

***DRAFT***

**Corvallis Area**

**Transit Master Plan**

**2006**

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# Executive Summary

Corvallis Transit System (CTS) is a well-run service that is widely appreciated in the community. Its productivity of 23 boardings per revenue service hour<sup>1</sup> is high for comparable communities, especially given that the quantity of service, measured in service hours per capita, is unusually low. In other words, by the standards of similar cities with similar universities, Corvallis operates relatively little service but gets good ridership on the service it does provide.<sup>2</sup>

The system provides a number of key transportation functions in Corvallis including, but not limited to: providing a transportation alternative to those in the community that have no other option; providing a transportation alternative that has a lower cost and lower impact on the environment; and providing a resource that can be used in times of local emergency for moving groups of citizens, first responders, etc.

As transportation costs related to reliance on petroleum-based fossil fuels continue to increase, demands placed on public transportation systems as an alternative to privately owned transportation are expected to increase significantly.

Although the current system is popular, Corvallis is growing and changing in ways that require the transit service to grow and change. This report provides both short- and long-range service concepts for the future development of the Corvallis Transit System as well as a marketing plan.

## Key Planning Recommendations

To accommodate the growth of the City and its transit demand, several fundamental shifts in the design philosophy of the system are proposed. The shift of focus described by these recommendations is typically required as communities grow and transit demand grows more intense.

First, transit service needs to be designed in a way that more closely reflects patterns of development intensity. The proposed future systems concentrate more services in the corridors where development, and therefore, demand, is more intense. Areas consistently developed at residential densities below seven (7) units per acre<sup>3</sup> and lacking other major transit destinations may not be able to support fixed route service at all. Demand-responsive service can be a solution for providing minimal access to such areas, although even this will be a far less productive use of resources than high-frequency service in more densely developed areas.

Transit service concentrated in higher density areas provides for transit equity by providing service based upon the service hour per capita in a particular area.

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<sup>1</sup> 2003-04 ridership data

<sup>2</sup> See Chapter 2, Peer System Analysis

<sup>3</sup> Corvallis Land Development Code residential designations of medium density, medium-high density or high density.

The concentration of service around densely developed areas will make the system more competitive with the automobile because it focuses resources where the demand is greatest and where the automobile is at the greatest disadvantage. It will also make the system more productive because service is concentrated where it will be most heavily used.

Second, transit needs to continue to place a premium on speed. The current system is bogging down under increased demand and rising congestion at certain times of the day. If the system slows down to an unacceptable level, it will become necessary to add buses to maintain the existing service levels or to cut service in some areas to make the routes shorter. Apart from serious cost impact, loss of speed also affects the attractiveness of service to the customer.

At the same time, CTS will continue to fulfill its mission to “provide community access as a social service by providing transportation to youth and elderly, disabled, and low-income citizens.”<sup>4</sup> This is accomplished through maximizing access for as many people as possible by concentrating resources where it can serve the most people who need to use transit. Additionally, CTS will continue to provide paratransit for those who cannot utilize fixed route services.

To integrate these imperatives, the City needs to include transit in the comprehensive planning process in land use and street and transportation system design.

Although any roadway classified as an arterial (primary, major or minor), or collector (both “collector” and “neighborhood collector”) could be a transit corridor, this report identifies a number of proposed Primary Transit Corridors. These would be the arterial and collector streets on which the City should plan to provide its highest level of service with the goal of achieving 15-minute, all-day headways within the 20 year planning window. These corridors are:

- 9<sup>th</sup> Street between downtown and Elks Drive
- Highland between Walnut and Buchanan
- Kings Boulevard between Monroe and Walnut
- Walnut Boulevard
- Monroe between Kings Blvd and downtown
- South 3<sup>rd</sup> Street (Highway 99W) between Rivergreen Avenue and downtown
- Technology Loop between 53<sup>rd</sup> Street and Research Way
- Jefferson between 35<sup>th</sup> Street (Oregon State University campus) and downtown
- 35<sup>th</sup>/36<sup>th</sup>/Witham Hill from Jefferson to Walnut
- Circle Boulevard
- Western/West Hill Rd between 3<sup>rd</sup> Street and 53<sup>rd</sup> St
- Satinwood from Walnut to Elks Drive

Along the corridors, the City (with the cooperation of the Oregon Department of Transportation on state highways and Benton County on county roads) should pursue an integrated strategy of improving transit orientation, including strategies such as:

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<sup>4</sup> Corvallis Transportation Plan, Section 5, adopted August 5, 1996 (Ordinance 96-26)

- encouraging future transit-dependent development to locate along these corridors rather than elsewhere, including dense housing, secondary schools, retail, medical facilities, and government facilities serving the public.
- requiring transit-oriented building orientation and appropriate treatments for pedestrian safety and access.
- including in the street functional classifications the goal of *protecting current transit operating speeds* even as traffic increases. Over time, this may trigger the need for new transit-preferential treatments to protect transit from congestion-related delays. Examples are: transit signal priority, queue jumps, queue by-pass lanes, and exclusive transit lanes.
- express routes

Along the corridor(s) located primarily on the Oregon State University (OSU) campus, the City, with the cooperation of OSU, should pursue an integrated strategy of improving transit orientation, including strategies such as:

- transit-oriented building orientation and appropriate treatments for pedestrian safety and access.
- maintaining bus stops at appropriate locations, approximately 800 to 1,000 feet apart.
- on-campus parking pricing and availability to encourage transit use.
- providing bus stop amenities, such as passenger shelters.
- ensuring no/minimal obstructions to efficient transit ingress/egress and bus traffic flow (no speed bumps, priority bus lanes, for example).
- Coordinating CTS services with the on-campus shuttle service

These strategies are discussed in greater detail in Chapter 6 and in the Transportation Alternatives Analysis Report in the Corvallis Transportation Plan.

By pursuing these goals along all of the primary corridors, the City can ensure that transit will be highly competitive and productive there, and thereby reduce the pressure for automobile use even as the City grows.

### **Long-Range Plan**

The long-range plan, Chapter 4, presented in this report envisions a substantial growth in the amount of transit service. To keep up with demand, transit service must grow faster than population because as cities get larger, transit demand per capita tends to rise. The long-range plan, of course, will require expanded funding to implement, which will require a long-term process of building consensus in the community about the consequences of growth and the benefits of public transportation.

Chapter 4 provides two scenarios for different levels of investment and different land use patterns. The Low Growth Scenario expands the system, providing more frequent service along most corridors. The High Growth scenario expands the system more dramatically and would provide about one service hour per capita at 80,000 population. These scenarios are envisioned for the study year of 2030. The Corvallis Area Metropolitan Planning Organization (CAMPO) Regional Transportation Plan (RTP), adopted September 2006 anticipates similar increases in CTS service and has projected which decade it anticipates these increases to occur. Again, any increase in service is dependent on funding.

The long-range plan scenarios are most efficient in a future land use pattern in which most new transit-oriented development<sup>5</sup> occurs within the *current* city limits or along existing and designated future transit corridors. This includes any and all high-density housing (above 7 units per acre) as well as significant retail, hospitals, secondary schools, colleges, medical facilities, and government offices that do business with the public. If any of these uses are developed outside the current city limits or in areas outside the primary service corridors of the long-range system, then the costs of transit to serve them will be greater and the cost-effectiveness of the system will be dramatically less.

### **Short-Range Plan**

A short-range plan for enhancing CTS in the short term is included in Chapter 5 and moves in the direction of the long-range strategy. One scenario maintains the current service hours and one scenario adds one additional bus.

The proposed short-term redesign includes the following features:

- Restructuring of some routes to concentrate service where the highest demand exists.
- The addition of demand-responsive service in low-density areas currently served by transit.

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<sup>5</sup> “Transit-oriented development” generally consists of residential and commercial development mixed and organized to provide optimal walk access to transit. Transit-oriented development requires moderate density around transit stops with apartments located closer than single-family houses. It also requires commercial buildings to be oriented for direct access from the street. Finally, transit-oriented development must be consistent with CTS’s need to protect operating speed. Therefore, it does not require awkward deviations, and its attendant street design supports transit’s speed goals.

# Chapter 1 – CTS 2005

## 1.1 HISTORY

The City of Corvallis assumed the responsibility for providing public transportation on January 5, 1970 when the City contracted with the Corvallis Transit Company. In the mid-1970s, the public transportation system became the Corvallis Transit Authority and operated one multi-passenger van (with one van as a back-up) running on five routes originating from NW 3<sup>rd</sup> Street and Madison Avenue, Monday through Saturday, 7:40 a.m. to 5:26 p.m. As the result of both a federal operating grant and a local property tax levy, the Corvallis Transit System (CTS) began and has existed since 1981. But the city operated transit service is not the first transit service in Corvallis. That distinction belongs to a horse-drawn streetcar line which operated during the 1890s from the railroad depot at 6<sup>th</sup> and Western to downtown along 2<sup>nd</sup> Street, and - until 1893 - out to new houses at the edge of Corvallis at 16<sup>th</sup> and Taylor. After the streetcar line ceased operation, individual hotels operated horse-drawn “hacks”. Later, a gasoline-powered bus operated from the late 1920s until the Great Depression. Following World War II, Hancock Bus Lines began operations that continued until the late 1950s, by which time most Corvallis residents had access to private automobiles. Afterwards, a number of owner-operated bus lines tried unsuccessfully to operate.

The City established the Citizens Advisory Commission on Transit (CACOT) in September, 1977. The Commission advises the City Council on all transit-related matters. The eight members of CACOT are appointed by the Mayor, with the advice and consent of the City Council. The make up of CACOT was changed May 3, 2004<sup>6</sup> to add two new voting members to reflect the relationship between CTS, Oregon State University (OSU), and the Associated Students of Oregon State University (ASOSU). The ASOSU member is appointed by the Mayor based upon a recommendation by ASOSU, and the OSU member is appointed by the Mayor based upon a recommendation by OSU Administration. Some of CACOT’s first tasks in 1977 were to review a draft transit development plan, consider an application for a federal grant for transit capital costs, and recommend the scope of a special property tax levy dedicated to transit. CACOT’s activities include reviewing the fare structure, participating in transportation funding alternatives discussions, reviewing route changes, considering advertising on buses, and participating in discussions regarding designated stops.

In February 1980 Corvallis voters passed a 3-year serial levy to fund the operation of a city-owned bus system. This levy, which charged 31 cents per thousand dollars of assessed value, passed with nearly 62 percent of the vote. The City subsequently received a federal grant to purchase three 40-passenger GM buses and received a small, annual operating grant through the Oregon Department of Transportation (ODOT). The City contracted with Dorsey Bus Lines<sup>7</sup> to maintain and operate the buses, and the Corvallis Transit System began operation in February, 1981. Local funding for CTS operations continued through a series of 3-year transit levies until 1996 when State Measure 47 and then Measure 50 limited serial levies. The transit levy, as well as other special levies, were consolidated into the City’s property tax rate in the General Fund. It should be noted that property tax levies to support transit levies were generally approved by Corvallis voters by a more than two-to-one margin in favor.

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<sup>6</sup> Ordinance 2004-05

<sup>7</sup> Dorsey Bus Lines was already operating school bus transportation for the Corvallis School District 509J.



## 1.2 OPERATIONS

### 1.2.1 Fixed Route

CTS provides service six days a week within the Corvallis city limits between approximately 6:15 a.m. and 7:15 p.m. on weekdays and 9:45 a.m. and 4:45 p.m. on Saturdays. No service is provided on Sundays, New Years Day, Memorial Day, Independence Day, Labor Day, Thanksgiving, or Christmas. Six buses operate eight routes that originate at the Downtown Transit Center at 5<sup>th</sup> Street and Monroe Avenue. Four buses alternate between two routes. Three buses leave downtown and after entering a section of Corvallis on one primary street, make a loop and then return downtown on a different primary street. One route travels directly out and back to downtown along the same streets and has the highest ridership per hour of the system. Two buses are dedicated to one route each with a large loop at the outer end of the route and travel in both directions on the same street for most of the route.

As a consequence of the route structure, the number of buses, and the resources available, six routes operate 60-minute headways and two routes operate 30-minute headways. Two buses per hour serve some locations (e.g. OSU, the Good Samaritan Regional Medical Center, Timberhill Shopping Center, Technology Loop, and south Corvallis). Because of differences between routes, service to these locations does not necessarily occur every 30 minutes or in the same direction of travel. Some streets have portions of two routes on them, including portions of 9<sup>th</sup> Street, Circle Boulevard, Technology Loop, Highland Drive, Jefferson Avenue, 26<sup>th</sup> Street, and Satinwood Street.

The route structure has three main constraints: (1) City policy, which calls for transit service to be provided within five (5) blocks of all residences wherever possible; (2) the desirability to return downtown every 30 minutes or hourly to facilitate transfers and simplify the schedules; and (3) street pattern constraints. As a result, CTS service has tended to emphasize coverage over service frequency or intensity, although extra peak-hour service has been provided to OSU in the past. Depending on one's definition of a "block", CTS is generally successful in meeting the service coverage goal except in newly developed areas in northwest and southwest Corvallis.

Other constraints to providing service within the City include: inadequate pavement structure to support buses on some streets, inadequate roadway widths, and residential areas with only one viable way in and out (for example, Ponderosa Avenue and Village Green). These limited access areas often provide no way for buses to turn around.

The fixed-route service and bus maintenance continues to be contracted out. The 2004-05 contractor is Laidlaw Education Services, Inc. under the terms of a 3-year contract with two 1-year extensions.<sup>8</sup> The current contract expires in 2008.

### 1.2.2 Paratransit Service

As a fixed route service provider, the City is required by the Americans With Disabilities Act (ADA) to provide complementary paratransit service to those persons who are unable to use the fixed-route service. CTS is

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<sup>8</sup> Dorsey Bus Lines was sold to Mayflower Contract Services, Inc, and Mayflower was purchased by Laidlaw Education Services, Inc. These businesses have provided the City's fixed-route transit contract service since its beginning in 1981.

required to provide paratransit service during the same hours and days as the regular fixed-route bus service. The City's paratransit contractor is Dial-A-Bus, which is operated by the Senior Citizens Council of Benton County, Inc. This demand-responsive service has its own management, 8 full-time paid drivers and 27 volunteer drivers<sup>9</sup>. Dial-A-Bus also provides and maintains the paratransit vehicles. The service is provided through an annual contract.

Dial-A-Bus also provides its own, distinct services for seniors and persons with disabilities in partnership with Benton County.

### **1.3 VEHICLES, FACILITIES AND EQUIPMENT**

#### **1.3.1 Vehicles**

Since the original three buses were purchased in 1981 to begin transit service, CTS has been able to replace buses and add buses to its fleet over the years and maintains spare/back-up buses as per the Federal Transit Administration (FTA) policy. The following describes the current fleet:

- 1 1991 35-foot Gillig Phantom Bus (planned replacement in 2005-06)
- 3 1994 35-foot Gillig Phantom Buses
- 1 1996 Heritage Street Car Trolley
- 2 1997 35-foot, Gillig Phantom Buses
- 2 2002 low-floor, 35-foot Gillig Phantom Buses
- 9 total

All of the system's existing buses are accessible and meet ADA requirements. Seven of the 35-foot Gilligs have a wheelchair lift, two wheelchair tie-down positions, and a kneeling feature. The trolley has a wheelchair lift and two wheelchair positions. The 2002 35-foot Gilligs are low-floor models, with a wheelchair ramp instead of a lift. The low-floor vehicles are becoming an industry standard because of their accessibility for all customers and faster boarding and deboarding times. The life expectancy of the Trolley and 35-foot Gillig buses is 500,000 miles or 12 years, whichever comes first. The City has a vehicle replacement schedule based on those criteria and requests Congressional grants for the replacements.

The City is adding an automatic stop announcement/automatic passenger counting/global positioning system to its bus fleet in the spring of 2005. In addition to providing enhanced service to the riders by announcing the stops, it will also provide accurate, on-going information to assist in management decisions regarding route design and stop locations and facilities.

#### **1.3.2 Facilities**

The Downtown Corvallis Transit Center was completed in January 2003 with the majority of the funding coming from a Federal Transit Administration (FTA) Section 5309 capital grant. Space is available for 5 buses

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<sup>9</sup> As of June 29, 2004

internal to the site and 2 buses on the street. The Transit Center has created a positive image for transit in addition to providing a safe, sheltered, and convenient place for customers to wait for a bus or transfer to another bus.

The City has received another FTA Section 5309 grant for \$257,482 to fund the preliminary design and environmental process for development of a City-owned transit operations and maintenance facility. The 80-percent grant would be matched with 20-percent (\$64,370) of local Transit Funds and is a planned expenditure within the 2004-05 capital improvement program. The City will seek additional federal grant funds for land acquisition and construction.

The City has 75 passenger shelters located throughout the community. Some were purchased through capital grants, some were required to be provided as a condition of private development projects and, more recently, some have been partially funded through Corvallis Systems Development Charges. Bus shelters are key transit infrastructure facilities and should be provided as funds allow and as a condition of private development where appropriate.

### **1.3.3 Bus Stop Equipment**

Bus stop signs have been replaced or added throughout the community in recent years. The designated stop system was fully implemented in 2004 and resulted in approximately 280 designated bus stop signs. Corvallis received a state grant to purchase and install the new bus stop signs.

## **1.4 FUNDING**

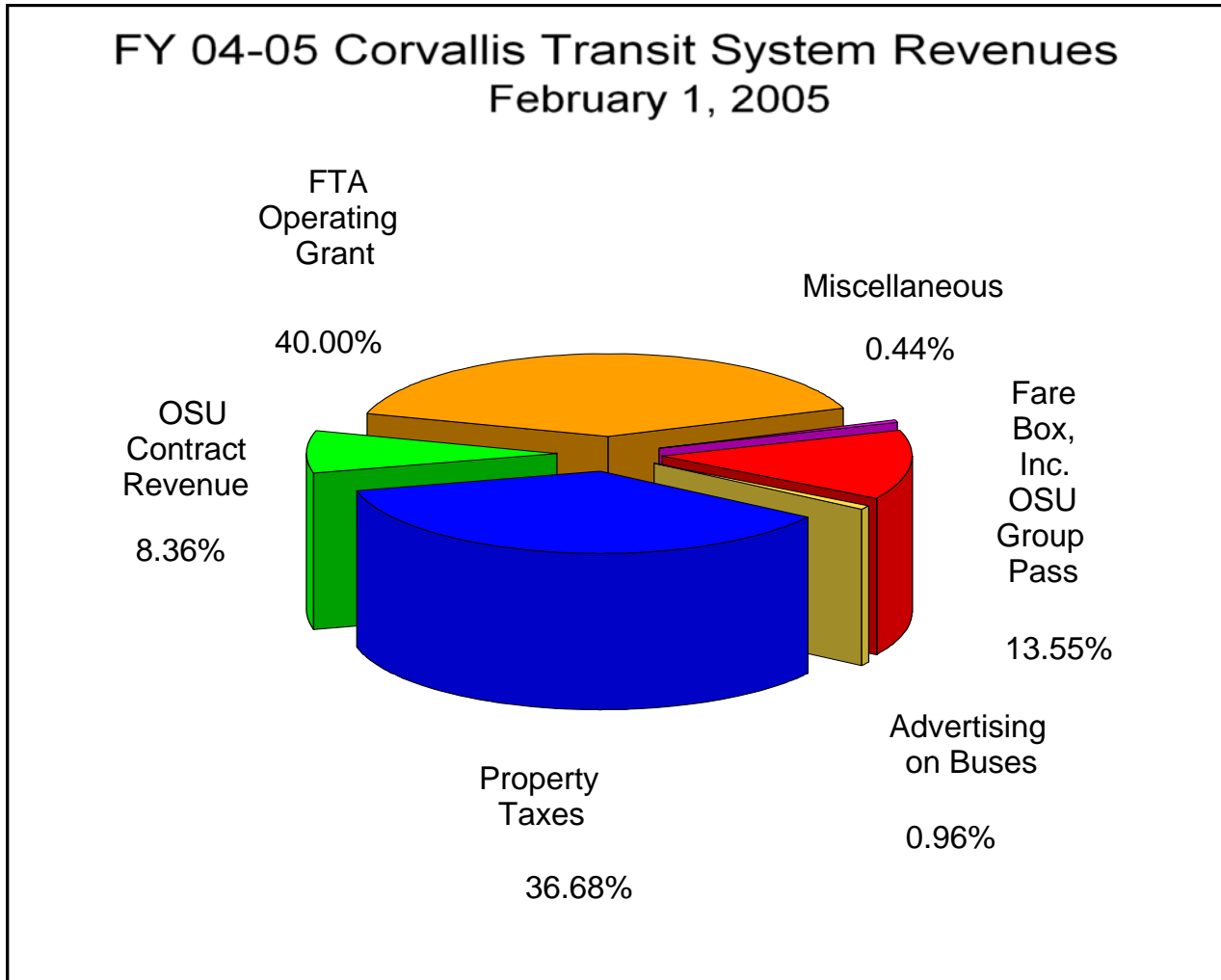
### **1.4.1 Operations**

Fixed Route. Operating fund sources for CTS come from several sources, including City General Fund (property taxes), federal government (FTA 5307 grant), Oregon State University (group-pass program and support contract), Associated Students of Oregon State University (group-pass program), fares, and some miscellaneous funding such as revenue from bus advertising space sales, pass-through business energy tax credits (BETC), interest earnings and donations. The operating fund sources have experienced two major changes since 2003. The Corvallis area was designated as an urbanized area (UZ) as a result of the 2000 census and a Metropolitan Planning Organization (Corvallis Area Metropolitan Planning Organization) was formed in 2002. Federal transit funding is from the FTA's Section 5307 fund for urbanized areas. Previously CTS was funded through the FTA's Section 5311 small city/rural program, administered through ODOT. This change to Section 5307 funding has resulted in significantly more federal transit operating dollars, increasing from approximately \$144,000 in FY 2002-03 to an estimated \$588,000 in FY 2004-05. Additionally, Oregon State University (OSU) has agreed to contribute toward transit operations in addition to its group-pass program for OSU faculty and staff. OSU will continue to provide \$20,000 for the group-pass program for faculty and staff in 2004-05 and additionally will provide a direct contribution of \$130,000 for operations. The ASOSU group pass program covers rides provided to OSU students. Students pay a for the group-pass program through their incidental fees, estimated at \$105,000 for 2004-05. The OSU group-pass and transit support contracts and ASOSU group-pass contract are negotiated annually.

The increased federal and OSU funds have allowed a reduction in the City's General Fund contribution to transit from about 65% of operating revenue to about 37% and allowed continuation of the same service level in 2004-05 as existed in 2003-04. See Figure 1-1 for FY 04-05 revenue sources.

**Figure 1-1 2004-05 Revenues**

The City increased CTS passenger fares in 2004 and is considering other revenue enhancements. The City Council has a policy of requiring transit users to contribute toward the operation of the system, while remaining sensitive to the fact that many of the system's users are those who have limited financial resources.<sup>10</sup> CACOT



adopted a policy which would establish a target for farebox recovery percentage rate of 14-15%. Another revenue enhancement takes advantage of the State's Business Energy Tax Credit (BETC) program through the Oregon Department of Energy. Under this program, an entity with an Oregon business tax liability can become a partner with the City of Corvallis and dedicate a portion of their state income taxes as a "pass-through" to help fund the operation of CTS. This program could generate up to \$400,000 annually for operations. The City has a partner for this program and its application has been approved by the State. While this program can provide some much needed new revenue for CTS, the BETC program could be eliminated at any State Legislative session and put the transit system at risk of major reductions in future years without replacement revenue. Because the long-term viability of this source is questionable, the current level of General Fund support should be maintained and fund reserves built up for the time when the BETC credits are not available.

<sup>10</sup> 1994 Transit Strategy, adopted by the City Council on May 2, 1994

Although the revenue is small, the City recently entered into a contract with Lamar Advertising for advertising on the buses that provides about \$25,000 per year in additional funding. The funding level from this source is expected to remain level into the future.

Paratransit Service. The City’s paratransit service is supported through a partnership between the City of Corvallis, Dial-A-Bus, and Benton County. Benton County receives Special Transportation Funds from the State of Oregon, through ODOT, to support transportation for seniors and persons with disabilities.<sup>11</sup> Most of that funding has been used to fund the Dial-A-Bus operation in Benton County. The City provides some additional funding to support this service. Originally, the amount of Corvallis funding was to pay for the hours needed to provide paratransit during CTS service hours which exceeded the regular Dial-A-Bus operating hours. Currently, Dial-A-Bus hours exceed those of CTS.

### **1.4.2 Capital**

Capital purchases for buses, bus equipment, the transit center, bus shelters, and other capital equipment have generally been funded through federal funds at a rate of 80 percent federal funds and 20 percent local match. In the early years, some of the federal funds (FTA Section 5311 funds) were secured through the State of Oregon, Oregon Department of Transportation. The City now uses the FTA’s Section 5309 discretionary grant program, administered directly by the FTA but subject to earmarking by Congress, to fund capital purchases. Because of the significant costs, the City relies upon federal grants to accomplish bus replacements.

As noted above, the addition of some bus shelters has been accomplished through grants, private developments, and the City’s Systems Development Charges.

### **1.4.3 Funding Stability Issues**

While the City has been able to increase revenues from sources outside of the city’s General Fund, several of those revenue sources rely upon annual contracts and a State program (BETC) that is subject to biennial review. The City began a community dialogue regarding the establishment of a transportation district in 2002, in part to address long-term funding stability. For several reasons, primarily to expand the discussion to consider transit from a regional perspective, the lead role for this discussion was assumed by the Benton County Board of Commissioners. Little has been done to date to continue that discussion.

## **1.5 RIDERSHIP**

CTS ridership has more than tripled from its first full year of operation. Figure 1-2 shows 2004-05 ridership compared to the five-year average ridership by month from 1999 to 2004. The system carried over 50,000 passengers during its first half-year (February 1981-June 1981) and 153,735 during its first full year operation, 1981-82. Ridership was over 300,000 during 1994-95 and set a ridership record of 525,021 in 2001-02 that stood until the 2004-05 ridership that established a new record of 530,287 rides.

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<sup>11</sup> The Special Transportation Funds are generated by a portion of cigarette taxes and is distributed to transportation/transit districts for senior and disabled transportation. If there is no transportation/transit district, the funds are distributed to the local Special Transportation Fund agency as designated by ODOT. Locally, this STF agency is Benton County.

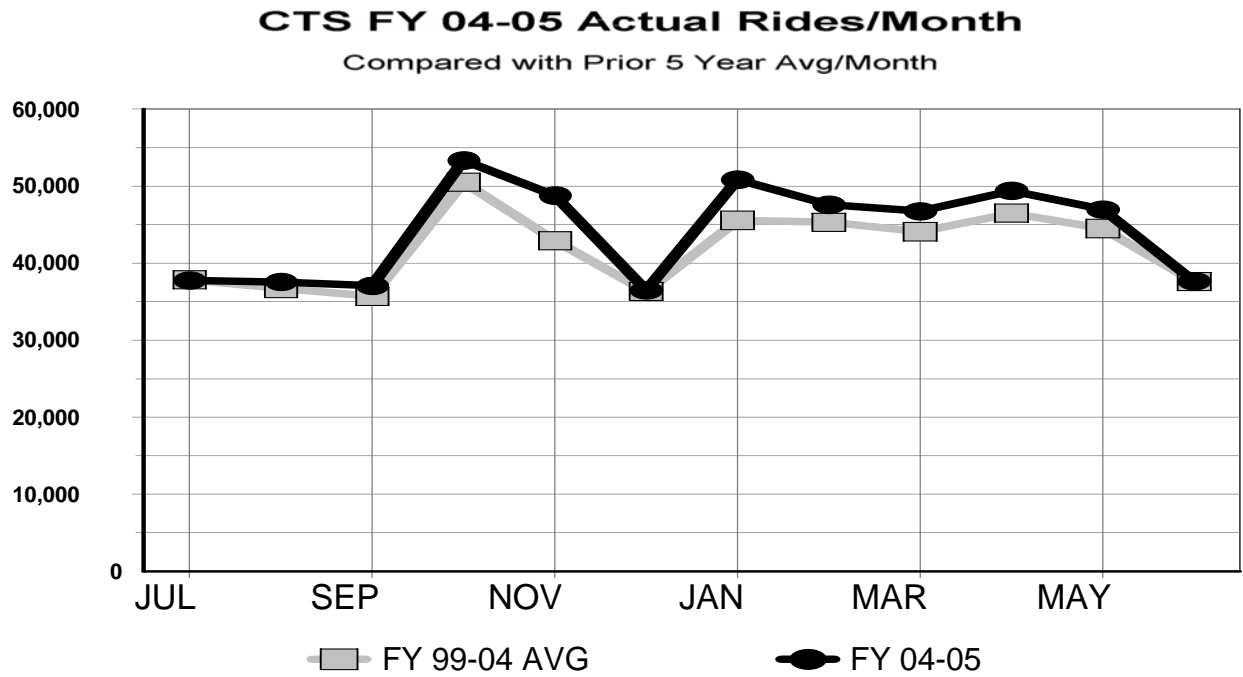
Two ridership surveys are conducted annually to determine who is riding CTS. See Figure 1-3 for ridership breakdown. One survey is conducted to determine OSU ridership by student, faculty or staff. The second provides information regarding ridership by seniors, youth, and persons with disabilities. The 2005 OSU survey indicates that OSU ridership makes up 49 percent of total CTS ridership. Not surprising, monthly ridership is higher during the “regular” OSU school year (Fall, Winter, and Spring terms) and reaches its highest levels during winter. However, the variance between summer and winter months has lessened over the years with the increase of non-OSU rides. Some of this leveling can be attributed to summer ridership programs through the City’s Parks and Recreation and Library youth programs.

The 2005 senior, youth, persons with disabilities survey shows that seniors make up 7.1 percent, youth 14.2 percent, and 11.4 percent persons with disabilities. These percentages of total CTS riders in each category have not significantly changed during the time that the annual survey has been conducted (2000 through 2005).

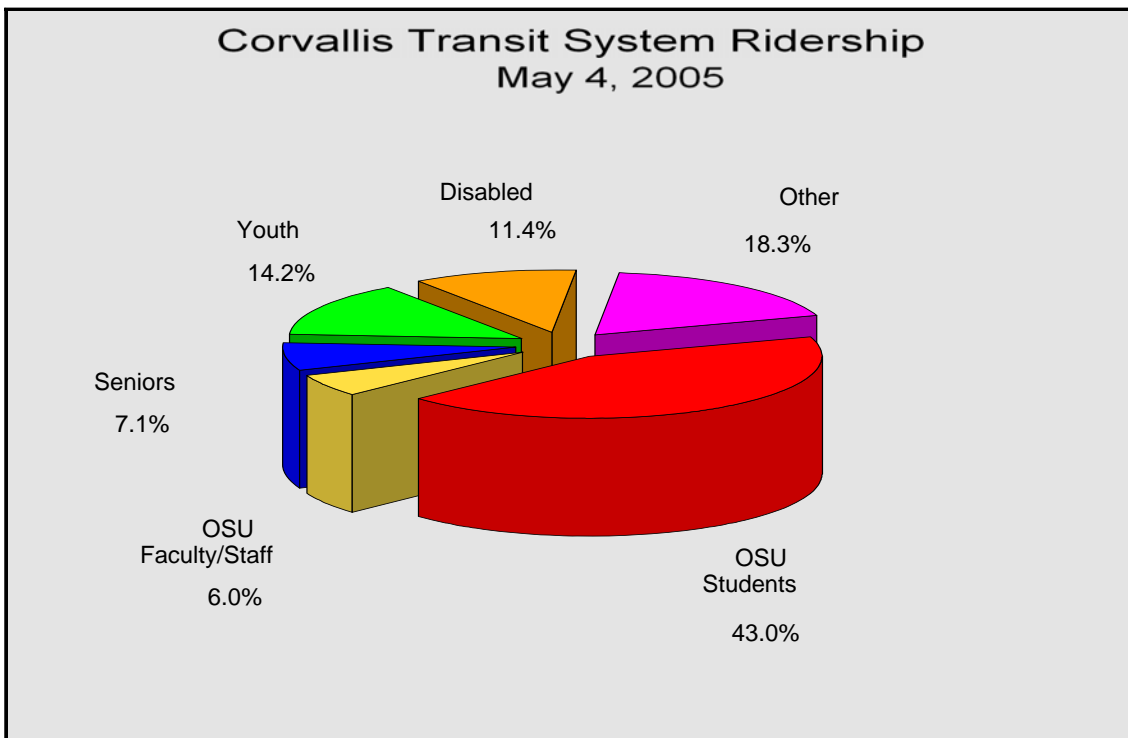
Two main factors have affected ridership in the past: (1) the OSU/ASOSU group-pass program (for students, faculty, and staff) and (2) changes in fares. Additional factors that may be contributing to increased ridership during FY 04-05 is the increased cost of fuel and the recent redesign of the bus schedules. In years when the OSU/ASOSU group pass programs were in effect, ridership was substantially higher than when the program was not in effect. Two of the largest increases in ridership, in 1989-90 and 1994-95, coincided with the first year of the group-pass program and the reinstatement of the OSU group-pass program. The comparatively lower ridership of 1993-94 coincided with a hiatus in the program.

Generally, ridership varies inversely with fares, dropping when fares increase and rising when fares decrease. The amount of change is impacted by the percentage increase. Ridership fell 17 percent in 1982-83 when adult fares increased from 25 cents to 50 cents, but surpassed previous records when fares returned to 25 cents two years later. Ridership dropped 4 percent when adult fares increased from 25 cents to 35 cents in 1992-93. A fare increase from 35 cents to 50 cents coincided with the restoration of the OSU group-pass program in 1994-95, resulting in a net increase in ridership for the year. Fares were increased in February 2001, with the adult fare increasing from 50 cents to 60 cents and again to 75 cents in 2004. There was no apparent impact on ridership as a result of these increases.

**Figure 1-2 2004-05 Annual Riders/Month**



**Figure 1-3 2004-05 Ridership by Type**



## 1.6 **MARKETING EFFORTS** (see Chapter 7 for more on marketing)

CTS has participated in a number of special programs throughout the year to maintain visibility in the community. Special events that have included a CTS presence are:

1. Cor Biz - a booth at the annual Chamber of Commerce event to market transportation alternatives to local businesses
  - Earth Day - free transit service and a booth on the OSU campus
  - daVinci Days - expanded service Saturday and Sunday and free transit rides
  - Benton County Fair - free trolley shuttle service connecting the County Fairgrounds with downtown Corvallis and park-and-ride lot (costs have been shared by the County and City and supported by a local sponsor - Evanite Fiber Corporation)
  - Fall Festival - expanded service Saturday and Sunday and free transit rides
  - University Day - a booth at the annual OSU event for faculty and staff
  - Where It's @/Community Fair - a booth on the OSU campus during new student week to introduce students to Corvallis area and campus services and merchants
  - Try Transit Week - free transit rides during the first week in October, with daily themes and activities
  - Holiday Trolley - free shuttle service between participating merchants (who contribute to cover the costs) during the holiday season. Days and hours of operation are subject to available resources.
  - Special Celebrations - advertisements and local news coverage for special successes (e.g. ridership records)
  - Parks and Recreation use - summer youth programs (CTS is reimbursed)
  - Library Programs - summer youth programs (CTS is reimbursed)
  - School District - field trips in which groups board the regular route service
  - Beaver Express - for OSU football games (discontinued)
  - Transportation Demand Management (TDM) Group - participant in this monthly meeting to promote alternative transportation modes
  - T(ea) for Transit - an outreach/educational effort to adult living facilities in cooperation with the STF program manager.

CTS also has maintained on-going promotions in various locations:

- Information in "the City" newsletter (mailed to every residence in Corvallis)
- A quarterly CTS newsletter "What's New", which provides information regarding transit service. The publication is directed at CTS customers and is distributed on the buses, in the library, through the TDM group, and at City Hall.
- OSU Daily Barometer campus newspaper ads during orientation week and the first week of classes each quarter
- An advertisement in the OSU campus directory
- An advertisement in the Qwest Dex yellow pages
- Route map/schedule at local merchants, library, several OSU campus locations and other major employers - distributed free and posted on the city's web site
- Special program for customers of downtown merchants (no participants at the current time)
- Day passes for conference attendees made available through the Corvallis Tourism Center (cost is shared between CTS and Corvallis Tourism Center)



- Free passes for “Honored Citizens” aged 80 and over

For future efforts, Corvallis is considering other opportunities to maintain visibility. Possible efforts include:

- Expansion of group-pass programs to other employers than those now participating
- Establishing a group-pass program for the 509-J school district (students, faculty and staff)
- Establishment of Friends of Transit (volunteers who work to encourage use of transit and support for the system)
- Establishing a “bus buddy” program in which volunteers train people to use CTS

# Chapter 2 – Peer System Analysis

## 2.1 INTRODUCTION

An examination of peer systems in comparable cities offers a constructive evaluation of CTS, and the issues facing it, against transit properties that are comparable in key aspects of their operation, administration and service area characteristics. No two circumstances are identical, but the following peer review provides an analysis of service levels, funding issues, system performance, and marketing programs for a number of small urban areas in the Pacific Northwest, Northern California and the Northern Rocky Mountain states. The following section describes 14 peer properties located throughout Oregon, Washington, California, Idaho, and Montana, and provides a comparative analysis of peer operations, performance, funding and marketing. The City should periodically review CTS services and those provided by the comparable cities and report the findings to the advisory commission (CACOT) and the city council.

Figure 2-1 shows basic data regarding each of the peer systems. More detailed, qualitative information is discussed below. Oregon systems are listed first, as they provide more relevant comparisons to the political and funding climate in the Corvallis urbanized area. California and Washington systems are mingled, reflecting a similarly high level of state support for local transit. Idaho and Montana peers, which receive lower levels of state support, are listed last. Within each of these three groups, features such as total population, population density, the aggregate college student population and key service or geographic similarities determine the order of presentation. The only exceptions are in extreme cases. For example, the student population at Washington State University in Pullman makes Pullman Transit a seemingly excellent peer for Corvallis; however, as noted below, a unique operating environment dominated by student ridership creates abnormally high ridership per unit of service.

Peer populations presented in Figure 2-1 represent the service area populations for each system, which may or may not be the population of the major city served. In many cases, this includes a relatively large area outside of the city. Land use patterns in all peer cities are relatively comparable to the Corvallis area; most have a small- to mid-sized historic downtown at the core of the service area. Economic drivers vary from peer to peer, but many rely on government, a university or college and a mixture of smaller local businesses. Most peers do not have a major Fortune 500 corporate office comparable to Hewlett Packard within the service area. Those cities with large university populations (Pullman, Pocatello, Missoula, Chico, San Luis Obispo, and Davis) offer an especially important comparison.

In addition to the data in Figure 2-1, Section 2.2 focuses on the general design of peer service and marketing efforts. Together, they offer a valuable comparison for Corvallis Transit System and for other public transportation services operating in the Corvallis urbanized area. Section 2.3 summarizes the conclusions drawn from the peer analysis.

**Figure 2.1 Peer Systems**

City	State	Est. Pop. 1,000s	Univ./ College Pop 1,000s	For Fiscal Year Ending	Base Fare	Estimated Marketing Costs \$1,000s	Annual Revenue Hours 1,000s	Annual Revenue Miles 1,000s	Annual Operating Costs \$1000s	Farebox Revenue 1000s	Annual Ridership 1,000s	Annual Operating Revenue \$1,000s	Annual Public Subsidy \$1,000s	Hours/ Capita	Boardings/ Rev. Hr	Subsidy/ Passenger	Recovery Ratio	Marketing Costs/Capital
<b>Corvallis</b>	<b>OR</b>	<b>58</b>	<b>18</b>	<b>2004</b>	<b>\$0.60</b>	<b>28</b>	<b>22</b>	<b>308</b>	<b>\$1,612</b>	<b>299</b>	<b>502</b>	<b>\$1,524</b>	<b>1225</b>	<b>0.38</b>	<b>22.82</b>	<b>2.44</b>	<b>18.5%</b>	<b>0.48</b>
Klamath Falls	OR	42	3	2003	\$1.00	20	25	357	\$1,302	195	351	\$1,498	1303	0.60	13.94	3.71	15.0%	0.48
Albany	OR	42	5	2003	\$0.60	1	5	74	\$209	16	74	\$302	285	0.11	15.34	3.86	7.8%	0.02
Medford	OR	67	7	2003	\$1.00	55	40	648	\$7,089	487	1145	\$7,365	6878	0.60	28.70	6.00	6.9%	0.83
San Louis Obispo	CA	44	20	2003	\$1.00	35	38	405	\$2,000	475	681	\$2,500	2025	0.86	17.91	2.98	23.8%	0.79
Walla Walla	WA	45	5	2003	\$0.50	7	28	307	\$1,577	184	467	\$2,158	1974	0.61	16.98	4.23	11.7%	0.16
Yakima	WA	80	7	2003	\$0.50	40	47	661	\$4,800	350	1030	\$5,000	4650	0.58	22.10	4.51	7.3%	0.50
Redding	CA	108	13	2003	\$1.00	78	46	726	\$2,308	476	761	\$2,322	1846	0.43	16.38	2.42	20.6%	0.72
Longview-Kelso	WA	47	2	2003	\$0.50	16	17	217	\$1,132	91	326	\$1,579	1488	0.36	19.31	4.57	8.1%	0.34
Chico	CA	102	15	2003	\$0.75	25	45	552	\$1,700	426	867	\$1,792	1366	0.44	19.33	1.58	25.1%	0.25
Davis	CA	66	28	2004	\$1.00	47	69	750	\$2,850	1967	3500	\$3,050	1084	1.05	50.72	0.31	69.0%	0.71
Wenatchee	WA	100	5	2003	\$0.50	35	55	881	\$2,300	129	750	\$2,300	2171	0.55	13.64	2.89	5.6%	0.35
Pullman	WA	26	17	2003	\$0.50	3	16	197	\$1,198	770	921	\$1,198	428	0.61	58.45	0.46	64.3%	0.12
Pocatello	ID	62	14	2003	\$0.60	15	37	260	\$1,500	54	502	\$1,700	1646	0.59	13.57	3.28	3.6%	0.24
Missoula	MT	65	15	2004	\$0.85	68	40	61	\$2,250	289	678	\$2,663	2374	0.61	17.15	3.50	12.8%	1.05
<i>Peer Median</i>		<i>63.75</i>	<i>10.00</i>	<i>2003.00</i>	<i>0.68</i>	<i>30.00</i>	<i>38.78</i>	<i>381.00</i>	<i>\$1,850</i>	<i>319.25</i>	<i>715.25</i>	<i>\$2,229</i>	<i>1745.81</i>	<i>0.60</i>	<i>17.53</i>	<i>3.39</i>	<i>12.2%</i>	<i>0.41</i>

## 2.2 DESCRIPTION OF PEERS

This section provides detail on the individual peers, their similarities and differences, and the potential relevance of their experience to the Corvallis urbanized area. Like Corvallis, most peers have a central business district that is relatively compact, has a mix of uses, and is conducive to high quality fixed route transit service. Surrounding these are less dense, more recently developed residential neighborhoods and suburban shopping and employment centers. While the non-Oregon peers have more lenient land use controls and, therefore, a less compact urban fabric, most have managed to control low-density exurban development patterns. Systems with high college student populations, as shown in Figure 2-1, experience special circumstances due to higher ridership created by high-density student housing and special fare arrangements. Other differences between systems are mentioned below.

In Oregon, property tax levies are the most popular method of supporting local transit services in small urban areas. Taxes are typically levied either by a city, as is the case in Corvallis, or through the formation of a Transportation District. Tax levies range significantly around the state. Rogue Valley Transportation District in Southern Oregon has a levy of 0.18 per \$1,000 total assessed value (TAV); in Salem the transit district levy is 0.76 per \$1,000 TAV. In Washington State, the 2000 repeal of the Motor Vehicle Excise Tax (license plate registration fee) meant the loss of 40 to 50 percent of operating funds for most of the State's transit systems. Since that time most communities have passed replacement sales taxes and have become much more reliant upon local funding.

### **Klamath Falls, Oregon**

Basin Transit Service (BTS) operates transit services in Klamath Falls. Seven board members, elected at large and serving four-year terms, govern the Basin Transit Service Transportation Service District. Professional staff, employed by the District, are responsible for management and operation of the system. Five fixed routes cover the majority of the BTS service area. Service is based on timed-transfers and uses two transfer centers. All routes run hourly except the half-hourly mainline route serving the South 6th commercial corridor, downtown, the Oregon Institute of Technology (OIT) and the Klamath Falls Hospital. Demand responsive service is available to elderly and disabled residents with no advance reservation required. All routes run Monday through Friday from approximately 6:30 a.m. to 7 p.m. and Saturday from 10 a.m. to 5 p.m. No service is offered on Sundays or holidays. Fares are \$1 for adults and students, \$0.50 for seniors and disabled (those over 80 years of age ride free). Discounted passes are also available. Demand responsive service fares are \$2.00 and carry no advance notice requirements. The population of the entire Klamath Falls area is approximately 42,000 with about half of those people residing within the city itself. The Oregon Institute of Technology and its 2,500 full-time students are located in Klamath Falls. Ridership gains attributable to the OIT campus are small, accounting for roughly five percent of overall ridership, despite the ability of its students, faculty and staff to ride free using a campus ID. The school lacks the larger population and central location that makes OSU a more prominent service market for the City of Corvallis.

BTS budgets approximately \$20,000 a year for marketing. While this is below the peer median of \$30,000, their marketing expenditures per capita of \$0.48 per service area resident is above the peer median of \$0.41. Their marketing is focused on public information and outreach efforts and consists largely of printed materials and newspaper ads. Since, 1997, Basin Transit has ceased its limited television advertising citing high costs and little benefit in terms of ridership gain. Indirect marketing efforts include an interactive map on its web page that includes every stop on the system and links to schedules for each route. Basin Transit also offers \$0.25 fares on Saturdays as a promotional effort to attract new riders.

BTS recovers 15 percent of its total operating cost through farebox revenue, well above the peer median. Its \$1 base fare matches the highest, and is the most common, peer fare. The number of revenue hours operated per capita is consistent with the peer median figure of 0.6. Boardings per revenue hour in Klamath Falls is among the lowest of the peer group, reflecting the low density environment in which it operates.

### **Funding Sources**

Just over 52 percent of BTS's operating revenue in 2003 came from a local property tax, set at \$0.18 per \$1,000 Total Assessed Value. As a transportation district, BTS is eligible for state payroll taxes, known as in-lieu payroll taxes, which provided an additional 15 percent of the system's operating revenues. Another 19 percent came from state operating grants. Federal operating grants and farebox revenues accounted for the majority of the remaining revenue, with less than five percent coming from miscellaneous sources such as advertising and interest income.

### **Future Directions and Strategies**

BTS will continue to seek opportunities to expand services, however the struggle to fund current services often overshadows such ambitions.

### **Albany, Oregon**

Albany Transit System (ATS) is a municipal operation and is administered by the City's Public Works Department. The Albany City Council provides policy direction. All four of ATS' routes are single direction loops operating hourly. Buses run between 7 a.m. and 6 p.m. on weekdays. The service area population is approximately 42,000. Linn-Benton Community College (with over 20,000 full- and part-time students) is located in Albany. Many of the students at LBCC are part-time or evening students and classes are spread out over a long day. Primarily a suburban commuter campus located outside Albany, LBCC is much more difficult than OSU to access by foot or bike and is challenging to reach efficiently with frequent bus service. The Albany Transit System and Linn-Benton Loop both provide regular bus service to the campus.

ATS marketing is almost non-existent. An annual budget of just over \$1,000 goes to promoting and running special events such as "Try Transit Week." The system does have a logo and distributes information on service changes via postings at bus stops.

ATS' 15.3 boardings per revenue hour is only a slight improvement over its 1997 levels, although overall ridership has increased due to a doubling in the number of routes. The service recovers a low rate of operating costs through farebox revenue; in fact, it is the lowest among all peers at just 7.8 percent.

### **Funding Sources**

The City of Albany benefits from a City Council that is very supportive of its small public transit system, contributing nearly two thirds of ATS's annual operating revenue out of the City general fund. ATS operates on a "bare bones" budget, carrying no contingency, and relying upon Council action when additional funds are needed to cover an emergency expenditure. Oregon's Section 5311 funding pool currently accounts for 22 percent of ATS's operating revenue. With two transit agencies dropping out of Oregon's Section 5311 funding pool, ATS expects to realize a significant increase in funds from that source in 2004-05.

### **Future Direction and Strategies**

A significant schedule and route revision took effect in September 2004. Changes include the elimination of some stops and the relocation of others, designed to address issues with on-time performance.

## **Medford, Oregon**

The Rogue Valley Transit District (RVTD) covers the urbanized areas and some outlying rural areas of Jackson County. Eight routes radiate from a simple downtown Medford transit center, running on headways of 30 or 60 minutes. RVTD provides service throughout Medford and also to nearby cities such as White City, Jacksonville, Phoenix, Talent, and Ashland. A local circulator within Ashland provided a net 15-minute local headway between major Ashland destinations. Fares within Ashland are free, an allowance that is provided by financial support from the City of Ashland general fund. Service runs from approximately 5 a.m. to 8 p.m. on weekdays. No weekend service is offered.

RVTD's marketing approach is based on precipitating long-term changes in personal transportation choices. Transportation Demand Management (TDM) oriented marketing efforts are also a part of this strategy, though they are not always specifically tied to bus use. Future strategies will be aimed at identifying specific service improvements and routes.

Marketing techniques employed by RVTD include the trade of advertising with local media. For example, local radio or television stations advertise on buses and in exchange, the transit agency is provided television or radio spots to promote its services. Marketing efforts specifically targeted the business community, seniors, Southern Oregon State University and Rogue Community College students. RVTD is one of the few peer systems that has a marketing specialist on staff to develop new revenue generating business, to promote services and to enhance community awareness about public transportation. As a result, RVTD has twice the level of marketing costs per capita relative to the peer group.

RVTD is the most active among peers in promoting Transportation Demand Management (TDM) beyond the promotion of its own services. Examples include the sponsorship of pedestrian events and walking tours, weekly grade school presentations on auto-related issues and the benefits of transportation alternatives, and participation in and promotion of Oregon's on-line car-pooling service. These strategies are part of RVTD's long-range focus on moving from the mode of last resort to becoming a preferred alternative to driving. These promotions also tap into the community's progressive culture and position the agency as a lobbyist for positive change beyond the limitations of its service.

Medford's 28.7 boardings per revenue hour is the second highest such mark among peers. This efficiency is remarkable considering that it serves one of the broadest geographical areas and operates several intercity routes. Despite a high level of productivity, RVTD's farebox recovery ratio is a low 7 percent. This is due in part to the fact that no fares are captured for trips in Ashland and to the relatively high overall operating costs of \$7 million. The Medford-Ashland area has one of the highest costs of living in Oregon. Cost of living indexes impact transit-operating costs because driver wages and benefits typically drive 75 to 80 percent of overall operating costs.

## **Funding Sources**

Levies on local property taxes accounted for about 35 percent of the system's operating revenues. Contributions from the City of Ashland amounted to just less than 5 percent of the operating budget. State funds were provided in the form of Oregon's in-lieu-of payroll tax and grants for TDM projects. Federal sources provided an additional 45 percent of operating revenue, including STP funding allocations.

## **Future Direction and Strategies**

RVTD is positioning itself as a long-term alternative to private transportation in the Rogue Valley region. Its marketing efforts are directed toward long-term change, rather than immediate ridership gains. It plans to continue its focus on promoting transportation alternatives and TDM strategies such as employer pass programs, car-pooling and biking.

### **San Luis Obispo, California (SLO)**

The City of San Luis Obispo operates nine fixed-bus routes and one fixed-route trolley within its urban area. Routes radiate from a downtown transfer point throughout the city. Routes are mostly two-direction, radiating lines, with a few portions being single-direction loops. The service is a mixture of 30-minute and 60-minute headways. Weekday service runs from 6:30 a.m. to 9:00 p.m. with more limited service on Saturdays and Sundays. Demand-response service is contracted out to a private operator.

Several routes serve the campus of California Polytechnic State University (Cal Poly) at San Luis Obispo, which is on a hilltop a mile from downtown. Fares are \$1.00 for adults and \$0.50 for seniors and ADA eligible riders, with no discount for children. Monthly passes are available at \$30 for the general public and \$10 for seniors and disabled passengers. Cal Poly makes an annual payment to the City, allowing students and faculty board free of charge. Cal Poly has about 20,000 full-time students.

SLO Transit spends approximately \$35,000 on marketing efforts per year, including schedule production. The advertising campaign consists of some advertising on a local cable channel, a number of local papers and the campus paper at Cal Poly. SLO Transit encourages student use through campus participation in Open House and Week of Welcome activities (including the provision of free shuttle services), as well as quarterly classroom presentations. The GOLD PASS program provides a free monthly pass for all downtown employees. The costs of this program are paid out of the City's general parking fund. The City of San Luis Obispo provides a unique marketing tool by allowing city agencies to insert informational materials inside bi-monthly utility bills. This past year SLO Transit used this opportunity to distribute a transit survey and ten free rides to 15,000 utility customers. SLO Transit considered the return of 833 surveys a success. The information collected was useful but not many of the free-ride passes were used. SLO Transit is planning on repeating the survey, with some changes. The next time it will employ a two-tier approach where two passes will be distributed with the survey and those completing the survey would receive an additional six passes.

With a relatively high measure for revenue hours per capita and farebox recovery, SLO Transit maintains a very efficient service, despite a boardings per revenue hour rating just shy of the peer median.

### **Walla Walla, Washington**

Valley Transit (VT) operates a total of seven routes, most of which are single-direction loops. Routes are typically paired, running roughly the same route, but in opposite directions creating the effective of two-way service on most segments. Most operate on 30-minute headways. Six routes provide service on Saturdays from noon to 6 p.m. There is no service on Sundays or holidays for general public. Registered job access program and paratransit riders can use demand responsive services beyond normal operating hours.

A number of service reductions and adjustments have been introduced since the 2000 repeal of MVET funding, which represented a loss of over half of VT's operating revenues. VT is one of the few Washington systems that have not replaced MVET funding with a local source. Fixed routes have been replaced with demand responsive service "connectors" in communities with low ridership. On weekday evenings, service is reduced to two east and west loop routes. These operate on loose schedules to provide request-based deviations of up to three blocks from the normal route. There is an additional, free-floating vehicle at these times, for those living beyond the three-block radius of deviation.

The fare is \$0.50 for riders over five years of age. Dial-a-ride services are available for disabled and passengers 70 years or older. VT's service area population is approximately 45,000. Whitman College, Walla Walla College and Walla Walla Community College are located within VT's service area with a combined student population just under 5,000.

Marketing efforts are largely focused on maintaining a positive agency image in the community. Advertisements placed in college newspapers represent the only significant marketing focused on attracting new riders. Schedule information is provided on a single, multi-colored map, with route maps, individual schedules, an overall system map and general service information. Route maps and schedules are also displayed at selected bus stops and shelters. Colorful signage posting route and schedule information is also placed on polls at bus stops.

VT's rate of 17 boardings per revenue hour is nearly equal to the peer median. Its farebox recovery rate, while not high, was respectably higher than the median. Solid figures in hours per capita and subsidies per rider, as well as a very low fare, further highlight VT's remarkably efficient provision of services. The loss of MVET revenues has forced the agency to maximize service efficiency, focusing on its most important markets.

### **Yakima, Washington**

Yakima Transit (YT) provides fixed-route services within Yakima city limits. Its nine routes fan out in a radial pattern from the central city. There is a transit center where all but one route meet, allowing passengers to make timed transfers between routes. Most routes run every half-hour. Service is provided weekdays and Saturdays, with some limited Sunday service. Demand-response service is contracted out to nonprofit agencies and a local taxi company.

YT spends around \$40,000 annually on marketing. Television and radio spots are key to their marketing strategy of reaching the greatest cross-section of the service area population. YT recently adopted the slogan: "Way to Go!" and awarded an RFP-based contract to begin a Travel Training program. Concerns over vandalism, and the minimalist structural design of system bus shelters prevent YT from using their facilities for promotions or advertising. They do offer free service every Wednesday and Saturday as another strategy to attract new riders to the system.

The Bus Book is their main marketing and information product. It has been used in various updated versions over ten years, and is a well-received and successful part of Yakima's public identity. The latest edition provides 32 pages of bi-lingual information on schedules, maps, YT-accessible destinations, dial-a-ride services as well as use of the system - from how to read a timetable to mounting your bike on YT buses. The books are distributed at 200 popular service destinations along YT bus lines including; senior centers, libraries, drug stores, supermarkets and motels.

YT's productivity of 22.1 passengers per revenue hour is well above the peer median of 17.5. With no college or university to boost ridership, the system did quite well. Significant low-income and farm worker populations are a key factor in the system's relatively high productivity. Yakima continues to offer a very low fare, currently \$.50, which contributes to its low 7.3 percent farebox recovery rate.

### **Redding, California**

The Redding Area Bus Authority (RABA) operates twelve routes in and around Redding. Most routes operate on 60-minute headways. One route, operating between Redding and the town of Shasta Lake operates every 30 minutes. Finally, a bus operating between Redding and the more distant towns of Anderson and Cottonwood operates every 90 minutes. Service is available Monday through Friday from 6:30 a.m. to 7:30 p.m. Saturday service runs from 9:30 a.m. to 7:30 p.m. A single pulse-point downtown allows route transfers. Same day demand-responsive services are available for a base fare of \$1.50 and a \$.75 zone charge for longer trips. The service area population is the largest among peers at just over 108,000. Shasta College, with about 11,000 students and Simpson College, with about 2,000, are both located in Redding.



RABA currently markets transit through TV, radio, brochures, in-house workshops and school presentations. Several years ago, they contracted the development of a jingle, which is used in radio and TV advertising. This contract also produced the slogans “Catch the Ride” and “Ride the Ride”. Formerly, RABA participated in and marketed “Clean Air” and “Rideshare” weeks. These events however, were discontinued by Shasta County Air Quality Management District, in 1999.

RABA is in the process of updating its website to include an interactive mapping feature. Its current website has extensive Travel Training tips, including a graphic of RABA’s bus sign, a list of ticket outlets and a guide to using on-bus bike racks. RABA also uses the sight to distribute information through e-mail requests.

RABA’s productivity of 16.4 boardings per revenue hour is solid for a service based on 60-minute headways covering a broad service area marked by low-density land uses.

### **Longview-Kelso, Washington**

Community Urban Bus Service (CUBS) operates transit services within the cities of Longview and Kelso, Washington. CUBS operates five fixed, single direction loops running on hourly headways. Three are based primarily in Longview. Two of these routes are essentially the same except they operate in opposing directions so that passengers can make two-way trips without being forced to travel out of direction. The other two routes serve Kelso primarily. These routes are also arranged in an opposing loop formation, with only minor variations in the streets they travel. A pulse-point transfer on the hour at the transit center in Longview allows passengers to make quick and simple connections between all five routes. All fixed-route buses are wheelchair equipped and ADA complementary paratransit service is available by reservation with day before notice required.

All routes operate Monday through Friday from 7 a.m. to 7 p.m. Saturday service runs from 8 a.m. to 6 p.m. Due to the 2000 repeal of MVET funding that represented half of CUBS operating revenue, CUBS eliminated one fixed route, two routes on Saturdays and all Sunday services. CUBS has not replaced revenues lost with the repeal of the MVET and a one percent local sales tax is now the only major source of operating funds. Other sources of revenue include FTA grants, farebox revenue, and interest on investments.

Fares were last increased in 1997; the base fare is \$0.50 and senior and disabled residents pay \$0.25. Monthly, quarterly and yearly passes are also available at discount rates. Longview and Kelso have a total service area population of about 47,000. Lower Columbia College (LCC) has approximately 2,400 full-time students. Though it is close to Longview, the relatively low student population at LCC diminishes its impact on system ridership.

Service information is provided on a fourteen-page route brochure with individual route maps, service times and general information. Marketing efforts have been drastically reduced due to the above mentioned budget cuts. CUBS no longer offers free rides during the summer months, nor does it advertise on TV or radio. It has retained the “Cubbie” Teddy bear mascot as well as the “Take me – I’m Yours” slogan developed as part of its discontinued monthly TV and radio ads.

CUBS relatively low farebox recovery ratio of eight percent is not surprising given their low base fare. Its 19.3 boardings per revenue hour is remarkable considering the limitations of its loop system. An innovative set of marketing tools has also helped the system.

### **Chico, California**

The Chico Area Transit System (CATS) operates a total of ten fixed routes, two of which operate only while California State University at Chico (CSUC) is in session. The Downtown Transit Center provides timed

connections between routes. Routes operate as bi-directional lines with the ends of routes linked in pairs, to allow efficient use of vehicles. Buses run from 6:30 a.m. to 9:30 p.m. on weekdays and from 8:30 a.m. to 6:30 p.m. on Saturdays. No routes operate on Sunday. Two routes serve as shuttles for CSUC, operating on weekdays only, and only while classes are in session and during class registration. Fares are \$0.75 for regular passengers, \$0.50 for school students, and \$0.35 for seniors and disabled. Multiple ride passes and monthly passes as well as 20-ride cards are available at a discount. CSUC students, faculty and staff receive free rides through a special arrangement with the University.

CATS spent \$25,000 on marketing in 2003/04. Activities included monthly TV spots broadcast through the local cable provider, ads in the daily-student and free weekly events newspapers. CATS also maintains a spot on the home page of the daily paper, with a hyperlink to the CATS website. One full-time marketing employee from the county MPO is shared by all three county transit systems.

The large collegiate population at CSUC drives Chico's relatively high productivity (19.3) and recovery ratio (25.1%). Like other peer systems with large universities, CATS maintains an agreement with CSUC for free rides for students and staff in return for blanket payments. The equitable agreement helps boost both productivity and cost effectiveness.

### **Davis, California**

Unitrans, in the City of Davis, is operated by the University of California at Davis (UCD). Buses serve most of the significant locations within the City of Davis, radiating out from the UCD campus. Only a few routes include single-direction loops, and those only at the farther ends of routes. Buses operate on weekdays from 6:30 a.m. to midnight. Service is offered on Saturdays and Sundays from 9 a.m. to 6 p.m. Many routes have 30-minute, and even 15-minute, headways during the school year. Unitrans has increased the number of routes operating on 15-minute headways as ridership has increased.

Base fares for Unitrans buses are \$1.00, with disabled riders paying \$0.25. This represents an August 2004 base fare increase from \$0.75. Elderly passengers receive free rides. Passes and multiple ride discounts are available. Undergraduates at UCD also receive free rides, in exchange for fees collected from all students by the University. The service area population for Unitrans is about 66,000, while the student population at UCD is about 27,500.

Unitrans marketing department consists of three part-time student staffers, and carries an annual budget of around \$47,000. Marketing is focused on the production and distribution of printed materials. Specific efforts include an annual city-wide mailing that includes information and schedules. Unitrans displays information at various local community events and run advertisements in local and student papers.

Campus-based ridership has been growing rapidly over the last few years, with most campus-centered routes operating at- or above-capacity. Unitrans has responded by targeting its marketing based on route capacity. They recently received funds from CalTrans, which were used to market one specific route that was identified as under-capacity while serving a series of off-campus destinations such as shopping markets, schools and a senior center. Focus group sessions and presentations were arranged at route-adjacent secondary schools and senior centers. Following these meetings, Unitrans produced signage, brochures and posters promoting the identified route for placement at the schools and senior centers. Word of mouth response to this recent campaign has been overwhelmingly positive, with seniors especially expressing gratitude for the special marketing focus aimed at improving comprehension and making services more relevant to non-university populations.

Unitrans' had by far the highest marks for revenue hours per capita (1.05), boardings per revenue hour (50.7), and farebox recovery (69 percent). High student involvement in actual operations (many employees and the operators

are students) keeps their operating costs low relative to their annual revenue hours. In addition, by focusing on the UCD campus, Unitrans maximizes the effect of the highest student population of any of the peer systems, with campus-based passengers amounting to nearly 95 percent of all ridership. Highly creative and thoughtful marketing efforts have led to a growing response to Unitrans' services off campus.

### **Wenatchee, Washington**

Wenatchee's transit service, Link, operates 18 routes throughout the region. Eight of these operate within the city itself. Each radiates from a central point, running in one-directional loops. Routes are about evenly split between 30 and 60-minute headways. Service runs approximately 6:30 a.m. to 7:30 p.m. on weekdays. Saturday service starts around 8 a.m. and goes to about 7:30 p.m. Link's service area population is approximately 100,000 and includes all of two mostly rural counties. The cities of Wenatchee and East Wenatchee together are only about 28,000.

Link's marketing includes some ad trading with local radio stations. They advertise in the local paper, on a local closed circuit senior cable network, and occasionally over other local media and on their buses. Services are no longer offered free of charge. Link no longer maintains a community relations specialist, though outreach programs to school children and other local groups continue.

Link's most notable successes in recent years have come in the way of service coordination with other regional health and human service providers. Link has been able to effectively manage expensive demand response service trips by encouraging human service providers to provide their own client based transportation. Link provides operating subsidies or low cost loans or sale of vehicles to these providers in exchange for an agreement to provide service to certain client groups that would otherwise utilize Link paratransit services. Since paratransit trips are the most expensive service to provide per unit, this strategy has provided significant cost savings to the agency.

Link managed a respectable 12.5 boardings per revenue hour, though this was short of its goal of 15. Link was able to maintain this number despite extensive rural service and a negligible college population. In many ways Link's operating environment may differ most drastically from Corvallis, having no significant college enrollment, a more decentralized population and a strongly agricultural economic base.

### **Pullman, Washington**

Pullman Transit (PT) operates seven fixed bus routes in the city of Pullman, Washington, with a service area population just shy of 26,000. They also provide services for the Pullman School District. Pullman is home to Washington State University (WSU), and its 17,000 full-time students. Students and staff from WSU account for almost 90 percent of PT's annual ridership. Unique geography and land use decisions have contributed to this high level of university ridership. WSU is located at the top of a steep hill, making walking and cycling, usually very popular mode choices at universities, much less attractive. This is especially true in the winter when roads in Pullman are often icy. Much of the WSU ridership comes from an extremely large and dense, but isolated, student housing development located about 1 mile from the campus. PT operates high frequency service from this complex to the campus, including a number of headers in the AM peak hour. Queues for the bus to campus can line up as much as 250 students deep on winter mornings.

Pullman Transit service level is dependent on the time of year. During the WSU school year they provide seven routes, Monday to Friday from 7 a.m. to 6 p.m. serving the campus and the rest of the community. Two routes operate Saturdays from 9:00 a.m. to midnight. Additional service is also provided for home football games. From May to August, and during school breaks, only two routes are available, operating from 7 a.m. to 6 p.m., Monday through Friday only.

When Initiative-695 forced the repeal of the MVET in 2000, PT lost over \$600,000 in operating funds. Immediate and dramatic service cuts followed. PT began using reserves to restore services, while waiting for the State to bail them out. This lasted until the Fall of 2002 when services were cut once again. Out of frustration with the cuts, and concern with the future of transit in Pullman, WSU Students responded by setting up a “Transit Fee”. The fee, charging \$15 for full-time students and \$8 for part-time students, goes directly to PT, and was responsible for funding the restoration of services in the Fall of 2003.

The base fare for fixed-route service is \$0.50 for adults, and \$0.30 for seniors, youth and disabled. Discounted passes are available. Demand-responsive services are offered to elderly and disabled riders at \$0.40 per ride. Same day reservations are allowed with service hours matching those of fixed route services. All WSU students ride PT fare free with a valid student ID. The WSU Parking Department makes a yearly payment to PT's operating budget to secure this benefit for its students to reduce parking pressure. The majority of the systems' overall fare income results from this agreement and the newly instituted transit fee.

Interestingly, unlike many other systems in Washington State, PT does not rely on a local sales tax increment for any operating funds. Moscow, Idaho, just across the border provides much of the shopping for the Pullman area, so a sales tax would not result in adequate funding, and could hinder what retail activity in Pullman, where sales taxes are already higher. PT instead uses a tax on utilities to provide local funding. PT's innovative method of financing shows that alternative sources may be available for systems, if they are pursued. PT's productivity also illustrates the power of efficient service on costs.

PT spends less than \$35,000 a year on marketing, including publishing schedules. Most marketing is aimed at maintaining popular agency support among the non-riding community. Due to high ridership rates, marketing to new riders has not been a top priority for limited operating revenues. Recent expansions in services, however, are one reason that this outlook is at present being revisited.

On the surface, the size of WSU, its proximity to the center of Pullman, and the fare agreement regarding students would seem to make Pullman an especially good comparison for Corvallis. However, student ridership (college, primary, and secondary) is so prevalent in Pullman, including special event trips for the school district, that its extremely high ridership and low subsidy rates would be almost impossible to reach in most normal operating environments. For example, in Corvallis a flat grade and moderate weather make biking and walking much more attractive alternatives for students. Additionally, student housing is generally located in close proximity to campus with attractive pedestrian access.

### **Pocatello, Idaho**

Pocatello Regional Transit (PRT) serves the city of Pocatello with 13 routes operating Monday through Saturday, with reduced services and coverage on Saturdays. Routes typically follow loop patterns. One line typically follows the same route as another with occasional deviations, running in the opposite direction, reducing the need to travel more than half a loop to reach most stops. One line runs on half hour headways during midday and afternoons on weekdays. All other service runs on roughly 60-minute headways. Service runs from approximately 6:30 a.m. to 7 p.m. Fares for adults are \$0.60 on weekdays. Seniors and disabled pay half price between 9 a.m. and 3 p.m. Students pay \$0.30 on weekdays. All fares on Saturday are \$0.30. Discounted ticket books and monthly passes, as well as semester passes for students are available.

Idaho State University (ISU) is located near downtown. Its approximately 14,000 students, as well as faculty and staff, make up about 65 percent of PRT's ridership. With a similar, though somewhat smaller, student population and a location near downtown, Idaho State has a role analogous to OSU's in Corvallis.

Idaho is one of a handful of states that do not provide any funding for transit. State legislation also prevents transit district from collecting local tax revenues, making it difficult to fund local transit services. Pocatello, along with the other Small Urban Areas in Idaho, are unable to utilize all of its FTA Section 5307 allocation due to a lack of local matching funds. Still, Pocatello is widely viewed as one of Idaho's more progressive communities and does receive substantial financial commitment and support from a transit-supportive city government and from the University. ISU provides \$40,000 toward the operating expenses and recently provided a \$22,000 local match in support for CMAQ (Congestion Mitigation Air Quality) grant funding toward a vehicle purchase. The ISU contribution provides for a no-fare zone associated with the campus. PRT staff indicated that the college's annual contribution accounts for only 40 percent of what is actually needed to provide campus related services. The presence of a major university and the transit demand created by this institution is seen as having a major impact on overall public support for transit in Pocatello.

PRT is looking to expand service to six of the seven counties in the regional highway district as part of a Federal coordination project. In conjunction, the agency is adding GPS-based vehicle location and computer aided dispatch (CAD) technologies to its operations. PRT is also looking to obtain approval to cross Utah border.

PRT spends about \$15,000 annually on marketing. This pays for newspaper advertising and some limited radio ads. PRT holds an annual in-classroom competition throughout the area for the creation of transit ads and slogans. PRT has two Chance Replica Streetcars, an open trolley that runs a special route only in summer months, and a closed trolley that runs year round. It also participated in the creation of a citywide map with an emphasis on transit.

PRT had the lowest boardings per revenue hour of the peers, as well as the lowest, by far, recovery rate (3.6 percent), in part due to the unfavorable agreement with ISU. Higher ridership on in-city routes is moderated by the extent of its rural service.

### **Missoula, Montana**

The Missoula Urban Transportation District (MUTD) operates transit services under the name Mountain Line. The District's eleven routes provide coverage throughout the city and surrounding area, serving a population of around 65,000. Service design is based on linear routes, with a few single-direction loops at the end of selected routes. A common downtown pulse point allows transfers between routes.

MUTD provides 30-minute service during peak periods for most routes, with hourly service during midday and on Saturdays. Weekday service runs between 6 a.m. and 7 p.m. with Saturday service offered between 10 a.m. and 6 p.m. There is no Sunday service. The base fare is \$0.85. Seniors and disabled pay \$0.35. Paratransit services are available for a \$1 fare. Multiple discount pass and bulk fare packages are available. The service area population is about 61,000 with 11,000 students at the University of Montana in Missoula.

Marketing efforts include a citywide employer-based pass program. The Mountain Line "EZ Pass Program" offers an annual bus pass for purchase by employers for employees working within Missoula Urban Transportation District boundaries. The pass provides unlimited rides on all Mountain Line transit services including paratransit services, at all times. Price is based on the number of participating employees. The program has been quite successful as over 25,000 Missoula residents currently own a bus pass.

This summer Mountain Line introduced two new free shuttle services. On Saturdays free service is provided to downtown Farmers' Markets. The "Out to Lunch" shuttle operates on Wednesdays between 10:45 a.m. and 1:20 p.m., providing free service to popular lunchtime locations downtown. Free rides will also be offered to anyone under 18 throughout the summer.

Considering the success of the bus pass program and the extent of its marketing, Mountain Line's near median boardings per revenue hour ratio of 17.2 is most likely attributable to the systems 60-minute headways.

## **2.3 SUMMARY AND CONCLUSIONS**

No single system or community can provide an environment analogous to Corvallis and the services operated by CTS. However, a peer system analysis, used commonly throughout the industry, can provide an important point of comparison for planners and local policy makers. It is valuable to understand how the City's investment in public transportation services stacks up against other communities faced with similar service needs and funding constraints. The following sections provide a more detailed discussion of key service design elements, investment measures, and measures of service performance.

### **City Characteristics**

#### **Student Population**

Since university students have a traditionally high propensity for using transit services, a city's college population is a crucial point of comparison when measuring service performance against that of CTS. Figure 2-2 shows productivity compared to the population of college students in each peer system's service area. Those peer systems with high student populations achieved the highest levels of productivity. Systems with the five highest student populations averaged 34 boardings per revenue hour, while the systems with the lowest averaged 13. Operating agreements between transit systems and the local university where students, faculty and staff ride for reduced or free fares provide a significant boost to productivity.

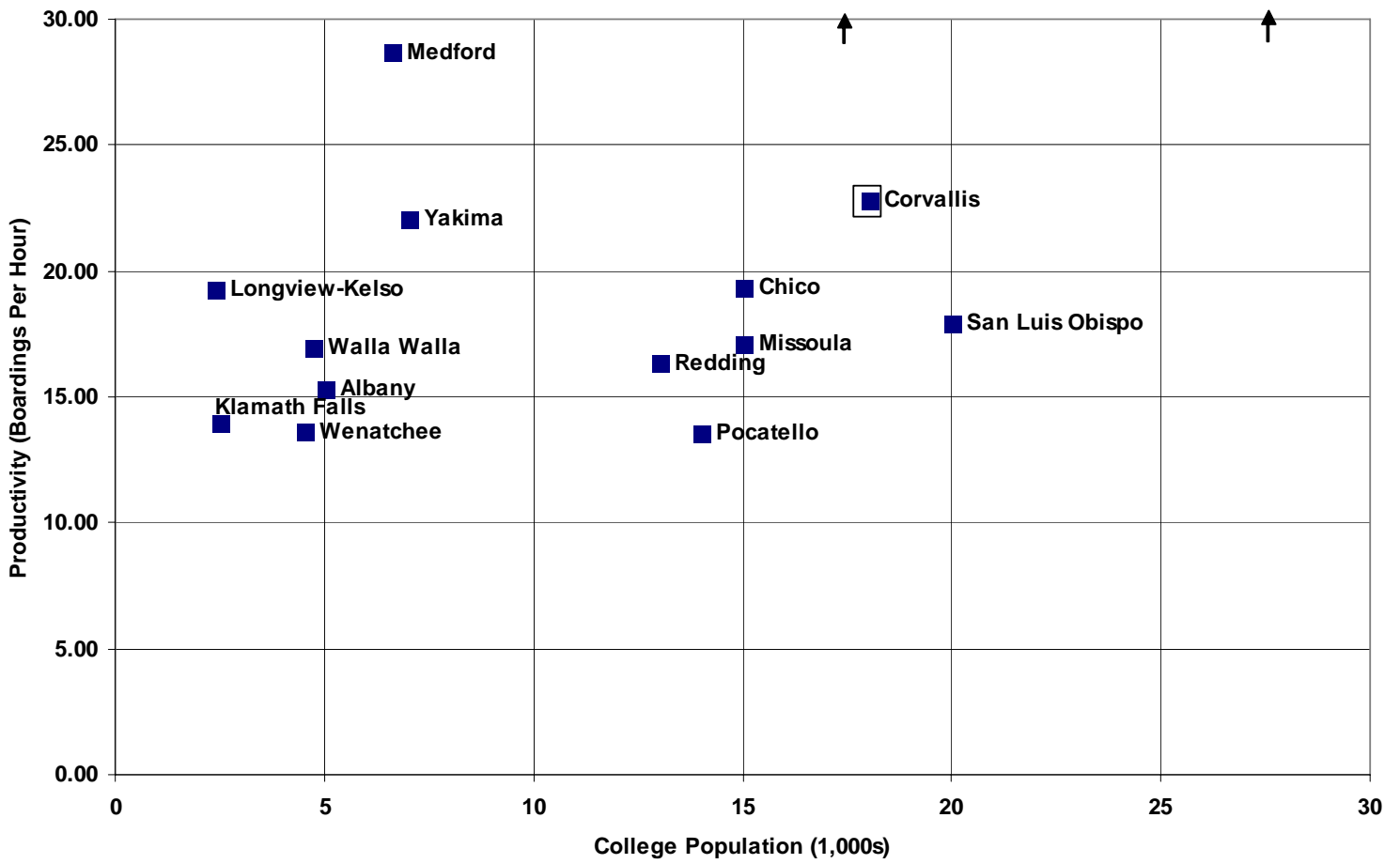
Thus, the college population is should remain a crucial focus of system resources, through service design, special funding arrangements with the university and through targeted marketing efforts. This is especially true given OSU's proximity to the center of Corvallis.

Figure 2-3 shows productivity compared to service area population for each peer. Among the peer group, service area population had little to no effect on either productivity or cost-effectiveness, measured by public subsidy per passenger and recovery ratio. The graph does suggest that, discounting Pullman and Davis which have extremely high student populations, communities with more constrained boundaries and less suburban development are more likely to have higher levels of productivity. This is logical since buses have access to more potential passengers within a smaller geographic area. Other factors, such as the overall amount of service, service design and marketing also appear to have an impact on productivity.

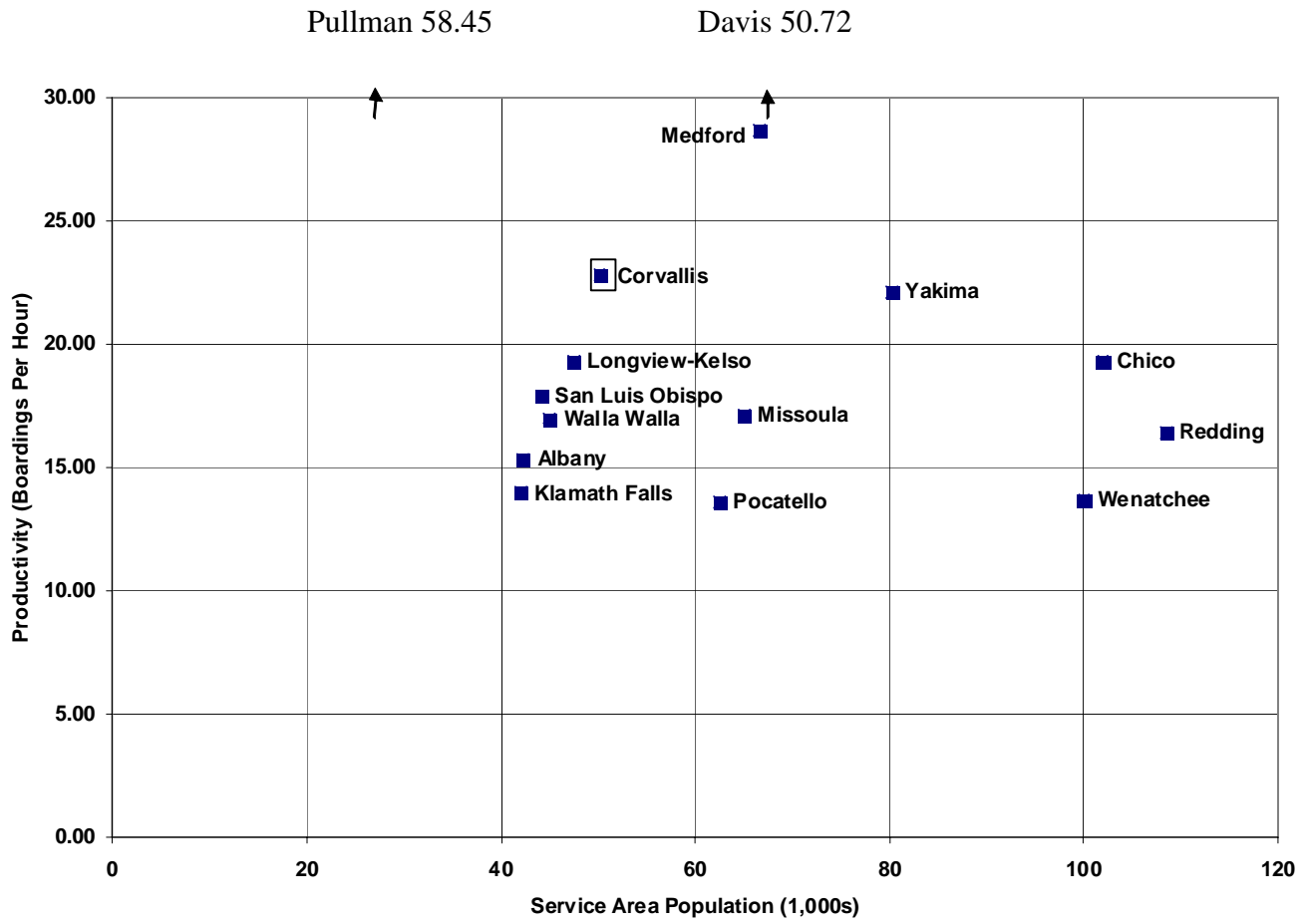
**Figure 2-2 Productivity vs. College Population**

Pullman 58.45

Davis 50.72



**Figure 2-3 Productivity vs. Service Area Population**





## **Service Design**

It is difficult to compare the impact of route design from community to community; however, service frequency is known to have a major impact on ridership. The optimal combination of route design and headways among peers is that of radial or linear routes running at 30-minute headways. Systems with this combination averaged 26 boardings per revenue hour, eight above the median of 17. While neither loop routes or 60-minute headways alone seem preclude a system from attaining decent boardings per revenue hour (Pullman Transit's loop system average almost 60 boardings per hour), Longview-Kelso was the only peer with both to score above the median.

## **Scheduling**

Of the six systems with the highest college populations, only Corvallis and Missoula do not provide evening service on weekdays. The other four are, in fact, the *only* peers that provide evening service until at least 9 p.m. Pullman and San Luis Obispo both run selected service until about 11 p.m. while their university is in session. Davis and Chico both operate on all weekday evenings.

Of the 15 peers only two, Medford and Albany, do not offer any weekend service. Productivity of the systems offering Saturday service varied, with neither the highest nor the lowest productivity system offering Saturday service. While many of the peers recognized that Sunday service is highly desired and would likely be nearly as productive as Saturday service, none of the peer systems have the funding to implement Sunday service.

## **Marketing**

One of the most important marketing assets for these agencies is their ability to connect directly with the communities they serve. Tight advertising budgets often necessitate a creative and innovative approach to marketing. This liability can translate into an asset when community involvement becomes a central marketing strategy.

## **Connecting with the Community**

Most of the peer agencies promote, participate in, and sometimes sponsor, community events. Albany Transit, with the smallest budget among peers, sponsors and promotes "Try Transit Week" as its only major marketing activity. Many agencies also provide free service to special community and sporting events as another way of getting involved. Corvallis provides free (or subsidized by sponsors) rides during a number of community events, but not for OSU sporting events due to inability to negotiate a mutually satisfactory arrangement for funding with OSU Athletic Department; also, many of the OSU sporting events occur outside the normal CTS operating hours. Providing free rides for special and sporting events is a great way for transit agencies to identify themselves with the most popular aspects of community life and to get people on board who would not otherwise ride.

Another example of a marketing technique with a small town feel to it is San Luis Obispo's use of city utility bill inserts. The city allows various city agencies rotating opportunities to place informational inserts into municipal utility bills. Last year, SLO Transit used its turn to distribute transit surveys and free passes to 15,000 homes and is likely to conduct a second survey as the first ascertained useful information from the public.

Another common marketing technique is the use of "Identity Buses" as a branding tool. Use of double-decked, or trolley-style buses, which tap into nostalgia for transit history, can be an effective tool for creating a positive service image. Branding strategies also apply to standard bus services, where a specific marketing campaign and identifying factors are attached to a route that has serves a specific market or provides a particularly high level of service (see Chapter 7 for more detail). Community participation driven route branding and public information efforts in Davis (described above) provide an excellent example of how listening to current and potential users can pay off in terms of attracting new riders.

School-based contests in which children design ads and/ or create slogans are also common. This “homespun” style of marketing not only gains the favor of student participants, but the displayed artwork casts a flattering light upon the agency by providing a stage for the talents of the community’s youngsters.

### **Marketing Community Assets**

Another common and effective form of marketing among peers is marketing that enhances community awareness. Unitrans’ outreach to seniors and secondary school students raised awareness of community amenities as well as the accessibility offered by their service. Such marketing can actually increase trip generation within the community by indirectly marketing community assets.

In Missoula, Mountain Line’s “Out to Lunch” shuttle is another example of boosting service and community awareness at the same time. By extending the distance that can be covered during a lunch hour, this free service expands its customers’ dining options and supports downtown eateries, while putting the agency’s services on display to many who might not otherwise use them.

Free rides continue to be a popular marketing tool. Although some services have discontinued such programs, summers, Saturdays and special events continue to be popular bases for free ride programs. This has been an especially effective marketing tool for agencies attempting to reach new markets.

### **Maintaining Public Support**

Since only a small percentage of residents use transit in all peer service areas, maintaining a positive agency image among the non-riding segments of the community is a common marketing objective. Marketing to increase mode share in service areas with little to no congestion or parking issues is commonly seen as an ineffective use of resources. Courting the good will of the non-riding, levy-approving public has become increasingly important as state funding levels have proven to be volatile and there is often stiff competition for local funds.

Medford’s RVTD takes a unique approach to developing support among the non-riding public. Much of RVTD’s efforts to promote alternatives to auto transportation go well beyond marketing its own services. They sponsor pedestrian events such as a walking tour of downtown co-sponsored by local businesses. They also promote and facilitate an on-line car-pooling service. These activities promote the agency as a force for positive change within the community and show a direct relationship between transit and congestion management.

As the experience of Pullman Transit (PT) illustrates, maintaining a good image among the riding public can come in handy as well. Like RVTD, PT markets mainly to bolster public support. Its ridership consists mainly of Washington State University and public school students, and growth beyond this base is seen as unlikely. When PT was forced to cut services after Washington State Initiative-695 cut MVET funds, WSU students voted to tax themselves in order to restore services. This was due partly to the students’ interest retaining services, but equally important was the fact that they saw Pullman Transit as an integral part of the community.

### **Outreach to Students**

The success and relevance of many peer systems relies largely on university or college student populations. As is true for CTS, most peers target some marketing efforts directly at this population, such as ads on campus or in student newspapers.

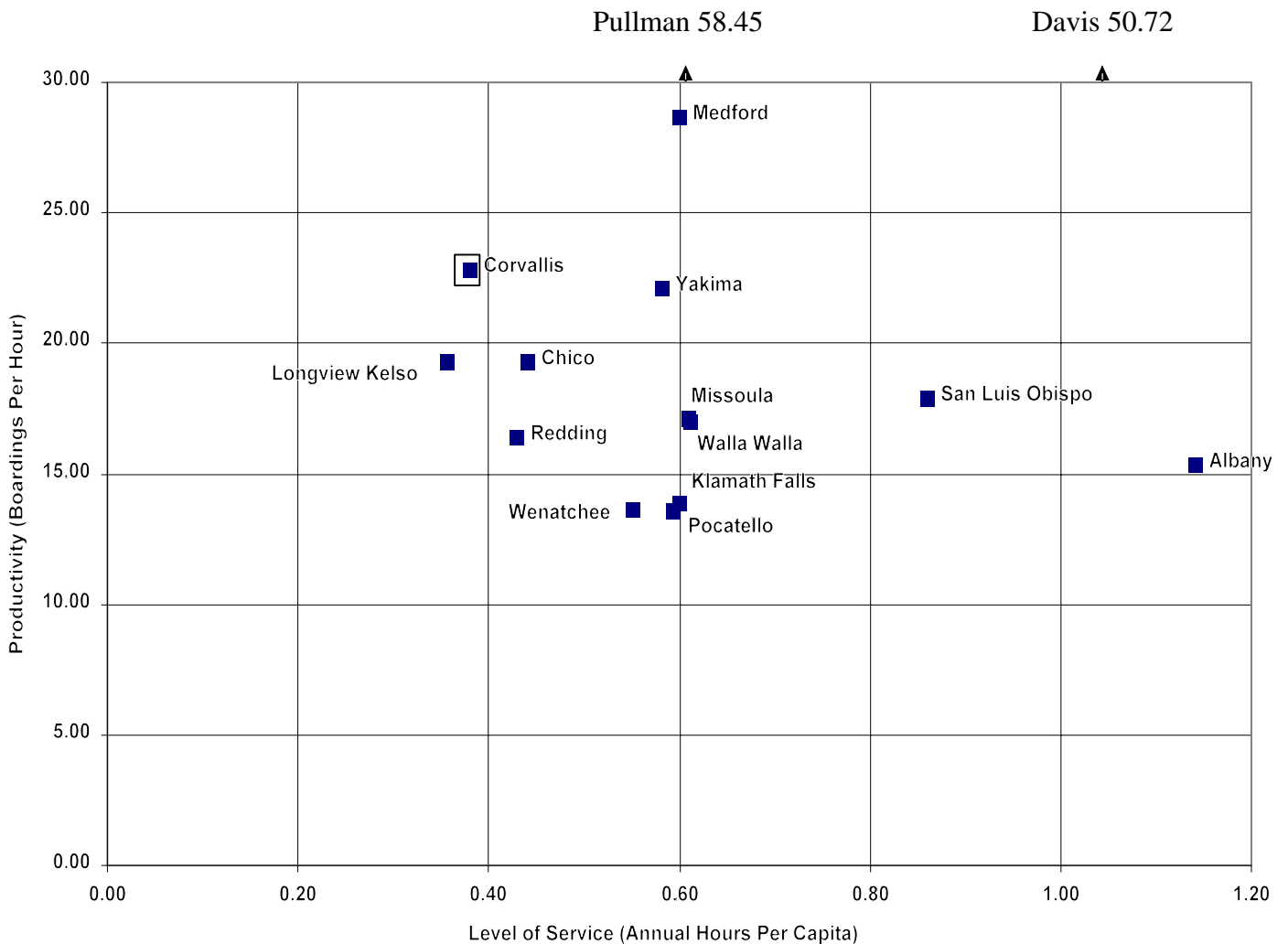
### **System Performance**

Figure 2-4 shows a scatter diagram comparing the amount of service provided (in annual revenue hours per capita) with the resulting productivity (in terms of passenger boardings per revenue hour).

Cities in the upper left corner of the diagram are getting the best return for the least investment. Corvallis has the second lowest level of investment per capita, yet it is able to achieve the 4<sup>th</sup> highest productivity. This shows that the City is getting a solid return on investment given the total market size. Chico, Missoula and San Luis Obispo all provide more service per capita, but achieve a lower level of productivity. This shows that to a degree, intense student demand virtually guarantees high ridership even where overall investment in service is comparably low. However, cities like Corvallis, Chico and Missoula, where pedestrian and bicycle travel are highly convenient and student housing is proximate to the university, should not expect to achieve productivity levels over 30 boardings per hour as in Pullman and Davis. Peers positioned at the bottom of the chart and toward the right are cities that get relatively poor returns in ridership for their investments.

Roughly half of the peer systems offer 0.6 revenue hours of service per capita, which is over 30 percent higher than the 0.4 offered by CTS. Three peers with significant university populations, Chico, Missoula and San Luis Obispo, offer more service per capita and have lower productivity than Corvallis. Others, such as Pullman and Davis, are able to achieve significantly higher productivity with their higher per capita investments.

**Figure 2-4 Productivity vs. Level of Service**



## **Fares and Recovery Ratio**

Generally, peers charging higher fares enjoyed higher recovery ratios. Two exceptions being Medford, whose \$1 fare netted a low 7 percent recovery rate, and Pullman who recovered 64 percent of its operating costs with a \$0.50 base fare. While logically, fare levels should have an impact on ridership, all things being equal, no clear pattern is discernable from our peer data. The five systems charging \$1 for one-way rides averaged 25.5 boardings, while the five charging \$0.50 averaged 26.

Arrangements with local universities can greatly impact the recovery ratios. The negotiated agreements can provide significant revenues and/or increase the numbers of passengers using free or heavily discounted passes. As is evident from our review of funding in Pullman, Missoula, Pocatello and in Corvallis, university provided lump sum payments from student fees or parking revenues rarely cover the full cost of transporting students, faculty and staff.

## **Conclusion**

In terms of cost effectiveness and productivity, Corvallis is doing remarkably well, especially considering its limited level of service (service hours per capita). Its measures for subsidy per passenger and boardings per revenue hour are both quite favorable relative to the peer median. Its farebox recovery rate is almost double the peer median level.

Again, when compared to the five peers with comparably large university populations (Davis, SLO, Pullman, Chico and Missoula have university populations of 15,000 or greater), Corvallis Transit shows respectable performance. Among this group, CTS' 23 boardings per revenue hour is above the subgroup median of 19, and its farebox recovery ratio is just below the five-peer median of 25%. However, this group includes Pullman and Davis, two systems with extremely high productivity created by local conditions that will never be matched in Corvallis. CTS outperforms Chico, Missoula, Walla Walla and San Luis Obispo, its best peers, in productivity and farebox recovery.

While these numbers put Corvallis Transit in a positive light when compared with the peer group, they also indicate that CTS may be trading low service levels for high performance numbers. This means that Corvallis residents are not receiving a level of service, in terms of service frequency and service area, which other comparable communities have come to expect.

# Chapter 3 – Policies and Programs with Impacts on CTS

## 3.1 INTRODUCTION

The elements that make up the public transportation system in the Corvallis Urbanized Area — including, route structures, funding, service policies and fleet — are the results of policies and programs on a number of levels, from local to the federal government. As the transit system and the communities it serves continue to grow in the future, these policies and programs will provide both new constraints and new opportunities. This chapter summarizes these policies and programs and their effects on the Corvallis Transit System, the Philomath Connection, the Linn-Benton Loop and other public transportation services operating in the urbanized area.

## 3.2 FEDERAL POLICIES AND PROGRAMS

The Corvallis area was designated as an urbanized area (UZ) after the 2000 Census, changing the region’s federal funding status. Federal funding for public transportation now comes primarily from the Federal Transportation Administration (FTA) Section 5307 grant program. The Section 5307 Small Urban program provides formula funding based on population and population density for designated areas with 50,000 to 199,999 residents. The funding is included in the CAMPO RTP list of projects.

Federal funding comes with various application and reporting requirements as well as the need to comply with various federal regulations. These include the Clean Air Act and the Americans with Disabilities Act (ADA). The following paragraphs summarize federal funding programs that the Corvallis metropolitan area receives or is eligible to receive. ADA requirements are also summarized.

### **Congressional Authorization for Federal Funding**

Congress adopted a new transportation funding bill known as SAFETEA-LU (The Safe, Accountable, Flexible and Efficient Transportation Equity Act, a Legacy for Users). SAFETEA-LU, is similar to the previous TEA-21 in preserving funding flexibility at the state and local level. Some of the federal funding programs are limited to capital funding. These could help pay for enhanced bus stop amenities, transfer centers or facilities or small-scale improvement projects. The Federal program referred to as JARC (Job Access and Reverse Commute) is designed to help fund transit services that carry transitional workers to and from jobs. These funds are intended to “jump start” new services and should not be considered a long-term source of operating support. A new program, New Freedoms, provides funding of services and capital that go above and beyond ADA requirements.

### **Surface Transportation Funds (STP)**

Two parts of the federal legislation allow flexible funding of either transit or roadway projects with the same funds. These are the Congestion Management/Air Quality Program (CMAQ) and Surface Transportation Program (STP). CMAQ funds are apportioned to non-attainment areas as defined in the Federal Clean Air Act; Corvallis is not eligible. STP funds have been used in the past to help pay for bus purchases. These funds are administered through ODOT and the CAMPO, which will develop and approve the priority list of transportation projects using STP funds.

### **Federal Grant Programs**

#### **FTA Section 5307 – Urbanized Area Grant Program**

Section 5307, the Urbanized Area Grant Program is the largest single component of FTA grants available to support bus transit in urban areas with a population of at least 50,000 people. The funds are available to any transit service meeting basic federal requirements. Section 5307 funds are distributed by formula to urbanized areas, not individual cities. For areas of 50,000 to 199,999 in population, the formula is based on population and

population density. For areas with populations of 200,000 and more, the formula is based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue vehicle miles, and fixed guideway route miles as well as population and population density.

Urbanized Area (UZ) is a US Census designation describing separate urban agglomerations, and the boundaries of urbanized areas are adjusted after the completion of each decennial US census.

The UZ designations for Section 5307 funds are divided into two main categories:

- Between 50,000 and 200,000 population (small urban)
- Greater than 200,000 (large urban)

**Eligible uses of 5307 Grants include:**

- Purchase of buses and other capital needs;
- Preventive maintenance of capital assets;
- One percent of the total UZ's apportionment must be used for "transit enhancements" such as bus shelters, landscaping, bikeways, or historic preservation;
- Operating expenses for small UZs less than 200,000; and
- Up to 10% of funds may be used to support the operations of ADA paratransit.

Different application processes, use of funds and reporting guidelines may apply depending on the size of the urbanized area. Funds may also be distributed through different channels. Applicable projects are included in the region's Transportation Improvement Program (TIP) project lists developed and approved by CAMPO, the Metropolitan Planning Organization (MPO) for the area.

**Federal Transit Administration (FTA) Section 5309**

FTA Section 5309 funding falls into three categories: rail, bus/bus facilities and new rail starts. Bus/bus facility funding is distributed directly from FTA to support capital transit needs including vehicle acquisition, capital equipment and capital facility construction. FTA Section 5309 funds are an excellent source to acquire vehicles and have traditionally funded 80% of capital purchases. These funds are fully discretionary and traditionally have been somewhat difficult to acquire; however, Corvallis successfully secured an FTA Section 5309 grants in the past for vehicles, bus stop amenities, and facility development. Section 5309 Bus Discretionary funds are usually earmarked and appropriated by Congress. Grant applications to the FTA are necessary as is compliance with all of the requirements of a federal grant recipient. Additionally, all federally funded capital projects must be included in the State Transportation Improvement Plan (STIP) prior to receiving federal funds.

**FTA Section 5310 – Elderly and Disabled Program**

The formula grants for Special Needs of Elderly Individuals and Individuals with Disabilities provides transit capital assistance, through the States, to organizations that provide specialized transportation services to elderly persons and to persons with disabilities. Funding is approximately \$100 million per year, nationwide. Section 5310 funds are allocated to states based on the state's population of these specialized groups. Private non-profit agencies and under certain circumstances, public agencies, may apply for this statewide discretionary funding program.

Allocated through ODOT according to area population, these funds are most often used for capital purchases. However, Section 5310 program grants can be submitted for "contract service to operate" transportation programs for the elderly and persons with disabilities. Section 5310 provides up to an 80% contribution for funded programs.

## **Americans With Disabilities Act (ADA)**

The federal Americans With Disabilities Act (ADA) is a civil rights law that requires CTS to provide transportation services to disabled persons unable to use the fixed-route system and provides requirements for the design of transit equipment and facilities. The Act stipulates that the service offered to persons with disabilities be *comparable* to fixed route service, but recognizes that demand responsive service can never be designed to provide the same level of mobility as a fixed route operation. The Act specifically defines a number of minimum service criteria that must be met for a service to be considered comparable or complementary to fixed route. At a minimum, service must be provided to persons meeting ADA eligibility requirements; however, broader, more inclusive, eligibility may be offered at the service providers' discretion. Paratransit provisions of the Act must be fully implemented even if this requires a reduction in funding for other services. Because the Act stipulates a number of relatively costly service improvements it has become a driving factor in paratransit planning, and often has direct impacts on fixed-route planning as well.

### **ADA Complementary Service Definitions**

ADA requires that fixed route service and complementary paratransit service be similar in several important respects. These are briefly outlined below. It is important to note that these service parameters cover only service to persons eligible for paratransit under the ADA definition of eligibility. Service to others outside of this definition may be provided at a lower standard.

- Service Area - Service must be provided within a band 3/4 mile wide area on either side of a fixed route, including a 3/4 mile "cap" at the end of any given fixed route. In general, all fixed routes must be "complemented" by paratransit service.
- Days and Time of Service - Paratransit service must be available during all service hours that fixed route services are available.
- Response - Reservations must be possible for "next day" service. A caller must be able to reserve a ride at any time during business hours for a ride at any time during service hours on the following day. Paratransit providers must have facilities for taking reservations during standard office hours and for "next day" rides on days when the office would not be open (i.e., taking reservations on a holiday for service the day following the holiday). Rides can be provided on shorter notice if the community desires to operate the service in that way.
- Fares - Fares for paratransit must be no more than twice the full cash fare for a fixed route ride for a similar trip.
- Trip Restrictions - There may be no restrictions on the number of trips an individual may take or on the purpose of those trips. No priorities may be given for a particular trip type.
- Capacity Constraints - Capacity on the paratransit system can be subject only to the same type of constraints that exist on the fixed route system. Paratransit riders may "negotiate" for their precise pick-up or delivery time, and the system must be able to accommodate them within one hour of the time they wish to travel. Shared rides are encouraged, but travel times for paratransit trips may not be excessive. In addition, regularly scheduled "subscription" trips may fill no more than 50% of capacity during any time period, unless no additional demand is demonstrated.
- Eligibility - In general, ADA requires a functional eligibility system, where paratransit service is offered persons who are unable to ride the fixed route system due to physical or cognitive disability. Age alone is not considered a disability under ADA, although frailer elders are generally ADA eligible. Service to non-ADA eligible riders may be provided and is not subject to the service criteria mandated for ADA eligible riders. This definition of functional disability is very different from the traditional assumptions about what constitutes disability. For example, most persons who use wheelchairs are in fact able to ride an accessible fixed route and would therefore not be automatically eligible for paratransit service under the ADA definitions. Other types of disabilities may include persons with AIDS and those with hidden disabilities that affect individuals' ability to ride a fixed route bus. The inability to access the bus stop

because there are not curb cuts or traversable sidewalks can also make a person eligible for curb-to-curb paratransit service under the ADA. A conditional eligibility category is available for people with temporary injuries or conditions that only affect their ability to use fixed route transit at certain times or under certain conditions.

- Attendants and Companions - Riders who require an attendant for mobility purposes must be allowed to bring an attendant at no charge. Companions must be accommodated on a space available basis, and companions may be required to pay full fare.

### **3.3 OTHER POTENTIAL FUTURE FUNDING OPPORTUNITIES**

The purpose of this section is to identify new and enhanced funding sources that could be available in the Corvallis urbanized area to support expanded transit services and help pay for capital improvements. Corvallis Transit and other area providers currently rely on annual general fund allocations, FTA Section 5307 funds and a limited number of other funding programs that provide ongoing operating support and one-time grants for capital improvement projects. Though these will likely continue to be the primary revenue sources in the near future, the level of funding is not guaranteed, particularly for capital discretionary funds. This section focuses on new funding sources that could potentially provide the capital and operating resources to help improve transit services in the Corvallis area.

Figure 3-1 provides a summary of these opportunities. The funds are grouped in the following three categories:

1. Federal Sources
2. State Sources
3. Regional and Local Programs/Private Sector Initiatives

In addition to the sources listed in Figure 3-1, the \$50 billion (transit component for six years) reauthorization of TEA21 as SAFETEA-LU could create new funding opportunities for small urban and rural areas such as Corvallis. Three specific proposals could lead to greater access to federal funding:

- ▶ Ability to use certain federal source dollars as local match against FTA funding program.
- ▶ Ability to match FTA 5307 Small Urbanized funds through local and or federal “coordination” efforts.
- ▶ Option to maintain match requirements for transit funding comparable to highway funds. This is only a proposal that would apply specifically to a limited number of other states and is not likely to include Oregon.

While the details of these proposals remain uncertain at this time, it is encouraging that considerations are being made to lessen the local burden in matching available federal transit funding. The Department of Health and Human Services (DHHS) and FTA Region 10 (Idaho, Washington, Oregon and Alaska) have forwarded a recommendation to the FTA in Washington, D.C., to seek funding in the new Reauthorization for coordinating services between federal agencies, and allowing some federal dollars to match the FTA Section 5307 dollars. If any of these proposals were in place, it could decrease reliance on competitive general fund allocations to support transit services and/or provide additional operating funds for future service expansion.



Figure 3-1 Summary of New Funding Opportunities

FUNDING SOURCE	FUNDING PURPOSE	USE OF FUNDS	APPLICATION/ APPROVAL PROCESS	EST. ANNUAL YIELD	LEAD TIME	COMMENTS	LIKELIHOOD FOR SUCCESS
<b>Federal Programs</b>							
Transportation and Community System Preservation Pilot Program (TCSP)	Available for transit projects that coordinate transportation and land use	Capital projects only	Federal application process	\$25 M /year nationally for FYs 2000 through 2003	1 - 2 years	TEA-21 program that favors projects with public/private sector partnership.	Highly competitive
Transportation Enhancement Activities (TEA)	Small-scale, non-routine projects (e.g., Ped/bike/ transit)	Capital projects only	Application process through DOT	Unknown	1 -2 years	Under TEA-21, program designed for alternative transportation projects without other funding sources.	Highly competitive
Welfare to Work (Job Access and Reverse Commute (JARC))	To provide transportation services to welfare recipients and low-income persons traveling to and from jobs	Capital and operating costs	Application process through the FTA	Approximately \$75 and \$150 M per year nationally	1 year	50% match requirement, although unlike other Federal funds, can be matched with Federal dollars (TANIF, CDBG)	Highly competitive
FTA Section 5309	Discretionary Funds for large scale capital projects	Capital projects only	Congressional Earmark	Varies tremendously	1 year	20% match requirement	Highly competitive
<b>State Programs</b>							
State Transportation Improvement Program	Oregon's four-year transportation capital improvement program.	Transit capital projects, excluding revenue vehicles	Application process through DOT	Unknown	1 year	Securing these funds for transit is highly competitive	Highly competitive
Business Energy Tax Credit Program (BETC)	Provides tax credits to businesses partnering with entities who create environmental/energy benefits	Operations or special programs	Application through Department of Energy	Could generate up to \$400k per year	1 year	Entities with Oregon tax liability can dedicate their income taxes to operation of CTS	Application Approved

FUNDING SOURCE	FUNDING PURPOSE	USE OF FUNDS	APPLICATION/ APPROVAL PROCESS	EST. ANNUAL YIELD	LEAD TIME	COMMENTS	LIKELIHOOD FOR SUCCESS
<b>Regional and Local Programs</b>							
<b>Private Sector Initiatives</b>							
Employer Contributions	Some large employers currently subsidize employee passes.	Capital project or operating support	Negotiations with interested employers	Unknown but assumed to be small amounts.	Ongoing	Opportunity to help fund future service expansions.	Most feasible for employers located on existing fixed routes.
Retail an/or Hospitality Contributions	No revenues currently available	Primarily capital projects	Negotiations with associations and individual companies	Unknown	1 – 2 years	Merchants may be interested in sponsoring small scale amenities such as bus benches or shelters.	Difficult and requires significant ongoing effort and cooperation.
Oregon State University	Provide additional service to OSU Campus	Operating support for regular or special services	Negotiations with OSU	Unknown	1-2 years	As parking demand increases on the OSU campus there will be an increasing need for transit and other TDM programs to ensure quality access to all parts of campus.	OSU recently increased contribution to CTS. May impact feasibility of further increases in the near future.

### 3.4 STATE PLANS AND POLICIES

The State of Oregon distributes federal funding to small urban and rural areas and is also a direct source of other funding through a number of grant programs. The State's transportation policies in recent years, in particular the Transportation Planning Rule, are placing greater emphasis on alternative modes to single-occupant vehicles, such as transit.

#### Transportation Planning Rule

The Transportation Planning Rule (TPR) is found in the OAR Chapter 660, Division 12. It requires local governments to adopt transportation system plans and to amend land use regulations to implement these plans. The intent is to achieve the following objectives:

- Plan for local transportation systems in a way that is consistent with the state plans;
- Develop travel demand forecasts that can reduce reliance on automobiles and achieve compact urban development;
- Plan for a road network that identifies local street connections and extensions to reduce reliance on arterials;
- Provide for bicycle and pedestrian facilities and circulation patterns;
- Reduce excessive standards for local street width and right-of-way to make streets more livable and safer for bicyclists and pedestrians; and
- Assure that new developments and land divisions include bicycle and pedestrian accessways and circulation patterns.
- Service frequencies for all routes should be no less frequent than one-half hour at peak times, once Corvallis becomes an MPO.

#### Oregon Public Transportation Plan

The Oregon Public Transportation Plan (OPTP) codifies goals, policies, strategies and service standards for public transportation systems throughout the state. The OPTP is one component of ODOT's integrated transportation planning process. The Oregon Transportation Plan (OTP) provides an overall framework while mode plans, such as the OPTP, apply OTP policies and service levels to specific transportation modes. The OTP, with a 20-year planning horizon, was adopted in 1992. An update to address 2005 through 2025 is underway and should be adopted in late 2005 or early 2006.

Goal 1 of the OPTP defines the purpose of public transportation stating, *"The public transportation system should provide mobility alternatives to meet daily medical, employment, educational, business and leisure needs without dependence on single-occupant vehicle transportation. The system should enhance livability and economic opportunities for all Oregonians, and lessen the transportation system's impact on the environment. The public transportation system should provide services and meet transportation needs in a coordinated, integrated and efficient manner."*

Goal 2 defines the components of such a system, accounting for the different needs of and resources available to urban, small city and rural systems. The OPTP contains minimum service standards that each system should achieve.

OPTP policies and strategies specify the nature and level of public transportation that Oregon communities should provide, based on community population. Access to public transportation and reduced reliance on the single occupancy vehicle (SOV) are key elements of the OPTP. The plan references state and federal goals and mandates when planning Oregon's public transportation system of 2015. These include the state's benchmark goal of 1.7 transit service hours per-capita in metropolitan areas and a 38 percent use of non-SOV modes for commute trips by 2010.

The OPTP provides minimum levels of service expected in large communities and urban areas by 2015. These include goals to:

- Increase urban transit services to enable metropolitan areas to respond to Transportation Planning Rule requirements for per-capita reduction in vehicle miles traveled
- Provide services in all parts of the urbanized area
- Provide high capacity public transportation services with separate rights of way or priority treatments for public transportation vehicles in all interstate corridors and other highway corridors of statewide function in which level of service E or worse is experienced or anticipated
- Provide service frequencies for all route at no less than one-half hour at peak periods
- Provide service at no less than one hour frequencies for off-peak service on all routes, or make a guaranteed ride home program available
- Provide park-and-ride facilities along major rail or busway corridors to meet reasonable peak and off-peak demand for such facilities
- Provide services with regular, convenient connections to all intercity modes and terminals
- Provide sufficient service levels to public transportation-oriented development to achieve usage goals of the development
- Maintain vehicles and corresponding facilities in a cost-effective manner and replace vehicle when they reach the manufacturers' suggested retirement age
- Enhance rideshare and transportation demand management program where they are currently in place
- Maintain park-and-ride and other facilities in a cost-effective manner and update or replace components when necessary or appropriate.

### **Statewide Transportation Improvement Program**

The Oregon Department of Transportation's Statewide Transportation Improvement Program (STIP) is the culmination of ODOT's integrated planning process. It schedules and prioritizes transportation projects throughout the state over a four-year period. State and federal programs typically require that projects be listed in the STIP in order to receive funding. The following projects affect the Corvallis area in the 2006-09 DRAFT STIP:

#### **2006 – 2009 STIP (to be released Dec 2005)**

- TDM Program for City of Corvallis FY2006 \$45,000 - STP funded
- Corvallis Transit - Philomath Connection FY2006 \$1,360,000 5307 funded
- Corvallis Transit - Replacement Bus FY2006 \$331,000 5309 funded
- TDM Program for City of Corvallis FY2007 \$45,000 - STP funded
- Corvallis Transit - Philomath Connection FY2007 \$1,401,000 5307 funded
- Corvallis Transit - Philomath Connection Bus FY2007 \$150,000 5309 funded
- TDM Program for City of Corvallis FY2008 \$45,000 - STP funded
- TDM Program for City of Corvallis FY2009 \$45,000 - STP funded

### **3.5 CITY PLANS AND POLICIES**

The plans and policies of the City of Corvallis recognize the need for transit service and provide guidance on the relationship of land development and land use patterns to transit service. Current Land Development Code requirements and recent local planning efforts both emphasize the need to provide land uses at sufficient densities to justify transit service and to orient buildings to serve pedestrians and transit users. The City of Corvallis Transportation Plan specifies goals and plans for Corvallis' transportation system. The Corvallis Area Metropolitan Planning Organization is currently combining the Corvallis plan along with those from Benton County and Philomath to create a regional transportation plan.

#### **Corvallis Comprehensive Plan (1991, amended Nov., 1995, and Aug., 1996)**

The existing Corvallis Comprehensive Plan guides and controls land use within the City and its Urban Growth Boundary. It directs the City's planning efforts through the year 2010 and an estimated population of 62,500. The City is required to undergo a comprehensive periodic review of its Comprehensive Plan every 5 to 7 years.

The Plan presents a series of findings and policies, a number of which affect transit:

#### **Findings**

- The majority of the community's future movement will occur over street rights-of-way, whatever the mix of transportation modes. The private motor vehicle will continue to be the primary mode of transportation over the planning period. The other most important modes of transportation will be the bicycle and transit.
- Public transit offers the community a mechanism to reduce traffic and pollution as well as to increase energy efficiency.
- Work, school, medical, and shopping trips are the most conducive to mass transportation.
- Within the planning area, the present transit system is inadequate in the areas of coverage and frequency of service. A determination of the community's transit needs could best be developed through a route and schedule analysis.
- A viable transit system is dependent upon efficient access to the population service area and adequate funding.
- A regional transit system may be needed within the planning period to provide adequate access to regional recreational areas.
- Albany, Corvallis, and Philomath will need to develop mechanisms to provide public transportation between jurisdictions, perhaps expanding service provided by the Linn-Benton Loop System.
- On-street parking of University-related vehicles reduces the capacity of those streets to move vehicles, creates hazards, and has a significant impact on the areas in which parking occurs. This can be improved by encouraging increased transit, bicycle, and pedestrian travel and by developing and implementing a parking plan.
- The central location of downtown Corvallis can be effectively served by mass transit.

#### **Policies**

##### **Transportation Policies**

§§10.1.1 The transportation system shall be planned and developed in a manner which contributes to community livability, recognizes and respects the characteristics of natural features, and minimizes the negative effects on abutting land uses.

§§10.1.2 The transportation system shall be designed to reduce existing traffic congestion and facilitate the safe, efficient movement of people and commodities within the community.

§§10.1.3 The City shall develop and promote alternative systems of transportation which will safely, economically and conveniently serve the needs of the residents.

§§10.1.4 Special consideration in the design of the transportation system shall be given to the needs of those people who have limited choice in obtaining private transportation.

§§10.1.5 The transportation system shall give special consideration to providing energy efficient transportation alternatives.

#### Transit Policies

§§10.6.1 An improved public transportation system within the planning area should be established to improve the livability of the community, to reduce pollution and traffic, and to reduce energy consumption.

§§10.6.2 The City of Corvallis shall cooperate with neighboring jurisdictions to provide a regional transportation system which facilitates convenient, energy efficient travel. This shall address the needs of persons who, for whatever reason, do not use private automobiles.

§§10.6.3 The City of Corvallis should participate in a trial operation of a Philomath-Corvallis transit system before making long-term commitments to this regional system.

#### Energy Policies

§§11.1.5 The City shall encourage land use patterns and development that promote clustering and multiple stories, take advantage of energy efficient designs, and have ready access to transit and other energy efficient modes of transportation. A location where this is desirable is in the central city.

§§11.1.6 The City shall actively promote the use of energy-efficient modes of transportation.

§§11.1.7 The City shall encourage the development of high-density uses that are not dependent on automobile transportation.

#### New Policies

As a result of the adoption of the Corvallis Transportation Plan in August, 1996, the following policies were added:

- Arterial and Collector street designs shall include evaluation, and requirements as appropriate, for transit facilities such as bus stops, pull-outs, shelters, optimum road design, and on-street parking restrictions as appropriate.
- New retail, commercial, recreation, office, and institutional buildings at or near existing or planned transit stops shall provide preferential access to transit facilities.
- Park and ride lots shall be investigated by the City as an alternative solution to parking and congestion problems.

#### Corvallis Land Development Code (1993)

The City's Land Development Code is "intended to ensure that development is of the proper type, design, and location and serviced by a proper range of public facilities and services; and in all other respects be consistent with the goals and policies of the Corvallis Comprehensive Plan." Section 4.0.60 of the Code specifies the following transit requirements:

- Development sites located along existing or planned transit routes shall, where appropriate, incorporate bus pull-outs and shelters into the site design. These improvements shall be installed in accordance with the guidelines and standards of the Corvallis Transit System (i.e., bus pull-outs are typically spaced 1,500 feet apart).
- New developments at or near existing or planned transit stops shall design development sites to provide safe, convenient access to the transit system, as follows:

1. All commercial and civic use developments shall provide a prominent entrance oriented towards arterial and collector streets, with front setbacks reduced as much as possible to provide access for pedestrians, bicycles and transit.
2. All developments shall provide safe, convenient pedestrian walkways between the buildings and the transit stop, in accordance with the provision of Section 4.0.40.b.

Section 4.0.40 of the Code specifies pedestrian requirements. Highlights of this section include:

- Sidewalks are to be separated by planter strips from the street. This strip shall be at least 6 feet wide on local streets and at least 12 feet wide on collector and arterial streets. Sidewalks are to be at least 4 feet wide on culs-de-sac, 5 feet wide on local streets, and 6 feet wide on arterials and collectors.
- Safe and convenient pedestrian facilities that strive to minimize travel distance to the greatest extent possible shall be provided in conjunction with new development within and between new subdivisions, planned developments, commercial developments, industrial areas, residential areas, transit stops, and neighborhood activity centers such as schools and parks. "Safe and convenient" means facilities that are reasonably free from hazards, provide a direct route of travel between destinations, and meet the travel needs of pedestrians considering destination and trip length.
- Internal pedestrian circulation shall be encouraged in new developments by clustering buildings, constructing convenient pedestrian ways, and/or constructing skywalks where appropriate.

Pedestrian walkways shall be provided in accordance with the following standards:

- The on-site pedestrian circulation system shall connect the sidewalk on each abutting street
- Walkways shall be provided to connect to existing or planned facilities which abut the site.
- Walkways shall be as direct as possible and avoid unnecessary meandering.
- Walkway/driveway crossings shall be minimized, and internal parking lot circulation design shall maintain ease of access for pedestrians from abutting streets, sidewalks, and transit stops.
- Walkways shall be separated from vehicle parking or maneuvering areas by grade, different paving material, or landscaping, except at walkway/driveway crossings.

Section 4.0.60 of the Code notwithstanding, the Code does not specify maximum front setbacks for land uses. Occasionally, the Code specifies average setbacks. Figure 3-2 presents minimum setbacks for various zoning districts.

The Development Code also provides minimum vehicle and bicycle parking requirements for different kinds of land uses. The maximum amount of off-street vehicle parking allowed is equal to 30 percent of the minimum requirements. A 10% reduction in the vehicle parking minimums is allowed if a transit pull-out developed to CTS standards is located on-site or within 300 feet.

**Figure 3-2 Minimum Setbacks**

<b>Zone</b>	<b>Minimum Setback (feet)</b>
Professional and Administrative Office	20*
Shopping Area	20*
Shopping Area (University)	
Community Shopping	20 (arterial), 40 (other)
Linear Commercial	20 (arterial/collector), 40 (other)
Central Business	
Central Business Fringe	10*
Regional Shopping Center	
Special Shopping District	
Research and Technology Center	40 (minimum), 60 (average)
Oregon State University	40 (minimum public street) 50 (minimum private street) 60 (average)

\* Offsets required by providing minimum 8' recesses or extensions or minimum 3' height changes at least every 30' along the vertical face of the structure.

**Corvallis Transportation Plan (August, 1996)**

The Corvallis Transportation Plan sets goals for Corvallis’ transportation system, establishes an achievable capital improvements plan for the City, provides a road map for future decisions involving new development and transportation, and clarifies City Council policies regarding transportation issues. It presents a vision for each transportation mode, addresses current issues, and suggests policies to address these issues now and in the future.

The transit element of the plan updates CTS' mission and goals from versions presented in earlier documents. The current versions of the mission and goals are as follows:

**Mission**

The mission of the Corvallis Transit System is to:

- Preserve the environment and enhance neighborhood livability of Corvallis by providing a viable transportation alternative for all citizens, reducing air pollution, reducing energy consumption, and reducing automobile traffic, thereby reducing the number of accidents, including fatalities.
- Provide community access as a social service by providing transportation to youth, and elderly, disabled and low-income citizens.



- Promote economic vitality for Corvallis by reducing the need for automobile infrastructure, reducing the need for public parking and the attendant loss of taxable property, supporting and enhancing a greater land-use density, reducing the need for private parking, resulting in more efficient use of land and resources, and creating an attractive business environment where employers can (1) rely upon an alternative mode for their employees and (2) increase their employment pool by providing transportation to those who have no other means of travel to the employment site.

**Goals**

The Goals of CTS are:

- One million rides provided annually by 2020;
- Maintain self-sufficiency of the Transit Fund;
- Provide service within five blocks of every residence (where infrastructure permits);
- Reduce parking pressure, particularly in the OSU area and downtown; and
- Continue as one of the top systems in the state.

Because transit services affect and are affected by other City programs and policies, as well as private sector activities, there is a need for CTS to coordinate its efforts with others. Some important areas where coordination is necessary are the following:

- Coordinating transit activities with the City’s Transportation Demand Management Plan. One program being implemented is placing bike racks on buses.
- Coordinating transit planning with land use planning. The Corvallis Transit Master Plan and the Corvallis Alternatives Analysis projects are coordinating their efforts.
- Coordinate transit planning with major employers and employment areas, such as OSU, Hewlett Packard, the Good Samaritan Regional Medical Center area, Sunset Research Park, and downtown Corvallis.
- Coordinating transit service with the Philomath Connection, Linn-Benton Loop and the Albany Transit System. This effort could include funding assistance, park & ride lots, coordinated schedules, inter-system transfer agreements, and regional maps.
- Providing connections between CTS and Amtrak in Albany, and Greyhound, the Linn-Benton Loop and Valley Retriever intercity buses in downtown Corvallis.
- Coordinating transit service planning with state and local highway planning efforts to possibly reduce the need for or amount of highway widening to serve commuters from Philomath, Albany, and Lebanon.

The Plan proposes a number of actions to be taken to achieve CTS' mission and goals and to comply with federal, State, and City policies.

- **Service Actions.** Establish an east-west loop in North Corvallis, establish 30-minute service in southeast and southwest Corvallis, extend weekday and Saturday service hours by one or two hours, establish Sunday service, and provide regional service to areas willing to contribute a proportional share of the cost of the service.
- **Infrastructure Actions.** Immediately replace a 13-year-old bus and add a bus for the east-west loop, replace other transit vehicles according to industry-standard schedules, add buses to meet increased service needs,

construct shelters in high-passenger locations, add and replace bus stop signs, add bike racks to buses, improve bus stop accessibility, add bus bays, construct future streets to accommodate transit when warranted, construct a larger downtown transit center, and construct park & ride facilities.

- **Planning Actions.** Review all improvement or redevelopment projects, public and private, to ensure transit-friendliness, implement provisions in the Land Development Code and Comprehensive Plan for easements and/or other transit facilities where appropriate, include transit personnel participation in all transportation activities, and coordinate transit planning with other local and State planning efforts.
- **Funding Actions.** Establish financing to accomplish the above and broaden the base for transit support. Possible funding sources include ISTEA funds, State funds, private development fees, expansion of group pass program and new service areas.
- **Other Actions.** Continue participation in special events that promote CTS, such as daVinci Days, Benton County Fair, Fall Festival, and holiday trolley service; coordinate and connect service with other public and private transit providers; explore other intermodal opportunities; and continue a program evaluating the effectiveness of the transit system.

### **North Corvallis Area Plan (January 2002)**

The North Corvallis Area Plan (NCAP) addresses the development of Northern Corvallis and its urban fringe, encompassing the Crescent Valley and Lewisburg areas. As part of its overall goal, the plan promotes land use patterns and development designs that "...will reduce private automobile reliance and enhance opportunities for pedestrian and bicycle travel, street connectivity and existing and future transit service."

To establish direction for the project planning team, the project's Citizen Advisory Committee established a set of six Guiding Principles including:

- Distributed but concentrated development
  - Distributed, pedestrian-scaled local service and employment centers within walking distance of most residences
  - Larger scale employment and commercial centers along more heavily traveled corridors with transit potential
- Transportation alternatives to private automobiles
  - Daily services within walking distance (1/4 mile) of most residences
  - Safe, direct and convenient bicycle and pedestrian routes
  - On-street and off-street alternative mode systems
  - Accessible, convenient transit routes and centers

The plan promotes future development in neighborhood centers or areas with mixed uses, higher residential densities, and neighborhood commercial services within walkable distance of large residential populations. It specifies a number of design elements that aid walking and bicycling at transportation modes. These include:

- Gateways and corridors;
- Neighborhood and street design objectives

- High and mixed-use zoning designations

The Transportation and Circulation chapter has a set of objective in support of the guiding principles including:

- Develop major and minor neighborhood centers with high residential and employment densities to support efficient transportation options such as mass transit, walking, and bicycle use as alternatives to the automobile; and
- Create designs for streets and off-street trails that offer safe, attractive alternatives for cyclists and pedestrians.

A set of recommendations in the NCAP provides for the implementation of the plan via other planning processes, annexation proceedings and development codes. The Public Transit and Rail recommendations specifically state:

T6. Extend bus service into the planning area and consider route modifications as roadway connections and neighborhood centers are developed. Assure that transit stations are developed as centerpieces in future neighborhood center designs.

T7. Explore the potential for developing a shuttle, park-and-ride facility, or rail station near the Elliott Circle or Lewisburg neighborhood centers to make connections between the NCAP area, downtown Corvallis, and Willamette Valley train service In Albany.

The Public Transit and Rail section of the area plan acknowledges that establishing higher densities of urban development at neighborhood centers supports the potential for extending transit service into the area. It calls for:

- Transit stations at each of the neighborhood centers, with the size of the station and frequency and number of routes being contingent upon the intensity and type of development within the center.
- Routing intended to link future neighborhood centers and other major destinations (e.g., Good Samaritan Regional Medical Center) while incorporating existing service routes, minimizing route lengths and avoiding steep slopes to maintain and improve headways as much as possible.
- Extending service (from that identified in the Corvallis Transportation Plan) by developing a new a route to connect the four neighborhood centers in the existing urban fringe.

### **South Corvallis Area Refinement Plan (December 1997)**

The Corvallis City Council adopted the South Corvallis Area Refinement Plan in December 1998. The plan updated and refined comprehensive plan policies and map designations for south Corvallis. Plan objectives include:

- Enhance opportunities for pedestrian and bicycle travel;
- Support existing and future transit services;
- Provide opportunities for mixed use development, including mixing commercial, residential, industrial, office and other uses;
- Minimize congestion on South Third, provide transportation choices, and enhance connections with other parts of Corvallis; and
- Provide safe-crossings and “people-friendly places along South Third Street.
- The Transportation section of the Plan highlights strategies to:

- Promote local trips and transit via new land use plans (increased densities, uses and design);
- Promote Transportation Demand Management (TDM) strategies;
- Promote transit via increased transit coverage, increased frequency of service, reduced fares, increased marketing and completion of transit, pedestrian and bicycling networks.
- 

Specific implementation recommendations in the Plan include Comprehensive Plan Policies:

T6. The City shall use transportation demand management, transportation system management and land use strategies to the greatest extent practicable to avoid further widening of South Third Street. It is the City’s policy to keep the width of South Third Street to a maximum of five lanes.

T8. Transportation demand management will be implemented in south Corvallis, consistent with the City’s overall TDM program.

T11. The City will promote, and may require, transit oriented land use and design within one-quarter mile of transit stops. Measures include, but are not limited to, requiring a minimum of 80 percent of planned density, clustering density in close proximity to the bus stop, orienting buildings to streets, and providing a safe and inviting environment for pedestrians. Mixed use, either vertically or horizontally, will be encouraged.

Recommendations in the Plan for Planning Actions and Coordination with Other Plans includes:

FS5. Include in the development of the City’s proposed Demand Management (TDM) Program, consideration of the following measures, evaluating them for their benefit, effectiveness, cost and applicability to the south Corvallis area:

- a. Promotion and enhancement of transit and alternative modes;
  - Increased transit coverage (expanded routes)
  - Shorter headways (increased frequency of service)
  - Reduced fares (increased transit subsidies)
  - Advertising and promotion of transit, walking, and bicycling
  - Completion of a network of pedestrian and bicycle facilities.

FS9. Include the following among the alternative considered by ODOT and the City in their joint planning activities:

- b. Determine the feasibility of improved transit service to provide sufficient off-loading of demand to forestall or eliminate the need to provide additional north-south vehicular capacity on South Third Street (Highway 99W)

**West Corvallis / North Philomath Plan (July, 1996)**

The goal of the West Corvallis Growth Management Plan, a joint effort of the Cities of Corvallis and Philomath, Benton County, and OSU , is to provide a plan for the mostly undeveloped land in the western portion of the Corvallis UGB. The Corvallis City Council adopted the plan in December 1998.

Two of the Plan’s goals call for reduced reliance on private automobiles by creating “development patterns that encourage walking, bicycling, and efficient transit service,” and the creation of pedestrian-friendly neighborhoods “that encourage community building, offer diverse housing types, sizes, prices and rents, discourage auto use, and maintain or enhance the quality of life of their residents.”

The Plan envisions a number of “pedestrian neighborhoods” in the West Corvallis area, with higher-density housing surrounding a 3-5 acre community core serving as a community focal point and providing a mix of uses. Lower-density housing would be located farther away from the community core. An average density of nine housing units per acre in these neighborhoods is desired in order to make transit service feasible.

The Plan proposes a number of policies, which will require revisions to the comprehensive plans, and development codes of Corvallis, Philomath, and Benton County in order to be implemented. Proposed transit-related policies include the following:

### **Land Use Policies**

- Encourage the creation of new pedestrian neighborhoods that make efficient use of urban land and facilities, encourage walking, bicycling, and transit, and provide a high-quality, human-scaled neighborhood.
- Require a minimum residential density of nine dwellings per gross residential acre within pedestrian neighborhoods, excluding areas set aside for commercial and employment uses, public facilities, and active recreational parks greater than four acres in size. Smaller parks developed to serve adjoining residences should be included as residential acreage.
- Use arterial streets, rail lines, and hills and streams to define the edges of pedestrian neighborhoods. Where these neighborhoods adjoin other residential areas, require easy connections for pedestrians, bikes, and transit to support the community core and encourage alternative modes of travel.
- Require developers of pedestrian neighborhoods to designate a community core of at least three acres that includes, at a minimum, a small public “green space” or plaza...and a transit stop and that allows other appropriate uses....
- Reroute bus routes to serve community cores and surrounding pedestrian neighborhoods, developing transit stops and locating public facilities and community centers within them.
- Encourage commercial development that is not automobile-oriented and serves local residents as part of community cores in pedestrian neighborhoods.
- Encourage the development of a larger neighborhood shopping area (about 10 acres in size) as part of the pedestrian neighborhood northeast of 53rd and West Hills Road if the designated shopping area at 53rd and Philomath Boulevard is developed for employment or similar uses instead of shopping.
- Require the design of all commercial areas within West Corvallis to incorporate the pedestrian-friendly features called for as part of pedestrian neighborhoods.
- Encourage the development of research and technology centers as part of the pedestrian neighborhoods north of Harrison at Circle and east of 35th at West Hills Road. Locate these centers to be convenient to bus service and within walking distance of the community core of the pedestrian neighborhoods.

### **Circulation Policies**

- Create a balanced and integrated circulation system that emphasizes and encourages walking, bicycling, and transit, while accommodating continued use of the private automobile.
- Encourage walking, both for pleasure and as an alternative to the automobile, by ensuring that streets create a pleasant pedestrian environment and provide frequent connections and direct routes within neighborhoods.

- Ensure that transit service within West Corvallis is redesigned and expanded, where possible, to provide efficient and attractive bus service that links West Corvallis to the rest of the Corvallis-Philomath area.
- Reroute bus routes along new collector streets as pedestrian neighborhoods develop to link community cores and provide more accessible transit service to residents.
- Design streets within pedestrian neighborhoods and other residential areas to provide direct and convenient access for pedestrians to bus stops.
- Locate bus stops within community cores and near higher-density housing and commercial or industrial areas; require provisions for benches, shelters, and pullouts to serve new developments, consistent with Corvallis Transit System standards and projected peak-period transit ridership. Where a bench or shelter already exists at a nearby bus stop, projects shall be exempt from this requirement.
- Encourage extension of transit service to Philomath and the designated pedestrian neighborhood within the Philomath UGB.

The transit related goals and policies of the West Corvallis plan will be addressed in interaction with the Transportation Alternatives Analysis.

### **Corvallis Transportation Demand Management Plan (October 1998)**

The Transportation Demand Management (TDM) Plan builds on the Corvallis Transportation Plan and the subsequent Transportation Alternatives Analysis incorporated as an amended Chapter 11. Major elements of the TDM plan include:

- TDM Support Facilities – pedestrian and bicycle infrastructure and access management to support non-automobile travel;
- City Supported Programs – education and monitoring efforts to promote alternative modes, as well as incentives (fee waivers, civic recognition, variances, etc.) for alternative modes and disincentives (additional or increased fees, parking limitations, etc.) to automobile dependence;
- Transit Plan – substantially increased transit service to provide a genuine alternative to automobiles and reduce per capita vehicle miles traveled; and
- Land Use Plan – reducing travel demand by bringing residences and jobs closer together.

### **Corvallis Five-Year Capital Improvement Program**

The City's most recent Capital Improvement Program update identifies the following transit-related projects:

- Jefferson and Monroe Intersection Improvements – includes turn around facilities for the Linn-Benton Loop. \$227,000 for FY07 & FY08
- Transit Operations Center- construction of CTS operations center. \$3,125,000 for FY09 and FY10
- Harrison Corridor Improvements – include addition of traffic control signals and turn lanes at 35<sup>th</sup> and 36<sup>th</sup>, which will facilitate bus operations. \$534,000 for FY06

### **3.6 OTHER JURISDICTIONS' PLANS AND POLICIES**

An effective regional plan requires that the policies of one jurisdiction, such as the City of Corvallis, be coordinated with those of other area jurisdictions. The jurisdictions with the greatest interest in future CTS planning efforts are Benton County, the City of Philomath and Adair Village.

#### **Benton County Comprehensive Plan**

The County Comprehensive Plan provides the official policies which will be used in County decision-making processes. The Plan's Transportation Element "is intended to provide the framework for an efficient and effective transportation system in Benton County."

Transit-related policies contained in the Comprehensive Plan include:

- Pedestrian, bicycle, and equestrian facilities should be established as needed and as funding is available. (Many of these facilities can be used to access transit.)
- The County should pursue an effective public transportation system, including the joint use of school buses and private transit, as resources permit.
- The provision of public transit and paratransit for persons with disabilities and the transportation-disadvantaged should be pursued. (Benton County Dial-A-Bus/County Cruiser provides this service.)
- Bus turnout standards shall be established which allow removal of buses from the roadway while transferring passengers and smooth transition to and from the traffic flow.
- Sidewalk standards shall comply with city standards for urban roadway improvements including new roadways, major reconstruction or subdivision developments. Ramps for the handicapped shall be provided as necessary.
- Areas zoned for increased housing density should be concentrated along major transportation routes. Limited access to these major routes shall be required to insure planned efficient and safe ingress and egress from developments.
- The County should support or implement as appropriate the bus loop system connecting Albany, LBCC, Corvallis and Philomath, as recommended in the Linn-Benton Transit Development Plan. (The County provides financial support.)
- The County should adopt measures to encourage the use of carpools and mass transit by both public and private employees in the County.

#### **Benton County Development Code (1990, with amendments through 1994)**

The Benton County Development Code provides the regulations that implement Comprehensive Plan policies. The County Comprehensive Plan, as well as the comprehensive plans of the incorporated jurisdictions within the County (including Corvallis) are incorporated by reference into the Development Code.

There are no Development Code regulations that specifically mention transit-related improvements. The Code does provide for 6-foot sidewalks on arterials and collectors in urban areas and 5-foot sidewalks on local streets in urban areas. Sidewalks are not required in rural areas.

### **Benton County Transportation System Plan (2001)**

The County's Transportation System Plan (TSP) adds to, enhances and/or implements various transportation policies set forth in the Benton County Comprehensive Plan. The Transportation Improvement Plan element identifies \$2.125 million of capital costs and over \$12 million of operating costs in support of new or expanded public transit services within the county over the 20-year planning period. The TSP Vision Statement highlights the need for alternative travel modes and coordinating land use and transportation decision making. The Public Transportation Plan element of the TSP identified many transit-related deficiencies at the time, mostly outside of Corvallis except for the need for late evening and Sunday service.

The TSP proposed one new transportation policy related to public transportation:

Benton County shall seek ways to provide public transportation choices within the commuter corridors within the county.

Additionally, the TSP states that the formation of a Transit District is the preferred means of providing intercity and rural transportation services within the region. The formation of a District would require a public vote and would provide a mechanism for establishing a dedicated funding source for public transportation.

The TSP further outlines a set of preferred alternatives to address intercity and rural transit and TDM needs. These are:

- Satellite Park-and-Ride Shuttle Service in Highway 99W Corridor to Adair Village, Lewisburg, and Monroe
- Satellite Park-and-Ride Lots in North Albany, Philomath, Adair Village, Lewisburg, and Monroe
- Express Bus Service in U.S. 20 Corridor Between Albany and Philomath
- Support Expanded Corvallis Transit System Service
- Expand Dial-A-Bus/County Cruiser Service
- Continued Valley Retriever Service
- Continued Rural Rounds Service
- Continued Linn-Benton Loop Service

The county TSP is being updated and incorporated into Destination 2030, the upcoming regional TSP being generated by the Corvallis Area Metropolitan Planning Organization.

### **Philomath Transportation System Plan (1999)**

The Philomath TSP includes a Public Transportation Plan component that addresses baseline and future public transportation services. This element of the TSP:

- Encourages increased usage of the intercity connections and senior citizen and disabled public transportation services that were in operation at the time of the plan's release.
- Acknowledges that Philomath would become part of a Corvallis area MPO planning area and would see fixed-route service within the 20-year timeframe.



- Specifies that Philomath can plan for future transit services with growth patterns that support rather than discourage transit use in the future.

The Philomath TSP also includes a Transportation Demand Management Plan component. As the plan was released at a time Philomath did not have regular fixed-route service, the TDM element does not stress public transportation as an option for reducing automobile trips. The TSP is being updated and incorporated into Destination 2030, the upcoming regional TSP being generated by the Corvallis Area Metropolitan Planning Organization.

### **Corvallis Area Metropolitan Transportation Planning Organization Regional Transportation Plan (CAMPO RTP): Destination 2030**

The existing transportation plans for Benton County, Corvallis and Philomath are between two and eight years old while Adair Village does not have a transportation plan. The Corvallis Area Metropolitan Planning Organization (CAMPO) adopted the Destination 2030 Plan in September 2006 to combine and update the three transportation plans into a regional plan that covers all these jurisdictions, including Adair Village. The completion of the plan entailed a considerable public involvement process.

CAMPO has identified in its 2005-06 Unified Planning Work Program the coordination of transit planning in the federally defined urbanized area (UA) as one of its responsibilities and work products. The goal of this coordinated planning work item is to ensure seamless passenger transfer service within the UA as well as with other public transit service providers passing through or connecting with the UA.

The CAMPO Destination 2030 includes planning and projects for transit in the MPO boundary. This area encompasses Corvallis UGB and the plan includes CTS. The RTP is a 20 year plan that is required by federal regulations to be periodically updated at least every four years. The RTP includes a projected need for increased transit facilities and services. These service increases are projected to occur in certain decade blocks, however any increase in fleet, facilities or services is dependant on funding.

All federal funding CTS received from the FTA must be programmed in the CAMPO Transportation Improvement Plan (TIP) as well as the Oregon STIP.

# Chapter 4 – Long-Range Service Concept

## 4.1 OVERVIEW

This chapter presents a conceptual sketch of the service levels that Corvallis could support within the next 20 years and the basic geographical layout of that service.

### 4.1.1 Purpose and Intended Level of Detail

The most important purpose of a long-range service plan is to support integrated transportation and land use planning. The long-range plan, once adopted, will indicate a commitment by the City to provide its best transit service in certain corridors, assuming that the needed resources are made available. The “primary” transit corridors will be those where the most intense development, including both infill densities and new focal points, would be encouraged. The long-range plan will also serve as a tool to encourage support for the expanded funding needed to meet the City’s transit needs.

Many service design issues may be more appropriately addressed in the course of short term planning. For this reason, the long-range service is presented as a “concept” rather than a “plan.” *However, this concept is meant to be specific about the locations of the primary corridors* where the best service should be provided. These corridors are identified in the long-range plan because they require that street planning, transit planning, and land use planning be done together to encourage the most transit-oriented patterns of development possible.

Since they express an intention to achieve a certain service quality, primary corridors adopted in policy can help to provide the assurance of service that developers and others need when making decisions about siting transit-oriented land uses. This assurance, of course, requires that the corridors be fixed over the long term. It may be appropriate to add new primary corridors if development is approved outside the current city limits. However, *the intent of this plan is that the primary corridors designated within the current city limits will not change*, except in the few cases where this plan indicates an uncertainty that still needs to be resolved.

Areas which will not have primary service do not require the same degree of focus on land use integration, and for this reason, the concept can remain more vague about what service to those areas will look like. The “secondary” corridors designated in this plan are more conceptual. Unlike the primary corridors, the secondary corridors designated in this plan does not necessarily reflect a proposed commitment to operate service on the exact streets indicated, though it does indicate a need in the general area.

### 4.1.2 Philosophy of Service Design

The proposed future service pattern differs from the existing system in several key ways. These differences reflect changes that the system must make to be more attractive to potential users as Corvallis grows. Most transit systems make similar transitions as their cities pass the 50,000 mark in population, if not sooner.

- Unlike the present routes, the proposed routes are consistently two-way on most segments, except for turnaround loops on the very ends of routes, so that passengers never need to ride far out of direction. *Transit must be convenient in both directions if it is to be attractive to users in either direction.*
- The present system attempts to spread service evenly across the entire City. By contrast, the proposed concepts concentrate service in certain corridors which have the most intense land uses, and therefore the

highest transit demand. The proposed concepts may appear inequitable on the map because service is not evenly distributed over the service area. *However, the proposed service increases equity because more service is provided where there are more people, and therefore more potential riders.*

Concentrated, high-frequency services in densely developed corridors are always the most productive services in any local transit system and the ones that compete most effectively with the automobile. CTS in 2005 has only one such route; it travels between downtown and Timberhill Shopping Center by way of Monroe and Kings Boulevard. This route consistently has the highest ridership per service hour. It is desirable for there to be 15 minute frequency of service on primary transit corridors.

- All of the proposed service concepts presume a continued program of fixed bus stops at a standard spacing of 800 to 1,000 feet, depending on local conditions. Fixed bus stops are essential to ensuring that transit can operate fast and efficiently enough to attract discretionary riders, while still remaining accessible to everyone along the route.

The proposed service concepts all require expansion of service hours above the present level. As the peer analysis in Chapter 2 demonstrated, the current CTS system of six buses is actually rather small compared to most university towns of Corvallis' size. More importantly, transit-oriented land uses cannot function well without a higher frequency of service than CTS currently provides.

#### **4.1.3 Commitment to Seniors and Persons With Disabilities**

The proposal to shift service to a pattern more focused on speed and frequency has historically led to extensive discussions throughout the Corvallis community. Some senior citizens, persons with disabilities, and their advocates have expressed particular concern about the proposed shift of focus because these citizens have much less tolerance for walking distance than for the rest of the population.

The CACOT and the City Council have reiterated the importance of retaining a commitment to providing senior/disabled mobility even while service is shifted to be more competitive for the general public.

The following strategies are recommended for addressing this issue:

- In the short term, retain direct access to major senior citizen developments and activity centers, as well as any locations of special importance to disabled persons. Senior locations which have historically generated a service demand have been identified and are all served, usually within one block by the proposed short range plan.
- Where possible, service major destinations with regular routes. However, in cases where this is not feasible, consider small vehicle "service routes" or "deviated fixed-routes" to cover senior and disabled destinations. These routes typically can run at lower frequencies, for more limited hours, and be more circuitous. They are designed in a way that gives priority to the senior and disabled markets. However, they must also be open to the general public in order to achieve maximum possible productivity and comply with the FTA rules for use of federal funds. Even so, these services will tend to be much less productive than the primary or secondary transit services, so they should be kept to the minimum necessary to meet senior needs that cannot be met by the regular service.
- Encourage the use of paratransit service in cases where fixed route does not provide service with the level of front-door convenience desired. Conversely, those seniors and persons with disabilities who can use the fixed-route bus service should be using the fixed-route bus service to reduce the demand on special transportation resources. The fixed-route bus service should offer incentives to capable individuals to use the fixed-route service rather than the more costly, specialized demand-responsive paratransit service.

- In the long range, work to minimize the need for special senior and disabled services, which will always be far less productive than the regular system. To do this, *permit new senior- and disabled-oriented housing and activity centers ONLY on the primary corridors or on other major arterials where transit will be easy and logical to provide.*

There is a common misperception that any development can be made “transit friendly” merely by putting a shelter and/or bus pullout in front of it. These amenities are helpful, but they do not compensate for the fact that by locating a facility where there is no existing service, the development is imposing on the City the huge potential cost of extending service there. For example, if a new senior facility is built off of the existing system and requests CTS to extend service to it, the cost can be \$180,000 a year, not counting the impact of deviations on existing passengers. The developer may spend \$15,000 on a shelter and pullout, but this obviously does not begin to make up for the cost of the new service required. The solution is simple: locate senior/disabled facilities on the *existing* transit network, or if not, be sure that the cost of extending transit has been considered in the process of approving the development.

#### **4.1.4 Integration with other transit services**

Two other public transportation services currently operate within the CTS service area. The Linn-Benton Loop travels between Albany, Linn-Benton Community College, Hewlett-Packard, OSU and downtown Corvallis. The Philomath Connection travels between Philomath and Corvallis. Within Corvallis, both of these services operate along some of the same roadway sections where CTS operates and both services utilize the Corvallis Downtown Transit Center. Additionally, OSU operates a campus shuttle that connects the campus with parking areas located on the fringe of the campus. Long-range plans should take into consideration operational improvements where these services overlap.

It is anticipated that as a result of the 2010 census an Albany Area MPO will be formed. If as a result of this, the Albany transit service is expanded, CTS and CAMPO would work with the new MPO to develop ways to integrate services between the regions.

## **4.2 IDENTIFICATION OF FUTURE TRANSIT CORRIDORS**

### **4.2.1 Sources for Future Land Use**

The most important factor in determining a future transit plan is the density of development and the location of major trip generators. These are influenced by existing development, existing zoning, and long-range plans for underdeveloped or redeveloped areas.

Within the current city limits, this transit plan generally follows the lead of existing development and zoning, as expressed in the City’s Land Development Code, as well as other land use plans for specific areas of Corvallis. This transit plan provides intensive transit service where there is already some land use justification for it, and it follows that further intensification in those corridors will further support the transit plan’s goals. Because the transit plan is rooted in existing development and short range plans for the area within the city limits, the transit plan will remain valid within this area, regardless of what ultimately occurs in the area outside the city limits.

In considering areas outside the existing city limits, this long-range transit plan process takes into consideration the Corvallis Transportation Alternatives Analysis<sup>12</sup> (TAA) and, in particular, with the land use concept

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<sup>12</sup> The Transportation Alternatives Analysis was adopted by the City Council in 1998 as Chapter 11 of the Corvallis Transportation Plan.

developed for that study's "Land Use/Transit Alternative", as well as other land use plans. The land use concept from the Corvallis TAA aims to reduce automobile dependency and protect open space by providing a compact and yet livable urban form. The land use concept provides a guideline for drafting a long-range transit plan, particularly in its treatment of sites that are not currently developed.

The Land Use/Transit Alternative concept of the TAA concludes that all demands for intense development (at levels that could require transit service) can be accommodated within the present city limits. For example, the TAA envisioned no high-density residential, commercial, or institutional development west of 53<sup>rd</sup> or north of Walnut (except the Good Samaritan Regional Medical Center area). Development in these areas was to be mainly single-family in nature, below the threshold of five (5) units per acre that would not generate significant fixed route service demand. These areas, therefore, do not receive transit service in the basic long-range service plan. However, service to these areas would significantly impact the transit cost related to building dense development outside the current city boundaries. If transit service is required to these areas because of new development, the transit plan will be more costly and less efficient.

#### 4.2.2 Primary and Secondary Corridors: Definition

Based upon current development and zoning within the city limits and on the TAA land use concept for outside the city limits, primary and secondary transit corridors have been identified.

*Primary corridors* are the street segments where the highest quality of transit service will be needed and where future transit-oriented developments would be encouraged. *Secondary corridors* are other streets that will clearly need transit service, or will have service as a result of providing connectivity to a primary corridor or other network requirement, but where the highest level of service is not justified, either because the existing and zoned densities are too low or because there is some other barrier to productive transit service.

To be a primary corridor, a street must be able to support transit service that is efficient and attractive to potential riders, to the point of being competitive with the automobile for at least some trips. This requires:

- **Intense development.** The street corridor must be intensely developed or zoned for intense development, so that there are many residents or activities within walking distance. For residential areas, an average density of at least seven (7) units per acre within 1/4 mile of the corridor is ideal. Typically, a primary corridor has a mixture of apartments, duplexes, and small-lot single-family homes, with highest densities adjacent to the transit street.
- **Diversity of transit-oriented land uses.** The street corridor should ideally feature a mixture of residential, commercial, employment, and institutional destinations so that there are many reasons for traveling up and down the street and so that there is transit demand at all times of day.
- **Anchors.** Development must be especially intense at the ends of primary corridors. Ideally, primary corridors end at nodes of commercial activity (either downtown or outlying commercial centers) or at major institutions such as universities or regional hospitals.
- **Pedestrian access and amenities.** A primary corridor should be a pleasant and safe street on which to wait and must have many street connections to adjacent neighborhoods for pedestrian access to a bus route.

In the future, primary corridors will also require:

- **Protection for transit operating speeds.** If congestion worsens to the point that buses are routinely and severely delayed, primary corridors may require preferential treatments that protect transit from the effects of congestion. Without this protection, delays will not only reduce the attractiveness of transit but

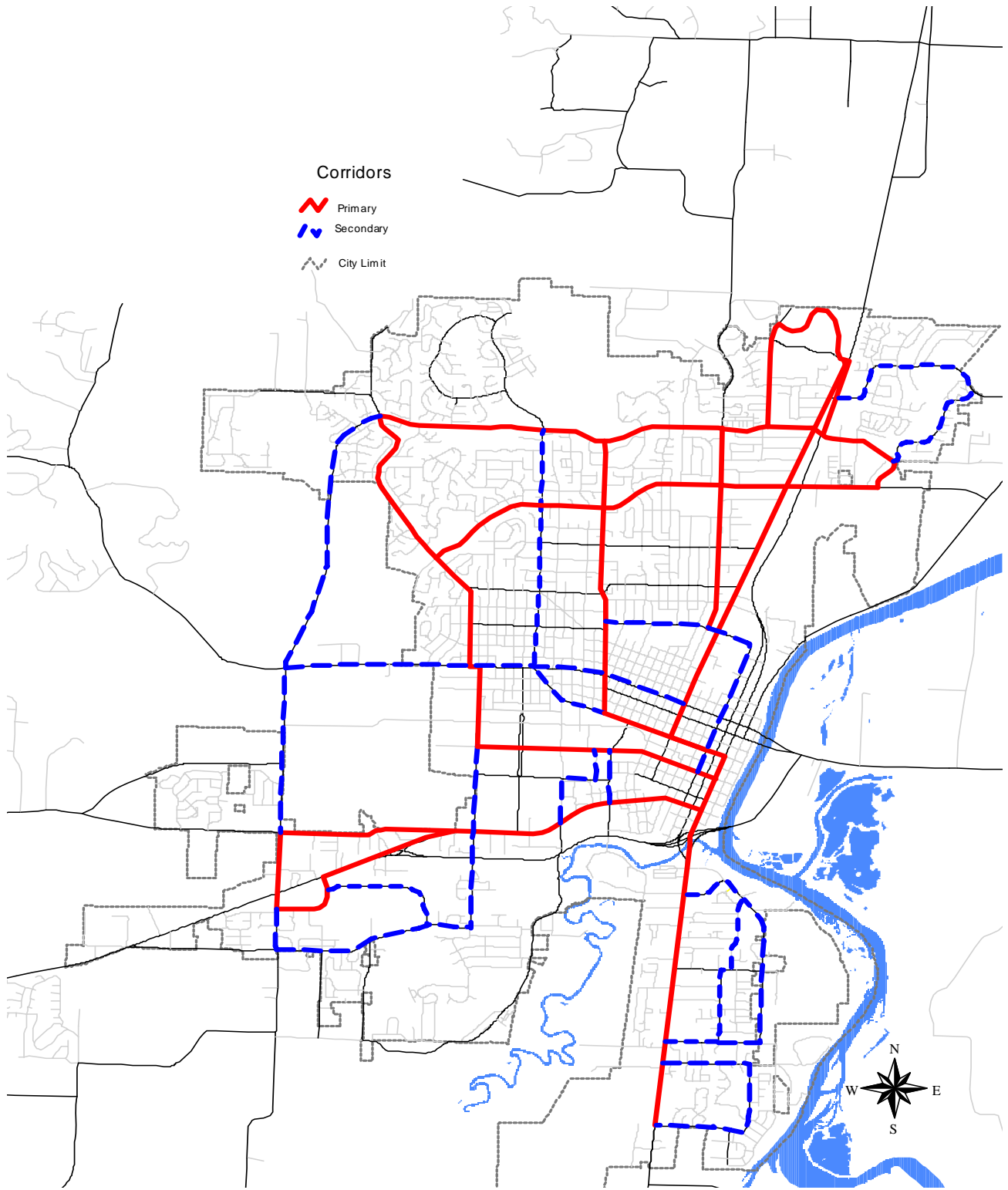
also increase the cost to the City of a given level of service. A system of transit operating speed standards should be developed and monitored to determine whether corrective action is needed to protect transit speeds. These standards should be integrated into the street functional classifications of primary corridors and are discussed in greater detail in Chapter 6.

- **Priority for transit amenities.** Since primary corridors are where transit will be used most intensively, they would deserve a higher priority for amenities such as passenger shelters.

New Comprehensive Plan and district designations to accommodate transit-friendly development should be adopted to support the concepts of this transit service strategy. These needs are discussed in greater detail in Chapter 6.

Although all arterials and collectors could be transit corridors, the primary and secondary corridor designations recommended for the next 20 years are shown in figure 4-1.

**Figure 4-1 Primary and Secondary Corridors**



The following discussion explains why each corridor was identified.

### **4.2.3 Foundational Primary Corridors: East-West Corridor Through OSU**

The east-west corridor through OSU is, and will continue to be, the core of the CTS system. CTS will continue to need its Downtown Transit Center to coordinate trips among its different routes. However, the other predominant transit generator is the center of the OSU campus. From the standpoint of CTS, the urban core really extends from the river to 35<sup>th</sup> Street, and from Monroe to Western. This core requires a strong east-west axis of especially good transit service, which will need to be on either Jefferson or Monroe, or both. For the purpose of this report, Monroe is assumed because the current speed bumps (as opposed to speed humps) on Jefferson in the campus core do not support adequate transit speeds. However, OSU plans anticipate transit service on Jefferson and reduce other vehicular conflicts to make pedestrian, bike and transit the transportation modal choices on campus. Jefferson may be the more appropriate east-west campus corridor location in the long term due to its proximity to dormitories, the Administration building, Valley Library, Memorial Union and the OSU Book Store. Even if Jefferson continues to be used as a primary corridor, Monroe would remain a primary corridor east of Kings Boulevard.

This service plan provides direct access to OSU from all parts of the City. In addition, all the service plans aim to provide especially high frequencies along the east-west axis so that CTS is attractive even for very short trips, such as between campus and downtown.

Recommended City policies related to OSU transportation planning, including the issue of Jefferson Street, are discussed in greater detail in Section 4.3.2 below.

### **4.2.4 Other Primary Corridors**

#### SOUTH THIRD STREET - HIGHWAY 99W

Highway 99W extending south from downtown is a primary corridor as far as Rivergreen Avenue, in anticipation of a new neighborhood focus area just north of Goodnight Avenue and the high density residential complex between Goodnight and Rivergreen Avenues. The current development pattern on South Third Street includes relatively scattered auto-oriented commercial uses and the development of a large apartment complex on the east side of 99W.

South of Rivergreen Avenue, development plans envision employment growth in the industrially zoned properties on the west side of the highway and around the airport and extensive growth in the form of single-family housing on the east side. These land uses are appropriate for secondary service, but they do not provide the intensity needed for a primary corridor.

Extending primary service to the airport would require dense housing and/or major commercial centers around the airport entrance, which are not envisioned in the current plan.

#### WESTERN BLVD./WEST HILLS ROAD

This corridor is identified as primary based on intensive residential density zoning between downtown and the future neighborhood focus area at 35<sup>th</sup>. From there, the corridor crosses a currently mostly rural gap to a future neighborhood focus area on 53<sup>rd</sup> extending from West Hills Road to south of Philomath Boulevard. Eventually this corridor could be extended to Philomath if future development meeting primary corridor criteria occurs



between Corvallis and Philomath. By themselves, the residential development on the north side of West Hill Road west of 53<sup>rd</sup> Street, Grand Oaks Summit, and the adult living facility near it are too far off the existing system and do not have the necessary street network design to support the primary transit service deviation that would be required.

The segment of West Hills Road between 35<sup>th</sup> and 53<sup>rd</sup> is an obvious area where additional high-density development will be appropriate if the street remains a primary corridor.

#### WITHAM HILL/35TH-36TH STREETS

North of Jefferson, the 35th-36th Street corridor extends through some low-density residential areas and then continues as Witham Hill Road, which serves an area of dense apartments near Circle Boulevard. After another low-density gap, Witham Hill ends at Walnut Boulevard in another area of high-density apartments.

The area just west of the apartments at Witham Hill and Circle provides one of the few opportunities for development along this corridor. If the corridor is to be primary, as the current apartments justify, then additional density in this area is appropriate.

#### KINGS/MONROE

Kings Boulevard is a textbook primary corridor based on the diversity and density of existing development. Extending from downtown (as Monroe Avenue) the corridor serves the north side of OSU and many apartments and small businesses, then extends north past several commercial developments (including a Fred Meyer) and more apartments to the anchor provided by the Timberhill Shopping Center.

#### WALNUT/CIRCLE

From Witham Hill Drive in the west to the Hewlett-Packard campus in the east, Walnut Boulevard is lined mostly with apartments and commercial uses, including Timberhill Shopping Center. As such, it is logical to continue service from the Witham Hill corridor eastward through this corridor. Hewlett-Packard combined with the K-Mart, Staples, Safeway, Carmike 12 cinema complex and small commercial uses at Circle and Highway 99W form an eastern anchor. Service would continue from this point into Corvallis via the 9<sup>th</sup> Street or Highland corridor (see below).

Circle Boulevard has mixed density residential, strip commercial, the aquatic center, Boy's and Girl's Club and the Linus Pauling middle school along it. Circle also provides for an east-west connection between the primary corridors on With Ham Hill, Kings Boulevard, Highland Drive and 9<sup>th</sup> Street.

Between Satinwood and 9<sup>th</sup> Street, two alternate alignments of this corridor area shown. One follows Walnut, while the other deviates to serve the Good Samaritan Regional Medical Center. While a regional medical center is a major transit destination and should be on the primary network, the Good Samaritan Regional Medical Center is unfortunately very remote from other transit destinations and out of the way for all other trips, which makes it awkward for transit to serve.

The service concepts presented in this chapter all show Primary service to the Good Samaritan Regional Medical Center, including along Satinwood Drive, at the expense of imposing a deviation on trips from the Hewlett-Packard area to northwest Corvallis. Alternatively, the Good Samaritan Regional Medical Center may be served by a radial corridor from downtown, intersecting with the Walnut corridor but not continuous with it.

## 9<sup>TH</sup> STREET AND/OR HIGHLAND

Between downtown and 9<sup>th</sup> and Circle, a north-south primary route is required. This could be either on 9<sup>th</sup> Street or on Highland. Highland is lined with greater residential densities, while 9<sup>th</sup> Street is characterized more by commercial activity. The aquatic center at Circle and Highland is also an important destination, as well as the adjacent Boys and Girls Club and the Linus Pauling Middle School. Ninth Street has the advantage of being faster for trips from downtown to Hewlett-Packard and 9<sup>th</sup> Street businesses since it is an arterial street, whereas Highland Drive is a collector and has traffic calming devices and two school zones on it. Ninth Street, since it serves mostly commercial uses is convenient to most of the densities in this area. Primary service may be appropriate on both streets, since they do not overlap in most of the markets served.

## 53<sup>RD</sup> ST/TECHNOLOGY LOOP/PHILOMATH BVLD

Fifty-third Street is a county road under Benton County jurisdiction and Philomath Blvd. is a state highway under ODOT jurisdiction; any changes to these roads related to transit must be coordinated with and approved by the appropriate agency. A primary corridor will serve the vicinity of Technology Loop and 53<sup>rd</sup> Street south of Philomath Boulevard. This area has high-density residential on and adjacent to Technology Loop and backs up against the Sunset shopping center at the corner of 53<sup>rd</sup> and Philomath Boulevard. The shopping center has expanded to include Safeway, Bi-Mart, a video store, restaurants, and other commercial activity to serve as an anchor for this area. Multi-family residential properties include ADA accessible units for persons who use mobility devices such as wheelchairs or motorized scooters.

### **4.2.5 Secondary Coverage Segments**

#### RESEARCH WAY

Research Way, east of the anchor between Technology Loop and Philomath Boulevard, may be too circuitous to be a primary route and the employment centers are not dense enough to support primary service all day. However, at least secondary service is clearly required here. Research Way also provides a connection between Technology Loop and Country Club Road.

#### 29<sup>TH</sup> STREET

Twenty-ninth Street lacks the residential densities of either Kings or 35<sup>th</sup>/36th/Witham Hill, and most of the area served is also within walking distance of one of those primary corridors. However this corridor has close proximity to the Corvallis Senior Center, the Benton County Health Department building, some high density housing along 29<sup>th</sup> Street, a commercial center that has been growing at the intersection of 29<sup>th</sup> Street and Grant Avenue and an elementary school (Jefferson) located close to the corridor at 27<sup>th</sup> and Circle. For those reasons, this street is identified as a secondary corridor. If the ridership data gathered by the auto-passenger count system shows high usage, this corridor could become a primary corridor.

#### 5<sup>TH</sup> STREET/BUCHANAN

This segment requires some service to the residential areas and commercial uses along the roadway and serves the Corvallis High School. This corridor also provides a network connection between downtown, 9<sup>th</sup> Street and Kings Blvd. However, there are enough other primary corridors in the area that this corridor should be identified as secondary.

### HARRISON (DOWNTOWN TO 53<sup>rd</sup> ST)

This segment is a major arterial street and requires some service between the downtown to the residential and commercial uses along the roadway. This corridor provides an east/west network connection between downtown, 9<sup>th</sup> St, Kings Blvd, 29<sup>th</sup> St, 35<sup>th</sup>/36<sup>th</sup> St. and 53<sup>rd</sup> St. Service could be provided anywhere along Harrison, so all of it should be identified as a secondary corridor.

### CONIFER/CONSER

Conifer Drive in northeastern Corvallis is a densely developed residential area with Cheldelin Middle School and Village Green park near the eastern end of the city portion of the street. Primary service on this street would be desirable, but such service lacks a clear anchor. Conifer Drive leads out of the City to the east so the secondary corridor uses a loop with Conser as the connection between Walnut and Conifer. For this reason Conifer and Conser Drive are identified as a secondary corridors.

### BETHEL/THOMPSON/PARK

This area of predominantly single-family houses has neither the population nor the commercial density to sustain primary service. The largest existing ridership generator is a work-training facility for persons with disabilities, located on Crystal Lake Drive, about 1/4 mile east of the highway. However, the poor street connectivity makes it difficult to access Highway 99W from much of the area. The 2005 bus service uses SE Ryan as the north/south connector between Park and Alexander, but since it is classified as a local street and Thompson is a collector, SE Thompson is designated as part of this secondary corridor rather than SE Ryan. Making this change will require the relocation of bus stops and one shelter. As a secondary corridor, service would provide access to residents in this area both to downtown and the OSU campus.

### CRYSTAL LAKE DRIVE (PARK TO SOUTH 3<sup>RD</sup> STREET)

This roadway is a mix of city street and county road. It has long sections constructed to a rural county road standard and will not support buses. However, Crystal Lake Drive may make a good north/south connection along the east side of the residential developments in southeast Corvallis and runs along the training facility and commercial/industrial businesses. When Crystal Lake Drive is improved to urban collector standards, or better, it could replace the Bethel/Thompson portion of the secondary corridor discussed above. It is not anticipated that either residential developments or commercial developments in the future would justify primary transit service on this corridor.

### GOODNIGHT/MIDVALE/RIVERGREEN

This segment requires some service to serve the mixed density residential developments in this area of Corvallis. It also provides the end loop for the South 3<sup>rd</sup> Street primary corridor, with the high density housing serving as the anchor.

### 35<sup>TH</sup> STREET (JEFFERSON TO COUNTRY CLUB RD)

This segment requires some service to OSU and the Environmental Protection Agency offices, the residential areas and the 509-J School District office and Adams school. This corridor, combined with the Research Drive

secondary service, provides a network connection between southwest and northwest Corvallis. However, there are enough other Primary corridors in the area that this corridor should be identified as Secondary.

COUNTRY CLUB RD (35<sup>th</sup> STREET TO 53<sup>rd</sup> STREET)

This segment requires service and a network connection. The service needed is primarily residential, both high density and low and services a large adult-living facility. It provides a useful east-west connection for this part of the community. The densities and the lack of a major service anchor, however, make this a secondary rather than a primary service corridor.

53<sup>rd</sup> STREET COUNTRY CLUB RD TO TECHNOLOGY LOOP

This segment is under Benton County jurisdiction, so transit issues should be coordinated with the county. This segment provides service and a network connection. Along 53<sup>rd</sup> Street are mixed residential densities including a high density development at the intersection with Country Club Dr. This segment also provides the network connection between Country Club Rd and Technology Loop. No criteria for a primary corridor is met for this short segment and so it is designated as secondary.

53<sup>rd</sup> STREET (WEST HILLS TO WITHAM HILL RD)

As stated above, 53<sup>rd</sup> Street is a county road and issues need to be coordinated with the county. This segment has very little residential or commercial development along it and would be a secondary corridor primarily because it provides a north/south network connection between southwest and northwest Corvallis. There is some residential demand along this segment, along with the Benton County Fair Grounds and a small commercial center, so it is likely that the service will be used here, but it is expected to be a relatively high speed section with few stops.

**4.2.6 Lower-Density Areas**

Areas lacking the density to support even Secondary service generally have no fixed route service in the long-range plans unless service can be extended to them at no cost. The only services that would be appropriate in these areas would be demand-responsive or dial-a-ride access for the general public. This service can be attractive, but it is intrinsically very unproductive, never exceeding 10 boardings per hour compared to 20 boardings per hour or higher for an effective fixed route. For this reason, demand-responsive service may be considered as an option for these areas, but it cannot be expected to serve as a long-range transportation strategy that will substantially affect transit's mode share or auto use.

SERVICE ROUTES

In most cases, the emphasis on primary and secondary corridors will enhance mobility by offering fast and convenient services throughout the area. However, some people will not be able to access the fixed route system because physical or mental limitations do not allow them to reach transit unless it provides curb-to-curb service. The Corvallis Paratransit Service will continue to provide service to those persons with disabilities who cannot access fixed routes. It may also be viable to operate "service routes", which are fixed or semi-fixed routes that link a number of trips that would otherwise be served by Corvallis Paratransit Service. With smaller, low-floor vehicles, a "service route" could serve in places where traditional fixed route vehicles simply cannot fit or where

the routing would be prohibitively long and expensive. If there is a sufficient number of trips that are not highly time-sensitive and can be linked, this would allow mobility needs to be met at a lower cost. “Service routes” may also serve the general public if appropriate. Where “service routes” offer potential savings without unreasonable inconvenience for transit patrons, they should be explored as an option.

### LOW-DENSITY AREAS WITHIN THE CURRENT CITY LIMITS

In addition, a few areas now served by CTS have not been identified as requiring any fixed route service in the long term either because:

- the development is too sparse, or
- the streets are not adequately constructed to support transit service, too slow and circuitous for efficient transit operations, or
- they are too close to other primary services, which will draw most passengers from these areas.

In most cases, all three of these are true. Fixed route transit service along these streets does not appear to be essential in the long term. Some of these areas may continue to be served in the short term., but this does not imply that there is an adequate demand for fixed route service in these areas, given the present and envisioned development.

## **4.3 MAJOR TRANSIT CENTERS AND IMPACTS**

### **4.3.1 Downtown Transit Center**

A Downtown Transit Center is needed in any scenario, including an expansion of the existing transit center. The Downtown Transit Center must continue to be a location that buses can enter and exit quickly and safely, and also to park for timed-transfer connections and driver breaks. As frequencies increase, CTS will become increasingly sensitive to access time. For example, looping out of direction to serve a transit center is a small hassle on an hourly route, but a much larger one for a route running every 15 minutes. Frequency compounds the problems in any route design, both for passengers (because there are more of them) and for the transit operator (because a difficult, unsafe, or delaying movement must be made more often each day).

Apart from bus stops themselves, the most difficult, unsafe, and delaying part of transit operations are stopping (for passengers, other pedestrians, bicyclists, motorized vehicles, stop signs, or traffic signals) and turning. For this reason, frequent routes need to keep stops and turns to a minimum. Any transit center should be evaluated partly in terms of how many turns and stops it imposes on the frequent Primary routes that serve it. The off-street transit center may still want to have an on-street portion for some or all Primary routes to reduce the delay of looping through an off-street site. This could result in a shift of the current routes using the transit center.

The Downtown Transit Center is a major transfer point and includes amenities for passengers to wait safely and comfortably. Essential transit center amenities include shelters, benches, bike parking facilities, information kiosks, and driver restrooms. The bike lockers and racks provide a “park and ride” for bicyclists who ride to the center and then access CTS, the Linn-Benton Loop and/or the Philomath Connection. Dedicated driver restrooms are necessary to ensure that drivers do not waste limited break time waiting for restroom access, which risks delaying their departure. There are also distinctive and prominent bus stop signs to clarify which bus stops at which location.

A good transit center also provides other amenities that allow passengers to make good use of their time. Transit center sites should encourage small scale vendors or food and drink and provide a public phone, newsracks, etc. The City is pursuing a vendor for its site and it should be staffed by June 2005.

Several cities have developed integrated multimodal transportation centers that combine the local transit center function with Greyhound and other intercity services. These are often located at rail stations, even where no passenger rail service exists, so as to support future rail planning efforts. However, integration with Greyhound tends to be more valuable in generating ridership in the short term. Greyhound-generated traffic can also increase the potential for vendors, who in turn contribute value to the transit rider's waiting time. The existing Downtown Transit Center serves the Corvallis Transit System, Philomath Connection, and the Linn-Benton Loop. The Greyhound station, which also serves the Valley Retriever, is less than two blocks from the transit center. Additionally, the Downtown Transit Center is located adjacent to the railroad line that leads to Albany and Philomath, supporting any future passenger rail service between the region.

### 4.3.2 OSU Transit Access

Effective service to OSU is fundamental to the long term success of CTS and, hence, to CTS's ability to serve the rest of the City. Likewise, CTS has an important role to play in supporting OSU efforts to reduce parking demand on campus, which will reduce campus traffic and open up more land for OSU expansion.

From the standpoint of transit, the "center" of Corvallis includes both downtown and the campus core of OSU. These areas together form the overwhelming focal point of transit demand in the City. As a result, the core of the CTS system must be not just the Downtown Transit Center, but an east-west axis running from downtown west, serving OSU to at least 35<sup>th</sup> Street. All the service scenarios envision very frequent service along this axis. In the High Scenario, service along the axis would be every 7 ½ minutes all day, so that it would serve an important shuttle function for local trips within the campus and between the campus and downtown. Even the short-term improvements would provide 15-minute service on a portion of this axis from downtown to Kings Boulevard.

Given the City's high degree of investment in transit access and its mutual benefits to OSU and the City, an east-west corridor near the core of the OSU campus should be established and improved to maintain efficient transit access, while also serving pedestrian, bicycle, and delivery needs. The current operations on Jefferson are excellent from the standpoint of transit access, however the speed bumps west of 26<sup>th</sup> Street excessively slow the buses and should be removed or replaced with speed humps. The traffic through the OSU core is slowed by not only the speed bumps and humps, but by the congestion caused by bikes and pedestrians crossing the street at locations other than intersections, or other controlled crossings. OSU should be advised to consider creating street-side obstructions to crossings, such as bushes or other landscaping or fences to better control where crossings are safe and desired. This street provides a degree of access that is not available by car and is a good example of the facilities that may be needed in the future to protect transit from congestion.

As OSU grows, accommodating buses along Jefferson may become increasingly difficult since their interactions with bicycles, pedestrians, and other modes can be problematic. Regarding transit access, the City's position toward OSU should be as follows:

- CTS must have access to the campus that is much more direct than that provided by available parking. Moving all buses from Jefferson to a less central street would be appropriate only if parking is even less convenient to the campus core and there is an effective and efficient on-campus shuttle service available to students, faculty, staff and the general public. There must be efficient and coordinated transfers between the on-campus shuttle and CTS. Currently, parking is available at very central locations, so that any removal of CTS service would reduce transit's ability to compete with the car.

- CTS must be able to travel through the campus in a reliable way. A low average speed is acceptable, consistent with the need to interact with bicycles and pedestrians. However, it must be possible to pass through the campus in a consistent amount of time so that campus-generated disruptions do not undermine the rest of the CTS system. To this end, appropriate transit preferences should be considered.<sup>13</sup>
- The City should encourage any and all OSU policies that reduce the attractiveness of driving to the campus, especially for students, so as to maximize the ridership return for the City's considerable investment.

### 4.3.3 Timberhill Shopping Center

Outside of downtown and OSU, one of the busiest transfer points in the system is at the Timberhill Shopping Center. Although not currently laid out for optimal transit access, it is possible to operate reasonably good service through the Timberhill area. Before the High Scenario is implemented, it will be important to study possible circulation improvements around Timberhill to reduce running time.

Pending an improvement that would provide more direct east-west access, the following appears to be the best possible arrangement:

- Service passing through westbound on Walnut would turn left on Rolling Green, and right on Kings to serve the northbound stop on Kings adjacent to the shopping center, then left on Walnut.
- Service arriving from the south along Kings would stop at the northbound stop on Kings adjacent to the shopping center, then loop clockwise via Walnut and Rolling Green and back south on Kings.

### 4.3.4 West Campus Transfer Point

Finally, a small, but valuable, transfer point will emerge northwest of the OSU campus, where the radial primary service from downtown to Witham Hill intersects secondary routes extending north on 29<sup>th</sup> Street and south on 35<sup>th</sup> Street. This transfer point would be used for trips between southwest and northwest Corvallis. Eventually, the 29<sup>th</sup> and 35<sup>th</sup> routes might be combined into a continuous crosstown route (Research Drive to Timberhill) instead of going downtown, which would require downtown-oriented passengers to transfer at this point. Because the routing of the Witham Hill primary corridor is uncertain, the exact location of this transfer point cannot be determined. However, when the site is established, appropriate on-street facilities should be planned, including safe pedestrian crossings between connecting bus stops at an intersection.

## 4.4 SERVICE CONCEPTS FOR LOW-DENSITY AREAS

Both the High and Low Scenarios constrain fixed route service to the area where dense development is envisioned. Fixed route service is generally supported by household densities of 7 units per acre or greater over

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<sup>13</sup> One strategy that is increasingly common on campuses is to provide clearly marked and curbed streets for bikes, transit, and delivery vehicles even where autos are excluded. These streets have parallel pedestrian paths and pedestrians are discouraged in the streets except at clearly marked crossings. OSU and the City should work together to ensure that all modes are given appropriate priorities within the campus.

a contiguous area of ½ square mile or more, and also by any significant commercial development. Primary fixed route service requires even higher density.

The City already contains some areas that are fully developed at too low a density to support fixed route service. The largest example is the hillside area extending west from Brooklane Drive. If the City continues to develop as envisioned in the land use concept, with dense development encouraged only along the proposed Primary corridors, then significant new areas of low-density development may still occur in areas with no transit service. As a result, the fixed route transit system will not serve every resident directly.

Some people perceive this as an “equity” problem since all residents pay for service through property taxes.<sup>14</sup> On the other hand, the point of the transit system may not be to serve every resident but to achieve benefits in air quality, congestion mitigation, open space preservation potential, and economic development that benefits all residents. Not all residents can be served equally in an efficient manner. If a transit system expends too much service trying to reach residents who are hard to serve because of low density, then less service can be spent in the most intensive corridors where it will receive the heaviest use and, thus, serve the most people and do the most for the community’s goals of air quality, reduced traffic, etc.

Every community must make this judgment for itself. This plan puts the highest priority on maximizing ridership and competing most effectively with the automobile. As a result, it achieves the maximum possible benefits for air quality, congestion mitigation, open space preservation potential, etc. for the unit of investment

The City may wish to provide some transit access to the low-density areas, even though they do not support fixed route service. This could be done either by:

- providing fixed routes to those areas knowing that they will be unproductive.
- providing general-public, demand-responsive service to those areas. This kind of service tends to be more popular and more heavily used in low-density areas, but still achieves very poor performance compared to fixed routes in denser areas.
- providing opportunities for convenient park-and-ride access to the fixed route system for residents of low-density areas.
- peak hour service only

The last of these strategies is always the most cost-effective, because it requires only a small, one-time capital investment and avoids the on-going operating cost of unproductive service. On the other hand, park-and-ride is effective for short, intracity trips only if there is a strong disincentive to parking at the intended destination combined with other disincentives to drive.

If the City chooses to provide actual transit service to areas developed below seven (7) units per acre, despite the loss of system productivity that will result, then the recommended strategy is “fixed point dial-a-ride”. Under this strategy, demand-responsive service is provided within a designated zone. Service is available for local trips within that zone and also for trips to a fixed point where connections to the rest of the transit system are available.

A good “fixed point” should satisfy three criteria: it must (1) be adjacent to the dial-a-ride service area, (2) provide connections to many fixed routes, and (3) attract transit trips itself.

For example, a demand-responsive service covering the area north of Walnut might use Timberhill as its “fixed point” destination. It would serve that point at the same time each hour to make connections with local routes.

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<sup>14</sup> Only landowners pay property taxes directly, but renters pay them indirectly as part of their rent.



Passengers could board the bus at its scheduled time and request to be taken to any destination in the zone. Passengers originating in the zone would call for a ride at least an hour in advance. Before leaving the fixed point each hour, the driver would plan a routing that drops off the passengers who have boarded and picks up those that have requested service during the hour.

Again, devoting resources to demand-responsive service instead of core-area fixed route service will reduce the overall effectiveness of any transit strategy in meeting city-wide and regional goals. They should be developed only if they are considered essential for equity purposes or if they can be funded in a way that does not compete with the system of Primary and Secondary fixed routes. For this reason, these services are not explicitly proposed as part of this plan.

#### **4.5 TRANSIT IMPACTS OF MORE DECENTRALIZED DEVELOPMENT**

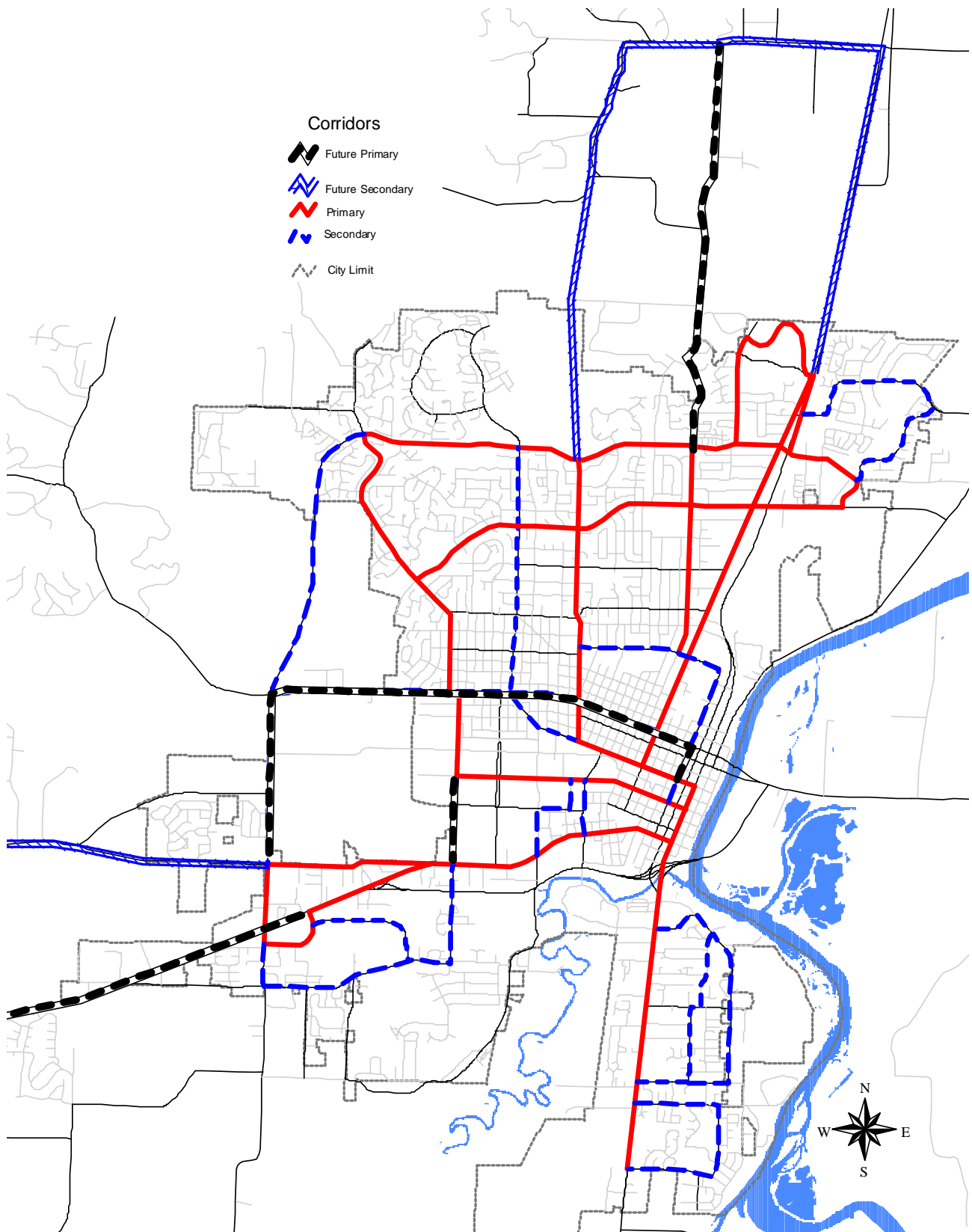
The core idea of this plan is to devote the highest level of transit service to the most efficient land use. For the most effective possible plan, it has been assumed up to this point that increases in development, with accompanying increases in density, would all occur in areas already served by transit. This is consistent with the intensive Land Use/Transit concept developed as part of the Transportation Alternatives Analysis (TAA). Under this concept, very low density development would be permitted in the North Corvallis and West Corvallis urban fringes but not enough to require extension of transit services. The Land Use Analysis in the TAA showed that the projected population growth of the next 20 years could in fact be accommodated in this way.

However, transit-oriented development may not occur so compactly but, instead, may be extended into the urban fringe. To the North, there is considerable land between the city limits and Lewisburg Avenue, near the northern Urban Growth Boundary (UGB). To the West, there are several square miles near the Benton County Fairgrounds that are within the UGB. These areas do not support transit now but could develop in a way that would require extensions to the proposed networks.

The West Corvallis and North Corvallis plans show extensive growth in these areas, including new neighborhood centers with some residential density. This growth would require CTS to extend substantial amounts of service into these new areas, possibly including some primary corridors.

In order to adequately serve these new areas, should development occur, the route additions and extensions (shown in Figure 4-2) would be necessary. These extensions would not generate much additional ridership, since the overall population would be similar to the more compact growth scenario. Extension of transit services to these areas would cause approximately \$180,000 to \$250,000 (2005 costs) increase in the costs of the system for each extension.

**Figure 4-2 Future Extensions**



#### **4.5.1 North Corvallis (80-year plan, final draft July 27, 2001)**

Three north-south Secondary routes would provide access from these areas to Timberhill, the Good Samaritan Regional Medical Center, and the rest of Corvallis. One of these routes would serve as a primary route, with either 15- or 30-minute headways depending on budget and actual development densities. The other two would serve at 60-minute headways.

The City of Corvallis' Comprehensive Plan gives a hint as to the pattern of development in this northern area if significant development occurs. The North Corvallis plan identifies three Major Neighborhood Centers: (1) Timberhill builds upon the existing neighborhood located at the intersection of Walnut and Kings Boulevards. The center's expansion north of Walnut is proposed to include Professional Office and Medium and Medium-High Density Residential, located primarily north and northwest of the Kings Boulevard extension. (2) The Lewisburg Neighborhood Center is proposed to be located west of Highway 99W along Lewisburg Road. This center is proposed as a mixed-use employment and transportation center and includes development of a new north-south collector street west of Highway 99W to avoid strip development along the highway. (3) The Crescent Valley Neighborhood Center is proposed to be located south of Crescent Valley High School at the crossroads of Highland Drive and a new east-west collector to include a focus on educational and recreational activities. The core would include Mixed-Use Commercial, surrounded by Medium-High and Medium Density Residential.

Given that most of any new dense development would likely occur in the "intensive" major neighborhood centers, the following new route segments would be necessary:

- Timberhill to Lewisburg via an extended Kings Boulevard. This would be a secondary route.
- From Timberhill via Highland to Lewisburg, serving Crescent Valley High School on the way. Because it most directly serves two Major Neighborhood Centers (Crescent Valley and Lewisburg) and a Minor Proposed Minor Neighborhood Center at Highland and Lewisburg Road, this route would offer primary service.
- Good Samaritan Regional Medical Center to Lewisburg via Highway 99W. This route would be secondary.

With adequate pedestrian connections, the above routes would provide transit service no more than ½ mile away from all development in this area.

#### **4.5.2 West Corvallis**

If development in West Corvallis follows the West Corvallis - North Philomath Plan dated July 1996, expanded transit service would be needed along West Hills Road and 53<sup>rd</sup> Street. Major neighborhood village/centers would be located at the intersections of an arterial street and a collector street. Major neighborhood villages/centers are proposed for the intersections of 35<sup>th</sup> and West Hills Road, West Hills Road and 53<sup>rd</sup>, as well as 53<sup>rd</sup> and Harrison Boulevard.

The intersections of 53<sup>rd</sup> and Harrison, 35<sup>th</sup> and West Hills Road, and 53<sup>rd</sup> and West Hills Road are already served by the two routes that serve the Sunset Shopping Center along West Hills Road from 35<sup>th</sup> to Western and along 53<sup>rd</sup> from Harrison south to Technology Loop or Country Club Drive. A future primary corridor is, therefore, shown in this area.

Since the adoption of the West Corvallis - North Philomath Plan, the Sunset Shopping Center has developed into a major neighborhood center at the intersection of Philomath Boulevard and 53<sup>rd</sup>. The shopping center includes a grocery store, pharmacy, restaurants, hardware and other specialty stores at the core. Several large, high-

density residential complexes have been developed to the south of the center, including apartments serving students, residences serving low-income persons, and a senior and assisted living retirement center. This neighborhood center is served by two transit routes, providing 30-minute service to the area. Additionally, the Philomath Connection transit service also serves the area, adding another alternative for residents in the area to travel to and from the OSU campus and downtown Corvallis.

## **4.6 SERVICE SCENARIOS**

What does all this service cost? That depends on the exact level of service that is achieved. This section quantifies the range of transit services that may be possible or appropriate, given the layout of service corridors outlined above. The scenarios are summarized in Figure 4-3.

### **4.6.1 Low Scenario: 30-Minute Primary Headways**

The Low Service Scenario shows the minimum level of service growth needed to give priority to all the primary corridors. This system would provide *consistent 30-minute headways* on most primary corridors, with 60-minute headways on secondary corridors. Thirty-minute headways are not adequate to compete effectively with the automobile, but they would improve the attractiveness of service to users in the densest parts of the City.

In addition, the Low Scenario provides a net 15-minute headway along Monroe Street between Kings Boulevard and 5<sup>th</sup> Street, so that the service can also be used for short trips in this core area.

The Low Scenario slightly expands the service span by adding weekday evening service until 11:00 p.m. on the primary network. This improvement is important to provide a transit system that people can rely on for most of their trips, so as to encourage lower auto ownership within the City. In the Low Scenario, these evening services are offered only when OSU is in session, consistent with the practice many systems that serve a large university employ. No Sunday service is offered in the Low Scenario.

The Low Scenario is a very modest system expansion. It requires 9 buses (plus 2-3 spares) running in all-day service, compared to the present six (plus 2 spares and the trolley). As such it represents roughly a 70 percent increase of the present level of service.

### **4.6.2 High Scenario: 15-Minute Primary Headways**

The High Scenario presents the highest level of service that might be desirable in Corvallis in the next 20 years. This system features 15-minute headways all day on the primary corridors. In addition, by offsetting their schedules, two routes would combine to provide *consistent 7 1/2-minute headways* along Monroe Street all the way from downtown to Monroe and Kings (the most active OSU stop on Monroe), giving very convenient service to this foundational primary corridor.

Fifteen-minute headways require doubling of service hours (and operating costs) compared to 30-minute headways. However, 15-minute service is also qualitatively different because it provides much better connections between routes. When buses run every 15 minutes or better, passengers can transfer quickly wherever routes cross. By contrast, in a system of 30- or 60-minute headways, connections must be deliberately scheduled, as they are at the Downtown Transit Center. The High Scenario, then, provides a much more decentralized system of service, where many more trips can be made quickly without going downtown.

The High Scenario also expands the service span. Evening service on the primary network runs all year, instead of just during the OSU year as in the Low Scenario. Sunday service is also added on the primary network.

Of course, the High Scenario represents a dramatic service expansion above the present level of service. Its fleet requirement of 18 buses (plus 4-5 spares) is double that of the Low Scenario and more than twice the size of the fleet today. The overall operating cost would also be more than twice that of the present service, if operating costs remain the same per revenue hour since all routes would be a minimum of 30 minute headways, requiring more buses on the street.

The High Scenario is a large expansion, but it is consistent with the levels of service now being offered in many cities comparable to Corvallis. As Chapter 2 makes clear, many cities of Corvallis's size provide 150% or more annual hour of service per capita than Corvallis with Davis, CA providing over 1.0 hour per capita. Corvallis's current system offers 0.38 hours per capita, one of the lowest service intensities of any peer city. Even the High Scenario would amount to just over 1.0 annual hours per capita, still below the service level offered in Davis.

The High Scenario could only be implemented in the context of a much more generous funding environment, including a state funding source for transit operations. Most of the higher service levels of peer systems in Washington and California would not be possible without a state funding source.

**Figure 4-3 Bus Requirements and Revenue Hours by Scenario**

<b>BUS REQUIREMENTS AND REVENUE HOURS BY SCENARIO *</b>																						
<b>LOW SCENARIO</b>																						
30 Minute Headways on Primary Corridors, 60 Minute Headways on Secondary Corridors																						
<b>WEEKDAY DAYTIME 6:30 AM to 11:00 PM FOR 9 MONTHS</b>						<b>WEEKDAY DAYTIME 6:30 AM to 7:00 PM FOR 3 MONTHS</b>					<b>SATURDAY 9:30 AM to 5:00 PM FOR 12 MONTHS</b>					<b>ANNUAL HOURS</b>						
Route	Round Trip (min)	Span (hours/day)	Frequency	Buses	Daily Hours	Route	Round Trip (min)	Span (hours/day)	Frequency	Buses	Daily Hours	Route	Round Trip (min)	Span (hours/day)	Frequency	Buses	Daily Hours					
1	60	16.2	30	2	31.4	1	60	12.8	30	2	24.6	1	60	7.3	60	1	7.3					
2	30	16.3	30	1	16.3	2	30	12.3	30	1	12.3	2	30	6.5	60	0.5	3.3		4,207.0			
3	30	16.3	30	1	16.3	3	30	12.3	30	1	12.3	3	30	6.5	60	0.5	3.3		4,207.0			
4	30	16.0	30	1	16.0	4	30	12.5	30	1	12.5	4	30	6.5	60	0.5	3.3		4,154.0			
5	30	16.3	30	1	16.3	5	30	12.8	30	1	12.8	5	30	6.9	30	1	6.9		4,421.8			
6	30	16.5	30	1	16.5	6	30	13.0	30	1	13.0	6	30	7.0	30	1	7.0		4,479.0			
7	60	16.5	60	1	16.5	7	60	12.5	60	1	12.5	7	60	7.5	60	1	7.5		4,480.0			
8	30	16.0	30	1	16.0	8	30	12.5	30	1	12.5	8	30	7.5	60	0.5	3.8		4,180.0			
					9	145.3						9	112.5						6	42.2		38,196.4
<b>HIGH SCENARIO</b>																						
15 Minute Headways on Primary Corridors, 30 Minute Headways on Secondary Corridors																						
<b>WEEKDAY DAYTIME 6:30 AM to 11:00 PM FOR 12 MONTHS</b>						<b>SATURDAY 9:30 AM to 11:00 PM FOR 12 MONTHS</b>					<b>SUNDAY 9:30 AM to 5:00 PM FOR 12 MONTHS</b>					<b>ANNUAL HOURS</b>						
Route	Round Trip (min)	Span (hours/day)	Frequency	Buses	Daily Hours	Route	Round Trip (min)	Span (hours/day)	Frequency	Buses	Daily Hours	Route	Round Trip (min)	Span (hours/day)	Frequency	Buses	Daily Hours					
1	60	16.2	15	4	62.8	1	60	13.3	30	2	25.6	1	60	7.3	30	2	13.6		18,366.4			
2	30	16.3	15	2	31.6	2	30	12.5	30	1	12.5	2	30	6.5	30	1	6.5		9,204.0			
3	30	16.3	15	2	31.6	3	30	12.5	30	1	12.5	3	30	6.5	30	1	6.5		9,204.0			
4	30	16.0	15	2	31.0	4	30	12.5	30	1	12.5	4	30	6.5	30	1	6.5		9,048.0			
5	30	16.3	15	2	31.6	5	30	12.9	30	1	12.9	5	30	6.9	30	1	6.9		9,245.6			
6	30	16.5	15	2	32.0	6	30	13.0	30	1	13.0	6	30	7.0	30	1	7.0		9,360.0			
7	60	16.5	30	2	32.0	7	60	13.5	60	1	13.5	7	60	7.5	60	1	7.5		9,412.0			
8	30	16.0	15	2	31.0	8	30	13.5	30	1	13.5	8	30	7.5	30	1	7.5		9,152.0			
					18	283.6						9	116.0						9	62.0		82,992.0
* The design of the 2004-05 route system was used as a basis for these estimates. Route designs to fit these service scenarios are likely to be different																						

# Chapter 5 – Short-Range Service Plan

## 5.1 OVERVIEW

On an ongoing basis, performance of CTS routes and time schedules are monitored and they receive periodic adjustments to address service demands or operating issues. This chapter presents some specific recommendations and concepts for how the CTS system could be optimized.

One scenario does not increase subsidy levels and one scenario increases service by one additional bus to expand service along primary transit corridors to move toward implementation of the long-range plan. Both scenarios shift service from existing, low-demand service areas to higher-demand service areas. A demand-response service could be established for those areas where fixed-route service is eliminated. Additional information, either through one-week ride checks<sup>15</sup> or from the automated passenger count equipment providing passenger demand by location, is needed to verify transit demand and guide the implementation any of the short-term revisions.

## 5.2 POTENTIAL REVISIONS TO EXISTING SERVICE

Existing service should be reviewed following the availability of specific ridership data. Transit service criteria should then be applied to determine if service is being provided in areas that do not meet the criteria. The criteria include: lack of density, lack of high transit demand locations, and elimination of large, one-way loops. Based upon existing land uses, some of the areas to be explored are as follows:

1. That portion of Route 1 that travels along 29<sup>th</sup> Street, Arrowood, and Aspen. The area is primarily low-density residential and includes an athletic club and private tennis club. None of those uses generally create a high transit demand. If this portion of the route were eliminated, the route could then use the time to allow west-bound buses on Walnut to circle the Timberhill Shopping Center for transfers at the transfer site on Kings Blvd.
2. That portion of Route 4 that travels south of Garfield on the return trip to downtown Corvallis. This portion of the route should be evaluated for several reasons, including route design and safety. As noted earlier, transit service ideally should provide service in both directions along a route. This route travels north on 5<sup>th</sup> Street when it leaves downtown Corvallis to serve some high density residential and returns on 11<sup>th</sup> Street, leaving both areas with only one-hour service in one direction. The service on 11<sup>th</sup> Street was intended to primarily serve Corvallis High School. With the construction of the new high school on Buchanan, a higher level of service to the high school can be provided on Kings Boulevard. The Route 4 could then move closer to

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<sup>15</sup> Because half of the CTS's ridership is OSU faculty, staff and students, ideally a ride check should be conducted once during the OSU school year and once during the summer to determine ridership patterns.

meeting transit route design criteria for Primary transit corridors by traveling east from Highland onto Garfield, then travel south to Buchanan and return to downtown by way of 5<sup>th</sup> Street, thus creating more of a two-way design. Additionally, it is difficult for the bus to cross Harrison and Van Buren at 11<sup>th</sup> Street where no traffic signal exists.

3. That portion of Route 6 that travels northbound/inbound on Park Avenue, Ryan, Bethel, and Crystal Lake Drive. This is an area of low-density residential and uses a local street (Ryan) rather than a collector (Thompson) for a large part. The Route 6 provides 30-minute service. It is suggested that in the short-term the Route 6 continue as designed but as hourly service and that a new south Corvallis route be established. Coordination of the timing of the existing Route 6 should take into consideration operation of the work site for persons with disabilities on Crystal Lake Drive. The new route would move closer to the ideal of two-way service.

The proposed new route would become more of an express from south Corvallis by traveling as it does now, southbound on 3<sup>rd</sup> Street to Goodnight Avenue, south on Midvale, and west on Rivergreen to 3<sup>rd</sup> Street. The route would then travel directly northbound on 3<sup>rd</sup> Street instead of traveling through the low-density residential area. The time saved by this revision provides an opportunity for several service options. It could be used to provide service in both directions along 15<sup>th</sup> Street or, depending on the amount of time, it could provide enough time to travel to 26<sup>th</sup> Street and through the heart of the campus in one or both directions. Ridership data may show that a route that travels closer to downtown Corvallis inbound is desirable as an alternative to the OSU core. The proposed route north and south on South 3<sup>rd</sup> Street is also consistent with the South Corvallis refinement plan that calls for a neighborhood center just south of Goodnight on the east side of 3<sup>rd</sup> Street.

4. That portion of Route 8 that travels west on Harrison Boulevard and south on 53<sup>rd</sup> Street to West Hills Road. This is an area of low-density residential, OSU agricultural operations, and the Benton County Fairgrounds. The remainder of this service provides 30-minute service to a primary transit corridor that serves the Sunset Shopping Center and the high-density residential adjacent to the shopping center. Thirty-minute service should continue to this southwest Corvallis neighborhood center. A solution could be found in the next scenario, which includes the addition of one bus.

### **5.3 SEVEN-BUS EXPANSION SCENARIOS**

The addition of a seventh bus provides an opportunity to implement service changes that moves CTS closer to the long-range plan.

Some possible scenarios include:

5. With some of the revisions discussed above, a seventh bus provides an opportunity to address the issues associated with keeping service through campus on Jefferson to 35<sup>th</sup> Street, continuing to serve the senior residence on 35<sup>th</sup> Street, increasing service between Witham Hill and Timberhill Shopping Center and improving service to the southwest neighborhood center at 53<sup>rd</sup> and Technology Loop.

The existing Route 8 would continue to travel from downtown through campus on Jefferson to 35<sup>th</sup>, turning northbound on 35<sup>th</sup> to Harrison, turning west onto Harrison Boulevard and then northbound on 36<sup>th</sup> Street. The route could then travel north on Witham Hill, and east on Walnut



Blvd., circling the Timberhill Shopping Center and returning by way of the same route. This route would provide improved service to Witham Hill and Walnut Boulevard, consistent with the long-range plan. The biggest barrier to transit service in this area is the traffic at the intersection of 35/36th and Harrison Boulevard. This improved service to Witham Hill and Walnut Boulevard addresses a portion of the primary transit corridor on Walnut Boulevard.

6. Half of the new bus could provide service to that portion of the existing Route 8 that travels from campus to the southwest neighborhood center without making a large-one-way loop west on Harrison Boulevard and south of 53<sup>rd</sup> to West Hills Road. Between the new route and the existing Route 3, options for one half of the new bus could extend service along 35<sup>th</sup> Street south of Jefferson, which is mostly rural/open space, and potentially reach Stoneybrook, the senior and assisted living residence south of Country Club.
7. Half of the new bus could be dedicated to improving service to Kings Boulevard, 9<sup>th</sup> Street, and/or that portion of Circle Boulevard between Kings Boulevard and Hewlett-Packard. Although Hewlett-Packard (HP) is a major Corvallis employer, HP does not generate much ridership. However, it currently provides the only convenient turnaround location at the east end of Circle Boulevard service.

# Chapter 6 – Policy Considerations

## 6.1 OVERVIEW

This chapter outlines some of the major policy directions that will need to be pursued to effectively implement this Transit Master Plan. The chapter covers policy areas affecting CTS operations and capital planning and also speaks more broadly to street classification policies and land use planning considerations.

## 6.2 THE IMPERATIVE OF SPEED

In transit operations, time is literally money. Drivers are paid by the hour; and the time spent in service, far more than the distance traveled, determines what the service will cost to operate. Travel time, of course, also affects the attractiveness of service to passengers.

To remain effective, transit must place a premium on operating speed. CTS operations are currently slowed by many factors, including congestion, multiple stops, boarding time, and other elements. As the City grows, both traffic and transit demand will increase. In the absence of policies and strategies to protect speed, the system speed will tend to deteriorate. This deterioration will mean (1) less attractive service and (2) higher costs to run the same level of service, as drivers must be paid to sit in more severe congestion and through longer passenger boardings.

It is important to note that by focusing on service speed and cost-effective operation, other CTS goals related to its role as a social service provider are not ignored. CTS and the City of Corvallis will continue to provide services that address, as it says in the Corvallis Comprehensive Plan, “the needs of persons who, for whatever reason, do not use private automobiles.”<sup>16</sup> Part of CTS’s mission is to “provide community access as a social service by providing transportation to youth, elderly, disabled and low-income citizens”.

The services described in the short- and long-term plans will maximize overall mobility and community access by offering convenient and frequent service where it can serve the largest market of transit riders. Paratransit service will continue to offer demand-responsive service to those patrons who cannot access the fixed-route system.

Many of the following sections address land use and street classification policies that will contribute to protecting speeds. CTS, however, can also do several important things:

- Maintain the designated stop system. In general, fixed stops should be placed no closer than every 800 feet and no further apart than 1,300 feet or about 1/4 mile. The purpose of fixed stops is to group waiting passengers so that the bus can serve them conveniently without stopping too often, while still offering a reasonable walking distance to transit. Fixed stops should only be placed in locations where they are accessible to the surrounding area and on hard surfaces where the bus wheelchair lifts or ramps can operate.

A general principle of this plan, verified by the experience of many other agencies, is that people can be asked to walk slightly further in return for faster and more frequent service. Fixed stops are a key element of this strategy, providing faster service for everyone in return for slightly longer walks. Of

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<sup>16</sup> Corvallis Comprehensive Plan, Transit Policy §10.6.2, see Chapter 3 of this report.

course, stop location, street design, and land use planning must all work to minimize walking distances within the stop spacing standard of 800 to 1,000 feet.

Exceptions in stopping only at designated stops for the general public should only be made in the evenings after the peak period, especially in the winter when it is dark early. With lower ridership and less congestion to threaten running times, there can be more flexibility in letting passengers alight in safe locations that may not be designated stops. For the ADA-certified patrons who would find it a true hardship to use fixed stops, a special call-in system with a minimum one-hour notice for special stops could be implemented.

- The City should continue to replace its fleet with low floor buses as the buses reach their life expectancy as an alternative to time-consuming wheelchair lift operations. Lifts were an understandable means of implementing the ADA with the technology available at the time, but they will never be fast enough to provide wheelchair access in a way that protects running time and passenger convenience. An entire wheelchair boarding and alighting should be possible in under two (2) minutes. Most disabled people have no desire to delay the service and are open to advice on how to board and alight more quickly. CTS conducts training on an as-requested basis for patrons or agencies serving the disabled. ADA requires drivers to provide assistance in boarding and restraint for wheelchairs when needed. Help should be offered where it could speed the boarding and alighting process. It should be noted, however, that the disabled rider is under no obligation to accept assistance.
- All passengers should be encouraged to exit through the rear doors, especially at high-volume stops. Drivers approaching a stop where passengers are waiting to board should announce to alighting passengers: "Please exit through the back door." This may only save 10 seconds, but the time adds up. Riders using bike racks will still need to exit through the front door. The automated passenger information system being installed Spring 2005 will periodically provide these types of reminders through automated announcements.
- Opportunities in street design, traffic signal operations for transit preferences will need to be explored to meet the requirements of minimum policy operating speeds, as described in the next section. Simple traffic signal priority devices have been installed on some of the City's buses. The devices should be installed on the remaining active fleet.
- In areas with multiple signals that are timed in succession and closely spaced, stops should alternate between nearside and farside. This permits buses to clear several signals between stops, rather than being stopped at every light.
- Several intersections located along primary and secondary transit corridors require the installation of traffic signals to facilitate the flow of traffic to maintain operating speeds. Those intersections where signals are likely to improve transit service in the short-term include: Harrison Boulevard at 35<sup>th</sup> and 36<sup>th</sup> Streets; 35<sup>th</sup> and Western; and West Hills Road at 53<sup>rd</sup> Street. As traffic increases on South 3<sup>rd</sup> Street, a signal will be required at Goodnight or Rivergreen Avenue.

### **6.3 STREET CLASSIFICATION NEEDS OF PRIMARY CORRIDORS**

Primary and secondary transit corridors should be specified in the City's Transportation Plan, Street Functional Classification System and standards established for each. As the backbone of future transit service, primary corridors must continue to allow efficient and convenient transit operations. This translates into the need to maintain operating speeds and the need to incorporate pedestrian amenities convenient to transit service.

As stressed in the previous section, operating speed is the most important element of maintaining efficiency. Thus, primary corridors should have corresponding minimum operating speeds that are protected as a matter of policy in street classification systems. To do this, Street Functional Classifications, developed by the City and other governmental entities, should have an overlay that indicates primary transit corridors. This overlay would define a minimum operating speed (current transit speeds are recommended). This will prevent worsening operating speed as growth leads to new development and congestion.

Road construction and new development should be evaluated for its impact on these minimum policy operating speeds. If these minimums are threatened, then plan changes or compensating transit speed enhancements should be made. One feature that has an important impact on traffic speeds is the number of driveway openings on a street. Limiting driveway access and consolidating existing driveways will reduce the number of cross-traffic conflicts and enhance driver and pedestrian safety, at the same time it protects or improves travel speeds. In addition, operating speeds are drastically reduced if traffic backs up on the street while entering parking areas. Thus, developments should have ample space for traffic between the street and parking spaces to prevent traffic back ups on the street.

To ensure convenient transit access, the primary transit corridor overlay should also require safe pedestrian crossing opportunities at bus stops, which generally occur every 800 to 1,000 feet. At a minimum, marking the crosswalk near the stop should be considered. At high demand points, pedestrian-activated signals should be considered.

The entire length of each corridor should provide sidewalks, crosswalks, accessible curb cuts, and other features necessary to allow safe and convenient access from transit to all points along and near the primary corridor.

#### **6.4 LAND USE IMPACTS OF PRIMARY CORRIDORS**

Primary transit corridors will have a high level of service aimed at competing with the automobile. Land use planning along Primary corridors should support this goal.

The following land use policies are recommended for primary corridors:

- All new land uses and activities that will generate major transit demand should be located along the primary network. If they are not, then the incremental operating cost of extending the primary network to serve them should be funded as part of the development planning. This provision should apply to:
  - medical facilities
  - community centers, including public sports facilities
  - social service offices
  - secondary schools
  - colleges and university classroom buildings
  - residential development above 10 dwelling units per acre (apartments)
  - commercial developments above the size of a standard supermarket (about 20,000 square feet)
- All land uses along the primary network should provide optimal walk access for transit passengers. This means they should have street-front entrances that are easily accessible from the sidewalk.
- All activity centers (see list above) should have entrances directly on the street, no more than 50 feet from a transit stop and no more than 50 feet from a safe crosswalk to a transit stop on the opposite side of the street.

- Activity centers (see list above) should be planned along a street such that the previous requirements can be met without requiring closely-spaced stops. In special cases, stop spacing as short as 600 feet may be acceptable. However, stop spacing every 800 to 1,000 feet is ideal.

## 6.5 STOP FACILITIES

Each stop should, as a minimum, include a sign and ADA accessibility from the sidewalk to the curb. Some higher use stops may warrant the installation of a bench or shelter. Eventually, all stops along the primary network should be equipped with shelters, including passenger information. Over the course of 20 years, this would mean installation of about 200 shelters. Of course, transit amenities should be placed first at highest use stops and then added over time as funding and stop use warrant.

Major Transit Stops should feel like on-street transit stations and should be visible to the entire community as indicative of transit’s essential role in the life of the City. A higher level of amenities should also be provided at Major Neighborhood Centers. Facilities at Major Transit Stops should include area lighting, larger shelters, covered bicycle parking, paving treatments, landscaping, signage and where appropriate, opportunities for vending activities and other design amenities.

Where Major Transit Stops are served on both sides of the street, they should also have a signalized pedestrian crossing within 50 feet. (This is usually already present as part of a traffic signal but should be provided as a pedestrian-activated signal if not.) Pedestrian signals should be timed and programmed to give pedestrians the right-of-way as soon as possible, since otherwise pedestrians will tend to jaywalk, especially on two lane streets.

Apart from the Downtown Transit Center, the Major Transit Stops would include:

- Timberhill transfer point
- Kings and Buchanan
- Monroe and Kings
- 35th/36th and Harrison area
- 35<sup>th</sup> and Western (proposed neighborhood focus area)
- 53<sup>rd</sup> and West Hills Road (proposed neighborhood focus area)
- 53<sup>rd</sup> south of Philomath Highway (Sunset Shopping Center)
- Highway 99 and Goodnight Avenue (proposed neighborhood focus area)
- 9<sup>th</sup> and Buchanan
- Highland and Circle
- 9<sup>th</sup> and Circle
- Hewlett Packard
- One major stop in the Good Samaritan Regional Medical Center area

These are selected based upon expected, long-term passenger volumes, as well as the function of certain locations (Timberhill, Kings and Monroe) as existing or possible transfer points.

## 6.6 DOWNTOWN TRANSIT CENTER

Even as new opportunities for non-downtown connections are created, the Corvallis Transit System will remain strongly downtown oriented. The Downtown Transit Center can accommodate up to five buses on site and two buses on-street at one time. This facility will serve local transit, including two intercity buses, for the short-term. Expansion of transit service, as proposed in the long-term plan will require two additional buses. Any expansion of the Downtown Transit Center should take into consideration of the following:

- As routes become more frequent, deviation time becomes more of a problem. For this reason, the transit center should be designed so that buses can flow through it rapidly in whatever direction they need to go. An ideal transit center provides two-way circulation, with bus ingress and egress at both ends, so that buses never have to loop out of their direction of travel. One effective design is to provide on-street stops in one direction, with an off-street drive in the opposite direction, both boarding on the same central island.
- Buses must have maximum freedom to turn various directions as they leave the center and to approach it from different directions.
- The center must provide a safe place to transfer from one bus to another, ideally without crossing a street.
- If 15-minute headways on primary routes are achieved, as in the High scenario and if reasonable potential for unforeseen growth is to be accommodated, then the center will eventually need to accommodate up to seven CTS buses at once, plus two intercity buses. All seven buses must be able to be accommodated at one time to ensure effective connections. Prior to reaching 15-minute headways on primary routes, the transit center will need to accommodate up to five CTS buses at once. At least one additional bay and eventually two, should be provided for existing and future intercity services. On-street expansion potential should also be identified as part of the center plan.
- Opportunities to combine the facility with other carriers, especially Greyhound and/or the Valley Retriever, should be explored.
- The center should feel like a high-quality, attractive transit “station”. Adjacent land uses, on-site vending opportunities, and other design features should all be planned with the intention of maintaining the center as a hub of activity, not just a place for transit users to wait. A diversity of people should have reason to be at the center for various reasons so that the center gives passers by the impression that transit is for “people like me”.
- Finally, the center should provide essential facilities for drivers, especially restrooms, including a break room. (The current transit center has one driver, unisex restroom.) These can be provided under an agreement with an adjacent business or agency or can be included in the design.

## 6.7 BUS ISSUES

Like other infrastructure investments such as streets and parking facilities, transit buses should be sized to accommodate peak loads. This often means providing excess capacity during certain times of day in order to avoid the extra operating costs associated with increasing frequencies during higher demand periods. Transit systems should operate vehicles that are large enough to accommodate the largest expected load during the entire day.

CTS buses are often full during the peak hours of use. Even in the long range, High Scenario (presented in Chapter 4), peak activity corresponding with OSU class times would often fill buses. When new buses are

purchased, bus size should be carefully considered to balance capacity with peak passenger loading. As ridership grows with population, 40-foot buses may be necessary, at least on some routes.

A common misconception is that smaller buses save operating costs because they are lighter and more fuel efficient. In reality, there is little difference in the per mile cost of heavy-duty vehicles, regardless of the length of the coach. Lighter-duty vehicles are prone to more maintenance problems and generally have a shorter useful life. The largest single factor in determining overall cost is the cost of the labor for the vehicle driver, which does not vary according to vehicle size.

This is not to suggest that the larger transit buses should not be “friendly” in every way possible. Unique paint schemes, bus “wraps” and other treatments are encouraged to ensure that the bus fits into the local environment. Low-floor coaches, which are becoming more common in the industry, allow for easy boarding for all passengers, including those with disabilities, elders, and passengers with packages. In addition to offering enhanced accessibility, the low-floor coaches eliminate maintenance-intensive lift equipment in favor of simpler ramp mechanisms. Boarding speeds are improved, as passengers are not required to walk up and down steps to enter or exit the coach.

All transit buses, regardless of fuel type, should be viewed as improving air quality, since one bus can eliminate many cars on the road, making many cold starts. Cleaner diesel engines are available and many systems are choosing these while other technologies are being studied, developed, and tested.

Alternative fuel technology is advancing. Compressed natural gas (CNG) is receiving attention among the larger transit systems across the country. CNG is a reliable and relatively inexpensive fuel. However, CNG requires expensive fuel station infrastructure and a supply mechanism that may not be readily available. The decisions to convert to any alternative fuel should be made as part of an overall City strategy, allowing fueling infrastructure to be spread over a larger fleet than CTS. A transit system of CTS’s size alone could probably not justify the cost of conversion to CNG. Today, if there is a “rule of thumb” it would be that large transit properties (those with more than 100 vehicles) are converting to CNG, while smaller properties are proceeding with clean diesel technology for future purchases.

Electric/diesel (hybrid) buses are becoming available in all sizes. Hybrid buses have potential for transit service because they are relatively non-polluting, quiet, and have very low maintenance. Hybrid powered coaches are priced at a significant premium over similar diesel or gasoline-powered vehicles but may offer longer vehicle life, assuming that batteries are replaced on a fairly regular schedule. Battery life for electric powered transit coaches is about five (5) years.

Bio-diesel is available as a blend of bio-component to diesel or as 100% bio-component (B100). There is a cost premium related to bio-diesel. The City Public Works Department is using B-20 (20% bio component) in the diesel fleet with no negative effects (other than increased fuel cost). The bio-diesel is considered a “premium grade” diesel due to its cleaner burning and higher lubricity. The higher lubricity may extend engine life. As the fuel industry continues its movement to eliminate sulfur in diesel, which provides lubricity, this feature becomes more attractive. Neither the engines nor the fueling systems need to be modified to burn B-20, so there is no cost to convert to its use.

Alternative fueled vehicles should continue to be evaluated as part of an overall City strategy to make decisions that will benefit both the transit system and the City’s environment. Fleet reliability must always be the top criteria, since transit ridership can only be maximized with a reliable service.

## **6.8 SYSTEM COVERAGE EXPANSION**

CTS is currently a heavily subsidized system. The primary funding sources are the FTA 5307 operating grant and the City of Corvallis General Fund which is funded primarily by city property taxes (see Figure 1-1). Since the 5307 grant is for operations within the Urbanized Area (UA) service can be provided outside the Corvallis City limits using this funding source (as is currently being done by the Philomath Connection). But since the Corvallis General Fund comes from property taxes paid by the city property owners, expanding the service outside the Corvallis city limits would require additional funds to provide for the local match for the expanded service (the City of Philomath currently provides the local match for the Philomath Connection). Although it is desirable to extend services outside the Corvallis city limits to serve the Crescent Valley area, Lewisburg, Adair Village and Corvallis Municipal Airport, as anticipated in the CAMPO RTP, the service can not be extended without new funding sources.



# Chapter 7 – Marketing

## 7.1 INTRODUCTION

This chapter proposes strategies for the marketing and public promotion of public transportation services in the Corvallis metropolitan area. A series of marketing strategies designed to help meet the region’s alternative transportation goals is presented and prioritized. While proposed strategies focus largely on Corvallis Transit System (CTS) and the City of Corvallis, they apply broadly to the entire metropolitan area, including Philomath and Adair Village. Public transportation services operating in the metropolitan area include: Corvallis Transit System (CTS), the Linn-Benton Loop, the Philomath Connection, Dial-a-Bus, and rideshare services coordinated by the Council of Governments.

A primary goal of this marketing plan is to increase ridership on CTS fixed-route bus services as well as to promote walking, cycling and carshare as alternative to the single-occupancy automobile trip. Since bus services are a fixed element of the City’s transportation infrastructure, attracting more patrons to the service benefits the City in a number of ways, including:

1. Increasing system revenue through fares;
2. Removing cars from the road, thereby decreasing the need for costly road expansion and maintenance;
3. Reducing exhaust emissions by decreasing the number of single-occupancy vehicle trips;
4. Reducing the need for other special services to meet the transportation needs of social and human service clients, seniors, and persons with disabilities, which can be very costly;
5. Improving safety for pedestrian and motorists by managing traffic volumes on local roadways; and
6. Eliminating or decreasing the need to provide expensive parking facilities.

Ultimately, a successful plan needs to focus on attracting more riders to the CTS bus system, while educating those who don’t use the system about the secondary benefits to themselves and their fellow citizens.

A second and important purpose of this marketing element is to provide the City with strategies to inform the broader non-riding public about the benefits of public transportation. Corvallis Transit is supported by local property taxes and competes with other general fund supported activities, including police, fire, parks and recreation. City surveys show that just under 25 percent of all Corvallis residents have used the transit system. Therefore, the majority of local citizens do not use transit, but have historically voted to support transit through serial levies. The City’s sustainability goals are directly tied to the continued support of transit by users and non-users alike. In this context, it is important for all residents to understand how transit and other alternative modes contribute to a broader social good. Fiscal support for transit often suffers because citizens don’t see a clear nexus between investment and community benefits, not because citizens are unwilling to pay for a service they don’t use. Broad based support for schools and senior services shows that citizens don’t need to be direct beneficiaries of a service to support it, so long as they can see a direct link to the broader public good.

Strategies presented in this report seek to help the City achieve both of these goals simultaneously. The strategies are prioritized and include estimated duration, costs, staff time, and other resources needed for implementation. Some strategies require few resources and can be considered immediately, others, while important, require substantially more resources than are currently available and should be considered as long-term program goals.

## 7.2 INVENTORY AND REVIEW OF MARKETING MATERIALS

This section provides a brief overview of marketing materials used by CTS as of the summer of 2004. These include:

- Route map and schedule (Jan. 2004, with sticker update for Route 1 July 2004)
- City Website (Transit page of City of Corvallis official website)
- Brochures (“Be Independent,” - aimed at seniors, the Holiday Trolley map and schedule, “Rack & Roll” bike rack information, Paratransit Service for disabled passengers, “Get There Another Way” Week transportation alternatives registration and events calendar, “Try Transit” Week registration and events calendar)
- What’s New” quarterly information
- Newspaper ads and articles (Barometer, Corvallis Gazette-Times)
- Sunglasses with CTS logo for Summer Fun Transit Pass program
- Small magnets with phone number; CTS stickers

Philomath Connection marketing materials consist of a black and white brochure with route schedule and map, last updated May 2002.

Linn-Benton Loop marketing materials consist of a color brochure with a route schedule and map, last updated May 2003.

Dial-A-Bus marketing materials consist of a color brochure with contact information, fare table, service zones, and service hours.

Other related transit promotional materials include:

- Bicycle Guide, City of Corvallis
- Getting There By Bike, Hewlett Packard
- Corvallis-Benton County Bike Map
- Albany Transit Guide, City of Albany
- Carpool guide, Cascades West Carpool
- Oregon Inter City Passenger Timetables, Oregon Department of Transportation
- Valley Vanpool
- 7 Reasons Why You Should Leave This Home, published Partners for Smart Commuting
- An Expensive Love Affair, published by Coalition for a Livable Future.

### Marketing Materials Design

The primary marketing items provided by all of the transit systems in the Corvallis metropolitan area are the published route map/schedules. Because the effectiveness of marketing campaign is based on clear and readily available public information, the design of the transit guide should be tactical and user-friendly. The information a rider needs should be readily apparent and understandable. The most recent version of the CTS Map and Guide largely meets these criteria through the effective use of graphic design elements and comprehensible language, both in Spanish and English. The CTS Map and Guide is of high quality and includes

much important information, but such characteristics also contribute to its cost and portability. The map/schedule/guide publications for the Linn-Benton Loop, Philomath Connection, and Dial-A-Bus are simple and economical without the detail and use of color that is appropriate for the more complex Corvallis Transit System.

The consistent use of transit system logos is evident in the design of marketing materials for CTS, Dial-A-Bus, and the Linn-Benton Loop. However, neither CTS nor other transit systems of the Corvallis metropolitan area have developed a comprehensive branding strategy; thus, branding elements, incorporated into the design of marketing materials, are few and inconsistent.

Although signage and shelters for bus stops are most appropriately considered as transit system facilities, such structures and the buses themselves also have a strong marketing function. The new Downtown Transit Center is in a highly visible and convenient location. The mall functions well in terms of providing route and schedule information, and a safe and sheltered place for riders. As CTS adds more designated stops, new signs for CTS Bus Stops are being placed and will eventually designate approximately 250 locations. Because the Bus Stop signs appear similar in shape to No Parking signs, they are not highly distinctive, especially compared to the signs of other bus system. In addition, route identification is hard to read from passing vehicles because of the font selection, color, and size. While this does not limit their effectiveness for pedestrians, it does limit the secondary marketing value for passing motorists. The signs do include the CTS phone number, which consistently appears with the logo in other marketing materials. No schedule information is provided at the bus stops (other than at 57 locations with shelters). Shelters do not incorporate a designated location for route and schedule information; typically, the Guide and Map is laminated and taped to the Plexiglas of the shelter.

With the recent addition of advertising including complete bus wraps on certain vehicles in the CTS fleet, the buses demand increased attention from potential riders. Because of such distinctive markings, there is a potential problem that some riders will not recognize "their bus" when the advertising changes. Nevertheless, an electronic reader board at the top front and right side of the bus displays the route number and destinations, and at the top rear left corner of the bus the route number is displayed.

The CTS home web page ([www.ci.corvallis.or.us/pw/cts](http://www.ci.corvallis.or.us/pw/cts)) resides as part of the City of Corvallis website. There is no link to the CTS page on the City home page. Thus, the CTS site is not easy to remember or access (unless bookmarked); in fact, it is four levels down in the City's site map hierarchy. People have to be fairly knowledgeable about City organization to find the CTS website. The path is City>City Services>Transportation Services>Transit System. The CTS homepage is very uninteresting and does not employ graphics for pointing to information. Route and schedule information is only provided in a 3.6 MB .pdf file of the CTS Guide and Map. The route schedules are unreadable unless the image is increased from 63 percent to 150 percent. Information and links regarding other transportation demand management (TDM) programs in the area are missing. The homepage was last updated in January 2004; however, information for current special events appears to be provided in a timely manner (e.g., web page updated July 30 for Benton County Fair the following week).

Important information, such as bus routes and schedules, are additional sublevels within the site structures, which increases a user's time in locating necessary information. As mentioned, the route and schedule information is provided only in a 3.6 MB .pdf file, which is incorrectly noted on the home page as 35k, version of the CTS Guide and Map. The large file size makes the information virtually inaccessible for a large percentage of users who have dial-up connections. The single map includes street names only for a few main routes and the site does not offer easy access to information on full maps of Corvallis, leaving users to locate this information on their own. Links on navigation menu bars are inconsistent and difficult to follow. There are two navigation systems, a menu bar to the left and a text string near the top. At times, the categories on the menu bar change, requiring the user to use the text string or the back arrows of the browser to return to the CTS homepage.

“Home” in the text string navigation tool takes the user back to the City’s homepage, not CTS’s homepage, which means the user has to keep track of where CTS’s site is located within the broader City structure.

### **Marketing Materials Distribution**

The Corvallis Transit System Guide and Map is widely distributed in the community. The Guide and Map is available for people to pick-up on buses and from display racks located in public places (e.g., Library, Post Office, and City Hall), commercial centers (WinCo Foods and motels), health care and retirement complexes (e.g., Good Samaritan Regional Medical Center and Stoneybrook Lodge), large employers (e.g., Hewlett-Packard and CH2M HILL), and OSU centers. The Guide and Map also is sometimes distributed from booths at events where large numbers of residents, students, and visitors gather (e.g., Earth Day, University Day, and OSU New Student Week).

In addition to the CTS Guide and Map, the brochures targeted for seniors and the disabled are distributed at retirement and care facilities and at special meetings for those groups.

Guides for the Linn-Benton Loop and the Philomath Connection also are widely distributed at the same locations as the CTS Guide and Map and at similar locations in Philomath, Albany, and the LBCC campus.

Racks are kept stocked and staff/volunteers who work at the businesses and organizations where the racks are located order additional materials from the City.

### **Public Outreach Efforts**

The CTS has a long-standing commitment to public outreach and participates in many community events sponsored by the City, OSU, library, school district, and non-profit organizations.

Existing targeted public outreach efforts include special meetings with seniors and the disabled to explain how to use public transit in the Corvallis metropolitan area. These meetings are organized and conducted by City of Corvallis transit staff, with the assistance of other local government and agency staff and volunteers, as appropriate. Particularly successful have been the T(ea) for Transit events held at senior/assisted living facilities, where a ridership orientation, including a boarding demonstration, is provided. City staff operates a booth on the OSU campus for Earth Day, University Day, and New Student Week. There are no similar programs regularly conducted for youth under age 18 in the community.

Efforts targeted at large employers in the area are key public outreach components. These include working with the Employee Transportation Coordinators, who meet monthly as the Transportation Management Association (TMA) to discuss and develop programs to encourage their fellow employees to use alternative transportation modes. An individual review of activities at each employment site is beyond the scope of this report, but generally annual community transit events, such as Try Transit Week (which includes free rides) and Get There Another Way Week, are supported.

The CTS also publishes a quarterly newsletter regarding its activities. The newsletter is used to advise riders about schedule changes, special events, and other useful information. Distribution is via hard copy on the bus, selected public locations, the City-wide newsletter as well as an electronic copy on the CTS website.

CTS also provides transit services during special events, often using a special shuttle (e.g., the Trolley). This contributes to overall public outreach efforts by exposing CTS to citizens who might not otherwise use the service. Promotions for these special events and regular operations include advertisements in the OSU Daily Barometer and the Corvallis Gazette-Times newspapers, the OSU Campus Directory, the OSU Connect summer newsletter to incoming students, and the Qwest Dex yellow pages. Press releases also are submitted to newspapers. Radio and television media are not regularly utilized for advertising.

## 7.3 MARKETING STRATEGIES

The purpose of including a marketing element in the Corvallis Transit Master Plan is to help maintain and increase ridership and, thus, operating revenue. In addition, through effective marketing of public transportation options, the City hopes to reduce reliance on Single Occupancy Vehicle trips. The expectation is to similarly maintain or increase service, especially during times when funding levels for all City services and programs are being re-examined and re-allocated. Thus, successful marketing strategies must:

- Be easy-to-implement in terms of staff resources;
- Be inexpensive and cost effective (some more resource intensive strategies are included, but may be less feasible to implement in the short-term);
- Recognize the marketing and branding value – subliminal or explicit – of all of the agency’s activities, including some that may not be traditionally thought of in these terms;
- Provide strategies to build ridership and keep current riders satisfied for the short and long term; and
- Recognize the diversity of the service area and potential transit markets, and target efforts as appropriate to each of them.

In order to aid CTS in implementing an effective, locally focused marketing plan, the recommended marketing strategies described below are prioritized and include duration, estimated costs, City staff time, and other resource requirements.

### 1. Public Information As Marketing

The public information function is a key element of overall marketing, and is often overlooked. Many agencies undertake expensive marketing programs without first ensuring that information is easily available on the street or by phone. Without easy access to public information, new passengers attracted by promotional efforts will find the system alienating and will be less likely to use it for all their needs.

It is important to maximize this casual marketing value of information services such as signage, shelters and the buses themselves. Every citizen of Corvallis will see the agency's bus overhead signs and bus stop signs. These can function not only as information, but also as "miniature billboards", advertising the fact that bus service is available in a certain area. On the other hand, it is important to not let marketing interfere with clear information. Information sources should always strive to communicate the necessary information as clearly and concisely as possible, without distracting material. Promotional material included with information should be careful not to distract from the primary goal of clear information. Clear information is ultimately the best marketing.

Public information function has five major elements:

- a. Route Naming, Numbering and Overhead Signs
- b. Bus stop signage
- c. Schedule brochure and other publications
- d. Website
- e. Phone information

#### a) Route Naming, Numbering and Overhead Signs

The naming of a route can start to communicate the right type and amount of information to customers so that, at a glance, they can learn as much about the system as possible. Route numbers determine the sequence in which

routes are presented, in a schedule brochure or on a website. A logical sequence to this presentation helps customers to more quickly find the services that they need.

Good route names are simple, usually just the name of the main arterial used and major destination the route is bound for. As a good route name is reinforced on bus overhead signs, maps, signs, and other media, the person who has never used the bus gradually begins to learn where certain routes go and, in so doing, become potential customers because they start to understand the how the system works and how it might be useful for them.

CTS's current route naming conventions are good. We propose some minor changes for future marketing materials. The route name is shown in capitals. Following this are the two possible destination signs. These indicate the endpoints of the route, and therefore also convey a sense of the direction that the bus is going. So rather than the current "osu/kings/timberhill," the route name would be "KINGS – osu" or "KINGS - timberhill." The slightly more complicated Route 4 might read "5th/HIGHLAND – good samaritan" and "HIGHLAND/11th – downtown." Where possible, two-way loops with two strong termini should be divided into two two-way routes. This can give people the impression that they will need to transfer, an issue which can be addressed by developing a clear system for displaying "through-route" numbers (and colors) in the front window of the bus.

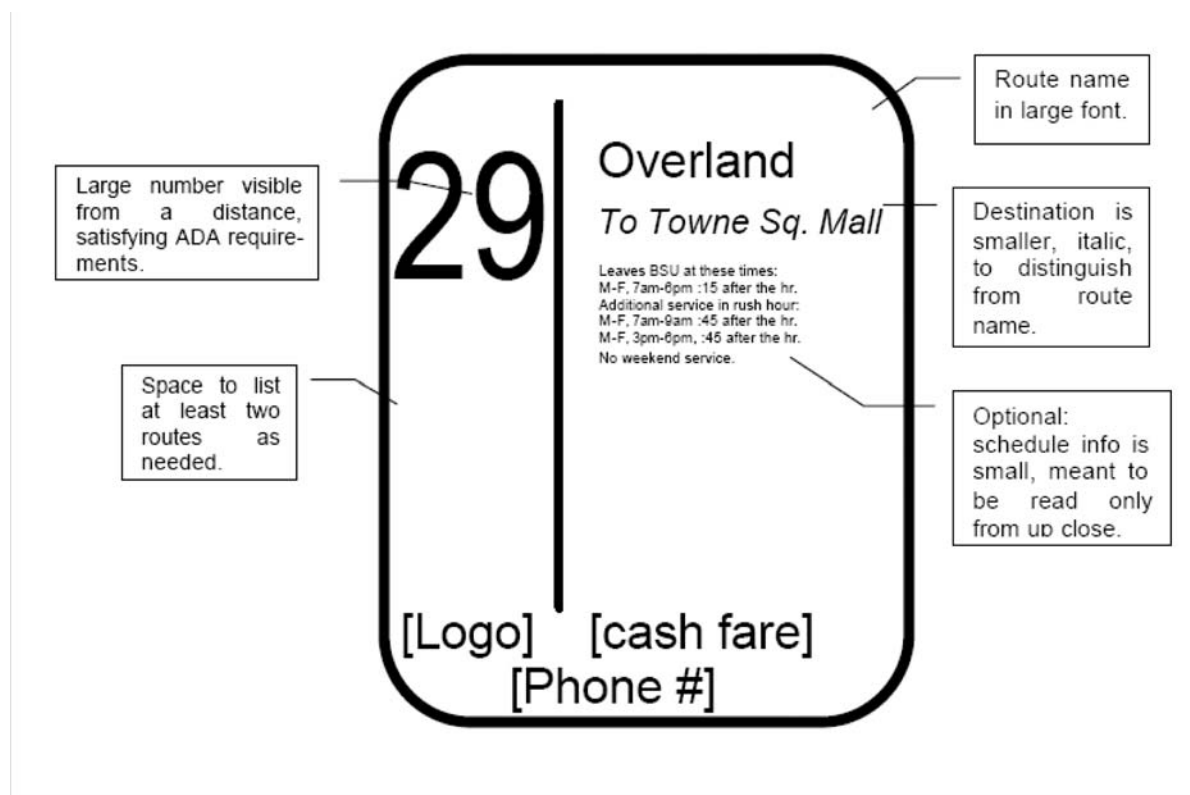
Good route naming is most obviously beneficial when it is employed on bus overhead signs. When done well, overhead signs alert customers as to what bus is approaching, where the bus is going, and more or less how it's getting there (the main routing). When the route name describes the routing, it helps customers to associate the bus with its route and thereby requires them to remember less in order to use the system. When all routes are named according to the major corridors they serve, it makes learning the whole system (rather than one or two commonly used routes) a much easier task for customers, lowering one barrier for increased use by potential customers.

## **b) Bus Stop Signage**

It is important to maximize the casual marketing value of information services such as signage. Information sources should always present the necessary information as clearly and concisely as possible. Ultimately, clear information is the best marketing tool.

Fixed bus stops allow a transit agency to provide riders with information about the system (e.g., what bus routes stop there, where they go, how often the bus arrives, how late the bus operates, etc.). This is particularly helpful for attracting new riders to the system by making it more comprehensible to the uninitiated.

Informative bus stops also provide an invaluable ongoing marketing function. Comprehensive bus stop signs show people who are not familiar with the transit service that it exists and might be available to them. They also reassure riders that they are at the correct location — something of great concern when buses run long distances with limited frequency. Bus stop signs should be clear, and should include the system name, logo and contact phone number. Information elements not currently provided on the CTS bus stop signs can be added using stickers, which can be ordered cheaply. See Figure 1 below as an example of the recommended information to be included on bus stop signs.



**Figure 7-1 Sample Bus Stop Signage**

**c) Brochure and Informational Materials**

**c-1) Revise the CTS Guide and Map.** Clear and simple maps are a powerful way to make a transit services feel easily accessible, transparent, and simple to use for potential customers. For a transit system the size of CTS, a good system map can obviate the need for individual route maps and makes a bus book unnecessary. CTS has an excellent layout for its bus map and schedules. From a customer’s perspective, a single fold out map that explains a system, such as the one CTS produces, is usually less intimidating and easier to carry than a bus book.

In general, a good transit system map has certain characteristics:

- **Effective use of color** – color can be used in several ways, but it must be as meaningful as possible. For relatively simple systems, routes can be color coded, but as the number of routes increases on a map, the

more likely that color-coding will be counter-productive. At that point, switch to color-coding by frequency, so that the maps assist in marketing the most frequent services. Since most CTS routes operate at the same frequency, using a separate color for each route, as is the current practice, is the most effective strategy.

- **Appropriate scale** – the map must be at a scale that's legible for most people.
- **Practical size** – either as a fold out map or as part of a bus book, system maps should not be too big.
- **Utility** -- The same map should be useful in several media, e.g. in the bus book, posted in shelters, and on the website.

Besides potentially making bus books unnecessary, a good system map is also a boon for a transit agency website and other tools for customer service. The hard work that is required to make a system map clear and simple will help at every turn when creating other customer materials.

The existing use of color and graphics in the CTS brochure works well for differentiating similar information, fostering remembrance, and generating interest. One exception, however, is the use of purple hues for Routes 2 and 5 where the differences are less distinct. It is recommended that the Route 5 color be changed to another bold hue. The map also should indicate additional potential destinations and commercial areas of the city, particularly downtown and motels, to promote transit use by city residents and visitors. Type font and size should be revised to facilitate readability by people with impaired vision.

**c-2 ) Provide Separate Route Schedules.** The CTS Guide and Map effectively provides comprehensive system information and should continue to be distributed, but its format can too large and unwieldy to be handy as an in-transit reference. They also are expensive to print. Much cheaper individual route schedule could be provided in a wallet-sized version that is available on-board buses and at other information locations. The bus route schedules of the CTS Guide and Map could practically be cut into separate pieces, folded in half, and slightly revised to provide essential information while fitting into a pocket or wallet. They also could include on one side the features of the Transit Trip Reminder card (see description below).

This strategy is secondary and should not replace the primary CTS transit route map and schedule brochure. This strategy would require additional resources, which may not be available in the short term. Separate route maps for certain services could be sponsored by interested businesses along a route. Unitrans in Davis, California created a successful route specific marketing campaign that included a separate schedule and map with key sponsoring destinations illustrated on the map.

**c-3) Provide Transit Trip Reminder Cards.** Infrequent riders likely do not remember bus routes and schedules well. Existing schedules provide information about where the bus is located every 5 minutes, sufficient for most riders to determine when the bus will arrive at their stop. For some new riders who are apprehensive about using the bus, more specific schedule information could be helpful. It is recommended that blank "Transit Trip Reminder" cards, sized similarly to the individual Route Schedules, be distributed whereby riders can indicate important information regarding specific trips via CTS and other Corvallis area systems. "Trip Reminder" cards would be a good addition to one-on-one events at senior facilities, schools, and activities for persons with disabilities. Volunteers can be used at these locations or special events to help people identify their routes and schedules and fill-out the reminder cards. This activity would be particularly appropriate during "Try Transit Week."

**c-4) Indicate Routes and Schedules in Real Space & Time.** At present, the only way potential riders can conceptualize a CTS trip is to study the CTS Guide and Map. There are several ways to communicate in real space ("on the ground") the information of the CTS Guide and Map. The colored and numbered dots used for



route identification in the CTS Guide and Map should be utilized in real space. Needed are 3-inch-round vinyl reflective stickers for application to Bus Stop signs and signposts along curbs of the routes. The Bus Stop signs can accommodate up to three of these dots without overlap. The regularity of 60- and 30-minute service that is unique to the CTS schedules also should be indicated in real space. New accessory signs should be placed below Bus Stops signs at locations shown on the CTS Guide and Map. These new signs should be sized to be readable by passing vehicles and include numerals followed by "minutes after the hour". Buses might also use a large colored/numbered dot in the front windshield and right-side window of the bus. With such markings, customers and potential customers will be able to visually determine which color route provides transit service in a particular area, to particular destinations, and at what regular times.

Finally, people on foot, who may be walking in their neighborhood, on campus or shopping downtown, should be reminded that there is a bus stop not far from where they are and helped to find it. An excellent example of this type of branding is the practice used by Lynx (Orlando, Florida) of painting a paw print on the ground at each shuttle stop. This might be a particularly useful strategy for calling attention to CTS bus stops on the OSU campus. Directional markers (vinyl stickers) could be placed on signposts within one-quarter mile of bus stops--the distance most people will walk to a bus stop. These markers would be narrow and vertically oriented, with an arrow at the top and the green CTS bus logo at the bottom, and in the middle the words, "THIS WAY TO RIDE THE BUS."

CTS is in the process of purchasing Automatic Vehicle Location (AVL) systems for their fixed route buses. AVL is useful for on-board data collection, but also provides the capacity to provide real time schedule information to passengers. Real-time arrival information displayed on electronic reader boards at key stops and transfer centers has typically been used in larger urban rail and bus systems, but decreasing costs of the technology are making it relevant in smaller city environments. This technology also allows bus systems to provide real time information on their web sites so that passengers can tell where their bus is even before they leave their house or office. The effectiveness of real-time information in attracting new riders is still relatively unquantified, but the feature is very popular among customers where it has been implemented.

**c-5) Develop Distribution Plan for Brochures and other marketing materials.** Developing a simple, useful brochure is a key step in providing high quality public information. However, a good brochure is useless if it doesn't get in the hands of those people that need it. Having schedule or routing information immediately available can be the key decision point in a traveler mode choice. CTS should develop a detailed inventory of its distribution points and a bi-weekly or monthly schedule for restocking brochure and marketing materials at each location.

To reach the maximum potential riders, brochures should be made available at a variety of locations, in addition to on-board buses and at transit offices. Such locales should include:

- Ticket/pass Vendor Locales
- Chamber of Commerce
- Campus Locales
- Senior/Group Homes
- Community Organizations
- Libraries

While CTS already does an excellent job distributing materials at the major civic centers and retail locations throughout the community, there may be ways to better advertise that information is available at these locations.

It is important to clearly and boldly identify locations that provide transit information. Ideally, a brochure rack or display case would be distributed to all locations to openly exhibit the transit brochures. Some locales, however, especially ‘mom and pop’ retailers, may not have the room for such a display. Therefore, a window decal could easily be designed, printed and distributed to all locations providing transit information brochures. The decal design should be simple, bold and consistent.

CTS can expand its visibility by offering pre-paid tickets or establishing discount transit passes at a more diverse range of locations. Selling passes at popular grocery stores or at major employment sites could boost ticket sales. All ticket outlets should be furnished with system information brochures for distribution.

An effective information distribution campaign should include a solid network to reach employees, particularly at major employment sites such as OSU and Hewlett Packard. A network of Employee Transportation Coordinators (ETC) at employment sites over 50 people could provide a basis for information dissemination. A key challenge is keeping this volunteer group engaged. The Lloyd District TMA in Portland holds monthly social breakfast meetings for its ETC’s to ensure continued support and participation. They have found that holding this informal social event has been crucial in keeping ETC’s invested in their duties and leveraging their participation when most needed.

**d) Redesign the CTS Website**

Make the CTS website easily accessible for Internet users by separating it from the City site. Developing a high quality, stand-alone website should be a top priority for CTS in this Internet savvy community. A good web page will provide a link for customers and others seeking information about transportation in the community. In addition to serving riders, a solid web presence is a crucial link to the community and will be the first place many voters go when they have questions about how their tax dollars are being utilized.

In the case of CTS, there is little advantage in complying with the City’s web page format, since most people will not associate transit with the City Public Works Department. The web page is an important element of developing a unique and recognizable brand for CTS. The current address, [www.ci.corvallis.or.us/pw/cts](http://www.ci.corvallis.or.us/pw/cts), is too long to remember easily and it does not follow standard address format familiar to most users. The address is a perceived jumble of letters, difficult to associate with CTS. An example of a memorable address is [www.cts.com](http://www.cts.com). This address is short, follows familiar address format ([www..com](http://www..com)), and is quickly associated with CTS. Whatcom Transportation Authority in Bellingham, WA uses the web address [www.ridewta.com](http://www.ridewta.com), a short and catchy address that combines their marketing slogan and the agency initials.



**The CTS website should be an extension of the overall look and feel of the system, as displayed on the Whatcom Transit Authority Website**

The purpose of the CTS website should be to make public transportation information easily available for users. The longer it takes users to find the information they’re looking for, the less likely they are to return to the site. The homepage and site structure is the key to a usable website. Elements of a good homepage are clear navigation tools, immediate access to important information, and strong visual layout to engage the user. A well-organized site structure will guide the user through the site and maintain a sense of location within the site.

The CTS homepage currently consists of a text link to the route map and schedule and a copy of the mission statement. The navigation tools are a menu bar to the left for CTS-specific links and a text string with links to general City location. Though the mission statement is important to CTS, the information that is important to the user is the bus schedule and route map. Other important information includes fares, programs, and services. The information needs to be presented in a format appropriate for the Internet. Having the high-resolution route map

and schedule available for downloading is a nice feature, but it should not be the only option. A low resolution, quick download version needs to be available, as well as a schedule that can be viewed as a page of the website, not just as a .pdf attachment.

The homepage is also a good location to include current news on CTS services and programs. CTS often provides free transportation to local events such as daVinci Days and the Fall Festival. Including quick bites of news, “hot news” regarding current events, keeps users interested in returning to the site to see what’s new with CTS. Some systems have developed customer profiles or “customer of the month” links to convey the message that “people like you” use the bus regularly.

All the CTS information should be organized into smaller categories, such as Riding CTS, Programs, Transit News & Business, and Useful Links. These categories should be kept consistent on each page, with additional navigation information appearing as users browse more deeply into the site. Too much information at a time overwhelms users and makes them less likely to use the site.

An example site organization structure is:

**Homepage:** Information on the homepage would include obvious links to Corvallis routes and schedules; hot news – what’s new today (or this week) with CTS; contact CTS; link to City website; navigation tool with the four main categories below. Each of the four categories would remain visible throughout the site, but subcategories would appear as users browsed the site.

### **Riding CTS**

- Maps, Schedules (Corvallis, Philomath Connection, Linn-Benton Loop)

- Fares, Passes, Coupon Books

- Paratransit, Senior News

- Bikes on Buses

- Special Events (Fall Festival, daVinci Days, etc)

### **Programs**

- Dial A Bus

- “Get There Another Way” Week

- Rack and Roll

- Summer Fun Transit

- “Try Transit” Week

### **Transit News and Business**

- Contact CTS

- Mission Statement

- History

- Business Opportunities

- Quarterly What’s New

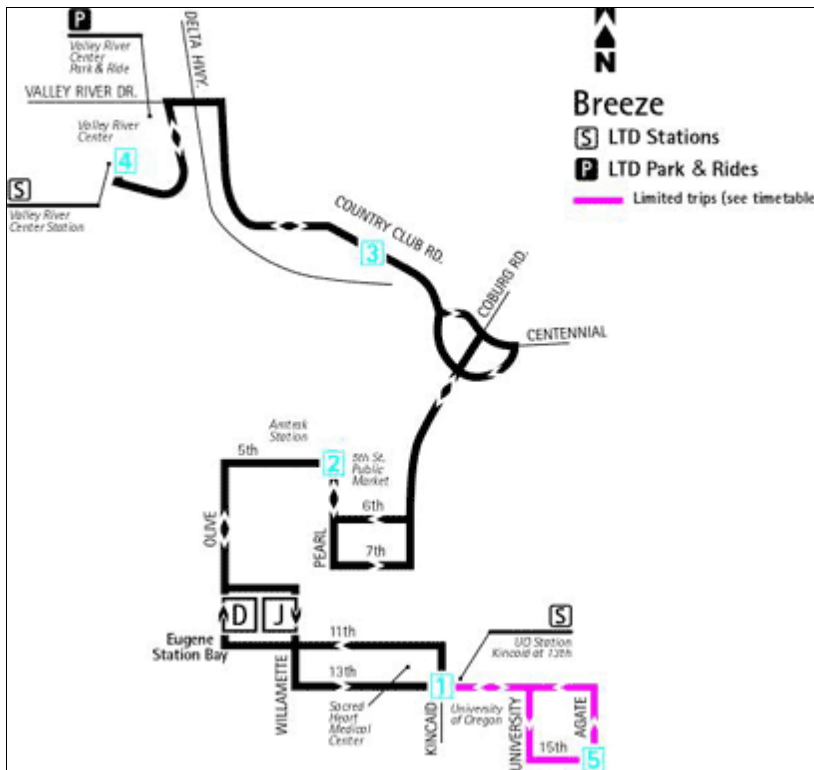
## Useful Links

- Albany Transit
- Linn-Benton Loop Transit System
- ValleyRetriever
- Corvallis Downtown Association

Web site creation can be made a relatively low cost proposition by developing it as a project for a local college multimedia class. Likewise, an outside contractor could be hired. The site should be maintained regularly and information should be updated as service changes are implemented.

While it is not important to provide route level maps in the print brochure, it can be helpful to have them available on the web. Placing individual route maps with the corresponding schedule allows for smaller file sizes, which browsers can open more quickly, and a greater level of detail about what stops are served by the route. The following map shows an individual route map from Lane Transit District. On the actual web page the map is followed by a complete stop-by-stop schedule.

**Figure 7-2 Sample Web-Based Route Map**



In addition to providing transit information, the website could be developed to serve as an e-commerce site for selling CTS transit tickets and passes. E-commerce provides maximum convenience, by allowing customers to order tickets from anywhere, at any time, and have them sent directly to their homes.

**Case Study:** Lane Transit District (LTD), which serves the campus town of Eugene, Oregon, is currently implementing an e-commerce component to its website (<http://www.ltd.org>). The service will be up and running by late 2004.

### e) Offer “One Number” Telephone Information Service

Quality telephone information is necessary to inform new customers about available services and answer questions for regular and potential customers. CTS has an information telephone line (766-6998) that is widely advertised and is available during hours that CTS is in service. During these times a live operator answers the line. A phone service answered by a recording is frustrating to customers and can be enough to dissuade those who have other transportation options from using the bus. Telephone service also allows for troubleshooting when necessary. Advertising the telephone number on buses, signs, the brochure, in any print advertisements and on bus passes/tickets ensures that individuals with questions about CTS always have access to a number to call. Individuals who provide customer service should be courteous and trained to answer questions.

The Corvallis and Albany area should consider combining transportation information services through a single number that acts as transit information for CTS, Albany Transit, the Philomath Connection, the Linn-Benton Loop and for regional ridesharing options. Providing a catchy number, such as 754-RIDE, or maintaining the current number and marketing it throughout the area will create a single, ubiquitous source for information about all transit options. For special events or sporting events the information line could provide information about parking and free shuttle services. A combined number could also provide after hours support for transit customers, a service which is not currently offered.



**A combined logo and number provide a universal point of contact for transportation information throughout the area**

## 2. Promote Sustainable Behavior

### a) Study and Adopt Community-Based Social Marketing

Conventional ways of promoting transit ridership are focused on information campaigns and advertising techniques that make information available for everyone, allowing those who are interested to consume it. It is important to recognize that advertising alone is not marketing, especially in the service sector. Advertising is a subset of marketing, and for the promotion of transit ridership, fairly ineffective by itself. This is because advertising can only provide a relatively small amount of information and motivation that a person needs to make a major change from a predisposed behavior (i.e., driving a car). An effective marketing plan - one that promotes mode change and builds transit ridership - must go beyond media advertising and the distribution of brochures, flyers, and newsletters. Additionally, a broad based campaign will need to focus on a range of transportation alternatives, bus transit being one option among many.

Based upon research in social psychology, community-based social marketing (CBSM) is becoming recognized as a best practice for successfully marketing "sustainable behaviors." Examples of sustainable behavior include recycling, use of public transportation, and energy conservation. This concept builds on the idea that person-to-person contact is essential to motivate change. Individualize Marketing is the term used to coin the practical

implementation of broader CBSM strategies to promote specific behaviors, including the use of transportation alternatives. In the transportation world, cities including Portland, Seattle and Bellingham, Washington have begun using Individualized Marketing techniques focused on specific neighborhoods, typically older neighborhoods where alternative transportation options are realistic. These programs are based on comprehensive survey efforts, which determine which households are using and/or interested in using alternative modes. Outreach and educational resources are then focused on the segment of the population that is interested, but is not already using sustainable, non-SOV transportation options. People that are not interested are left alone.

Individualized marketing concepts are geared toward the promotion of a range of SOV alternatives, including transit, biking, walking, vanpools, carpools, telecommuting and other alternatives. Focus on sustainable behavior, rather than the promotion of a single mode, is a hallmark of this concept. Pilot programs in Portland neighborhoods have been successful in creating 8% to 9% mode shift among target are populations, substantially higher than can be expected through more traditional marketing techniques. Citizens appreciate Individualized Marketing because it does not push information on those who are not interested and provides balanced and informative information on a range of options for those who are. As in any marketplace, consumers respond positively to campaigns that promote personal choice.

Part of the concept is to educate interested participants about the very sustainable behaviors it promotes. Particularly its ability to create positive change in the following areas:

- Consumption of fewer non-renewable energy and natural resources;
- Introduction of fewer noxious by-products into the biosphere;
- Minimal degradation of the physical and cultural environment; and
- Active involvement of stakeholders to meet human and community needs.

Individualized Marketing uses strategies at the community level and involves direct contact with people. It is recommended for marketing transit and other alternative mode options in the Corvallis area because it builds on adopted, successful programs involving a wide range of Corvallis citizen groups and profiles.

An important strategy is for City staff to become knowledgeable about CBSM and Individualized Marketing techniques. In the short-term it is recommended that City of Corvallis staff study the principles of CBSM and integrate them in day-to-day marketing and public information programs. In the longer term, the City should consider implementing, perhaps with the assistance of a consultant, a marketing program based upon these approaches. CBSM is incorporated in many of the strategies presented in this marketing element. See the attached Quick Reference on CBSM for an overview of this approach and its tools. Also visit [www.cbsm.com](http://www.cbsm.com), or consult the book, "Fostering Sustainable Behavior" by McKenzie-Mohr and Smith, New Society Publishers, 1999).

The remainder of this section discusses barriers and benefits to transit ridership and the practical elements of an Individualized Marketing campaign used to address barriers and educate about benefits and practical use of services.

#### **b) Identify Barriers and Benefits to Transit Ridership**

Knowing which factors are most important in distinguishing individuals who have adopted a sustainable behavior from those who have not is an essential first step in developing an Individualized Marketing program (McKenzie-Mohr & Smith, 1999). CTS ridership is dominated by OSU students, which has shown a steady increase in recent years and now accounts for approximately 43 percent of ridership (Jan. 2004 survey). OSU

staff account for another 6 percent. The youth population (ages 6-18) is the next highest segment of CTS ridership according to an April 2004 survey, making up approximately 20 percent. This group is followed in size by adults with disabilities at 11 percent, and seniors at 8 percent.

Without discussing the particulars of disabled and senior riders, assumed barriers to using transit or other alternatives to the SOV include:

- Reliability of service
- Frequency of service
- Availability of good information (schedule, route, and bus signs)
- Proximity to destination
- Comfort of travel
- Desire for privacy
- Perceived extra expense and time
- Exposure to weather
- Packages handling
- Need for trip chaining
- Prevailing social norms

Assumed benefits of transit ridership include:

- Exercise walking to work, walking to and from bus, or cycling
- Social interaction on the bus
- Personal time onboard
- Do "the right thing" environmentally
- No parking or driving hassles
- Reduced traffic congestion
- Reduced expense
- More deliberate, less hurried lifestyle
- Less stressful

Every person will have different perceptions of barriers and benefits of riding the bus or using other alternatives. Existing bus riders or cyclists have already made a determination that the benefits overcome the barriers. In fact many of these people have little interest in marketing campaigns promoting alternative modes, because it is what they do every day. Individualized Marketing succeeds by focusing on those people that are interested in learning more and are most likely to change their predisposition not to ride the bus or not to walk to work. In short, it encourages behavioral change through education of benefits and breaks down barriers by making alternatives easily available. Individualized outreach benefits the city by engaging those that are interested in learning more, but also by letting other taxpayers know that good information about bus services is available to those who need it most.

The City should seek opportunities to receive feedback from the community, both qualitative and quantitative, about specific barriers to using transit and perceived strengths and benefits of the system. General public and on-board surveys, focus groups, simple surveys at public meetings, newsletters with response surveys, call lines and web-feedback forms all provide opportunities for this type of feedback. Developing a database to track this information can be invaluable in quantifying the level of interest or concern about certain issues.

The City occasionally funds surveys to determine the use of alternative modes and barriers to using them. The next time the City funds such a survey it should build the instrument around established Individualized Marketing strategies and a well planned follow-up strategy.

### **c) Implement Tools for Changing Behavior**

Individualized Marketing campaigns, while limited in their application in the US, have been very successful. The pilot program in southwest Portland was successful in changing the travel behaviors of over 8 percent of participants. In Corvallis, the implementation of an Individualized Marketing program would need to be supported through grant funding, as it requires intensive staff and/or consultant participation. It is important to pilot-test strategies and tactical application of these tools because they might not overcome barriers without considerable investment of time and resources. Strategies and tactical actions should first be implemented for a target neighborhood or area where land uses and demographics show potential for behavior change.

The following section describes the range of direct outreach and education techniques employed in Individualized Marketing campaigns:

### **Case Study Illustrating Behavior Change Tools**

Whatcom Transportation Authority (WTA) was one of four grantees for Federal Transit Administration's Individualized Marketing Demonstration Program designed to change commuter travel behavior by promoting the use of public transportation through targeted, customized marketing methods. WTA, in Bellingham, Washington was chosen as the small urban pilot. The City of Portland completed a similar pilot program called TravelSmart®, which focused on two residential neighborhoods in southwest Portland (see detail on the program and its results at [TravelSmart®/FinalReport.pdf](#)).

The goal of these programs is to provide residents with information about travel options specific to their local community and their personal travel needs. Previous pilot projects in Europe, Australia and Portland have demonstrated that program participants will move some of their trips to alternative modes once they know what options are available to them. By increasing knowledge about local retail, service, entertainment, and recreational destinations, in conjunction with information on alternative travel modes, individuals are likely to reduce trip lengths and try alternative to their automobile.

The Individualize Marketing Program has four key phases:

1. Identify willing participants from study area;
2. Survey them to determine current travel behavior (Pre-Survey);
3. Provide specific information on travel options (Intervention); and
4. Survey again to ascertain changes in travel behavior (Post Survey).



After selecting participants from a brief initial contact survey, a more extensive written or phone survey is implemented. The survey questions respondents as to what type of travel options they are interested in, if any, and allows them to request written information or a home visit. By only providing information to those who are interested, Individualized Marketing avoids over pressuring participants and reduces the amount of staff support needed. During the intervention phase, information is delivered to those who have requested it. Those who have requested an on site visit are visited by someone with expertise in transit, bicycling or the respondents particular area of interest. The individualized marketing information is typically a combination of specially developed material, such as local maps and trip planning guidance, as well as existing material on alternative modes. Informational materials are then delivered by representatives from the sponsoring agency, local/regional government partners, and/or bicycle and pedestrian advocacy groups. Various gifts and practical give-a-ways help increase participation and “experimentation” with alternative modes. These typically include umbrellas, pedometers and other travel theme gifts.

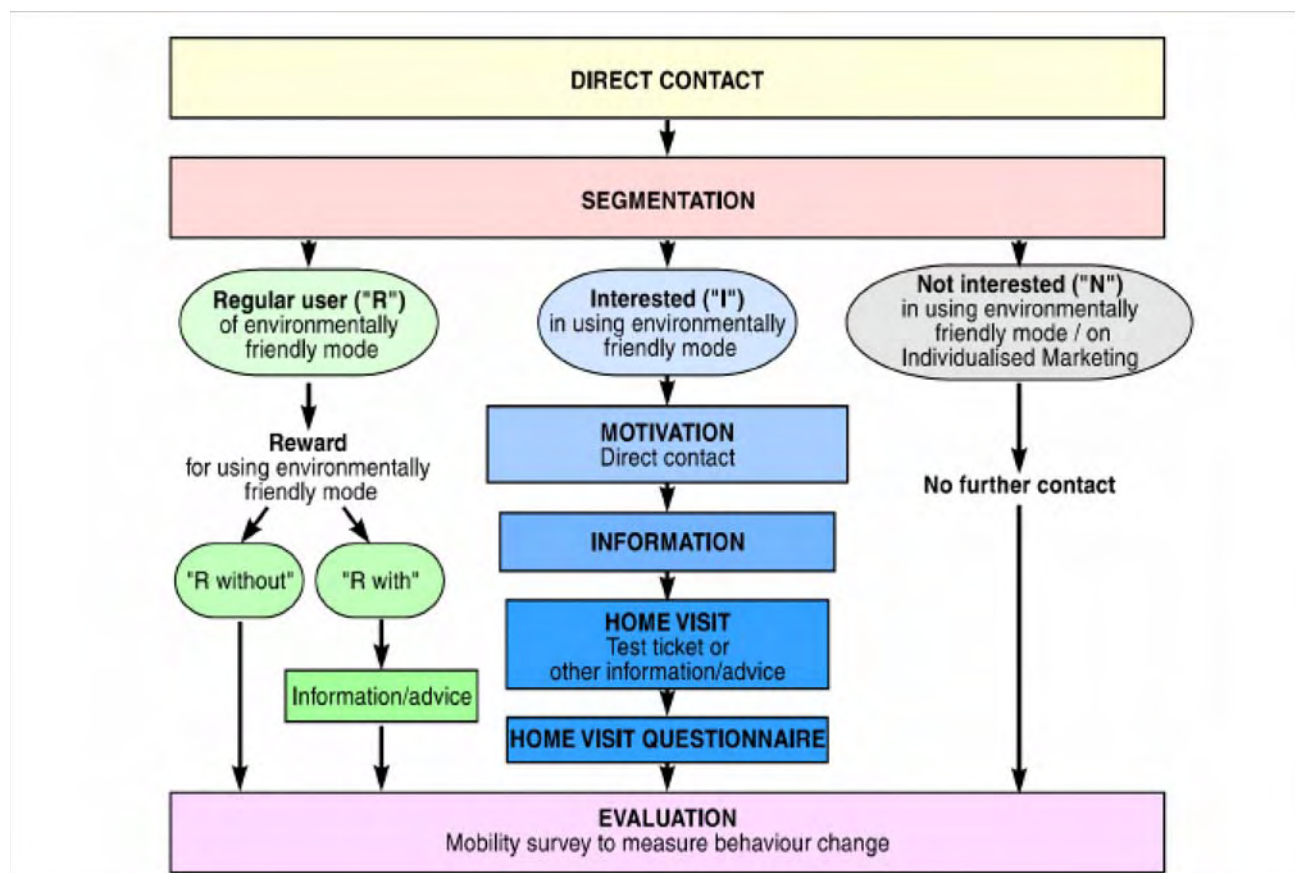
Individualized Marketing Information distributed by WTA during their 2004 program included:

- Detailed neighborhood map –local destinations and transportation options
- Stop Specific Bus Schedules – “Departure Times for the stop nearest your home”
- Transit Guide and System Map
- “Trip Planning Sticky Notes”
- Taking the bus to popular destinations guides
- Regional trail maps
- Special needs transportation guides
- Bicycle laws, safety and maintenance tips
- Discounts at local bike shops
- Pedestrian maps, safety and health tips
- Travel to school information
- Discount for pedometer
- Personal advice on public transportation, bicycling and/or walking

Residents requesting one-on-one interactions received site visits from transit agency staff, City of Bellingham staff, or from bicycle advocacy group members to discuss their specific travel needs and provide more detailed information on how they could reduce auto use or access alternatives modes.

The following figure, taken from the City of Portland TravelSmart® Pilot Project Final Report produced by Socialdata America, Ltd., provides a graphic representation of the Individualized Marketing process.

**Figure 7-3 Individualized Marketing Process**



Source: Socialdata America, Ltd. Portland TravelSmart® Program

The WTA pilot study area encompasses a cross section of several neighborhoods. It was chosen because it presents a few challenges. These include: a non-overabundance of Western Washington University (WWU) students; and older and more established single-family homes in a historic district (not typically transit users).

The area also presents some solid opportunities including: good transit service, with some on evenings and Sundays; close proximity to downtown; relatively flat for cycling; some neighborhood centers (for shopping, etc); and a few areas of high-density housing.

WTA conducted pre-surveys (segmentation) of interested residents in March of 2004. The intervention phase was completed during June and July and post-surveys are currently being analyzed. WTA supported project with 1.5 FTE. Federal grant money paid for a contractor and WTA staff to conduct surveys, deliver information and process data. It remains to be seen whether the impacts of Individualized Marketing in a mid-sized college community will be as dramatic as they have been in Portland and other larger cities. The City of Corvallis should follow the results of this effort to determine its value as a future strategy in the Corvallis area.

### 3. Use of Media

CTS and other Corvallis area transit providers have limited budget for media advertising. Use of media is primarily non-paid coverage through press releases or newspaper articles published in local newspapers. CTS also uses the City of Corvallis Newsletter, which is published on-line and distributed to all households by mail, to advertise and update citizens on its services. An effective media strategy needs to be realistic about CTS's

staff and financial resources. The following are strategies for using more traditional media forms to promote public transportation. While some strategies can be adopted immediately, with little cost, others require resources that are not currently available. Strategies are prioritized and cost estimates provided at the conclusion of the chapter.

### **a) Create Focused Advertising Message(s) and Distribution Plan**

An effective advertising campaign is both eye-catching and informative. Newspaper advertisements should be designed for a specific purpose. If the purpose is to inform the public about proposed service changes, the service should be described clearly. The transit information telephone number should be included and an information brochure mailed to anyone who calls.

As a public service there are often ways to procure services for free or at a lower costs than a private company may have to pay. Barter and trades for advertising can also be an effective way to promote transit services in the media. For example, Rogue Valley Transit District in Medford, Oregon trades for advertising with a local radio station. They receive a free air spot in exchange for carrying the radio stations advertisement on its buses. Many other transit operators have similar barter agreements with radio stations or newspapers for an advertising trade. Since buses are highly visible throughout the community, bus advertising is attractive to private businesses and can be used to leverage media advertising in the way of barter or trades.

Some avenues for advertising that have been used effectively by other transit systems are listed below. These strategies are listed roughly in the order of cost, so the least costly are listed first and more cost prohibitive options, such as television spots, are at the end of the list.

- Sponsorship of and participation in special events.
- Community, school and church newsletters.
- Playbills or programs distributed in community theaters or at sporting events.
- ACTS rider newsletter or newsletters and brochures for nearby transit systems.
- Organizing Try Transit Week Promotions, Bike-to-Work Days, etc.
- Radio station advertisements or Public Service Announcements (PSAs).
- “Collectors edition” historic/local art/local attraction transit posters that can be offered for sale and used as attractive marketing tools (see example below).
- Partnerships with major employers and activity centers.
- Promotions printed on bowling alley score sheets, in television guides, or in household direct-marketing coupon envelopes.
- Slides shown in movie theaters before the film begins.
- Local television stations and widely viewed cable television stations which offer local television commercials. View local cable television advertisements for Lane Transit District at their website

[http://www.ltd.org/site\\_files/about/ltd\\_commercials.htm](http://www.ltd.org/site_files/about/ltd_commercials.htm)

- Sponsorship of transit education films on local cable access television.

Several of the strategies listed above may be cost prohibitive



for CTS in the short term; however, it is useful include them as part of a broader marketing plan in case funding or cost sharing opportunities arise.

### **b) Use of Newspaper Media**

In addition to public speaking, some local newspapers and radio stations, as well as local cable television providers, seek informative news items and are glad to make available news in the public interest. Some local newspapers are relatively active in providing general public information about transit issues. Often, newspapers readily print press releases, word-for-word, that describe new bus service, new hours or special promotional events. Because public transportation is a community service, published press releases can amount to fairly regular media exposure.

Writing and faxing press releases does not have to be labor intensive and is an excellent means of free advertising. While CTS has been good about sharing operating information and basic information on the “state of the transit system” with the press, there may be more opportunity to use the written press to portray the contributions CTS makes to the community. We recommend that CTS develop a regular press release program that focuses on the success of specific transit or rideshare programs and/or shares personal riders profiles. Focusing on a specific bus rider or cyclist’s personal story can provide a captivating and positive way to relate the benefits of alternative modes and relay personal motivations with which other residents can relate. Ben Franklin Transit in the Tri-Cities of Washington has adopted the “Give ‘em The Pickle” strategy of business operations and customer service. This is a renowned leadership program that focuses on four primary business attributes: (1) attitude, (2) consistency, (3) teamwork and (4) customer service. The program permeates internal and external business activities, highlighting positive actions of operators and passengers through a series of “Pickle Awards.” Agency staff attribute the program with a major shift in the public perception of transit and an increase in ridership. More information on this program can be viewed at [http://leadershipcenter.osu.edu/signature\\_programs/pickle.htm](http://leadershipcenter.osu.edu/signature_programs/pickle.htm).

### **c) Special Events**

CTS currently provides special event shuttle services at a number of major community events, including DaVinci Days, Fall Festival and the County Fair. CTS should continue to seek opportunities to partner with events sponsors to provide event transportation and work with environmentally friendly organizations to co-sponsor events to promote transit ridership.

One area that CTS has not capitalized on is OSU sporting events, primarily football games, which draw huge crowds and create a massive demand for parking. By working with OSU to create free or low-cost shuttles from satellite parking lots, CTS could provide a valuable service and gain an opportunity to get many potential riders on-board. While CTS does not currently have the fleet resources to implement a major football game day shuttle program, working with OSU to provide assistance to smaller events or to certain lots may be a good place to start. The OSU Parking and Transportation program does not currently have plan to incorporate CTS services into its event parking program, but may be willing to discuss this in the future.

While this strategy may not be feasible in the next one to three years; developing a dialog with OSU about CTS’s role in parking demand management and shuttle services will benefit both parties in the long run. This strategy has particular appeal given college age students are, and will continue to be, a target demographic for transit services. The following case study provides an example of a highly successful game day shuttle program operating in Eugene; while OSU and CTS are a long way from needing or implementing this type of service it provides a sense of what a future program might entail.

*Case Study: Lane Transit District has been contracted by the University of Oregon (UO) to provide shuttle transit service to the UO football games. LTD dedicates 80 buses to the “UO Duck Express.” Shuttle service begins 4 hours before game time with buses running every 5 to 15 minutes from eleven Park & Ride locations. Round trip fare on the Duck Express is \$3. LTD also offers a DUCKExpress Season Pass for \$10 that is good for all six home games—“Ten Bucks for All Ducks!” Mailers advertising the DUCK Express and season pass are sent along with the tickets to season ticket holders. For the School Year 2003-04, the Duck Express averaged 10,400 riders per game, and sold 5,500 season passes.*



#### **4. Promote Transit Benefits**

Promotion is communication and requires creation of an effective (persuasive) message. Promoters need to present captivating information, know the attitudes and beliefs of their target audience, use credible sources, and frame a non-threatening message. Publicizing the benefits of transit also has secondary impacts, in that it educates non-riders about how their tax dollars are being used to improve the livability of the community. A review of existing marketing materials and ridership demographics shows opportunities to promote (as in advertising) the benefits to potential new riders by undertaking the following actions:

##### **a) Focus on Reliability, Economy, Convenience, and Speed**

In the past, many transit marketing campaigns have focused on social “feel good” issues, such as the environment, or on elements that separated transit riders from auto users. In recent years, however, more savvy marketers have realized that selling transit, particularly to riders who have other options, requires a focus on the elements of trip decision-making that often lead people to use private autos. Specifically, these are: **reliability, economy, convenience, and speed**. These three themes should be central to any integrated marketing campaign developed for the Corvallis area. The following paragraphs describe how each of these themes applied to CTS:

**Reliability:** This is an area where CTS has struggled in the past. Recent efforts to improve on-time performance have improved reliability systemwide, although some routes still perform below adopted standards. In order to successfully market the system, measures need to be taken to ensure that route schedules are realistic and promote on time service throughout the system.

**Economy:** Direct economic benefits of using public transportation vary from customer to customer based on the length of trips taken and frequency of travel. CTS’s relatively low fares combined with rising gas prices make transit a good deal when compared to the cost of owning, maintaining and fueling a car. Additionally, carpools and vanpools can provide an opportunity for residents to share travel costs.

**Convenience:** The convenience of public transportation services is much more subjective to individual residents depending on their regular travel patterns. Using the bus may be very convenient for someone who lives and works close to a transit line, for others it may be much less convenient that using a car. For those who can easily access transit, the primary selling point for convenience is frequency. A route that comes every 15 minutes provides a customer with a high level of comfort that they will be able to travel when they want to, without having to consult a schedule. CTS does not currently offer any service at frequencies higher than every 30 minutes. Until 15-minute service is offered, marketing strategies focusing on convenience

should emphasize travel time and directness between major origins and destinations (ie, dense areas of student housing and OSU).

**Speed:** Since traffic congestion is not a major problem in Corvallis, transit does not have an advantage over the private automobile as it does in larger urban areas where signal priorities or exclusive right-of-way is given to buses. Still, it is an important message that certain trips made door-to-door on transit are competitive with driving and parking a car. Focusing on trips to downtown and particularly OSU, where parking is most constrained, and transit can be competitive is important in overcoming the perception that transit is slow.

For CTS and/or the Philomath Connection, perhaps “race” to OSU would reveal that a bus rider actually gets to the office or class during morning commute hours in a comparable time when compared to driving and parking a car.

*Case Study: Unitrans is the public transit provider in Davis California, serving University of California at Davis and the community of Davis. Largely oriented toward the university, the system has taken a marketing approach driven by three of the four key factors listed above. Unitrans produces brochures and newspaper advertisements that read:*

### **RIDE UNITRANS**

It's **CONVENIENT!** Over 14 routes and 300 stops take you where you need to go in Davis. Unitrans goes to all major Davis destinations.

It's **FAST!** Most routes are less than 30 minutes long so you'll get to your destination in no time at all.

It's **ECONOMICAL!** Only \$1.00 per ride or free with an Undergrad Reg. Card. Unitrans also offers many types of passes to meet your needs.

### **b) Reinforce Brand**

Transit is more than a substitute for driving a car somewhere alone. It is a totally different and adventurous experience. Transit is an opportunistic mode for meeting interesting people and enriching one's life. Messages and images of the transit experience should be designed to appeal to the emotional needs of people, suggesting that if you're not riding transit, you're missing out. "A great place to BE, to enjoy getting **THERE. The Bus.**"

Advertising needs to go beyond just providing information about schedules and special events. Advertising should show on-board photographs of various targeted audiences pleasantly interacting or individually taking advantage of free time to read, study, or think--instead of fighting traffic and finding parking. For example, one photo might be of two students laughing over an open textbook and making eye contact. Other photos might include a faculty member reading the morning paper, or two shoppers showing-off clothing that each just bought. These photos also could be juxtaposed to a photo of a frustrated driver who can't find a parking space or is backed-up in traffic.

### **c) Reinforce Desirable Social Norms**

It is essential that people frequently encounter the desired behavior that the norm prescribes. Fortunately, many Corvallis citizens generally support measures to promote health and protect the environment. Nevertheless, potential riders need to be reminded of the personal and public benefits of transit ridership, specifically healthful exercise, lower stress, and reduced air pollution and noise. The belief that riding the bus "is a good thing" should be reinforced by advertising that shows respected leaders of community organizations, schools, and businesses receiving a personal benefit (e.g., "arrived at work relaxed and refreshed") from having made the choice to leave their car at home. This presupposes there are such individuals in the community, and that they will agree to be photographed. CBSM strongly encourages pilot-testing on small groups and individuals; such efforts can often provide new recruits and volunteers who can serve as models of behavior. Newspaper ads, posters in schools and businesses, windshield flyers, bumper stickers, and personal stickers ("I rode the bus today") are candidate means of advertising.

## **5. Leverage Existing City, School, and Business Programs**

The Corvallis area is rich with programs sponsored and conducted by various city departments, schools and colleges, and businesses. CTS staff should approach such organizations to explore what programs may be suitable for incorporating transit information, tapping volunteers and staff, and reaching out to target audiences. A review of existing liaison activities with various community organizations shows opportunities to leverage those relationships and programs. Commitments from groups and individuals to ride the bus can be gained by undertaking the following actions:

### **a) Continue and Expand Public Outreach and Education Efforts**

The T(ea) for Transit events held at senior/assisted living facilities, where a ridership orientation including boarding demonstration is provided, is an outstanding model to use with other community organizations and neighborhood groups. Buses during non-service hours should be parked where people gather for meetings and even offered as meeting places. Such efforts are effective because they require only small commitments, but they lead to larger commitments and consistent behavior change. Just boarding the bus once, even if it's not going anywhere, can be enough to facilitate change and overcome barriers. City staff, and even bus drivers, need to find every opportunity to meet with citizens and facilitate their transit ridership. Besides citizen-led organizations, there are opportunities to piggy-back on activities by other City departments. For example, the Police Department conducts Neighborhood Watch meetings. The Parks and Recreation Department has many youth activities, including the summer Youth Conservation Corps, where transit ridership can be explained and promoted. Discussions with the City's Public Involvement Coordinator may reveal additional opportunities.

**Case Study:** *ValleyRide, the public transportation provider in Boise, Idaho, recently conducted a series of traveling luncheons for local elected officials and stakeholders. Held on a transit coach, attendees were treated to lunch and given a tour of certain transit routes to explain system operations and impacts of land use decisions on the overall effectiveness of transit in the community. The program was very well received and has helped to ensure local funding support from the City of Boise, which contributes heavily to ValleyRide operations from its General Fund.*

## **b) Continue and Expand Collaboration with Public Library and Parks and Recreation Youth Programs**

CTS already provides an, annual, seasonal group pass program for the Corvallis Parks and Recreation Summer Youth Corp. This helps expose local youth to the opportunities of using transit to commute to work sites throughout the community.

Also each summer, the Public Library and CTS collaborate to promote reading books and transit bus use in a fun atmosphere through the Library's Summer Reading Program. For each book a child reads, they receive a free, one-trip bus pass for CTS.

## **c) Audit TMA Activities and Rejuvenate with CBSM**

CTS's established programs with OSU and area employers (the Transportation Management Association) would benefit from an audit of implemented practices. Such an audit would identify areas of potential improvement and innovation, and determine the effectiveness of existing incentives. City staff, a volunteer, or a consultant should provide an orientation workshop on CBSM theory and tools. New approaches at the business organization level may develop to increase employee transit ridership. For example, pilot-testing with one small group of employees (e.g., a department) might lead to an effective program business-wide. At OSU, perhaps a department within the College of Health and Human Performance could be the subjects of a pilot study, conducted with the assistance of a marketing class in the College of Business. The key is to start small, model the behavior, and grow the success.

## **d) Provide Educational Materials and Support to Secondary Schools**

Although CTS has had increasing ridership from college students, there has been less success with younger students in secondary school programs. Transit service is available to students for many after school activities, and would relieve parents (e.g., "soccer moms") from many extra car trips in the late afternoon. City staff could work with coaches and social studies teachers to reward and acknowledge students who for the first time have tried taking the bus after school and weekends. Incentives might be free movie passes (and Route Schedule with transit trip info to the theater). Again, variants of the (T)ea for Transit event would be appropriate at every secondary school annually for the 7th grade class. Behaviors learned at a young age are more likely to continue into adulthood. "Art on the Bus" and "Poetry on the Bus" are two activities that could involve schools and summer youth programs. Poems and paintings could be displayed inside the bus in the overhead advertising spaces, and businesses could perhaps provide sponsorship and recognition awards.

**Case Study:** *The City of Albuquerque, New Mexico Transit ("ABQ Ride") operates two youth programs – Kids in Motion and Teens in Motion. The sessions are hands-on educational programs designed to teach younger children and teenagers about transportation and its effects on our environment and our health. Kids sessions are typically two hours in duration and the teens program can be a single class period or an entire unit based on the educator's desires. Program specialists are also available to make field trip buses and transit learning experience. Information for the public and educators is available at:*

*<http://www.cabq.gov/transit/kim.html> and <http://www.cabq.gov/transit/teens.html>.*





### **e) Provide Incentives to City Staff**

The City needs to show leadership in programs it expects other major area employers to embrace. Some employers take advantage of the Business Energy Tax Credit (BETC) and furnish free or discounted transit passes upon request of employees. Although the City does not qualify for the BETC, free or subsidized transit passes provided to City employees would help to establish the City as a model employer and provide quantifiable results as to the impact of an employee benefit program.

### **f) Enlist Riders to be Volunteers Supporting Transit Programs and Routes**

Some people who ride the bus may be committed enough to dedicate their time to helping others access and understand the service. Such people can act as "block leaders" within their neighborhood to encourage and educate their neighbors. They can also act as travel trainers or outreach assistants working through contacts at schools, senior centers or other social service sites. The same could be true for employees at their work places, and members of community groups. They might attend community events and staff booths, or present "their own story" at meetings of community organizations as to why they like the bus. Things as simple as wearing a button or sticker that says, "I ride CTS" would help. Members of the Youth Conservation Corps and block leaders could be tasked with placing Route Markers to Bus Stops in neighborhoods and downtown. Certainly, there are many other activities that could be helpful if volunteers could be identified. City staff and bus drivers need to be tasked with developing the approaches to the volunteer recruitment effort. A card distributed to passengers upon boarding and collected by the bus drivers might be one method.

### **g) Develop Travel Training Program**

Elderly and disabled citizens and junior and senior high school aged students are frequent consumers of transit services, because many cannot drive. Experience has shown that many people in these groups do not use transit systems because of fear or uncertainty about how they would take their trip.

Much of this fear and uncertainty can be alleviated through the use of "peer travel trainers." Under this program elderly and disabled volunteers and/or volunteers from local schools are educated in all aspects of the system from where to buy passes, to how to read schedules. Next, potential passengers are paired with a peer "partner". That partner actually rides with the new passenger and shows the passenger how to use the system. Similar programs have been very successful in cities throughout the County. The significance of this program is that it gets people to take that initial "first trip". Salem Area Mass Transit District employs full-time travel trainers to work with current and future customers. Many systems run travel-training programs reliant on volunteer labor or part-time employers. A number of agencies from Albany, NY to Santa Rosa, CA employ "Bus Buddy" programs to match volunteers with new riders in order to welcome them to the world of bus riding.

Easter Seals Project Action provides excellent education materials and training programs for travel trainers working in school settings and with senior and disabled citizens. The Project Action website is:

[http://projectaction.easterseals.com/site/PageServer?pagename=ESPA\\_homepage](http://projectaction.easterseals.com/site/PageServer?pagename=ESPA_homepage)

## **6. Agency Identity and Branding**

To promote ridership and the coherence of any transit effort, visual identity is important. When people can easily identify the buses traveling throughout Corvallis, they are reminded of its availability and they may seek information about how to use it. Elements of system identity include the use of logos, the transit system name, and the delivery of public information on signage, at bus stops and on the buses themselves.

### **a) Rethink and Redesign Logo**

A logo is an identification device, allowing the public to relate to the service being offered. While some logos are better than others, the most enduring usually suggest simplicity, clarity and familiarity. Logos should be used on all buses, shuttles, bus stops, and brochures. Other items featuring the logo that might be considered include a logo patch on a driver's shirt or promotional items. CTS's current logo is very basic and provides little "life" to the system. It gives the impression that transit is "city service," not an exciting, progressive or responsive transportation service. A new logo design and/or associate slogan could bring new life and vitality to the system and provide opportunity to target specific rider markets. An altogether new logo may not be necessary if a catchy slogan can be developed to complement the existing "CTS" logo. A new logo and/or slogan should be developed with the assistance of a diverse group of riders and citizen stakeholders to ensure the new design and theme is appealing and matches local interests.

### **b) Branding Services**

Transit branding is the term used to describe a unique identity given to a specific route or service. Vehicles, bus stops, signs and maps are "branded" with a certain identity to increase "way finding" and route identification, and often, to reflect the local character of the neighborhood the routes traverses. A brainstorming session should be held with user-groups and other stakeholders to develop an effective and informative theme. The following is an example of a color-coded, nature-icon theme that could be used to differential routes. CTS should develop a theme that responds to local conditions, is consistent with customer interests and appeals to the general public.

Rt. 1: Blue Bird (color on map is sky blue) "Fly with the Blue Bird"

Rt. 2: Purple Grape (color on map is purple) "Juice-up with the Purple Grape"

Rt. 3: Orange Pumpkin (color on map is orange) "GrOw with the Orange Pumpkin"

Rt. 4: Grey Whale (color on map presently is light green--change to grey) "Ride the Grey Whale"

Rt. 5: Yellow Jacket (color on map presently is magenta--change to yellow) "Buzz with the Yellow Jacket"

Rt. 6: Brown Bear (color on map presently is dark blue--change to brown) "Run with the Brown Bear"

Rt. 7: Red Pepper (color on map is red) "Fire-up with the Red Pepper"

Rt. 8: Green Frog (color on map presently is true green) "Jump with the Green Frog"

The following case studies illustrates how other college towns have successfully branded services using locally based themes.

**Case Study:** Go Boulder provides a community transit network for the City of Boulder, Colorado and its surrounding communities. First implemented in 1990, there are presently six buses in the Community Transit Network with one more to be implemented in Fall 2004. Each vehicle—Hop, Skip, Jump, Leap, Bound, Dash and Stampede—has a unique identity and amenities shaped with community input and direction.



For example, the HOP service is decorated with drawings of fellow “hoppers” — rabbits, crickets and frogs, representing its quick, high frequency service to downtown Boulder, University of Colorado and Crossroads Mall. Words surrounding the bus, such as “Work”, “Play” and “Shop”, let people know the destinations along the route and the activities they can take in along the way.

As one of the primary corridors in Boulder, the SKIP high frequency service along Broadway was the second addition to the Community Transit Network. As advertised: “SKIP the traffic. SKIP the parking. SKIP the hassle. Are you a caffeinated commuter? Or a late night club cruiser? If so, the SKIP is for you.” The majority of the SKIP ridership uses the service to commute to work or school during the day and for a night out on the town. The bus graphics show an electrified commuter, toting a coffee cup. For the evening traveler, the exterior bus graphics reflect the headlights from traffic.



The JUMP, LEAP, BOUND and DASH bus designs were created to represent their route destinations. For example, since the DASH is an intergovernmental project between RTD, Boulder County and the cities of Lafayette, Louisville and Boulder, the bus graphics are representative of the scenery one would see traveling between the communities: rolling hills, horses, foxes, from business to residential neighborhoods and the prairie lands.



**Case Study:** Although less extensive than GO Boulder, LTD has used line specific branding, The Breeze, to differentiate a high frequency service that targets university students and staff. LTD made a service investment to provide direct service to UO's student housing complexes. The Breeze is a direct service shuttle that connects the University with the 5th Street Market and the Valley River Center regional mall (a destination previously reached only through a transfer).

Originally a hybrid-fuel bus with graphics of clouds on the vehicle, the Breeze name connoted both the cleaner air provided by the hybrid bus, as well as an easy ride from one destination to the other. In addition, bus stops along the Breeze line are designed to match the people theme to the environment. A server and chef bus stop is in front of the Oregon Electric Station restaurant, while a bus stop with shoppers (see pictures below), is in the 5th Street Public Market district.



LTD Shelter at 5<sup>th</sup> St. Public Market



LTD Shelter at Oregon Electric Station

## **7. Other Opportunities to Target Specific Markets**

A successful marketing program should target specific populations with specific types of advertisements and special activities. For example, provisions for improved commuter services will require marketing activities directed at the commuter population. Other services require specially targeted marketing.

Five key target groups for the marketing of transit services have been identified in Corvallis. In addition to the many potential strategies outlined above, samples of other marketing activities that have been used successfully by peer providers are listed below. While these strategies are not detailed for implementation, they provide a range of other options for CTS to explore in developing ridership among its primary target markets. The five primary target markets are listed in order of ridership potential. The OSU student and staff market, which currently comprises over 40 percent of CTS ridership, holds the highest potential for attracting new ridership. Senior and junior and high school students are secondary markets that also have significant ridership potential.

### **a) College/University Students**

- Obtain a travel trailer information kiosk for special community and campus events including orientation.
- Do focused advertising in campus newspaper, radio station, and other OSU literature.
- “Beaver Bus” designed with OSU logo and used on one of the main OSU service routes.
- Participate in promotional events with student groups.

### **b) Senior Citizens**

- Travel training presentations.
- Special travel information brochures for seniors.
- Volunteer travel assistance program.
- Special discounts at retail establishments and restaurants accessible by transit.

### **c) Adolescents and Teenagers**

- Develop special programs and incentives for youth ridership such as a special transit pass or after school events and activities.
- Transit use training programs for young people.
- Develop pilot high school class pass.

### **d) Commuters**

- Special promotions such as providing coffee and donuts (or a coupon for them) at key boarding/alighting locations.
- Providing free newspapers to bus commuters on Fridays.
- Clever signs on buses that read “Happy commuters reading good books on board. Call 800-BUS-READ to join them” or other billboard-style transit advertising on buses
- Ride Free Week with emphasis on marketing at employment sites.
- Develop program for employee transit passes.

- Encouraging parking-cash out programs among employers (City could be the first to offer) and marketing transit as a way to “Avoid Parking Hassles!”
- Promote use of transit to lunch and midday errand destinations.

**e) Infrequent Discretionary Riders**

- Develop “reminders” of the availability of service. Good information is key.
- Expand the number of schedule information providers to include more employers, retailers and services such as hospitals and auto repair shops.
- Coordinate the staffing of an occasional booth at a shopping center or discount store to distribute information and promotional items.

**7.4 SUMMARY OF STRATEGIES**

This marketing element presents seven main categories of marketing strategies along with detailed tactical actions:

1. Provide Clear and Accessible Public Information
2. Adopt Community-Based Social Marketing
3. Use Media Effectively
4. Promote Many Benefits of Transit
5. Leverage Existing City, School, and Business Programs
6. Agency Identity and Branding
7. Other Targeted Strategies

Strategies and tactical actions should first be implemented for one route, neighborhood, community organization, or small group of a larger business or school. Detailed action plans should be developed for each marketing activity, including City staff, consultants, and suppliers who should be involved, resources need, and funding sources and budgets. Figure 4 summarizes the tactical actions recommended for each of the above strategies, prioritizes them based on impact and feasibility of short-term implementation, and estimates duration, cost, and City staff time. Strategies are given a priority ranking from 1 (highest priority) to 5 (lowest priority).

**7.5 STAFF REQUIREMENTS AND COSTS**

Internal staff required to support recommended strategies is detailed in Figure 4 below. Staffing needs are dependent on available funding, as are the City’s ability to implement many of the recommended marketing strategies. The implementation of Priority 1 strategies would require less than 0.25 FTE (in addition to current staff time expended on marketing duties) and cost the City between \$5,000 to \$10,000 in direct costs. Several of the Priority 2, 3, and 4 strategies carry higher price tags, both in terms of staffing and one-time direct costs. Web site design, among the highest priority strategies, would be implemented with the assistance of a web-design consultant or through collaboration with an OSU graphics/web design workshop. We estimate web design costs at \$2,500 to \$4,000 although it may be achieved for less by working with OSU or Linn-Benton Community College.

**Figure 7-4 Summary of Strategies and Implementation Requirements**

Tactical Action to Implement Strategy	Priority	Ongoing Task	Duration (weeks)	Direct Cost - \$ (est.)	Description	Staff Responsibilities	Staff Hrs.* (est.)
<b>1. Public Information</b>							
a) Route Naming, Numbering and Overhead Signs	1	No	1	NA	Revise Naming, Signage, Public Information and Reader Board Displays	Revise as per proposed strategies	24
b) Bus Stop Signage	2	Yes	-	NA	Update signage and information as funding is available	Update signage as per strategy as feasible	NA
c-1) Revise the CTS Guide and Map	3	No	1	\$500 + printing	Revised guide as per proposed strategies	Manage implementation of revisions and printing	12
c-2 ) Provide Separate Route Schedules	5	Yes	-	\$1,500 / year	Develop simple, low-cost route schedules	Distribute schedules on vehicles and at key locations	24
c-3) Provide Transit Trip Reminder Cards	2	Yes	-	\$500 / year	Promote distribution through volunteer groups, presentations, ETCs and special workshops	Ensure supplies are available and are distributed at all possible opportunities	1-2 hrs/month
c-4) Indicate Routes and Schedules in Real Space	4	No	24	\$2,500 - \$20,000	Develop signage, wayfinding and painting strategies	Implement strategies as funding becomes available	80
c-4) Develop Distribution Plan for Brochures and other marketing materials	2	Yes	-	\$50	Develop written strategy and action plan	Develop plan & implement	4 hrs/month
d) Redesign the CTS Website	1	No	4	\$2,500 - \$4,000	Hire contractor or student group to redesign CTS website based on proposed strategies	Monitor job progress and completion	12
e) Offer "One Number" Telephone Service	3	No	Ongoing	\$2,000 - \$4,000 /year	Expand existing Laidlaw contract to include information on other modes and services	Monitor quality of service and contract	2 hrs/month

<b>Tactical Action to Implement Strategy</b>	<b>Priority</b>	<b>Ongoing Task</b>	<b>Duration (weeks)</b>	<b>Direct Cost - \$ (est.)</b>	<b>Description</b>	<b>Staff Responsibilities</b>	<b>Staff Hrs.* (est.)</b>
<b>2. Promote Sustainable Behavior</b>							
a) Study and Adopt Community-Based Social Marketing	1	Yes	24	\$100	A range of educational materials are available in print and on web	Study CBSM materials and talk with experienced peer agencies	40
b) Identify Barriers and Benefits to Transit Ridership	3	No	4	\$25,000	Develop community input database	Ongoing process	4 hr/month
c) Implement Change Measures	4	Yes	-	\$15,000 - \$40,000	See range of measure presented in proposed strategies	Hire consultant and manage contract	12 hr/month
<b>3. Use of Media</b>							
a) Create Focused Advertising Message and Distribution Plan	1	No	1	\$100	Develop detailed action plan to be update annually	Implement action plan	6 hr/month
b) Use of Newspaper Media	2	Yes	Ongoing	\$2,000	Develop action plan for news releases and promotional stories	Nurture relationship with newspapers and develop regular news releases	3 hr/month
c) Special Events	2	Yes	Ongoing	TBD	Provide service and set information at community events	Continue to support key community events and expand where feasible	TBD
<b>4. Promote Transit Benefits</b>							
a) Focus on speed, reliability, economy and convenience.	1	Yes	-	\$1,500	Tailor slogans and ad messages as per proposed strategies	Understand and adopt	40
b) Develop and Reinforce Brand	2	No	16	\$2,500 +	Develop Route Level Branding Scheme –color and local theme	Implement brand throughout public information	TBD
c) Reinforce Desirable Social Norms	5	Yes	-	TBD	Build on CBSM principles throughout all CTS activities	Develop Mission and Marketing goals rooted in CBSM principles	40



<b>Tactical Action to Implement Strategy</b>	<b>Priority</b>	<b>Ongoing Task</b>	<b>Duration (weeks)</b>	<b>Direct Cost - \$ (est.)</b>	<b>Description</b>	<b>Staff Responsibilities</b>	<b>Staff Hrs.* (est.)</b>
<b>5. Leverage Existing City, School, and Business Programs</b>							
a) Continue and Expand Public Outreach and Education Efforts	2	Yes	-	\$2,500	Develop canned presentation and speakers bureau program	Provide presentation at 1 to 2 locations each month	6 hr/month
b) Audit TMA Activities and Rejuvenate with CBSM	4	No	24	\$15,000	Hire consultant to audit TMA activities and develop action plan	Implement action plan	6 hr/month
d) Provide Incentives to City Staff	3	Yes	-	TBD	Develop incentive package for city staff that provides regional example	Educate staff about benefits and share successes with other employers	3 hr/month
c) Provide Educational Materials and Support to Secondary Schools	3	Yes		\$3,000 / year	Work with teachers and students to develop student education and participation programs (ie. Student art on Transit)	Coordinate with local teachers and administrators to develop materials and programs	6 hr/month
e) Enlist Riders to be Volunteers Supporting Transit Programs and Routes	3	Yes	-	\$250	Work with senior, school and other groups to develop volunteer network	Add staff capacity to support strong volunteer network	6 hr/month
f) Develop and Support Travel Training Program	2	Yes	-	\$5,000 - \$15,000 /yr	Develop program based on local peers & Easter Seals Project Action (ie, Salem, OR)	Add staff capacity and develop volunteer network	160
a) Rethink and Redesign Logo	4	No	36	\$10,000 + printing and painting	Hire consultant or hold competition to develop locally based logo	Finalize design and integrate into all information, signage and fleet paint designs	TBD
This section presents a number of low-cost strategies. Some of these strategies are already employed by CTS; others provide ideas for targeting specific market groups.							

Marketing strategies should contribute to the broader regional goals described in the introduction to this chapter. Specifically, strategies are designed to:

- Increase ridership on existing public transportation services, including CTS, Philomath Connection and Linn Benton Loop bus services.
- Improve the overall knowledge, access and visibility of transit and other non-SOV modes in the Corvallis Metropolitan Area.
- Educate the voting public (riders and non-riders) on the broader social and economic benefits of public transportation and other alternative transportation programs.

Figure 7-5 indicates which strategies contribute to each of these three goals. Each strategy is rated with zero (no contribution) to three (highest level) “+” symbols to indicate the extent it contributes to each of the three goals.

**Figure 7-5 Strategy Contributions to Marketing Goals**

	Increase Bus Ridership	Improve Knowledge, Access & Visibility of SOV Alternatives	Educate General Public on Community Benefits of Alternative Modes
<b>1. Public Information</b>			
a) Route Naming, Numbering and Overhead Signs	+++	0	
b) Bus Stop Signage	+++	0	
c-1) Revise the CTS Guide and Map	0	0	
c-2 ) Provide Separate Route Schedules	0	0	
c-3) Provide Transit Trip Reminder Cards	0	0	
c-4) Indicate Routes and Schedules in Real Space	+++	0	
c-4) Develop Distribution Plan for Brochures and other marketing materials	0	0	0
d) Redesign the CTS Website	+++	+++	+++
e) Offer “One Number” Telephone Service	0	0	
<b>2. Promote Sustainable Behavior</b>			
a) Study and Adopt Community-Based Social Marketing	0	0	0
b) Identify Barriers and Benefits to Transit Ridership		0	0
c) Implement Change Measures	+++	+++	+++

	Increase Bus Ridership	Improve Knowledge, Access & Visibility of SOV Alternatives	Educate General Public on Community Benefits of Alternative Modes
<b>3. Use of Media</b>			
a) Create Focus Advertising Message and Distribution Plan	0	0	
b) Use of Newspaper Media	0	0	+++
c) Special Events	0	0	0
<b>4. Promote Transit Benefits</b>			
a) Focus on speed, reliability, economy and convenience.	+++		
b) Reinforce Brand	0	0	
c) Reinforce Desirable Social Norms	0	0	0
<b>5. Leverage Existing City, School, and Business Programs</b>			
a) Continue and Expand Public Outreach and Education Efforts	0	+++	0
b) Audit TMA Activities and Rejuvenate with CBSM	0	0	0
d) Provide Incentives to City Staff	0	0	0
c) Provide Educational Materials and Support to Secondary Schools	0	0	0
e) Enlist Riders to be Volunteers Supporting Transit Programs and Routes.	0	0	0
f) Develop Travel Training Program	0	+++	
<b>6. Agency Identity and Branding</b>			
a) Rethink and redesign logo	0	0	
<b>7. Other Targeted Strategies</b>			
This section presents a number of low-cost strategies. Strategies are primarily focused on developing ridership among specific target markets.			

## 7.6 REFERENCES

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**Appendix A**      **Quick Reference: Community-Based Social Marketing** by Doug McKenzie-Mohr, Ph.D.

# Quick Reference: Community-Based Social Marketing

by Doug McKenzie-Mohr, Ph.D.  
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[www.cbsm.com](http://www.cbsm.com)

When members of a community use resources wisely, for example by recycling or taking mass transit, a community moves toward sustainability. To promote sustainability, then, it is essential to have a firm grasp of how to effectively encourage individuals and businesses to adopt behaviors that are resource efficient.

Most initiatives to foster sustainable behavior rely upon large-scale information campaigns that utilize education and/or advertising to encourage behavior change. While education and advertising can be effective in creating public awareness and in changing attitudes, numerous studies show that behavior change rarely occurs as a result of simply providing information (see Chapter 1 of the online guide at [www.cbsm.com](http://www.cbsm.com)). Community-based social marketing is an attractive alternative to information-based campaigns. Community-based social marketing is based upon research in the social sciences that demonstrates that behavior change is most effectively achieved through initiatives delivered at the community level which focus on removing barriers to an activity while simultaneously enhancing the activities benefits.

Community-based social marketing involves four steps: 1) Identifying the barriers and benefits to an activity, 2) Developing a strategy that utilizes “tools” that have been shown to be effective in changing behavior, 3) Piloting the strategy, and 4) Evaluating the strategy once it has been implemented across a community.

## Identifying Barriers and Benefits

Research indicates that each form of sustainable behavior has its own set of barriers and benefits. For example, the factors that impede individuals from composting are quite

different from those that preclude more sustainable forms of transportation. Even with apparently closely associated activities such as recycling, composting and source reduction, different sets of barriers and benefits have been found to be important.

Barriers to a sustainable behavior may be internal to an individual, such as one’s lack of knowledge, non-supportive attitudes or an absence of motivation. On the other hand, barriers may reside outside the individual, as in changes that need to be made in order for the behavior to be more convenient (e.g., providing curbside organic collection) or affordable (e.g., subsidizing public transit or compost units). Multiple barriers and benefits may exist for any form of sustainable behavior. As a result, community-based social marketers begin the development of their marketing plan by identifying these barriers and benefits.

Uncovering barriers and benefits involves three steps (see Chapter 2 of the online guide at [www.cbsm.com](http://www.cbsm.com)). Begin by reviewing relevant articles and reports. Next, conduct obtain qualitative information through focus groups and observation to explore in-depth attitudes and behavior of residents regarding the activity. Finally, conduct a survey with a random sample of residents.

Prior to conducting a literature review, ensure that you have a clear mandate. That is, you need to know exactly what behavior(s) you are to promote. For example, a mandate to promote waste reduction is too general, while a mandate to promote curbside recycling and backyard composting has the level of detail you need to focus your literature search. In conducting the literature review consult four sources: 1) Trade magazines and newsletters; 2) Reports, 3) Academic articles, and 4) Authors of reports and articles that you found particu-

larly useful.

The literature review will assist you in identifying issues to be further explored with residents of your community through focus groups, observation and surveys. Limit the size of each of your focus groups to 6 to 8 people and make it easy for people to participate by providing services such as childcare and transportation. Come to the focus groups with a set of clearly defined questions that have been informed by your literature review. The facilitator of the focus groups, must clearly steer the discussion and ensure that all participants feel comfortable in participating. Have an assistant who takes notes during the group. Don't provide information about your program prior to the focus groups as this information will influence the information you receive from participants. When the focus groups are completed, tabulate the responses that you received and identify barriers and benefits that are mentioned by significant numbers of participants.

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Focus groups are useful in obtaining in-depth information but are limited by the small number of participants and the influence that the group itself has upon what each member feels comfortable saying. Surveys overcome these two limitations.

Observational studies of specific behaviors are another valuable tool. By directly observing what people do you can more easily identify skill deficits, sequences and incentives that are already at work to reward existing behaviors. Observational studies help reduce the problems of self-report data and get the researcher much closer to the community and the behavior. Observation is also useful in evaluating behavioral compliance, particularly for behaviors where people are being asked to learn and maintain new skills.

Conducting a survey consists of seven steps.

*First, begin by clarifying the objective of the survey.* Do this by creating a survey objective statement which indicates the purpose of the survey. This statement can be used to ensure that you have the support of your colleagues before proceeding. This statement can also act as a reference when later deciding upon the relevance of potential survey items.

*Second, list the items which are to be measured.* Note that at this point you are not concerned with writing the questions, but rather with identifying the "themes" or "topics" that will be covered in the questionnaire.

*Third, write the survey.* In writing the survey avoid "open-ended" questions since they are difficult to analyze and extend the length of the survey. Further, limit yourself to only using a few types of scales for "closed-ended" questions, as this will speed conducting of the survey. When selecting how many options to provide on the scale, use six- or seven-point scales as they provide a broader range of answers than scales with fewer options. Whether you select six- or seven-point scales, stay with your choice throughout the survey. As you write your survey, ask four questions of each item: 1) Is this a question that can be asked exactly as written?; 2) Is this a question that will mean the same thing to everyone?; 3) Is this a question that people can answer, and 4) Is this a question that people will be willing to answer?

*Fourth, when the survey is completed, take the time to pilot it with 10 to 15 people.* Piloting the survey allows you to scrutinize the wording of the questions and the length of the survey. Don't include the data you obtain from the pilot with the data you obtain from the actual survey.

*Fifth, select the sample.* Surveys are most useful when the respondents are randomly selected from your community. A sample has been randomly selected when each adult in the community has an equal chance of being asked to participate. When this criteria is met, you can generalize your results back to the whole community with confidence.

*Sixth, conduct the survey.* If you are conducting the survey in-house, see the set of instructions for interviewers provided in Chapter 2 of the online guide at [www.cbsm.com](http://www.cbsm.com). If the survey is being conducted for you by a research firm you can expect that it will take approximately a week to two weeks for the survey to be completed.

*Seventh, analyze the data.* Unless you have someone on staff with a statistical background, you will want to have the survey data analyzed for you. In having the data analyzed, ask for a thorough description of those individuals who are engaging in the activity, as well as for those that are not

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(descriptive statistics). Also, ask for the factors that distinguish people who are doing the behavior, such as composting, from those who are not, and the relative importance of these factors (multivariate statistics).

Significant pressures, such as time and staffing constraints, and increased project costs often result in this first step, the identification of barriers, being skipped. While these pressures are real and important, failure to identify barriers and benefits will often result in a program that either has a diminished impact or no impact at all. The identification of barriers and benefits is an essential first step to the development of a sound community-based social marketing strategy. By conducting a literature review, focus groups, observation and a survey you will be well positioned to develop an effective strategy.

### **Tools of Behavior Change**

Community-based social marketing draws upon research in the social sciences, and particularly psychology, that has identified a variety of effective “tools” for promoting behavior change. Keep in mind that these tools are often most effective when used in combination with one another.

These tools are as follows:

#### **Commitment**

In a wide variety of settings people who have initially agreed to a small request, such as to wear a button saying they support the purchase of products with recycled-content, have subsequently been found to be far more likely to agree to a larger request, such as actually purchasing these products.

Why does seeking commitment to an initial small request work? There are likely two reasons. First, when people go along with an initial request, it often alters the way they perceive themselves. That is, they come to see themselves, for example, as the type of person who believes it is important to purchase products that have recycled content. Second, we have a strong desire to be seen as consistent by others. Indeed, our society emphasizes consistency and people who are inconsistent are often viewed negatively. As a result, if we agree to wear a button supporting the purchase of recycled-

content products, it would be inconsistent not to purchase these products when we shop.

Commitment as a behavior change tool has been utilized in a variety of studies with often dramatic results (see Chapter 3 of the online guide at [www.cbsm.com](http://www.cbsm.com)). In considering using commitment, follow these guidelines:

*Emphasize written over verbal commitments.* Written commitments have been found to be more effective in bringing about long-term change.

*Ask for public commitments.* When commitments are made public, such as by having names advertised in a newspaper, behavior change is more likely.

*Seek commitments in groups.* If possible, seek commitments from groups of people that are highly cohesive, such as a church group. The close ties of these individuals, coupled with the importance of being consistent, make it more likely that people will follow through with their commitment.

*Actively involve the person.* When people are actively involved, such as being asked to peer into an attic or hold a container to measure the flow-rate of a shower, they are more likely to see themselves as committed to the activity.

*Use existing points of contact to obtain commitments:* Wherever natural contact occurs, look for opportunities to seek a commitment. For example, when people purchase paint ask them to sign a commitment that they will dispose of any left-over paint properly, or, better yet, take it to a paint exchange if one exists.

*Help people to view themselves as environmentally concerned.* We can help people to see themselves as environmentally concerned, and therefore more committed to other sustainable activities, by commenting on their past actions. For example, when someone comes to pick up a composter, ask them if they recycle. If they do, note that their recycling is evidence of their concern for the environment and that beginning composting is a natural way to reduce waste even more.

*Don't use coercion.* In order for this behavior change tool to be effective, the commitment has to be freely volunteered. That is, only ask for commitments when people

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appear to be interested in an activity.

See the cases studies and graphics at [www.cbsm.com](http://www.cbsm.com) for examples of how to use commitment.

### **Prompts**

Numerous behaviors that support sustainability are susceptible to the most human of traits: forgetting. People have to *remember* to turn off lights, check the air pressure in car tires, turn off the engine when waiting to pick someone up, turn down the thermostat, select items that have recycled-content, etc. Fortunately, prompts can be very effective in reminding us to perform these activities (see Chapter 4 of the online guide at [www.cbsm.com](http://www.cbsm.com)). Prompts are visual or auditory aids which remind us to carry out an activity that we might otherwise forget. In using prompts you will want to ensure that you follow these guidelines:

*Make the prompt noticeable.* In order for a prompt to be effective it has to first be noticed. Make sure that your prompt is vivid (a bright color) and eye-catching.

*Make the prompt self-explanatory.* All the information that is needed for someone to take the appropriate action should be conveyed in the prompt. For example, if you were using a prompt to increase the likelihood that people with odd numbered street addresses would only water their lawns on odd numbered calendar days (and vice versa), the prompt that you attach to an outside faucet could read (water your lawn only on odd numbered calendar days).

*Present the prompt in as close proximity as is possible to where the action is to be taken.* If you want to encourage people to turn off lights upon leaving a room, for example, affix the prompt beside or directly on the light switch plate.

*Use prompts to encourage people to engage in positive behaviors.* It is important, when possible, to encourage positive behaviors. If you want people to purchase environmentally friendly products when shopping, place prompts throughout a store that bring attention to those items rather than bringing attention to items that should be avoided. Not only is the encouragement of positive behaviors more likely to be supported by retail outlets (few would let negative prompts be posted), but positive behaviors also make people feel good about their actions, which increases the

likelihood that the actions will be carried out in the future.

See the cases studies and graphics at [www.cbsm.com](http://www.cbsm.com) for examples of how to use prompts.

### **Norms**

To date, few programs have emphasized the development of community norms which support people engaging in sustainable behavior. This lack of attention to norms is unfortunate given the impact they can have upon behavior (see Chapter 5 of the online guide at [www.cbsm.com](http://www.cbsm.com)). Norms guide how we should behave. If we observe others acting unsustainably, such as using water inefficiently, we are more likely to act similarly. In contrast, if we observe members of our community acting sustainably we are more likely to do the same.

When considering including norms in programs you develop, keep the following guidelines in mind:

*Make the Norm Visible.* For norms to influence the behavior of others they have to be aware of the norm. The very act of taking recyclables to the curbside, for example, communicates a community norm about the importance of recycling. Most sustainable activities, however, do not have the community visibility which recycling has, and norms that support the activity, therefore, have to be promoted more actively. Find ways to publicize involvement in sustainable activities, such as providing ongoing community feedback on the amount of water that has been saved by homes using water efficiently.

*Use Personal Contact to Reinforce Norms.* Research suggests that internalization of norms is more likely to occur as a result of personal contact. As a consequence, use personal contact as an opportunity to reinforce norms that support sustainable behavior.

See the cases studies and graphics at [www.cbsm.com](http://www.cbsm.com) for examples of how to use norms.

### **Communication**

All programs to foster sustainable behavior include a communication component. The impact of communications upon behavior can vary dramatically based upon how the communication is developed (see Chapter 6 of the online guide at [www.cbsm.com](http://www.cbsm.com)). To develop effective communica-

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tions, include the following elements:

*Use Captivating Information.* All persuasion depends upon capturing attention. Without attention, persuasion is impossible. Communications can be made more effective by ensuring that they are vivid, personal and concrete.

*Know your Audience.* All communications should be developed with your audience in mind. Before developing communications, you should have a firm sense of the attitudes, beliefs and behavior of your intended audience(s).

*Use a Credible Source.* The individual or organization that presents your message can have a dramatic impact upon how it is received and subsequent behavior. Ensure that whoever delivers your message is seen as credible. Individuals or organizations tend to be viewed as credible when they have expertise, or are seen as trustworthy.

*Frame your Message.* How you present or “frame” your activity can impact upon the likelihood that people will engage in it. In general, you should emphasize the losses that occur as a result of inaction (e.g., from not insulating) rather than the savings that occur from action (e.g. insulating).

*Carefully Consider Threatening Messages.* While environmental issues lend themselves easily to the use of threatening or fearful messages, do so with caution. While the public needs to understand the implications of such serious issues as global warming, toxic waste, or ozone depletion, they also need to be told what positive action they can take if threatening information is to be useful. In short, whenever you contemplate using a threatening message consider whether you can at the same time present concrete actions that individuals can take to reduce the threat.

*Decide on a One-Sided versus Two-Sided Message.* One-sided communications are usually more persuasive with audiences who have little or no comprehension of an issue. As knowledge increases, however, two-sided messages are generally more persuasive.

*Make Your Message Easy to Remember.* All sustainable activities depend upon memory. People have to remember *what* to do, *when* to do it, and *how* to do it. Use prompts (Chapter 4) to assist people in remembering. Also develop messages that are clear and specific.

*Provide Personal or Community Goals.* Providing targets for a household or community to achieve can help to provide motivation for sustainable behavior.

*Emphasize Personal Contact.* Research on persuasion documents that the major influence upon our attitudes and behavior is the people we interact with rather than the media. Create opportunities for people to talk to one another through programs such as block leaders, in which individuals from a neighborhood who already have experience in a sustainable activity, such as composting, speak to others who live close by. Through personal contact, provide opportunities for people to model sustainable behavior for one another, such as installing weather-stripping, and facilitate ongoing discussions in your community to allow social diffusion of new behaviors to occur.

*Provide Feedback.* Remember to provide members of your community with feedback about the effectiveness of their actions. Feedback has been found to have a positive impact upon the adoption and maintenance of sustainable behaviors.

See the cases studies and graphics at [www.cbsm.com](http://www.cbsm.com) for examples of how to effectively communicate.

### **Incentives**

Incentives have been shown to have a substantial impact on a variety of sustainable activities including waste reduction, energy efficiency and transportation (see Chapter 7 of the online guide at [www.cbsm.com](http://www.cbsm.com)). They are particularly useful when motivation to engage in action is low or people are not doing the activity as effectively as they could. Gardner and Stern (1996) suggest the following guidelines in using incentives:

*Closely Pair the Incentive and the Behavior.* The closer in time the incentive is presented to the behavior it is meant to affect, the more likely that it will be effective.

*Use Incentives to Reward Positive Behavior.* Where possible, use incentives to reward people for taking positive actions, such as returning beverage containers, rather than fining them for engaging in negative actions, such as littering.

*Make the Incentive Visible.* For incentives to be effective, you need to draw people's attention to them. Consider

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using vivid techniques to make incentives noticeable (see Chapter 6). Also, incentives can be made more visible by closely associating them with the behavior they are meant to effect, such as having people attach tags to their garbage bags in order to have them picked up in a user pay garbage disposal program.

*Be Cautious about Removing Incentives:* Incentives can be powerful levers to motivate behavior, but they can also undermine internal motivations that people have for engaging in an activity. If you plan to use an incentive to encourage a sustainable behavior, remember that if you elect to remove the incentive at a later time the level of motivation that existed prior to the introduction of the incentive may no longer exist.

*Prepare for People's Attempts to Avoid the Incentive.* Incentives such as separate laneways for multiple occupant vehicles can have a significant impact upon behavior. However, because these incentives powerfully reward one behavior (car pooling) and strongly punish another (single occupant driving), there is strong motivation to try to "beat" the incentive. In preparing incentives, give careful consideration to how people may try to avoid the incentive and plan accordingly.

*Carefully Consider the Size of the Incentive.* In arriving at what size of incentive to use, study the experience of other communities in applying incentives to motivate the same behavior.

*Use Non-Monetary Incentives.* While most incentives are monetary, nonmonetary incentives, such as social approval, can also exert a strong influence upon behavior. Consider ways that social approval and other nonmonetary incentives can be integrated into your program.

See the cases studies and graphics at [www.cbsm.com](http://www.cbsm.com) for examples of how to use incentives.

### Removing External Barriers

The behavior change strategies presented above can have a significant influence upon the adoption and maintenance of behavior. However, they will be ineffectual if significant external barriers exist to the behavior you wish to

promote (see Chapter 8 of the online guide at [www.cbsm.com](http://www.cbsm.com)). It is important to identify these barriers and plan for how you will overcome them. Study other communities to see how they have managed to overcome similar obstacles. Assess whether you have the resources to overcome the external barriers you identify. If you do not, carefully consider whether you wish to implement a program.

### Design and Evaluation

The design of a community-based social marketing strategy begins with identifying the barriers to the activity you wish to promote (see Chapter 9 of the online guide at [www.cbsm.com](http://www.cbsm.com)). Knowledge of barriers is particularly important. Without this information it is impossible to design an effective program. In identifying barriers, be sure to conduct statistical analysis that allows you to prioritize the barriers. Knowing the relative importance of barriers will allow you to use limited resources to their greatest benefit. Once you have identified and prioritized your barriers, select behavior change tools that match the barriers you are trying to overcome. When you have arrived at a design for your program, obtain feedback on your plans from several focus groups. Look for recurring themes in their comments as they may indicate areas in which your planned program needs to be redesigned. Once you are confident that you have a program that should affect behavior, pilot the program. In conducting the pilot, ensure that you have at least two groups; one that receives the intervention and another that serves as a comparison or control group. Randomly assign households or individuals into either group to ensure that the only difference between the groups is whether or not they received the intervention. In evaluating the effectiveness of your pilot, focus on behavior change rather than measures of awareness or attitude change. If your pilot is not successful in altering behavior, revise your strategy and pilot it again. Assuming that you know why a pilot did not work, and that you now have the information you need to go straight to community-wide implementation, can be a very expensive mistake. When your pilot is effectively changing

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behavior you are ready to implement your strategy across the community. Evaluate the community-wide implementation by obtaining information on baseline involvement in the activity prior to implementation, and at several points afterward.

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To learn more about community-based social marketing (cbsm) and how it can be used to promote sustainable behavior see: McKenzie-Mohr, Doug & Smith, William (1999). *Fostering sustainable behavior: An introduction to community-based social marketing*. Gabriola Island, B.C.: New Society. To order call New Society at (250) 247 9737 or order online at [www.newsociety.com](http://www.newsociety.com).

You may also wish to visit the community-based social marketing website ([www.cbsm.com](http://www.cbsm.com)). At this site you will find an online guide, searchable databases of articles, case studies and graphics related to fostering sustainable behavior as well as a discussion forum. Dr. Doug McKenzie-Mohr delivers workshops and provides consulting services regarding the use of community-based social marketing. He can be reached at 506.455.5061 or by email at [dmm@cbsm.com](mailto:dmm@cbsm.com).

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Quick Reference