ride. Furthermore, because of the nature of the operation, the “bike check” format often develops camaraderie among patrons and a bike community, further building the cycling culture on campus. UVic benefits by avoiding the “clutter” of improperly parked bicycles on campus, and by reducing reports of stolen bicycles requiring follow-up investigation. UVic also benefits by increasing the number of commuter cyclists, thereby reducing parking demand and the need for additional parking.

The only potential implication is that other uses might be displaced in order to provide secure parking for bicycles.

The cost of providing controlled access parking is typically \$100 per bicycle or less (in addition to the cost of the room or enclosure). The cost of bicycle lockers is commonly reported to be approximately \$1,500 per bicycle, however the Bicycle Users Committee commissioned the 32 lockers for \$800 per

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unit, installed and report that the next batch will be cheaper because the upfront costs of design have been paid for.

Due to the cost of labour, attended bicycle facilities are generally only economical for more than 100 bicycles. Costs of attended facilities can be partially or fully offset by selling bicycle accessories and providing bicycle maintenance services, and many attended bicycle parking facilities are operated under contract by bicycle shops.

10.3 Showers and Lockers

10.3.1 The Issue

Some commuters who would consider cycling to UVic choose not to because they do not have access to facilities where they can clean up after cycling and change their clothing. Providing showers and changerooms enables these persons to cycle to UVic.

Showers and changerooms are available to students, staff and faculty in the McKinnon Building. However, this is reportedly not a convenient location for many people on campus. Other buildings where there are purportedly showers include the Engineering Lab Wing, the 3rd Floor of the Elliot Building and the Saunders Annex but these are not currently available to the general staff and student population. Showers are also being considered for the Island Medical Project, the Engineering Computer Science Building as well as the Continuing Studies building.

10.3.2 Recommended Action

The most economical and effective means of providing showers and changerooms in the short-term would be to permit cyclists to use other existing facilities on campus. In the longer-term, as new buildings are constructed on campus, opportunities to incorporate shower and changerooms with a secure bicycle parking facility could be investigated.

Existing and prospective cyclists benefit by being able to cycle to UVic without compromising their appearance during the day. UVic benefits by increasing the number of commuter cyclists, thereby reducing parking demand and the need for additional parking.

Providing cyclists with access to existing showers and changeroom facilities could contribute to crowding in these facilities during peak times, if use of existing facilities is already high.

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There are no significant costs associated with providing cyclists access to existing shower and changeroom facilities. Costs of providing new facilities would be incurred when new buildings are constructed and existing buildings expanded or renovated.

10.4 Laundry and Dry Cleaning Service

10.4.1 The Issue

Carrying a change of clothes in a pannier or backpack is an annoyance, increases the weight and bulk of the pannier or backpack, and usually wrinkles the clothes. Providing a laundry and dry cleaning service on campus would reduce the need for cyclist to carry a change of clothes to and from campus.

10.4.2 Recommended Action

UVic can provide a laundry and dry cleaning service on campus would most easily by arranging with a local cleaner for a regular pick-up and drop-off service on campus. This service could be provided in the same building as the major shower and change room facility, such as in the McKinnon Building, although inconvenience of the location of this building has already been identified by focus group participants. An alternative may be to negotiate with a contractor to provide a pick up and delivery service to various sites around the campus, or preferably, door to door.

Existing and prospective cyclists benefit by being able to cycle to UVic without compromising their appearance during the day. UVic benefits by increasing the number of commuter cyclists, thereby reducing parking demand and the need for additional parking.

If a "depot" for pick-up and drop off services is created, an attendant would be required on campus to collect and distribute clothing. Ideally, this would be an existing attendant so as to avoid any additional staff costs, or the position would be integrated into another proposed service, such as the bike locker attendant. Storage space would be required for clothing. If, however, a service is created under what could be described as a 'courier' model, where the contractor picks up and delivers directly to the client's door, then there would be little or no impacts.

In either scenario, there would be no significant costs to UVic of providing a laundry and dry cleaning service on campus, provided that existing staff and facilities could be used for pick-up and drop-off of clothing.

10.5 Bicycle Routes to Campus

10.5.1 The Issue

A key means of encouraging cycling is to provide safe bicycle facilities. Although there are designated bicycle routes on some roads leading to UVic, on most roads there are no bicycle facilities. Consequently, for many people there is not a designated bicycle route to campus, and this is a disincentive to cycling.

Currently, there are only three designated bicycle routes to UVic — via Henderson, Cedar Hill Cross Road and Finnerty. There are no other designated bicycle routes on the UVic campus.

10.5.2 Recommended Action

Although bicycle routes leading to UVic are the responsibility of the adjacent municipalities of Saanich, Victoria and Oak Bay, UVic can play a role in developing bicycle routes: the University can work with municipal staff to identify routes leading to campus, and could cost-share development of these routes from funds generated through increased parking charges.

An example of where this approach has been successfully used is at UBC. University Boulevard is the primary connection to UBC for cyclists from Vancouver. University Boulevard is on the University Endowment Lands, and is under the jurisdiction of the Ministry of Transportation. UBC contributed to the costs of constructing bicycle lanes on University Boulevard, and is currently pursuing cost-share funding for a bike box¹⁷ on University Boulevard at Blanca.

There are no significant implications associated with implementing bicycle routes. Properly designed bicycle routes would not compromise roadway capacity or safety for other road users.

Existing and prospective cyclists benefit by having designated routes to guide them to campus — routes which are designed to maximize safety for cyclists, minimizing the risk of injury. UVic benefits by increasing the number of commuter cyclists, thereby reducing parking demand and the need for additional parking.

¹⁷ A bike box is marked space at an intersection for cyclists to occupy while waiting for a light to change. It is used in areas where cyclists should position themselves to minimize conflict with motor vehicles and to provide them with a comfortable space to wait.

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McKenzie/Sinclair Corridor

Cyclists travelling to the University would benefit most by adding bike lanes along the McKenzie/Sinclair Avenue corridor. This route is identified as a key component of the bicycle network of both Saanich and the Capital Regional District. It would provide a direct link between the university and the Galloping Goose trail network which carries thousands of cyclists per day during peak season.

Bike lanes have already been added by Saanich between Blenkinsop Road and Cedar Hill Road. However, the development of the remaining portions of this route will take several years as McKenzie Avenue will require additional right-of-way to facilitate the addition of bike lanes.

The University should concentrate its efforts to assist Saanich in developing this route by facilitating the construction of bike lanes east of Gordon Head Road to the university. This project would cost an estimated \$300,000. UVic's contributions could include incorporating the design of bike lanes on frontage of all development along this route, agreeing to development cost charges dedicated to funding bike lane improvements in conjunction with future development, and by specifically budgeting TDM funds to cost-share this project with Saanich as part of a provincial/federal infrastructure development program.

Gordon Head Road/Cedar Hill X Road

The other roads directly adjacent to the University could also benefit by the addition of bicycle lanes at much less cost. The routes would only require pavement markings and signage that would cost less than \$5,000 per kilometre. Saanich is planning to add bike lanes to Gordon Head Road between McKenzie and Feltham. The University could facilitate the development of bike lanes through to Cedar Hill X Road, consulting with neighbours and promoting the mutual benefits such a project could deliver. The section on Cedar Hill X Road could easily be developed if parking was restricted on the university side. This would have also remove a major irritant to local residents by removing the student parking along this section and strengthen UVic's relationship with the neighbours.

10.6 Re-Introduce the "Public Bike" System

10.6.1 The Issue

The neighbouring commercial business districts such as the University Heights Shopping Mall and the Cadboro Bay Village provide the much needed facilities and services that the University campus cannot sustain on site. The short trips to those services are most efficiently achieved by car, as walking or transit is not practical for errand running. Cycling is also efficient, however many people may

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arrive to campus by a mode other than by bike, and therefore would not have access to a bike for these short and possibly infrequent trips.

10.6.2 Recommended Action

The availability of communal or public bicycles will further facilitate the integration of the campus with surrounding services, allowing and encouraging people to consider traveling by bicycle rather than by car. Such a service will further support those who regularly commute by bus, but require an efficient mode of transportation to run errands.

A public bike system could be implemented in a number of ways. They could be painted a distinctive colour and distributed throughout the campus for spontaneous and random use. This system has been successful in Victoria (Blue Bike) but is very labour intensive and will undoubtedly result in bikes being left off campus, throughout the neighbourhood, and may result in some complaints. Over the year, the inventory of bikes will dwindle, and a new set of bikes will have to be brought into service. Generally the bikes are of poor quality in order to reduce the likelihood of theft, and as a result, they are often not very pleasant to ride.

Another system may be to have some sort of a locking system and a "check in/check out" program which would ensure the bikes are returned. This system would allow for better quality bikes to be used (and possibly electric bikes to ease the return trip associated with the steep Sinclair Road) thereby increasing the profile of cycling in general (no one likes riding a "beater") but the trade-off would be that spontaneous trips are less likely to occur due to the process of getting a bike.

Any program chosen to establish a public bike system should consider the competing needs of flexibility, accessibility, affordability, safety and enjoyment.

"Bike Küchen."

It may be useful to integrate a number of these recommendations into a "Bike Kitchen" programme, similar to the one operated as a cooperative at UBC. This programme offers members access to free bikes as well as secure lock up services and repair facilities. Members can hire other members to service their bikes, or for a reduced rate, use the tools and work space to repair their own bikes.

11.0 RIDESHARING OPTIONS

Ridesharing includes carpools and vanpools. Carpools are generally informal arrangements between two or more persons who share a ride to or from UVic. Vanpools, on the other hand, are a formal arrangement involving four to eight commuters, who travel together in a vehicle provided by a vanpooling agency, and who pay a monthly fare for the service.

Both carpooling and vanpooling are potentially attractive means of commuting to UVic for persons without access to convenient transit services or who live too far to cycle or walk to campus. The options described in this section are intended to enhance the attraction of ridesharing, and reduce the cost (in terms of time and money) of carpooling and vanpooling as compared with driving alone.

11.1 Ridematching

11.1.1 The Issue

The greatest deterrent to ridesharing is the difficulty in finding carpool and vanpool partners with similar commuting schedules. A ridematching service available to students, faculty and staff enables prospective ridesharers to meet and form carpools and vanpools.

11.1.2 Recommended Action

A ridematching service operates similar to a dating service. Prospective ridesharers provide information regarding their home location, the hours they wish to travel, whether they prefer a non-smoking vehicle, and any considerations. The ridematching agency then matches each person with other commuters who live nearby and who wish to travel at similar times, providing a name and contact information for each match. Each prospective ridesharer's name also remains in the ridematch database to be matched with other prospective ridesharers. It is up to prospective ridesharers to form a carpool or vanpool — the ridematch agency simply acts as an "introduction service."

There are a number of ridematching services currently in operation in the Victoria area, therefore it may not be necessary for UVic to provide a separate service. The benefit of joining an existing service is the expanded pool of commuters from which to choose (not just those people travelling only to the University). Examples of currently operating ridematching services include:

- Jack Bell Rideshare (JBR) currently provides ridematching services for both carpools and vanpools in the Victoria region, on behalf of BC Transit. To use this service, it would be up to UVic to coordinate and promote ridematching on campus by distributing and collecting ridematch application forms, and then forwarding these to JBR. Then, upon enquiry, people looking for

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rides would be provided directly with a list of prospective carpoolers and vanpoolers by JBR. This system is a manual system, therefore the information is not consistently current, and there is a reduced accuracy of appropriate matches. This service however is free of charge.

- Carpool.ca is an on-line, user-friendly and well managed ridematching system. The user can set up their own "profile" to find an appropriate match, casting a net as wide or as narrow as they wish. There would be an annual management charge to UVic for this service, which may or may not include a promotion package.
- Viva Commute is a similar on-line ridematching system based out of Victoria. For a fee, a site specific ridematching system can be set-up, linking the UVic community to one another.

11.2 Preferential Parking

11.2.1 The Issue

A means of encouraging ridesharing is to provide preferential parking for carpools and vanpools close to key buildings on campus. This would eliminate the long walks for many commuters, particularly those parking in lots outside the Ring Road.

11.2.2 Recommended Action

UVic's Campus Security Services department currently provides designated, reserved parking for carpools in various lots, as demand dictates. To further encourage ridesharing, the number of designated carpool parking stalls could be increased, in high profile areas, so that carpooling gains recognition from increased visibility.

The key attraction of preferential carpool parking is the guarantee of a parking space by either the guarantee of a convenient location without the need to search for a space, or the guarantee that a space would be available in an otherwise crowded facility.

11.3 Reduced Parking Prices for Carpools

11.3.1 The Issue

Generally, it is very difficult to encourage carpooling, especially where average commute trips are less than 30 minutes, as the extra effort required to organize is usually not an equal trade off for the benefit of sharing the cost of gas. Furthermore, the cost of parking on campus would have to increase substantially in order to make that cost share attractive. Other incentives, therefore, are required to encourage carpooling on campus. Currently, carpool parking permits are priced at the same rate as general or reserved parking — there is no price reduction for carpools and vanpools. Carpool permits are only issued to carpools with a minimum of three persons.

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11.3.2 Recommended Action

Some post-secondary institutions and other parking operators charge a reduced price for carpools as compared with other vehicles. For example, at UBC the price for carpool permits is \$42/month, as compared with prices of \$50/month to \$75/month for other permits.

11.4 Reduced Vanpool Fares

11.4.1 The Issue

Some commuters live where there is no transit service or live far from UVic. For these people, transit is not a viable commute option, and consequently there is little benefit to them in a UPass. A means of providing an alternative of similar value for these people is to reduce vanpool fares.

11.4.2 Recommended Action

Vanpoolers typically travel long distances to work and are not able to use transit to commute. For commuters who travel to UVic by vanpool and who purchase a UPass, an option is to provide a reduction in the monthly vanpool fare equivalent to the value of the UPass. For example, if a vanpool fare is \$90 per month, and the UPass is priced at \$12.50 per month, then a pass-holder would only pay \$77.50 for the vanpool fare and the balance would be funded from the UPass program.

This reduction in vanpool fares reflects the fact that vanpoolers rarely use transit. Because vanpools work on a subscription basis, almost all vanpoolers use vanpool services on a daily basis. Consequently, their use of transit and other transportation services is minimal. For vanpoolers, the primary attraction of a UPass would be that it provides an alternative in situations where the vanpooler cannot use the vanpool, or when the vanpool is not available. It would also provide a means of making trips during the daytime without the need for an automobile and without incurring additional costs.

11.5 Reduce Barriers to Qualifying as a Vanpool or Carpool

11.5.1 The Issue

For travellers where transit is not a viable commute option, barriers to qualifying as a legitimate vanpool or carpool should be reduced as much as possible, without opening the door for abuse. Although vanpooling and carpooling options are likely not going to be the panacea of transportation alternatives for travelling to and from campus, they remain an important component to an overall strategy – one of a series of options. It is important therefore, to make every effort to open up the options as a very real alternative to single occupant travel.

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Currently the qualification process for registration as a carpool is fairly stringent:

- A carpool is described as three or more
- All registered members must have a car registered in their own names
- All members must be reasonably on the same route, the approval of which is up to the discretion of Parking Management staff.
- Vanpools are not able to access any benefits unless three or more of the occupants have the UVic campus as their end destination.

The above requirements were identified by focus group participants as “impossible” to meet, and therefore vanpooling and carpooling was not a realistic alternative.

11.5.2 Recommended Action

A more accessible carpool and vanpool program would have the following qualifications:

- Two or more occupants.
- Vehicle does not need to be registered in their own names.
- Vanpools require only one person with a destination to the campus.

12.0 PEDESTRIAN OPTIONS

This section identifies several ways in which pedestrian safety can be improved on campus, as a means of encouraging walking. As well, opportunities are identified for UVic to work with Saanich and Oak Bay to improve pedestrian routes to campus.

12.1 Safer Crossings on Ring Road

12.1.1 The Issue

Most trips on campus are made by walking, yet the Ring Road presents a significant barrier to a seamless, walkable environment, due to the number and behaviour of vehicles using the road. As the University continues to expand outside the ring perimeter, the walkability of the campus will become more and more crucial to ensure that people will choose the pedestrian mode over driving to various destinations on campus. Pedestrians consider safety (traffic and personal) first when assessing the environment, then convenience and then comfort. Pedestrian crossings and pathways (network) can be audited for these three considerations. Improvements to pedestrian facilities can be undertaken to improve safety for pedestrians, and to encourage walking rather than driving as the University grows in size.

12.1.2 Recommended Action

Options for improving pedestrian crossings on the Ring Road include:

- **Signage and pavement markings** - Crossings can be improved with additional paint markings and signage to increase the visibility of the crossing to motorists.
- **Illumination** - Streetlights, overhead illuminated crosswalks signs to improve illumination of the crossing area and the sidewalks immediately adjacent the crossing. This increases the visibility of pedestrians at night — both pedestrians in the crossing and pedestrians approaching the crossing.
- **Flashing lights** can be installed at the roadside, overhead and/or in the roadway surface at a crossing. Flashing lights are typically activated by a pushbutton and are appropriate at locations with low to moderate volumes of pedestrians, and higher traffic volumes and speeds.
- **Raised crosswalks** are essentially elongated speed humps located at a crossing. They improve pedestrian safety by slowing vehicles to approximately 40 km/h at the crossing, and by increasing motorists' awareness of the crossing. The presence of raised crosswalks sends the message to motorists, that pedestrians have the priority in the Ring Road area.
- **Curb extensions** reduce the crossing distance for pedestrians, thereby reducing the exposure of pedestrians to traffic. They also increase motorists' awareness of a crossing, and slightly reduce vehicle speeds.

12.2 Traffic Calming on Ring Road

12.2.1 The Issue

Many students, staff and faculty consider that traffic speeds on the Ring Road are excessive, and as a result consider that crossing the Ring Road is not safe. Traffic calming is one way of discouraging speeding on the Ring Road, and as a result encouraging more people to walk on campus.

12.2.2 Recommended Action

Although there are a wide range of traffic calming measures used in Saanich, Victoria and other municipalities, only a few are effective in discouraging speeding. Those which would be appropriate to use on the Ring Road include:

Speed cushions are rectangular concrete or rubber devices 75 mm (3 inches) high, with sloped sides. Unlike speed humps, which extend across the entire width of a road, speed cushions are placed on a road so that there are gaps approximately 1 m wide between the cushions. The gaps allow buses, fire trucks and large trucks to travel over the cushions at reasonable speeds, but still encourage motorists in automobiles to slow to approximately 30 to 35 km/h. Speed cushions avoid creating delays for fire trucks and buses, and avoid creating discomfort for passengers on buses. UBC recently installed speed cushions on one road on campus to test their effect on buses and fire trucks, and to discourage speeding.

Raised crosswalks, described earlier, are essentially elongated speed humps located at a crossing. They improve pedestrian safety by slowing vehicles to approximately 40 km/h at the crossing, and by increasing motorists' awareness of the crossing. Raised crosswalks are used in Victoria and many other communities.

12.3 Pedestrian Routes to Campus

12.3.1 The Issue

On many roads in neighbourhoods adjacent UVic, there are no sidewalks, and there are few pedestrians crossings on major roads. Concerns regarding safe routes and crossings leading to the campus were raised consistently by focus group participants. Providing sidewalks and safe crossings would encourage more people to walk to UVic.

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12.3.2 Recommended Action

In most cases, sidewalks can be constructed within road rights of ways, and even within the roadway, reducing the overall width of the road. Pedestrian crossings on major roads can include combinations of high-visibility signs and pavement markings, curb extensions and median islands, flashing lights and pedestrians signals.

Although pedestrian facilities on roads leading to UVic are the responsibility of the adjacent municipalities of Saanich, Victoria and Oak Bay, UVic can play a role in developing pedestrian routes. The University can work with municipal staff to identify routes leading to campus, and could cost-share construction of sidewalks and implementation of pedestrians crossings from funds generated through increased parking charges.

Existing and prospective pedestrians benefit from increased safety, minimizing the risk of injury. UVic benefits by increasing the number of persons walking to campus, thereby reducing parking demand and the need for additional parking.

13.0 PROMOTION AND EDUCATION

Key to a successful TDM program will be the ongoing promotion of the options that are available to the campus community. Certainly, many of the options focus on improving the facilities for alternatives, as a way of competing with the efficiency of the car, but it will be a long time before our collective driving habits become sustainable. To that end, this TDM strategy will have to appeal to the campus community, through education and promotion campaigns and other incentives, to use their good judgment when making transportation choices.

Messaging will vary depending upon the target group. The TDM coordinator will benefit from tapping into the various resources on campus from the graphics department to the students within faculties such as Environmental Studies, Communications and Fine Arts. There are also many examples of innovation in ad campaigns to draw upon from other communities. For example, Whistler's advertising firm, when charged with the task of kicking off a lifestyle promotion campaign, used the tag line "The Whistler Way" to encourage visitors to "do like the locals" and use green modes of transportation. To build up transit ridership amongst youth, they coined the phrase "Hotties Ride the Bus!", to apparent rave reviews.

An exciting component of TDM education on campus, is the potential for the University to contribute to establishing a culture of green commuting amongst its graduates, thereby spilling over and influencing the commuting culture in the broader workforce.

The education and promotion component of an overall TDM strategy will also serve to make the program transparent. As stated earlier, it will be very important to ensure accountability regarding the expenditures of the revenues resulting from the increased parking fees.

14.0 OTHER SUPPORTING TDM OPTIONS

This section describes TDM options which could be implemented at UVic to *support* cycling, walking, transit, ridesharing and parking management initiatives, and to overcome additional barriers to using alternative transportation.

14.1 Guaranteed Ride Home

14.1.1 The Issue

For many people, a significant obstacle to using alternative modes of transportation is the concern that they might need their car to get home in case of a family emergency, or if they have to work late. A guaranteed ride home program alleviates this concern, and enables people to switch from the safety of driving their cars to other transportation choices.

14.1.2 Recommended Action

Essentially, a guaranteed ride home is a free or low-cost ride home in case of a daytime emergency, working late or other circumstances which prevent a person from using their usual non-automobile mode or a reasonable alternative. Examples of circumstances in which a guaranteed ride home might be required include a member of a carpool who has to work late past the time when the carpool leaves, or someone whose child becomes ill at school and must get to the school faster than possible by transit.

At UVic, guaranteed rides home could be provided for all staff and faculty, and optionally for students as well. In order to minimize the potential for abuse, other post-secondary institutions which have implemented guaranteed ride home programs (such as the University of Washington in Seattle and the University of Colorado in Boulder) do not include students in the program. Only UBC has included students in its guaranteed ride home program. The program at UBC has been in place for a year and a half, and the experience to date indicates that abuse is not a problem.

There are many ways of providing a guaranteed ride home. The most common and most flexible is with taxis. A person in need of a ride home can call a taxi directly and pay the fare, for which he or she is later reimbursed some or all of the cost. Alternatively, UVic can establish an account with a local taxi company (often with preferential rates). A person in need of a ride home contacts a designated TDM administrator at UVic, who then calls a taxi. The person does not pay the fare — the taxi operator is later reimbursed the cost of the trip by UVic.

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Other ways of providing guaranteed rides home for UVic staff, faculty and students include:

Rental cars

For long-distance trips, the cost of a rental car would be significantly less than a taxi fare. This would only be an option in cases where the person who needed a ride home was able to drive him or herself. As well, this option relies on quick and convenient access to a rental car agency.

UVic Fleet Vehicle

A person needing a ride home could use a fleet vehicle to travel home, and return the vehicle the next day. The use of fleet vehicles would be limited to staff and faculty.

Experience at other organisations shows that most people are simply satisfied knowing that there is a guaranteed ride home, in the event they would need one, but that few actually use the program. Therefore, this program is a fairly low-cost initiative. It is relatively simple to monitor frequency of use, destinations and reasons for needing a ride home, in order to discourage abuse. The preferred means of preventing abuse or over-use of the guaranteed ride home program is to establish a maximum number of guaranteed ride home trips per year. When this limit is reached, participants would be contacted to determine the reasons for the relatively high usage. Where there were valid reasons, participants might be permitted to take additional guaranteed ride home trips during the year.

14.2 Fleet Vehicles

14.2.1 The Issue

One reason many employees give for driving their cars to work is that they need their car for work-related trips. A way to eliminate this deterrent to using alternative transportation is to provide fleet vehicles which UVic staff and faculty can use for work-related trips away from campus, or for moving heavy goods on campus.

14.2.2 Recommended Action

Fleet vehicle programs typically allow staff and faculty to reserve fleet vehicles in advance, but reservations would be subject to cancellation if a vehicle is needed to provide a guaranteed ride home or respond to another type of emergency. Managing a fleet vehicle program would require administrative resources, and would be best undertaken by the same person(s) responsible for other managing other TDM programs.

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Given the variety of potential uses for fleet vehicles, minivans are a good choice for fleet vehicles, as they can accommodate up to eight passengers, and can carry a large amount of cargo. Fleet vehicles also provide a mobile form of advertising for UVic and for promoting TDM options. Minivans are well-suited to advertising, as there is considerable space on the sides and rear of the vehicle for text and images.

14.3 Car-Sharing (Car Cooperative)

14.3.1 The Issue

For students living on campus, a car is not an every-day need, yet many students have cars so that they can travel off the island. One means of reducing the need for a car on campus is a car-sharing program.

14.3.2 Recommended Action

Car sharing programs operate in more than 25 cities across North America. Locally, car sharing programs are provided by the Victoria Car Share Cooperative (VCSC). Members pay a \$20 monthly administrative fee and invest \$400 in a one-time refundable share in the program to provide capital for the purchase of vehicles. Use of vehicles is charged at a combination of a monthly rate, by time, or by mileage. A range of vehicles are available, including compact cars, vans and pick-up trucks.

Students living at UVic can join VCSC on an individual basis. Once twelve or more people at UVic have joined, VCSC would consider a new location at UVic. Unfortunately, drivers under the age of 21 cannot, under the insurance agreement with VCSC, join the cooperative. (The Cooperative Auto Network of Vancouver does not have this restriction.)

Another option then might be to establish a **separate car-sharing program** for UVic students in residence who are under the age of 21 years. This might be desirable in order to increase the availability of cars and further reduce the costs of car-sharing. The UVic program could be affiliated with VCSC and with other car-sharing programs in B.C., in the same manner that VCSC currently has a cross-use agreement with the Cooperative Auto Network in Vancouver.

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14.4 Merchant Discounts

14.4.1 Thee Issue

Commuters who choose to drive alone would see little value in a UPass or other TDM programs. A way of adding value to the UPass and TDM programs is to arrange discounts at area merchants for UVic students, staff and faculty who participate in or contribute financially to TDM programs.

14.4.2 Recommended Action

At the University of Washington in Seattle, UPass holders can receive discounts and free services at more than 40 area merchants, including bike shops, photo stores, bookstores, music stores, video rental stores, clothing stores, home furnishing stores, groceries and restaurants, laundromats, banks and travel agencies. Discounts range from 5% to 50% off, and include free cheques at banks and free products with the purchase of other products.

Students and employees at UVic represent approximately 25,000 shoppers. For local businesses, this is a sizable and well-defined market. As a result, many merchants would be more than happy to offer discounts to UVic students and employees, as a means of promoting their businesses and attracting potential customers.

Businesses would be receptive to such a program, as many are already offering similar discounts. Some merchants already offer discounts to frequent customers with "club" cards which provide a free coffee for example, for every ten coffees purchased, or a \$10 discount for every \$100 spent. Other merchants offer discounts to members of organizations and clubs. A UPass discount program would simply be an expansion of these types of existing programs.

14.5 Staggered Class Start Times

14.5.1 The Issue

Both transit and the road network are stressed during the peak travel times but outside the 'peak hour' the facilities are underutilized. Currently, classes at UVic begin at 8:30 am. As a result, most students and faculty arrive on campus between 8:00 and 8:30am. During this time, traffic congestion on campus and on adjacent roads is significant, and crowding on buses is at its worst.

UVic has the good fortune of being able to influence the peaks, as it has control over class times and work hours.

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14.5.2 Recommended Action

Staggered class start times in the morning would reduce peak transit and traffic demands, and would increase transit ridership by spreading peak demands over a longer period of time.

Faced with similar problems, UBC implemented changes to class start times. Previously, classes had begun at 8:30 am. Beginning in September 2001, approximately one-third of all classes started at 8:00 am, some classes started at 8:30 am, and the majority started at 9:00 am. The result was that arrivals on campus were spread over a longer time period in the morning. Anecdotal reports indicated that traffic congestion on roads leading to UBC had been reduced. Transit ridership increased 12% for the same number of buses, as more students rode the bus earlier and later in the morning when there was spare capacity on the transit system.

14.6 Reconfigure Ring Road and Parking Accesses

14.6.1 The Issue

Many students, staff and faculty consider the Ring Road a major obstacle which divides the campus. Reconfiguring the Ring Road and parking accesses would reduce traffic volumes on the Ring Road, thereby encouraging walking and cycling on campus.

14.6.2 Recommended Action

Traffic circulates one-way counter-clockwise on the Ring Road. Because of the one-way circulation, many motorists who exit from parking lots onto the Ring Road travel a considerable distance around the Ring Road before leaving campus. This has the effect of increasing total traffic volumes at all points around the Ring Road.

Ways of reconfiguring the Ring Road and parking accesses to reduce traffic volumes on the Ring Road include:

- Two-way circulation on the Ring Road
- Traffic volumes on the Ring Road are low enough that traffic could be accommodated with one lane in each direction, rather than two lanes in the same direction. This would minimize travel distances for motorists along the Ring Road, reducing total traffic volumes at points around the Ring Road. This would also reduce vehicle speeds, as motorists would not be able to pass slower vehicles.
- Reconfigured Access to Parking Lots. In particular, new, direct connections from large parking lots to roads on the perimeter of the campus would reduce traffic volumes on the Ring Road.

14.7 Integrate Trip Reduction Strategies

14.7.1 The Issue

Most of the recommendations in this report are aimed at shifting the travel modes from single occupant driver to higher occupancy travel (transit or carshare) or to the active modes (walking and cycling.) However, Transportation Demand Management also includes strategies that work to actually reduce the number of trips taken, not simply increasing the mode share of alternative modes.

14.7.2 Recommended Action

- **Trip Planning.** Trip planning education and awareness campaigns can remind people of the importance of dovetailing their errands into one trip; conscientious trip planning leads to an overall reduction in green house gas emissions as well as reduces congestion on the road network. This aspect of TDM can be integrated into the Promotion and Education duties of the TDM coordinator.
- **Workplace Based Trip Reduction Programs.** There are a number of workplace related strategies which not only meet TDM objectives but double as employee benefits:
 - Telecommuting
 - Flexible work hours (supports carsharing: expands ridematching opportunities)
 - Flex-time (staff work longer days in exchange for shorter work week)
- **Distance Education.** The University may wish to consider the trip reduction benefits associated with increasing on-line classroom opportunities. On-line learning can be integrated into full-time and part-time students who not only physically attend the campus regularly but also distance education students. Key to promoting this tool is investment in web-based infrastructure.
- **"Satellite" Campus.** There is some consideration of the benefits of opening and operating a downtown campus, with high tech links to the main campus. With the rapidly increasing inventory of affordable housing in the downtown area, this option may very well prove to be a strong, successful TDM measure. With this facility, students may reduce the number of times they have to travel to the Gordon Head for their course instruction.

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14.8 Increase Housing Opportunities

14.8.1 The Issue

Affordable housing opportunities for students is notoriously difficult. Any increase in legitimate (legal) suites located within walking and/or an easy bike ride from campus, will go a long way to reducing the need for private automobile ownership. Saanich and Oak Bay municipal bylaws currently do not support secondary suites in single family dwellings, but as the population ages, and the large family homes become too large for the “empty nesters”, there is an opportunity to repopulate the neighbourhoods with students.

14.8.2 Recommended Action

To lobby neighbouring municipalities to consider adapting zoning bylaws in support of increased densification in commercial areas (mixed-use development to include residential) and secondary suites in single family dwellings.

15.0 COMBINED RESULTS OF RECOMMENDED ACTIONS

The following results will take place if all the recommended actions are applied:

Parking prices will effectively change parking behaviour. Each 10% price increase will result in a 1 to 3% parking reduction causing people to seek other viable modes of travel to the University. This strategy along with the recommended enforcement identified in this section of the report is capable of keeping pace with the planned campus population growth without undue burden on the current or near future (next 4 years) parking capabilities.

Using an overall 4 year price increase of 73% for general parking, and 40% for reserved parking (as recommended between years one and four, UVic can count on peak period parking reductions of 6 to 18% by the end of year four. This should be sufficient to eventually eliminate the parking within Ring Road and dedicate the land for other uses without overburdening remaining UVic parking lots.

The 2% per year campus population growth expected in the same time period will add 8% in total population growth, but will not create additional overall parking problems provided that all parking and campus TDM strategies are applied.

If a worst case parking scenario develops, and parking is only reduced by 6% instead of up to the expected reduction of 18%. This leaves a difference of an additional 2% more vehicles added to current lots (which UVic can easily handle within existing facilities) to a parking utilization percentage drop of up to 12% of current vehicle parking.

Implementing the parking strategies contained in this report, combined with the strategies aimed at increasing the mode split of the alternative modes, will allow UVic to build additional buildings within Ring Road while effectively controlling the parking to be within acceptable levels and alleviating neighbourhood spillover problems. These options make parking a single occupant vehicle more difficult, while making cycling, walking, transit and carsharing easier.

15.1 A Planned Approach - Determining What is Achievable

The most difficult part of implementation is the ability to predict a fixed outcome to a specific action. UVic will need to record quantified information in an effort to develop the basis for long-term facility planning. This allows qualified strategy information to become quantifiable and capable of reliable

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demonstration in initial planning processes. This becomes extremely useful information when predicting the full impact of planned University growth.

15.2 Monitoring Parking

Parking availability *and* convenience of use will need to be measured by collecting detailed daily parking data in order to determine where and when parking is most problematic. Some of the data needed for this process is already routinely collected by the Campus Security Services department, while additional needed data can be collected by the recommended parking detector loops and license plate reader system. This will help set achievable goals by turning gathered information into quantified and reliable data. If the goal is to maintain or reduce current parking availability during peak periods as the University grows and adds more facilities, this data can be collated, benchmarked and quantified in order to determine exactly when and how applied measures will affect their targets. This process gives UVic the ability to determine trends and predict reasonable outcomes as recommended strategies are implemented.

15.3 Monitoring Travel Modes

The success of the TDM strategy will be made apparent through on-going monitoring of the mode splits. In addition to the annual transportation survey that is completed, the following considerations should be monitored:

Transit:

- Ridership (BC Transit statistics)
- Route Demand (An annual survey of ridership needs will determine deficiencies. With the implementation of smart card technology on transit, trends may be discerned.)
- Service Review (Integrated into a ridership survey, could be an audit of ridership calculating number of "pass-bys", early departures, standing room only, bike rack demand)

Carshare:

- Vehicle Occupancy (integrate this data requirement into existing transportation survey)
 - # of Carpool Only stalls

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Cycling:

- Facilities Utilization: (annual reporting by service providers)
 - Demand/waiting lists for Secure Bike Lock up
 - Number of participants in Commuter Skills course
 - Patronage to "Bike Kitchen" facility, Drycleaning services etc.

Supporting Services:

- Promotion - travel choice awareness (Survey knowledge of various options available)
- Car-coop membership (annual reporting by service providers)

This information should be gathered annually, in conjunction with the annual traffic survey, and integrated into a TDM Monitoring report. The report should reveal travel trends, the most popular strategies as well as the underutilized strategies. In consultation with the planning department, mode split objectives and corollary facility or services utilization targets should be established for the next year, along with recommended changes to the TDM strategy. This report should be included into the annual budget review process.

16.0 STRATEGY IMPLEMENTATION

An effective implementation strategy will be one that can respond to issues as they arise, and to determine a best fit solution. The University, when determining the best response, will have a number of considerations. For example: benefit/cost analysis, balancing the impacts on the various users and the required administration for each option. As the University continues to grow, so too will the pressures on the transportation system. Depending upon the success of the various strategies on mode splits, will depend upon whether the TDM measures need to be 'stepped up'. Certainly, the various strategies have only minimal impact as isolated options, however when applied together, the influence compounds exponentially, creating a synergistic effect.

16.1 Implementation Approach

- Identify various options that can help achieve the needed end result.
- Evaluate the costs and benefits of each strategy (including indirect impacts, if any), and rank them according to cost effectiveness or benefit/cost ratios.
- When implementing short-term measures, consider the effect on long term goals such as adding other buildings, surface parking or adding a parkade. This will keep the finances used currently, on track towards future goals and minimize future over expenditures.
- Monitor and evaluate success on target groups.
- Evaluate actual results with regard to specific planned targets.
- If targets are not being achieved, determine which additional strategies will best support the already implemented strategies, before deciding to abandon or significantly alter the option.

This approach allows for flexible and progressive planning that is able to address uncertainty by deploying solutions on an as-needed basis. It is very important at this point to track the outcomes of each change as they are implemented. This will form the basis of quantifiable results that will be able to be relied upon as future changes are considered. This tends to be cost effective and flexible because strategies are only implemented if they are needed. This type of planning is ideal for medium and long-range planning.

It is important not to underestimate the effort required to implement these strategies. Not only do they require adequate funding, some require changes in current planning and administrative practices. It requires investing in organizational capacity building, new data collection, and in some cases, new equipment. Implementation may require raising and or redistributing user fees, establishing new limits

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on parking passes, increasing enforcement of regulations and improving transportation alternatives. Overall, they require cooperation among the different UVic departments and campus organisations.

16.1.2 Invest in TDM First

As stated earlier, the University community, both focus group attendees and members of the Stakeholder Committee, supports a substantial increase in parking fees provided the revenues directly fund the various TDM programs and facility improvements. They have said, quite emphatically, that the University should take the step to invest in TDM first, illustrate the commitment, and then follow this action by increasing the parking fees. Not only will this ease the transition to higher fees by making transparent the reasons for the increase, but it will show “good faith” on the part of the University in its commitment to establishing a sustainable transportation tradition.

16.2 User Impacts

Any Policy changes will have specific impacts on all the user groups. It is important to fully consider strategy actions in order to be equipped with adequate and reliable reasons for making the policy changes. Certain user groups may incorrectly perceive themselves as targets. UVic will need to demonstrate accurate information to justify the needed reforms.