PCC Parking and Transportation Demand Management Plan Update

Portland Community College Parking & Transportation Demand Management Plan

Portland, Oregon

February 2012

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TABLE OF CONTENTS

List of Figures	v
List of Tables	vi
Appendices	viii
Executive Summary	2
Background	2
Project Purpose and Process	
Strategic Recommendations	4
Conclusion	6
Involvement Process	8
TDM Steering Committee	
Outreach	
Standing & Special Meetings	
Evaluation Criteria	19
Guiding Themes & Principles	
Targets & Performance Measures	
Existing Conditions	27
Study Area: Campuses	
Students and Staff	
Staff Population & Distribution	
System Inventory & Demands	
Current Parking Programs & Successes	
Current Transportation Demand Management Programs & Successes	
Case Studies of Other Colleges/Universities	
Case Studies - Universities	
Travel Mode Survey	
Recommendations	101
Program Refinements & Additions	
Policy Implications (Internal Barriers)	
External Barriers or Potential Limitations to Full Implementation	136
Related Benefits	137
Coordination with Other Public Agencies	
Meeting Minutes	141



LIST OF FIGURES

Figure 1	Cascade Campus Map	36
Figure 2	Rock Creek Campus Maps	43
Figure 3	South East Campus Map	48
Figure 4	Sylvania Campus Map	53



LIST OF TABLES

Table 1	TDM Steering Committee Members	11
Table 2	Technical Resources	11
Table 3	Staff & Consultant Resources	
Table 4	PCC Travel Mode Choice (2010)	23
Table 26	District Wide TDM Support Programs	66
Table 27	Transit Stop Evaluation Criteria	70
Table 28	Photo Evaluation	71
Table 29	Student Parking and Transit Fees	75
Table 30	Faculty and Staff Parking and Transit Fees	75
Table 31	Lessons Learned – Community Colleges	76
Table 32	Lessons Learned – University	77
Table 33	Pasadena City College TDM Measures Utilized	78
Table 34	Pasadena City College Rates & Fees	78
Table 35	Los Angeles Community College District TDM Measures Utilized	79
Table 36	Los Angeles Community College District Rates & Fees	79
Table 37	Los Angeles City College	80
Table 38	Los Angeles Harbor College	80
Table 39	Pierce College	80
Table 40	Los Angeles Trade-Technical College	80
Table 41	West Los Angeles	81
Table 42	East Los Angeles	81
Table 43	Los Angeles Mission College	81
Table 44	Los Angeles Southwest College	81
Table 45	Los Angeles Valley College	82

Table 46	Measures Utilized	83
Table 47	San Diego City College	83
Table 48	San Diego Mesa College	83
Table 49	San Diego Miramar College	83
Table 50	TDM Measures Utilized	
Table 51	Seattle Central CC	85
Table 52	North Seattle CC	85
Table 53	South Seattle CC	85
Table 54	Mode Split – Faculty and Staff	
Table 55	TDM Measures Utilized	87
Table 56	University of Washington	87
Table 57	Mode Split – Faculty and Staff	
Table 58	TDM Measures Utilized	
Table 59	Stanford	
Table 60	Mode Split – All Commuters	90
Table 61	TDM Measures Utilized	90
Table 62	CSUN	90
Table 63	Mode Split – All Commuters	91
Table 64	TDM Measures Utilized	92
Table 65	Conjoint Options by Mode and Level	92
Table 66	Travel Mode Split	93
Table 67	Vehicle Parking	94
Table 68	Alternative Transport Mode Preferences	95
Table 69	Shuttle Bus Usage	



APPENDICES

- Appendix A Meeting Minutes
- Appendix B Open House Materials
- Appendix C Survey Results



Section 1 Executive Summary

EXECUTIVE SUMMARY

Background

Portland Community College (PCC) has been actively managing parking resources and providing transportation demand management (TDM) services for 20 years. A combination of federal, state, and local regulations and enactment of the PCC Board Parking at College Facilities Policy (B 602) provided the initial impetus to formally prepare and implement the PCC Transportation Demand Management Plan in 1992. Since then, such initial goals as reducing single occupant vehicle trips to the College by 10 percent within 10 years have been met and exceeded. Even the more specific goal of reducing employee single occupant vehicle trips by 10 percent has been reached through the sustained efforts of PCC's Parking and Transportation Services (PTS).

Although the College continues to make great strides in managing travel demands and reducing single occupant vehicle trips, concerns remain for the overall impact that PCC has on the environment. The PCC District President, Preston Pulliams, along with many other leaders of higher education institutions throughout North America, signed an agreement in 2007 (the American College & University Presidents Climate Commitment [ACUPCC]) to reduce the carbon footprint of the College and become more sustainable. This action also led the College to prepare a Sustainability Initiative that provides guidance on sustainable methods.

The College commissioned a study in 2007 to review the progress made through the TDM program and provide recommendations for program modifications and enhancements. The study was guided by the PCC Mission and a set of four goals that included (1) improving access, (2) reducing single occupant vehicle demands, (3) maintaining overall College affordability, and (4) maintaining the financial integrity of PTS. The study concluded with a range of strategy recommendations that the College, through the efforts of PTS, has systematically considered and implemented. Recommendations were developed at the District-wide level, such as raising the price for parking passes, instituting a student transportation fee, relocating employee parking, expanding shuttle services and bicycle facilities, and increasing transit subsidies.

Portland Community College completed its Climate Action Plan (CAP) in 2009, as one of many steps being taken in response to joining the ACUPCC and PCC Board approval of the Sustainable Use of Resources Policy (B-707). The CAP takes a comprehensive approach to identifying and evaluating the various sources of carbon emissions from College operations and provides a set of objectives to be



achieved and actions to be taken. Although transportation is identified as one of seven major areas of carbon emissions, the CAP only addresses transportation-related carbon emissions that PCC had direct control over (referred to as "scope 1 and 2 emissions"). Carbon emissions from student and employee commuting are not addressed in the 2009 CAP; however, the Plan does reference a 2006 non-scientific carbon audit that estimated commuting was responsible for approximately 62 percent of PCC carbon emissions.

Over the past several years, PCC has experienced a rapid rate of growth in student enrollment, driven in large measure by a regional and national economic recession and higher education costs that are increasing more rapidly than personal incomes. The poor economy is bringing many students to PCC with the intent to improve or expand their professional capabilities, while other students are choosing PCC as a more affordable approach to achieving their higher education goals. The College continues to abide by its Mission, accommodating these demands as quickly as they occur, while striving to maintain operational efficiencies and cost affordability.

These unanticipated enrollment rates are placing stresses on facilities, programs, and services and resulting in adverse impacts on the campuses and their surrounding neighborhoods. Fortunately, a 2008 voter-approved bond program of \$374 million is providing needed funds to expand facilities that will help to alleviate some of these stresses and adverse impacts. However, funds for the bond program are not expected to address all of the adverse impacts, especially those related to the increased transportation demands. Meanwhile, PCC continues to devote time and effort toward more sustainable operations and achieving its carbon emissions targets. Thus, in 2011 PCC commissioned an effort that has led to the development of this PCC Parking & Transportation Demand Management Plan Update.

Project Purpose and Process

The purpose of this effort was to prepare recommendations for updating the parking and transportation demand management strategies that are contained in PCC's current TDM Plan. Recommended TDM Plan modifications were to specifically help address four primary issues: (1) meet the current spike in parking demand, but avoid over-building if the spike is temporary; (2) continue providing services that are accessible and affordable, especially to students; (3) meet PCC's carbon reduction targets, as noted in PCC's 2009 CAP; and, (4) reduce the amount of spill-over parking in the surrounding neighborhoods in the near- and long-term.

PCC chose a committee-driven process, informed by a broad outreach effort, guided by a Project Management Team (PMT), and supported by a consulting team of parking and TDM experts. A Transportation Demand Management Steering Committee (TDMSC) was established that included 21



members representing a broad range of District and campus perspectives from students, employees, and administrators. The TDMSC met a total of nine times over a nine-month period to guide the development, evaluation, and selection of the parking and TDM strategies. Their work culminated in a consensus-based decision to recommend the full complement of strategies contained in this document.

The TDMSC was supported by a PMT that included representatives of PCC administration, Auxiliary Services, Parking and Transportation Services, and the Bond Program. These technical and administrative members provided project oversight and strategic guidance to the TDMSC and the consultants. Finally, staff from TriMet and the City of Portland served as liaisons to the TDMSC.

Strategic Recommendations

There are several strategic elements to this Plan Update all of which are intended to support, complement, and/or expand the successful efforts of PTS and the College as a whole. Each is briefly described below.

GUIDING THEMES AND PRINCIPLES

Considerable thought was devoted to developing a set of Guiding Themes and Principles that the College would consistently apply in determining appropriate actions to take regarding the provision of parking and TDM facilities and services for students and employees. Within the seven themes and 20 principles are policy statements that may be formalized by PCC Board action, while others are meant to guide the process of evaluating overall program effectiveness and selection of actions to cease, continue, modify, and/or supplement.

ORGANIZATION

This Plan update focuses on services provided by Parking and Transportation Services (PTS). Since 1992, PTS has achieved several important successes, particularly when compared to other institutions in the Portland area and other peer institutions around the country. The current travel demand challenges present at the College campuses are such that this division may need to evolve. It is likely that the name of this division will change in the near future, due to increasing awareness of TDM as a means to meet the access goal of the College and the new Climate Action Plan. Additionally, the College has a heightened awareness and commitment to TDM due to seemingly ever increasing student enrollment and continuing expansion of PCC's campuses and centers. The addition of staff, facilities, and services to this division will be thoughtfully considered to ensure the effectiveness of the organization is maintained, even as it takes on additional responsibilities and actions.

ADEQUATE AND SUSTAINABLE FUNDING

It is intended that the Plan be financially self-sustaining. A comprehensive parking and TDM program is necessary to modify travel behaviors and successfully manage travel demand and will require a commitment of resources that exceeds what is currently in place. A commitment to fund new/expanded programs and strategies is needed to provide the necessary staff, facilities, services, incentives, and organizational support to successfully activate and sustain this Plan. This could include augmenting and/or replacing parking revenues and student transportation fees with other sources.

Although this suggests a net increase in costs to the College and/or to students and employees, it is expected that increasing the effectiveness of the parking and TDM program will aid in avoiding or limiting the need to make costly investments in additional parking facilities. This is of particular concern, if the current surge in enrollment dissipates in coming years and parking resources become underutilized.

STANDING COMMITTEE

A Standing Committee is recommended, whose charge would be to review data, performance, and operational progress and provide input, advice, and outreach on issues related to program delivery, cost, equity, sustainability, and other factors related to the Plan. The Committee is intended to be a representative group of PCC students, employees, and administration that commit to fully supporting the Guiding Principles and successfully implementing the PCC Parking and TDM Plan. Parking and Transportation Services would staff and consult with the Committee. The Committee would meet on a regular basis and frequently enough to provide PTS with timely input and feedback.

EXPANDED MENU OF PARKING AND TDM STRATEGIES

The College, through the efforts of PTS, is applying a variety of parking and TDM strategies to meet the access needs of students and employees. This Plan update provides an expanded set of strategies to consider and organizes them into logical categories of modes and action areas. The Standing Committee and PTS can draw from this menu, as they work to meet the changing access needs of students and employees and achieve the goals of the College.

PLAN IMPLEMENTATION

The Plan provides the flexibility to test parking and TDM strategies, as needed, and does not dictate a sequencing of strategies or a specific scale of application. Thus, implementation relies on the skill and judgment of PTS and the advice and guidance provided by the Standing Committee. Implementation of the Plan will be monitored, reviewed and revised, as necessary, by the Standing Committee, led by PTS.



Annual reports will be prepared and reviewed by the Standing Committee to document actions and outcomes and frame decision making. Strategies found to be ineffective may be discontinued, modified, or supplemented.

CONTINUED AND EXPANDED PARTNERSHIPS

Finally, the College is encouraged through the Plan update to continue and expand partnerships with several organizations and the surrounding neighborhoods of each campus. Continued collaboration is needed with facility and service providers (e.g. TriMet, City of Portland, and Washington County) to clarify the needs of each campus and identify effective solution strategies. Other educational institutions and major employers offer opportunities for collaboration, resource sharing, and greater leverage in negotiating for common services (TriMet services, for example). Regular communications with surrounding neighborhoods will keep them informed of actions and progress on the part of the College and reveal issues of neighborhood concern that PCC may be able to address.

Conclusion

Overall, the strength of this Plan update is derived from the process used to generate its content. The Guiding Principles and the menu of parking and TDM strategies were developed through a collaborative process with the TDM Steering Committee (a broadly representative group of the entire College community), under the guidance of the Project Management Team, and supported with technical expertise of the consultants. A District-wide, statistically valid survey and broad outreach to students and employees at four campuses provided clear insights to what users need for access and what strategies they are most likely to take advantage of. The establishment of the Standing Committee will ensure this collaboration continues and aid PTS in determining the appropriate strategies to implement. The commitment of the College to provide financial and administrative support will ensure the fiscal stability of the Plan and its long-term viability.



Section 2 Involvement Process

INVOLVEMENT PROCESS

PCC was intentional in developing a multi-pronged involvement process that facilitated broad outreach and targeted input. A project website, several open houses, and a District-wide transportation survey were methods used to achieve the desired broad-level outreach and engagement. Briefings and presentations were used to keep standing committees at the District- and the campus-level informed of the process and the progress. Special meetings were arranged, when stakeholders requested additional information or issues of a specific nature arose involving a subgroup of the College community. Opportunities for input, feedback, and to obtain further information were always available via email, the project website, by telephone, or in person with one of the many project team members.

The TDMSC was established to guide the development of this Plan update. Constructed with representatives from throughout the PCC Community, the TDMSC was heavily relied upon to provide diverse perspectives while collectively working to produce a Plan that is good for the whole PCC Community, as well as surrounding neighborhoods and the region as a whole. The TDMSC is considered the primary of author of the recommendations contained in this Plan update, for it is by their hard work and balancing of perspectives that these recommendations are now brought forward for consideration by the PCC Board and Cabinet.

This section provides a summary of the involvement activities that were used to support the Plan update. Information is provided about the TDMSC, the outreach efforts, and the special meetings that were held. More detailed materials, such as TDMSC meeting minutes and transportation survey data, are provided as a part of the appendix.

TDM Steering Committee

The TDMSC drafted and adopted a Committee Charter, which is repeated *verbatim* below.

COMMITTEE CHARGE

The Transportation Demand Management (TDM) Steering Committee is charged with providing leadership and guidance to the PCC Cabinet and Board on how to best address access to PCC.

DESIRED OUTCOME

Recommend a TDM program for PCC Cabinet and Board consideration.



The Committee has a total of 21 members representing the four PCC campuses, the district, the bond program, and full-time and part-time faculty and staff. Members were appointed by each campus or service area. Additional members may be added, if the Committee determines a service area is not sufficiently represented.

The Committee is supported by PCC staff and a consultant team. Additional technical support is provided by representatives from TriMet and the City of Portland.

TIMELINE

The TDM Steering Committee will meet monthly starting in April 2011. It is anticipated that the Committee will meet eight times through December 2011. Additional meetings may be added if agreed to by the Committee. A final Committee recommendation is expected by December 2011.

PROCESS

Because of the project timeline and scope, it is important that members make every effort to be present at all Steering Committee meetings. Alternates are encouraged if a member is unable to attend a meeting.

Wing-Kit Chung, as Chair, will preside over the committee meetings except in instances when an alternate facilitator is designated. Meetings are open to anyone who may wish to comment on TDM or simply listen to the discussion. A TDM Spaces page has been established at spaces.pcc.edu to assist with the dissemination of information.

DECISION MAKING

The TDM Steering Committee serves in an advisory capacity to College's Cabinet and Board. Its input will inform and guide the update of PCC's TDM program. The Committee should strive to craft and recommend approaches and solutions that are workable for a wide range of needs and interests.

Consensus of the committee is desired, as is full engagement by all members. Consensus for this committee will be defined as:

When all members of the committee agree upon a set of recommendations and each committee member can honestly say 1) "I believe that you understand my point of view and that I understand yours; 2) Whether or not I prefer this alternative, I support it because it was reached fairly and openly."



Open and constructive dialogue is sought to ensure that potential solutions are well tested and that diverging opinions are aired, discussed and documented. It is important to the health of the committee that members be supportive of the group and its decisions when discussing it publicly.

If consensus cannot be reached on the final TDM program recommendation, the Committee's discussion will be summarized and forwarded to the Cabinet and Board by the Committee Chair.

ROLES AND RESPONSIBILITIES OF COMMITTEE MEMBERS

- Attend and actively participate in Committee meetings.
- Review materials to understand the issues, gain familiarity with the array of actions, and participate in a final TDM program recommendation.
- Serve as a liaison by dispersing TDM-related information as widely as possible, listen to feedback, and offer insight gained to the Committee.
- Allow for a variety of data and viewpoints to be considered in the formulation of recommendations.

COMMITTEE SUPPORT

Administrating the project is a TDM Project Team made up of PCC staff and a consultant group led by Kittelson and Associates. To assist the TDM Steering Committee in its charge, the Project Team will:

- Convene and facilitate committee meetings and manage the process for the good of the TDM Steering Committee as a whole
- Develop and distribute meeting agendas and background materials in advance of the meetings.
- Develop notes from the meetings and distribute them monthly.
- Host campus meetings to assist in gathering input and dispersing project information.
- Develop draft documents for Committee review and comment.
- Maintain a web presence for the project for greater outreach and input.

Tables 1, 2, and 3 summarize the TDM Steering Committee Members, Technical Resources, and Staff and Consultant Resources.



Table 1 TDM Steering Committee Members

Name	Representing	Name	Representing
Wing-Kit Chung	District /Committee Chair VP Administrative Services	Kristin Bryant	Sylvania Full Time Instructor
Yohannes Alemu	District Financial Services Manager	Peter Seaman	Sylvania Academic Professional
Russell Banks	District Marketing Manager	Jerry Brask	Cascade Full Time Instructor
Alex deRoode	District Sustainability Manager	Julie Davenport	Cascade Student / Intramural Coordinator
Jerry Donnelly	District Human Resources	Gary Eaton	Cascade Campus Technical Services Manager
Linda Eden	District Auxiliary Services Director	Erin Stanforth	Rock Creek Sustainability Practices Coordinator
Ken Goodwin	District Public Safety Director	Jeff Wilson	Rock Creek Classified Staff, Facilities Coordinator
Ken Nelson	District Central Distribution Services Manager	Tanya Batazhan	South East Adult Basic Skills Program Director
Grant Bennett	Bond / Project Team Managing Architect	Esther Loanzon	South East Adult Basic Education Faculty Department Chair
Linda Degman	Bond / Project Team Associate Director	Liliana Luna Olalde	Rock Creek Student
Gina Whitehill-Baziuk	Bond / Project Team Public Involvement Manager		

Table 2 Technical Resources

Name	Representing	Name	Representing
Dan Bower	City of Portland Transportation Options Policy Program Manager	Alan Lehto	TriMet Director of Project Planning
Scott Cohen	City of Portland SmartTrips Business Coordinator		



I ADIE 5 STAIL & CONSULATIL RESOURCE	Table 3	Staff & Consultant Resources
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Name	Representing	Name	Representing
John Garner	Project Co-Manager District / Project Team Parking Manager	Michael Kodama	Consultant Team Michael Kodama Planning
Rebecca Ocken	Project Co-Manager Bond / Project Team Cascade Project Manager	Rick Williams	Consultant Team Rick Williams Consulting
Terrie Ezzat	Purchasing Specialist Bond Office	Phill Worth	Consultant Team Kittelson & Associates
Nick Hodges	Project Team THA Architecture		

SUMMARY OF TDM STEERING COMMITTEE ACTIVITIES

The TDMSC held a total of nine meetings between April and December of 2011. Meeting minutes were taken by PCC resource staff and distributed to committee members for review and correction. All meeting minutes are contained in the appendix. As previously mentioned, the TDMSC was responsible for drafting the Committee Charter, as well as the Guiding Themes and Principles and the vast majority of recommended parking and TDM strategies contained in this Plan update. All technical materials developed by the Consultant Team were reviewed by the TDMSC, such as memoranda on existing parking and TDM conditions, case studies of other educational institutions, and results from the District-wide transportation survey. Each of the items listed above was accepted by consensus of the TDMSC. An Initial draft set of parking and TDM strategy recommendations were reviewed and all but five strategies were accepted by consensus of the TDMSC. A follow-up meeting was held to discuss those five strategies, which led to refinements of each strategy and final acceptance of all five strategies by the TDMSC.

Outreach

SURVEY

PCC conducted a survey in early 2011 to better understand the transportation needs of its students, faculty and staff. The results of the survey were used to develop the TDM programs and strategies outline in this document.

In additional to questions about basic demographic information, the survey included a Transportation Diary section that asked respondents to provided details of their last trip to PCC and a section called Transportation Preferences that asked respondents what motivated their trip choice. This scientific



methodology works especially well in assessing travel patterns/modes and ultimately helped the college identify programs and incentives intended to reduce single-occupant vehicle use on its campuses and help meet the goals in the College's Climate Action Plan.

The survey was promoted by PCC through its e-mail service between April 21, 2011 and May 4, 2011 during which time a total of 4,877 surveys were completed by students, faculty, and staff. The survey was hosted by DHM Research, an independent research firm based in Portland, Oregon. A copy of the survey instrument is provided as part of the Appendix along with the results.

OPEN HOUSES

Two series of open houses were held at the four main PCC campuses at strategic points throughout the development of this TDM plan. The first series occurred early on and provided students, faculty, and staff with an introduction to TDM as well as the planning efforts of the college and gave them the opportunity to identify issues they have encountered as pedestrians, bicyclists, transit or shuttle riders, and/or as motorists in accessing PCC. Poster-sized plots of the campuses were used along with colored stickers to help identify specific areas at each campus. An example from Rock Creek was a sticker near the main entrance along NW Springville road where the lack of pedestrian facilities makes it difficult for some people to access the campus on foot. An example from Sylvania was a sticker in one of the parking lots where peak parking demand typically exceeds the available parking supply and people are forced to circulate the lots or park in far off locations. The information collected at each of the four main campuses during the first series of open houses was summarized and shared with the TDMSC who used it in the development of a set of preliminary improvements to the existing TDM programs and strategies at PCC.

The potential improvements were presented at the second series of open houses later on in two ways; first, a list of things PCC could do to improve access opportunities for students, faculty, and staff was developed for each access mode, such as end of trip facilities for pedestrians and bicyclists, increased transit subsidies for transit riders, more frequent shuttle service between campuses for those who use the shuttle, etc.; second, a list of things students, faculty, and staff could do as a result of the potential improvements was developed for each access mode, such as walk or ride a bike once or twice a week, take transit once or twice a week, take the shuttle between campuses, etc. Students, faculty and staff were given the opportunity to rank, 1-4, their opinion on the list of what PCC could do and what they could do to improve access. The results were summarized and shared with the TDMSC who used them in the development of a set of final improvements to the existing TDM programs and strategies at PCC. The results of the second series of open houses are shown in Charts 1 and 2 below.

As shown in Chart 1, four actions by PCC were chosen at a distinctly higher rate than all others. Two of those actions relate to improvements to the shuttle system, one is with regard to increased subsidies for student transit passes, and another is for an expanded range of parking permit products. It should be noted that only two of the options listed were specific to a subgroup of the PCC community. Both dealt with transit, with one focused on students (higher subsidies) and the other focused on an employee transit subsidy program. Based on the ratio of employees to students at PCC, the employee transit subsidy program was also chosen at a relatively high rate. The TDMSC considered this feedback, albeit opinion-based and not necessarily scientifically representative of the entire PCC community, to refine and sequence the TDM strategies.

As shown in Chart 2, actions most frequently chosen by respondents were to use the shuttle more often, ride transit more often, and rideshare or schedule classes in order to drive less frequently. The TDMSC concluded that there are some clear correlations between the actions asked of PCC and the actions participants were willing or likely to take in response. Once again, the TDMSC used this information in consideration of the likelihood that certain strategies would be effective.



February 2012

Chart 1: What can PCC do?







Standing & Special Meetings

Meetings were scheduled and held with a number of standing committees within PCC and, occasionally, at the request of a group seeking additional information. Standing committees serving District-wide, campus-specific, and unique interest groups were briefed during their regularly scheduled meetings. Additional efforts were made to support the Associated Students of PCC, given that the project spanned



a period that included a change in student government representatives. Each of the above-mentioned meetings was used to provide a briefing, obtain input and feedback, announce upcoming outreach events, and respond to questions and concerns. To the extent that minutes are normally taken at these standing meetings, they would be available, but they are not contained in the appendix.



Section 3 Evaluation Criteria

EVALUATION CRITERIA

Guiding Themes & Principles

The Guiding Themes and Principles developed by the TDMSC serve a vital purpose in the overall process of determining what actions to consider and ultimately take, based on reported transportation conditions at each campus and/or District-wide. In fact, they are so important that the TDMSC is recommending that the College adopted them as policy to guiding parking and TDM decision-making. It is expected that any individual involved in decision-making related to parking and TDM at PCC will review and agree to following these themes and principles. This is particularly true of any standing committee charged with overseeing parking and TDM, as well as the technical staff charged with administering, managing, and delivering the parking and TDM programs.

The Consulting Team worked closely with the Project Management Team to produce an initial draft of possible guiding themes and principles, based on early interactions with the TDMSC. This draft was subsequently reviewed and refined by the TDMSC and ultimately endorsed by the TDMSC on July 15, 2011. Similar to the Committee Charge, the adopted version of the Guiding Themes & Principles is repeated *verbatim* below.

BACKGROUND

Having reviewed the previous PCC transportation plans and goals, held several discussions with staff, and obtained input at several campus open houses and TDM Steering Committee meetings, the consultant team has summarized the many comments, ideas and themes that emerged from these efforts into a draft set of *Guiding Themes & Principles*. The Guiding Principles are designed to guide and inform future decision-making on issues related to access and parking management. The intent being to implement strategies, programs, and infrastructure development in a manner that equally serves the unique character of specific campuses while operating under the umbrella of a comprehensive, integrated, and connected access system.

Strategically, the principles encourage (1) the college to continue providing a variety of access methods and (2) people to use them in a manner that inherently supports the broad and overarching PCC goals that have been established. Access should continue to include walking, biking, ridesharing, driving, and riding transit and shuttle, as well as technology (i.e. telephone and internet). People seeking to access PCC should be cognizant of the available access options and the full costs of using any particular method. The Guiding Principles shape the ways in which PCC provides access and shares the costs with the people that use it.

The Guiding Principles reflect PCC's commitment to changing the access environment; moving to strategic outcomes for access that actually support more than just arrival, but the college itself as a unique place and experience. The provision of access and the management of parking are keys to the success of PCC, as an interconnected and accessible multi-campus system.

The Guiding Principles outlined here begin with an Objective Statement and are organized under theme categories, serving as a foundation for continuing discussions with PCC stakeholders. Ideally, these Guiding Principles will establish a basis for consensus; giving direction to near- and long-term decisions for parking management and access strategies for PCC.

OBJECTIVE STATEMENT

It is PCC's goal to sustainably and cost effectively provide sufficient physical and technological access to its academic system to meet the educational and vocational needs of the population it serves. To achieve this, PCC will need to create and implement an efficient and adaptable access management plan that balances cost and convenience between travel modes; strategically accommodates growth; and, supports the PCC Mission, Vision, and Sustainability Initiative. The key objective is to transition each campus to a place that values sustainability, provides expanded options for access, and ensures the long-term educational and vocational success of its students, faculty, and staff.

GUIDING THEMES & PRINCIPLES

Substantial input has been achieved to date through the Steering Committee, the open houses, and meetings with PCC staff. Topics of discussion have included the PCC mission/vision, goals and desires for the future, current access issues and ideas, and the challenges of providing access. This input has been reviewed to identify seven (7) organizing themes and twenty (20) Guiding Principles.

A. Multi-Modal and Technological Access

- 1. Assure that PCC can be accessed in a variety of ways to meet the needs of users (students, employees [faculty and staff], and visitors).
- 2. Ensure that existing and any new parking enhances the campus experience and supports PCC's sustainability goals.
- 3. Reduce employee, student, and visitor reliance on automobile-based trips to PCC through a transition into other modes (e.g., transit, bike, walk, rideshare, technology). PCC should

establish alternative mode targets for all employees and students, both system-wide and by campus.

B. Equity & Affordability

- 4. Through the use of pricing, subsidies and other measures, ensure that affordable options for access are available and manage access choices to avoid or at least minimize the need to expand vehicle parking supplies.
- 5. Recognize that parking supply is a limited and expensive resource that will need to be evaluated and managed in a manner that reflects that value.
- 6. Ensure that all users are equitably served through the provision of access.

C. Efficiency

- 7. Optimize the utility and benefit of existing access resources.
- 8. Leverage relationships with external partners.

D. Safe & Convenient

- 9. Provide access that is of the highest quality to create a safe and positive experience.
- **10**. Make access user-friendly and easy to understand.
- 11. Provide safe, secure and well-lit access to allow a sense of security at all times.

E. Sustainable

- 12. Environmental: Ensure that access contributes to the broader vision that values sustainability, reduces greenhouse gas (GHG) emissions, and contributes to the environmental well-being of the College and the communities it serves.
- **13**. Fiscal: Provide viable access options that are financially sustainable and cost-effective.
- 14. Health: Provide access programs and products that support individual and community health and well-being.

F. Communication

15. Provide a clear and consistent message about the access system via the PCC public information system.



16. Develop and/or improve educational and communications programs that communicate PCC's commitment to access options and support these principles, under a common brand.

G. Coordination

- 17. Provide clear, strategic and consensus-based direction to assure that growth is accommodated in a manner that enhances the overall "PCC experience," while expanding options for access to all campuses.
- 18. Coordinate access strategies to complement surrounding land uses while meeting user needs.
- 19. Coordinate with local, regional, and state agencies to construct, provide, and maintain methods of access that are sustainable, available, safe, efficient, convenient, comfortable, and affordable and meet user needs.
- 20. Implement measurements and reporting that assures Guiding Principles are supported and achieved.

SUMMARY

Managing the infrastructure that supports multiple uses is challenging and requires fully utilizing the entire access system to provide convenient, safe, reliable options for students, visitors, and employees. The Guiding Principles serve as a solid foundation for coordinating parking and transportation decision-making. Their intent and purpose is to generate access strategies and programs that will complement PCC's efforts in attaining its long-term growth and development vision.

Targets & Performance Measures

Successful implementation of the PCC Transportation Demand Management Plan (TDMP) is best supported by objective, quantifiable and measurable performance measures and targets. Developing and monitoring a clear set of performance standards will provide PCC and its stakeholders, understandable information to assess success, program and resource need and a solid foundation for decision-making.

The Guiding Themes and Principles developed and recommended by the TDMSC provide clear direction in this regard. Two Principles in particular call for targets and performance measures. Specific language from the Guiding Themes and Principles include:



A.3: MULTI-MODAL AND TECHNOLOGICAL ACCESS

Reduce employee, student, and visitor reliance on automobile-based trips to PCC through a transition into other modes (e.g., transit, bike, walk, rideshare, technology). PCC should establish alternative mode targets for all employees and students, both system-wide and by campus.

G.20: COORDINATION

Implement measurements and reporting that assures Guiding Principles are supported and achieved.

I. TARGETS

As a baseline, the 2011 PCC Parking and TDM Study quantified and established existing access performance by mode for uses (as an aggregate) and for each major campus. Table 4 provides a summary of that work. More detailed information regarding this information can be found in the Travel Mode Survey Section.

	By User			er By Campus			
Travel Mode	Student	Faculty	Staff	Sylvania	Rock Creek	Cascade	Southeast
Drive Alone	67%	80%	74%	70%	74%	64%	67%
Bus/Max	13%	5%	14%	10%	12%	13%	16%
Carpool	6%	2%	3%	6%	8%	5%	2%
PCC Shuttle	4%	4%	3%	7%	1%	2%	2%
Bicycle	3%	4%	1%	1%	1%	10%	6%
Dropped off by Car	2%	1%	2%	2%	2%	1%	4%
Walk	1%	1%	1%	1%	0%	3%	2%

Table 4 PCC Travel Mode Choice (2010)

As Table 4 indicates, students currently have the lowest drive alone rates (67%) and faculty the highest (80%). Individual campuses vary as to performance in each travel mode, but drive alone is still high, average 70% on most campuses.

It is recommended that PCC develop 2021 mode targets for each of the categories of travel choice shown in Table 4. This process should be facilitated by PCC technical staff with the assistance of a new "Standing Committee" of PCC stakeholders charged with advising PCC leadership on implementation of programs and strategies associated with this plan. A similar process in 1992 developed a drive alone trip reduction target of 20 percentage points over 10 years.

II. MEASURES

A number of performance measures should be developed, recognizing the need to create measures that are understandable, easy and cost effective to track and monitor and provide a meaningful measure of impact and success in achieving mode choice change. Measures to consider include:

Demand

Mode split

Mode split is the most common measure of travel mode choice. PCC has utilized this measure in the past and implements regular surveys that assist the College in quantifying mode choice by students, faculty and staff. Continuing to collect this type of data is recommended with additional refinements to include performance by campus and comparative analysis with previous years.

Shuttle Ridership

PCC already tracks shuttle ridership and this should continue.

Transit Pass sales

Transit pass sales should be tied to mode split trip reduction goals. As such, the target number of Student Select Passes sold should be correlate to the mode split target for transit use. PCC already quantifies and tracks pass sales, and this should continue.

Supply

Parking occupancy

Routine parking occupancy counts need to be conducted to accurately assess peak hour parking demand for each campus supply. Data from these counts can be used to assess impacts of other TDM programs on peak hour use of parking supply and to inform PCC decisions related to rate and/or new supply needs.

Off-site Impacts

Quantification of off-site impacts related to the overspill of student, faculty and staff vehicles into adjacent neighborhoods. Establishing baselines of such impacts (particularly during "peak" terms") will allow PCC to track efforts at reducing such impacts as well as correlating implementation of TDM strategies to impacts in adjacent areas. Efforts at the Cascade campus have already resulted in the establishment of a baseline number of "PCC vehicles" in adjacent neighborhoods. This should be replicated at all campuses where off-site impacts are problematic.



Bicycle Parking Stalls

The number of bike parking stalls on each campus should correlate to the peak bike mode split target. Tracking efforts to increase supply to meet the target would be a measure of successful performance, as well as tracking the actual bicycle mode split. For instance, if there are 1,000 students and 500 employees on a campus at the peak hour (1,500 total) and the bike mode split target is 10%, then the campus would be striving to place 150 bike parking stalls on campus.

III. SUMMARY

PCC should utilize existing data on travel mode performance to establish a "starting point" baseline to track and report the successful implementation of this plan. Standards should be meaningful, simple to understanding and easy to quantify in a routine manner.

Once established, data regarding each standard should be collected by campus and by term. This will require coordination and centralization of data assembly, which calls for a commitment to staffing and resources necessary to accomplish this.

An annual report should be developed each year that summarizes data in each performance category.



Section 4 Existing Conditions

EXISTING CONDITIONS

A substantial amount of information was provided to the TDM Steering Committee that served as background to their discussions and deliberations. Sources of information about PCC came from such groups as PCC Admissions, Auxiliary Services, Human Resources, Parking & Transportation Services, and the Bond Program office, to name several. The information ranged from documentation of the current parking and TDM program (including infrastructure and services provided), to enrollment and employment data that is maintained on a quarterly basis, to past surveys of students and employees about their travel behaviors. This information was supplemented with material produced specifically for this Plan update.

The consultant team was asked to summarize the transportation facilities and serves that support access to each of the four campuses. This was reported to the TDMSC through an Existing Conditions memorandum that is included in this section of the document. In addition, a set of parking and TDM program case studies of other educational institutions was completed and provided to the TDMSC. Finally, the consultant team provided support to PCC in the development, delivery, and interpretation of a District-wide transportation survey that was also shared with the TDMSC. The balance of this section contains excerpts and summaries of the information shared with the TDMSC.

Study Area: Campuses

This section provides an overview of the PCC campuses (for the purpose of this study the South East Center is considered a campus), including their specialties and student enrollment information. A majority of the text describing each campus was obtained from the PCC website.

LOCATIONS AND SPECIALTIES

Table 5 provides a glimpse of each campus by location, specialty, and enrollment. Specialties and enrollment for Extended Learning are also provided, as a point of reference for this highly effective educational access strategy.



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able 5	PCC Campus Locations	/ Specialties /	'Enrollment
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Campus	Location	Specialty	Fall 2010 Enrollment
Cascade	705 N. Killingsworth St. Portland, OR 97217	Job Training and Self-Improvement	11,038 students
Rock Creek	17705 NW Springville Rd. Portland, OR 97229	Diesel Service, Auto Collision Repair, Building Construction, Veterinary and Welding Programs	12,118 students
South East	2305 SE 82nd and Division, Portland, OR 97216	Dance, Fitness, Ceramics, Painting, and Photography Programs	4,604 students
Sylvania	12000 SW 49th Ave. Portland, OR 97219	Nursing and Dental Programs	16,894 students
Extended Learning	n/a	Workforce Training and Adult Basic Education	15,122 students

Cascade Campus

The Cascade campus is situated in the revitalized North Portland area, offering students a centralized location and broad ties to the many cultures represented in its surrounding community. Significant capital investments have changed the face of the 18-acre campus in recent years, by expanding its footprint to include a humanities building that is home to professional music, multimedia, and a state-of-the-art auditorium. Other investments include a new technology, physical education building remodel, and emergency services building, all of which provide the needed lab and classroom space to accommodate growth.

Cascade campus has become a focal point for much-needed workforce training, college transfer, and self-improvement courses. The campus is home to a number of unique programs offered nowhere else in the PCC system, such as medical laboratory technology, ophthalmic medical, emergency telecommunicator 9-1-1, paramedic, professional music, fire science, multimedia, paralegal, criminal justice, trades and industry, middle college, Portland Teachers Program, and the Margaret Carter Skill Center, which gives people of all ages a chance to learn the basic tools that will put them on the path to a new career. The campus also provides the home court for PCC's men's and women's basketball teams.

Rock Creek Campus

Rock Creek is a 256-acre campus, located about 12 miles west of downtown Portland, in the rapidly growing Beaverton-Hillsboro area of Washington County. Rock Creek is nestled amid farm and wetland, perfect for PCC's veterinary, landscape, building construction, and biology programs, which use the natural areas for their outdoor learning labs. It houses Tualatin Hills Parks and Recreation's sports complex where students have access to softball and lacrosse fields, tennis courts and soccer pitches. The campus is home to a fully functioning farm with sheep, rabbits, llamas, and cows.
Featured programs at Rock Creek include veterinary, welding, diesel service, auto collision repair, and building construction. The campus has been the epicenter of partnerships with green energy giant Solar World, biotechnology firm Genentech (Roche), and Hillsboro Aviation, where student pilots have access to two FAA-certified flight schools. Rock Creek also is home to federal programs that serve primarily first-generation Latino college students to develop leadership and educational opportunities. Its recycling initiative, where cafeteria scraps are degraded via a worm compost to eventually nourish the burgeoning organic garden, is a model loop system.

South east Campus

The 94,000-square-foot South East campus opened to students in 2004 after moving from its old location a few blocks away. Located in the growing Southeast Portland area, the modern facility was built with bonds approved by district residents in 2000. The new and more expansive South East campus features a dance studio, fitness center, ceramics and painting studios, and a photography darkroom. The center serves as headquarters for the Extended Learning Campus, which provides workforce training, adult basic education, personal interest, and continuing education programs.

The South East campus, where students can complete requirements for an associate's degree, has PCC's Prep Alternative Education programs, including the nationally replicated Gateway to College program where students meet high school graduation requirements while earning college credit. The Youth Empowered to Succeed program prepares students for their GED exam and the Multicultural Academic Program provide English classes for immigrant students.

Sylvania Campus

The Sylvania campus is located just 10 minutes southwest of downtown Portland, nestled between Portland, Tigard, and Lake Oswego, near the crest of Mount Sylvania. Campus facilities were upgraded through the 2000 bond with a new technology building for needed computer labs and high-tech classrooms and renovations to the Health Technologies Building. In addition, the south classroom structure provides additional space for the college's public safety office and plant services. The cornerstones of the campus are the library and performing arts center, both built in 1994. The library features the latest in learning resources while the nearby performing arts center is a fully equipped theater and dance venue.

The Sylvania campus is home for the PCC nursing and dental programs, which have national reputations for excellence. Sylvania also provides college transfer, professional and technical programs, and developmental education. Sylvania is home to machine manufacturing technology, early childhood education, radiology, fitness technology, graphic design, sign language interpreting, computer



technologies, automotive technology, and more. The Sylvania campus also provides a track, swimming pool, weight rooms, and a large gymnasium.

Extended Learning

Extended Learning is mentioned here because of the significant contribution it makes toward providing access to PCC without creating a demand for driving, parking, transit, biking, or walking to/from campus. The benefit is significant. For example, more than 15,000 students had educational needs met through extended learning opportunities during fall term 2010.

Students and Staff

Students and staff travel from all over the region to access PCC. A set of maps have been prepared by PCC to represent the distribution of students, based on the site they consider their "home" campus. These represent a summary of enrollment by campus, for fall term 2010.

STUDENT ENROLLMENT

Geographic Distribution of Cascade Campus Student Enrollment

The following map reveals that nearly half of all students who consider Cascade their home campus live within close proximity to the campus. Existing sidewalks, bicycle facilities, and transit facilities and services within the area currently provide considerable opportunities to meet student access needs by non-auto means.





Map based on Longitude (generated) and Latitude (generated). Color shows details about Zipcodes. Size shows sumof Cascade. The marks are labeled by Zipcodes. The view is filtered on Zipcodes and sumof Cascade. The Zipcodes filter has multiple members selected. The sum of Cascade filter keeps all values.

Students coming from zip codes in central Washington County must travel a distance much greater than the regional average for a commute-to-school trip.

Geographic Distribution of Rock Creek Campus Student Enrollment

Similar to the Cascade campus, approximately 50% of Rock Creek students are located in the geographic area surrounding the Rock Creek campus. Concentrations of this size and type provide the best opportunities for biking and transit to be highly effective access modes, if the infrastructure is in place, safe, and well-maintained and the services are timely, frequent, and cost-effective.





Map based on Longitude (generated) and Latitude (generated). Color shows details about Zipcodes. Size shows sumof Rock Creek. The marks are labeled by Zipcodes. The view is filtered on Zipcodes, which has multiple members selected.

Geographic Distribution of South East Campus Student Enrollment

Approximately 43% of students attending courses at the South East campus live along the SE 82nd Avenue or SE Division Street corridors, each of which provides frequent TriMet bus service. This general area is also equipped with a grid network of streets, sidewalks, and bicycle facilities that optimize the opportunities for shorter-distance commute-to-school trips to occur via non-auto modes. Other features of this general area are the relatively flat terrain, the density of housing, and the variety of businesses. Surrounding businesses offer opportunities to meet other daily needs of students (grocery shopping, day care, banking, etc.), as a walk or short transit trip, relieving the need to drive to school.





Map based on Longitude (generated) and Latitude (generated). Color shows details about Zipcodes. Size shows sumof South East. The marks are labeled by Zipcodes. The view is filtered on Zipcodes, which has multiple members selected.

Geographic Distribution of Sylvania Campus Student Enrollment

Because the Sylvania campus serves the largest student population, it's not surprising that the campus also draws from the largest geographic area (more than 500 zip codes). Approximately one-third of the students reside in the zip code areas that immediately surround the Sylvania campus. The hilly terrain that defines this area creates unique challenges for providing access. The terrain has prevented the development of a grid network of streets, which limits the options for access. Many streets are discontinuous and even those that are don't always provide sidewalk and/or bicycle facilities. Transit is also challenged by the terrain and PCC has been strategic in providing an on-campus transit center to promote transit access. Fortunately, housing densities are relatively high in some areas that surround the campus and create opportunities for some students to walk, bike, and/or take short-distance transit trips to access Sylvania.





Map based on Longitude (generated) and Latitude (generated). Color shows details about Zipcodes. Size shows sum of Sylvania. The marks are labeled by Zipcodes. The view is filtered on Zipcodes, which has multiple members selected.

Staff Population & Distribution

An evaluation of Staff Population & distribution will be included in a later draft.

System Inventory & Demands

This section documents the existing multimodal access facilities and services within the vicinity of each campus, including pedestrian, bicycle, roadway, shuttle, and transit facilities. Major roadway facilities also were evaluated based on their ability to provide safe and convenient access to the campuses, as well as their ability to accommodate pedestrian, bicycle, and transit use.



CASCADE CAMPUS

Roadway Facilities

Access to the Cascade campus is currently provided by several major roadway facilities, including N Killingsworth Street, N Interstate Avenue, N Albina Avenue, N Vancouver Avenue, N Williams Avenue, and several others. N Killingsworth Street is located along the southern boundary of the campus and provides connections between N Willamette Boulevard and NE Martin Luther King Jr. Boulevard to the west, and Highway 30 and Interstate 205 to the east. N Killingsworth Street also provides connections to Interstate 5, a major regional freeway located approximately two blocks west of campus. TriMet's Yellow Line is located along N Interstate Avenue which ties into several additional transit services provide by TriMet, including TriMet's Red, Blue, and Green Lines. N Albina Street provides additional north-south connections to the campus, while N Vancouver Avenue and N Williams Avenue are popular north-south bicycle routes.

Figure 1 illustrates the location of the Cascade campus along with the surrounding roadway network. Table 6 summarizes the physical characteristics of the major roadways within the vicinity of the campus, including their respective, functional classifications, cross sectional elements, posted travel speeds, and whether they currently serve as a transit route.

		Cross Section					
Roadway	Street Classification	Travel Lanes	Bike Lanes	Parking	Sidewalks	Posted Speed	Transit
N Killingsworth Street	District Collector	2	No	Yes	Yes	30	Yes
N Interstate Avenue	District Collector	2	Yes	Yes ¹	Yes	30	Yes
N Albina Avenue	Local Service Street	2	No	Yes	Yes	25/30 ²	Yes
N Vancouver Avenue	Neighborhood Collector	2 (SB)	Yes	Yes	Yes	30	Yes
N Williams Avenue	Neighborhood Collector	2 (NB)	Yes	Yes	Yes	25	Yes ³

Table 6 Major Access Roadway Characteristics (PCC Cascade)

1.On-street parking along N Interstate is in select locations only.

2. Posted speed limit on Albina Avenue: 25 mph north of Killingsworth, 30 mph south of Killingsworth.

3. Transit is currently provided along N Williams Street south of N Killingsworth Street.

As referenced in the City of Portland's Transportation System Plan (TSP), the functional purpose of a District Collector (e.g. Killingsworth Street) is to distribute traffic from Major City Traffic Streets to lower-level streets, to provide access to district activity centers, and to serve trips that start and end in a City transportation district (such as the Northeast District in which the Cascade campus is located). Neighborhood Collectors (e.g. Vancouver Avenue and Williams Avenue) distribute traffic from Major



Figure 1 Cascade Campus Map



City Traffic Streets and District Collectors. Local Service Streets provide local access to residences and businesses and provide for pedestrian circulation.

The City of Portland has several additional classifications for each roadway under its jurisdiction. Table 7 summarizes these functional classifications for pedestrian, bicycle, and transit use per the City's TSP.

Roadway	Pedestrian ⁴	Bicycle	Transit
N Killingsworth Street	City Walkway	Local Service Bikeway	Major City Transit Street
N Interstate Avenue	City Walkway	City Bikeway	Regional Transitway
N Albina Avenue	City Walkway	Local Service Bikeway	Major City Transit Street
N Vancouver Avenue	City Walkway	City Bikeway	Minor Transit Street
N Williams Avenue	City Walkway	City Bikeway	Minor Transit Street

Table 7 City of Portland Street Designations

1. The Cascade campus is entirely within the Killingsworth Pedestrian District.

Pedestrian Facilities

The Cascade campus falls entirely within the Killingsworth Pedestrian District, which is bounded by Ainsworth Street, Interstate 5, Emerson Street, Kerby Avenue, Jessup Street, Williams Avenue, and Alberta Street. Pedestrian Districts are areas with frequent pedestrian activity where pedestrian access is prioritized and all streets are of equal significance in serving pedestrian trips. Sidewalks in Pedestrian Districts should be separated from vehicle traffic by landscaping or on-street parking, and crosswalks, signalized crossings, curb extensions, and pedestrian refuges are appropriately used. According to the Transportation Element, protected crossings should be considered at every corner or every 400 feet, whichever is less.

Pedestrian facilities were inventoried along N Killingsworth Street between Interstate 5 and N Williams Avenue. Table 8 summarizes the pedestrian crossing treatments located at each intersection along N Killingsworth Street. The shaded portion of this table denotes the intersections adjacent to the Cascade campus.



Table 8	Killingsworth Pedestrian Treatments
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Cross Street	Signalized Protection ?	Marked Crosswalk ?	Curb Extensions?
Missouri Avenue	Ν	Y	Y
Michigan Avenue	Ν	N	Y
Mississippi Avenue	N	N	Ν
Albina Avenue	Y	Y	Y
Borthwick Avenue	N	N	N
Kerby Avenue	N	Y	Y
Commercial Avenue	N	Y	Y
Haight Avenue	N	N	N
Vancouver Avenue	Y	Y	N
Moore Avenue	N	N	N
Williams Avenue	Y	Y	N

2. Shaded portion of table denotes that section of Killingsworth along PCC Cascade frontage.

Pedestrian movements were observed on Killingsworth Street in the vicinity of the campus. Based on these observations, pedestrian movements generally are made legally at marked or unmarked crosswalks.

Bicycle Facilities & Use

The Cascade campus is the leader for bicycle accessibility among the four campuses. Although a majority of the streets adjacent to the campus do not have designated bicycle lanes, traffic volumes and speeds are such that most bicyclists feel comfortable riding in traffic. Also, the N Vancouver Avenue-N Williams Avenue couplet located a few blocks to the east serves as a major bicycle corridor through the neighborhood. The Cascade campus also boasts capacity for up to 264 bicycles, campus wide. Not surprisingly, Cascade also has the highest observed bike parking utilization rate at 53% (based on June 2011 observations); the only campus to exceed 50% occupancy. Covered parking appears to be the preferred option among bicyclists with 79% of those racks occupied. Table 9 summarizes the total number of covered and uncovered bicycle rack installations at the Cascade campus, along with the total number of available bicycle parking stalls and the observed utilization.



Un/Covered	# of Rack Installations	Bicycle Capacity*	Occupancy
Uncovered	18	231	114 (49.4%)
Covered	6	33	26 (78.8%)
Total	24	264	140 (53.0%)

Table 9 Cascade Campus Bicycle Storage Inventory & Occupancy

*Final number of bicycle parking spaces to be confirmed.

Parking Facilities & Use

The Cascade Campus is the most urbanized of the four campuses and reports the highest use of alternative modes among students and faculty. However, the campus has experienced a significant number of issues in recent years related to parked vehicles. The campus is located in the Humboldt neighborhood in North Portland along Killingsworth Street and N Albina Street. Due to its residential location and the existing street grid, amassing large contiguous areas for surface parking, similar to those at Rock Creek and Sylvania, has been difficult. As a result, Cascade has several more modest size parking lots, the largest being the North Lot (P1) with 304 stalls and the smallest, the Gymnasium Lot (P3) with only 20 stalls. Table 10 identifies each lot and its corresponding capacity.

	Stalls by Type ¹						
Lot/Parking ID	General	Staff	Visitor	Time Limited	Other	ADA	Total ²
North Lot (P1)	284	0	0	4	0	16	304
Staff Lot (P2)	0	39	0	0	0	4	43
Gym Lot (P3)	0	18	0	0	0	2	20
West Lots (P4)	139	0	0	0	0	6	145
PSEB Lot (P5)	91	0	0	0	0	4	95
On-Campus Subtotal	514	57	0	4	0	32	607
Perimeter Street Parking	111 ³	0	0	0	0	0	111
Off-Campus Subtotal	111	0	0	0	0	0	111
Grand Total	625	57	0	4	0	32	718

Table 10 Cascade Campus Parking Inventory (Cascade)

1. Stall type (e.g., general, staff, visitor, time limited, ADA) counts were taken in the 2007 survey work

2. Total stall counts were taken from the most recent survey in December, 2010.

3. Of the 191 on-street stalls that are located on PCC-frontage, there were 80 non-PCC vehicles parked, leaving a peak supply available to PCC of 111 parking stalls.

Chart 3 provides a comparison of measured parking utilization on the Cascade Campus in 2007 and in 2010. The data is summarized by hour of the day. Demand by hour of day is consistently higher in 2010



over 2007. The 2010 data is an aggregate of two separate survey days, both were conducted at the end of February 2010.

Tebruary 2010.



Chart 3 Cascade Campus Vehicle Parking Occupancies

From Chart 3, the following conclusions can be derived:

- Occupancies exceed 90% for five consecutive hours of the day (10:00 AM to 2:00 PM)
- Peak hour for 2010 was at 11:00 AM, reaching 97.9% occupancy.
- At peak hour a total of only 12 stalls are available for use.
- The Cascade Campus experiences very long sustained use of its parking supply, which implies an unknown latent demand in the adjacent neighborhoods.

Transit System

The main bus lines serving the Cascade campus are the #4 (Division/Fessenden), and the #72 (Killingsworth/82nd). These bus lines share a common stop near the N Albina Avenue/N Killingsworth Street intersection, where both buses operate at 10- to 18-minute headways. The #4 has an additional stop along N Albina Avenue near N Jessup Street and the #72 has three additional bus stops along Killingsworth Street near the Cascade campus. Table 11 summarizes the TriMet ridership at the bus stops near the Cascade campus. As shown, there has been a 16% increase in the number of "ons"



(people getting on the bus) and an 8% increase in the number of "offs" (people getting off the bus) near the Cascade campus over the last three year period.

Fall 2007		Fall 2010			Increase/Decrease			
Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts	Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts	Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts
1335	1377	474	1553	1491	393	16%	8%	-17%

Table 11	TriMet Ridership	near Cascade
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Five blocks west of the Cascade campus is the MAX Yellow Line station, which provides access to the entire light rail system. The MAX Yellow line operates with 15-minute headways.

Other transit lines serving the Cascade campus are the Northwest POINT shuttles, Swan Island TMA Shuttle, and Vancouver C-Tran service. The Northwest POINT shuttle travels from Astoria to the Portland Amtrak station, which connects to the MAX Yellow Line. The Northwest POINT shuttle arrives at the Portland Greyhound Station at 10:30 a.m. and 8:30 p.m.. The Swan Island TMA also has an evening shuttle that operates from 6:36 p.m. to 12:00 a.m. going from the Rose Quarter TC to Swan Island. The Swan Island TMA shuttle service operates with 30-minute headways. The Vancouver area operates the C-Tran transit service. The C-Tran line has four bus service lines that end at the Delta Park/Vanport Max Station (each with 30- to 45-minute headways), which is the final destination for the MAX Yellow Line. Those four lines are the #4 (Fourth Plain), #41 (Camas/Washougal Limited), #44 (Fourth Plain Limited), and #47 (Battle Ground Limited).

Shuttle System

The PCC shuttle connects to the Cascade campus at a stop on Kerby Avenue between the Student Center and Jackson Hall. Shuttles connect Cascade to the Sylvania campus via the Green Line (Cascade/Sylvania) and Rock Creek via the Red Line (Rock Creek/Cascade/South East). The Green line runs from 6:00 a.m. to 9:35 p.m. at 60- to 75-minute headways. The Red line runs from 6:00 a.m. to 9:20 p.m. at 75- to 160-minute headways. The shuttle does not run during summer term.

ROCK CREEK CAMPUS

Roadway Facilities

Access to PCC Rock Creek is currently provided by two major roadways; NW 185th Avenue and NW Springville Road. NW 185th Avenue is located along the western boundary of the campus and provides north-south connections between NW German Town Road, the Sunset Highway, and several other



major roadways located north and south of the campus area. NW Springville Road is located along the southern boundary of the campus and provides east-west connections between NW 185th Avenue and NW Skyline Boulevard. Figure 2 illustrates the location of the PCC Rock Creek campus along with the surrounding roadway network. Table 12 summarizes the characteristics of the major roadways within the vicinity of the campus, including their respective functional classifications, cross sectional elements, posted travel speeds, and whether they currently serve as a transit route.

		Cross Section				-	
Roadway	Classification	Travel Lanes	Bike Lanes	Parking	Sidewalks	Posted Speed	Transit
NW 185 th Avenue	Arterial	2	No	No	Yes ¹	45	Yes ²
NW Springville Road	Arterial	2 ³	No	No	Yes ⁴	45	Yes

Table 12 Access Roadway Characteristics (Rock Creek)

1. Sidewalks are currently provided along the east side of NW 185th Avenue south of NW Springville Road.

2. Transit is currently provided along NW 185th Avenue south of NW Springville Road (additional information related to transit service is provide later in this report).

3. Most of NW Springville Road currently has a two-lane cross section. However the roadway widens to three lanes in the eastbound direction and four lanes in the westbound direction near the main entrance to PCC Rock Creek to accommodate left- and right-turn movements into campus.

4. Sidewalks are currently provide along the south side of NW Springville Road west of the main entrance and on the north side of the road adjacent to the campus frontage (additional information related to pedestrian facilities is provided later in this report).

As shown, both NW 185th Avenue and NW Springville Road are classified as arterial streets by Washington County. As arterials both roadways are intended to provide general mobility within the region linking residential areas with major commercial, industrial, and institutional areas such as PCC Rock Creek. Based on the current Washington County TSP, both roadways should provide bicycle lanes on both sides of the roadway and have sufficient right-of-way to accommodate sidewalks.

Pedestrian Facilities

Pedestrian facilities within the vicinity of the campus primarily consist of sidewalks, multi-use paths and trails. Figure 2 illustrates the location of the pedestrian facilities and highlights areas where existing gaps could prevent pedestrians from accessing campus. As shown, there are currently no signed or striped pedestrian crossings along NE 185th Avenue or NW Springville Road within the vicinity of the campus. The lack of signed or striped pedestrian crossings can make crossing either roadway a challenge for pedestrians.

Bicycle Facilities & Use

Access to the Rock Creek campus by bicycle is limited by narrow roadway widths, high traffic volumes and speeds, and steep terrain. As indicated previously there are currently no designated bicycle lanes



Figure 2 Rock Creek Campus Maps



on either of the major roadways within the vicinity of the Rock Creek campus. The existing roadway shoulders are not sufficient to accommodate bicyclists and the adjacent sidewalks are too narrow to safely accommodate both bicyclists and pedestrians. Traffic volumes and speeds in the area are also such that riding in traffic would be uncomfortable for most bicyclists.

The campus's more remote location along with some safety concerns, particularly on N Springville Road in front of campus, has deterred would-be cyclists from riding to campus. A recent accident (early 2011) involving a cyclist and a motor vehicle on N Springville Road has caused campus administrators to suspend promoting bicycling as a commute option until improvement can be made to the roadway.

Rock Creek primarily offers uncovered bicycle racks at a 3:1 ratio compared with covered facilities. The campus has capacity to accommodate up to 80 bicycles. The safety issues likely have affected the bicycle usage rate at Rock Creek and is evidenced in the occupancy numbers, 13.8% overall. Table 13 summarizes the total number of covered and uncovered bicycle rack installations at the Rock Creek campus along with the total number of available bicycle parking stalls and the observed utilization.

Un/Covered	# of Rack Installations	Bicycle Capacity	Occupancy
Uncovered	5	60	7 (11.7%)
Covered	2	20	4 (20.0%)
Total	7	80	11 (13.8%)

Table 13 Rock Creek Bicycle Storage Inventory & Occupancy

Parking Facilities & Use

Parking inventory data collected for Rock Creek (September 2010) included identifying stalls by user, therefore all counts for Rock Creek, shown in 0, should reflect current parking conditions. Rock Creek is the second largest campus in terms of building area, enrollment and parking capacity. The parking facilities at Rock Creek can accommodate up to 1,721 vehicles.



	Stalls by Type						
Lot/Parking ID	General	Staff	Visitor	Time Limited	Other ¹	ADA	Total
A/B	368	40	8	12	25	20	473
East Gravel	63	0	0	0	0	0	63
С	378	134	0	0	4	14	530
D	283	0	0	0	0	0	283
THPRD	258	0	0	0	19	8	285
Subtotal	1,350	174	8	12	48	42	1,634
On-street (marked)	53						53
On-street (unmarked)	34						34
Subtotal	87						87
Grand Total	1,437	174	8	12	48	42	1,721

Table 14 Rock Creek Campus Parking Inventory

1. Other includes service, museum, child drop, THPRD only and motorcycle stalls (motorcycle stalls reflect full size stalls devoted to motorcycle parking only)

Chart 4 provides a comparison of measured parking utilization on the Rock Creek Campus in 2007 and in 2010. The data is summarized by hour of the day. As shown, demand by hour of the day is generally higher in 2010 over 2007. The 2010 data is an aggregate of two separate survey days, both were conducted at the end of February 2010.

Chart 4 Rock Creek Campus Vehicle Parking Occupancies



The 2010 figures from Rock Creek show nine non-continuous hours of occupancies over the course of the survey day. The following information can be derived from this data:

- Peak hour for both 2007 and 2010 were consistent at 11:00 AM.
- A peak hour of 97.4% leaves only 44 stalls available on the entire campus.
- From 10:00 AM to 12:00 PM, 2010 peaks exceeded those from 2007 by at least 6 percentage points.
- Rock Creek experiences a significant decline at or before 5:00 PM and evening classes only somewhat affect overall occupancies.

Transit System

The Rock Creek campus has an on-campus transit center that is currently served by TriMet and the Columbia County Rider (CCR). TriMet bus line #52 (Farmington/185th), TriMet bus line #67 (Jenkins/158th), and the CCR Willow Creek line all serve the Rock Creek Campus. The #52 line operates on 15- to 30-minute headways, while the #67 operates on 29– to 80-minute headways and the Willow Creek line operates on 20-minute headways. Table 15 summarizes the TriMet ridership at the on-campus transit center at Rock Creek. As shown, the number of "ons" (people getting on the bus) has nearly doubled over the last three years, while the number of "offs" (people getting off the bus) has increased by nearly 50%.

Table 15	TriMet Ridership at Rock Creek	
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Fall 2007			Fall 2010			Increase/Decrease		
Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts	Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts	Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts
336	443	75	669	659	75	99%	49%	0%

An additional TriMet stop is located at the entrance of the Rock Creek campus off NW Springville Road. This stop serves both the #52 and #67 on 20– to 40-minute and 40– to 60-minute headways, respectively. The #52 has three stops along NW Springville road west of the entrance to PCC Rock Creek. Other transit options that are available include the TriMet MAX Blue line, accessible by the #52 bus, TriMet WES Commuter Rail line accessible by the #52 and the #67 buses, and disabled and senior citizens can call to request the use of the Beaverton RideAbout shuttle.

The TriMet blue line is a light rail line that runs from Hillsboro to Gresham. The Willow Creek Transit Station is 3.9 miles from the Rock Creek campus. The Blue Line operates from 3:30 AM to 1:30 AM with



6- to 20-minute headways. The TriMet WES Commuter Rail line runs from Wilsonville to Beaverton and can be accessed by both the #52 and the #67 bus lines. The WES Commuter Rail line station is closest to Rock Creek campus and operates at 30-minute headways from 5:48 a.m. to 9:18 a.m. and from 3:55 p.m. to 7:30 p.m.

Shuttle System

Two PCC shuttle routes serve the Rock Creek campus: the Blue Line (Rock Creek/Sylvania), and the Red Line (Rock Creek/Cascade/South East). The Blue line runs from 6:00 a.m. to 9:30 p.m. on 60- to 90minute headways. The Red line runs from 6:35 a.m. to 9:50 p.m. on 90- to 160-minute headways. The shuttle stops are located on campus between Buildings 5 and 2, which also serves TriMet and the Columbia County Rider.

SOUTH EAST CAMPUS

Roadway Facilities

Access to the South East campus is currently provided by two major roadways; SE Division Street and SE 82nd Avenue (OR 213). SE Division Street is located along the southern boundary of the campus and provides access to several major roadways and communities east and west of the campus, including Interstate 205, a major regional freeway, located several blocks to the east. SE 82nd Avenue is located along the eastern boundary of the campus and provides access to several major roadways and communities north and south of the campus area including Interstate 84, another major regional freeway located several blocks to the north.

Figure 3 illustrates the location of the PCC South East campus along with the surrounding roadway network. Table 16 summarizes the physical characteristics of the major roadways within the vicinity of the campus, including their respective, functional classifications, cross sectional elements, posted travel speeds, and whether they currently serve as a transit route.

			Cross S				
Roadway	Street Classification	Travel Lanes	Bike Lanes	Parking	Sidewalks	Posted Speed	Transit
SE Division Street	Neighborhood Collector ¹	5	Yes	Yes	Yes	35	Yes
SE 82 nd Avenue	Major City Traffic Street	5	No	No	Yes	35	Yes

Table 16 Major Access Roadway Characteristics (South East Campus)

1. SE Division becomes a District Collector east of SE 82nd Avenue.



Figure 3 South East Campus Map



As a Neighborhood Collector SE Division Street is intended to provide connections to centers, corridors, station communities, main streets, and other nearby destinations as well as distribute traffic from Major City Traffic Streets, such as SE 82nd Avenue. Major City Traffic Streets are intended to serve as a primary route for motor vehicles providing connections among central cities, regional centers, town centers, industrial areas, and intermodal facilities.

The City of Portland has several additional classifications for each roadway under its jurisdiction. Table 17 summarizes the functional classifications for pedestrian, bicycle, and transit use per the City's TSP.

Roadway Pedestrian ¹		Bicycle	Transit		
SE Division Street	City Walkway	City Bikeway	Major Transit Priority Street		
SE 82 nd Avenue	City Walkway	City Bikeway	Major Transit Priority Street		

Table 17	City of Portland Stree	t Designations	(South Fas	t Campus)
	city of i of tiana stree	Designations	(Journ Las	c campus,

Pedestrian Facilities

Pedestrian facilities within the vicinity of the South East campus consist of sidewalks, marked and unmarked, signalized and unsignalized pedestrian crossings. Figure 3 illustrates the location of the pedestrian facilities within the vicinity of the South East campus. As shown, sidewalks are currently provided along both sides of SE Division Street and SE 82nd Avenue as well as many of the local streets within the vicinity of the campus. However, there is only one pedestrian crossing adjacent to the campus located at the SE 82nd Avenue/SE Division Street intersection despite multiple transit stops adjacent to the campus on both major streets. Several pedestrians were observed crossing both streets at unmarked, unsignalized locations including mid-block locations along SE 82nd Avenue.

Bicycle Facilities

Bicycle lanes are currently provided along the south side of SE Division Street between SE 78th Avenue and SE 82nd Avenue and on both sides of SE Division Street east of SE 82nd Avenue. Bicycle lanes are not provided any portion of SE 82nd Avenue within the vicinity of the campus. The lack of bicycle facilities adjacent to the campus along with high traffic volumes and speeds make bicycle access to the South East campus difficult for most bicyclists.

In addition, the South East campus has the smallest number of bicycle parking facilities with capacity for up to 43 bicycles, but it does have an additional option that other campuses do not; eight secure bike boxes that are managed by student government. Also, all of the racks/bike boxes at South East are covered. Occupancies are slightly higher at South East (34%) than Sylvania (27%) and significantly



higher than those at Rock Creek (14%). Table 18 provides the location, capacity and utilization rate for the bicycle facilities on the South East campus.

Table 18 South East Campus Bicycle Storage Inventory	
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Racks/Boxes	# of Rack Installations	Bicycle Capacity	Occupancy
Covered Racks	3	35	12 (34.34%)
Bike Boxes	8	8	N/A
Total Bike Facilities	11	80	11 (13.8%)

Parking Facilities & Use

The South East campus has the smallest concentration of students and faculty of the four campuses. This translates into the lowest vehicle parking occupancies in the system, 77% in the peak hour. Table 19 provides a breakout of the stalls by type for the South East location.

	Stalls by Type ¹							
Lot/Parking ID	General	Staff	Visitor	Time Limited	Other ³	ADA	Total ²	
Combined Lots	394	64	13	4	10	17	502	
On-Campus Subtotal	394	64	13	4	10	17	502 ⁴	
Division Street Parking	12						12	
Off-Campus Subtotal	12						12	
Grand Total	406	64	13	4	10	17	514	

Table 19 South East Campus Parking Inventory

1. Stall type (e.g., general, staff, visitor, time limited, ADA) counts were taken in the 2007 survey work

2. Total stall counts were taken from the most recent survey in October, 2010.

3. Other includes carpool and motorcycle stalls

4. Two other private businesses have parking bordering the PCC campus – Legin Restaurant (southwest corner) has 40 signed parking stalls in the PCC lot to the south of Mt Tabor Hall; Bank of the West occupies the southeast corner of the property and maintains 21 parking stalls; neither count were included in the PCC inventory

The 2010 figures from South East were collected every half hour from 9:00 AM to 2:00 PM then every two hours (somewhat sporadically) thereafter. The 2010 data is an aggregate of three separate survey days, the first two were conducted the middle of April, 2010 and the third was in early October, 2010.

Chart 5 South East Campus Vehicle Parking Occupancies



From Chart 5, the following conclusions can be derived:

- There has been a significant increase in parking utilization of the South East campus from the 2007 study to today.
- Peak hour for 2010 was at 11:00 AM, reaching 76.7% occupancy.

While not at the same critical utilization stage as other campuses, South East is growing in popularity.

Transit System

The main TriMet bus lines that serve the South East campus are the #4 (Division/Fessenden) and the #72 (Killingsworth/82nd). Division Street has two bus stops for just the #4 bus line located along the southern end of the PCC South East campus. These two stops operate at 10- to 18-minute headways. The primary bus stop serving the #4 bus line is located on the corner of SE 82nd Avenue and SE Division Street. The stop serves both the #4 and #72 bus lines at 10- to 18-minute headways. SE 82nd Avenue has two additional bus stops for the #72 bus line adjacent to the campus. These two stops operate at 10- to 18-minute headways. Table 20 summarizes the TriMet ridership at the bus stops near the South East campus. As shown, unlike the other campuses, the total number of "ons" (people getting on the bus) and the total number of "offs" (people getting off the bus) has decreased slightly over the last three years.

Fall 2007			Fall 2010			Increase/Decrease		
Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts	Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts	Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts
1683	1611	422	1632	1576	416	-3%	-2%	-1%

Table 20 TriMet Ridership at South East Campus

Shuttle System

Two PCC shuttle routes serve the PCC South East campus with an on-campus stop by the Mt Scott & Mt Tabor buildings. The shuttles serving the South East campus are the Yellow Line (South East/Sylvania), and Red Line (Rock Creek/Cascade/South East). The Yellow line runs from 6:35 a.m. to 9:30 p.m. at 10-to 120-minute headways. The Red line runs from 6:00 a.m. to 9:20 p.m. at 75– to 160-minute headways.

SYLVANIA CAMPUS

Roadway Facilities

Access to PCC Sylvania is currently provided by three major roadways; SW 49th Avenue, SW 21st Avenue, and SW Lesser Road. SW 49th Avenue is located along the east side of the campus and provides connections to SW Capital Highway and Interstate 5 to the north and SW 21st Avenue and Kerr Parkway to the south (SW 49th Avenue becomes SW 21st Avenue south of the main entrance to the campus). SW Lesser Avenue is located along the west side of the campus and also provides connections to SW Capital Highway as Well as SW Haines Street and Jefferson Parkway to the west and south. Figure 4 illustrates the location of the PCC Sylvania campus along with the surrounding roadway network. Table 21 summarizes the physical characteristics of the major roadways within the vicinity of the campus, including their respective, functional classifications, cross sectional elements, posted travel speeds, and whether they currently serve as a transit route.

Table 21 Access Roadway Characteristics (Sylvania

			Cross S				
Roadway	Street Classification	Travel Lanes	Bike Lanes	Parking	Sidewalks	Posted Speed	Transit
SW 49 th Avenue	District Collector	4	Yes	Yes ¹	Yes	35	Yes
SW 21 st Avenue	Minor Arterial	2	Yes	No	Yes ²	35	Yes
SW Lesser Road	Neighborhood Collector	2	No	No	Yes ³	30	Yes

1. On-street parking is currently provided on the east side of SW 49th north of the main entrance.

2. Sidewalks are currently provided on the west side of SW 21st Avenue only.

3. Sidewalks are currently provided on the east side of SW Lesser Road between SW Capital Highway and G Street.

Figure 4 Sylvania Campus Map



As referenced in the Transportation Element of the City of Portland's Comprehensive Plan, the functional purpose of a District Collector (e.g. SW 49th Avenue) is to distribute traffic from Major City Traffic Streets (such as SW Barbur Boulevard) to lower-level streets, to provide access to district activity centers, and to serve trips that start and end in a City transportation district. Neighborhood Collectors (e.g. SW Lesser Road) distribute traffic from Major City Traffic Streets and District Collectors and serve trips that originate and end within areas bounded by Major City Traffic Streets and District Collectors.

The City of Portland has several additional classifications for each roadway under its jurisdiction. Table 22 summarizes these functional classifications for pedestrian, bicycle, and transit use per the City's TSP.

Roadway	Roadway Transit		Pedestrian
SW 49 th Avenue	Transit Access Street	City Bikeway	City Walkway
SW Lesser Road	Transit Access Street	City Bikeway	City Walkway

Table 22 City of Portland Modal Classifications (Sylvania)

Pedestrian Facilities

Pedestrian facilities within the vicinity of the Sylvania campus consist of sidewalks, multi-use paths and trails as well as marked and unmarked, signalized and unsignalized crossings. Figure 4 illustrates the location of the pedestrian facilities within the vicinity of the Sylvania campus. As shown, a majority of the major roadways currently have sidewalks on one or two side of the roadway, with the exception of SW Lesser Road (south of G Street) as well as large segments of G Street within the campus area.

Bicycle Facilities & use

Bicycle lanes are currently provided along SW 49th Avenue and SW 21st Avenue as well as the east side of SW Lesser Avenue north of G Street. High traffic volumes and speeds, steep terrain, and narrow roadways makes access along any of the other roadways challenging for most bicyclists, which is reflected in the number of bicycle parking spaces provided and the number of bikes actually parked on campus.

The Sylvania Campus currently provides a mix of both covered (39 spaces) and uncovered (47 spaces) bicycle racks accommodating a total of 86 bicycles. While this may appear to be a low number of spaces when compared to Sylvania's enrollment, utilization figures (27% occupancy) demonstrate significant bike parking availability, 63 spaces. Table 23, provides the location, capacity and utilization rate for each of the bicycle facilities on the Sylvania Campus.



Table 23	Sylvania	Campus	Bicycle	Storage	Inventory	& Oc	cupancy
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Un/Covered	# of Rack Installations	Bicycle Capacity	Occupancy		
Uncovered	9	47	12 (25.5%)		
Covered	10	39	11 (28.2%)		
Total	19	86	23 (26.7%)		

Parking Facilities & Use

The information provided in Table 24 comes from three sources. The total number of parking stalls were gathered in the fall of 2010 and then again in early 2011 and represent the most current and accurate inventory of all stalls on the Sylvania campus. The "Stalls by Type" are based on inventory counts that were taken in 2007, but provide an idea of how the parking supply is allocated to different user groups. Sylvania is the largest of the four campuses in terms of building area as well as parking capacity, with 2,421 total parking stalls for students, faculty, staff and visitors.



Tahlo 2/	Sylvania Campus Parking Inventory	
	Sylvania Campus Larking inventory	

	Stalls by Type ¹						
Lot/Parking ID	General	Staff	Visitor	Time Limited	ADA	Total ²	
P1	0	62	0	0	1	63	
P2	0	14	0	0	10	24	
Р3	0	20	0	0	0	20	
Р5	344	0	0	0	6	350	
Р7	35	146	6	14	14 7		
Р8	216	0	0	0	0	216	
Р9	289	35	0	16	10	350	
P10	149	0	0	0	0	149	
P11	0	119	0	0	11	130	
P12	85	12	0	6	2	105	
P13	193	0	0	0	0	193	
P14	113	0	0	0	0	113	
Mountain Park Church	k Church 143				143		
Secondary Lot for Church	35					35	
Subtotal	1,602	408	6	36	47	2,099	
Lesser Rd to H St	81					81	
H St to L St	61					61	
L St to J St	54					54	
J St to 49th St	20					20	
49th St to E St	St to E St 19				19		
E St to South Lot	87					87	
Subtotal	322					322	
Grand Total	1,924	408	6	36	47	2,421	

1. Stall type (e.g., general, staff, visitor, time limited, ADA) counts were taken in the 2007 survey work; it is the project team's intent to update these numbers before finalizing this report.

2. Total stall counts were taken from the most recent survey in November, 2010.

Chart 6provides a comparison of measured parking utilization on the Sylvania campus in 2007 and in 2011 between 9:00 a.m. and 1:00 p.m. As shown, demand by hour of day is consistently higher in 2011 over 2007.





Chart 6 Sylvania Campus Vehicle Parking Occupancies

From Chart 6 the follow information can be derived:

- The peak hour, the highest recorded utilization of the parking supply, for 2011 is at 10:00 AM.
- The peak hour for 2007 was at 11:00 AM, with 89.2% of all stalls occupied.
- Peak hour occupancy for 2011 was 95.7%.
- The difference in peak hour usage, from 2007 to 2011, is a 7.3% increase overall.

Transit System

The Sylvania Campus is equipped with an on-campus transit center that is served by TriMet bus lines #44 (Capitol Hwy/Mocks Crest) and #78 (Beaverton/Lake Oswego). The #44 bus line operates on 16to 20-minute headways and the #78-bus line operates on 25- to 29-minute headways during the weekday. Line #78 has an additional stop adjacent to the campus on SW 21st Avenue near SW Hidalgo Street. To the west on G Street and H Streets, there is an additional stop located on SW 49th and SW Coronado St., which serves routes #44 and #78. Table 25summarizes the TriMet ridership at the oncampus transit center at Sylvania. As shown, the number of "ons" (people getting on the bus) has increased by 22%, while the number of "offs" (people getting off the bus) has increased by 15%.



Table 25	TriMet Ridership at Sylvania
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Fall 2007			Fall 2010			Increase/Decrease		
Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts	Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts	Average Weekday Ons	Average Weekday Offs	Average Monthly Lifts
749	791	145	912	910	303	22%	15%	109%

The TriMet WES Commuter Rail service is located 2.3 miles away from the campus and is one of the stops on the #78-bus line. Students commuting from Wilsonville and Beaverton can use the Tigard WES Commuter Rail service. The WES service runs at 30-minute headways from 5 a.m. to 9:30 a.m. and from 3:30 p.m. to 7:30 p.m.

Shuttle Service

Four PCC shuttles provide services to the Sylvania Campus. The shuttles stop in front of the Technology Classroom Building, adjacent to where bus lines #44 and #78 are routed. These shuttles are the Blue Line (Rock Creek/Sylvania), Orange Line (Downtown/Sylvania), Yellow Line (South East/Sylvania), and Green Line (Cascade/Sylvania). The Blue line operates from 6:30 a.m. to 10:00 p.m. on 90 to 120 minute headways. The Orange line operates from 6:15 a.m. to 10:00 p.m. on 40 to 100 minute headways. The Green line operates from 6:30 a.m. to 10:00 p.m. on 45 to 90 minute headways. The Yellow line operates from 7:30 a.m. to 10:00 p.m. on 10 and 80 minute headways.

Current Parking Programs & Successes

This section focuses on the existing PCC parking program, including district parking policies, and parking scenarios at the four major campuses.

This section describes the provision, management, and use of parking facilities and services to gain access to PCC. Increased enrollment during the 1990s and early 2000s has surged in recent academic years. This has produced a high level of demand that has adversely impacted the PCC campus parking system and resulted in neighborhood congestion and parking spillover. To meet current and future demand, PCC needs to maximize use of existing parking resources and develop policies and programs to enhance efficient use of future parking resources that reduce reliance on single occupant vehicles (SOV) and their associated community and environmental impacts.

The PCC Parking and Transportation Services are to be commended for the accomplishments achieved to date for effectively managing parking resources and promoting the use of alternative modes to maintain affordable access to PCC. However, further success and



improvements will only be possible by creating a more comprehensive parking and TDMP that goes well beyond the current program.

- Greater resources are needed to successfully support current programs and to expand efforts in strategic areas to meet current and future access demands.
- The four campuses are governed by "one size fits all" set of parking policies that need to be revised to address parking issues at each site.

PARKING SYSTEM

- Two of the four campuses regularly experience parking demands that exceed available supplies during several weeks of each term. The excess demand has spilled into adjacent neighborhoods, causing congestion, reducing the sense of neighborhood safety, and impacting neighborhood relationships with PCC.
- Parking receives the most subsidy compared to other modes of access, which encourages driving. Currently, the only deterrents to driving are limitations on parking supply, and the threat of parking citations for illegal parking.
- Insufficient parking supply, inadequate wayfinding to available parking and mode options are the leading causes for poor circulation and congestion at certain campuses.

COMMUNICATIONS

- The PCC website is the primary communications outlet for information about parking options available to students, faculty, and staff.
- Faculty and staff parking fees are included in labor negotiations.

PARKING MANAGEMENT PROGRAM

Parking management are techniques and tools that impact demand, location, time, cost, and supply of parking. Parking management strategies, where properly implemented, result in a better use of parking and transportation resources. This section describes the PCC parking program.

With certain exceptions, vehicles parked on a PCC campus must display a current student, faculty, staff or short term parking permit and are responsible for parking in an appropriate designated parking area. PCC faculty and staff can purchase an annual \$150 parking pass (\$12.50 per month for 12 months). Part-time employee passes are also available. Students can purchase a \$50 per term parking pass (\$16.67 per month). One day permits are available for \$5 per day. Permits are required Monday through Friday from 7a.m. to 10p.m. Permits are not required on weekends or holidays.

Parking in the PCC system often operates at or above capacity with spillover into surrounding neighborhoods (especially at the Cascade campus) during peak periods (Monday through Thursday from 10am to 2pm during the traditional school year). Recent enrollment trends indicate a significant increase, with the most rapid rates of growth occurring at the Rock Creek and Cascade campuses. These campuses tend to enroll students from their immediate geographic areas. The Sylvania Campus tends to attract students from a wider distribution. All facilities attract some students from across the region. Overflow parking with free shuttle service is available at Sylvania, Rock Creek and Cascade.

Vehicles parking on college property with 3 or more un-paid or un-appealed citations may be booted or towed. A charge of \$25 is applied to any outstanding balance when the boot is removed. There is also an administrative fee charged for towing any vehicle. This includes any vehicles deemed to have been abandoned.

PCC has a policy prohibiting students and staff from parking on neighborhood streets when engaged in any PCC related activity. PCC has signed agreements with the City of Portland and the City of Lake Oswego allowing PCC Parking Enforcement to place Warning Notices on vehicles found parked in the neighborhoods around its various campuses and centers. Any faculty, staff or student receiving two or more Warning Notices will be mailed a \$25 citation for Parking in the neighborhood. If this fine is not paid within 30 days, the fine is doubled to \$50. However, there are issues regarding payment of fees and enforcement of this policy.

PARKING PROGRAM ASSESSMENT

Student enrollment at PCC has greatly increased demand for transportation infrastructure and access to campuses that far exceeds parking capacity. This results in neighborhood parking spillover, increased circulation and congestion, delayed access to classes, and frustration and confusion for users unable to find appropriate parking and transportation options. This increased demand has identified a need to upgrade policies, rules, regulations, pricing and enforcement to better manage the system.

Past efforts at solving the access problem traditionally focused on a "simple" solution: build more parking. This approach did not properly account for impacts of vehicles on the community (parking spillover and traffic delays), costs of constructing and operating parking facilities, carbon emissions, and long-term sustainability.



Many people are not aware the true impact of parking cost, convenience and availability. They may perceive that there is a lack of parking when it may be there is a lack of low-cost and convenient parking right in front of the destination. In many cases, people are unwilling to walk a short distance or pay the full cost of a parking space. This also appears true at PCC.

Even if faculty and students are willing to pay the full cost for construction of new parking facilities (highly unlikely), the parking scenario is unsustainable and will not be able to support current activities or accommodate future demand without significant investment and improvement to the TDM program. Newer planning solutions are based on a multi-modal approach that can guide the College toward consideration of a comprehensive transportation program that minimizes vehicular demands while still increasing methods of access to campuses and educational resources, and reducing transportation-related carbon emissions. This approach requires enhancement of the existing parking program and use of a more multi-modal approach with a District-wide Parking Management and TDM program that sets overall policies and programs. This includes options for transit, carpooling, biking, and walking to campuses, as well as distance learning opportunities which are described in following sections of this report.

Current Transportation Demand Management Programs & Successes

BACKGROUND

PCC is in the process of evaluating its current TDMP with the goal to improve District wide access, while further reducing reliance on single occupant vehicles (SOV) and their associated community and environmental impacts. Since the early 1990's, this has been part of the PCC plan as it meets requirements of the Clean Air Act, local bond requirements and strives to meet PCC access goals for students and employees.

In 1992, PCC implemented Board Policy B 602 which supported reduction of SOV through the use of parking management, parking pricing and transportation demand management strategies. The goal was to reduce SOV trips by 10% over the next ten years. The 1992 program included the following TDM strategies:

- Parking pricing for students, employees and visitors. Fees were set at \$25 per term for students (day) and \$75 per year for employees.
- Promote alternative transportation including carpooling, Tri-Met transit subsidies and bicycling,



- Improve parking to reduce impacts of traffic and improve circulation. This included enforcement of the PCC Motor Vehicle Code.
- Respond to neighborhood complaints and reduce spillover,
- Balance class schedules with parking supply. This strategy included spreading classes to reduce peak traffic volumes during peak hours of use,
- Streamline staff travel between campuses and centers. This included reduction in the amount of vehicle travel during the workday.

Motor vehicles are one of the largest sources of air toxics and smog pollution in the Portland area. Since 1996, the Oregon Department of Environmental Quality (DEQ) has administered the Employee Commute Option (ECO) Rule. Under the DEQ ECO program, employers with more than 100 employees must provide commute options to employees designed to reduce the number of cars driven to work in Portland and surrounding areas. The ECO Program is part of the Portland-Vancouver Air Plan to ensure the region will meet the federal health-based ozone standard in spite of continued population growth. PCC, as an employer with more than 100 employees at a worksite is required to comply with this rule and provide alternative commute options. PCC has complied with this Rule since 1996.

In 1997, PCC conducted a TDM study to examine the current TDM program and look at the future TDM strategies to improve the existing TDM program. The study was designed to support PCC goals related to improving access, reducing SOV, maintaining affordability and maintaining the financial integrity and self-sustainability of Parking and Transportation Services. The study provided a review of demand for transportation to and between PCC campus and center locations. It also detailed the alternatives to SOV travel as well as parking resources. The study concluded with a set of alternative strategies and actions for meeting transportation needs. A number of the findings and recommendations from the 2007 study have been incorporated in PTS planning activities, beginning in the 2007/08 academic year.

Since then, PTS has steadily improved the TDM program, continuing to expand the shuttle system and providing additional services. PTS has refined programs, in some cases partnering with existing organizations such as the Columbia County Rider Service, Tri-Met, Metro and the Westside Transportation Alliance to make better use of existing local and regional TDM resources.

Some of the accomplishments include:

- Increasing the number of subsidized student TriMet Select passes to 1,400.
- Adding a 5th shuttle route to provide service to Cascade, Rock Creek and Southeast.



- Promote online ordering of textbooks and parking permits to reduce vehicle trips and congestion during the busiest times of the year.
- Collaborate with other departments, such as a recent effort with Public Affairs to develop and implement a fall campaign to promote and measure transportation alternatives.

TDM PROGRAM EXISTING CONDITIONS

Student enrollment at PCC has greatly increased resulting in a demand for transportation infrastructure and access to campuses that far exceeds certain types of capacity (parking). This results in neighborhood parking spillover, increased circulation and congestion, delayed access to classes, and frustration and confusion for users unable to find appropriate parking and transportation options.

The traditional approach used by many institutions when solving access problems focused on a "simple" solution: build more parking. This approach did not properly account for impacts of vehicles on the community (parking spillover and traffic delays), costs of constructing and operating parking facilities, carbon emissions, and long-term sustainability.

Newer planning solutions are based on a multi-modal approach that can guide the College toward consideration of a comprehensive transportation program that minimizes vehicular demands while still increasing methods of access to campuses and educational resources, and reducing transportation-related carbon emissions.

PCC staff has implemented a District-wide TDM program that sets overall policies and programs. This includes options for transit, carpooling, biking, and walking to campuses, as well as distance learning opportunities. This is accomplished with limited staff resources including twelve (12) shuttle bus drivers, one (1) van driver, fifteen (15) part-time parking enforcement staff, three (3) administrative assistants, one (1) transportation coordinator, one (1) transportation field coordinator and one (1) department manager.

There are additional employees working for other departments that help with elements of the program. For example, the Auxiliary Services Department employs a full-time Marketing Manager who works closely with the parking department. This individual maintains the department's web site and assists the transportation coordinator with various promotional events including the transit tracker and ride share program. The Marketing Manager is also heavily involved in the Climate Action Plan (CAP) and sustainability and chairs the transportation sub-committee for sustainability.



ACCESS MODES

PCC has several effective components of a strong TDM program that includes viable transportation options and excellent transit service at some campuses. PCC has made a significant investment in student and faculty TDM infrastructure that is generally much better than other colleges in the Western United States. The PCC student program is superior to most other community college programs found in the Western United States, resulting in a student single occupant vehicle ratio ranging from a low of 41% at Cascade up to a high of 55% at Rock Creek (2007).

Most colleges have not built an on-campus transit center (such as the ones provided at Sylvania and Rock Creek) and only a few community college campuses have extensive transit service similar to Cascade.

PCC Shuttle & Public Transit

As described previously, PCC is served by Tri-Met, C-Tran, and the Columbia County Rider transit systems. PCC has developed its own shuttle system that is designed to supplement, complement, and enhance the services provided by these transit agencies. The free shuttle system connects the campuses and provides an alternative for employees and students. The success of the program is clear, with ridership at an all-time high and with PCC expanding the service. Chart 7 shows the annual total ridership on the shuttle system over the last 13-year period. As shown, ridership has climbed from below 60,000 in 1998/1999 to more than 225,000 in 2010/2011.






In fall 2012, PCC will add a seventh shuttle bus into the system. The new route will have shuttle buses going separately to SE Center and Rock Creek, from Cascade, and to the Tri-Met Transit Centers (Park & Ride lots) on Hwy. 26 and at Hwy. 205 and Division.

Carpooling & Ridesharing

Carpooling is a common, flexible, and a cost effective alternative that can work on a formal or informal basis. Carpools generally include two or more people who live in the same neighborhood and use a private vehicle to travel to a common destination.

In fall term 2011, the PCC carpool program was replaced with a Metro Rideshare program. To facilitate students looking for potential ride share partners, PCC entered into an agreement with Metro to participate in its rideshare program, called Drive Less Connect. PCC will be a separate entity in the program with sub-groups classified by campus. PCC is working with Metro to develop a marketing program specifically for PCC students (Garner, 2011). PCC staff is evaluating the feasibility of extending the program to include faculty and staff.



Bicycling and Walking

Bicycling and walking can be a popular commute option. PCC has developed facilities for biking and walking. Faculty, staff and students have access to on-campus bicycle facilities at each campus. Campuses have paths connecting classrooms and activity centers.

However, successful bicycle and walking programs also involve creating comfortable and safe bike routes and pedestrian paths to the campus, which necessitates cooperation and participation by the local jurisdictions.

Successful bicycling and walking programs can include incentives ranging from cash reimbursements, payroll deductions, transportation incentives or discounts/subsidies for the purchase of commuter equipment.

TDM SUPPORT PROGRAMS

PCC provides TDM support programs for its faculty, staff and students. Faculty and staff can purchase transit passes (\$88 per month). Students can purchase a transit pass at a reduced rate (\$170 per term). Table 26 summarizes the district wide TDM support programs for PCC.

	Faculty/Staff	Student
Fee based Parking	\$150 Annual Pass	\$50/term
Tri-Met Transit Pass with Subsidy	\$88 per month	\$170/term
Intercampus Shuttle	Free	Free
Pricing/Transportation Fee	N/A	\$3.99/credit
Bicycle Parking	Free Parking	Free Parking

Table 26 District Wide TDM Support Programs

The TDM program includes paid parking and parking management strategies. Information regarding the cost to ride transit and to use other modes can be found on the PCC website or by contacting the campus information system. Perhaps a system to emulate is the one provided by Pasadena City College. Pasadena City College has worked with the Los Angeles County Metropolitan Transportation Authority to reduce the cost of student transit passes. Combined with an increase in parking prices the student transit pass (\$30 per semester) now cost less than parking (\$64 per semester). In Pasadena, transit has become so popular that it is reducing student parking demand.

PCC has provided a transit subsidy for its students. Tri-Met sells a "Student Select pass." This is an allzone pass good for travel on Tri-Met for the term and sells for \$236. For Winter Term, 2012, PCC is



selling a limited number of these passes and has reduced the price from \$170 to \$160. This has been a popular program. In Fall 2011, PCC sold 1,787 student transit passes. Last school year, PCC sold out passes in the Spring and Winter (1,200) and sold 1,377 in the Fall (2010).

PCC also has a student transportation fee. For FY 2010/2011 there were a total of 95,417 students that paid the Transportation Fee. The fee is \$3.99 per student for a total of \$380,713.83.

Faculty and staff can also participate in a PCC program that reduces the cost of a monthly Tri-Met bus pass on a pre-tax basis. Employees wishing to participate complete a pre-tax payroll deduction application and submit the form to the PCC Payroll Department. This reduces the cost of a transit pass by approximately 22%.

Recent enrollment trends indicate a significant increase, with the most rapid rates of growth occurring at the Rock Creek and Cascade campuses. These campuses tend to enroll students from their immediate geographic areas, while the Sylvania Campus tends to have students from a wider distribution. All facilities attract some students from across the region and have specialized classes and programs that create a need for travel between campuses and across the PCC District. The following section focuses on existing site-level TDM programs and strategies.

SITE-LEVEL TDM MODES

PCC has specific transportation infrastructure available on each campus. Initial observations and review of data and other community college systems indicates that it may be worthwhile to examine how other community college systems deal with this issue of district-wide versus site-specific TDM programs. Seattle Community College is an example. They developed a comprehensive package of TDM measures, strategies, and incentives to target specific modes that are applicable to a site.

TRANSIT

At the site level, PCC has developed two on campus transit centers at Sylvania and Rock Creek that provide direct on-campus service and has direct TriMet bus service at Cascade, Sylvania and Southeast (often with only 5- to 7-minute wait times). TriMet service to Rock Creek can be improved, with more direct service to the campus preferred. The following maps describe TriMet Bus and Rail service for Cascade, Rock Creek and Sylvania.



Cascade Campus



TriMet Bus Line 4:

- 21 minute commute time
- 10-18 minute frequencies
- 31-39 minute commute if bus is missed

TriMet MAX Yellow Line:

- 25 minute commute time
- 15 minute headways
- 40 minute commute if bus is missed

Rock Creek Campus



TriMet Bus Line 52 transfer to MAX Blue Line:

- 55 minute commute time
- 65 minute commute time with walking
- If bus missed, commute time
- 90 110 minute commute time

52 Bus Line

- 14 minute commute time
- 20 40 minute frequency

MAX Blue Line

- 41 minute commute time
- 15 minute frequency

Sylvania Campus



TriMet Bus Line 44:

- 34 minute commute time
- 16-20 minute frequency
- If bus missed
- 50-54 minute commute time if bus missed

Intercampus Shuttle – Orange Line

- 15 minute commute time
- 30-95 minute frequency
- 45-110 minute commute if shuttle is missed

Orange Line shuttle consistently has the highest ridership each term, for the past three years.

Transit Station/Bus Stop Criteria

There are many ways to rank and examine transit facilities. This includes measurement tools based upon ridership, daily boardings and the condition of transit stops. As part of the field observation efforts, the project team examined transit stations and developed criteria to rank stations and bus stops. At its simplest level, the criteria can be used to assess transit station infrastructure. For example, a full service on campus transit station with indoor waiting areas, lighting, emergency phones, etc. (example Portland International Airport and the transit stations at Rock Creek and Sylvania) can be considered a "5". The TriMet MAX stations and Portland Streetcar stations have outdoor waiting areas with shelters and benches. These can be considered a "4". Many of the bus stops have shelters, lighting, benches and transit information. These would be considered a "3". Some of the bus stops may only have a bench. These would be given a ranking of "2". There are locations with only a bus stop sign. These locations would be given a "1". Another option is to use a more complex ranking system for each condition based on factors:

- Way finding
- Safety
- Cleanliness



- Amenities/condition of facility
- Transit stop
- Transit stop accessibility

Table 27 summarizes the transit stop evaluation criteria used to evaluate the stops located adjacent to the four main PCC campuses.

	5	4	3	2	1
Way finding	Signs are in excellent condition and clearly displayed. Easy to understand and direct people between transit stops and campus.	Signs are found in good condition and direct people to and from campus.	There are signs that generally indicate transit is available and the campus is near-by.	There are signs that are out-of-date and point individuals to the wrong direction and locations.	No signs can be found anyway indicating transit service is available or location of campus.
Safety	Transit facility is clearly lit, with emergency phones, security and located in an area with activity. Safe passenger waiting area. Safe pedestrian paths to destinations.	Area is located in an open space area, emergency phones and is well lit in a safe environment. Good visibility.	Area is located in a satisfactory area with some lighting and adequate safety provisions.	Area is not well lit and located in a concealed area with potential unsafe activities. Difficult pedestrian pathways with potential safety issues crossing streets and accessing destination.	Area is not lit, located in concealed area with low pedestrian activity or located near unsafe or illegal activities.
Cleanliness	Everything is spotless and clean.	The area seems to be as clean as can be for a public area with trash receptacles.	The area seems to be cleaned, although over long periods of time.	Area is not regularly cleaned and lacks trash receptacles.	Area is not clean and is dirty (smells) to a degree that transit riders do not stand near the facility.
Facility Condition/ Amenities	Excellent pedestrian linkages to destinations. Signs clearly indicate boarding and unloading areas and contain truncated domes and other amenities. Schedules and information are in excellent condition.	Facility has current schedules, route numbers and is in good condition surrounded by amenities. Good surface condition. Good orientation toward buildings and destinations.	Transit facility contains schedules, bus route numbers, in satisfactory condition.	Transit facility inconveniences transit riders from using the available service and has few amenities. Signage is outdated and amenities are cracked, missing and need to be improved. Poor condition of sidewalks. Poor orientation towards buildings.	The transit facility has no amenities, no sidewalks, and requires transit riders to go above and beyond in order to use the service .
Transit Stop	Inside waiting areas,	Shelter, lighting,	Shelter, lighting,	Bench.	Sign (pole), poor

Table 27 Transit Stop Evaluation Criteria



	5	4	3	2	1
	water, restroom, information kiosk.	bench, real time information, good weather protection.	bench.		placement of stop.
Transit Stop Accessibility	Easy access via walking, bikes and other mode options.	Good accessibility via walking, biking and other mode options.	Satisfactory accessibility via other mode options.	Poor accessibility limited by geography or lack of infrastructure.	No accessibility.

This system can be used to evaluate transit stops at each campus. For example, the photo of a bus stop at Cascade can be evaluated as follows in Table 28:

Table 28 Photo Evaluation

PICTURE #	Way finding	Safety	Cleanliness	Condition/ Amenities	Transit Stop	Transit Stop Accessibilit Y
Cascade (see photo above)	4	4	4	3	3	3

Promoting the transit services through awareness campaigns and marketing can be further explored to increase ridership. This can involve social and electronic media. An example is the San Diego Community College District transportation information website. The website provides transit and trolley information for each specific campus in the system. Another example is the use of real-time transit information systems which can be visible for employees, students and visitors.

CARPOOL

Carpooling is an effective access option for individuals traveling to and from the same location. Most carpools are informal arrangements involving friends or family members. Carpooling can be enhanced with rideshare and ride matching programs and may involve multiple employee sites. Carpooling can be a preferred access mode, especially at sites with limited transit options (such as Rock Creek).

Results from the 2007 travel survey indicated that Rock Creek had the highest percentage of student carpoolers (12%), which is much greater than the other campuses (Sylvania had a 6% student carpool rate and Cascade had a 4% student carpool rate).

BICYCLES & PEDESTRIANS

Bicycle parking is available at all four campuses. The different types of bicycle lockers and parking areas are not well advertised and it can be difficult to find. Providing way finding for bicycle parking can help new bicycle riders feel more comfortable when riding their bike onto campus. It seems there is



an opportunity to promote bicycling at the Cascade and Southeast campus due to their location in a dense urban area and the propensity for bicycling in the Portland area.

Cascade

There is a large amount of bicycle parking. Due to the location of the Cascade campus, biking and walking are a preferred travel mode. Results from the 2007 travel survey indicated that this campus had the highest percentage of bicyclists (10%) and pedestrians (8%) in the entire system.

Southeast

There is a variety of bicycle parking options on the Southeast campus. Bicycle lockers, bicycle racks with shelters, and normal bicycle racks can be found throughout the campus. The Southeast campus currently has issues related to students, staff, and faculty jaywalking on heavy traffic arterials to reach transit stops and other destinations. Traffic safety campaigns and way finding may decrease jaywalking and reduce the possibility of injuries and fatalities.

Sylvania

Sylvania has bicycle parking located at convenient locations throughout the campus. There is also bicycle parking way finding signs. Bicycling to and from the Sylvania campus may be challenging due to geographic constraints.

Rock Creek

Rock Creek has bicycle parking located throughout the campus. The campus setting facilitates walking throughout the site and between classes. While it seems to be an attractive on-campus alternative at Rock Creek, the difficulty of safely riding a bicycle to and from the Rock Creek campus is problematic and must be rectified.

The Cascade and Southeast campuses are located in a dense urban environment with transit connectivity. This can be combined with first mile/last mile modes (bicycle, walking, or others) to extend the travel range for transit users.

SITE-LEVEL TDM SUPPORT PROGRAMS

PCC provides parking and TDM support services at the District level. It does not directly allocate staff or support services at a site level.

PCC does provide some on campus and way finding information for bicyclists and pedestrians. This includes bulletin boards and information systems. One of the missing links in the program seems to be



an on campus marketing and outreach transportation program. Field observations conducted by team members at the four campuses indicated that it can be difficult to find information about carpools, bicycling, walking, transit, or the PCC shuttles. There are areas on campus that can be used to easily display transportation information to students. An example is the simple transportation information board used by the City of Pasadena, California.

The PTS website promotes TDM information to include shuttle service, Ride Share, public transit, bicycles/motorcycles, commute studies and previous TDM studies. The marketing component typically revolves around promoting the various travel modes, incentives/disincentives, and promotion of events. The communications component focuses on how the Campus communicates information pertaining to the TDM program to the students, staff, and faculty. This can be a time intensive process that requires staff resources at a site level. Perhaps a model is the Los Angeles Community College system which provides assistance through an on-site employee transportation coordinator who takes direction from the district and is responsible for implementing selected strategies tailored for use at a site specific level. Some campuses promote the transit system (Los Angeles City College has a Red Line Station and Valley College has the Orange line Bus Rapid Transit System) while others may promote carpooling, bicycling walking or a combination of strategies.

Another key issue is the need to work with transportation agencies and local jurisdictions to enhance connectivity. For example, at Southeast, students have some difficulty crossing the street to reach the bus stop located on the opposite end of 82nd Avenue. At Rock Creek, students have a difficult time riding their bike to campus due to a lack of bicycle infrastructure.

Overall, PCC has done a very good job at creating a TDM system. Components of a program are in place and there are options available at each campus. Initial observations indicate that the program is operated within budget constraints that may not recognize the overall value of TDM, parking and parking management. Rather than develop a TDM program, it seems the next step is to build upon the current successes of the program, add elements that can enhance the program and spend time developing more site specific improvements and target market strategies.

Case Studies of Other Colleges/Universities

This section summarizes information on transportation demand management (TDM) programs at other community colleges. This includes examination of case studies of community college systems (such as Los Angeles, San Diego and Seattle) as well as a large urban community college campus (Pasadena). Community college TDM programs can address a specific problem, such as a parking shortage or traffic congestion. Sometimes, they can address student issues and improve travel options. Community college

TDM programs can be used to help achieve environmental or community goals. This community college information is supplemented by university TDM programs that are applicable to PCC.

Most of the community colleges have basic TDM programs that promote use of transit, carpools, biking and walking. Many community colleges implemented student parking pricing and offer transit discounts.

Many community colleges rely upon the local public transit agency for transit services. Community colleges in the Los Angeles area (Pasadena and Los Angeles Community College) use Metro's Institution Pass (I-Pass) program. The "I-Pass" enables colleges to subsidize transit passes for their student body. The regular fare for college/vocational full-time students is \$36 per month. Institutions can negotiate a special rate and participate in the I-Pass program (monthly rates ranging from \$7.50 to \$15.00 a month over a semester period). The cost for the I-Pass is different for each Community College District, which is dependent upon the deal made between Metro and the institution. Metro's Institution Pass is valid on Metro buses and Metro Rail lines seven days a week.

Effective TDM programs consider the user perspective and attempt to provide information, services and incentives that support available alternative mode options. San Diego Community Colleges have created an easy-to-use on-line transit information system. Seattle Community Colleges have developed specific TDM strategies to meet goals at each college. The user perspective needs to consider time, costs, convenience and safety issues. The following summarizes information from the community college case studies regarding students, faculty and staff.

STUDENTS

Many students have limited income and are often more willing to use alternative modes and respond to financial incentives. They also are more likely to use modes that require physical activity (walking and biking). Students pay for parking at case study locations.

The amount of transit service provided to each community college system varies by location. In most cases, community colleges have access to a lower student rate with the local transit provider (see table below). This may be negotiated or offered on a system-wide basis. Only Pasadena City College students pay more for parking than transit. Depending on the campus, some students in Seattle pay more for parking than transit. Table 29 summarizes the parking transit fees for students. Additional information on the costs associated with transit use at the community colleges are included as part of the Appendix



Table 29 Student Parking and Transit Fees

	РСС	Pasadena	Los Angeles	San Diego	Seattle
Parking Fee	\$50 per term	\$64 per semester	\$20 to \$27 per semester	\$35 per semester	\$21.25 to \$150 per quarter
Transit Pass	\$170 per term	\$30 per semester	\$15 per month	\$36 (up to 18 years old);\$72 to \$100 per month	\$110 to \$150 per quarter

Unlike PCC, many of the community college case studies have not made a significant investment in student TDM options and infrastructure. In many cases, the internal campuses are not designed for alternative modes (other than walking) and focused on providing "commuter" car options to and from the campus.

FACULTY AND STAFF

Community college case studies provide limited TDM options for faculty and staff. In most cases, faculty and staff receive free or low cost parking with limited pre-tax and/or transit subsidies and only information on carpooling, biking and walking options. Only Seattle Community Colleges offers a transit pass that is less expensive than parking per quarter. Table 30 summarizes the parking and transit fees for faculty and staff.

Table 30 Faculty and Staff Parking and Transit Fees

	РСС	Pasadena	Los Angeles	San Diego	Seattle
Parking Fee	\$12 per month	\$64 per semester	Free to \$15 per month Free		\$36 to \$238 per quarter
Transit Pass	\$92 per month	\$75 per month	Up to \$75 per month	\$72 to \$100 per month	\$45 per quarter

While full-time faculty and staff can use alternative modes on a regular basis, information from the case studies indicates that there is very little incentive to use alternative modes.

This is even more apparent when considering part-time faculty members, who often are left on their own to provide their own transportation (generally driving to and from the campus). There is very little consideration for carpooling due to the variable hours of part-time faculty.

TDM AND PARKING

Generally, TDM becomes more important when the parking utilization is very high or the campus operates at capacity and is considering the development of parking structures (which greatly increases



the cost per space for parking). TDM is also used to reduce impacts to surrounding communities. The more likely user of alternative modes seems to be the students.

Transit service varies greatly. It is more likely to be available on an urban campus (for example, Los Angeles Community College has an on-campus Heavy Rail Red Line station and Pasadena City College is located within two blocks of a Pasadena Gold Line Light Rail station). Suburban campuses such as Valley College and Pierce College both have direct access to an Orange Line Bus Rapid Transit station.

Campuses without direct transit access rely upon carpooling, biking and walking. For example, Los Angeles Mission College has limited transit access and must rely upon carpooling, biking and walking to make better use of its parking resources.

LESSONS LEARNED

Each of the selected case studies offers lessons that are applicable to PCC. The most advanced TDM programs offer a variety of options and offer transit passes that cost less than a parking permit. Table 31 highlights some specific lessons learned from the community colleges.

Community College System	Lessons Learned
Pasadena City College	Student transit passes cost less than parking. I-Pass (transit) became so popular that it reduced parking demand.
Los Angeles Community College District	Each campus has its own employee transportation coordinator responsible for implementation of specific programs and incentives tailored to their site.
San Diego Community College District	Created transportation information website for each college that provides transit and trolley information.
Seattle Community College District	Developed comprehensive package of TDM measures, strategies, and incentives to target specific modes applicable to a site.

Table 31 Lessons Learned – Community Co	Colleges
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Most of the community colleges have surface parking lots which have been developed to meet expected parking demand. Recent increases in demand are resulting in the community college system now looking at the cost of building parking structures, which now makes TDM an effective option that can reduce expected costs related to parking structure construction.

While they operate very differently from a community college, some of the university programs can be used as case studies for PCC. In the Western United States, some universities have already experienced the need to expand campuses, construct new buildings and build parking structures. They also are struggling with parking spillover issues and must design programs to protect the surrounding neighborhoods. Some of the most advanced TDM programs at these universities can be a model that includes innovative, costs effective TDM programs that can have applications for community colleges and specifically for PCC.

Three highlighted examples are the University of Washington, Stanford University and Cal State University Northridge. All three of these universities have developed TDM programs to meet their own needs. The University of Washington is a public institution that relies heavily upon the extensive King County Metro transit system. Stanford University is a private institution that has a comprehensive TDM program with its own shuttle system. It encourages all modes of alternative transportation and partners with the local community and transit systems. Cal State University Northridge is a commuter school in a suburban area with limited transit service that has created a student TDM program to reduce on-campus parking demand and spillover into the surrounding area. Table 32 highlights some specific lessons learned from the universities. Additional information on the costs associated with transit use at the Universities are included as part of the Appendix

Table 32 Lessons Learned – University

University	Lessons Learned
University of Washington	King County Metro Transit System (universal transit pass). Parking Pricing Program. Transportation Pricing Program.
Stanford University	Multi-modal transportation system. Community and transit partnerships.
Cal State University Northridge	Variable pricing parking program. Focus on carpooling, vanpooling, biking and walking programs.

PASADENA CITY COLLEGE

Existing Conditions:

Pasadena City College is the third largest community college campus in the United States. The school attracts students from throughout southern California, enrolling a large percentage of students from outside the bounds of the Pasadena Area Community College District, established in 1966. Current enrollment for the college is at 32,000 students. The District includes the cities of Pasadena, South Pasadena, Altadena, San Marino, Temple City, La Canada Flintridge, Arcadia, El Sereno, Sierra Madre, and portions of Rosemead and El Monte. As of fall 2010, there are 32,000 credit students and 8,000 noncredit students. The demographics of the students are: 35.9% Hispanic, 32.9% Asian or Pacific Islander, 19.2% White, 6.5% Black, and 0.7% American Indian. 53.8% female, and 46.2% male.

The Pasadena City College program uses the I-Pass program for students, allowing students to ride all available transit at a lower cost. The program has been so successful that parking permit revenue for the college has dropped. The I-Pass is subsidized by the student activity fee. The I-Pass is an alternative to purchasing a parking permit, which costs \$64 per semester and does not guarantee a parking place.

The Pasadena City College campus is located in Pasadena, CA in a high-density suburban environment, similar to PCC's Sylvania campus. Table 33 and Table 34 summarize the TDM measures at Pasadena City College.

Table 33 Pasadena City College TDM Measures Utilized

Existing TDM Measures								
Shuttle Service	Priced Parking	Public Transit	Bike/ Walk	Transit Subsidy	Carpool Matching	Vanpool	Carsharing	Social Marketing
х	х	х	х	х				х

Table 34 Pasadena City College Rates & Fees

	Faculty/Staff	Student	
Fee based Parking	\$64/Semester	\$64/Semester	
I-Pass Program	N/A	\$30	
Intercampus Shuttle	Free		
Transit Station Shuttle	Free		
Pricing/Transportation Fee	N/A \$10/Semester		
Bicycle Parking	Free Short & Long Term Parking		

LOS ANGELES COMMUNITY COLLEGE DISTRICT

Existing Conditions:

The Los Angeles Community College District (LACCD) is the largest community college district in the United States serving more than 250,000 students annually. It includes nine colleges and covers an area greater than 882 square miles in more than 36 cities and communities. These nine colleges are:

- Los Angeles City College (LACC)
- Los Angeles Harbor College (LAHC)
- Pierce College (PC)
- Los Angeles Trade-Technical College (LATTC)



- West Los Angeles College (WLAC)
- East Los Angeles College (ELAC)
- Los Angeles Mission College (LAMC)
- Los Angeles Southwest College (LASC)
- Los Angeles Valley College (LAVC)

Existing TDM Measures

Rule 2202 Employee Commute Reduction Program (ECRP) approved by the South Coast Air Quality Management District (AQMD). Table 35 through Table 45 summarizes the TDM measures within the Los Angeles Community College District.

	Existing TDM Measures								
	Shuttle Service	Priced Parking	Public Transit	Bike/ Walk	Transit Subsidy	Carpool Matching	Vanpool	Carsharing	Social Marketing
ELAC		х	х	х	х		х		
LACC		х	х		х		х		
LAHC		х	х		х		х		
LAMC		х	х	х	х		х		
РС		х	х		х		х		
LASC		х	х		х		х		
LATTC		х	х		х		х		
LAVC		х	х		х		х		
WLAC		х	х	х	х		х		

Table 35 Los Angeles Community College District TDM Measures Utilized

Table 36 Los Angeles Community College District Rates & Fees

	Faculty/Staff	Student	
Fee based Parking	Varies Varies		
I-Pass Program	N/A	Offered	
Transit Vouchers	Offered Not Offered		
Metro Vanpool Program	Free		
Pricing/Transportation Fee	N/A	\$10/Semester	
Electric Vehicle Fleet	Offered	Not Offered	
Campus Fleet Vehicles	Offered	Not Offered	



Table 37 Los Angeles City College

	Faculty/Staff	Student		
Fee based Parking	\$15 per month \$2 a day/\$20-\$27 per sem			
I-Pass Program	N/A I-Pass Offered			
Vanpooling	Offered			
Carpooling	Offered Not Offered			
GRH	Offered Not Offered			

Table 38 Los Angeles Harbor College

	Faculty/Staff	Student		
Fee based Parking	Free \$2 a day/\$20-\$27 per semes			
I-Pass Program	N/A I-Pass Offered			
Vanpooling	Offered			
Carpooling	Offered Not Offered			
GRH	Offered Not Offered			

Table 39 Pierce College

	Faculty/Staff	Student
Fee based Parking	Free	\$2 a day/\$20-\$27 per semester
Transit Program	N/A	I-Pass Offered
Carpooling	Offered	Not Offered
GRH	Offered	Not Offered

Table 40 Los Angeles Trade-Technical College

	Faculty/Staff	Student	
Fee based Parking	Free	\$2 a day/\$20-\$27 per semester	
Transit Program	N/A	I-Pass Offered	
Carpooling	Offered	Not Offered	
GRH	Offered	Not Offered	



Table 41 West Los Angeles

	Faculty/Staff	Student
Fee based Parking	Free	\$2 a day/\$20-\$27 per semester
Transit Program	\$25 Subsidy	I-Pass Offered
Carpooling	Offered	Not Offered
GRH	Offered	Not Offered
Financial Incentives	\$1/day	Not Offered

Table 42 East Los Angeles

	Faculty/Staff	Student		
Fee based Parking	Free \$2 a day/\$20-\$27 per semest			
Transit Program	N/A I-Pass Offered			
Vanpooling	Offered			
Carpooling	Offered	Not Offered		
GRH	Offered Not Offered			

Table 43 Los Angeles Mission College

	Faculty/Staff	Student	
Fee based Parking	Free	\$2 a day/\$20-\$27 per semester	
Transit Program	\$2/day up to \$40/month	I-Pass Offered	
Carpooling	Offered Not Offered		
GRH	Offered	Not Offered	
Financial Incentives	\$2/day up to \$40/month	Not Offered	

Los Angeles Southwest College

	Faculty/Staff	Student
Fee based Parking	Free	\$2 a day/\$20-\$27 per semester
Transit Program	N/A	I-Pass Offered
Carpooling	Offered	Not Offered
GRH	Offered	Not Offered



Table 45 Los Angeles Valley College

	Faculty/Staff	Student
Fee based Parking	Free	\$2 a day/\$20-\$27 per semester
Transit Program	N/A	I-Pass Offered
Carpooling	Offered Not Offered	
GRH	Offered	Not Offered

Most of these campuses allow motorcycles and mopeds to be parked in the designated motorcycle parking spaces without parking permits. LA Southwest College designates "carpool-only" spaces for approved employees who carpool. Campuses like City College and East LA college promote rideshare by arranging rideshare week annually and encourage participation by conducting fun events, cook-offs and prizes.

Evaluation Criteria

The LACC District is required to follow the Rule 2202 Employee Commute Reduction Program (ECRP) approved by the South Coast Air Quality Management District (AQMD). The District does not implement a district-wide program. Each college participates in the ECRP. For example, LA Trade-Tech College participates in the ECRP. As part of this annual rideshare, surveys are distributed to all employees each October where employees are asked to identify how you commute to work for a given week. The target of this survey is to receive a 90% response rate and calculate Average Vehicle Ridership (AVR) for all employees with a target goal of 1.50. AVR is calculated by dividing the number of persons by the number of vehicles. For example, 3 persons traveling in 2 cars is an AVR of 1.50.

For 2007, LA Trade-Tech College reported an AVR of 1.42, an increase from the 2006 figure of 1.40. The project team is gathering AVR information on the other sites.

SAN DIEGO COMMUNITY COLLEGE DISTRICT

The San Diego Community College District serves approximately 100,000 students each semester through three, two-year colleges and six Continuing Education campuses. The three colleges are:

- San Diego City College
- San Diego Mesa College
- San Diego Miramar College

Table 46 through Table 49 summarizes the TDM measure within the San Diego Community College District.



Table 46 Measures Utilized

	Existing TDM Measures				
	Shuttle Service	Priced Parking	Public Transit	Alternative Mode Incentives	Subsidy
SD City College		х	х		
SD Mesa College		Х	х		
SD Miramar College		х	x		

Table 47 San Diego City College

	Faculty/Staff	Student
Fee based Parking	Free	\$35 per semester
Transit Program	N/A	N/A
Carpooling	Offered	Offered

Table 48 San Diego Mesa College

	Faculty/Staff	Student
Fee based Parking	Free	\$35 per semester
Transit Program	N/A	N/A
Carpooling	Offered	Offered

Table 49 San Diego Miramar College

	Faculty/Staff	Student
Fee based Parking	Free	\$35 per semester
Transit Program	N/A	N/A
Carpooling	Offered	Offered

Parking permits are required to park in all the campuses for registered students. Carpool permits are discounted by \$5 to a rate of \$30 and motorcycle permits are \$17.50. Bicycles must be parked only in designated bicycle racks. Parking services handles parking permits and citations on each of these campuses. San Diego Metropolitan Transit System (MTS) offers discounts to qualified students in the form of monthly or semester/quarter passes. Discounted monthly pass costs \$57.60 and semester/quarter passes are \$178 depending on the total number of days in the semester/quarter.



SEATTLE COMMUNITY COLLEGE

Existing Conditions:

The Seattle Community College District is a group of community colleges located in Seattle, Washington. The Seattle Community College District is the second largest higher education institution in Washington State, serving more than 53,000 students annually at Seattle Central, North Seattle, South Seattle Community Colleges and Seattle Vocational Institute (SVI).

The District has more than 53,000 students (79% reside in Seattle, 40% full time/60% part time) and has 2,351 employees, 1,457 of whom are faculty members (379 full time/1082 part time).

- Seattle Central Community College located in the Capitol Hill neighborhood, very urban area.
- North Seattle Community College located in Northgate area of Seattle, suburban area with shopping malls.
- South Seattle Community College located in the West Seattle area, very residential area with little more than houses.

Each campus has its own TDM program. The District offers eligible students a subsidized bus pass called the "ORCA Card". The ORCA Card is a regional public transit pass that includes regular Metro, Sound Transit, Pierce Transit, Kitsap Transit, Community Transit, and Everett Transit bus service. Users can travel anywhere in King, Snohomish, Pierce, and Kitsap Counties for no additional charge. Table 50 through Table 53 summarizes the TDM measures at Seattle Community College.

	Existing TDM Measures										
	Shuttle Service	Priced Parking	Public Transit	Bike/ Walk	Subsidy	Carpool Matching	Ferries	Carsharing	Online Marketing		
Seattle Central		x	х	x	x	x	x		x		
North Seattle		х	х	х	x	x			х		
South Seattle	х	х	х	х	х	x		x	х		

Table 50 TDM Measures Utilized



Table 51 Seattle Central CC

	Faculty	//Staff	Commute	er Student
	Non-Participating	Non-Participating Carpool Member		Carpool Member
Fee based Parking	Faculty Type \$49-\$147.25/quarter Flat Rate \$238.00/quarter	\$83.25/quarter	Evening Pass \$75.00/quarter Flat Rate \$125.00/quarter	Free
ORCA	\$45/q	uarter	\$110-\$14	5/quarter
Transportation Fee		\$10/quarte	er	
Bicycle Parking	Free Bike	e Lockers	Designated	Bike Parking

Table 52 North Seattle CC

	Faculty	//Staff	Commute	er Student
Fee based Parking	Non-Participating Carpool Member		Non-Participating	Carpool Member
	Faculty Type \$49-\$147.25/quarter Flat Rate \$238.00/quarter	\$83.25/quarter	\$21.25- \$64.00/quarter	\$35.50/quarter
ORCA	\$45/q	uarter	\$115-\$15	0/quarter
Transportation Fee		\$10/q	uarter	
Bicycle Parking	Free Bike	Showers	Designated	Bike Parking

Table 53 South Seattle CC

	Faculty	//Staff	Commuter Student			
	Non-Participating	Carpool Member	Non-Participating	Carpool Member		
Fee based Parking	Faculty Type \$36-\$109/quarter Flat Rate \$168.00/quarter	\$59.5- \$121.25/quarter	Faculty Type \$21.25-\$64/quarter	\$35.5/quarter		
ORCA	\$45/q	uarter	\$115-\$150/quarter			
Guaranteed Ride Home		Fr	ee			
Transportation Fee		\$10/q	uarter			
Carsharing	\$7,	/hr	\$7,	/hr		
Bicycle Parking	Designated Bike Parking					
Downtown Shuttle		Fr	ee			



Case Studies - Universities

In the Western United States, there are universities with TDM programs. While they operate very differently from a community college, some of the programs can be used as case studies for PCC. The following are a few examples of current TDM programs at selected universities located in the Western United States.

UNIVERSITY OF WASHINGTON

Existing Conditions:

The University of Washington (UW) is the largest university in the Northwestern United States and one of the oldest universities on the West Coast. The university has three campuses, with its largest campus in the University District of Seattle. UW also has two other campuses located in Tacoma and Bothell.

UW has a staff of 16,174 and 5,803 faculty members. UW has a student population of 42,907 undergraduates and 30,790 postgraduate students.

The University of Washington uses a program called the U-Pass. Developed in 1991, the program is so successful that almost 80% of all trips made to UW Seattle are non-SOV.

All students are automatically enrolled in the U-Pass program and can only "un-enroll" if they purchase a parking permit for the quarter. As part of the program, UW has secured partnerships with other local businesses to offer discounts to all students, staff, and faculty that use the U-Pass. Table 54 identifies the mode split for the Faculty and Staff for 2010.

Table 54 Mode Split – Faculty and Staff

Faculty/Staff	Public Transit	sov	Carpool/Vanpool	Walk	Other
UW	39%	21%	5%	25%	2%

Existing TDM Measures

The University of Washington is working with King County, the City of Seattle, and their green team to implement a cohesive Climate Action Plan. Table 55 and Table 56 summarize the TDM measures at the University of Washington.



Table 55 TDM Measures Utilized

	Existing TDM Measures									
	Shuttle Priced Public Bike/ Carpool Carpool Online Service Parking Transit Walk Subsidy Matching Vanpool Carsharing Marketing								Online Marketing	
UW	х	х	х	х	х	х	х	х	х	

Table 56 University of Washington

	Facult	y/Staff	Commuter Student		
	Non-Participating	Carpool Member			
Fee based Parking	\$423/quarter \$423/quarter \$1,692/annual for the carpool spot. Carpool splits cost among riders		\$323/quarter Cost waived for U-Pass if parking permit is purchased		
U-Pass	\$44.00/	monthly	\$99/quarter		
Vanpool		UW will cover	r up to \$70.00		
Intercampus Shuttle (Fixed route at night)		Fr	ee		
Guaranteed Ride Home		ee			
Carsharing	Va	ries	Varies		
Bicycle Parking	\$140.00/annual for Bike Locker				

Evaluation Criteria

UW conducts an annual survey to determine the reduction of daily vehicle trips. UW conducts a biennial survey of all U-Pass riders.

STANFORD UNIVERSITY

Existing Conditions

Stanford University (Stanford) is a private research university on an 8,180-acre campus in Palo Alto, CA. It is situated approximately 20 miles northwest of San Jose and 37 miles southeast of San Francisco. Stanford has a student body of approximately 6,900 undergraduate and 8,400 graduate students.

Due to the high cost of housing, Stanford provides an opportunity for faculty members to live within walking or biking distance of campus. The faculty housing is composed of land owned entirely by Stanford. Similar to a condominium, the houses can be bought and sold but the land under the houses is



rented on a 99-year lease. The program offers a free 15-route shuttle system that runs on biodiesel with two diesel-electric hybrid buses. Ridership on shuttle buses climbed to 1,416,508 in 2009.

Stanford's transportation program utilizes the county Eco-Pass. It also has a 7,500 member carpool database, and offers transit discounts for Cal train, VTA, Dumbarton Express and AC Transit's Line U. The program includes car sharing, commute planning, vanpools, and a bicycle support program.

Stanford has seen a 30% increase in shuttle ridership at the Cal train commuter rail station (30% between 2004 and 2009). In 2010, 52% of employees used alternative transportation to commute compared with 24% in Santa Clara County. Table 57 summarizes the mode split for the Faculty and Staff for 2007.

Table 57 Mode Split – Faculty and Staff

Faculty/Staff	Shuttle	Caltrain	SOV	Vanpool	Carpool	Bike	Walk	Other
District	4.9%	17.7%	51.9%	.3%	9.4%	11.8%	2.9%	1.2%

Existing TDM Measures

The Stanford TDM program focuses on "no net new commute trips during peak hours" as measured in 2001 for all new development and population growth. Table 58and Table 59 summarize the TDM measures at Stanford University

Table 58 TDM Measures Utilized

	Existing TDM Measures									
	Shuttle Priced Public Bike/ Carpool Online Service Parking Transit Walk Subsidy Matching Vanpool Carsharing Marketing							Online Marketing		
Stanford	х	х	Х	х	х	х	х	х	Х	



Table 59 Stanford

	Facult	y/Staff	Commuter Student			
	Non-Participating	Carpool Member	Non-Participating	Carpool Member		
Fee based Parking	\$62.25/Monthly \$24.25/Monthly \$622.50/School Yr. \$242.50/School Yr. \$747/Annual Pass \$291/Annual Pass \$1494/2 Year Pass \$582/2 Year Pass		\$62.25/Monthly \$622.50/School Yr. \$747/Annual Pass \$1494/2 Year Pass	\$24.25/Monthly \$242.50/School Yr. \$291/Annual Pass \$582/2 Year Pass		
Parking Rules	N	/A	Freshman cannot bring cars onto campus			
Go Pass/ECO Pass Program	Fr	ee	Fr	ee		
Intercampus Shuttle		Fr	ree			
Car Rentals	Free for	participating members (s	staff, faculty, commuter s	tudents)		
Carsharing	\$7/hr \$7/hr					
Bicycle Parking	Free Bicycle Parking and Lockers					

Evaluation Criteria

Stanford conducts an annual survey to determine if the TDM program met its goal of gaining no net new commute trips during peak hours.

CALIFORNIA STATE UNIVERSITY NORTHRIDGE

Existing Conditions

California State University Northridge (CSUN) has nearly 36,000 students and more than 4,000 faculty and staff on a 356-acre campus in the Los Angeles' San Fernando Valley. Of this population, 95% of students, faculty, and staff commute to the CSUN campus daily. Commuters on average travel 14.8 miles. On average, faculty tends to live 18.7 miles away from campus, students tend to live 14.2 miles from campus, and staff tends to live 13.6 miles.

CSUN has a campus shuttle service that connects the campus to nearby housing units that students tend to lease for the school year. Along with this shuttle service, CSUN also has a intercampus TRAM known as the Matador that serves the students, staff, and faculty on the CSUN campus.

CSUN's TDM program offers incentives for staff/faculty and students. CSUN sells transit passes for regional transit providers on campus at the student stores. Table 60 summarizes the mode split for all commuters for 2010.



Table 60 Mode Split – All Commuters

	Metro	Metrolink	sov	Carpool	Bike/Walk
Faculty/Staff	5%	3%	74%	7%	11%

Existing TDM Measures

CSUN is following the principles established by California AB 32 and looks to reduce its total GHG 25% by 2020. Table 61 and Table 62 summarize the TDM measures at California State University Northridge.

Table 61 TDM Measures Utilized

		Existing TDM Measures												
	Shuttle Service	Priced Parking	Public Transit	Bike/ Walk	Subsidy	Carpool Matching	Vanpool	Carsharing	Online Marketing					
CSUN	х	х	Х	х	х	х	х		х					

Table 62 CSUN

	Faculty/Staff	Commuter Student				
Fee based Parking	\$67.79 - \$180.00/semester	\$45-\$250/semester				
Parking Rules	N/A	Students can purchase parking permits at varied costs depending on the date the permit is purchased. Permits purchased later in the year are sold at a lesser rate.				
Transit Pass Subsidy	60% off capped at \$100	\$20 subsidy given				
Intercampus Shuttle		Free				
Guaranteed Ride Home	Free for participating members	s (staff, faculty, commuter students)				
Vanpooling	\$78 - \$92 based on location and number of participants	\$78 - \$92 based on location and number of participants				
Bicycle Parking	Free Bicycle Parking and lockers for commuters who register their bicycle					

Existing TDM Measures

SCAQMD Rule 2202 Survey and annual commuter sustainability report segment that is included in an annual university wide sustainability/climate change report.



PORTLAND STATE UNIVERSITY

Existing Conditions

Portland State University (PSU) has nearly 30,000 students and more than 4,000 faculty and staff on a 50-acre campus in the heart of downtown Portland. Of this population, 100% of students and 95% of faculty and staff commute to the PSU campus daily. PSU encourages everyone that commutes to campus to consider public transportation and bicycling as alternative means of transportation. PSU is located at the heart of the TriMet transit system and is served by the Portland Streetcar, MAX Light Rail, and 15 different bus lines. There are also hundreds of bicycle racks and a new bicycle garage that provides secure and dry bicycle parking facilities. Table 63 summarizes the mode split for all commuters for 2009.

Table 63 Mode Split – All Commuters

	Transit	SOV	Carpool	Bike/Walk	Telecommuted	Other
Students	39%	25%	6%	25%	0%	7% ¹
Faculty/Staff	45%	26% ²	9%	15%	5%	0%

¹ Other includes responses: "other," "motorcycle/scooter," and "was dropped off."

² Drove alone includes motorcycle trips.

Existing TDM Measures

Students may buy the "FlexPass" quarterly for \$180 which is an all zone TriMet pass valid for three months. It is a sticker that goes on a student's PSU ID card, similar to the Passport stickers. By comparison, three months of a non-subsidized all-zone monthly passes is \$264, while two-zone passes is \$231. PSU purchases the passes from TriMet for \$225 each and uses parking revenue to subsidize them down to \$180 each. Total cost of program is about \$650,000/year. PSU sells about 4,200 Flexpasses each term during the academic year and about 1,500 during the summer (which is priced differently and is valid for only two months).

Employees may buy the annual "Passport" for \$418. By comparison, TriMet's annual pass is \$968 (allzone) and \$847 (2-zone). The cost per pass that PSU pays TriMet is \$418, but this requires PSU to purchase passes for all employees (PSU limit this to permanent employees working over 0.5FTE). PSU charges employees the maximum allowed by the program, which is the cost PSU pays for the pass. Total cost of program is about \$400,000/year. PSU sell about 1,000 Passports each year.

Parking permits are required for all registered vehicles parked on campus. Prices and arrangements vary based on location and duration. Parking permits must be purchased in-person from Transportation & Parking Services. PSU's primary full-time parking pass (the one purchased by 90% of



employees and students buying a FT pass) is \$106/month. Street parking around PSU is monitored by City of Portland Parking Enforcement. Table 64 summarizes the TDM measures at PSU.

	Existing TDM Measures													
	Shuttle Service	Priced Parking	Public Transit	Bike/ Walk	Subsidy	Carpool Matching	Vanpool	Carsharing	Online Marketing					
PSU		х	х	х	х				х					

Table 64 TDM Measures Utilized

Travel Mode Survey

As indicated previously, PCC conducted a survey in early 2011 to better understand the transportation needs and preferences of its students, faculty and staff. The online survey received 4,877 responses, with a margin of error of ±2.7% at the 95% confidence level. It included basic questions about transportation habits and choices, as well as a conjoint analysis. Conjoint analysis is widely used in transportation assessment studies to identify transportation preferences. Participants were asked to consider the following transportation options for traveling to and from PCC: 1) bus/max, 2) personal vehicle, 3) PCC shuttle, 4) bike. Then participants were asked what option they would choose given a certain price for a TriMet Pass and parking permit, frequency of shuttle service, and amenities for bikes. The prices, frequencies, and amenities were randomly offered, with the possible options show in Table 65:

Table 65 Conjoint Options by Mode and Level

Transportation Mode	Level 1	Level 2	Level 3	Level 4	Level 5
Bus/MAX	TriMet Pass \$100/term	TriMet Pass \$125/term	TriMet Pass \$150/term	TriMet Pass \$175/term	TriMet Pass \$200/term
Personal Vehicle/ Parking Permit	Parking permit \$40/term	Parking permit \$80/term	Parking permit \$120/term	Parking permit \$160/term	
PCC Shuttle	Picks up every 30 minutes	Picks up every 45 minutes	Picks up every 60 minutes	Picks up every 75 minutes	
Bike	Use existing bike racks	Free access to new bike center	Receive \$30 gift certificate to a bike store		

Each participant was asked to select their transportation preference from these four options fourteen times, with a random level of each option offered. For example, a participant may have been asked to choose between paying \$125/term for a TriMet pass, paying \$160/term for a parking permit, taking the



PCC shuttle with service every 30 minutes, or biking with free access to a new bike center. All of the responses were compiled to generate a large data set from which conclusions about respondents' transportation preferences could be drawn. The results from the survey questions and conjoint analysis were used to develop the TDM programs and strategies outlined in this document.

Table 66 summarizes the results of the survey by user (student/faculty/staff), by campus, and by total responses:

		By User				By Ca	ampus	
Travel Mode	Total	Student	Faculty	Staff	Sylvania	Rock Creek	Cascade	Southeast
Drive Alone	69%	67%	80%	74%	70%	74%	64%	67%
Bus/Max	12%	13%	5%	14%	10%	12%	13%	16%
Carpool	5%	6%	2%	3%	6%	8%	5%	2%
PCC Shuttle	4%	4%	4%	3%	7%	1%	2%	2%
Bicycle	3%	3%	4%	1%	1%	1%	10%	6%
Dropped off by Car	2%	2%	1%	2%	2%	2%	1%	4%
Walk	1%	1%	1%	1%	1%	0%	3%	2%

Table 66 Travel Mode Split

SINGLE OCCUPANT VEHICLE

As shown in Table 66, single occupant vehicle trips are the dominant transportation mode to PCC, across all users and campuses; distantly followed by bus or MAX. This is particularly evident for faculty and staff, who have access to subsidized parking as previously mentioned. In addition, preference to drive alone is also stronger for the suburban campuses (Sylvania and Rock Creek), where fewer or less attractive alternatives may exist.

As expected, most respondents who drive to PCC park on campus, with 44% of all drivers parking at the Sylvania Campus. The distribution of parking location was relatively similar across user all types, as shown in Table 67. Due to the urban nature of Cascade and Southeast Campuses, users at these locations were significantly more likely to park on a neighborhood street near the campus.



		By User		By Campus				
Parking Location	Student	Faculty	Staff	Sylvania	Rock Creek	Cascade	Southeast	
In a PCC campus lot	86%	90%	86%	94%	91%	70%	87%	
On a neighborhood street near campus	7%	4%	4%	2%	1%	22%	13%	
In a PCC overflow lot off campus	3%	1%	0%	2%	5%	3%	0%	
In a Bus/MAX park and ride lot	0%	2%	3%	0%	0%	0%	0%	

The conjoint analysis also shows driving to be the preferred mode for getting to PCC, but further suggests that as the cost of parking permits rise, less people will prefer to drive. Chart 8 illustrates the sensitivity of respondents to the price of parking. When all other modes are least attractive (\$200/term TriMet pass, PCC shuttle with 75 minutes frequency, no additional bike amenities), 80% of respondents prefer to drive and pay \$40 to park. However, when the price of a parking permit is increased to \$160 and all other modes stay the same, 43% of respondents prefer to park. Therefore, parking preference is sensitive to the cost of a parking permit, but even at the most expensive level of parking permit, close to a majority elect to drive to campus. Rock Creek Campus respondents exhibited the highest preference for parking, with 87% preferring to purchase a parking permit for \$40 over all other modes at their least attractive level. Faculty, staff, and students showed approximately the same sensitivity to the price of parking permits.

Chart 8 Parking Price Sensitivity (all respondents)



ALTERNATIVE TRAVEL MODES

The survey results demonstrated that, by mode, the most preferred alternative to driving alone is public transit, followed by carpooling. Table 68 illustrates responses when participants were asked how they would travel to PCC if they did not have a car. These findings stay approximately consistent by user; however, students are more likely to take online classes, an option that primarily applies to them. Again, due to the urban nature of the Cascade and Southeast Campuses, respondents from these locations were more likely to choose a mode that does not require parking. This is demonstrated by a lower stated preference for carpool or ridesharing. Alternative mode preferences are summarized in Table 68:

Alternative		By User		By Campus				
Transport Preferences	Student	Faculty	Staff	Sylvania	Rock Creek	Cascade	Southeast	
Take Bus/MAX	33%	33%	39%	34%	29%	31%	42%	
Carpool/Rideshare	24%	21%	25%	27%	31%	18%	31%	
Take online classes	17%	3%	2%	12%	15%	12%	11%	
Bicycle	9%	11%	8%	6%	7%	20%	14%	
Walk	2%	3%	3%	3%	2%	3%	4%	

Table 68 Alternative Transport Mode Preferences



Those who drove alone also indicated that they did not take the bus or MAX to PCC due to perceived inconvenience, with 54% of all respondents citing a longer travel time. Other reasons included service location and reliability, and 9% of drivers also cited cost as a reason for avoiding public transit.

Bus/MAX

Currently12% of all respondents travel to PCC by bus or the MAX. Taking the bus or MAX is the most preferred second choice option to driving to PCC. Based on the data presented in Table 68, interest in transit is highest at the Southeast campus.

The conjoint analysis suggests that preference for taking the bus or MAX is tied to price, as seen in Chart 9. When all other modes are least attractive (parking permit at \$160/term, PCC Shuttle with pick-ups every 75 minutes, no additional bike amenities) and a TriMet pass is offered at \$100/term, 28% of respondents prefer to take the bus or MAX. Regardless of the price of the transit pass, the highest preference is exhibited for purchasing a parking permit for \$160. Transit becomes the least preferred option when the price of a TriMet pass increases to \$150/term.





The Southeast campus again demonstrated the highest interest in the bus or MAX. When a TriMet pass is offered for \$100 and a parking permit costs \$160, taking the bus or MAX is the most preferred option (37% prefer). The other three campuses showed approximately the same level of interest in transit. Students have the highest interest in transit, followed by staff and then faculty.

Bicycling

3% of all respondents currently travel to PCC by bicycle most of the time. Bicycling rates are highest at the Cascade and Southeast campuses. The results of the conjoint analysis are shown in Chart 10. The graph reveals that when all other modes are least attractive (parking permit at \$160/term, TriMet pass at \$200/term, PCC Shuttle with pick-ups every 75 minutes), 25% of respondents prefer to bike when offered use of a bike center with showers, lockers, secure indoor bike storage, and free bike repair. When given the choice of a \$30 gift certificate to a bike store, 24% of respondents prefer to bike, suggesting a bike center and gift certificate are similar motivators. When not offered any additional bike amenities, almost 21% of respondents prefer to bike. Therefore, providing a bike center or gift certificate moderately increases interest in biking.



Chart 10: Biking at Different Options

Interest in biking is significantly higher at the Cascade campus and Southeast campus. Over 35% of respondents at both campuses showed preference for biking when offered use of a bike center, compared to just over 20% preferences at Rock Creek and Sylvania. Students showed a significantly higher preference for biking than faculty or staff.

PCC Shuttle

PCC offers a shuttle service, as indicated previously. Usage statistics of the shuttle are shown in the Table 69:



Table 69 Shuttle Bus Usage

	By User			By Campus					
Shuttle Bus Use	Student	Faculty	Staff	Sylvania	Rock Creek	Cascade	Southeast		
Used shuttle on day of survey	8%	6%	5%	11%	4%	5%	5%		
Did not use shuttle on day of survey	92%	94%	95%	89%	94%	95%	95%		

From the survey results, very few respondents used the PCC shuttle service on the day of the survey. Those who did use the service cited four primary reasons for doing so:

- Shuttled in-between campuses for classes
- Took shuttle from an off campus lot to campus
- Took shuttle from MAX/Bus stop to campus
- Parked at one PCC campus and shuttled to another for class

Survey data indicated that by user type, students (8%) are slightly more likely to use the shuttle than faculty (6%) or staff (5%). Additionally, people at the Sylvania campus were more than twice as likely to use the PCC shuttle as users from any other campus.

Despite the low use of the shuttle cited on the day of the survey, the conjoint analysis suggests significant interest in a shuttle. The PCC shuttle time sensitivity is illustrated in Chart 11. When all other modes are least attractive (parking permit at \$160/term, TriMet pass at \$200/term, no additional bike amenities), 49% of respondents prefer the PCC Shuttle with pick-ups every 30 minutes. Given these same choices, just over 30% of respondents would prefer to purchase a parking permit and use their personal vehicle. When the frequency of the shuttle pick-up is changed to 45 minutes, the preference between the shuttle and \$160 parking permit is roughly equal. Once the shuttle frequency drops to 60 minutes, purchasing a parking permit becomes the preferred option. Therefore, the frequency of shuttle pick-up is strongly tied to how many respondents prefer to take the shuttle to and from PCC.







The Sylvania Campus respondents demonstrated the most interest in the shuttle, with almost 53% preferring the shuttle with pick-ups every 30 minutes over all other modes at their least attractive option. Students showed slightly more interest in the shuttle than faculty or staff, but in general interest in the shuttle was relatively equal across campuses and respondents.

ADDITIONAL INFORMATION

In addition to mode split and preference, the survey also captured time and origin of the trips. Most respondents (89%) travel directly from home to PCC, with a much smaller proportion (8%) travelling directly from work. Of all respondents, 50% traveled during the morning rush hour, between the hours of 7 a.m. and 9 a.m.



Section 5 Recommendations
RECOMMENDATIONS

Program Refinements & Additions

I. BACKGROUND

This report details a Transportation Demand Management (TDM) program for students and employees enrolled and working within the Portland Community College (PCC) campus system, particularly as it applies to the Rock Creek, Cascade, Sylvania and South East campuses. This Plan was developed by PCC's Transportation Demand Management Steering Committee (TDMSC), a 21-member group comprising representatives of PCC administrators, students, employees and faculty/staff. The TDMSC met nine times to conceive and prepare the recommended Plan outlined in this section. PCC currently has a very successful TDM program that has been operational since 1993. The program has resulted in the use of various transportation modes that far exceed those found at similar institutions.

There are many objectives served by the TDM program, such as minimizing the rate at which single occupant vehicle trips are generated by PCC students and employees and optimizing the use of more sustainable methods of access. It also is important to note that the TDM program is intended to support increasing student enrollment and job growth at PCC. Marketing, education, enforcement, and use of incentives and disincentives will also be key components in the application of any TDM measures that PCC implements.

The TDM Plan and recommended measures contained in this report will be monitored, reviewed and revised as necessary by an internal advisory committee (possibly a continuation and enhancement of the TDMSC), led by Parking and Transportation Services (PTS). Annual reports will be prepared by PTS and reviewed by the advisory committee to document actions and outcomes and frame decision making.

Though this Plan is only for PCC, the intent is to actively coordinate its implementation with many external partners, such as TriMet, the City of Portland, Washington County, affected neighborhoods, and other educational partners in the region.

II. OBJECTIVE OF THE TDM PLAN

There are several outcomes for parking and access management that PCC desires. These can be summarized as follows:



- Ensure that transportation access to PCC is enhanced in a manner that allows the focus to be on the academic experience, not on difficulties or confusion within the system of access and movement.
- Implement strategies and programs that are consistently evaluated through the lens of sustainability, ensuring that the access program is supportive of PCC's broader Sustainability Initiative.
- Leverage partnerships (to the degree possible) in developing access solutions and coordinating delivery of strategies that not only bring PCC students and employees to individual campuses but more effectively link all campuses.
- Continue efforts to expand and promote access and parking solutions that provide multiple options for all students and employees, in a fair and equitable manner.
- Encourage the continued transition of students and employees into a higher percentage mix of non-auto modes.

The outcome of the TDMSC's work reflects PCC's commitment to changing the access environment; moving to strategic outcomes for access that actually support more than just arrival, but the college itself as a unique place and experience. The provision of access and the management of parking are keys to the success of PCC, as an interconnected and accessible multi-campus system. Access should continue to include walking, biking, ridesharing, driving, and riding transit and shuttle, as well as technology (i.e. telephone and internet). People seeking to access PCC should be cognizant of the available access options and the full costs of using any particular method.

To this end, the TDMSC developed the following objective statement as regards future efforts related to parking and transportation demand management for the College.

It is PCC's goal to sustainably and cost-effectively provide sufficient physical and technological access to its academic system to meet the educational and vocational needs of the population it serves. To achieve this, PCC will need to create and implement an efficient and adaptable access management plan that balances cost and convenience between travel modes; strategically accommodates growth; and, supports the PCC Mission, Vision, and Sustainability Initiative. The key objective is to transition each campus to a place that values sustainability, provides expanded options for access, and ensures the long-term educational and vocational success of its students, faculty, and staff.

The Objective Statement encapsulates the intended outcome for the development and growth of PCC as it pertains to transportation and access. The Objective Statement serves as a foundation for developing decision-making guidelines to coordinate parking and access management at PCC.



III. RECOMMENDED PARKING & ACCESS MANAGEMENT STRATEGIES

The range of potential parking and transportation demand management strategies is significant, with some working at a policy level and others being very specific to a type of user and set of circumstances. At the broader level, the 72 strategies outlined here have been organized into the following categories:

Bike/Walk Access

External Partners

TDM Support

Technological Access

Communication/Awareness

- Policy Actions
- Transit Access
- PCC Shuttle Access
- Single Occupant Vehicle Access
- Rideshare Access
- Organization for Implementation & Monitoring

Within each category, strategies are delineated as those that are part of a "core program," indicating those strategies that are essential to the initial implementation of the Plan and those that would follow in time and as opportunity and resource allow ("Supporting Strategies"). In other words, core program strategies are essential as regards "start-up" and serve as foundational actions upon which future recommended strategies are leveraged. It is to the core program that policy support and initial resource development must occur.

To the highest degree possible, recommended strategies are laid out in each category in a manner that is iterative or "checklist" in presentation. Actions are intended to follow a logical progression of implementation, with each preceding action providing the ground work necessary to move to a subsequent action. Actions are also delineated between timing/phasing of implementation and lead entity responsible for shepherding the strategy to implementation. Where possible, cost estimates and/or revenue opportunities have been provided, though additional refinement and decision-making around cost and resources will likely evolve as Plan implementation unfolds.

Overall, this strategy action plan is intended to be logical and ordered in a manner that responds to changes in demand and ensures a continuing sense that the methods of accessing PCC are easy to use and understand. The Plan is complex and will require a dedicated and routine level of support, coordination, commitment, and resource identification that goes beyond what is currently in place. Implementation timing is recommended to occur in three phases that include:

Near term (0 – 24 months)



- Midterm (24 48 months)
- Long term (beyond 48 months)

A. POLICY LEVEL ACTIONS

The following policy elements have been included to ensure the goals of the TDM Plan can be achieved by incorporating strategic access management into PCC's development policy. Commitment to collective coordination of programs and application measurement standards to trigger and inform decision-making becomes the unifying element connecting these various policy elements. <u>Formalizing</u> <u>the policy recommendations assures that the life of the TDM Plan extends beyond the first round of</u> <u>strategy implementation and is routinely coordinated, managed, refined, monitored, and reported.</u> All core policy-level actions are recommended for near-term implementation (zero to 24 months).

Core Program

A.1. Adopt the Guiding Principles as required PCC policies for Parking, Access, and Sustainability.

The Guiding Principles provide a framework for managing TDM and decision making for Portland Community College over time. "Codifying" the Guiding Principles by incorporating them into the operating mission of PCC will guide and direct the TDM Standing Committee (see Strategy A.4), departments, and divisions and serve to inform on-going management decision-making. The Guiding Principles provide a decision-making framework and policy foundation for all decisions/actions regarding parking and TDM.

Timeline:	Near term (0 – 24 months)
Lead Entity:	Cabinet
Cost/New Revenue:	Assumed under current budget

A.2. Adopt quantifiable goals that can be monitored for progress.

The intent and purpose of the PCC Transportation Demand Management Plan is to reduce the rate at which auto-related trips are made to PCC campuses and encourage an increasing transition of students and employees to a higher percentage mix of transit, bike, walk, rideshare, and technological (e.g., online) modes of access. To this end, it will be essential to establish clear and quantifiable targets against which progress can be measured. Examples include mode split targets for campuses and/or population subgroups, parking occupancy and utilization (auto, bicycle, other), ratios of bike spaces and transit passes to student/employee populations (by campus and district-wide), and shuttle service productivity.



A.3. Commit adequate funds to ensure the long-term implementation and success of the P&TDM Plan.

The comprehensive program of strategies recommended in this Plan will require a commitment of resources that exceeds resources currently in place. There will need to be a commitment to fund new programs and provide the necessary staff and organizational support to successfully activate and sustain this Plan. This could include augmenting and/or replacing parking revenues and student transportation fees with other sources (e.g. employee fees, general fund, increased fees and/or parking rates).

Timeline:	From near term through long term
Lead Entity:	Board, Cabinet
Cost/New Revenue:	To be determined

A.4. Establish a Standing Committee that makes recommendations to ensure the long-term implementation and success of the PCC TDM Plan.

This is intended to be a representative group of PCC students, employees, and administration that commit to fully supporting the Guiding Principles and successfully implementing the PCC TDM Plan. The Standing Committee would be charged with reviewing data, performance, and operational progress and provide input, advice, and outreach on issues related to program delivery, cost, equity, sustainability, and other factors related to the Plan.

The TDMSC that assisted in developing the current recommended plan could very effectively serve as a model for the Standing Committee or there may be other existing committees in place at PCC that could serve this role. The Standing Committee should have a clear charge, be grounded in the core program elements of this Plan, and supported with current and objective metrics and data and meet routinely. This committee will primarily be supported by technical staff within PTS and other professional services, if needed.

Timeline:	Near term (0 – 24 months), then on-going
Lead Entity:	Cabinet to establish committee and Technical Staff to support committee work
Cost/New Revenue:	Undetermined at this time, but likely supported under new resources associated with Strategy B.1.



February 2012

A.5. Adopt a parking occupancy standard and other performance measures that are directly tied to the adopted goals that initiate a decision-making process to consider further Plan action(s).

The parking industry standard defines a supply of parking as constrained when it reaches 85% occupied in the peak hour for some sustained period of time (e.g. several weeks each term). When a supply reaches that sustained level of constraint, more aggressive parking, pricing, and/or TDM strategies should be considered and/or initiated to bring the occupancy level below 85%. Similarly, if occupancies are significantly below this standard for a sustained period of time (e.g., summer term), then decisions related to pricing and/or management may be necessary.

PCC may consider constraint thresholds that are higher or lower than 85% at campuses that have unique parking demand patterns or characteristics, but should nonetheless establish them as a mechanism to inform the Standing Committee's work on reviewing and activating elements of this Plan.

The parking occupancy standard for PCC will be established as a part of the initial work of the Standing Committee, working with PTS staff.

Timeline:	Near term (0 – 24 months), then on-going
Lead Entity:	PCC Executive Staff
Cost/New Revenue:	Assumed under current budget

Supporting Strategies

A.6. Implement an employee Transportation Fee to all PCC employees to support non-SOV and other alternative employee access options.

Currently, all students pay a transportation fee, assessed each term, to cover the cost of expanded shuttle services. PCC employees do not currently pay such a fee, but do receive the benefit of the use of PCC shuttles. Unlike students, employees do not receive a transit pass benefit. It is recommended that implementation of such a fee or charge be evaluated during the next cycle of contract negotiations with the employee Federation. Along with consideration of this strategy, there should be meaningful evaluation of (a) issues related to the relationship/impact of such a charge to full time versus part time employees and (b) the specific allocation of any funds collected to directly benefit employee access (e.g., shuttle service, employee transit program(s), etc.). Evaluators and decision makers are strongly encouraged to closely follow the Guiding Principles when dealing with funding strategies such as this.

Timeline:Midterm (24 - 48 months), then on-goingLead Entity:Board, Human Resource, FederationCost/New Revenue:To be determined

A.7. Adjust the student Transportation Fee to provide for non-SOV and other alternative student access options.

Currently, all students taking at least one credit hour at PCC pay a transportation fee of \$3.99 per term. The fee was established to provide funding for expanded shuttle services being developed by PCC and now serves as a template for further expansion of student access options and services that could be covered, in whole or in part, by an increase to this fee. It is recommended that adjustments to this fee be explored, in combination with the timing of Strategy A.6, as a means to facilitate the ability of PCC to further enhance its student transportation access programs. As with Strategy A.6., there should be meaningful evaluation of issues related to the relationship/impact of such a charge to full time versus part time and distance learning students. Evaluators and decision makers are strongly encouraged to closely follow the Guiding Principles when dealing with funding strategies such as this.

Timeline:	Midterm (24 - 48 months), then on-going
Lead Entity:	Board, Cabinet, DSC
Cost/New Revenue:	To be determined

A.8. Develop and approve an "Access Scholarship Program" or make existing assistance programs more comprehensive (inclusive of support for costs of access) to further subsidize the costs of access for students of critical financial need.

Any new fees or charges developed can create a burden to students of need. An access scholarship program would respond to students of need, while moving the College to more innovative and responsive TDM programs and strategies that contribute to its increased access, trip reduction, and Sustainability Initiative goals. PCC could explore establishing a foundation to fund an access scholarship program.

Timeline:	Midterm (24 - 48 months), then on-going
Lead Entity:	To be determined
Cost/New Revenue:	To be determined

A.9. Identify opportunities for academic schedule revisions that alleviate peak parking demands and better utilize available parking during off-peak times. This includes efforts to minimize the need for students to attend multiple campuses each day in order to meet their program requirements.

Transportation Demand Management can be effective in transitioning people into alternative modes of access to mitigate peak hour constraints, but can also be viewed in its effectiveness in moving trips into "non-peak" times of day, or days of week. Options here would include staggered class times to include later afternoons and Fridays. Also, longer term plan to consolidate a broader range of curriculum choices at each campus to reduce need to drive between campuses. Many SOV trips are necessitated by students having to move between campuses. More opportunities to arrive at non-peak hours or to

consolidate all classes at one campus would lead to less mid-day trips and increase the attractiveness and feasibility of alternative mode options.

Timeline:	Midterm (24 - 48 months), then on-going
Lead Entity:	VP-Academic & Student affairs & Deans at the campuses
Cost/New Revenue:	To be determined

B. ORGANIZATION & COORDINATION

The following organizational elements are recommended to ensure that an active and focused effort is in place to be responsible for implementation and coordination of all elements of the plan.

Core Program

B.1. Develop and approve staffing plan, budgets, and revenue and expense forecasts necessary to successfully implement and sustain Plan.

The total package of strategies recommended in this Plan is complex and labor-intensive, requiring a level of support, coordination, commitment, and resource identification that goes well beyond what is currently in place. To this end, it will be critical to ensure that sufficient staffing support and office space is made available to organize, manage and coordinate program implementation throughout the District and on each major campus is in place.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	Auxiliary Services, PTS
Cost/New Revenue:	To be determined

B.2. Develop and maintain a database to support the overall monitoring and reporting process established in Strategy A2.

Clear and objective data related to performance will be essential to the ability of PCC to manage and tailor its TDM Plan to the actual dynamics of transportation access to each of its campuses. Decision making based on current and reliable data will allow all entities involved in the delivery of the TDM Plan to be successful and efficient. It is recommended that database information would be translated into an annual TDM progress report.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	PTS
Cost/New Revenue:	To be determined

B.3. Routinely review access issues and Plan performance with the Standing Committee.

Strategy A4 establishes the Standing Committee to monitor TDM Plan goal attainment that would meet at least semi-annually. This would provide for and support routine oversight and continued input from college stakeholders in the on-going management and assessment of the access system and the goals established for it.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	Technical Staff, PTS
Cost/New Revenue:	To be determined

Supporting Strategies

B.4. Pursue the opportunity to integrate trip planning activities within the admissions process.

A very effective strategy for influencing trip choice decisions early in a student's experience at PCC. The opportunity to ensure information about parking, transit, bike/walk, education/assistance and other access options is provided at admissions, before a student makes his or her first trip to the College, should be a goal of the TDM program.

Timeline:	Midterm (24 - 48 months), then on-going
Lead Entity:	To be determined
Cost/New Revenue:	To be determined

C. TRANSIT ACCESS

Increasing the number of students and employees utilizing transit as a primary mode of access to and from PCC campuses is a central element of success in the TDM Plan. Though not all campuses are equally served with public transit infrastructure, maximizing transit pass sales to students and developing/initiating similar program options for employees will result in auto trip reduction improvements. All gains in transit (and other non-SOV modes) can significantly benefit PCC economically (in reduced parking development costs), functionally (in more efficient use of land for academic building growth) and sustainably (in contributions to PCC's Sustainability Initiative). Survey data collected in the development of this Plan in the 2011 DHM PCC Transportation Preferences Survey demonstrated the as yet untapped potential for influencing greater transit use by students and employees.



Core Program

C.1. Establish transit pass sales goals as a relationship to a student/employee mode split goal.

According to the District-wide transportation survey conducted in the spring of 2011, the District-wide student transit mode split is 13%; the staff is at 14%, and faculty is at 5%. It is recommended that a target at or above 20% for the District-wide student transit mode split be set for the next 10 years, with design of the current Student Select Pass program tailored and budgeted to achieve this target. This will result in the College investing more into the Student Select Pass program as well as evaluating impacts relative to pricing the program and marketing/communicating the program to students. Similarly, goals established through this strategy will be closely coordinated with strategies A.3 and A.7.

Additional goal setting needs to be established for employee transit use, in conjunction with establishment of an employee transit incentive that complements the existing student subsidy. The Standing Committee will serve as a resource for establishing and affirming goals and developing recommendations related to a new employee program and new incentives/subsidies/revenue for both student and employee transit. This would be coordinated with Strategy A.6.

Timeline:	Near term (0 - 24 months)
Lead Entity:	Standing Committee, District Student Council (DSC)
Cost/New Revenue:	Goal setting should not result in additional cost to PCC, though new programs associated with facilitating achievement of transit goals will likely result in increased costs and identification of new revenue sources.

C.2. Reinvest net parking revenues to cover increased costs of the TDM plan.

To facilitate transit pass sales goals and new program development/delivery; revenues from parking should be strongly considered as a resource to support non-SOV modes of access. This strategy is coupled with a number of other strategies throughout the plan, including (but not limited to) A.3., A.6., A.7., B.1., and J.5.

Timeline:	Near term (0 - 24 months)
Lead Entity:	PTS
Cost/New Revenue:	Several revenue scenarios were developed for the TDMSC projecting potential revenue generation associated with parking pricing. The scenario models generated net new revenue that ranged from approximately \$800,000 to \$1.6 million annually. Any of these forecast models would need further review by PTS and the standing committee to ensure balance and equity within the context of the goals and objectives of this Plan.



Supporting Strategies

C.3. Price Student Select Pass at a rate that is competitive with the term fee for student parking.

Previously, the Student Select Pass was priced to the student at \$170 per term. PTS reduced this to \$160 beginning Winter term 2012. Even with that reduction in cost to students, the pass could still be considered non-competitive with parking, which is priced at \$50 per term. Information derived from the 2011 DHM PCC Transportation Preferences Survey conjoint study of PCC students (and employees) indicates that there is a very direct relationship between the competitive rate of transit pricing (and transit use) and the cost of parking. This strategy recommends establishing a clear link between transit and parking pricing at PCC.

Work with the TDMSC in the development of this plan examined a number of pricing scenarios related to the Student Select Pass and the implications of such pricing on both parking price and transportation fees. It is recommended that the Standing Committee, PTS and other affected entities continue this examination to determine the most reasonable critical path to the most competitive rate for the Student Select Pass and supporting funding streams to support its pricing and increased sales. Part-time students are currently not eligible for student pass programs. Therefore, additional consideration may need to be devoted to strategies that would further support the concept of transit options that are competitive with parking pricing for a range of student types. This Strategy is interrelated with Strategies A.7 and C.1.

Timeline:	Midterm (24 - 48 months), then on-going
Lead Entity:	Cabinet, Board
Cost/New Revenue:	To be determined; additional costs associated with a more "competitive" Student Select could be off-set with new revenue associated with increased parking and/or transportation fees.

D. PCC SHUTTLE ACCESS

PTS operates an extensive shuttle operation that provides direct and frequent links between campuses. The shuttle has experienced significant growth in both infrastructure (number of shuttles operating) and use by students and employees.

Core Program

D.1. Initiate frequency improvements on shuttle routes that are most conducive to ridership growth.

The 2011 DHM PCC Transportation Preferences Survey found that as with transit there are additional opportunities to increase shuttle use at and between specific campuses. PCC, through PTS and the



Standing Committee, should use the DHM data to refine and strategically target shuttle enhancements, which could include parking pricing as one factor.

Within the context of this discussion, PCC should remain cognizant of the role of regional transit service currently in place within the TriMet system to ensure that expanded coverage of intercampus connections do not cause PCC to overprovide service where it may be more appropriate to link into the regional public transit system. This Strategy should be coordinated with Strategies J.5. and J.6.

Timeline:	Near term (0 - 24 months)
Lead Entity:	PTS, Standing Committee
Cost/New Revenue:	To be determined; some initial changes could be assumed in the current budget.

D.2. Coordinate the provision of off-site parking with existing or expanded PCC Shuttle connections and/or along TriMet routes.

Providing off-site locations, linked to the PCC Shuttle, may be more cost effective than building parking on already constrained campuses.

Timeline:	Near term (0 - 24 months)
Lead Entity:	PTS
Cost/New Revenue:	To be determined

D.3. Explore and implement feasible alternative fuels and technologies to reduce GHG and carbon footprint emissions from shuttle and fleet vehicles.

PCC already incorporates alternative fuel options into its fleet and shuttle planning. This strategy intends to underscore support for such strategic planning, particularly in transitions that occur when useful life cycles of existing infrastructure take place. Though not directly a TDM measure, this strategy directly complements PCC's Sustainability Initiative.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	PTS, Fleet Manager
Cost/New Revenue:	To be determined

D.4. Routinely review PCC shuttle routes to avoid unnecessary duplication of public transit services.

A key element for routine review is the changing nature of service delivery provided by TriMet to PCC campuses. It is important that TriMet be included on the Standing Committee, charged with communicating service changes, and given other opportunities to partner in program delivery and ridership enhancements. Such routine review strengthens efforts related to Strategy D.2.

Timeline:

Near term (0 - 24 months), then on-going

Lead Entity: PTS, Standing Committee

Cost/New Revenue: To be determined, though successful coordination of information and resources could result in cost savings to PCC through its Shuttle program.

E. SINGLE OCCUPANT VEHICLE ACCESS

The most common form of access to PCC campuses is by auto. Auto access will continue to be an important means of access now and into the future. Even as new non-auto mode programs and incentives are developed and implemented, continued student enrollment and employee growth will result in the need for additional supplies of parking within the PCC system. However, measures that can be employed to "right size" the number of automobiles (particularly single occupant vehicles)arriving on campuses, can result in lower development costs for PCC, more options for students and employees and measurable benefits in the areas of greenhouse gas emissions (thereby supporting PCC's Sustainability Initiative). The strategies described below are intended to support a more balanced and efficient system of parking for PCC.

Core Program

E.1. Routinely conduct an "operating cost" analysis of parking (capital and operations) to inform the pricing of parking and ensure full cost recovery.

This type of analysis will provide insight into the actual costs necessary to operate the parking system and assure that the fees for parking take into account all costs of providing, operating and maintaining the parking system. It is recommended that this analysis be conducted at least every two years, to inform both the normal budget process/cycle and overall decision-making related to parking pricing within the context of the goals and objectives of this Plan.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	PTS, DSC
Cost/New Revenue:	Assumed within funding described in Strategy B.1

E.2. Implement a performance-based parking pricing strategy.

Performance-based parking pricing informs parking pricing decisions based on the correlation of parking rate to actual utilization of parking capacity. As demand for parking access exceeds established capacity triggers (see Strategy A.5.), parking rates would be adjusted accordingly. Similarly, as demand falls significantly below capacity triggers, rates would be adjusted accordingly. Commitment to a performance-based parking pricing strategy, coupled with other TDM elements of this Plan, will provide PCC a decision-making framework that is both strategic and flexible.

Over time, performance-based pricing strategies may include (but not be limited to):

- a. Adjusting the fee(s) for parking based on the results of data derived from Strategies A.2, E.1. and E.3, and uniformly applied to all campuses.
- b. Adjusting the fee(s) for parking based on the performance of individual campuses, per the occupancy standards established in Strategy A.5. This may, for instance, create a situation where parking rates would vary between campuses, as opposed to the uniform pricing that characterizes the current parking rate structure.
- c. Consideration of elimination of term parking passes at individual campuses and institution of "pay-as-you-go" parking pricing in specific facilities (e.g., new garages) or campuses (based on the unique access constraints of any one campus).

The variety of performance based pricing options is very large. Rates could vary by campus, by time of year/term, or by day. The right strategy for PCC will also need to be coordinated with the entire package of TDM options and programs available to manage capacity in the system and by campus.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	Cabinet, Standing Committee
Cost/New Revenue:	To be determined, though successful coordination of information and resources could result in little or no cost to PCC and appropriate increases in revenue necessary to support the overall transportation access program.

Supporting Strategies

E.3. Place lot-based counter systems and other data collection technology in parking areas to track parking utilization. Current lot technologies in place on PCC parking facilities do not include lot-based counter systems or technologies that would provide "real time" or routine capacity monitoring. It is recommended that PCC include installation of such systems as appropriate in its near and long-term capital facilities planning. These types of technologies can streamline the current system that requires manual counting and enhance the data base and monitoring called for in Strategies A.2, A.5, B.3, and E.2.

A counter system would provide frequent data on lot usage by time of day, day of week and time of year. This type of information would greatly facilitate decision-making, particularly in the areas of rate and lot management.

Timeline:	Midterm (24 - 48 months), then on-going
Lead Entity:	PTS
Cost/New Revenue:	To be determined. Planning for counting systems should become an element in all new parking supply development and/or acquisition.



E.4. Add net new parking supplies when determined necessary by technical staff, the standing committee, and the Cabinet and at a time when sustainable funding is secured. (Consider strategic addition of new parking supply at select campuses.)

As stated above, auto access will continue to be an important means of access now and into the future on PCC campuses. Similarly, as growth plans are developed and implemented, PCC may be required by regulating jurisdictions to provide additional parking supply to match new academic space, though quite possibly at parking ratios less than those utilized in past campus development. The ultimate balance of new supply will be directly correlated to the effectiveness of TDM strategies employed and available, as a means to minimize the amount of net new supply constructed and/or procured. It should be PCC's goal to only provide parking as necessary, moderated by its commitment to TDM and non-SOV programs and incentives, with the intent to "right size" its parking supply by campus and system.

The need for parking expansions should be determined, based on reasoned analysis and consideration of the likelihood that TDM programs can capture increased proportions of access demand to a campus from the planned expansion. It is reasonable to assume as well that funding for parking expansions will need to be secured in advance, as determined by the PCC Cabinet and Board. Overall, this Plan recommends that the provision of additional parking be accomplished in a manner that avoids a net per capita increase in SOV trips to the campus experiencing the increased parking capacity, in order to be consistent with the Guiding Principles and PCC's Sustainability Initiative.

Timeline: Midterm to Long term (24 – 60+months)

Lead Entity: Board, Cabinet

Cost/New Revenue:To be determined, though the estimated cost of new parking development can range from \$35,000 per stall
(above grade structure) to \$45,000+ per stall (sub-grade structure). New surface facilities range in cost from
\$7,000 - \$10,000 per stall. These costs can further fluctuate depending on the need to purchase land.

E.5. Consider separate parking fee structure for motorcycles.

Motorcycles take up less space. Encouraging access by motorcycle or scooter should be continued. A separate parking pricing structure for this type of access mode can work to incent more motorcycle/scooter riders, which currently is free. Also, coupling this with encouragement of electric vehicles (EV) and EV charging systems should be explored.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	To be determined
Cost/New Revenue:	To be determined, through this strategy could create a positive revenue opportunity.



F. RIDESHARE ACCESS

Rideshare strategies are intended to increase opportunities for students and employees to share vehicles, thereby increasing the number of occupants per auto vehicle to create efficiencies in auto access.

Core Program

F.1. Implement a car sharing option for employee use for trips between campuses.

Car sharing programs, such as ZipCar, provide on-campus vehicles that can be rented on an hourly basis. Strategically located vehicles of this type would create an option supporting employees arriving by non-auto modes who may need a vehicle during the day (e.g., trips between PCC campuses). A variation of this program would be through the provision of PCC owned fleet vehicles. Rates could be shared between PCC and employees. PCC has an existing ZipCar program in place at the Downtown Center. Funding for the use of ZipCar is the responsibility of the departmental budget to which the employee reports.

If pursued, PCC could couple this option with a requirement that vehicles be EV and/or carry a specific emissions rating as a means to integrate with the PCC Sustainability Initiative.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	PTS, Standing Committee
Cost/New Revenue:	Startup fees (annual and application fees), could be negotiated with ZipCar or a similar private provider. Hourly rates in Portland are currently \$7.75 per hour (which covers gas, insurance and mileage.

F.2. Develop and support a "casual rideshare" program at select campuses based on zip code/geocode survey.

Survey work conducted in 2011 provides PCC with a rich database of information regarding student and employee trip origins (i.e., geocode data). Information from this database should be used to augment and support a more robust rideshare matching program. PCC has already begun work with Metro on its new Rideshare Connect program, which matches users with rideshare partners, but also expands traditional rideshare matching to include casual users, who seek rides on a daily or weekly basis (see Strategies I.1. and I.2.). In partnership with Metro and the Westside Transportation Alliance, PTS launched a marketing campaign Winter term to promote the use of the Drive Less Connect Program and the PTS Rideshare permit.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	Auxiliary Services, College Advancement, PTS
Cost/New Revenue:	To be determined. Drive Less Onnect Program is currently free to both the college and students/staff.



Within the daily operation of the College, many activities result in the generation of trips to, from, and between campuses that are not directly related to student or employee commuting. Examples include meetings of standing committees that involve employees and/or students from several campuses. Each of these occurrences is an opportunity for ridesharing, among other TDM strategies, to aid the College in reducing its overall carbon footprint. All sanctioned groups within PCC that regularly host this type of trip-generating activity should be provided with (a) ridesharing education and then (b) direct ridesharing services to help minimize their drive-alone rates and associated carbon emissions (See strategies H.2. and H.3.). The use of transit could also be encouraged by offering reimbursements for transit trips associated with sanctioned groups.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	Central District Services
Cost/New Revenue:	Assumed within funding described in Strategy B.1.

G. BIKE/WALK ACCESS

Programs, strategies and incentives to encourage greater bike and pedestrian access to campuses are an effective and low cost means to reduce auto trips. Bike/walk not only facilitates mode choice change, but contributes to health and wellness initiatives as well. Bike/walk efforts will require coordination with external partners (see Section J) to ensure that bike and pedestrian infrastructure in public rightsof-way supports PCC efforts to promote this trip choice.

Core Program

G.1. Equip all campuses with quality bike parking racks and facilities at a rate equal to the bicycle mode split goal.

Bike systems at each campus should provide access at a level equal to target goals for biking as established in Strategy A.2. Similarly, all bike systems should be of a uniform design and quality to create a consistent and recognizable presentation of type, location (where possible), means of access, signage and communication – regardless of campus (see Strategy G.2.).

Timeline:Near term (0 - 24 months), then on-goingLead Entity:PTS, Bond Program, Facilities ManagementCost/New Revenue:To be determined



G.2. Develop and implement a uniform design and quality standard for on-campus bike infrastructure.

Bicycle infrastructure on each campus should be of uniform design and quality, creating a recognizable "brand" and format that is convenient and understandable to student and employee users.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	PTS, Bond Program, Facilities Management
Cost/New Revenue:	Assumed within funding described in Strategy G.1.

G.3. Provide on-campus facilities for self-repair of bicycles.

Self-repair stations, strategically located at campuses provide an additional incentive to bicycle. Such stations are low cost and provide tools, patching kits, work area and other amenities that allow users a "quick fix" in case of tire flats, chain and/or gear issues.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	Bond Program, Human Resources, Student Services, ASPCC, Facilities Management
Cost/New Revenue:	Assumed within funding described in Strategy G.1.

G.4. Provide access to shower and locker facilities to support bicycling and walking as a commute option for students and employees.

Research indicates that convenient access to shower and locker facilities significantly increase the attractiveness of biking and walking as a trip choice. PCC currently has such facilities at some campuses, however, a program that communicates their availability, hours of use and correlation to an active bike/walk program is not in place. Issues related to formalizing policies on use and/or expansion of such facilities on campuses where they are not in place will need to occur.

Timeline:	Near term (0 - 24 months), then on-going
Lead Entity:	Deans of Instruction
Cost/New Revenue:	Assumed within funding described in Strategy G.1.

G.5. Provide a bike-share (loaner) program.

Bike loaner programs are in place at campus based institutions around the country. Such programs can provide for loaner bikes to use as a means to navigate within a campus, to move users between campuses, or as a means to encourage (through an interim loan of a bike) a student or employee to experiment with accessing an academic or work site by bike from home. PCC and the Standing Committee should examine (in the near term) piloting such a program at a selected campus, then evaluate the program as a potential long-term option for PCC.

Near term pilot (0 - 24 months), then on-going to mid and long-term Lead Entity: To be determined



Timeline:

Cost/New Revenue: Assumed within funding described in Strategy G.1.

Supporting Strategies

G.6. Develop and fund an on-going program of bike/walk incentives.

Incentive programs range from bike educations events, raffles, challenges to equipment purchase programs. The range of incentives should be coordinated with PTS and the Standing Committee. There may be restrictions on the type of incentives the College can provide, which should be understood and reviewed. Nonetheless, an on-going program designed to actively encourage, incent and support bike and walking as a trip choice needs to be developed.

Timeline:	Near term (0 - 24 months), then on-going to mid and long-term
Lead Entity:	To be determined
Cost/New Revenue:	Assumed within funding described in Strategy G.1.

G.7. Provide bike and long-board lockers to meet needs at each campus.

PTS should evaluate and install bike storage lockers on campuses in addition to standard bike racks. Similarly, storage or "kit lockers" sized to accommodate clothing storage or space for long-boards should be explored as well. All such infrastructure is intended to create a high quality and attractive environment to encourage bike/walk trip choices. This strategy will require coordination with Strategy G.2.

Timeline:	Mid to Long-term (24 – 60+ months)
Lead Entity:	To be determined
Cost/New Revenue:	Assumed within funding described in Strategy G.1.

G.8. Provide safe points of access and internal circulation for bikes and pedestrians

PTS cannot in many cases control the external bike or walking environment (e.g., bike lanes, sidewalks, crossings, etc.). However, access portals into the campus and the system of internal circulation on campuses should favor pedestrians and cyclists. Each campus should be evaluated to ensure clear directional signage and way finding and safe passages for pedestrians and cyclists through parking areas. This strategy will require coordination with Strategies G.2., I.5., and J.1.

Timeline:	Mid to Long-term (24 – 60+ months)
Lead Entity:	To be determined
Cost/New Revenue:	Assumed within funding described in Strategy G.1.

H. TECHNOLOGICAL ACCESS

PCC currently provides programs to students that allow them to take classes on-line, which reduces the need to physically access a campus. Greater use of such programs will contribute to trip reduction while expanding academic options for students.

Core Program

H.1. Expand (while protecting excellence) on-line options for classes, registration, and other means of accessing PCC without traveling.

With growth (student and employee), access systems will become more constrained and costly. PCC's current on-line programs and hybrid classes are very effective and have the potential for greater use.

Timeline:Near term (0 - 24 months), then on-going to mid and long-termLead Entity:V.P of Academic ServicesCost/New Revenue:To be determined

H.2. Provide reliable virtual meetings tools for employees and students.

Many meetings and gatherings that take place on PCC campuses currently require participants to travel multiple times between campuses. In many cases, travel occurs by auto, is time consuming and adversely contributes to vehicle trip emissions, which conflicts with PCC's Sustainability Initiative. PCC should enhance its ability to provide tools that allow for virtual meeting and conferencing.

Timeline:Near term (0 - 24 months), then on-going to mid and long-termLead Entity:Technology ServicesCost/New Revenue:To be determined.

Supporting Strategies

H.3. Use technology to support rideshare programs.

PCC should explore a range of technology options to encourage and support its rideshare program (See Strategy F). This could include enhancing current webpage based information and incentives to use of phone applications to provide greater real time information to students and employees.

Timeline:	Midterm (24 – 48 months)
Lead Entity:	Technology Services
Cost/New Revenue:	Assumed within funding described in Strategy B.1.



I. COMMUNICATION/AWARENESS

All programs, activities and incentives related to PCC's TDM Plan will need to be actively and consistently communicated and promoted to all students and employees. Students and employees need to have a high awareness of TDM and trip choice options, particularly new students and employees who can be influenced early on in their PCC experience to choose non-auto trip options.

Core Program

I.1. Coordinate all marketing, communications and planning related to access under a common brand that unifies strategies outlined in this Plan and is delivered, managed and coordinated through all materials, products and infrastructure.

It is recommended that PCC unify all access options under a common umbrella or brand (e.g., Destination PCC). This will create a recognizable link for users of the system and reinforce the ease and convenience of access uniformly, system wide and at each campus. This can and should include incorporation of branded transportation access option information into the student registration process as well as on-going communication and promotion throughout the academic year. It is important to recognize that it will be difficult, but necessary, to coordinate within the College itself and across all internal structures.

Timeline:Near term (0 - 24 months), then on-going to mid and long-termLead Entity:Auxiliary Services, College AdvancementCost/New Revenue:To be determined

I.2. Create marketing materials, on-site rideshare/transportation bulletin boards and information centers and on-line access for matching.

This strategy provides the collateral materials necessary to implement Strategy I.1.

Timeline:	Near term (0 - 24 months), then on-going to mid and long-term
Lead Entity:	Auxiliary Services, College Advancement
Cost/New Revenue:	Assumed within funding described in Strategy I.1.

I.3. Develop and implement a "new employee/student" orientation about access options.

It is recommended that PCC develop a new employee, new student orientation program that focuses information regarding access options very early in a new employee/student's experience with PCC. Research demonstrates that decisions on access options are more difficult to influence once a user has initiated a specific choice (e.g., auto). Programs that couple early information, with incentives and mentoring (see Strategies I.12 and J.1) will bolster PCC's ability to achieve trip choice goals established with this Plan.



Timeline:	Near term (0 - 24 months), then on-going to mid and long-term
Lead Entity:	Auxiliary Services, College Advancement
Cost/New Revenue:	Assumed within funding described in Strategy I.1.

I.4. Expand "flash alert" services (i.e. TriMet, ODOT, PBOT, etc.) via social media.

PCC already uses a flash alert service and a Twitter account to communicate transportation information to students and employees. Additional efforts to expand and enhance the type, amount and frequency of flash alert information should be explored (e.g., "parking lot full, use shuttle lots").

Timeline:Near term (0 - 24 months), then on-going to mid and long-termLead Entity:Auxiliary ServicesCost/New Revenue:Assumed within funding described in Strategy I.1.

I.5. Commission development of a master way finding and signage plan/package for, at minimum, the Rock Creek, Sylvania, Cascade and South East campuses.

Access signage and way finding systems should be developed in a manner that communicates a consistent and unified "brand" for PCC that is then applied at each campus. This strategy is directly correlated to Strategies G.2. and I.1. In the near term a master plan would be developed, with implementation in the mid (24 – 48 months) and long-term (48 – 60+ months).

Timeline:	Near term (0 - 24 months), then on-going to mid and long-term
Lead Entity:	Bond Program, Auxiliary Services, College Advancement
Cost/New Revenue:	To be determined

I.6. Routinely survey employees and students to determine how shuttle service can effectively meet access needs.

PCC has engaged in numerous surveys and data gathering efforts in the past. It is recommended that a more coordinated system of information surveying be implemented, in coordination with the Standing Committee and Strategy A.2. Within this strategy it will be important to routinely measure shuttle use and student/employee opinion on shuttle service and effectiveness. Surveys should occur no less than every 24 months.

Timeline:	Near term (0 - 24 months), then on-going to mid and long-term
Lead Entity:	To be determined
Cost/New Revenue:	Assumed within funding described in Strategy I.1.

I.7. Equip leadership with key messages to promote TDM on a consistent basis.

In developing this TDM Plan, the TDMSC acknowledged the importance of support and interest from PCC leadership in the overall success of the Plan. Communicating the "TDM and sustainability message from the top down" was identified as critical. With help from the Standing Committee, a series of

messages, information pieces and communications should be developed that can be delivered to students and employees from leadership. These leadership based communications should be disseminated routinely (e.g., Fall term) and reinforced throughout the academic year.

Timeline:	Near term (0 - 24 months), then on-going to mid and long-term
Lead Entity:	Advancement Services
Cost/New Revenue:	Assumed within funding described in Strategy I.1.

I.8. Augment promotions of public transit services.

This strategy would enhance current promotions of public transit available through PCC, in conjunction with Strategies I.1., I.2., I.4., and I.7. Also, additional outreach and partnerships with TriMet should be explored and expanded.

Timeline:	Near term (0 - 24 months), then on-going to mid and long-term
Lead Entity:	To be determined
Cost/New Revenue:	Assumed within funding described in Strategy I.1.

Supporting Strategies

I.9. Develop and implement an annual TDM education program.

This could take the form of an actual introductory class for new students and/or an annual PCC forum on access, trip choice and sustainability.

Timeline:Midterm (24 - 48 months), then on-going to long-termLead Entity:College AdvancementCost/New Revenue:Assumed within funding described in Strategy I.1.

I.10. Promote telework programs, including the use of incentives.

Telework may be effective for specific types of employee groups. However, time would need to be given to this strategy to understand work types, situations and contractual implications that might apply. Nonetheless, telework programs can reduce demand on limited parking supplies and reduce overall weekly auto trip rates, which would reduce emissions and contribute to PCC's Sustainability Initiative.

Timeline:	Midterm (24 - 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	To be determined



I.11. Promote student mentoring programs (DSC) and self-organizing efforts to achieve TDM goals.

An effective strategy in place in other venues involve the use (through hired staff or volunteers) of existing transit, bike, walk and rideshare users to directly assisting students in their transportation choices. For example, mentors can walk new users through the mechanics of transit passes and schedules to actually riding (bike or transit) with a new user to introduce them to the system and mitigate barriers and/or anxieties to new systems. This could be a role that is coordinated through DSC.

Timeline:Midterm (24 - 48 months), then on-going to long-termLead Entity:ASPCC, DSCCost/New Revenue:Assumed within funding described in Strategy I.1.

I.12. Promote ridesharing to support large faculty/staff/student meetings/gatherings.

This strategy will be coordinated with Strategies F.1., F.2., H.2., and H.3.

Timeline:	Midterm (24 - 48 months), then on-going to long-term
Lead Entity:	To be determined
Cost/New Revenue:	Assumed within funding described in Strategy I.1.

J. EXTERNAL PARTNERS

A number of the strategies contained in the PCC TDM Plan will require coordination with "external partners," which includes entities that control public rights-of-way (City of Portland), public transportation (TriMet), remote parking locations (private sector, TriMet) and/or are impacted by programs PCC delivers (adjacent neighborhoods). Communication, partnering and coordination with external partners strengthen the PCC TDM Plan. Time and resources should be made available to support such efforts and partnerships.

Core Program

J.1. Continue to provide and enhance safe points of access and internal circulation for bikes and pedestrians and better coordinate external infrastructure with on-campus improvements (e.g., bike lanes, lighting and safety, sidewalks, connectivity, transit facilities).

PCC should continue conversations and planning with external partners. TriMet and the City of Portland represented on the TDMSC and should continue their role on the Standing Committee. Partnership building is already occurring but should be continued and expanded to ensure on-going and strategic discussions regarding the interface of internal and external systems on the success of PCC's TDM Plan and goals. PCC should continue to work to increase access to transit.



Timeline:Midterm (24 - 48 months), then on-going to long-termLead Entity:Bond Program, PTS, FMSCost/New Revenue:To be determined

J.2. Develop a strategy to engage neighborhoods and other stakeholders in understanding and providing input into the TDM Plan for PCC.

Once approved, the PCC TDM Plan should be presented to representative neighborhood associations. Understanding of the Guiding Principles developed for the Plan, its goals and targets, and the breadth of strategies associated with plan implementation will be important to Plan success.

Timeline:	Near term (0 - 24 months)
Lead Entity:	College Advancement, Community Relations (by campus), and PTS
Cost/New Revenue:	Assumed within funding described in Strategy I.1.

J.3. Work with affected neighborhoods and business districts in advocacy for Area Parking Permit Programs (APPP).

APPP's can be a key tool to (a) mitigate parking impacts from PCC users in adjacent areas and (b) complement new access and pricing strategies implemented to meaningfully facilitate mode change. These conversations will require a strategic partnership between PCC, the City of Portland (Bureau of Transportation) and the affected neighborhoods.

Timeline:	Near term (0 - 24 months)
Lead Entity:	College Advancement, Community Relations (by campus), and PTS
Cost/New Revenue:	APPP's are generally assessed to individual residential units or businesses. PCC's role in any time of funding as part of a "partnership package" has not been determined.

J.4. Evaluate the feasibility and cost of purchasing or leasing off-site land parcels for parking to create new parking capacity for the College. Coordinate locations proximate to regional bus service. This will likely involve negotiations between public and private owners within the region.

Providing off-site locations, well connected to transit, may be more cost effective than building parking on already constrained campuses. It is recommended that PCC conduct evaluations of off-site opportunities for each campus in the near term, with potential options for purchase or lease occurring in the midterm.

Timeline:	Near term evaluation (0 - 24 months), implementation in mid and long-term
Lead Entity:	Bond Program, PTS
Cost/New Revenue:	To be determined



J.5. Negotiate a transit program for all PCC employees (e.g. UPASS).

Currently, the only employee transit incentive offered by PCC is the opportunity to purchase a TriMet transit pass on a pre-tax basis, but with no subsidy. According to the District-wide transportation survey conducted during the spring of 2011, the faculty has a transit mode split of 5% and staff has a transit mode split of 14%, indicating a potential opportunity to reduce auto trips within this combined user group. For instance, PCC, as a major employer, could negotiate a UPASS annual transit program pass for its employees. It is expected that the rate negotiated with TriMet will be calibrated to current transit usage within PCC's regional system (i.e. if PCC's employee transit mode split is at 10%, then PCC would pay only 10% of the face value of an annual UPASS transit pass for every employee pass that is purchased from TriMet), as a means to reduce the overall cost of a transit pass per employee.

Timeline:	Near term negotiations (0 - 24 months), Midterm implementation (24 – 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	Cost is estimated between \$350,000 and \$500,000 annually. Cost could be offset through revenue generated through Strategy A.6.

J.6. Link PCC with other institutional partners (PSU, OHSU, etc.) to advance TriMet and other transit programs and services.

PCC should continue its partnerships and explore additional opportunities with other academic institutions in the region as a means to create both efficiencies of potentially overlapping services and resources as well as leverage of purchasing power to lower the overall cost of services and programs (e.g., transit passes, shuttles, etc.).

Timeline:	Near term negotiations (0 - 24 months), Midterm implementation (24 – 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	To be determined

Supporting Strategies

J.7. Explore development of "Parking Benefits Districts" or "Transportation Management Association" concepts in and around college campuses.

Parking benefits districts (PBD) consolidate parking resources in an area or district under unified management. Portions of rates and fees assessed for parking are returned to the PBD that are applied to transportation programs and services that benefit the district. Programs and services funded through a PBD can include discounted fare products, infrastructure and education and assistance (to name a few). Some PBDs organize themselves through Transportation Management Associations, which provides a legal framework for organization, staffing and service delivery.



Timeline:Midterm (24 - 48 months)Lead Entity:To be determinedCost/New Revenue:To be determined

J.8. Seek partnership opportunities with daycare providers.

Daycare needs impact mode choice for many students and employees. Efforts by PCC to bring these services to each campus will help to expand the viability of non-auto modes to meet the needs of affected students and employees.

Timeline:Midterm (24 - 48 months)Lead Entity:To be determinedCost/New Revenue:To be determined

J.9. Promote public agencies to provide improved bike/pedestrian facilities to each campus.

PCC is dependent on the public agencies with jurisdiction to equip the adjacent transportation system with safe and continuous pedestrian and bicycle facilities from each campus to (a) surrounding residential and commercial areas, (b) local and regional pedestrian and bicycle facilities, and (c) local and regional transit services. PCC should continue to work in close coordination with the agencies to define the needs for these facilities, prioritize and complete their construction in a timely manner, and report the effectiveness of ongoing maintenance.

Timeline:Midterm (24 - 48 months)Lead Entity:To be determinedCost/New Revenue:To be determined

J.10. Host neighborhood events to provide effective communications.

PCC should continue to promote the partnerships that exist and stay in close communication with the neighborhoods that surround each campus. When possible, PCC should invite neighborhoods to on-campus events that would be of mutual interest or benefit. In particular to TDM, PCC should host neighborhood events that offer education on TDM, explain particular TDM efforts, and/or report the results of on-going TDM efforts.

Timeline:Midterm (24 - 48 months)Lead Entity:Campus Community RelationsCost/New Revenue:To be determined



J.11. Engage TriMet to take a new look at transit access programs and linkages between bus connections (frequencies) and PCC campuses.

See Strategies J.1., J.4., J.5. and J.6. Programs will range from development of incentive packages, signage and information systems at existing park-&-rides, joint promotions, etc. This will also include evaluation and implementation of fare products that are more conducive to student and faculty needs.

Timeline:	Midterm (24 - 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	To be determined

J.12 Pursue higher-capacity transit (LRT, BRT, streetcar, etc.) access for PCC campuses.

Long-term planning for high capacity transit projects within TriMet's regional planning should consider links to PCC campuses, particularly given the ridership potential of such sites for the TriMet system.

Timeline:	Long-term (48 – 60+ months)
Lead Entity:	To be determined
Cost/New Revenue:	To be determined

J.13. Coordinate and partner with Bicycle Transportation Alliance (BTA) and other bike/walk groups.

The BTA and other groups provide shared opportunities to educate and promote the benefits of biking and walking. These groups are frequently invited to host workshops, make presentations, and provide services that naturally complement PCC efforts to promote the use of these modes for access.

Timeline:	Midterm (24 - 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	To be determined

J.14. Engage the business community to provide services (such as childcare) adjacent to campuses that help meet the daily needs of students and employees

A continuing conversation with business communities that are adjacent to several PCC campuses, expressing the needs and interests of employees and students, could lead to new or expanded businesses. The adjacency of these services is likely to increase the opportunities for these needs to be met without driving and/or increasing the opportunity for the original commute trip of students and employees to be served by means other than driving alone.

Timeline:Midterm (24 - 48 months)Lead Entity:To be determinedCost/New Revenue:To be determined



K. TDM SUPPORT

A number of strategies are recommended that provide additional support to the overall TDM Plan. These strategies generally augment strategies called out in the larger plan.

Core Program

K.1. Establish on campus transportation service offices to provide direct assistance to students and employees.

The location of centralized transportation assistance or resource offices on some or all campuses creates the type of uniformity and active management through which a common TDM services brand can be delivered to both students and employees. Types of services provided in such locations may include mentoring services (Strategy I.12.), trip planning, rideshare matching (Strategy F.2.), and student/employee education and orientation (Strategy I.3.). ; This strategy could be coupled with Strategy J.7.

Timeline:	Near term (0 - 24 months)
Lead Entity:	Auxiliary Services, Student Services
Cost/New Revenue:	Assumed within funding described in Strategy B.1.

K.2. Establish incentives for students and employees to mentor new TDM users (e.g., free transit pass, free gas for ridesharers, free bike maintenance/equipment/etc.).

This strategy would evaluate, identify and provide for incentives to encourage employees and students to serve as transportation mentors.

Timeline:	Near term (0 - 24 months)
Lead Entity:	Auxiliary Services, ASPCC, DSC
Cost/New Revenue:	Assumed within funding described in Strategy I.1.

K.3. Implement "scofflaw" program for payment of outstanding parking citations.

PCC experiences problems with employees and students that park in adjacent neighborhoods rather than purchasing a parking pass or availing themselves of trip choice options programs offered by PCC. PCC's existing system of enforcement is not well supported when violators of parking policies, which includes the adjacent neighborhoods, neglect to pay citations. In short, PCC's existing citation collection program lacks "teeth" when it comes to collecting fines from individuals unwilling to pay. An effective scofflaw program could include progressive fine structures, restrictions on registration or transcript procurement, etc. PCC also loses potential revenue from unpaid citations. This strategy should also be coordinated with Strategy A.8. (Access Scholarship Program).



It is recommended that Human Resources and Financial Services work with PTS to develop a more rigorous program of enforcing citation compliance and work with the Standing Committee to develop recommendations and options for consideration and implementation.

Timeline:	Near term (0 - 24 months)	
Lead Entity:	Human Resources, Financial Services	
Cost/New Revenue:	Program could result in increased revenue to PCC	

Supporting Strategies

K.4. Provide a Guaranteed Ride Home (GRH) Program for non-SOV commuters.

Guaranteed ride home programs generally provide commuters who do not drive alone a timely and inexpensive way to leave work in the event of a personal or family emergency, illness, or unscheduled overtime. Most programs require employees to meet certain eligibility criteria, such as using alternative transportation a certain number of days a week. Commuters may be offered a taxi ride or rental car for use. The goal of GRH is to increase transit use and ridesharing by providing commuters access to transportation in case of an emergency. This strategy should be explored in conjunction with Strategy J.5. (e.g. UPASS Program).

Timeline:	Midterm (24 - 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	Program costs could be incorporated into cost of a new transit fare product

K.5. Provide incentives to promote choices that are defined as appropriate through the TDM Program.

This strategy should be explored in conjunction with Strategies I.9. – I.12.

Timeline:	Midterm (24 - 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	To be determined

K.6. Assist students and employees to understand the total costs of access by mode.

Information should be developed that quantifies the cost of access for all modes. This should then be included in orientation materials, collateral materials, PCC's transportation website and into leadership messaging, mentoring and other instruments. Understanding the total costs of access (both financially and environmentally) can assist students and employees in their decision-making about trip choices.

Timeline:	Midterm (24 - 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	Assumed within funding described in Strategy I.1.



K.7. Develop and promote incentive programs (lower tuition rates) for off-peak classes.

Couple with actions related to Strategy A.9. Moving more students to off-peak periods for parking demand will reduce overall need for parking as employee and student growth takes place.

Timeline:	Midterm (24 - 48 months)
Lead Entity:	To be determined
Cost/New Revenue:	To be determined

IV. SUMMARY

The Transportation Demand Management strategies recommended herein are intended to provide a template for action that will lead to a more efficient and organized access system for Portland Community College. Ultimately, the overall demand for access to PCC campuses by auto will be reduced, optimizing on-site resources and leveraging alternative mode programs as well as off-site parking resources and external partnerships.

Policy Implications (Internal Barriers)

PCC is meeting the region's need for educational access in many aspects. Yet, in meeting the growing needs of the region, significant pressures have been brought to bear on administrators, staff, faculty, students, programs, and the PCC infrastructure including transportation.

This rapid growth has resulted in demands for access to campuses that far exceed current capacity, particularly for parking. Resulting issues include neighborhood parking spillover, increased circulation and congestion, delayed access to classes, and frustration and confusion for users unable to find parking. Compounding the problem is that there are few "instant" parking and transportation demand management (TDM) solutions that exist.

During this time, PCC Parking and Transportation Services developed a very good parking and transportation demand management program. Parking and Transportation Services will need additional help to remove internal barriers and create an even more comprehensive and dynamic parking and TDM program that is far beyond the average community college program.

In order to accomplish this task, the PCC Parking and Transportation Services will need to develop a program that overcomes many internal barriers. It will need to enhance the existing program based on a partnership of administrators, employees (faculty and staff), and students working together to maximize the use of existing parking resources and facilitating the provision of and use of alternative modes. A new cooperative effort working together is critical to creating a sustainable campus that allows for future growth while reducing impacts on the communities surrounding the PCC campuses.



This section focuses on removing internal barriers. It includes the policy implications that will need to be addressed to meet current and future transportation needs. The following are some of the internal barriers that will need to be addressed.

IMPLEMENT ACCESS STRATEGIES

Implementation of access strategies requires a new cooperative and philosophical change that recognizes the need to work together to maximize the use of existing parking resources and creates the revenue streams to fund future parking structures and a comprehensive transportation demand management program.

Internal barriers to implement access strategies include changing the focus from a personal and small group access viewpoint to a sharing of access by all groups. Most people look at access from their own personal viewpoint (user) with little consideration for overall costs and benefits and limited thoughts for alternatives (i.e. everyone else should use walk, bike or ride transit). Unfortunately, this leads to a system that is often misunderstood and undervalued leading to a combative approach guided by personal self interest. Many people would like to control parking for their own personal benefit and ask everyone else to use alternative modes (free up parking for themselves).

To overcome this internal barrier, the project team recommends the continued use of the PCC Transportation Demand Management Steering Committee (TDMSC) to review policies and actions necessary to support and attain specific Guiding Themes and Principles for access to the college. This provides a forum for further development of a working group that can focus on access for everyone and a sharing of benefits, costs and responsibilities.

The PCC TDMSC should continue to include administration, faculty, staff and student representatives. Members of the PCC TDMSC should agree to adhere to the guiding principles set by the committee and represent not only their constituents but the greater good of PCC. This committee will help PCC staff to overcome internal barriers and provide an outlet and incorporation of various opinions for key communication items, policy development and program development.

GUIDING PRINCIPLES

The PCC TDMSC has adopted guiding TDM and parking principles. Implementation of access strategies requires a new cooperative and philosophical change that recognizes the need to work together to maximize the use of existing parking resources and creates the revenue streams to fund future parking structures and a comprehensive transportation demand management program. Decision making needs to recognize the need to include program components that share benefits (what's in it for me?) while



understanding that the group approach can help PCC to manage expectations and bring the stakeholders together to create solutions to access problems and issues that will not "just go away" or be solved by "someone else."

QUANTIFIABLE GOALS

The PCC TDMSC has identified the need to establish quantifiable goals. This includes development of parking occupancy standards, mode split targets and other performance measures to monitor and evaluate the program. It includes establishment of "triggers" creating accountability and numerical targets to measure when and where to implement parking management and transportation demand management programs.

The criteria must be objective and measurable. They will incorporate concepts of effectiveness, efficiency, financial feasibility, and sustainability. Criteria must be inherently linked not only to the guiding principles and target access goals but to the mission, vision, and larger goals of the College. This is particularly true of PCC's commitment to sustainability and its own Climate Action Plan.

Current parking inventory and occupancy information indicate parking operates at capacity during the school year from 10am to 2pm Monday through Thursday. During this time period, TDM strategies and programs can be the most effective option to reduce parking demand. Securing off-site parking can also help to alleviate current on-campus parking demand.

Future anticipated parking demand will need to be met with a combination of new parking facilities and more TDM programs, strategies, incentives and policies (reduce parking demand).

The specific programs have been identified by the PCC TDMSC. How and when to implement are part of the responsibilities of PCC staff, specifically departments directly responsible for or affected by access options. PCC staff needs specific numerical objectives and trigger points to help prioritize implementation items.

Recommended program components should be implemented to meet the goals and objectives of this program. Specific implementation responsibility should be given to PCC staff so they have the flexibility to implement and operate the components of the plan within their budget constraints.

ADEQUATE FUNDING AND STAFFING

Another internal barrier is to provide adequate funding and staff to implement the proposed parking and TDM program. PCC will need to provide significant resources to implement a comprehensive program. This includes funding for program incentives and communication materials as well as staff for



the TDM committee, to develop, implement, operate, market and monitor the TDM program, and to support on-site student and employee TDM programs.

The PCC TDM program will require substantial funding. However, when considering the overall long term cost of providing new parking structures to meet the current and future need of single occupant drivers, the TDM cost option may still be lower and yet more sustainable environmentally. Funding for this program should be integrated into the current PCC budget, allowing for flexibility and programmatic changes to meet program goals and objectives. Funding for this program will need to be derived mostly from PCC employees, students and visitors.

While current PCC staff can handle some of the initial staffing requirements, full TDM implementation will require additional staff support district-wide and at each campus. On-site employee and student support will be a critical part of the program, creating direct marketing and real-time support to encourage the use of TDM programs and strategies, providing adequate staffing to support student and employee programs.

TRANSPORTATION FEE

Students are assessed a transportation fee to fund an additional shuttle route and an increased number of TRI-MET Student Select Passes. The transportation fee is also a potential funding source that can be used to pay for both TDM and transit incentives. It can be expanded to include PCC employees. However, this will need to be addressed as part of labor negotiations between management and labor.

PARKING AND TDM PRICING PROGRAM

Students, administrators, faculty and staff pay for parking. However, the price of parking is substantially lower than the price of transit. At many other colleges, parking revenues are used to support TDM programs and reduce the need for parking facilities. This can be accomplished at PCC.

However, it will take administrative leadership to overcome many internal barriers that support current policies that give a competitive advantage to solo occupant vehicles. Many PCC students and employees do not recognize the cost of driving and the subsidies provided to support on-campus parking for their vehicles. Administrative leadership will need to lead the effort to overcome this barrier, starting with an internal administrator transportation education program and the development of administrator policies and actions (setting the example). In Pasadena, the City manager received the same parking/transportation benefit as any other employee and was charged the same amount for parking as any other employee. This set an example and created the precedent that required all City employees to follow the parking and transportation rules and regulations.



ACCESS SCHOLARSHIP PROGRAM

One of the proposed programs is to develop a student access scholarship program. This will help to ensure equal access and opportunity for all students. An underrepresented population that is missing on the current PCC TDM committee is the student who lacks enough resources to afford basic necessities (such as a jacket or food) and considers a car a luxury item. This student either relies upon public transportation, secures a ride from another student or can only afford to bike or walk to school and work.

The access scholarship program should be designed to help the most needy students at PCC. An internal barrier to this program is providing the funding source to cover the cost of this program. Another internal barrier is to develop an acceptable methodology to first identify these students and then develop a means to help them access campus (either by providing a transit pass, bicycle and/or bicycle safety equipment or expanding PCC shuttle or Tri-Met travel options).

TDM SUPPORT PROGRAM

Development of the full complement of recommendations in the TDM Support Program will require support from administrators, faculty, staff and students. It will take participation from managers and federation representatives in each department. A major internal barrier is to change the PCC culture to recognize TDM as an integral part of the PCC sustainability program and to ask for substantial participation and cooperation from administrators, managers, federation leadership and students. They will need to work together to get stakeholders to participate and recognize their own responsibility in the program. They will need to work together to create incentives to use TDM alternatives and reduce current and future projected parking demand in the system. This cooperative effort is in the interest of all parties, providing the infrastructure necessary for inclusion of more students and creation of more jobs to serve these students.

ENFORCEMENT OF RULES, REGULATIONS AND POLICIES

A major impediment to the program is the inability to properly enforce rules, regulations and policies. This needs to involve administrative, management and federation leadership to reduce and eliminate repeat and habitual violations by faculty, staff and students. This type of behavior is unacceptable, especially in an educational institution. Persons willing to violate parking and transportation rules, regulations and policies on an on-going basis should face appropriate disciplinary action. Perhaps another option is to designate a small percentage of parking spaces at each campus for persons willing to pay a premium for their parking spaces. Extra revenue from this parking can be used to support the TDM program.



MONITOR, UPDATE AND EVALUATE

PCC staff will need to monitor, update and evaluate parking and TDM program components. The PCC TDMSC will provide policy guidance for the program. PCC staff will be responsible for implementation. To determine the appropriate level of service and to provide adequate TDM infrastructure, the PCC staff will need to monitor, update and evaluate program components and share results with the PCC TDMSC on a periodic basis.

In some cases, this may be accomplished by PCC Parking and Transportation Services. In many cases, it may be a joint effort involving other departments or the PCC TDMSC.

COORDINATION AND PROGRAM SUPPORT FROM EXTERNAL PARTNERS

Attention to this issue from the highest administrative levels will need to be done to secure grants and infrastructure improvements that can supplement and enhance on-campus TDM improvements. For example, there are bicycle and pedestrian access issues that need to be addressed by surrounding local jurisdictions. There can be transit system or fare structure improvements negotiated with Tri-Met or more support from Metro for carpooling and ridesharing. These can be negotiated by PCC administrators to reduce internal program funding requirements and support on-campus TDM programs.

Successful implementation will require administrative efforts at PCC to negotiate with the partners and stakeholders. Such public agencies as Metro, Tri-Met, the City of Portland, Washington County, and the State of Oregon must be engaged as partners. Among these partners exists a symbiotic relationship that must be fostered in order for all to succeed. The partners should help to define the needs, develop cost-feasible and sustainable options, identify a balanced set of solutions, and commit to actions and their associated roles and responsibilities. This takes time to build working relationships and requires participation of decision makers at the highest levels.

External Barriers or Potential Limitations to Full Implementation

Many of the strategies recommended in this Plan will require (or can be more effectively leveraged) with participation and partnership by external partners. PCC leadership and staff will need to continue engage external partners like the City of Portland, TriMet, neighborhood and business associations and Washington County in the TDM Plan to elevate their understanding of the Plan and the benefits it not only brings to PCC but to the community as well.


Infrastructure by public agencies

TriMet

PCC's efforts to elevate transit ridership, through strategies targeted to increase pass sales to both students and employees will be greatly influenced by the availability and frequency of transit service. The interrelationship of TriMet service and PCC's very successful shuttle program will need on-going discussion and refinement as changes to service occur over time and demand for transit/shuttles increase. Finally, transit shelters, park and ride facilities and other infrastructural support systems need to be of the highest quality and functional integrity. TriMet will need to be open, willing and aggressive in calibrating and connecting its services in a manner that meaningfully supports PCC's efforts. PCC's student base of over 31,000 students presents itself as a significant opportunity

City of Portland/Washington County

Issues related to infrastructure in the public rights-of-way are critical to PCC's success in promoting and influencing TDM and alternative travel mode choices. Safe and relevant bike lanes to campuses, safe pedestrian crossings, sidewalks and signal systems are all elements necessary for "catalytic" TDM plans. Much of what PCC provides will be programmatic (e.g., passes, incentives, education, assistance) to its students and employees. These programs are intended to leverage transportation infrastructure, much of which is not in PCC's direct control.

Enforcement and Area Permit Programs

City of Portland/Washington County/Neighborhoods

The ability of PCC to mitigate encroachment into areas adjacent to its campuses can be significantly enhanced through enforcement and greater regulation and control of on-street parking systems. Given that PCC has no control of on-street resources, partnerships around on-street management public streets needs to be established and expanded. PCC, through this plan, supports all efforts that would lead to higher levels of enforcement and control of on-street systems in areas adjacent to its campuses. Programs to partner, educate and develop these programs need to be established. However, greater leadership and energy by all external partners in this regard is essential to PCC's success in mitigation.

Related Benefits

The PCC TDM Plan has the potential to provide many benefits beyond simply reducing single occupant vehicles trip. Possible related benefits include:



- More affordable, equitable options
- Expanded transportation choices for all users and modes
- Reduced vehicular travel on surrounding roadways, resulting in less congestion, improved level of service, and reduced roadway costs
- Reduced parking demand, and thus reduced parking facility costs
- Sustainability benefits from a reduction in transportation-related emissions.
- Safety impacts associated with bicycle/pedestrian improvements.
- Additional options and flexibility for employees and students through telework programs and the provision of off-peak classes

Coordination with Other Public Agencies

Several strategies contained in the PCC TDM Plan will require coordination with other public agencies in order to be effective. PCC could explore partnerships and coordinated efforts with other public agencies to efficiently implement many of the elements in the TDM Plan. Strategies in category J are aimed specifically at this end. The following public agencies could all play an active role in the PCC TDM Plan.

CITY OF PORTLAND

Coordination with the City will be essential for addressing issues related to infrastructure in the public rights-of-way. Many TDM strategies are contingent on the provision of bike lanes to campuses, pedestrian sidewalks and crossing, and effective signal systems. PCC will need to coordinate with the City to ensure these facilities are provided for. PCC could also work with the City to enhance regulation of on-street parking systems in the vicinity of its campuses. More controlled parking on public streets could help PCC mitigate the spillover of parking into adjacent areas.

The City of Portland was represented on the TDMSC and should continue to be involved in PCC's TDM Plan. The City could serve on the Standing Committee, which would ensure the City plays an active role in implementing the TDM plan, monitoring its progress, and providing input on issues related to the Plan.

WASHINGTON COUNTY

PCC's Rock Creek campus is located in Washington County, and thus coordination with the County will also be important for implementing the TDM Plan. PCC should coordinate with Washington County on



issues related to infrastructure in the public rights-of-way and parking regulations in the vicinity of the Rock Creek campus.

TRIMET

PCC should continue to work with TriMet to increase the availability and frequency of transit service to encourage transit ridership. Coordination with TriMet will also be essential to maintaining the successfulness of PCC's shuttle program and ensuring that it works in conjunction with other transit options. TriMet is responsible for transit infrastructure and facilities, so PCC should work with TriMet to maintain high quality transit options. PCC may choose to negotiate an annual transit program pass for its employees with TriMet. There are several opportunities for PCC and TriMet to work together to increase transit ridership, which offers benefits for both parties.

TriMet was represented on the TDMSC and could serve on the Standing Committee, which would ensure continued coordination between PCC and TriMet.

METRO

PCC currently participates in the Metro Rideshare Program, called Drive Less Connect. The purpose of the program is to connect potential ride share partners. PCC is working with Metro to develop a marketing program targeted at PCC students, which provides a good opportunity for coordination between Metro and PCC. PCC should continue to partner with Metro to encourage ridesharing at its campuses.

Appendix A Meeting Minutes

MEETING MINUTES

Transportation Demand Management Steering Committee Meeting

April 8, 2011 Minutes

Attendees

Committee members: Wing-Kit Chung, Julie Davenport, Jeff Wilson, Ken Nelson, Grant Bennett, Jerry Donnelly, Linda Degman, Erin Stanforth, Ken Goodwin, Linda Eden, Alex deRoode, Gina Whitehill-Baziuk, Yohannes Alemu, Jerry Brask, Russell Banks

Staff, Technical, and Consultant Resources: Alan Lehto, Trimet; Dan Bower, City of Portland; John Garner, PCC, Rebecca Ocken, PCC, Nick Hodges, THA; Michael Kodama, Rick Williams, and Phill Worth, consultants.

Meeting Summary

Wing-Kit Chung welcomed the group and introduced the Transportation Demand Management project. He noted that many challenges and opportunities the project afforded. He also mentioned that this was a district effort to assure access to students.

Rebecca Ocken reviewed a draft of the Committee Charter, which is intended to serve as a descriptor of the committee's purpose and outline operating and decision-making methods. Committee members recommended several changes. A definition of "consensus" in decision making will be added. Jerry Donnelly will provide language used in contract negotiations for committee consideration. The committee agreed that an additional responsibility of members will be to provide summaries of comments heard on campus or by the group they are representing back to the committee.

Phill Worth provided an overview of the TDM project. Russell Banks noted that the goals and objectives of the committee charter were not consistent with Phill's handout. Phill said this would be addressed in the upcoming goals and objectives brainstorm.

Ken Goodwin asked what the life of the TDM plan is. The last TDM plan was from 2007. Linda Eden noted that PCC is still referring to PCC's first TDM plan from the 1990's. The committee asked for a copy of the latest TDM plan from 2007.



Alex DeRoode asked if the statement on page two of Phill's handout about increasing parking supply without building new is true. Rebecca said that all options are to be explored through this process.

Rick Williams presented a brief primer on TDM. He noted the importance of having measureable goals in order to identify TDM strategies. TDM is most successful when targeted toward specific strategies.TDM isn't new. The TDM tools are not new. It's about how the tools are used that drive success. He prefers to address constraints, enhance what is working, and use existing resources to leverage additional TDM measures. Rick reinforced Wing-Kit's message that a goal of this project is to create a better academic experience for PCC students.

Alex presented PCC's Climate Action Plan. A copy of the presentation is available on the Spaces. Linda Eden noted that compared to other institutions, PCC needs to consider its commuter college status without residential housing nearby to relieve its parking needs.

John Garner outlines the existing TDM measures of PCC. He said that his department must pay for anything TDM-related. To help with this a fee-based parking system was enacted starting in 1993. Back then PCC operated 15-person passenger vans. Now six 70-person busses are in operation and there is still not enough room.

PCC subsidizes public transit passes. Last term, PCC offered 1,400 passes that sold out in the first three weeks of term. Policy is moving away from car pooling and toward ride share, which is a social networking approach to TDM. Additional bike racks will be installed at Cascade and Southeast campuses where bicycling use is high or growing.

Most TDM-related funded is directed towards students as there are limited funds for TDM in general. Part of the revenues earned by auxiliary services is transferred to the College's general fund.

Russell asked why not use that redirected money for parking rather than supporting the general fund? Wing-Kit suggested that the committee address that question when the project gets to TDM options and financing.

Yohannes Alemu asked if PCC is working with Trimet to expand possible partnership opportunities. Alan Lehto said that Trimet is doing what it can. It is difficult as the agency is not getting richer. It must get smart and deliver its services more effectively.

Linda Eden added that PCC also has a transportation fee of \$3.99/credit.

Phill Worth led a brainstorming discussion on goals and objectives.



Gina Whitehill-Baziuk asked the committee for input on the draft TDM survey. The survey is needed to discover what the College's alternative mode use is and determine the level of elasticity in travel choice. This is the only chance the committee has to comment as the survey will be posted in early May.

Gary Eaton asked if the respondents will be tracked to assure a broad representation of respondents. Gina said no, that the survey will be available for several weeks until a statistically valid number of responses have been received.

Julie Davenport offered food incentives to the survey takers. Linda Degman questioned if incentives were needed as travel affects everyone and there would be great interest in the survey.

Yohannes likened the survey to voting. It's a responsibility.

Ken suggested that a comments section be added to the survey.

The committee agreed to continue meeting on the third Friday of the month from 9:00-11:30 at CLIMB through the end of the year.



Transportation Demand Management Steering Committee Meeting May 20, 2011

Attendees

Committee members: Wing-Kit Chung, Amy Stevens (for Julie Davenport), Jeff Wilson, Ken Nelson, Grant Bennett, Jerry Donnelly, Linda Degman, Linda Eden, Alex deRoode, Gina Whitehill-Baziuk, Yohannes Alemu, Abe Proctor (for Jerry Brask), Russell Banks, Gary Eaton, Peter Seaman, Jeff Chrisian (for Liliana Luna), Tanya Batazan, Kristin Bryant, Jennifer Keller, Hillary Whitehead

Staff, Technical, and Consultant Resources: Alan Lehto, Trimet; Scot Cohen, City of Portland; John Garner, PCC, Rebecca Ocken, PCC, Nick Hodges, THA; Phill Worth, KAI, Sue Midghall, DHM

Meeting Summary

Welcome and Introductions

Wing-Kit welcomed the group to the meeting and mentioned that we had new members, including more students to introduce. Rebecca will update the committee roster and send it to everyone.

Our future meetings will be at CLIMB, but the rooms might change. Please check the CLIMB whiteboard at the front door to verify the room location.

Wing-Kit requested that students who are not able to attend meetings during summer break find a proxy. We will attempt to update students on summer activity at the District Student Council in the Fall.

Peter Seaman inquired about implementing virtual meetings using Elluminate. Peter will find out if it is possible at CLIMB and get back to Rebecca/Wing-Kit.

Committee Charter

Rebecca discussed the draft Committee Charter, specifically the new paragraph on page two under Decision Making. Peter Seaman asked how we could include the 'silent' consensus, capture the discussion, and document descenting voices on serious recommendations.

Wing-Kit explained the consensus approach was established in order to avoid a single person halting the process. It was noted that includes the allowance for committee disagreement on page two and that the Committee's discussion will be summarized and forwarded to the Cabinet and Board.



It was requested that the Committee Charge be revised to remove "campuses" and the Committee Outcome be reduced to a recommendation only.

Meeting Schedule and Outreach Plan

Rebecca reviewed the Committee meeting schedule and the Project Outreach Plan. These were agreed to by the Committee with the understanding that the Cabinet and Board meetings may be flexible in August and options might be taken to board in two phases.

Guiding Principles

Phill discussed TDM Goal Statements from the 1992 and 2007 TDM studies to better inform the new statements for 2011.

Alex also felt we needed to identify what the term 'sustainability' means to the committee.

Discussion turned to definitions of access, telecommuting and campus verbiage. General consensus was to keep verbiage broad and work on more defined articulation later. General points were:

- If virtual technology is an option, note that not all universities accept on-line courses for transfer/credit.
- TDM should promote technology that is already in place.
- Be careful to define sustainability by financial, environmental and/or social.
- Make sure we use 'improve' instead of 'increase' accessibility.
- Filter goals from objectives
- Wordsmithing will be on agenda for June. The document will be 'living' until Oct-Nov of 2011 and can be edited until then.

Survey Results

Su overviewed the survey with the group. Linda Eden questioned the accuracy of the survey results especially when compared to actual data. For example, the shuttle ridership has grown significantly over the years, which is not reflected in the survey. Linda Eden will look at the actual data and compare against study findings for accuracy.

John Garner stated all campuses are different and needed to be 'broken out' and treated as such. Gina explained that the survey was sent out to approximately 50,000 and we received about 4,800 responses.



Yohannes mentioned that we need a better measure to document folks who didn't respond to the survey. Su confirmed that we will take more time on the accuracy of the numbers, but to consider this info as trending data. Alex would like to see either representative samples for percentage measuring or absolute numbers in order to compare 'apples to apples'.

Peter felt that part-time faculty was not properly represented. Su will look at data and find out if each group was sufficiently represented. The Committee would like to see more detailed data reflecting campus specifics, with population breakout of students, faculty (part time separated from fulltime), and staff. Su showed us a sampling of verbatim comments. The Committee also asked to see the verbatim survey comments so they can review them.

TDM Case Studies:

A summary of what other colleges, both community colleges and universities, was completed for Committee review. A full copy will be made available for the Committee for more detailed discussion at the June meeting.

Next meeting: June 17th 6am-1pm. The Committee asked that paper usage be reduced by posting agenda/handouts through email and maybe Spaces.

Agenda Attachments:

- Committee Member List
- Charter Draft dated 5-20-11
- Steering Committee Meeting Schedule
- Outreach Plan
- Options & Choices Pie Chart
- TDM Goals 1992 and 2007
- TDM Goals 2011 draft
- Online Survey Results
- Random Sample of Additional Comments (q32)



Transportation Demand Management Steering Committee Meeting June 17, 2011 Meeting Summary

Attendees

Committee members: Wing-Kit Chung, Jeff Wilson, Jerry Donnelly, Linda Degman, Erin Stanforth, Linda Eden, Alex de Roode, Yohannes Alemu, Russell Banks, Scott Dionne, Monica Stevens, Michael Kuehn, Debra Jarcho, Esther Loanzon, Peter Seaman, Liliana Luna

Staff, Technical and Consultant Resources: Alan Lehto, Trimet; Rebecca Ocken, PCC; Nick Hodges, THA; Scott Cohen, City of Portland; Michael Kodama, Rick Williams, Phill Worth, Adam Davis and Rebecca Ball,

Consultants

Welcome:

Wing-Kit welcomed new faces to the meeting. Monica was standing in for Gary Eaton.

Committee Charter Endorsement:

Rebecca reported that minimal changes to the Charter had occurred since last review on 6-10-11. Those changes included tightening the desired outcomes to recommendations to the Cabinet and Board only. The Committee endorsed the Charter as written.

Guiding Principles Endorsement:

Phill explained that the current Guiding Principles were extrapolated from goals from old plans to develop themes, brainstorming with a variety of groups, and comments heard during the TDM open houses.

The overview of the use for guiding principles is:

- Develop and validate guiding principles.
- Initially use guiding principles for identifying potential TDM strategies and go from the realm of possible to feasible.
- In July, plan to use the guiding principles as a filtering or screen method for the TDM strategies discussion.
- In Oct/Nov/Dec, plan to have guiding principles more formalized with specific targets.

Phill asked the group if it could generally agree on the preface and if the key phrases make sense? Conversation included changing the word "equity" to "equalize" when discussing transportation modes, and change the word "optimal" to "adequate." Also, remove "campuses" from verbiage and replace with "PCC", or "the College," in order to include Centers and non-campus sites. Also, "parking" should be omitted throughout all documents to ensure that one travel mode is not advocated over another.

Peter mentioned that he liked the idea of 'planting seeds' in the guiding principles in order to include PCC goals of sustainable transportation and spend/split money for the greatest impact per campus.

Other wordsmithing determined that defining "technology" and "sustainability" were very important, as both are used in the guiding principles. Debra Jarcho and Gary Eaton, as representatives from TSS, and Alex and Erin Stanforth, as sustainability representatives, will participate in an email conversation with the TDM Project Team.

In addition: Jerry discussed leaving out the word "cost", 'blend' could be replaced with 'enhance', change 'visits' to 'trips'; think district wide, two pronged approach, rideshare and use of technology as alternative modes. Yohannes mentioned that 'transition' should be used instead of 'force'.

In order to define 'efficiency', existing options with the private sector; i.e. TriMet, City of Portland (enforcement), Metro and Washington County will be reviewed. Some agencies employ an MOU (memo of understanding) with these partners.

As referenced the Climate Action Plan and the more comprehensive Board Policy B707, Alex suggested that a copy of these in appendix is provided or they are made available for easy review.

Lilliana asked why there was no verbiage about parking structures. She noted that the TDM survey showed that 69 percent of drivers would still use a car even if other modes were available and that increasing fees would force students to park in the neighborhoods. Linda Degman mentioned that students park in neighborhoods now to avoid any parking costs and this is an ongoing problem, with numerous, daily complaints from neighbors, specifically around Cascade and Sylvania campuses.

TDM Survey Results:

Rebecca Ball and Adam Davis of DHM presented additional information on the TDM survey. More than 4000 people responded to the survey and DHM is 95 percent confident that the results portray a realistic cross-section of PCC students and staff. Conjoint studies were done and pretests were conducted for further clarification of results. DHM will confirm statistical figures and any discrepancies will be provided to the Steering Committee via email. The Spaces page will also be updated.

Survey results were discussed by campus comparisons and differences. Committee discussion included offering free TriMet passes and how that had phenomenal impact on other campuses, reducing SOV from 40 percent to 20 percent. Some studies suggest that offering passes at a reduce rate can reduces SOV.

Wing-Kit articulated that this data supports the current conditions at the College, and it should not be assumed these statistics are leading to an obvious solution; rather, as a tool to support TDM strategies recognized later in the process by the Steering Committee. The Committee thought that breaking out part-time and fulltime student results might be a more accurate reflection of current conditions at the College.

Existing Conditions Report:

Phill Worth presented the latest existing conditions for each campus comparing use and travel experiences for parking, transit, shuttle, and bicycling.

The shuttle was discussed and the majority of statistical information shows that it is very popular. Dips in usage stemmed from a five route shuttle being pared down to a three shuttle and Max interference/rerouting needs from PSU.

TriMet sold 1400 passes at a reduced rate to PCC. PCC further subsidizes passes before offering them to students.

Parking counts were recorded during third week of Fall term. Parking lots with a 97 percent occupancy rate were considered full due to latent demand (drivers moving through the parking lot looking for spaces and finally parking off site or at a auxiliary parking area).

Alex mentioned that encouraging bicycle riders will involve style of racks, where they are located and lockers to store their helmets, etc.

Case Studies:

Michael Kodama presented TDM strategies from other community colleges and universities. Peter asked if PCC really needs to operate a shuttle or if this service could be provided by TriMet. Michael said the shuttle is a great component to have in a comprehensive TDM program, but evaluating this option for PCC would be worthwhile.

Next month's meeting: July 15th, CLIMB Center, from 9am to noon. At this meeting TDM strategies will be introduced and how to best apply.



Meeting adjourned.



Transportation Demand Management Steering Committee Meeting July 15, 2011 Meeting Notes

Attendees

Committee members: Wing-Kit Chung, Jeff Wilson, Jerry Donnelly, Grant Bennett, Kathy Kiaunis, Erin Stanforth, Linda Eden, Alex de Roode, Yohannes Alemu, Russell Banks, Debra Jarcho, Esther Loanzon, Peter Seaman, Liliana Luna, Kristin Bryant, Jerry Brask, Gary Eaton, Gina Whitehill-Baziuk, John Garner, Ken Nelson, Tanya Batazhan

Staff, Technical and Consultant Resources: Alan Lehto, Trimet; Rebecca Ocken, PCC; Nick Hodges, THA; Scott Cohen, City of Portland; Michael Kodama, Rick Williams, Phill Worth, Consultants

Other Attendees: Roberto Solis, Jr., Amy Stevens, Hilary Whitehead, Jonathon Mena, Eric Ruiz, Doug Taylor, Christine Manning, Patrick Leo Guillen, Brenda Contreras, Cate Jinings

Welcome

Wing-Kit welcomed new faces to the meeting and noted the number of student representatives attending.

Guiding Principles Endorsement

The principles were refined further by the committee. After a review of all the principles, the committee agreed to endorse them as written. A final copy will be emailed to the committee in August.

TDM Strategies Brainstorming

The remaining meeting time was spent reviewing the draft TDM Strategies per mode and brainstorming additional measures for consideration in August. The measures were drafted to describe the purpose as well as to identify the guiding principles met by each strategy. Michael Kodama and Phill Worth revised the strategies at the meeting and will provide a revised document for committee consideration in September.

Awards for the most innovative TDM proposals were given to Grant Bennett for proposing that tuition discounts be provided at shoulder times, Tanya Batazan for introducing the long board as a travel mode for consideration, and Hilary Whitehead for her many good ideas throughout the lengthy discussion.



Good of the Order

The committee decided to not meet in August given the good progress made at this meeting. The Committee's next meeting will be September 16, 2011, CLIMB.

Meeting adjourned.



Transportation Demand Management Steering Committee Meeting September 16, 2011 Meeting Notes

Attendees

Committee members: Wing-Kit Chung, Grant Bennett, Erin Stanforth, Linda Eden, Alex de Roode, Yohannes Alemu, Russell Banks, Esther Loanzon, Peter Seaman, Kristin Bryant, Jerry Brask, Gary Eaton, Gina Whitehill-Baziuk, Doug Taylor

Staff, Technical and Consultant Resources: Alan Lehto, Trimet; Rebecca Ocken, PCC; John Garner, PCC, Nick Hodges, THA; Scott Cohen, City of Portland; Michael Kodama, Rick Williams, Phill Worth, Consultants

Other Attendees: Christine Manning

Welcome

Wing-Kit welcomed the group back after the summer break.

Policy and Supporting Strategy Review and Refinement

Phill Worth introduced a new matrix showing the five TDM polices with supporting strategies generally organized by travel mode. The Steering Committee then broke into three groups and was assigned a policy with strategies to review and refine. They were asked edit the policy statement if clarification was needed, understand the travel mode categories that organize the TDM Strategies, and determine if this first proposal for a Phase I TDM or "Core" Plan is appropriate or if other strategies are needed.

Alex asked about the phasing of strategy implementation. Rick initially proposed an 18 month schedule, but given the budget cycle of the College, it was decided by the Steering Committee that two year increments would be more appropriate.

Nick Hodges reported for the group reviewing Policy A2: Formally adopt measureable goals that can be monitored for progress. This group suggested adding to the Core Program: C3A, Old C1, Old C6, Old B5, Old 56, Old B7, Old D3, Old D4. Group thought that E2 Pay as you go would be difficult to implement and Pay as go needs to be better defined.

Russell Banks reported for the second group who reviewed Policy A3: The District recognized the need to commit adequate funds to ensure the long-term implementation and success of the TDM Plan. The group agreed that the policy needed to be strengthened and worded consistently with the other policy



statements such as "create and fund a permanent TDM budget." The group felt E4 would be challenging because it seemed more like a tax than incenting behavior. Yohannes said K5 is already in place. John mentioned that a majority of the unpaid parking tickets are with employees. The group suggested the addition of: A5 and K3

Gina Whitehill-Baziuk reported for the group who reviewed policy A4: Formally adopt a parking occupancy standard and other performance measures that are directly tied to the adopted goals and numerical triggers that initiate a decision making process to consider further plan action(s).

The group suggested creating a parking fee floor so that parking fees could be lowered based on lack of use, but only to a pre-determined minimum. The group asked if J1 is an internal or external trigger. If it is internal, it needs to be implemented now as the College has already reached the trigger. The group suggested an inter-relationship between bike and parking policies. They felt the per- term parking option most appealing with the cost of the term parking pass increased. They strongly supported the variable parking pass. The group also suggested the College being more mindful of how meetings are scheduled, for example the in-service at Sylvania could add messaging in the marketing materials about how to travel to campus via bus, bike, carpool, etc. Also consider ESOL students in marketing.

Linda Eden suggested that Special Event Parking be added to the Core Program. The public is frequently invited to use PCC parking for free.

The full Steering Committee reviewed Policy A5 regarding a permanent TDM Committee. Russell mentioned that College Advancement does not coordinate internal messaging. This is key to TDM's success and will need to be addressed in new funding and staffing.

Yohannes suggested that the TDM Committee have the authority to implement TDM strategies. Linda Eden noted the need to tie the committee to Auxiliary Services and the parking program.

It was suggested that a strategy be added that uses flash alert if a parking lot is full.

Rebecca announced the open house schedule starting the week of October 24. She also asked that everyone set aside four hours for the October 21st TDM Steering Committee to begin review of preliminary costing.

Wing-Kit thanked everyone for a productive meeting.



Transportation Demand Management Steering Committee Meeting October 21, 2011 Meeting Notes

Attendees

Committee members: Wing-Kit Chung, Grant Bennett, Erin Stanforth, Yohannes Alemu, Russell Banks, Peter Seaman, Kristin Bryant, Jerry Brask, Gary Eaton, Julie Davenport, Liliana Olade, Ken Nelson, Tanya Batazhan, Linda Degman

Staff, Technical and Consultant Resources: Alan Lehto, Trimet; Rebecca Ocken, PCC; John Garner, PCC, Nick Hodges, THA; Scott Cohen, City of Portland; Michael Kodama, Rick Williams, Phill Worth, Consultants

Other Attendees: Doug Talyor, Hillary Whitehead

Welcome

Wing-Kit opened the meeting thanking the Committee for its good work as it moves into more difficult decision making.

The Status Quo

Phill Worth presented current conditions of parking at all four campuses and asked the group if they are satisfied with the status quo.

Liliana asked how many parking passes are sold and why PCC sells more passes than spaces available. Russell pointed out that not every space is used by the same people for the entire day. He explained that each campus has a turn-over rate that allows for more than one parking pass to be sold per space.

Rick said that it's important to know PCC's "peak and float." Per industry standards, it's typical to sell 15% more than supply at the peak hour. This covers the float when people who are sick or use another travel mode don't need the parking space.

Phill talked about the impacts of accepting the status quo such as; infiltration in surrounding neighborhoods, delays and frustration when looking for parking, high vehicle emissions, pressures from public regulating agencies, and the cost of parking. These may be the most expensive to the College while the least expensive to users.

Liliana disagreed with the last point noting that the cost of using a car may not be the least expensive to the user when factoring in insurance and fuel. Phill agreed saying that most people don't realize the



higher personal cost when including insurance, etc. Jerry added that cost is not the only factor, convenience is too. Considering cost only may be misleading. Tanya said that faculty experience delay and frustration too.

After reviewing the Guiding Principles with the Committee, Phill asked the group if the status quo is acceptable. Russell said "we have no choice." Given the College's commitment to the Climate Action Plan and that 60% of our carbon emissions are coming from college-generated traffic, "we have to change."

John Garner noted that the STARS report was complete and the results show the PCC is doing better than other community colleges. Nick said that as a community college, achieving the Climate Action Plan Goals will be challenging. Gary said that as the bond brings on new buildings, PCC simply can't continue to stay where it is. Jerry said that TDM does not look realistic. Nowhere does the plan call for additional parking. He is uncomfortable with the College trying to "TDM out of this."

Linda Degman said that additional parking will be added as part of the Bond. However the Bond can't build enough parking to satisfy peak demand. The public jurisdictions that regulate growth won't allow that. The Bond is allowed to build parking to a maximum allowed. For Cascade, the City of Portland will then look to TDM strategies to mitigate additional demand. At Rock Creek, Washington County will make this determination. Because each campus is unique, different methods may be used to determine how to meet parking demand.

Wing-Kit said that there is no need to throw out the existing approach. What we want to do it enhance it.

Hillary suggested more bike lanes for the Rock Creek campus. She said that Rock Creek doesn't have the infrastructure to support alternative mode use. Linda Degman noted that the College would not build more infrastructure such as bike lanes on 185th as this is a Washington County endeavor. Site specific projects on campus can be considered by the College. John Garner said Operations has some budget for these types of smaller, on-campus projects.

Liliana said that PCC is a community college and people have needs. Ken pointed out that we have only a finite number of parking spaces. People are finding ways to make it work now and they will continue to find ways to make it work. Phill summarized the discussion saying that it will be a challenge to create viable options and make those options all work together. He noted that the group agreed that the status quo is not sustainable. All agreed that the current TDM program is effective and will need additional resources to be continued and enhanced



Kristin asked if parking can be taken care of through the Bond, it is still an issue for this group? If regulating agencies will regulate parking ratios, shouldn't the committee focus on what else can be done? Alan said the key to TDM is to focus on the group you want to accommodate without harming everyone. Phill agreed that building sufficient parking does not solve all problems.

Phill talked about scenarios to solve the access problems: 1) build sufficient parking 2) reduce the number of people driving single occupant vehicles, or 3) both. Phill demonstrated the option of reducing the number of people driving SOVs by increasing parking fees per term. Jerry asked what it would look like if the transportation fee were increased instead. Lilana asked about different solutions for faculty and staff rather than increasing fees for students. Tanya said that part time staff may reconsider employment at PCC if they have to pay 2/3 of their salary to parking. Peter said that the union is working with faculty on this issue.

Russell asked if we can create a maximum SOV use? Peter said that 40% of PCC's instruction is happening at a distance. Kristen didn't' want distance learning to be promoted as a way to alleviate parking woes. "We should want students on campus." Jerry said that an increase in the transportation fee may be more equitable because is disperses the cost widely and is less punitive. He felt that it is the duty of PCC to provide access in an affordable way. Phill summarize the discussion by saying that a combination of fees is what will get us passed status quo

Jerry expressed concerns with the TDM Core Plan, especially "pay as you go." Rick said that this is a long-term goal. Instead the College should consider a pricing increase initially. Jerry said he was opposed to any increase in parking fees. Hillary said that the recent increase in parking fees caused some concern, but an increase in marketing would help next time.

Wing-Kit noted that Governor Kitzhaber is talking more about outcomes than access for the college system. This could influence the College mission. "We need to find the right combination to move us off the status quo." Kristen wanted to confirm that each campus would be differentiated to handle the unique issues on each campus. Peter noted the external environment of each campus; for example, Cascade has great transit access, which affects mode choice. Yohannes said something has to happen. "Doing nothing is not an option."

Phill reviewed next steps.

Wing-Kit reviewed an updated version of the "TDM 101" power point. Kristen asked for more visual interest. Some committee members agreed to take the presentation to other groups beyond the leadership committees, where Wing-Kit will be presenting. The effort here better inform the campuses of the need for TDM as a supplement to PCC's parking supply as a way to improve access to the college.



The meeting was adjourned at noon.



Transportation Demand Management Steering Committee Meeting November 18, 2011 Meeting Notes

Attendees

Committee members: Wing-Kit Chung, Grant Bennett, Russell Banks, Peter Seaman, Kristin Bryant, Jerry Brask, Gary Eaton, Julie Davenport, Liliana Olade, Ken Nelson, Linda Degman, Jerry Donnelly, Linda Eden, Jeff Wilson, Alex DeRoode, Gina Whitehill-Baziuk

Staff, Technical and Consultant Resources: Alan Lehto, Trimet; Rebecca Ocken, PCC; John Garner, PCC, Nick Hodges, THA; Scott Cohen, City of Portland; Michael Kodama, Phill Worth, Consultants

Other Attendees: Doug Talyor, Cayla Baldo, Kim Nguyen

Wing-Kit opened the meeting.

Phill Worth reviewed the core program – the TDM Strategies. He noted that the core program was identified by the TDMSC at its September meeting. He said that the consultants and the Project Team had tightened the strategies and cleaned up any redundancy. Also, lead entities were added. The TDMSC discussed the strategies by section/mode.

Policies

Peter said that it seemed some people on the TDMSC don't want to do TDM. If that is the case, the TDMSC may not be a good committee for their participation as we talk about encouraging different ways to travel. Jerry Brask said that not all TDM measures are equal and that Peter may be misreading any criticism. Peter recalled Jerry' earlier memo and said he was glad to hear Jerry's clarification.

Alex asked that the TDM plan be integrated with the Climate Action Plan.

Peter asked what was eligible for Bond funding. Linda Degman said that Bond monies, by law, can fund capital related improvement.

Peter noted that TDM Strategy NA6 – the employee transportation fee could be complicated given that the federation contract was just finalized for a four-year period. Jerry Donnelly added that negotiations cannot be reopened in that time unless it's related to salaries and benefits, which can be discussed in two years. Wing-Kit said that if it is mutually agreed upon, this may be opened for discussion. The executive council of both organizations would have to agree on it.



Liliana said that if fees cannot be raised for employees than students will be the target for increased revenues. She said that students support TDM, but don't want to pay for all of it, adding that students pay for the shuttle while staff use if for free. Peter said Liliana's right. The plan calls for sustainability and equity.

Jerry Brask said that not all PCC staff are well paid and costs shouldn't be uniformly applied. Linda Degman noted that the bulk of staff and faculty don't use the shuttle. Wing-Kit suggested adding the Cabinet and BPAC as lead entities in NA7 – adjust student transportation fee. Liliana asked that the TDM continue to come before the District Student Council with updates.

Alex asked for greater detail in the make-up of the on-going TDM Committee and if more than Parking and Transportation staff could serve on the committee. He also asked if the TDM Plan was a living document. Linda Eden said yes. Michael said that the on-going committee is a balancing act. It works well if the committee feels it has the authority to make decisions while still allowing the technical staff sufficient authority to adjust the program as needed.

Liliana said she did not support Strategy NA7. Jerry suggested that NA7 be linked to NA6 so that the student transportation fee would adjust along with the employee transportation fee. Wing-Kit said that the TDMSC was honing in on one element of the TDM Plan – cost. All the members have their concerns. He asked that the members step back and look at the TDM Plan in its totality. Peter said the group was talking about a very specific recommendation, but hasn't considered all the possibilities.

The group agreed to table NA 6 and NA 7. Phill noted that some strategies will cause consternation and said it would be helpful to review the entire program to see the big picture.

Organization

Jerry Brask said he was concerned about bureaucratic growth and asked for a sunset clause so as to not divert money to extra staffing once the TDM department was established. Peter said that if funding is added for TDM, it would be seen as a new expenditure when the College already pays a lot for transportation. Linda Eden said that the existing TDM program would be enhanced. Staffing for TDM hasn't changed since 1992. Ken Nelson added that the College now has an internal auditor for better check and balance.

Transit

Liliana said that driving is more expensive than taking transit. She would like to add the real cost of driving to strategy NC1. Michael noted that there is a difference in user and college costs. Alan added that sunk and marginal costs also impact decision making for the user.

Shuttle

Alex asked that the PCC Sustainability Council be added to strategy ND3 – explore alternative fuels. Nick asked if this was a TDM strategy at all. John Gardner said this is already being done. Russell noted that this is not reducing SOV trips to campus.

Jerry Brask does not want to see a parking fee increase mandated by this plan. Kristin asked if the College reviews its costs and fees regularly. Peter suggested that any new revenue from parking be dedicated to TDM. Jerry Donnelly said that the TDMSC needs to look at the entire TDM Plan rather than specific line items.

Rideshare

Phill suggested that "casual" rideshare be better defined.

Bike/Walk

Peter asked that the College re-evaluate the hours the shower facilities are open. Deans of Instruction view the showers as an instructional resource.

Alex wants to make sure that a link between TDM and the Climate Action Plan is maintained.

Erin suggested that the College consider safety patrols and parking enforcement by bike.

Technology

Regarding telecommuting, Peter suggested a policy be put in place because some managers won't allow telecommuting.

External Partners

Ken suggested that the College require vendors to pay to park.

TDM Support

Peter spoke to a PCC leader about participating in non SOV travel. He was told in response that he/she couldn't because his/her time was too important.

Phill introduced some funding scenarios to help understand the impacts of the fee increases. None of the scenarios are a part of the TDM Plan. They are intended to simply inform the group of how the fees could be applied and the resulting revenues.



Linda Eden said she agreed that the cost of the parking permit and transportation fees need to increase. How to do this needs further discussion. Jeff Wilson said that he chooses to drive and will pay for a more expensive parking permit. Because he won't use the shuttle or bus, he has difficulty accepting the transportation fee for employees.

Liliana said that the College needs to change the behavior of employees. Why charge the same amount to students?

Wing-Kit said that the overall objective of the TDM Plan is to reduce SOV use and provide travel choices to everyone associated with PCC. To do this we need additional resources. We will also need to phase-in these strategies. We know there will be challenges, but we can't move forward if we get hung up on every detail.

Peter said he didn't feel the TDMSC has grappled with the larger issues such as sustainability and equity.

Michael said the challenge is to create a cultural change "from me to we." Systemic cheating is not acceptable.

Linda Degman questioned the cost of not doing TDM. From a Bond perspective it could be great.

Jerry Brask suggested holding a second meeting in December for more committee discussion. The group agreed.



Transportation Demand Management Steering Committee Meeting December 2, 2011 Meeting Notes

Attendees

Committee members: Wing-Kit Chung, Grant Bennett, Russell Banks, Peter Seaman, Kristin Bryant, Jerry Brask, Gary Eaton, Liliana Olade, Ken Nelson, Linda Eden, Jeff Wilson, Alex DeRoode, Esther Loanzon,

Staff, Technical and Consultant Resources: Rebecca Ocken, PCC; John Garner, PCC, Nick Hodges, THA; Scott Cohen, City of Portland; Rick Williams, Phill Worth, Consultants

Other Attendees: Deb Crawford, Debra Jarcho, Christine Manning, Charlene Gomez, Daniel Director, Ewald Estanis

Wing-Kit opened the meeting.

Phill Worth revisited the Committee Charter and the decision making process.

Wing-Kit said that he felt the group was honing in on the solutions. This level of detail is not the charge of the committee. When discussion moves to finding new resources, it will need a much broader level of engagement beyond the TDMSC.

Alex added that the TDMSC is not endorsing tactics, but a comprehensive program similar to the Climate Action Plan. The Committee Charter and Guiding Principles illustrate the values of the TDMSC.

Phill introduced the five TDM Strategies that were outstanding and needed committee resolution. Starting with NE4 – Construct new parking supplies when determined necessary. The group agreed to replace "construct" with "provide."

Peter said that he thought that TDM would replace any expansion of the parking system. If the College did TDM well enough it would not have to build additional parking. Rebecca clarified that it's not an either or scenario. Both parking and TDM are needed to meet access demand. Peter said he thought this was a change of position.

Wing-Kit said that the College does need to augment the parking supply at Cascade where there is a shortage of parking spaces. Kristin asked if there is a trigger when new parking is added so that it would be the last option available. Phill said that there are parameters currently. Rebecca added that



new construction will trigger new parking due to city development code requirements. The City wants assurance that the College will minimize any negative impacts to the neighborhood.

Scott confirmed that the City won't allow the College to use the neighborhood around Cascade to park its cars. He added an aggressive TDM program that does not include parking is not feasible. Combining parking with TDM does not mean that the TDM program is watered down. It means that the College is managing its access needs.

Kristin said she would like to see a change in ethos for an overall reduction in SOV use. Wing-Kit added that the aggressiveness of TDM implementation is at issue. Phill asked if everyone agreed that this is a Parking and TDM Plan. Is it okay to include the provision for parking – NE4? Jerry said yes and in fact NE4 should be a core programstrategy. Esther suggested that the plan include language on city code regulations.

Phill reviewed TDM Strategy NE2 – Implement a performance-based pricing strategy.

Jerry said that NE2 was written prescriptively. Rick described performance-based strategies saying that when a parking lot is full, prices increase. The demand will drive the price. This is one option. There are many others such as a stratification of pricing based on hour and/or day. Rick said that when the strategy is in place it will address what we will do. When the on-going TDM Committee is established, this group would monitor use and when capacity is reached it would trigger additional TDM strategies. It could be an increase in price. It could be an increase in transit subsidy and/or shuttle frequencies.

Kristin said that when new strategies are triggered, it would allow for the goal of reducing SOV use. Erin asked if the Cabinet was going to review all the TDM strategies. Wing-Kit said the plan is to take the strategies before the Cabinet. Scott suggested new language such as "analyze and evaluate" as well as moving the examples to the narrative because there are more than three.

Russell asked if performance based pricing actually works. Rick responded that some facilities where there are no parking permits, performance-based pricing does adjust behavior. Jerry asked if performance-based pricing could work with different groups. Rick said no, it is a capacity-based measure. It doesn't work according to status of the person.

Phill introduced TDM Strategies NA6 and NA7 – transportation fee for students and employees asking if timing is the issue. John asked if the employee pays the transportation fee, what does the employee get? Phill said that would need to be negotiated. Esther asked if the strategies were listed in priority order. Phill said no. Phill suggested moving these strategies to a near term schedule rather than the initial term. The group agreed. Erin asked that the ASPCC and Cabinet also be included as lead entities.



Lastly, TDM Strategy NC1 was discussed – Price the Student Select Pass at a rate that is less than the quarterly fee for student parking. The group agreed to replace "less than" for "competitive" and "quarterly" for "term."

Jerry said that equity is an issue regarding parking fees. Part-time faculty and students are a different group from Management and full-time faculty. He asked that this issue be considered as the plan moves forward.

Wing-Kit said that he equated the TDM Plan and its process with the Climate Action Plan. When strategies and funding options are considered for implementation a broader stakeholder engagement process would be needed. Wing-Kit clarified that the next step for the TDMSC is to take action on the plan at its final meeting on Dec 16. Now that the TDMSC has agreed to these five strategies, the next meeting will be a high level discussion rather than debating the merit of the individual strategies.

Linda Eden said that someone has to champion the entire document. Parking and Transportation Services is the lead to get the plan implemented.



Transportation Demand Management Steering Committee Meeting December 16, 2011 Meeting Notes

Attendees

Committee members: Wing-Kit Chung, Grant Bennett, Russell Banks, Peter Seaman, Kristin Bryant, Jerry Brask, Gary Eaton, Liliana Olade, Linda Eden, Jeff Wilson, Esther Loanzon, Gina Whitehill-Baziuk, Tanya Batazhan, Jerry Donnelly, Erin Stanforth, Yohannes Alemu, Alex De Rood

Staff, Technical and Consultant Resources: Rebecca Ocken, PCC; John Garner, PCC, Nick Hodges, THA; Scott Cohen, City of Portland; Alan Lehto, TriMet Rick Williams, Phill Worth, Michael Kodama Consultants

Other Attendees: Christine Manning

Wing-Kit opened the meeting thanking everyone for their hard work over the past eight months. He reminded the committee that this is the last meeting when an endorsement of the TDM plan will be sought. He wanted to be assured of the group's comfort level with the Plan's recommendations and reminded everyone of their charge as the TDM Steering Committee. He noted his appreciation for the honest dialogue of the committee. He expressed his appreciation for members thoroughly discussing their disagreements and focusing on the merits of the issue. He said that while the TDM plan is not fully squared, it gives the college good direction.

Phill Worth began the review of the plan noting that at the December 2nd meeting, the committee accepted the five funding strategies and they are included in the Plan. He wanted to make sure everyone was comfortable with the transition from a matrix to a narrative format.

Linda Eden asked about her comments, which she made earlier via email. Phill clarified that this was a discussion draft. He anticipates continuing work with the Project Team after the final meeting of the Steering Committee to refine and finalize the document.

Phill asked if the group had any comments on the "side boards" of the plan, such as the Guiding Principles and Existing Conditions. Hearing none, he proceeded with review of the Recommendations section.

Background

Alex suggested adding "enforcement" as a last measure if needed on page 97.



Policy Level Actions

Peter asked what happens if both core and supporting strategies. Phill rephrased the question asking what happens if there are insufficient funds to implement the plan? Wing-Kit said that the college may shuffle existing resources to make the core program work. The phasing of implementation and leveraging additional funding are also options. Peter asked if it would be fair to say that the existing TDM program is solely funded through parking revenues and if not, what are parking revenues supporting? Wing-Kit agreed that the college needs to look at TDM in its entirety. Peter asked if there is a policy related to the true cost of parking. Phill said yes. It's E.1 in the Core Program of the SOV Section.

Jerry Donnelly suggested a legal review of Strategy A6 (Implement an Employee Transportation Fee) to determine if this is permissible under wage/hour law. Liliana said that if student fees are increased, it should be tied to employee fees. Phill said yes, Strategies A6 and A7 (Adjust the student Transportation Fee) are set for the same timeframe.

Linda said that A6 is not historically accurate. In 2009 students agreed to implement a new shuttle program. Staff paid for shuttle service prior to that. She also asked if A8 (Access Scholarship) could be funded through the PCC Foundation.

Alex asked what the role of the standing committee mentioned in Strategy A4 would be. Wing-Kit said that it would monitor the TDM program at all the campuses and make recommendations for refinement as needed. Alex asked is "sustainability" could be added to the committee's charge to make sure it is aligned with the Climate Action Plan. Erin asked that a glossary be added to the appendix.

Organization and Coordination

Linda asked that office space be included in Strategy B1 relating to the staffing of TDM.

Transit Access

Yohannes asked how the 20% target was identify in Strategy C1 (Establish transit pass sales goals). Phill thanked him for that catch. The Steering Committee has not identified a target yet and this shouldn't be included as a recommendation.

Erin asked that the District Student Council be included as a lead entity in Strategies C1, C2, C3.

Jerry Brask noted that there are a variety of different revenue sources that could come into the College. Strategy C2 (Reinvest net parking revenues to cover increased subsidy costs of the Student Select Pass) seems too restrictive. Instead the strategy could target multiple funding sources. The group agreed to removing the word "parking" as this change reflects the intention of the strategy. Alex clarified that the



change does not commit all new funds to these projects alone. Kristen asked that the narrative be edited to confirm that only a portion of the net revenues go to UPass.

Esther asked that the glossary include acronyms.

PCC Shuttle Access

Jerry Brask asked if the shuttle could operate with smaller vehicles. Wing-Kit confirmed that the College is currently operating smaller vehicles. John Garner said that Strategy D1 (Initiate frequency improvements on the shuttle routes) implies that shuttles will increase as parking fees increase. In fact, shuttle service may increase regardless of any parking fee increase. The group agreed to strike "associated with increased parking pricing."

Linda asked for clarification of "part-time students." TriMet allows for students with three or more credits to be eligible for the Student Select pass. It was suggested that "part-time" be changed to "pass for students not presently eligible. Alex asked if this is the same for employees noted in Strategy J5. Rick suggested that Strategy J5 be moved to the Transit Section as it seems to be causing some confusion. Peter asked for clarification of full-time and part-time employee adding that the UPass only applies to full-time. Phill suggested that "UPass" be replaced with "transit pass." Tanya suggested eliminating the last sentence of J5 (PCC should also investigate with TriMet the feasibility of a transit program for part-time employees) so as to refer to employees in total rather than confuse the issue with full and part-time status. The group agreed.

SOV Access

Jerry Brask asked to revisit Strategy E1 suggesting that the wording was limiting. Again, other revenue sources could be considered. Linda asked what it meant by "full cost recovery program." The college already does this. Rick said this is an effort to think into the future and understand what the program costs. Wing Kit added that the program be self-sufficient.

Alex said that D3 (Explore and implement feasible alternative fuels) needs a sense of urgency added to the narrative.

Peter suggested removing "and emit fewer emissions" from Strategy E5 because not all motorcycles do that.

Alex asked that "zip car" be replaced with "car sharing program." Linda noted that the Downtown Center already has a car sharing program that is paid for by the individual departments.



Rideshare Access

Erin asked if Strategy F3 Combine College Logistic Services applies to employees moving goods around the district. Linda said it was referring to delivery of goods and commuting between campuses. There was some confusion about the intent of this strategy. Is it a delivery issue or a meeting issue? The group agreed that the strategy should be reworded to include both and it should be moved to the TDM Support section.

Bike/Walk Access

Peter asked about the lead entity in G4 Provide access to shower and locker facilities. The Deans of Instruction may be surprised to see they are lead. Phill suggested this go back to the Project Team for refinement.

Alan suggested adding J1 as a coordinating strategy with G8.

Christine asked how PCC could better use the shuttle to service college events. She cited the Newberg opening as an example where the college was celebrating a green building by promoting SOV use. "How do we go green all the way?" Grant added that mileage reimbursement for everyone going to the event may have cost more than providing a shuttle. Can mileage reimbursement be addressed? Gary said no. That would be an issue for the TDM Standing Committee to address once it's formed. Wing-Kit suggested that it be added as a consideration in F3.

Communication/Awareness

Russell suggested that Strategy I10 be moved to the TDM Support section and become K7. The group agreed.

External Partners

Christine asked for enhancements of on-campus improvements as well as off-site transit improvements noted in Strategy J1.

Wing-Kit and Jerry Donnelly suggested that "emergencies" be defined in Strategy K4 Provide a guaranteed ride home.

Peter asked that a statement be added to the plan noting that this was not a consensus document but a consultant led process with input from the Steering Committee. "I have accepted some strategies that I don't agree with to get those that I do agree with." Wing-Kit reminded the group what consensus means as defined in the committee charter. Yohannes said that the committee did not set out to do a consensus document. We agreed that it is a document with options that have been vetted for consideration by



decision makers to serve the college's best interests. Christine added that the document is not something chiseled in stone. It can change. Wing-Kit added that the TDM Plan is a living document. If something isn't working, we can change gears. Phill read the committee charter statement regarding consensus. Jerry Brask said that he endorsed the processed and appreciated hearing the different opinions from everyone. Peter said he wanted to see the TDM process move forward. "The whole process was uncomfortable to me and I want to see that reflected." Rebecca noted that the discussion would be included in the meeting minutes, which will be attached to the TDM Plan.

Wing-Kit then asked the question and the group endorsed the TDM Study.



Appendix B Open House Materials

Appendix C Survey Results