

PORTLAND COMMUNITY COLLEGE  
TRAFFIC DEMAND MANAGEMENT PLAN

May 15, 1992

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## EXECUTIVE SUMMARY

The Portland Community College Traffic Demand Management Plan (TDMP) outlines recommendations for meeting the increasing transportation demands caused by an ever-increasing service population. The TDMP presents background information on traffic demands at each of the three major PCC campuses, the two major centers, and Open Campus locations. Traffic demand information indicates that many of the significant traffic problems at all college locations stem from the use of single-occupant vehicles as the most prevalent form of transportation for students, faculty and staff.

The recommendations adopted by the college are the result of input from the PCC Traffic/Parking Mitigation Task Force -- made up of college personnel, students and community members. Both short- and long-term recommendations for improving parking and traffic flow at PCC campuses and centers are addressed.

Section I

PORTLAND COMMUNITY COLLEGE  
TRAFFIC DEMAND MANAGEMENT PLAN

Need Statement

Portland Community College provides the Portland Metropolitan area with educational programs that currently serve one in every ten residents. Each year the demand for post-secondary education and training in Portland increases resulting in an expected PCC enrollment of one in every eight persons in the District by the year 2000.

This increasing demand is evident at each of the three campus locations (Sylvania, Cascade, and Rock Creek), as well as the Open Campus Program and several PCC centers throughout the District.

Using all facilities to their maximum practical capacity is a goal of the college, thereby providing services to the greatest number of students while not wasting energy resources. However, it is widely recognized that even at maximum capacity, the present campus facilities are not able to accommodate the number of classes required to meet the demand. New buildings and renovations will be needed in the near future.

Additional facilities, classes and students will mean additional transportation concerns. PCC campus and center facilities are located within established neighborhood communities and an increasing student population will mean additional traffic. Therefore, PCC recognizes the need for a comprehensive traffic demand management plan to address community concerns about parking, safety, and traffic flow.

PCC also recognizes that persons using our campuses represent only a small part of the problem which regional growth creates. We cannot, therefore, solve all of the impacts which neighborhoods around our campuses are experiencing. We are committed to reducing the impacts we create to the extent that it is possible.

Portland Community College has researched and documented the current traffic demand situation at each of the three campuses and the college centers. Through the PCC Traffic/Parking Mitigation Task Force (See Appendix A) -- made up of college personnel, students, and community members-- the college has developed the following traffic demand management plan to address traffic flow and parking in each major college facility location.

Section I

**BACKGROUND**

**PCC CAMPUS/CENTER TRAFFIC AND PARKING OVERVIEW**

**SYLVANIA CAMPUS**

Location

Sylvania Campus is located at 12000 Southwest 49th Avenue, with entrances at S.W. 49th Avenue and S.W. Lesser Road.

Traffic Volume

Traffic conditions at Sylvania Campus were measured in a March 1991 study done by the consulting transportation engineering firm, Carl H. Buttke, Inc. At that time, traffic volumes into and out of the campus totaled 20,103 vehicles per day, with peak traffic times of 8:00 to 9:00 am (1,628 vehicles) and 5:00 to 6:00 pm (1,775 vehicles).

Number of Occupants per Vehicle

The study indicated that during the survey period of 3:00pm and 4:00pm on March 28, 1991, 82% of the motorists drove alone; 17% with one passenger; and 1% with two or three passengers.

Level of Service at Intersections

The study indicated that the stopped delay for vehicles entering or leaving the Sylvania campus during peak traffic hours were little or no delay to average traffic delays.

### Parking Supply and Occupancy

Parking supply and occupancy appears to be a problem at Sylvania campus. There are 3,184 parking spaces on campus. During the study period (April 3, 1991) the maximum number of vehicles (3,015) were parked on the campus between 11:00am and noon. During this hour, almost every lot was full and some vehicles were parked illegally.

Traditionally, the number of illegally parked cars is even higher during the first two weeks of the quarter and the last two weeks.

### Bus Service

Tri-Met provides service to the Sylvania campus via two bus routes. Based on a 1990 passenger survey from Tri-Met, it is estimated that 780 people use the two bus lines on an average weekday to travel to the campus, with a total daily ridership of 1,560 people.

### Car-pooling and Other Alternative Transportation

At present, there is no car-pool or van-pool coordination or incentives at the campus. Bicycle use is low, probably in part due to a lack of secure bicycle storage areas and extremely poor access to the campus. No provisions are made on either S.W. 49th or Lesser Road for safe bicycle movement.

## ROCK CREEK CAMPUS

### Location

Rock Creek Campus is located at 17705 N.W. Springville Road, Portland, with one major campus access road off of N.W. Springville Road. The campus complex includes buildings housing the Washington County Museum and the Washington County Educational Service District and the three organizations share parking space as well.

### Traffic Volume

Traffic conditions at Rock Creek Campus were measured in a one-week period between January 29 and February 6, 1991 and reported in a study done by the consulting transportation engineering firm, Carl H. Buttke, Inc. At that time, traffic volumes into and out of the campus ranged from a high total of 5,900 vehicles per day on Monday and Wednesday to a low of 3,900 vehicles on Friday. Peak traffic times were 8:00 to 9:00 am (524 vehicles), 11:00am to noon (502 vehicles), and 6:00 to 7:00 pm (474 vehicles).

### Number of Occupants per Vehicle

A study done on January 30, 1991 indicated that during the survey period of 3:30pm to 5:00pm, 87% of the motorists drove alone; 11% with one passenger; and 2% with two passengers. No vehicle contained more than two passengers.



### Level of Service at Intersections

The study indicated that the stopped delay time for vehicles entering or leaving the Rock Creek campus via major intersections during peak traffic hours was little or no delay to average traffic delays.

### Parking Supply and Occupancy

Parking occupancy studies on the Rock Creek campus were made on January 29 and 30 1991. There are 1,260 parking spaces on campus. The maximum number of vehicles were parked on campus between 11:00am and noon (1,011 vehicles). During the study the number of vehicles parked in the faculty and staff parking lot exceeded the capacity of the lot by four vehicles. Lot B, which is close to the main classroom building was fully occupied for about 5 hours. Lot F, which is close to another classroom building, was fully occupied for about 3 hours. Lots further away from the classroom buildings (Lots A and E) were only 75 to 80 percent occupied during the study period.

### Bus Service

Tri-Met provides one bus line to the Rock Creek Campus. Based on a 1991 passenger survey from Tri-Met, it is estimated that 100 people use the No. 52 route on an average weekday. This represents about 3% of the people coming to campus.

### Car-pooling and Other Alternative Transportation

At present, there is no car-pool or van-pool coordination or incentives at the campus. Bicycle use is low, perhaps because the campus is located in an area considered to be too far a travel distance for many bicycle riders and because of extremely poor access to the campus. No provisions are made on either N.W. 185th or Springville Road for safe bicycle movement.

## CASCADE CAMPUS

### Location

Cascade Campus is located at 705 North Killingsworth Street, Portland. The access roads to the campus include from the west on Albina, from the north on Kerby, from the east on Jessup, and from the south on Killingsworth. Interstate 5 is located three blocks to the west and provides easy access from the metropolitan area.

### Traffic Volume

Traffic conditions at Cascade Campus appear to be excellent, with good vehicle and public transportation access.

### Number of Occupants per Vehicle

Occupancy of private vehicles is very similar to patterns at Sylvania and Rock Creek campuses, with the average vehicle occupant count at 1.17 and 85% of the vehicles having just a driver with no passengers.

### Level of Service at Intersections

Both North Albina and North Killingsworth have capacity to support local traffic and college traffic. Minor delays due to turning vehicles can occur at the signalized intersection of these streets. Also, traffic turning in the campus at North Kerby Avenue from North Killingsworth Street also causes some delay. This is a dangerous pedestrian area because of the speed and volume of traffic at this point.

### Parking Supply and Occupancy

Parking represents the largest single land use for this campus. There are 375 parking spaces on the campus. These spaces are primarily located in one of two parking areas -- a lot north of the campus, and a series of smaller lots along the east edge of the campus. Limited on-street parking is provided on Kerby and Church Streets.

Off-street parking is currently near capacity for the existing enrollment. Traffic engineers indicate that any increase in enrollment will result in a corresponding direct increase in parking requirements. Given the restricted amount of land available, the need for additional off-street parking will require acquisition of adjoining properties with some structured parking. Concerns about anticipated parking expansion include the ability to maintain a comfortable scale within the neighborhood setting while providing adequate security for individuals and vehicles.

### Bus Service

Tri-Met provides convenient bus service to two sides of the Cascade campus and a significant ridership is already developed from the near north/northeast neighborhoods around the campus. Bus stops are located along Killingsworth and Albina and they provide easy access to the larger city-wide public transit system.

### Car-pooling and Other Alternative Transportation

At present, there is no car-pool or van-pool coordination or incentives at the campus. Bicycle use could be promoted and increased use of bicycles might realistically assume a larger role in the transportation mix if safe bicycle storage areas were provided.

## ROSS ISLAND CENTER

Ross Island Center is located at 049 SW Porter Street near the west end of the Ross Island Bridge in the former Failing School built in 1911. Ross Island Center is used as a classroom facility for the Open Campus Program as well as an administrative center for college services. Space is currently divided as a 60% office and 40% classroom mix. Employees number 160 and during peak hours there will be approximately 80 students on-site.

There are 146 parking spaces at Ross Island Center as well as convenient on-street parking on SW Porter, SW Hooker, and SW Front Ave. There is competition for the on-street parking, however, because this location is also convenient as commuter parking for people using mass transit to go downtown. A parking permit zone is being formed to eliminate this problem.

Bus transportation is located within 2 to 2 1/2 blocks of Ross Island Center; however getting to the buses is sometimes a problem due to the lack of safe pedestrian routes in the area. Informal assessment indicates that a large percentage of students attending classes at Ross Island Center do use the transit system.

When light rail is established along Barbur Boulevard, the plan is to have access within 4 blocks of Ross Island Center with connections to Sylvania Campus, downtown Portland, and a large portion of the metropolitan area.

## SOUTHEAST CENTER

Southeast Center is located at 2850 SE 82nd Avenue between Division and Powell Streets. The building was purchased by PCC about 10 years ago and converted to a general purpose classroom facility and specialized industrial and vocational training site.

Currently Southeast Center houses 25 permanent and 100 part-time staff members. During peak class hours (6:00 to 8:00pm) up to 600 students will be on site.

The parking lot has 364 vehicle spaces. Off-street parking is more than adequate to meet daytime needs but peak evening hour needs cause some overflow parking into unimproved neighborhood streets to the north and east. The impact of this overflow parking is primarily related to noise, but safety is also impacted due to the narrow unimproved streets.

Southeast Center is served by excellent bus transportation on S.E. Powell, S.E. Division, and S.E. 82nd Street. Many of the students and staff using the Southeast Center facility use bus transportation.

## OTHER LOCATIONS

Open campus programs are offered throughout the district. At present there are about 200 locations where individual classes are held. The open campus sites include schools, community centers, senior centers, and in the offices and facilities of local businesses. Some short-term leases, usually with State or Federal government support, are used to insure space for specific programs.

Open campus programs are usually conducted during evening hours so impacts to roads and neighborhoods are negligible. Most locations have adequate off-street parking. However, trips to and from these classes do contribute to larger regional concerns such as air quality, however. To minimize this impact, classes are scheduled for locations as close to the user groups as possible.



## SECTION II

### GOALS AND SUMMARY OF RECOMMENDATIONS

#### GOALS

The following goals have been proposed to mitigate existing traffic and parking problems and prepare for increasing use of facilities at Portland Community College campuses and centers.

1. To reduce single occupant vehicle trips to PCC campuses and centers by 4% in the first year of the plan, and by 20% over the next five years.
2. To increase participation in alternative methods of transportation including bus, car-pool, bicycle and pedestrian traffic.

Target rates are as follows:

Transit - Increase 5% in first year.

Car-pool - Increase to 10% staff and 5% student participation by end of the first year.

Bicycle - Begin construction of bicycle shelters.

3. Improve parking and circulation at campus and center locations so that people who need to use private vehicles will be able to find parking in a short period of time at any time of the day. Meeting this goal should reduce and ultimately eliminate the need for parking in adjoining neighborhood areas. Also reduce congestion at entries and exits at peak periods.
4. Reduce auto/pedestrian conflicts both on campus/center locations and in surrounding neighborhoods by working with neighbors and neighborhood associations to determine the level of conflicts and complaints related to PCC-generated auto/pedestrian traffic. Monitor incident reports and Public Safety reports to see if use of neighborhood parking is being reduced as planned.
5. Reduce "peak period" impact on local area traffic and neighborhoods by scheduling classes more evenly throughout the day.

## SUMMARY OF RECOMMENDATIONS

The following is a summary of recommendations for attaining the goals. Detail on each of the recommendations is found in Section III, "Recommended Actions."

1. To reduce the number of single occupant vehicles, we recommend implementing vehicle registration and pay parking systems for all PCC campuses and centers. The pay parking would cover all vehicles and all users of PCC facilities (students, faculty, and staff) Proceeds from the parking fees would be used to fund programs that promote alternative transportation uses and enforcement of the system.
2. To encourage alternative transportation means, we recommend a concentrated effort to promote the use of transit, car- and van-pools, and bicycles through incentive and educational programs. Recommendations include improved transit convenience, discounted transit passes, and reduced parking fees for car- and van-pools.
3. To improve parking and circulation of traffic at campuses/centers we recommend aggressively enforcing the existing PCC motor vehicle code (See appendix B) as well as assigning more desirable parking areas to car-pools. Also, it is recommended that we use

the PCC vehicle registration system to identify non-PCC user vehicles that are using PCC parking and road facilities.

4. To reduce the impact of PCC auto/pedestrian conflicts, we recommend increased response by the Department of Public Safety to any complaints from community members regarding on or off-campus violations. Information regarding the process for filing complaints will be distributed by, and available from, the Department of Public Safety at PCC.
5. To reduce the parking and traffic problems associated with "peak hour" congestion, we recommend that as new computer equipment becomes available for scheduling, we use the more sophisticated system to balance the schedule of classes to avoid creating peak hours.

### SECTION III

#### SHORT-TERM RECOMMENDED ACTIONS

The Traffic Demand Management Plan recommends the following short-term actions to accomplish the goals set forth in the Plan:

#### Implement Vehicle Control Measures

##### Vehicle Registration and Pay Parking

A key factor in meeting traffic management, safety, and parking goals is the ability to control vehicular traffic flow on the campuses and centers. Vehicle registration and pay parking are necessary elements in effective control. Starting on January 5, 1993 we will initiate mandatory vehicle registration and a parking fee program at all campuses and centers.

Fees will be assessed as follows:

Full-time student	\$30.00 per quarter
Part-time student	20.00 per quarter
Single class fee	3.00 assessed to class provider
Full-time Staff	120.00 per year
Part-time staff	7.00 per month

Permits will be issued only to PCC constituents holding a valid driver's license and demonstrating current vehicle insurance.

Vehicles on campus/centers without the mandatory valid registration or identification will be subject to fines as established by the College. (See Appendix B, College Motor Vehicle Code).

Fees generated by permits and registration as well as fines collected for violations will be used as follows:

1. To pay for additional public safety personnel needed to police the system, necessary equipment to maintain positive control, and to establish an Office of Traffic and Parking Operations under the Department of Public Safety.
2. To pay for maintenance of parking lots and roads and for any construction related to elements of the Traffic Demand Management Plan.
3. To subsidize transit passes/tickets for PCC students and personnel.
4. To offset administrative costs for implementing the plan.
5. To fund any activity promoting any of the plan's measures.

### Sylvania Campus Traffic Control Measures

At Sylvania campus, there is an additional vehicle control problem associated with non-PCC vehicles that use the campus perimeter road as a short cut between SW 49th Avenue and SW Lesser Road. Using this short-cut increases the volume of traffic on both streets as well as increasing traffic on campus. To mitigate this problem, PCC will install additional signage and will aggressively enforce the campus motor vehicle code (See Appendix B). Additional traffic abatement measures, including controlled access to PCC campuses and centers, is being reviewed at this time.

### Visitor Parking

Dedicated visitor parking will be provided and visitor permits will be provided at information booths at all campuses and centers. Additionally, metered parking will be available.

### **Promote Transit Use**

To promote use of Tri-Met buses by students, faculty, and staff, PCC recommends implementing the following measures:

1. Establish alternative transportation services coordination through the Office of Traffic and Parking Operations.
2. Provide Tri-Met bus schedule kiosks in all major buildings and in other key locations on all campuses/centers.

3. Coordinate with Tri-Met to provide educational materials and promotional opportunities that encourage transit use.
4. Work with Tri-Met to ensure that bus service and schedules are as convenient as possible for PCC riders.
5. Provide subsidized or discounted bus passes/tickets for students, faculty and staff who use transit.
6. Enlist the Associated Students of Portland Community College (ASPPCC) in promoting transit use for students.
7. Conduct a transit fair at each campus/center as an awareness event each Fall as the new school year starts and provide information as part of the college's quarterly orientation session.

#### Encourage Car-Pooling

To encourage car-pooling, PCC recommends the following recommended actions:

1. Provide a staff person from the Office of Traffic and Parking Operations to promote car-pooling and to work with Tri-Met on an effective educational program that promotes the benefits of car-pooling.



2. Provide dedicated reserved parking spaces for car-pool vehicles in desirable locations at campuses and centers. The closest spaces would be reserved for vehicles carrying 4 or more persons, and spaces would be allocated according the number of occupants in the vehicle. This space allocation would exempt legal handicap parking permit vehicles and certain college personnel that, because of the nature of their work, must use their vehicles to go to other campuses and centers throughout the day.
3. Reduce parking fees for those who car-pool regularly. The recommended reduction is \$5.00 for each passenger who is registered in the car-pool up to a maximum reduction of \$20.00 per quarter for full-time students or \$60.00 for full-time employees for a full year.
4. Use the new mainframe computer equipment, when available, to create car-pools by matching the student or employee's PCC schedule with points of origin.
5. Establish rider boards on each campus and center to assist people in finding car-pool members.
6. Enlist the assistance of the ASPCC in an effort to promote car-pooling within the student community.
7. Provide information to all special event groups that use campus or center facilities that parking is limited and cannot be guaranteed. Use the information to encourage transit and car-pool use.

### **Increase the Use of Bicycles**

To increase the use of bicycles as a alternative transportation means for students and employees of PCC, we recommend the following actions:

1. Build on-campus bicycle shelters to protect bicycles from the weather and to ensure secure storage. Select sites that can be continuously monitored.
2. Work with city and county jurisdictions and neighborhood groups to promote and develop safe, convenient routes for bicycles as well as pedestrians.
3. Study and improve bicycle routes on campuses to increase safety and convenience.
4. Provide free bicycle registration and identification through the Department of Public Safety to everyone using bicycles as regular transportation to a PCC facility.

### **Restructure Class Scheduling and Registration**

A new computer system is being developed for PCC that will allow more sophisticated scheduling and registration procedures. Recommended actions that will impact traffic and parking are as follows:

1. Spread class loads more uniformly throughout the day to avoid peak hour traffic. Additional facilities are planned that will allow for this increased schedule flexibility because the space requirements exceed the existing available space.

2. Initiate telephone registration once the new computer is on-line.

#### **Streamline Staff Travel Between Campuses/Centers**

PCC will study and initiate new systems to reduce staff travel between campuses and centers for meetings. The following are recommended actions under consideration:

1. Schedule all on-campus meetings for Monday, Wednesday, and Friday. All off-campus meetings would be held on Tuesdays and Thursdays.
2. Limit meetings to only those that require face-to-face interaction between participants. Promote the use of conference calling and interactive tele-video meetings.
3. Seek out and use non-travel programs whenever possible as an alternative to programs that require travel.
4. Schedule special programs in the facility that is closest to the population attending the program.

#### **Provide Educational Programs on Safety and Alternative Transportation Use**

The success of the Traffic Management Plan depends on both awareness and incentives for traffic safety and reducing single-occupant vehicle use on the campuses and centers. The College Department of Public Safety will provide awareness through educational opportunities such as:

1. Regular articles in college publications and newspaper regarding traffic safety and alternative transportation choices.

2. Special awareness events will be offered to promote responsibility for safety and alternative transportation opportunities.
3. Persons who repeatedly demonstrate unsafe driving practices, and who are in jeopardy of losing their privilege to drive on college property, may elect referral to a certified traffic safety class.
4. Cooperation with neighborhood groups and other jurisdictions in promoting safety and alternative transportation choices.
5. Promote and support future alternative transportation development such as light rail.
6. Post signs at exits to campuses and centers promoting safety and alternative transportation means.

## Section IV

### LONG-TERM RECOMMENDED ACTIONS

The Traffic Demand Management Plan recommends the following long-term actions to accomplish the goals set forth in the Plan:

#### Promote Transit Use

To promote increased use of transit, we recommend:

1. Construct improved bus shelters on campus locations.
2. Complete the ring road around Sylvania campus and develop at least three additional bus stops to make transit as convenient as possible.
3. In cooperation with other educational institutions located on the Southwest 185th corridor, develop a shuttle between the Westside Light Rail Station at 185th and the Rock Creek campus.
4. Exploring the feasibility of instituting Park and Ride parking and shuttle service to various campus locations.

#### Encourage Car-Pooling

To encourage car-pooling we recommend:

1. Study the possibility of providing college-purchased multi-passenger vans to groups interested in van-pooling.
2. Provide covered and/or enclosed walkway systems from car-pool parking areas to buildings.

### **Increase the Use of Bicycles**

To increase the use of bicycles on campuses and centers as an alternative transportation means, we recommend consideration of the following long-term actions:

1. Provide bicycles on a rental or long-term low-interest loan basis to people who are unable to afford a bicycle.
2. Join with other jurisdictions in constructing bike paths, pedestrian/bicycle overpasses, and other means to improve bicycle and pedestrian safety where needed at campus/center locations.

### **Restructure Class Scheduling and Registration**

In restructuring class scheduling and registration, we recommend the following long-term action:

1. Study systems for service delivery in alternative locations to campuses and centers. Consider using community centers and user homes, for example.

### **Streamline Staff Travel Between Campuses/Centers**

To streamline staff travel, we recommend:

1. Consider opportunities for employees to work at home whenever possible, and provide necessary tools and systems to support this effort.

## Section V

### REPORTING AND EVALUATION OF THE TRAFFIC DEMAND MANAGEMENT PLAN

Portland Community College understands that a plan is only as good as the results it achieves in meeting the stated goals. To evaluate progress toward meeting our goals, we will do the following:

1. The first implementation measures will go into effect starting with Winter Term 1993 (September 1, 1992) and will be phased in during the Fiscal Year 1992-93.
2. In June 1993 the TDMP Committee will meet again to evaluate progress, establish new 12 month goals, discuss any new concerns, and recommend those measures that should be continued, expanded or eliminated. Any new measures needed to meet the overall goals will also be considered at this meeting. The committee will be comprised of college staff, students and community representatives.
3. A report will be generated from the TDMP Committee that will be published and submitted to the jurisdictions and citizen organizations in our campus areas for their review, comments and input.
4. Based on the comments received a final plan amendment will be developed which will outline the goals and implementation measures that will govern the next year of the plan.

5. This process will be repeated on an annual basis until the Committee is satisfied that no further improvement is necessary or possible.