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A Plan for Parks and Recreation in Light Rail Station Communities

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A PLAN FOR PARKS AND RECREATION IN LIGHT RAIL STATION COMMUNITIES

Prepared for
Tualatin Hills Park & Recreation District

Prepared by
The Hexagon Group

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March 20, 1996

This plan was prepared by The Hexagon Group for the Tualatin Hills Park & Recreation District (THPRD). Administrative offices for THPRD are located at the Howard M. Terpenning Recreation Complex, 15707 SW Walker Road, Beaverton, Oregon 97006.

THPRD is governed by an elected five-member Board of Directors, is supported by taxpayers, and is managed by a professional staff.

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❖ SUMMARY ❖

The Tualatin Hills Park & Recreation District (THPRD) is currently developing a 20-Year Comprehensive Master Plan. Through the planning process, THPRD became aware that parks and recreation facilities must be planned and provided in the areas surrounding Westside Light Rail stations. The Hexagon Group, six graduate students in Urban and Regional Planning at Portland State University, undertook the project for THPRD and has prepared this plan.

Planning for parks and recreation facilities in station areas presents challenges for THPRD. The communities that will develop around light rail stations will look and function differently than the suburban neighborhoods THPRD has traditionally served. They will have many people living and working in compact, mixed-use neighborhoods with good pedestrian, bicycle, and transit connections. This plan examines the opportunities and challenges facing THPRD and provides recommendations for meeting the park and recreation needs of future station area residents.

This plan proposes new park classifications for THPRD, adding new types of park and recreation facilities appropriate to station communities and adjusting existing classifications to address the needs of a more urban environment. This plan also presents service criteria and design issues that should be considered in siting park and recreation facilities, and elements that should be incorporated into site design. The classifications, service criteria, and design elements were applied to the 170th/Elmonica station area, resulting in a conceptual park and recreation plan for that community, which is also included. Finally, strategies are presented to implement the recommendations contained in this document.

The Hexagon Group's primary recommendations for THPRD are to:

- ◆ Acquire property for park sites in the immediate future. Available land in station communities is expected to develop quickly, and land costs continue to escalate throughout Washington County.
- ◆ Work with local jurisdictions to institute a system for acquiring land for parks and recreation facilities in station communities. Require land dedication from developers and/or employ financing methods such as systems development charges and fees in lieu of dedication.
- ◆ Develop a system of parks and recreation facilities that offers a variety of activities and is well-connected.
- ◆ Locate and design facilities to enhance accessibility for all persons. All residents of a station community should be within a three-minute walk of a park facility.

- ◆ Emphasize the quality of park and recreation opportunities over the quantity of space at each site. Small parks (less than one acre) will be important in station communities.
- ◆ Take advantage of opportunities to preserve and enhance important natural features.
- ◆ Encourage residents' input and incorporate their needs and preferences into park design.
- ◆ Use opportunities for cooperation and coordination with other public and private service providers to maximize efficiency in providing parks and recreation services.

The Hexagon Group believes that, by following these recommendations, THPRD can provide the high quality park experience in station communities that citizens in other neighborhoods now enjoy.

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❖ CHAPTER 1 ❖

BACKGROUND AND PROJECT DESCRIPTION

1.1 Introduction

The Tualatin Hills Park & Recreation District (THPRD) is currently preparing a 20-year Comprehensive Master Plan to guide the District into the new millennium. From its inception in 1955, THPRD has provided parks and recreation in suburban Washington County. Now, new development patterns are emerging. The next 20 years will challenge THPRD to adapt to change as its service area transforms and to reevaluate how it serves the public.

The challenges for THPRD primarily result from population growth in the Portland metropolitan region. Of the three Oregon counties within the region, Washington County is currently absorbing the greatest number of people, with the trend expected to continue into the future. (See Appendix D) In response to growth pressures, the region has begun to rethink its land use patterns. Rather than continuing to allow the sprawling pattern of development associated with reliance on automobiles, the region has made a serious investment in growing compactly, providing choice in travel modes, and protecting farmland and natural resources. (Appendix G describes how transportation has affected urban form.) Adoption of the Region 2040 Growth Concept and the ongoing development of a light rail transit system are evidence of the region's commitment to compact growth.

1.2 Region 2040

The Portland metropolitan region adopted the Region 2040 Growth Concept as part of Metro's Regional Urban Growth Goals and Objectives (RUGGOs) in December 1994. The Growth Concept provides guidelines for managing the region's growth and development to the year 2040. It focuses on creating communities which are compact, walkable, bikeable, and transit-friendly. (See Appendix F.)

The Growth Concept incorporates a new way of integrating land use, transportation, and open space provision as a means of accommodating the growing population while maintaining livability. It will affect the way residents of the region live, work, travel, and play in the future. The development focus is on centers and corridors. The centers are nodes of higher-density urban development with a mix of employment and housing that is

easily accessible on foot or bicycle. Further, the centers are places where people can gather socially and form a sense of community that is often missing with current patterns of development. The proposed regional benefits of centers are a reduction in auto use, vehicle emissions, and roadway congestion; greater accessibility for all persons; a balance between housing and employment in localized areas; and compact development which conserves open space and farmland outside the urban growth boundary (UGB).

A fundamental element of the Growth Concept is the protection of open spaces *inside* the UGB, urban reserve areas, and rural reserve areas. Preserving important natural features and park land will help the region accommodate increasing levels of density by protecting environmentally sensitive areas from development pressures and impacts, and providing recreational opportunities to the region's inhabitants.

THPRD has the opportunity to play an important role in the implementation of the Region 2040 Growth Concept by understanding how its services can support the regional goals. This can be achieved in three areas: protecting natural areas; developing parks and recreation facilities that serve higher-density, mixed-use developments; and creating trail systems that provide bicycle and pedestrian connections to and between activity centers.

1.3 Westside Light Rail and Transit-Oriented Development

The impact of the Westside Light Rail line on Washington County will go beyond just providing a method of high-quality transportation to the local areas. The newest leg of the regional light rail system is one of the first steps toward implementing the Region 2040 Growth Concept. Light rail transit is a fundamental piece of the multi-modal transportation system that supports a compact urban form. According to the Growth Concept, development near light rail stations will support transit use through increased residential and employment density, a mix of land uses, and good pedestrian access between the transit station and the station area community.

This type of development pattern is termed "transit-oriented development" (TOD). It represents a return to traditional community design in that pedestrians become much more important in planning than they have been since the advent of the automobile. TODs are oriented to high-capacity transit stations, such as those along the Westside Light Rail. In theory, they comprise roughly a quarter-mile radius around the station or the equivalent of a five-minute walk from its furthest points. (However, most station planning areas in Washington County are larger than this.) Housing densities in station TODs are expected to be between 9 and 40 dwelling units per acre with a maximum of 100 dwelling units per acre. Metro's goal for station communities is an average density of 20 dwelling units per acre—about 45 people per acre. This represents a significant change from current

residential suburban development in Washington County, which has a density of 3 to 6 dwelling units per acre.

TODs combine apartments, townhomes, rowhouses, and small-lot single family homes with a mix of retail and services like markets, restaurants, florists, medical clinics, dry cleaners, and brew pubs that serve the local community. Housing or office space is built above ground-floor retail space. Buildings are oriented to the street to better accommodate pedestrians, bicycles and transit access. The community has a well-connected street system. The need for an automobile is reduced because people can perform many of their daily activities by walking, biking, or riding transit.

The Westside Light Rail line provides unique opportunities for the development of TODs. For one thing, there is more vacant land surrounding some individual Westside stations than was available along the entire Eastside Light Rail line. For another, Portland and other cities now have experience with rail projects and TODs, providing valuable lessons in how to approach land use planning in Westside station communities.

Washington County, Hillsboro, and Beaverton, in conjunction with Tri-Met and Metro, are working together on the Westside Station Community Planning Project to devise land use alternatives for light rail station communities. The consortium is addressing zoning issues and design standards; pedestrian, bicycle, and auto access; and community design that emphasizes compact, people-friendly development. In the interim, temporary rules have been established in designated station areas to prevent development that is not conducive to transit-friendly communities.

1.4 THPRD's Role in Station Area Communities

Station area planning for the Westside Light Rail is nearing completion. Washington County is presenting to the public its preferred land use concepts for several station areas. The County anticipates adopting station area plans as early as October 1996.

Nine of the 22 Westside Light Rail station areas are either fully or partially located within THPRD's service boundary. The seven stations fully within the boundary make up the study area for this plan. Figure 1-1 depicts the Westside Light Rail alignment as it relates to the study area. THPRD must be proactive in establishing new approaches and designs for park and recreation facilities in anticipation of the increased densities within these station areas. With station community planning almost complete, decisions will soon be made that will affect THPRD's choices about land acquisition and service provision. THPRD must become an integral part of the process to ensure it has the opportunity to create great facilities.

THPRD can provide quality parks and recreation facilities for citizens living and working in TODs by providing a variety of small parks and recreation opportunities. The quality of public spaces will depend less on the size of the space than on other factors like accessibility, connectivity, design of facilities, service levels, and community preference.

1.5 Organization of This Document

This document contains the key elements for parks and recreation planning near light rail stations. These elements are:

- ◆ Service criteria and design issues for establishing parks and recreation facilities that consider space limitations, service levels, accessibility, and the needs and preferences of citizens living and working in station communities (Chapter 2).
- ◆ Design elements that influence the creation of good, small, urban, public spaces (Chapter 2).
- ◆ Application of service criteria and design elements to a selected station area within THPRD's service boundaries (Chapter 3).
- ◆ Implementation strategies for the development of parks and recreation facilities in station communities (Chapter 4).
- ◆ A summary of recommendations (Chapter 5).

The appendices included with this document contain background information and a summary of research supporting this plan's recommendations. Appendix A briefly describes THPRD's current service. Appendix B summarizes recent public input solicited by THPRD. Appendix C describes the results of The Hexagon Group's survey of Washington County apartment developments relating to their provision of recreation facilities. Appendix D presents demographic data for THPRD's service area and the Portland region. Appendix E provides an overview of other cities' experience with parks planning, light rail and TODs. Appendix F describes some Oregon regulations that relate to planning parks and transportation. Appendix G contains a brief discussion of the historic context of park planning, particularly near transit. Appendix H presents conceptual and design issues. Appendix I summarizes the results of interviews and discussions held with various individuals and groups while developing this plan. Appendix J presents a new numerical standard for parks provision. Finally, Appendix K contains a section of Clackamas County's zoning ordinance that applies to the Sunnyside Village District.

❖ CHAPTER 2 ❖

FUTURE PARKS PROVISION CRITERIA AND DESIGN

2.1 Broader Applications

The criteria and design issues presented in this plan were developed with the Westside Light Rail in mind. However, the essential elements to be used in planning parks and recreation for the Westside stations could be applied in other locations. Characteristics such as density, good connectivity, and community are not limited to Westside station areas. Though zoning and densities vary, other places within the District, such as Regional and Town Centers not on the light rail line, fit much the same profile and fall under the same discussion. The same is true for similar areas in the Portland metropolitan region and elsewhere.

2.2 What Makes Station Areas Special for THPRD?

Circumstances for parks provision will change with the advent of station communities. An essential question for THPRD now is how to effectively respond to this change. The answer lies in the unique aspects of the station area, which can be summarized in just a few sentences:

- ◆ **Community** suggests some important roles played by parks and recreation. In station communities, parks will provide gathering places to encourage interaction and community-building.
- ◆ **Density** leads to the need for residents to be closer to parks. Each station area resident should have a park facility within a three-minute walk (for the average person).
- ◆ **Connectivity** is both an imperative in parks design and an escape valve for over-utilized parks. People self-regulate their use of parks to avoid over-crowding. Close, well-connected parks give people the opportunity to move on to another park if one seems too busy.

Community

Future station areas are envisioned as cohesive communities. THPRD has an opportunity to improve and encourage these communities with parks and recreation facilities. Of course, pleasant and popular parks do not create community, but they can facilitate its development. Central gathering places, such as the Community Square described in Section 2.4, help define the center of communities. Public parks are an essential element of the overall mixed-use nature of development, providing a place to interact with neighbors, meet people, etc. Conversely, a stronger community will make greater use of parks and recreational opportunities.

Density

Station area communities have higher planned development densities than THPRD has typically worked with. Three challenges are posed by these higher densities.

1. Increased density and population within station communities make it necessary to restructure current service requirements to provide optimal park access.
2. Due to higher land values and the need to preserve land for high-density development, land will be more difficult to acquire in station communities. This is especially true for large parcels, so small parks are necessary.
3. More people will live in apartments, condominiums, and on smaller lots, so fewer residents will have large private open spaces (i.e., suburban yards). Parks, if well-designed, take on an additional role. One major role of parks in current suburban areas is to provide programmed activities, though at least half of the use is still non-planned, passive recreation. In contrast, in new, compact neighborhoods where open space is at a premium, non-programmed activities will likely be even more important. People will still want to join baseball and soccer leagues, but other activities and benefits of open space will be especially valued.

Connectivity

Future station areas should enhance access and travel by foot, bicycle, other non-motorized means, transit, and cars. This should occur within each station area, among station areas, and between station areas and other significant locations within the District. The light rail line is the most obvious aspect of improved connectivity in future station communities. Light rail transit will change transportation patterns in the immediate station area. Future plans for transportation and transit development, as well as legal requirements, will concentrate more attention on multi-modal connectivity, resulting in

communities where most transportation needs will easily be met through a system of pedestrian paths, sidewalks, bicycle paths, transit service, and roads. (See Appendix G for historical context.)

Connectivity will make parks within station communities more accessible. Currently, Neighborhood Parks are sited to allow users to reach them without an automobile, but Community and Regional Parks have larger service areas. While pedestrian connections are provided to these larger facilities, people who live some distance away are likely to drive to them. Thus, people under 16 and a portion of people over 65, as well as others who cannot or choose not to drive may have more difficulty reaching these larger facilities. With light rail, people can reach not only their own Neighborhood Park, but also parks at other station areas quickly and safely, without having to drive. (Though this may be somewhat true with buses, many suburban dwellers find the service is sparse and buses are daunting and uncomfortable. Light rail has frequency, efficiency and an attractiveness that buses do not currently have in the eyes of the public.)

Therefore, parks within walking distance of a light rail station will be more accessible to many people. Community or Regional Parks could be located within a station community, especially if they are targeted to people with limited transportation options.

Enhanced connectivity within station areas is an opportunity THPRD can use to its advantage. People tend to self-regulate to avoid crowding in public parks and plazas (Jacobs 1961; Whyte 1980 and 1988). As the number of people in a particular park reaches a level where crowding might begin to occur, fewer people enter the space and more begin to leave. In this way, the park never becomes crowded, reaching a dynamic equilibrium at relatively high densities. Providing a system of well-connected parks ensures that when one park reaches this equilibrium, other parks are within a short walk.

Both programmed and non-programmed activities may change with this change in accessibility. With greater non-vehicular access, more younger and older residents may seek activities at THPRD facilities, increasing use and demand. Also, parks within the station areas will suddenly be on the walk between the transit station and home. This may increase commuter-peak-hour use of both programmed and non-programmed activities.

Parks and recreation can also encourage and enable transit use. Through coordination with Tri-Met, the City of Beaverton, and Washington County, and by integrating transit service and non-motorized modes into parks planning, not only do parks benefit from transit, but transit can be made more viable and attractive by parks. Parks and recreation play a vital role in the future success of the 2040 Growth Concept. Parks will improve the livability of station areas, making them more attractive and leading to greater acceptance and demand for such communities.

2.3 Service Criteria

Before trying to project into the future to determine parks needs, it is necessary to get a picture of current conditions. Appendix A presents THPRD's current service criteria in a way that may be compared with the proposed service criteria and park classifications in this chapter. Appendix B summarizes public comments about THPRD's service, Appendix C describes facilities provided by some private developers, and Appendix D presents demographic data for the District. All of these elements may impact future parks and recreation needs and THPRD's plans for service provision.

As of this writing, THPRD has tentatively identified one acre of Neighborhood Parks for each 1,000 population as a general service criteria. This standard is above the current average level within the District. Recent public input does not indicate a great demand for more parks at current population levels, only in response to future growth (see Appendix B). The 1 acre/1,000 population goal should provide the District with adequate land to accommodate future growth. Barring a sudden trend in some intensely land-consumptive sport, the criteria should allow the flexibility to deal with future changes in population demographics and preferences, as stressed in Section 2.5, Design Issues.

In our proposed park classification scheme for station communities, three types of parks serve the Neighborhood-level (Mini-Parks, Community Squares, and Neighborhood Parks). The total acreage of all three should be counted toward the 1 acre/1,000 population criteria. In addition, privately provided open space, if developed to the same standards, can substitute in part for public parks.

However, the spirit of the criteria rather than the number is important. Fully-developed, well-designed parks can provide the same number of opportunities as half the acreage of less-developed parks. Thus, the criteria should serve only as a guideline, just as the National Recreation and Park Association (NRPA) suggests (Lancaster 1990). More important is the proximity, accessibility, and quality of parks.

Parks should be no more than three minutes away from any residence (Alexander 1977). Though the positive aspects of parks are needed, only people who live very close (generally within three minutes) make full, daily use of them (Alexander 1977). A three-minute walk to a park was considered ideal when most people traveled by foot rather than by car (Greed 1994). This still holds true for people in TODs.

Of utmost importance is to choose specific facilities (e.g., tennis courts, soccer fields) within each park based on public input. There is no perfect formula for determining the needs of an individual park. Only the nearby residents and frequent users will be able to choose what should be there. Possible methods of obtaining public input include neighborhood workshops, localized questionnaires, and design charettes. Methods of engaging the community include eliciting design help from neighborhood associations, and involving local residents in Adopt-A-Park programs (see Section 4.3).

The NRPA provides specific numerical guidelines for facilities provision in parks (NRPA, 1990). These are to be used as guidelines that should be adjusted with experience. Though the best way to determine facilities needs is to ask the residents, Appendix J presents a standardized use ratio that could be used to generate reasonable guidelines.

2.4 Future Park Classifications

THPRD's existing classification of parks (Appendix A) can apply to station areas. However, the anticipated needs in station communities suggest revising the classifications, as shown in Figure 2-1 and detailed below. Two classifications are entirely new; the remainder are simply amended as explained in this section.

The numbers provided here are *guidelines* to be modified with experience. The service area criterion should provide the strongest guide to parks planning. Size and population estimates (based on estimation of typical densities expected in TODs) are given as guides.

The proposed minimum park size classification is lower than current THPRD minimums. It was reduced to provide as much coverage as possible within station communities. With less private open space available, public open space should be even closer to every resident. Though numerous small parks could have cost implications, design strategies can be utilized to minimize them (see Section 2.5). Small parks can provide a quality park experience.

The true need is for public open space that is easily accessible; size is relatively inconsequential. Although people often say they use parks as an opportunity to get away, their use indicates the opposite. Smaller parks open to thoroughfares with many people passing through are most popular (Whyte 1988; Jacobs 1961). Solitude is only occasionally a goal of parks users (but it should also be provided for; facilities like the THPRD Nature Park and smaller natural areas serve this purpose). Exercise, pleasant walks, meeting people, sitting in the sun, and a number of other activities possible in almost any size park form the vast majority of activities in parks. More active recreation and organized sports still occur at larger sites and must be planned for, but most needs created by the new station area communities can be and *must* be met with smaller, nearby spaces.

The proposed classifications have an overall logic. The first four categories (Mini-, Neighborhood, Community, and Regional Parks) involve parks and facilities that serve progressively larger portions of the population. Population Served plays the main role in determining the classification. Within these four categories, proximity of a higher level park can take the place of any lower level park (i.e., a residence next to a Community Park does not need a Mini-Park in addition). The next two categories (Natural Areas/Wetlands and Open Space/Greenways/Trails) remain separate to portray the importance of natural

**Figure 2-1
Proposed THPRD Parks and Facilities Classification Matrix**

| THPRD Classification | Size | Service Area | Population Served | Facilities |
|--------------------------------------|--------------------------|---|-------------------|--|
| Mini-Park | 3,000 sq. ft.- 1 acre | 3-minute walk (approximately 800 feet) | 200-2,000 | Arbor/gazebo Drinking fountain Community garden Small play structure Play pad Picnic tables |
| Neighborhood Park | 1-5 acres | 10-minute walk (approximately 1/2 mile) | 2,000-5,000 | Hardscape/softscape balance All above facilities plus: Wading pool/junior pool Small amphitheater Tennis courts (2 max.) Small picnic shelter Interactive water feature Basketball court View points Horseshoe courts Volleyball court Restrooms Gardens |
| Community Park | 5-25 acres | 2 or more light rail station areas and/or 1/3-mile radius | 10,000 + | All above facilities plus: Track Athletic fields Group picnic area/shelter Childcare facilities Large amphitheater Interactive recreational water feature Bleachers Concession Tennis courts (4 min.) Formal garden Senior Center Recreation Center Swim Center Community library Historic properties |
| Regional Park | 25 + acres | 55 sq. mi. + | 255,000 | All above facilities plus: Ice rink Water-based recreation Visitors/Interpretive Center Golf course (e.g., boating, fishing) Large group picnic area Camping Arboretum Natural area preservation Wild life refuge Aquatic activity park Pathways/Trails Boardwalks Wildlife refuge Observation opportunities View points Native plantings Interpretive Center |
| Natural Areas/ Wetlands | varies | varies | varies | View points Running trail Frisbee golf Picnic tables |
| Open Space/ Greenways/Trails | varies | varies | varies | View points Picnic tables |
| Special Facilities and Properties | varies | varies | varies | Unique facilities that cannot otherwise be classified |
| Community Square | 0.5-1 acre | station community | 2,000-10,000 | Drinking fountain Community events Plantings Information kiosk Fountain Restrooms Vendor carts, snack bar, or cafe Small amphitheater Public art |

features. The few facilities and parks that do not fit into any other category are in Special Facilities. Finally, Community Square is a special category, relating to the unique needs of station area communities.

Mini-Park

The Mini-Park is a new classification, which reflects the needs for more parks in higher density areas and a strong commitment to providing nearby parks within station communities. In one sense, the Mini-Park is simply a small Neighborhood Park. However, its size, use, and intended function are different enough to warrant its own classification.

Smaller, more widely dispersed parks offer better access to all people within a community than larger centralized ones. Almost any small open space can fit this classification, as long as it is accessible to the public. A single lot with native, low-maintenance vegetation, a bench, a picnic table, and perhaps a small play structure can serve the immediate park and open space needs of many people within a few blocks. Not all needs can be served by such a park, but this is *always* true. No park provides for every sport. The majority of activity at most parks is passive. Most people are looking for a brief respite, a social opportunity, in public open spaces. Even tiny parks fill this need.

Neighborhood Park

The Neighborhood Park classification remains essentially the same as in THPRD's current service categories. (See Appendix A.) People within easy walking distance can use a Neighborhood Park for a variety of activities. Smaller sports facilities may be included. The major change is that current criteria set the minimum size of such a park at three acres. In station areas, Neighborhood Parks as well as other park types must be closer to the average residence. In addition, land acquisition costs will be higher and large parcels will be targeted for development. To provide adequate coverage, smaller parks may be necessary. Therefore, the minimum park size for this classification is reduced to one acre.

Community Park

As currently defined, the Community Park is a larger park designed to serve a number of neighborhoods. It also has a greater level of organized sports and other facilities than Neighborhood Parks to accommodate heavier use. At very high densities, a Community Park could serve a single large station area. However, a more likely opportunity is to serve several station areas with a single Community Park.

A Community Park at one station area should mesh several uses from the matrix in Figure 2-1 into one facility. It should include a small recreation center with special senior, teen, and daycare programs. The Community Park would be accessible to transit-dependent people all along the light rail line. This facility could be incorporated into a larger mixed-use structure, either with office or retail space, or perhaps as part of the planned Beaverton Civic Center at Beaverton Transit Center. The Beaverton Transit Center or Beaverton Central station area would be an optimal location for a Community Park facility.

Large facilities like Community Parks present a problem for station areas. If they are placed too far from the station, convenient access is lost, and there is little benefit from being located in the station area at all. If placed too close to the station, they utilize land that is better used for dense development served by small parks/open spaces, which are in keeping with 2040 Growth Concept. Thus, in general, large facilities play a lesser role in station communities than do smaller, more versatile spaces. This does *not* mean large facilities are unimportant. Because light rail will increase accessibility for people without autos, facilities serving such populations are entirely appropriate in one or two station areas. Examples of facilities include those offering teen-focused activities, senior programs, and a community library.

Regional Park

Designed to serve the whole district, Regional Parks are large parks with many facilities. Certain services, especially targeting people with fewer mobility options, can be sited near light rail stations.

In considering siting a Regional Park in a station community, THPRD must weigh the potential benefits of the facility with the land costs. A large development like the Terpenning Complex would be inappropriate. First, land close to the station will be expensive to acquire. Second, a large park near the station would prohibit developing that land with more land-intensive uses essential for a transit-oriented community. Of course, Terpenning or other regional facilities can be linked to the light rail with high-frequency bus service and trails to provide convenient access. The current Route 67 from the Merlo station to the Terpenning Complex is an example, though higher frequencies of bus service are preferable.

Natural Areas/Wetlands and Open Space/Greenway/Trails

The natural area designations remain essentially unchanged. However, emphasis should be placed on linking greenways and trails with both transit, THPRD parks, and other natural and open spaces.

Increasing urbanization in Washington County will increase environmental impacts, therefore, it is especially important to preserve natural areas, when possible.

Special Facilities

Most Special Facilities under THPRD's current classification have been moved into more appropriate and specific categories. Most facilities have an inherent level of service, and it is important to keep this in mind rather than relegate them to a catch-all category that does not offer any guidelines for provision. Only very special facilities that cannot be classified in any of the other classifications should remain.

Community Square

The Community Square is a new classification, necessary to respond to the special aspects of station area communities. Each community should have a central location that serves as public space and for community events. It would be a place for gathering in groups and meeting others, located near surrounding activities like restaurants, shopping, and employment.

Given the region's climate and the heavy use such central facilities would probably receive, this park should have a balance of hardscape and softscape. It should be adequate for community activities, but not be too large. Think in terms of a small Pioneer Courthouse Square or a tiny Rockefeller Center. The cultural center of the community rests here. If a link to a nature trail or open space away from the station could be made, then so much the better.

2.5 Design Issues

Good design significantly contributes to the success of parks and open spaces. Design guidelines should apply not only to park and recreation facilities themselves, but also to the adjacent uses which interact with and help define these park spaces. This section presents a set of design objectives with particular relevance to park planning in station communities. Each objective is followed by an explanation and suggested tools for achieving the objective.

The design issues presented here have been raised by numerous authors, some of whom are referenced in this section. Others are discussed in Appendix H. We also found many of these issues cited by District residents (Appendix B) and heard them in brainstorming sessions held with college students and THPRD staff (Appendix I). Many are also being addressed by other cities in North America (Appendix E.)

Objective: Make Parks Part of an Integrated Transportation Network

Park spaces should function as part of the interconnected street systems expected to characterize future station communities. Station communities will offer good opportunities for residents to use alternative transportation modes. Convenient pedestrian and bicycle connections should be made among park facilities and between parks and other destinations. Parks should improve the transportation network by providing a pleasant, safe environment for all users, whether they are passing through or visiting a park.

Tools:

- ◆ Locate parks with attention to their distance from and access to other significant destinations within a station area. Locate parks along streets which provide bicycle or pedestrian amenities.
- ◆ Ensure multi-modal access into and out of a park in various directions. Streets and trails should lead up to or border parks.
- ◆ Contribute to pedestrian comfort by providing shelter from the sun, wind, and rain. Provide frequent seating areas for pedestrians to rest.
- ◆ Provide outdoor lighting to encourage evening pedestrian activity and increase safety.
- ◆ Provide access for people with physical mobility limitations. This will enhance comfort and convenience for all users.

Objective: Create Parks that Feel Safe

While always an issue in park design, safety concerns will be particularly important in station areas because many people—especially those unaccustomed to higher residential densities—believe crime increases with density. Several elements can create a sense of security in parks:

Tools:

- ◆ Improve visibility by providing clear sight lines into and out of a park. Berms, dense vegetation, or other barriers which prevent people from seeing into a park may discourage people from entering a space. A user should be able to scan the entire park area. Nighttime lighting should be provided (Greed 1994).
- ◆ Orient buildings to face a park and ensure building facades contain windows. This provides a connection to surrounding land uses and creates “eyes” on the park, discouraging illicit uses and increasing interaction.
- ◆ Locate parks in mixed-use areas, generating use throughout the day (Jacobs 1961).
- ◆ Ensure that streets lead up to or border a park so it does not feel isolated.

- ◆ Provide access routes in several directions to provide users with potential escape routes.

Park safety issues encompass not only crime concerns but also protection from traffic dangers:

- ◆ As much as possible, locate parks away from roads with heavy vehicular traffic.
- ◆ Separating different uses and user groups. For example, designate separate trails for bicycles/roller sports and pedestrians, or designate separate lanes for these two activities. Similarly, provide separate play structures for pre-school and pre-teen children.

Objective: Create Parks that Enhance Community Identity

Parks can serve as focal points in station communities. The degree to which parks contribute to community identity is influenced by the vitality of the surrounding community; the amount of interaction between the park and surrounding land uses; the degree to which a park reflects cultural values of the surrounding community; the strength of the aesthetic experience provided by a park space; and, perhaps most importantly, the amount of use a park receives.

Tools:

- ◆ Locate Community Squares in high-activity, mixed-use areas.
- ◆ Include features in parks and plazas that reflect the cultural and historical aspects of their users and location.
- ◆ Incorporate elements such as water features, works of art, or other focal points, creating a unique park or plaza.
- ◆ Repeat design elements in different parts of a station community to provide continuity and a special identity.
- ◆ Consult residents and utilize their input. This will increase their sense of ownership and investment in a park space. Community workshops are useful in obtaining input from local residents.

Objective: Create a Positive Aesthetic Experience

An attractive, well-designed park can be a successful center for the community. Attractive parks can also contribute to the initial success of station communities by providing a special amenity for early residents.

Tools:

- ◆ Create parks of appropriate size. Small parks can provide a strong aesthetic experience. Use grade changes and human-scaled elements to break up larger spaces and create visual interest.
- ◆ Create park spaces with a balance of openness and enclosure. People may seek large parks for a sense of openness and freedom. Small plazas and community squares, on the other hand, require a strong sense of enclosure. The character and height of surrounding buildings contributes to a plaza's ability to create an intense, three-dimensional experience (Hedman 1984).
- ◆ Include focal points (visual anchors) within a park to tie the whole together. Also provide sight lines both into a space and out toward important focal points (e.g., a tower). Orient parks and plazas to emphasize important natural, built, or historic features.
- ◆ Strike a balance between simplicity and complexity. Keep overall park shape easily comprehensible, yet add variation and intricacy through the use paving or building materials, topological changes, groupings of plants, and views leading to focal points.

Objective: Work in Concert with Natural Features and Processes

Integration of natural and built environments is important in park design. The expected urbanization in station areas creates a special responsibility to consider natural features and ecological processes.

New development will transform the landscape in several ways. New development near light rail stations will increase impervious surfaces and generate more stormwater runoff. As station areas urbanize, trees will be removed or become susceptible to damage from construction and other urban impacts. Development of currently open land may disrupt existing plant and animal habitats.

Respect for natural processes cannot only mitigate potential damage, but lead to memorable urban form (Spirn 1984). Good park design incorporates climatological elements such as sun and wind patterns, and hydrology. Oregon's climate of wet winters and dry summers creates special design considerations. Natural features are also important to consider in the site planning process to maximize user comfort and minimize maintenance costs (Whyte 1980).

Tools:

- ◆ Early in the station area design and planning process, identify and evaluate natural features such as streams, wetlands, forested areas, unique stands of vegetation, or areas serving as wildlife habitat.
- ◆ Preserve significant elements of the ecosystem by integrating them into an open space network. They can be incorporated into the design of active recreational parks as special focal points or set aside as protected areas receiving less intensive use.
- ◆ Determine daily and yearly sun patterns, as well as the presence of elements which block sun, then site and design parks to provide sunny areas during the winter, and both sun and shade in the summer.
- ◆ Design and locate park spaces so that wind is minimized.
- ◆ Provide sheltered areas to shield users from precipitation. In the winter, the ground becomes muddy, so provide paved, gravel, or woodchip walkways through a park.
- ◆ Parks can play a role in mitigating the impact of runoff by incorporating structures which detain stormwater and slow its movement into water bodies. Locate parks next to streams so they may serve as stream overflow areas. There are many good examples of parks which double as water-retention areas (Spirn 1984).
- ◆ Compile and employ a catalogue of hardy and indigenous plants which can best survive urban stresses. Careful consideration of appropriate species and extra planting efforts designed to help plants survive saves money in the long run because fewer plants will have to be replaced.

Objective: Make Parks Responsive to Demographic Context

Good design reflects a park's physical and social setting. The demographic character of THPRD's service district will undoubtedly change over the next few decades, and station areas will reflect these changes. The age, cultural heritage, average household size, and family structure of households in station areas will influence recreational preferences and park needs.

The densities and price range of the units in TODs may attract smaller families, including single-parent households and single adults (Calthorpe Associates 1993). Faced with time constraints, single-parent households will benefit from parks within a short walk of their residences.

The future population in the Portland region will likely include a greater number of people from a variety of cultural and ethnic backgrounds. At least one study found that parks play different roles and are used in different ways by different cultural groups (Hutchison 1987).

In cultures with strong family orientation, groups in parks are more likely to be of mixed ages and to be engaged in stationary activities (e.g., playgrounds, picnics). In those with

less family orientation, groups are more often of like age and use parks in mobile, but non-organized activities (e.g., bicycling, walking, jogging).

However, making sweeping claims about the needs of different cultural groups is inappropriate and unlikely to result in optimal solutions. A much better approach is to respond directly to the stated needs of the neighborhood, regardless of cultural mix.

Tools:

- ◆ Seek resident input in order to develop park and recreation spaces responsive to the needs of users.
- ◆ Provide flexible park spaces accommodating both large group and small group activities to reflect the variety of households and people using them.

Objective: Integrate Parks with Their Surroundings

Land uses surrounding a park space profoundly influence its use and success. Vital areas tend to have vital parks (Jacobs 1961). A mix of land uses surrounding a park helps generate multiple sets of people who use the park throughout the day.

Tools:

- ◆ Consider the proximity of existing park and recreational facilities when determining the need for parks in new developments. Existing facilities influence the appropriate location, scale, and function of new parks.
- ◆ Locate parks in vital, mixed-use areas.
- ◆ Require adjacent buildings to face the park.
- ◆ Incorporate design elements from the surrounding area.

Objective: Create Parks Serving Multiple Functions

Parks facilitating various types of activities should be accessible to residents of a station area. If residents of station areas use alternative modes of transportation, it is especially important that they have different types of facilities within easy reach of their homes or workplaces.

People use parks for many different reasons: to interact with others or to be alone; to play sports or to ponder quietly; to linger or to pass through on their way to somewhere else. When determining park function, designers should also think about daily and seasonal patterns of use.

Tools:

- ◆ A station area park system should provide a balance of passive and active recreational opportunities.
- ◆ The layout of elements within a park should provide opportunities for either solitude or interaction. When seats face each other, people can interact. Sitting spaces oriented towards a children's play area allow parents a view of the activity. Semi-circular seating (i.e., amphitheater) is useful for a place where performances might occur. A few scattered benches allow solitude.
- ◆ Designers should consider likely movement patterns through parks. Informal pathways that develop should be supported rather than discouraged, as long as they do not damage environmentally sensitive areas.
- ◆ Incorporate suggestions from Section 2.4 to determine appropriate facilities for different park types in order to create a system of parks in station communities that offers multiple recreational opportunities.

Multiple-function facilities are important to station areas for additional reasons. Station communities should develop at high densities in order to encourage use of transit, walking, and bicycling. Land prices in station areas are expected to rise. In this context, multiple-function facilities—through allowing multiple activities in a smaller area—will use land efficiently. In addition, the impacts of urbanization on the natural environment can be mitigated by park facilities which serve dual roles of environmental protection and recreation provision.

- ◆ Create flexible park spaces that can be used for a variety of activities. Playing fields should be adaptable to different sports.
- ◆ Consider incorporating stormwater retention devices, flood overflow areas, or wildlife corridors into park design.

2.6 Maintenance Costs

Having smaller, more numerous parks raises a question about the long-term cost of operations and maintenance of these properties. Although a system of small parks increases the number of parks to be maintained, the parks will be close together, reducing staff's travel time between them. Design and facilities included in a park have more impact on long-term costs (see Appendix I, Section I.3).

Design strategies can be employed to minimize maintenance efforts and costs without detracting from park quality. Some of these strategies are compatible with design guidelines discussed Section 2.5. Strategies include:

- ◆ Plant native species that require no special care in the local climate.
- ◆ Use hardscapes (such as brick) in locations where heavy foot traffic will occur.
- ◆ Design features and open areas within each park to allow easy access by maintenance equipment and personnel. For instance, restrooms should be close to the street or other service access.
- ◆ Place paved or other low maintenance surfaces (e.g., bark dust) rather than grass under park fixtures like picnic tables. This avoid shaving to move fixtures before mowing the grass.
- ◆ Assign some maintenance to local groups such as Adopt-A-Park groups (also see Section 4.3). For example, the Portland Parks Bureau uses volunteers to clear non-native species from Forest Park.
- ◆ Use satellite locations for maintenance facilities, staff, and equipment storage. This will reduce travel time to each park.
- ◆ Consider contracting out some maintenance activities.

❖ CHAPTER 3 ❖

CONCEPTUAL SITE DESIGN

Chapter 2 details criteria and design considerations in a general discussion that can be widely applicable. However, much of the discussion included the idea that the unique characteristics of specific places should guide implementation. This chapter presents a conceptual plan for parks and recreation facilities in one station area, the one located at 170th Avenue in the Elmonica area of Washington County. The plan is a conceptual application of the criteria presented in Chapter 2.

3.1 Why the 170th/Elmonica Station Area?

Our decision to focus on 170th/Elmonica was based on current land uses, planned zoning and development, and natural features. Of the station areas within Washington County's jurisdiction, the Elmonica station has the greatest potential for significant transit-oriented development. It also has some challenging elements (e.g., a designated wetland near the center of the station area). The ideal site for our study would be one with:

- ◆ good near-term development opportunities,
- ◆ readily available information regarding future use, and
- ◆ a station area that is completely within THPRD service boundary (see Figure 1-1).

The station area surrounding the 170th/Elmonica station best fits the selection criteria. It has a significant amount of still-undeveloped land. This allows extensive near-term development, more than any other station area fully within current THPRD borders. Regarding the three characteristics (Section 2.2) of a station area: 170th/Elmonica illustrates the *density* aspect as the station which is likely to go through the most intense change between current conditions and conditions as a fully developed station area. It allows *connectivity* throughout the entire station area, allowing growth of a true *community*. In other words, this location will look like the 2040 Growth Concept idea of a station area sooner than other stations within the District.

We eliminated other station areas for our conceptual park plan for several reasons. Stations areas west of 170th/Elmonica are only partially or not at all within THPRD boundaries, thus they were not optimal for analysis.

The next stop east from 170th/Elmonica is Merlo/158th. This “kiss & ride” station is hemmed in by the Tri-Met bus facility and light rail maintenance facility, the THPRD

Nature Park, and current institutional and industrial uses. Redevelopment at this station will occur over a much longer time frame, and many uses, such as Tri-Met's, are unlikely to relocate or be redeveloped.

The Murray West/Beaverton Creek station had undergone a master plan process for a transit-oriented community. However, Nike's acquisition of the large Tek Woods property, which encompasses the northern half of the station area, has left development opportunities uncertain. This station area will likely provide many opportunities during future development, but the current uncertain situation was a detractor from choosing this station.

The Millikan Way station is dominated by high-tech employment uses (e.g., Tektonix), leaving near-term development uncertain.

The Beaverton Central and Beaverton Transit Center stations are situated in the most urban settings of any of the stations west of Goose Hollow. These two stations were eliminated from our study due to the amount of existing development and lack of information about the station area.

Finally, the Sunset Transit Center is disrupted by US 26 and Highway 217. This site has a large amount of available land, but the lack of connectivity within the station area in the near-term was a detriment. Also, because much of the available land is held by a single owner, park land acquisition would be a less certain process.

3.2 History of the Elmonica Area

Based on our findings in Chapter 2 that the unique characteristics of a place should be incorporated into park design, the history of the Elmonica area should be an important element in the conceptual plan. Incorporating the area's history into recreational facilities can enhance the sense of community within the 170th/Elmonica station community.

The history of the Elmonica began with the construction of the Oregon Electric Railroad line in 1908. The railroad requested a right-of-way through property owned by Samuel B. Stoy, a Portland insurance man. Stoy agreed to the right-of-way on the condition that the station be named for his two daughters, Eleanor and Monica, hence the name Elmonica.

Another prominent family in the area, the Schlottmans, owned and operated the Elmonica General Store, which was located at the current intersection of Baseline and 173rd Avenue. The historic Schlottman house was relocated to THPRD's Terpenning Complex property and houses the District's maintenance office.

The identity of the Elmonica area with its historic railroad background is evident from the name of the Elmonica Elementary School's team name, the Elmonica Engineers. The fact

that the area will once again be an active rail station ties the community to its early heritage. Remnants of the area's history, such as the old "swaybacked" barn on the Wilson property near the station site should be commemorated with a historic plaque or photographic and interpretive display.

An old house near the intersection of 173rd and Baseline (currently home to a gift and espresso shop) looks very much like the one next to the old Elmonica General Store shown in one of the photographs in this section. If THPRD could acquire the house, it might make a good location for a community library combined with a small historical museum for the area.

3.3 Existing Conditions in the 170th/Elmonica Station Area

The location of available and developed land in the 170th/Elmonica station area provides an exceptional opportunity to create a viable community there. Most of the developable land is in the immediate vicinity of the light rail station. Much of the land further from the station platform contains residential subdivisions typical of suburban neighborhoods in Washington County. This allows for a community with a center of shopping, employment, and apartments, transitioning to townhomes and small-lot residential, then to lower-density residential areas.

The station area is divided into quadrants by the light rail line running southeast-northwest and 170th Avenue running north-south. Each quadrant has unique opportunities and constraints, but all share some common characteristics. Perhaps the most important shared characteristic is vacant and buildable land near the light rail station. However, the area is developing rapidly. Several large parcels in the area have been developed since 1994, mostly with residential subdivisions. (Figure 3-2 indicates existing conditions in the station area. Parcels showing zoning designations are either vacant or expected to redevelop [except those zoned for institutional use, which are existing schools and Tri-Met's maintenance facility]).

A recent real estate evaluation inventoried all parcels within the core of the station area and identified key parcels for future development (ECONorthwest 1995). Key parcels were either vacant or under-developed at the time of the study. Nearly half (92.9 acres) of the 196.4 acres in the station planning area are contained within key parcels, which are divided among the station area quadrants.

Northeast Quadrant

In December 1995, Washington County approved development of 144 apartments on 5.9 acres in the northeast quadrant. The parcel is at the corner of SW Jenkins and Baseline Road. To the east, just outside the planning area, is the Sunset Golf Center and a Price/Costco store. The northeast quadrant contains an additional 14.6 acres of farmland recommended for future development. The northeast quadrant also contains the Tri-Met light rail maintenance facility, located between the light rail line and SW Jenkins Road, and a 460-space park-and-ride lot which will be completed soon.

Land north of Baseline Road within the northeast quadrant is developed primarily with low-density single-family homes (3 to 6 units per acre). Most have been built in the last decade, and many have been built since 1994. Steele Park, a medium-density, single-family subdivision based on a design by Calthorpe Associates, is on the northeast corner of Baseline and 170th. Steele Park will contain 74 homes on lots ranging from 1,700 to 2,500 square feet (12 to 24 units per acre). A small natural area/wetland lies between Steele Park and Elmonica Elementary School to the north. The natural area is dedicated open space.

Northwest Quadrant

The northwest quadrant contains 6.2 acres of land identified for future development. Most of this land is currently developed with low-density commercial and industrial uses. Another 6.5 acres with frontage on the north side of Baseline Road is vacant. A local property owner plans to develop 18 units of disabled-accessible housing on 1.5 acres of this vacant land, but a development application has not been submitted yet to Washington County. Single-family homes and a few vacant parcels occupy the remainder of this quadrant. Construction has begun on the extension of 170th Avenue north from Baseline to Walker Road (indicated on Figure 3-2, but not yet complete). The connection will be completed by 1998, when the light rail line begins operation.

Southwest Quadrant

Most of the developable land in the station area lies in the southwest quadrant. Approximately 51.5 acres, currently vacant or in agricultural use, have been identified as key development parcels, though development will be somewhat constrained by identified wetlands. The remainder of the land in this quadrant is developed primarily with low-density single-family subdivisions, almost all of which have been constructed since 1980. (An aerial photo from approximately that time shows almost all of the land in the station area in agricultural use (US Department of Agriculture 1982).) Some low- to medium-density multi-family housing is built along Merlo Drive west of 170th. Beaver Acres Elementary School is immediately south of that multi-family housing development.

Southeast Quadrant

Three key parcels, comprising 14.7 acres, are contained in the southeast quadrant. The Tualatin Valley Water District maintains some property on the northeast corner of Merlo Road and 170th, including a demonstration garden for drought-tolerant plants. A small, paper bag factory is located on a 5.2-acre parcel on the north side of Merlo Drive; and two other industrial buildings are located across the light rail tracks from the Portland General Electric substation. The Beaverton School District has a special education school on the corner of Merlo Drive and Merlo Road. A portion of the THPRD Nature Park is contained within the southern part of this quadrant.

Challenges and Opportunities Related to Parks and Recreation Planning

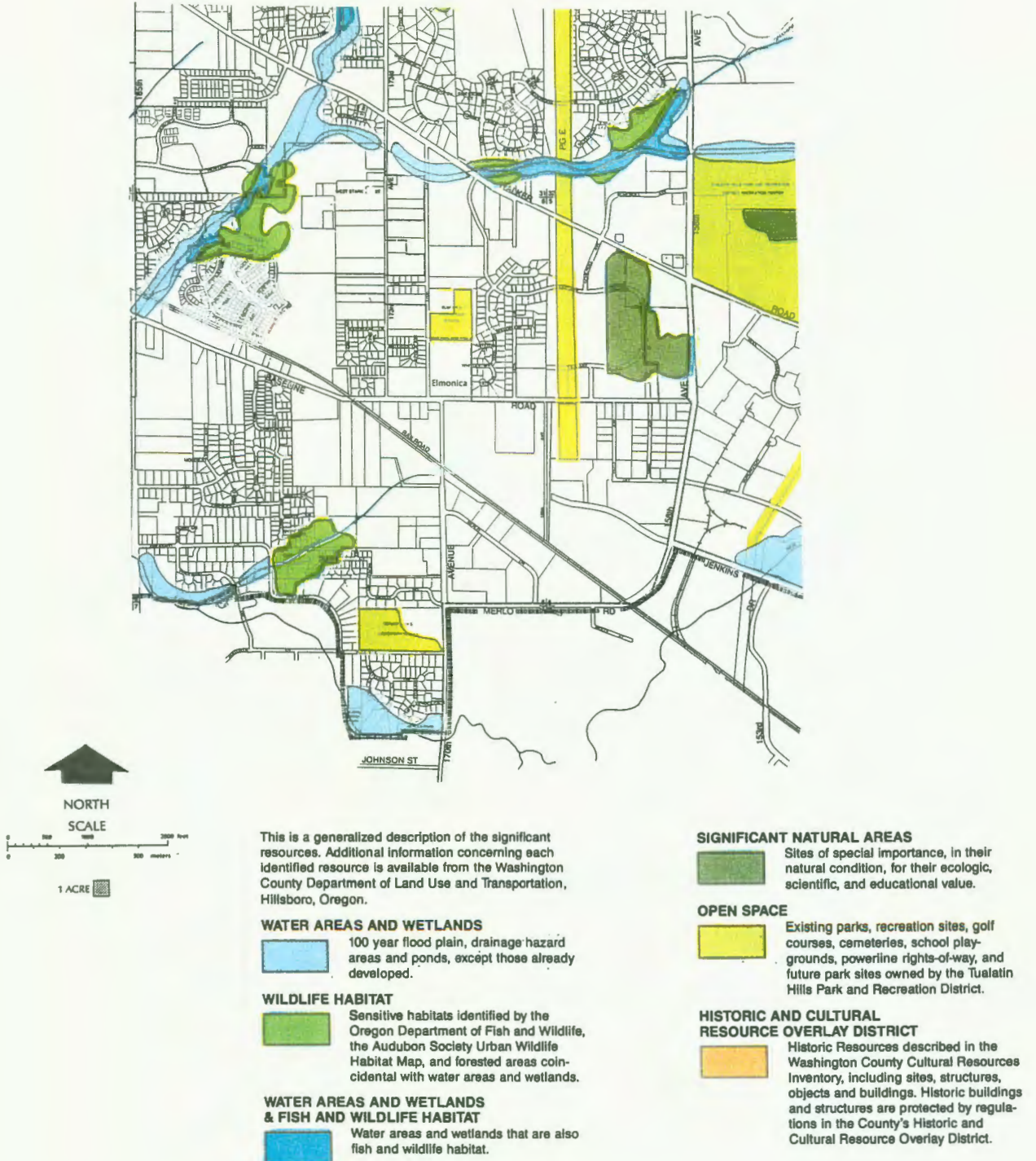
The station area has some special challenges and opportunities relating to parks and open spaces: two elementary schools, identified wetlands and wildlife habitat, and the THPRD Nature Park. In addition, THPRD's Terpenning Center is approximately one mile from the center of the station area.

The two elementary schools, Elmonica and Beaver Acres, are in the Beaverton School District. These public facilities provide play fields and equipment that can be used by neighborhood residents during non-school hours.

The most prominent natural feature within the Elmonica station area is a small, intermittent stream that runs through the southwest quadrant of the station area and connects to Beaverton Creek. As shown on Figure 3-1, Washington County's Significant Natural and Cultural Resources Map for the Sunset West Community Plan (part of the County's Comprehensive Plan) designates the stream corridor as Water Area and Wetlands (Washington County 1991). Wildlife Habitat is also designated along a portion of the stream within the station area. The National Wetlands Inventory identifies the portion of the stream at the southwest corner of 170th Avenue and the rail crossing as PEMC (palustrine emergent, seasonally flooded). Further west, but within the Elmonica station planning area, the stream is classified as PFOA (palustrine forested, temporarily flooded), and PFOC (palustrine forested, seasonally flooded) (US Department of the Interior 1989). The Washington County Soil Survey map indicates Cove silty clay loam as the soil type in the wetland area; this is classified as a hydric soil (US Department of Agriculture 1982).

The wetland area has been disturbed by agricultural practices, filled (for road crossings), channelized, and diverted through culverts. The stream flows under 170th Avenue, and there are two other stream crossings. One is a private drive, the other is Marty Lane, a gravel, dead end road. However, most of the wetland area retains native vegetation,

Figure 3-1
Significant Natural and Cultural Resources
 from the Washington County Sunset West Community Plan





including soft rush (*Juncus effusus*), spreading rush (*Juncus patens*), Oregon ash (*Fraxinus latifolia*), and slough sedge (*Carex obnupta*). Wetland enhancement would improve the stream's habitat and water-holding functions, as well as its aesthetic and recreational values. The Unified Sewerage Agency (USA) has already planted some wetland species along the stream as mitigation for a sewer line which was placed along the southern edge of the stream. The mitigation planting, done in late 1995, includes red-osier dogwoods (*Cornus stolonifera*), willows (*Salix* sp.), Oregon ash, and rushes in the area immediately adjacent to 170th Avenue and along the stream where it flows under Marty Lane.

Stormwater runoff from the recently completed Tri-Met maintenance facility is being directed through culverts into the wetland. Runoff from the large park-and-ride lot under construction at the Elmonica station will also flow into the wetland area. Wetlands can carry and absorb stormwater runoff, and remove some impurities from the water. Wetlands also play a significant role in controlling the effects of flooding, underscored by the record floods that occurred in the Portland metropolitan region in February 1996. Therefore, we feel it is critical that the natural, water-holding abilities of this stream be preserved and enhanced as much as possible.

The County-identified Wildlife Habitat along the stream, north and east of Pheasant Lane (Figure 3-1) is primarily forested and floods for part of the year. It lies between two THPRD-owned properties: Pheasant Park, a 5.5-acre parcel along Beaverton Creek, and Crowell Court, a 0.5-acre parcel between two subdivisions. Both properties are identified as Natural Areas in THPRD's Park Site Inventory (THPRD 1995). The inventory also designates both for future development. Crowell Court is shown on Figure 3-4; Pheasant Park is just off the southwest edge of the map (Figure 3-4).

Several groups of mature trees, in addition to those along the stream, are in the station area. Most of the trees are Douglas fir (*Pseudotsuga menziesii*) or Ponderosa pine (*Pinus ponderosa*).

The THPRD Nature Park is located southeast of the Elmonica station area; a portion of the 193-acre park is included in the station planning area. THPRD identifies the Nature Park as a Regional Special Facility. Developed facilities within the park are minimal (i.e., trails), and future development plans are designed to preserve the park as a Natural Area/Wetland. While this park offers unique opportunities for visitors to experience a large natural area, there are concerns about environmental impacts that may be caused by overuse. At present, there is an entrance to the park on 170th Avenue, but THPRD plans to close this entrance in an effort to monitor park use. Future access to the park will be maintained off Millikan Boulevard. Users will be able to reach the park via a pedestrian/bicycle path from the 158th/Merlo station.

The Howard M. Terpenning Recreation Complex, at SW 158th Avenue and Walker Road, is THPRD's showcase facility. It offers a variety of recreational activities including tennis courts (some covered), athletic fields, an aquatics center, basketball courts, a jogging trail,

and meeting and classrooms. A skate park is planned for construction in the near future. Natural areas are also preserved on the 92-acre site. THPRD's administrative offices are located at the Terpenning Complex, and maintenance offices are at the historic Schlottman House, also on the property. The Complex is listed as a Regional Special Facility in THPRD's Park Site Inventory.

The Terpenning Recreation Complex is just over a mile away (via streets) from the center of the 170th/Elmonica station area, offering extensive recreation facilities within relatively easy reach. Currently, most of the streets between the station and the Terpenning Complex lack bike lanes and sidewalks.

3.4 Potential Future Development in the 170th/Elmonica Station Area

This section presents a picture of what the station area might look like in 20 years. The future conditions are based on Washington County's current preferred land use concept for the station community plan and development opportunities identified in a recent real estate evaluation prepared for the County (ECONorthwest 1995). Washington County is currently seeking public input on the County's preferred land use concept, and it will likely be revised before adoption (sometime between October 1996 and May 1997). However, the preferred concept incorporates earlier public comments, so we expect the final concept to be similar to the one available at this time. (See Figure 3-2.)

The existing street system is already undergoing improvements to add capacity. 170th Avenue will be widened to three lanes through the station area, continuing north to Walker Road. Baseline is also being widened and realigned at its intersection with Jenkins Road. The extension of Jenkins Road is nearing completion. Automobiles will remain the predominant mode of transportation in Washington County, and many people will continue to travel through the station area.

Northeast Quadrant

Future development in the northeast quadrant of the station area will be constrained by the Tri-Met maintenance facility and park-and-ride lot. These two facilities take up a large amount of land immediately adjacent to the station, undermining development opportunities there. However, vacant land is available further from the station. The 3.4-acre parcel at the corner of Baseline and 170th is designated for transit-oriented retail commercial in the preferred land use concept. Because of its location on two major streets, auto-oriented retail is likely to occur, at least in the near future.

Figure 3-2

Elmonica- 170th Avenue Light Rail Station

Washington County's
Preferred
Land Use Concept

February 1996

Scale: 1" = 700'

0' 175' 350' 525' 700'

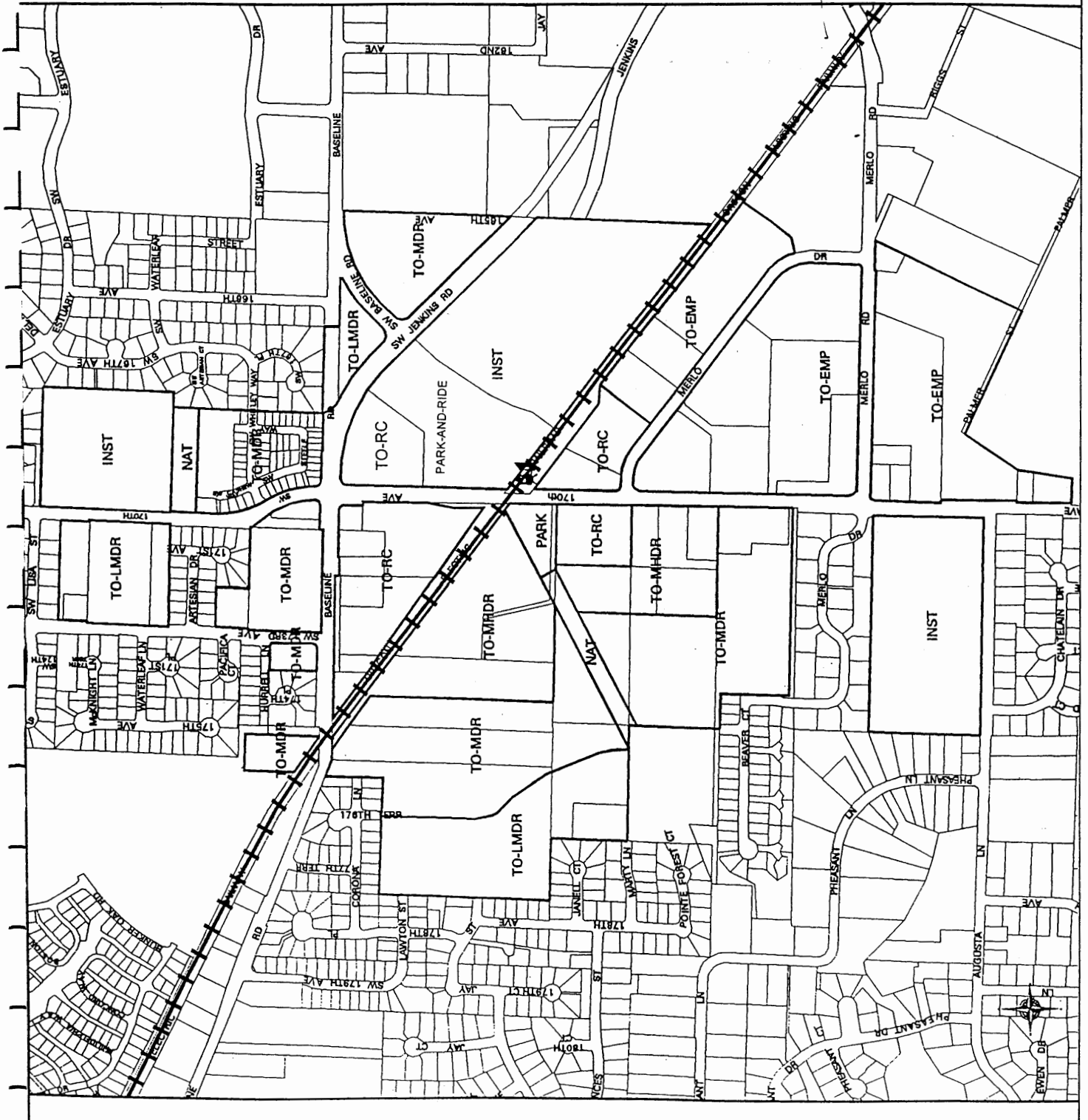


Figure 3-2, cont.

LRT STATION AREA LAND USE CLASSIFICATIONS:

Source: Washington County

| | |
|---------|--|
| TO-RC | Transit-Oriented Retail Commercial |
| TO-EMP | Transit-Oriented Employment |
| TO-BUS | Transit-Oriented Business |
| TO-LMDR | Transit-Oriented Low-Medium Density Residential |
| TO-MDR | Transit-Oriented Medium Density Residential |
| TO-MHDR | Transit-Oriented Medium-High Density Residential |
| TO-HDR | Transit-Oriented High Density Residential |
| LDR(I) | Low-Density Residential (Infill) |
| NAT | Natural Area |
| PARK | Public Park |

DENSITY STANDARDS:

| Land Use | Minimum Density | Maximum Density |
|----------|---|-----------------|
| TO-RC | 0-1/4 mile, .5 FAR 1/4-1/2 mile, .35 FAR | |
| TO-EMP | 0-1/4 mile, .5 FAR 1/4-1/2 mile, .35 FAR | |
| TO-BUS | 0-1/4 mile, .5 FAR + 1/4 mile, .75 FAR | |
| TO-LMDR | 9 du/acre (.35 FAR) | 12 du/acre |
| TO-MDR | 12 du/acre (.5 FAR) | 24 du/acre |
| TO-MHDR | 24 du/acre (.65 FAR) | 40 du/acre |
| TO-HDR | 40 du/acre (1.25 FAR) | 100 du/acre |
| LDR(I) | none | 5 du/acre |

du/acre = dwelling units per acre

NOTE: Density calculated after subtracting undevelopable land (wetlands, slopes over 20%) and planned right-of-way for major streets (major collectors and above), but not local and minor streets to be built within the project site.

Figure 3-3

Representative Housing Types and Density

Station Area Communities • Washington County, Oregon

Type

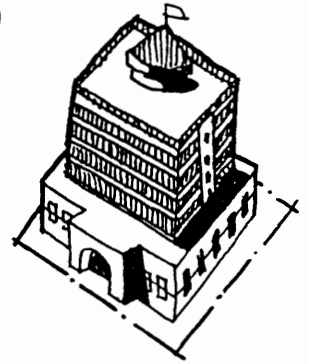
Residential Density
(Units/Acre)



Residential Towers

(Limited application to area immediately around Sunset Transit Center)

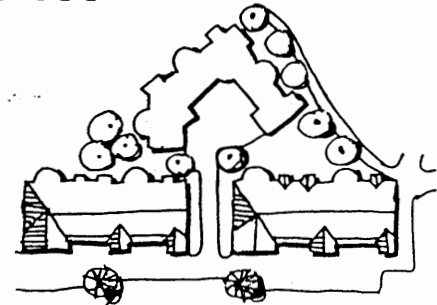
40-100



Midrise Apartments/ Condominiums

(3 to 8 stories)

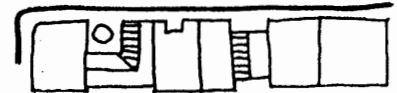
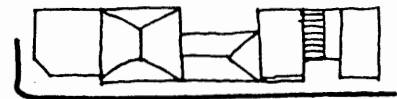
40-100



Mixed-use Neighborhood

- Street level retail/office/commercial
- Residential or additional retail/office/commercial space on other floors

24-40



“Low-rise”/ Moderate Density Garden Apartments

- With less residential open space
- With more residential open space


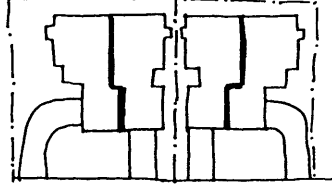

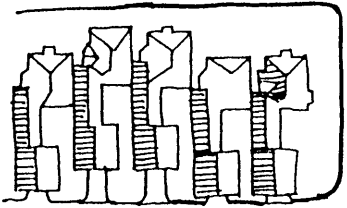

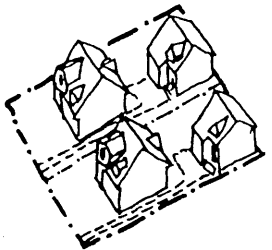

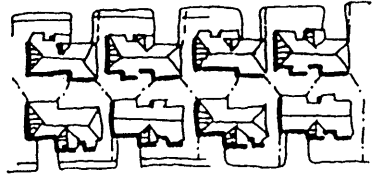

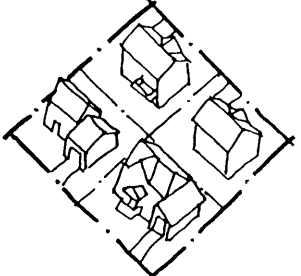
24-40

12-24



Figure 3-3, cont.

Representative Housing Types and Density Station Area Communities • Washington County, Oregon

| Type | Residential Density (Units/Acre) |
|--|---|
|  <p>Duplex/Triplex</p> <ul style="list-style-type: none">• Generally "Townhouse" in character | 10-14  |
|  <p>Rowhouse/Townhouse</p> | 12-14  |
|  <p>Single-Family with Accessory Apartments/ Carriage Homes</p> | 10-14  |
|  <p>Small Lot Single-Family</p> <ul style="list-style-type: none">• Zero Lot Line• Zipper Lot• Wide by Shallow lots | 7-12  |
|  <p>Detached Single-Family</p> <ul style="list-style-type: none">• Post WWII Suburban Development Patterns | 3-6  |

As mentioned in Section 3.3, residential development is already occurring or has been approved in the northeast quadrant. The Sunset Golf Center, a driving range, may develop with low- to medium-density residential in the future, as land values increase.

Northwest Quadrant

The northwest quadrant is also largely developed. The existing retail uses along Baseline and 170th Avenue will likely be replaced with higher-intensity retail/commercial. Parcels along 170th, located closer to the light rail station and the core of residential development, are likely to develop with retail and commercial uses that serve the station area community, such as restaurants, shops, a bank, and other services. Remaining vacant parcels north of Baseline are planned for low-medium- and medium-density residential development on the County's preferred land use concept.

Southwest Quadrant

The southwest quadrant contains a large amount of undeveloped land, almost all of which is designated for residential development. Density will be highest near the station area; Washington County recommends 24 to 40 dwelling units per acre on land designated for medium-high density residential. Apartments and condominiums will be the most common housing forms. Further west, land is designated for medium-density development: 12 to 24 dwelling units per acre. A combination of townhomes, apartments, and small-lot single-family homes fits into this category. Land on the western edge of the planning area, adjacent to existing low-density subdivisions, is designated low-medium density residential: 9 to 12 dwelling units per acre. This includes small-lot single-family homes, townhomes, and duplexes. (Figure 3-3 illustrates the housing types expected for various densities.) The southwest quadrant is projected to contain approximately 800 housing units, but the actual number will depend on densities realized in the future.

Approximately 2.5 acres in the southwest quadrant are designated for transit-oriented retail commercial. This parcel, on 170th, across from Merlo Drive, provides the best opportunity for uses serving local residents and people who work in the area, particularly in the southeast quadrant.

Southeast Quadrant

The southeast quadrant is likely to develop with an office park or high-tech, light industrial uses, with some retail/commercial uses located on 170th, adjacent to the light rail line. This quadrant will be the employment center for the station area, and will bring employees who live in other locations into the area.

3.5 Conceptual Park and Recreation Plan for 170th/Elmonica Station Area

In formulating a conceptual plan for park, open space, and recreation provision at the 170th/Elmonica light rail station area, we combined our research on parks, high-density development, and other issues with studies specific to the Elmonica station area.

This section is intended to show one application of the concepts presented in Chapter 2 to an actual station area. The conceptual plan for 170th/Elmonica is shown on Figure 3-4. The locations indicated for parks are general conceptions only. Parcel-specific plans have not been made at this time, and it is possible that none of the specific parks in this conceptual plan will be developed. Our intent is not to define exactly the future parks for 170th/Elmonica, but to provide recommendations. Final decisions depend on THPRD's ability to acquire parcels and on the needs defined by future residents of the area. However, we feel it is important that future park facilities be located in the general areas identified, as the locations were determined by analyzing opportunities and constraints of existing and future conditions in the 170th/Elmonica station area.

Land for some of the future parks/open space in the station area may be provided and maintained by private developers. Other parcels may be acquired by THPRD through purchase or dedication. The important thing is that park space is provided. We believe the number, type, and general location of parks recommended in this plan are the minimum needed to ensure livability in the station area and to provide a quality park experience for future residents.

Community Square

For the station area to succeed as a community, it should have an obvious hub of activity, and it should welcome people into it. In traditional urban neighborhoods, a public space near a shopping area often provides the hub for social as well as commercial activity. Neo-traditional and transit-oriented design attempts to re-create this type of urban interaction.

A community square should be included to serve as the central gathering place for residents and employees of the 170th/Elmonica station area. The square is a place for community events, concerts, weekly farmers' markets, etc. To encourage all-day use, it should be bordered with a mix of commercial and residential uses. Based on the most recent plans for the Elmonica station community, the best location for a hub is the southwest quadrant, between the designated retail/commercial and residential areas.

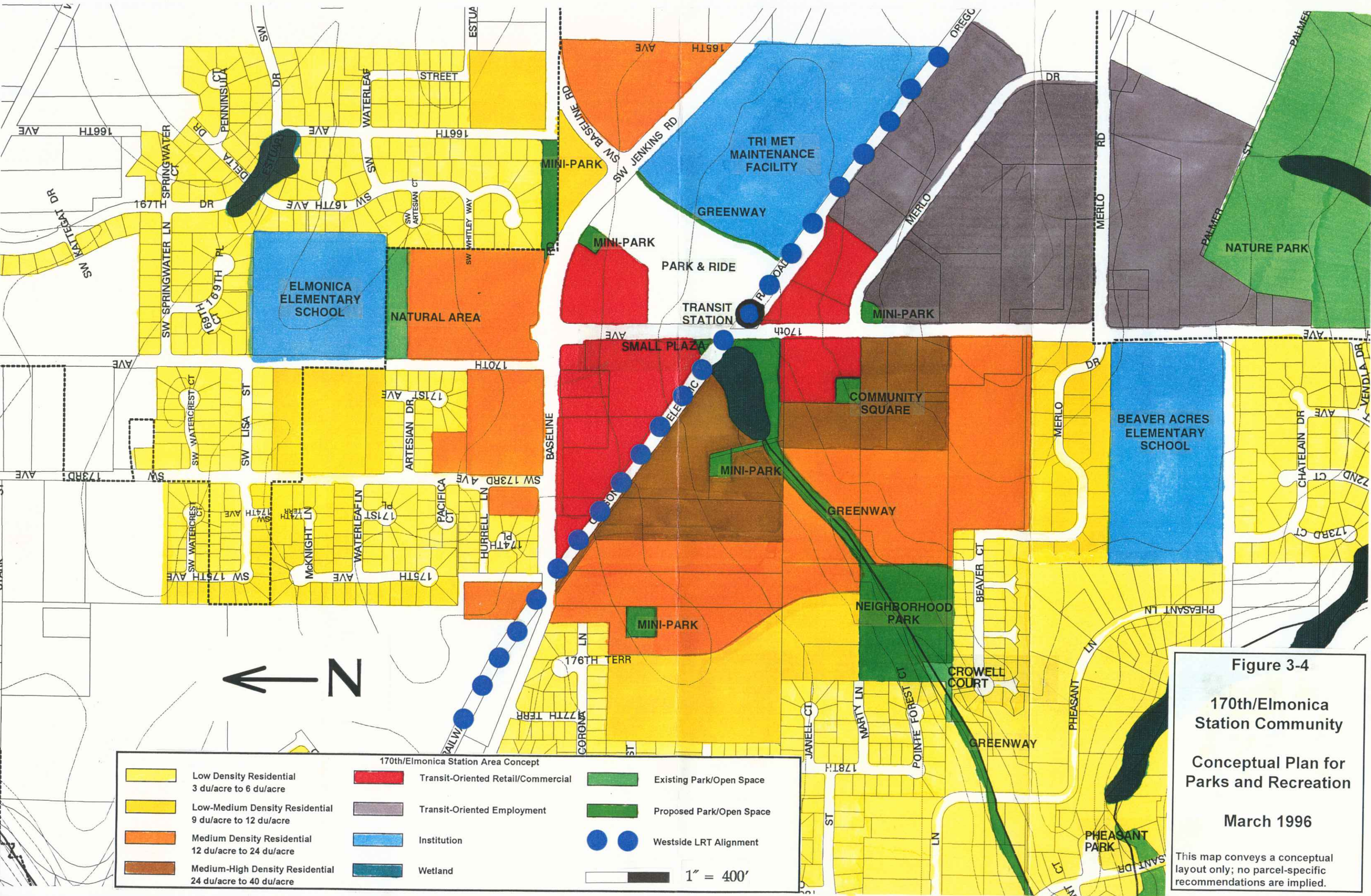


Figure 3-4
170th/Elmonica Station Community
Conceptual Plan for Parks and Recreation
March 1996
 This map conveys a conceptual layout only; no parcel-specific recommendations are implied.

Right: The Oregon Electric Railway provided early rail access to the Elmonica area.



Left: Early development in Elmonica included the A. H. Schlottman General Merchandise (near 173rd and Baseline).

Right: This old barn is just north of the park-and-ride lot at the 170th/Elmonica station. The Conceptual Plan incorporates interpretive signage (including a photo of the barn and history of the area) in a mini-park located among the pines on the left side of this photo.



Below: The southwest quadrant of the station area contains over 50 acres of vacant land. An intermittent stream is marked by the line of vegetation in the middleground of this photo.





Above: An intermittent stream runs southwesterly from the intersection of 170th Avenue and the light rail line. The Conceptual Plan preserves this as a greenway and natural area, with a path along the stream.



Right: This stand of Douglas fir is on the southeast corner of 170th Avenue and Merlo Drive. The Conceptual Plan designates a mini-park at this site.

Below: This photo, taken from 170th Avenue looking west/northwest, shows the light rail corridor. The 185th station is just out of site. Land to the right of the corridor is shown on Washington County's Preferred Land Use Concept (February 1996) as Transit-Oriented Retail Commercial. The Conceptual Plan designates a small plaza at the corner.



The community square in Elmonica should be approximately one-half acre in size. It should feel like an urban space, combining green space with hardscape. Grass (to sit on), trees (to sit under), and plantings of flowers (for seasonal interest), should be included. A fountain, other water feature, or sculpture would provide interest and triangulation--something that prompts people to start a conversation (Whyte 1980). Because the site is near the light rail (developed on the historic Oregon Electric Railway alignment) interpretive signage describing the railway history would be appropriate.

Neighborhood Park

The station area should include a park that generally fits the proposed Neighborhood Park definition: 1 to 5 acres in size, serving residents within a 10-minute walk (see Section 2.4). Facilities to be included, at a minimum, are picnic tables, an open play field, playground equipment (either traditional swings, slides, etc.; more innovative play structures; or a combination), benches, a play pad (paved play area), restrooms, and drinking fountain(s). Other facilities that should be considered include: horseshoe courts, basketball court (at least hoops on the play pad), tennis courts, and a volleyball court. Most important at this time is to acquire the property; most development should occur later with input from residents.

The neighborhood park should incorporate the intermittent stream. The stream will provide visual interest; even when the water is low, its course creates some variation in topography. The park can also serve to protect at least part of the stream and habitat within and along it. Native, wetland vegetation should be planted in the riparian area to enhance the wetland area and its functions.

An ideal location for the neighborhood park is adjacent to/incorporating Crowell Court, an existing natural area already in THPRD's inventory. Washington County has identified a park in this location in the preferred land use concept for the station area. This is an excellent location not only for the natural elements on the site, but because it allows THPRD to add to a property within its inventory, making it a more useful space.

Trail Connections

A trail along the stream corridor will be a vital element to the 170th/Elmonica station area community. The stream corridor runs diagonally (northeast to southwest) through the southwest quadrant of the station area, beginning at 170th Avenue and the light rail station. Plans for the station area identify the southwest quadrant for containing the majority of residential uses in the station area (ECONorthwest 1995, Washington County 1995 and 1996). A trail along the stream would provide an excellent pedestrian connection to the light rail station and other development along 170th Avenue.

Currently, there are two road crossings of the stream, which will likely be improved as the area develops. A trail crossing between the two road crossings should be added to increase pedestrian access within the station area. The bridge or boardwalk crossing should include sitting areas on both sides and some plantings to define the public space.

Care must be taken to protect and enhance the wetland and wildlife areas along the stream. Native vegetation should be used to inhibit erosion, increase water holding capacity, and enhance habitat. Bridges, paved trails, and/or boardwalks will encourage people to stay out of the natural areas. Such amenities should be designed to maximize enjoyment, provide efficient trail connections through the residential areas, and preserve the natural environment. Of course, they should also be structurally sound—they will be integral transportation links.

Because the stream corridor is an identified wetland area, the trail must be developed in a manner that will not create negative impacts. THPRD will need to have the wetland boundaries delineated, then locate the trail outside of the wetland as much as possible. If encroachments into the wetland are necessary, e.g., for stream crossings, THPRD must contact the US Army Corps of Engineers (ACOE) and the Oregon Division of State Lands (DSL) for guidance in minimizing impacts. If development requires filling any wetland area, a permit must be obtained from ACOE; if more than 50 cubic yards of fill will be placed, THPRD must also obtain a permit from DSL. Boardwalks through the wetland area may be allowed without a permit, but THPRD should contact ACOE and DSL prior to any construction in a delineated wetland.

The trail should continue along the stream southwest, through Crowell Court to Pheasant Park, then through to 185th Avenue. Such a trail connection is included in the preliminary Trails and Pathways Master Plan being prepared by Draggoo and Associates for THPRD.

To expand opportunities for pedestrian and bicycle access, the trail should be extended past the station platform, through the northeast quadrant of the station area and onto the street system east of the station area. A trail alignment on the eastern edge of the park-and-ride lot, alongside the Tri-Met maintenance yard, would be the most direct route to SW Jenkins Road. We recommend a tree-lined, paved trail through this area. Once the trail reaches Jenkins Road, it would connect to the on-street trail system (sidewalks and bike lanes) which should be provided along Baseline Road and 158th Avenue. This would create a trail connection from 185th, through the 170th/Elmonica station area, to the THPRD Terpenning Center. Convenient access to the Terpenning Center would greatly enhance the scope of recreational facilities available to station community residents.

Interpretive signs should be included along the trail corridor. These can be used to explain the importance of wetland areas, the stream's connection to a larger system of wetlands, and/or simply to direct users to trail connections.

Small Plaza/Entry to Shopping Area

A small plaza should be provided on the northwest corner of 170th and the light rail tracks. Retail and office uses in the northwest quadrant will likely be oriented to serving the local station area community, primarily residents of the southwest quadrant, but also park-and-ride commuters and residents in the northern portion of the station area and other nearby residential areas (ECONorthwest 1995). Auto-oriented retail will locate along 170th Avenue and Baseline Road, but other businesses will locate behind them. To reach those businesses, we envision a pedestrian mall with its entry point where 170th and the tracks converge.

The entry would be a small plaza, incorporating a fountain or other strong visual aspect to give identity to the space and make it interesting and inviting. Some seating should be provided here, but it is important to keep the plaza relatively small—approximately 2,500 square feet. Traffic on 170th Avenue will have noise, visual, and air quality impacts on this location, but will also add activity and interest. People like to watch people, and this is where most people will cross 170th to catch the train. In sum, this is not a park for recreation or to retreat from urban activity, but to meet someone, watch people come and go, or wait for the train (or bus).

Community Garden/Mini-Park

Community gardens are parcels set aside for individuals and families to use to grow their own vegetables, flowers, or herbs. Each community garden parcel is divided into equal-sized plots, then "rented" (some charge a small fee, some do not) to individuals. Community gardens are currently quite popular in the Portland area; the Portland Parks Bureau has a list of people waiting for garden plots

It is likely that residents of high-density housing will be especially interested in community gardens. These residents will not have the backyard gardens so common in large-lot single-family development, and many will want more than, for example, tomato plants in pots on the patio. A garden also reflects the agricultural element in Washington County's history.

A community garden should be located in a mini-park in the southwest quadrant, where high-density residential uses are concentrated. The parcel need not be centrally located within the quadrant but should be surrounded by residential uses. Because a community garden looks very informal, i.e., not urban, the one at Elmonica should be located near low-medium-density and medium-density housing. This places it in the western part of the quadrant. One-half acre would provide sufficient space.

The site should only partially be developed for garden plots; the other part should include a play area (including a play structure) for younger children. This setup would allow

parents or other caregivers the opportunity to work in their garden while keeping an eye on the children. Also, many children like to get involved with growing things, but may like to play with other kids when they lose interest in seeds and dirt. Children even want to be in sight of their parents sometimes—they provide an audience (Planners Casebook 1995).

As with all parks, the specific design should be flexible enough for future change. For example, if the majority of residents interested in gardening are seniors, it may be wise to develop raised beds for better accessibility.

Mini-Park in Southwest Quadrant

One other mini-park should be provided in the southwest quadrant, north of the wetland and south of the light rail tracks. To serve the maximum number of people, it should be located within an area designated for medium-high residential development in Washington County's preferred land use concept. (See Figures 3-2 and 3-3.)

The park should be approximately one-quarter acre in size and include facilities appropriate for a mini-park, as listed in Figure 2-1. At a minimum, benches and a play structure should be provided.

Mini-Park in Northeast Quadrant

The northeast quadrant of the station area is largely developed with single-family homes. Recently, however, a large (144-unit) multi-family development on Jenkins Road was approved by Washington County. Another apartment complex, immediately east of the station area on Baseline Road has been approved by the City of Beaverton. The 74 homes at Steele Park are nearing completion. While residents of this quadrant are within a mile of the Terpenning Center and one-half mile of the proposed neighborhood park in the station area, a mini-park should be developed in this quadrant to serve the daily needs of these residents. (The dedicated open space within Steele Park is a natural area and not expected to be developed into a usable park.)

We foresee this park serving a specific purpose, depending on the demographics of the area. This small park can serve those with limited mobility, for example, young children (especially pre-school age) or elderly—people who would have more difficulty traveling to larger parks further away. Facilities in the park should be geared to the nearby population, (e.g., play equipment for preschool children, benches for seniors and others).

The mini-park should be located in the vacated portion of Baseline Road created by the realignment of Baseline at Jenkins. The parcel is approximately one-half acre in size and is surrounded by residential land. Furthermore, it would provide a shortcut for pedestrians

and cyclists traveling along Baseline Road. Trees or bollards should be placed at both ends of the park to prevent vehicles from entering.

Preservation of Significant Trees

Two groups of trees, in particular, should be preserved. The first is a stand of Douglas fir on the southeast corner of 170th and Merlo Drive. These trees form a sort of informal entrance to the southeast quadrant of the station area and would provide the basis for a mini-park. Douglas fir has played an important role in the history of the Portland region's industry. Because this portion of the station area is expected to be designated for light industrial uses, the trees become an even more important historical symbol and greenspace.

We recommend developing a mini-park on this site. The trees will provide shade, and benches would be used primarily by employees of surrounding retail and industrial development. Residents in apartments or townhouses across 170th would also use the park and would appreciate a view of the trees from their windows. Facilities should include a paved path, benches, and/or a picnic table.

The other trees of particular interest are the Ponderosa pines in the area. The stand of Ponderosas northeast of the old barn, near where Jenkins Extension meets Baseline Road, includes large trees (some 12 feet in circumference) and should be preserved. Ponderosa pines are not very common in the Portland region, but are typical of drier climates and higher elevations east of the Cascade Mountains. However, several stands of mature pines are scattered throughout the Elmonica area. Another group of Ponderosas is located near Crowell Court. Preserving the pines in the northeast quadrant will provide a visual connection to the proposed park in the southwest quadrant. The trees also create visual interest and would partially screen a portion of the park-and-ride lot from view.

We recommend maintaining the trees for their natural and historical significance, and the park should remain relatively undeveloped. A paved path, benches, and interpretive signs would be appropriate. Subjects for interpretive signs include: native vegetation and why the Ponderosas are found in the area; history of the Howard Wilson farm (including pictures of the old "swaybacked" barn); and agricultural history of the area.

Facilities Provided in Coordination with Other Service Providers

THPRD is pursuing intergovernmental coordination and cooperation as part of its Comprehensive 20-Year Master Plan effort. THPRD and the Beaverton School District recognize the opportunities for sharing facilities. The two elementary schools in the 170th/Elmonica station area provide important recreation space, especially for active recreation. While school facilities will be available to the general public only after school

hours and on weekends, these times coincide with the leisure hours of most residents. Without coordination with the school district, THPRD would have to provide more athletic fields and large, open greenspaces within the station area.

While apartment owners or management companies may not be service providers, many of them do provide recreational facilities. As described in Appendix C, the Hexagon Group conducted an informal survey of several apartment complexes in eastern Washington County. Of the 21 apartment managers contacted, 20 reported maintaining an on-site gym or fitness facility (e.g., weight room). All of them had an outdoor pool on site. Assuming this trend continues, many of the station area residents will have convenient access to indoor fitness facilities within their apartment complexes. Those without on-site facilities may utilize THPRD's Terpenning Center. Provision of indoor fitness facilities in the 170th Avenue station area should not be an immediate priority for THPRD.

The District should pursue partnerships with private parties, however. If facilities such as clubhouses or meeting rooms are underutilized in an apartment complex, THPRD should arrange to use these spaces for District classes or programs. Likewise, private pools and other recreational facilities could be used more effectively and efficiently if the District offered scheduled classes. Such arrangements would maximize the uses of the facilities while keeping costs lower. THPRD could provide maintenance for the facilities, to off-set costs for property owners, or could rent the facilities. For THPRD, the cost of utilizing private facilities saves acquisition and construction costs, and allows the District to adjust more easily to residents' demands. It is easier and less expensive to send an instructor to an existing facility than to construct a facility for an instructor.

Private developers are required, in most land use zones, to leave part of the development site in open area. THPRD could work with developers to design quality open space that is used by residents. Alternatively, if wildlife habitat or wetlands exist on a development site, THPRD could help ensure that land set aside provides connectivity for wildlife and/or protects significant natural resources.

3.6 Facilities at Other Station Areas

Some facilities, especially Community and Regional Parks, can serve more than one station area (see Section 2.4). Because of the proposed development patterns at 170th/Elmonica and proximity of the Terpenning Complex and Nature Park, it is not appropriate to site a large facility at this station area. However, large facilities located in other station areas would serve residents of 170th/Elmonica by way of their accessibility along the Westside Light Rail line.

To better link facilities in station communities, we recommend developing a trail for bicycles and pedestrians that follows the light rail alignment. Such a trail is currently being provided in Atlanta, Georgia (see Appendix E.)

The corridor of the Westside Light Rail line could accommodate bikes and pedestrians. It could also be enhanced with vegetation to create an aesthetic parkway linking station area communities and their associated park and recreational facilities. This would enhance the livability of the station areas and connections between them. It would also make riding the light rail more pleasant and could thereby stimulate ridership. With a variety of recreational services and opportunities offered at the various light rail station parks, residents will have a choice of several recreation options at either end of their journey.

To help finance the trail and enhancement of the light rail corridor, a system such as that used at Pioneer Square could be developed. (Commemorative bricks were sold, and people can look for their names in the Square's paving.) Individuals and corporations could be encouraged to purchase a tree to be planted along the line, donate a tree (or trees) as a memorial, or adopt a section of the trail. Community organizations like Portland's "Friends of Trees" are valuable resources and should be enlisted to help plant trees along the light rail line. They organize neighborhood tree plantings and also donate seedlings to neighborhood groups. There are other possibilities for involving the community in enhancing this corridor to create a parkway, such as volunteer efforts and fundraisers.

We understand that Tri-Met is concerned about safety issues that may arise by allowing bicyclists and pedestrians to utilize the light rail corridor. However, the impacts and costs of a parkway should be investigated. Establishing a comprehensive greenway trail system would be a significant contribution to the residents of Washington County.

❖ CHAPTER 4 ❖

IMPLEMENTATION

In this time of rapid land development and change, it is important for THPRD to adopt a pro-active park land acquisition policy. Park land should be identified and set aside as soon as possible, before other development precludes park and recreation uses or makes acquisition costs prohibitive. In addition, early park development can benefit a station community or other TODs:

"The timely commitment of public infrastructure and amenities, such as parks and open space, will contribute to the project's success by establishing a quality image for the neighborhood in early phases." (Calthorpe Associates 1993)

Implementation of a park, recreation, and open space system for station communities will require efforts from multiple agencies and jurisdictions. While some of the following recommendations may lie outside THPRD's jurisdiction, it is important for THPRD to plan land acquisition in the context of and with cooperation from other responsible land use planning agencies. These agencies include Washington County, the City of Beaverton, Metro, Unified Sewerage Agency, and the City of Hillsboro.

Implementing plans for transit-oriented developments may require cities and counties to develop new guidelines and design criteria for addressing livability issues in a mixed-use environment. Many jurisdictions are still in the process of developing codes to translate the goals of neo-traditional neighborhoods into concrete development plans. An ongoing issue within this process is how to create planning policies for establishing open space frameworks in station communities and other high-density areas.

4.1 Designating Parks in the Land Use Planning Process

It is important to identify the location and size of sites to be set aside as parks. Jurisdictions involved in planning TODs have designated park locations on a land use plan map for the area, then encouraged developers to adhere to these designations (Mastrantonio-Meuser 1995; Spencer 1995). Park designations on a land use plan map for a new development should be accompanied by regulations or processes which ensure that designated areas are set aside.

4.2 Special Plan Districts

Special plan districts have been used by cities to apply the principles of transit-oriented development to a particular area. Special plan districts are important for planning station communities because these areas offer a different set of conditions than do typical suburban land use patterns. Special zoning districts for transit-oriented developments may emphasize or require a mix of land uses, an interconnected street pattern, minimum densities or floor area ratios, and building heights, setbacks, and orientation. They may also specify design standards that help create pedestrian-friendly environments and ease pedestrian movements.

Zoning codes can address parks in these new developments both directly and indirectly. They may establish a procedure for dedication and funding of designated park space. One agency incorporated land use plan maps showing park locations, minimum park size, and requirements for trails and accessways into their zoning ordinances for a special plan district (Clackamas County 1995). A code can require that development minimize disturbance of natural features like treed areas, wetlands, and stream corridors.

It is important not only to acquire parks, but also to ensure quality design that encourages park use. A zoning code for a special plan district may set design standards which apply specifically to uses surrounding parks. Such a code could require that parks be bordered by roads, trails or open space, rather than parking lots, backs of buildings, or blank walls. It might require that buildings facing parks contain windows or architectural features like bays and balconies or that they meet height and setback limitations. Such design standards help create pedestrian-friendly, interactive environments which enhance parks.

Many implementation strategies discussed below can also be incorporated into special zoning overlays designed specifically for station areas.

4.3 Land Acquisition Strategies

Private Donation

Private land owners may donate parcels to THPRD for the development of parks and recreation facilities or open space preservation. This method for acquiring land has long been employed by THPRD. The limitation of this method is that the areas donated may not be optimal park locations.

Developer Dedication

As part of a new development, a land developer may be expected or required to dedicate land for parks. Negotiations can occur between the local planning agency and the developer as to the size and location of the dedication and who takes responsibility for development and maintenance of the park. THPRD, as the expert in this field, should participate in negotiations to ensure that the land dedication meets THPRD's needs.

Fees In-Lieu of Dedication

Another financing method is to implement special park fees for a particular district. Clackamas County's new ordinances for Sunnyside Village state that a fee in lieu of dedication is due from each unit. The County's zoning code provides a model for calculating an appropriate fee per unit based on unit type and overall park and area (see Appendix K). Such fees should be formulated to adequately support park acquisition costs created by the new development but not so high as to significantly raise housing prices in places like station communities, where affordable options are a goal. Fees thus collected should be used entirely for park acquisition and development, not maintenance.

Systems Development Charges

Parks and open space in new development can be finance, at least partly, through the development process itself. Systems development charges (SDCs) are an effective method of ensuring that new development helps pay for the new infrastructure necessary to support it. Each new housing development could have a SDC for parks and open space, as well as for roads and water and sewer lines.

Implementation of SDCs is supported by many residents in the THPRD service area. Public comments received in community workshops and committee meetings conducted by and on behalf of THPRD reflect this support (see Appendix B).

Density Transfers

Certain circumstances, such as topography or environmental constraints, may make it difficult to develop on a particular site, so the permitted development density for that property is moved to another location, increasing the permitted density for that parcel. Wetlands on a privately owned parcel could be preserved if the owner is allowed to develop another site at increased densities, resulting in no net loss of units to the owner. Density transfer from lands designated for parks and open space to other locations could be pursued by both Washington County and THPRD.

Local Improvement Districts

Local improvement districts (LIDs) are formed by local residents in response to a particular need. The residents agree to assess themselves fees to pay for improvements to address the need. They then hire a contractor or have a local agency do the improvements. LIDs could be formed to create park facilities. Residents would acquire park land with their own money and could either develop and/or maintain it themselves or dedicate it to THPRD for development and maintenance.

Adopt-A-Park

To help finance the enhancement of parks and recreation facilities, a system such as was used for Pioneer Courthouse Square (buying a brick) could be developed. For example, individuals and corporations could be encouraged to purchase a tree to be planted in a park, or donate trees or benches or other items as memorials.

Another possibility to involve the community in enhancing parks and recreation is to institute an Adopt-A-Park strategy. Interested local residents would take partial responsibility for the design, care, and maintenance of their own park. Successful versions of this type of program have occurred throughout the country, for example, using volunteers to clean specified stretches of highway or to clear unwanted vegetation from parks.

By creating an Adopt-A-Park group, THPRD would create a conduit for receiving public input about needs at that park. The group could create the nucleus of input for initial design of the park and for ensuring that the park changes to meet future needs. An Adopt-A-Park group could also be responsible for periodic maintenance or organizing special activities at the park. This would substantially enhance the benefits of the park to the community. It may also ensure high usage of the park by creating a sense of responsibility and collective ownership of that public space.

4.4 Alternate Parks Provision Strategies

Alternate strategies for park acquisition and maintenance may lessen the financial burden on the parks district, lead to greater recreation provision, and result in outcomes beneficial to multiple parties.

Letting Private Developers Provide Facilities

The Hexagon Group's survey of recently-constructed apartment complexes in Washington County revealed that many of them provide on-site recreational facilities. While apartment developers have typically installed pools and gyms, they could also be encouraged to provide courtyard areas, specialty gardens, or passive recreation facilities as part of their developments.

Another private provision alternative is small parks managed by a homeowner's association. This could work especially well with parks which demand labor investment and interaction, such as those containing delineated plots where residents grow flowers or vegetables. Such park space would need to be developed concurrently with housing construction and would require commitment from the developer.

A cautionary note must be made. While private parties might significantly contribute to park and recreation facilities for Washington County residents, they cannot entirely supplant the need for public facilities. It is impossible to ensure that each individual's recreational needs will be supplied by private development. Because they are open to all residents, public facilities are essential to providing equitable access. However, private recreational facilities might influence the quantity and type of parks provided by the public sector.

Public/Private Partnerships

There may be opportunities to encourage private land owners to allow public use of their facilities. One example is allowing conditional uses within a particular zone if the developer agrees to provide recreational facilities. Clackamas County's new Zoning Ordinances for Sunnyside Village contain a special Community Service District in which conditional uses may be permitted by providing community facilities like meeting rooms, gymnasiums, or performance facilities.

A zoning ordinance could also allow larger-than-usual building setbacks for retail buildings in order to accommodate small plazas and outdoor seating.

Joint Acquisition with Other Public Agencies

In accordance with suggestions made in Third's 20-Year Master Plan Process, the parks district should consider joint acquisitions with other agencies such as the local school districts or Unified Sewerage Agency.

4.5 Responding to Future Change

Addressing community needs and preferences is essential to creating successful parks. Planning for parks in new neighborhoods is challenging because residents are not yet present to provide input. While THPRD can consider general demographic trends, it is impossible to determine who the residents of a new neighborhood will be. Furthermore, demographic characteristics do not necessarily tell us individuals' park needs and preferences. It is important to involve residents in planning and developing neighborhood spaces in order to build connection to and a feeling of investment in those spaces (Hester 1975).

Flexibility is also important in planning successful parks in new neighborhoods. After acquiring park sites in new neighborhoods, THPRD should leave them relatively undeveloped until residents move into the area (Hester 1975). Near-term improvements could include planting and grading to define spaces within the park, and adding seating and play structures that can be moved at a later time. These improvements create an attractive amenity for early residents and a draw for the development, but allow flexibility for future park redevelopment.

When more residents move in, THPRD should conduct outreach to determine what uses the residents want. This can be done through public workshops, working with neighborhood associations, etc. This approach would also save THPRD from trying to predict what types of recreation will be popular in the future, especially in TODs, which are new to THPRD's experience.

❖ CHAPTER 5 ❖

SUMMARY OF RECOMMENDATIONS

The issues and criteria presented in preceding chapters can be distilled into a set of recommendations:

- ◆ Continue to work with Washington County and other agencies in the station community planning process to identify optimal future park and open space areas and solidify these into a land use plan for the station communities.
- ◆ Work closely with other agencies to create pedestrian, bicycle, and automobile connections between park and recreation facilities.
- ◆ Acquire identified park land in station areas as soon as possible. Negotiate with developers or require them to dedicate land identified for parks in the land use planning process. This will require coordination with Washington County and the City of Beaverton.
- ◆ Create a system of small parks which are developed in a flexible manner to allow for future development. Activities should also be programmed for flexibility.
- ◆ Institute a system for financing parks and recreation facilities in TODs. Employ methods such as SDCs and fees in lieu of dedication to assure that new developments finance the parks needed to serve them.
- ◆ Locate and design facilities to enhance accessibility by all persons. All residents of a station community should be within a three-minute walk of a park facility. Pedestrian, bicycle, transit, and automobile connections should be maximized.
- ◆ Emphasize multi-purpose parks and facilities to maximize flexibility.
- ◆ Emphasize the quality of park and recreation opportunities over the quantity of space at each site. Small parks will be important in station communities.
- ◆ As neighborhoods become established, further develop the park system with reference to suggested design criteria and community input. Solicit input from residents through community workshops, etc. to obtain information on their needs and preferences.

- ◆ Use opportunities for cooperation and coordination with other public and private service providers (e.g., school district, Unified Sewerage Agency, apartment owners) to maximize efficiency in providing parks and recreation services.
- ◆ Advocate the use of arrangements that encourage developers to contribute public amenities (e.g., parks, trails) by allowing them special development rights. Tools include density transfer, allowing conditional uses in exchange for providing recreation facilities, or increasing allowed setbacks for providing plazas/seating areas adjacent to sidewalks.
- ◆ Continue to provide parks and recreation facilities that serve all ages.

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**A PLAN FOR PARKS AND RECREATION
IN LIGHT RAIL STATION COMMUNITIES**

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❖ APPENDIX A ❖

EXISTING CONDITIONS FOR THPRD

This appendix summarizes THPRD's current service criteria and provides a park classification matrix that may be compared with the proposed service criteria in Chapter 2.

A.1 THPRD Background Information

THPRD is a special service district formed by a citizen group in 1955. It is the largest special park and recreation district in the state of Oregon. THPRD serves the city of Beaverton as well as unincorporated areas of Washington County, including the communities of Aloha, Rock Creek, Cedar Mill, Cedar Hills, and Raleigh Hills.

The District's stated mission is to provide year-round recreational opportunities for people of all ages and economic levels. It operates a variety of park and recreational facilities, including a major sports complex, two recreation centers, a regional nature park, seven swim centers, a day camp, two lakes, a library, and an historic estate. It is a very successful park district, with a great deal of citizen support, and is currently expanding facilities in order to maintain the quality of services it offers.

A.2 Current Service Criteria

Goals, Policy Statements and Objectives

THPRD currently has no clear set of service needs criteria. However, the District's goals and objectives are clearly stated. The District's mission statement is:

"The basic goal of the Tualatin Hills Park and Recreation District is to develop a quality park and recreation program that meets the leisure time needs of the citizens of the District and insures that all ages and economic levels are served in accordance with changing times and conditions."

A full set of Policy Statements and Objectives refines the statement. One item to emphasize is policy statement #17: "Insofar as possible, provide a similar or equal level of service throughout all areas served by the District."

Service Criteria

The current criterion is essentially that there be a park within a half-mile of each residence within the THPRD district. The criterion is set through classification of current parks and services. It is not a strict standard that is part of a clearly-stated and separate needs model. The half-mile distance is embedded in the description of the "neighborhood" or smallest-level classification of parks. Other classifications serve larger portions of the district or perform very special functions. Some other criteria can be identified from these classifications as well, as will be described below.

Park Classifications

THPRD has six separate park classifications. Each serves a different number and range of residents or serves a special function. Each has a different level of improvements and facilities on the park property.

Neighborhood Park

The Neighborhood Park "provides a basic recreational opportunity" and "a peaceful, refreshing, physically challenging, or imaginative atmosphere" (THPRD, no date). The service area of the neighborhood park includes all residents within one-half mile of that park. This distance ensures that it is within a reasonable distance for pedestrian, bicycle or other non-motorized access. By limiting the need for motorized vehicles, the Neighborhood Park performs several functions:

- ◆ provides easy access for children (and other people who are unwilling or unable to drive),
- ◆ minimizes negative spill-over impacts from traffic congestion, parking and noise on the surrounding neighborhood, and
- ◆ minimizes the danger of traffic to park users.

Size of the Neighborhood Park is set in the range of 3 to 5 acres. This allows for the versatility of the space and some of the more land-extensive facilities listed below. The District's service area is largely suburban and has been since THPRD's formation. Given the current low density of land use, this size range is probably appropriate. However, in the station areas of the future, this size requirement will have to be sharply scrutinized and may need to be reduced for parks analogous to the Neighborhood Park service level.

The specific improvements and facilities provided for the Neighborhood Park vary depending on the characteristics of the site and the preferences of the residents within the park's service area. Below are a list of basic improvements and a list of recreational facilities typical of the Neighborhood Park.

BASIC IMPROVEMENTS

Grading and drainage
Seeding
Irrigation
Landscaping
Signs
Paths and trails
Drinking fountain

RECREATIONAL FACILITIES

Picnic tables
Play field
Playground equipment
Horseshoe courts
Park benches
Multipurpose play pad
Tennis courts (max. 2)
Volleyball court

Though each Neighborhood Park does not serve a large population, it does include a number of improvements and facilities. Adding routine maintenance and upkeep at even this minimum level carries significant costs.

This level of park service should be available to all residents within the THPRD service area. This requirement is clear, given statement #17 quoted above in "Goals, Policy Statements and Objectives" and the description of the Neighborhood Park. Thus, the *de facto* service criterion is formed: all residents must be within one-half mile of a District park facility, with Neighborhood-level characteristics and facilities.

Community Park

A Community Park is intended to serve a number of neighborhoods. As such, it includes a higher level of improvements and facilities, with a corresponding higher cost in land acquisition, construction and maintenance. The Community Park may also serve as a Neighborhood Park to those within one-half mile of the Park who do not have a separate Neighborhood Park.

The Community Park is a much more comprehensive facility than the Neighborhood Park. It is "designed and equipped in a manner which allows and encourages activities of more organized, structured and supervised play" (THPRD, no date). Community sports leagues, and clubs holding special outdoor functions can make use of this level of park. The automobile is the primary mode of travel to and from this park. This means that negative impacts on the Park's immediate surroundings are greater. Those residents using the Community Park for activities more typical of the Neighborhood Park may have access to more complex and complete facilities but lose some of the safety, quiet and variety inherent in the Neighborhood Park.

In keeping with its expanded role, the Community Park typically encompasses an area of between 10 and 25 acres. The large size of these parks reflects the types of activities they are used for, such as large sports fields with bleachers and large group activity areas.

The Community Park subsumes all the improvements and facilities of the Neighborhood Park, plus the additional ones listed below.

BASIC IMPROVEMENTS

Off-street parking
Rest room and storage bldg.

RECREATIONAL FACILITIES

Athletic Fields
Spectator bleachers
Concession
Group picnic area and shelter
Formal garden
Tennis courts (min. 4 courts)

Implicit in this description is the assumption that facilities should be made available for everyone in the District to have access to group activity areas and organized athletic competitions. The park, then, is not just open space in the view of THPRD; it is a place that serves a variety of needs and desires of the District's residents.

Regional Park

Of all THPRD park classifications, the Regional Park serves the largest area and greatest number of people. A very large park (100+ acres), the Regional Park is intended to serve the entire District as well as people outside the THPRD service area. Such large pieces of land would be questionable in a station area.

Regional Parks encompass all of the improvements and facilities of both Neighborhood and Community Parks. In addition, the following may be included:

Golf course
Water based recreation (boating, fishing)
Camping
Arboretum
Wildlife refuge
Large group picnic area
Natural area preservation
Visitors/Interpretive Center

Natural Areas/Wetlands

Natural Areas/Wetlands are defined by features other than size and service area. These areas are set aside and "left in a natural condition with an emphasis towards the preservation of wildlife habitat as well as scenic and recreation values." More than the other park classifications, parks of this classification respond very closely to the existing features of the natural surroundings.

Within this classification, linear parks receive special attention. These typically follow wetlands, streams, or drainage corridors. When they include a path, they provide both proximity to the natural feature and connections to other natural areas and neighborhoods.

The size of this classification is not specified, but varies with the needs of the site. The THPRD Nature Park, at 193 acres, is more than twice as large as the next largest park owned by the District. Other Natural Areas may be as small as, or smaller than, Neighborhood Parks (e.g., Surrey West at 1.03 acres).

Improvements to Natural Areas/Wetlands are limited by the conditions of the site. Facilities and improvements to the site cannot compromise the value of the site in its natural state. Heavy recreation is not intended in these areas, as evidenced by the list of typical improvements below:

- Pathways and trails
- Observation opportunities
- Boardwalks
- Wildlife refuge
- Native plantings
- Interpretive center

Open Space/Greenways/Trails

Open Space/Greenways/Trails are also more closely related to the properties of the site itself rather than the facilities or nearby population. These parks are areas with special recreation and/or scenic potential. Intended for more active uses than Natural Areas/Wetlands, they also typically have higher-impact improvements and facilities:

IMPROVEMENTS

- Grading and drainage
- Seeding
- Irrigation
- Landscaping
- Signs

RECREATIONAL FACILITIES

- Pathway and trails
- Play equipment

Drinking fountains

One aim of this classification is to provide non-motorized links between various THPRD facilities as well as bikeways/trails and other facilities maintained by the City of Beaverton and Washington County. This aim is only partially realized now. Station areas provide a unique opportunity to extend access by linking their large populations to each other and to other destinations of interest. It is essential to locate and set aside areas that provide connections before development precludes their acquisition.

Special Facilities and Properties

As its name suggests, the Special Facilities/Properties classification is somewhat of a catch-all. This classification includes park facilities for specific groups, or those with unique characteristics that are valued by the community.

The size and nature of the facilities vary greatly depending on the needs created by the specific nature of that facility. Service areas are not explicitly delineated but can, in some cases, be inferred from the nature of the facility itself. For instance, the seven swimming pools maintained by THPRD are intended to serve the entire District with each pool serving a certain segment. These segments vary greatly in size and shape according to the quality of the nearby facility and the needs of the residents (e.g., those needing a 50 meter pool would go to the Terpenning Recreation Complex).

Due to its open nature, this classification would include facilities not yet built, planned for or even dreamed of. However, examples include:

- Recreation Centers
- Senior Centers
- Swim Centers
- Historic properties and structures
- Historic estates
- Gardens
- Mini-parks
- Amphitheaters
- Viewpoints

It is likely that many of the possible parks within the light rail station areas would be defined as mini-parks, which are currently classified as a Special Facility. It would probably be best to reclassify many of the Special Facilities within the first three Park classifications. Such a restructuring of the classifications would tie many park types currently labeled as Special Facilities more strongly to a service area.

A.3 Current Park Classification Matrix

One of the ultimate goals of this plan is to develop a set of criteria for providing service in future station areas. Many considerations will be included in the eventual criteria, as discussed in Chapter 2. However, it is helpful to simplify THPRD's current classifications into a simple set of criteria. These criteria can be modified and expanded upon to create the more complex and inclusive set of criteria, one that reflects the opportunities presented by station areas. Figure A-1 shows summarizes the current classifications in a matrix.

**Figure A-1
Current THPRD Parks and Facilities Classification Matrix**

| THPRD Classification | Size | Service Area | Population Served | Facilities |
|--------------------------------------|-------------|---------------------------------|--|--|
| Neighborhood Park | 3-5 acres | 1/2-mile radius | 2,000-5,000 | Picnic tables Play field Playground Horseshoe courts Tennis courts (2 max.) Volleyball court |
| Community Park | 10-25 acres | 1- to 3-mile radius | 10,000-15,000 | Group picnic area/shelter Formal garden Tennis courts (4 min.) Athletic fields Bleachers Concession |
| Regional Park | 100+ acres | 55 sq. mi. (THPRD service area) | 170,000 (population in THPRD service area) | Wildlife refuge Large group picnic area Natural area preservation Visitors/Interpretive Center Golf course Water-based recreation Camping Arboretum |
| Natural Areas/ Wetlands | Varies | Varies | Varies | Pathways/Trails Wildlife refuge Observation opportunities Native plantings Boardwalks Interpretive Center |
| Open Space/ Greenways/Trails | Varies | Varies | Varies | Pathways/Trails Play equipment |
| Special Facilities and Properties | Varies | Varies | Varies | Recreation Center Swim Center Senior Center Historic properties Community gardens Amphitheaters View Points Mini-Parks |

❖ APPENDIX B ❖

PUBLIC INPUT

B.1 Telephone Survey, 1994

THPRD commissioned a telephone survey of public opinion about the District in June, 1994. Randomly-chosen residents were polled by telephone, with 403 total respondents. This survey was conducted prior to a bond measure for the District that was eventually passed by the residents.

The most telling result of this survey was the lack of support for substantially expanding spending and facilities maintained by the District. Although 55 percent were in favor of a \$15 million bond measure, only 45 percent (*of those already indicating support for the \$15 million measure*) supported a \$26 million bond. The two main reasons cited by those against any bond measure were that taxes were already too high and that the District already had enough parks. A further question explored the residents' attitude toward acquiring more land now while it is still available. An even 48/48 split was the result, and even this level of support was evident only when the question was phrased, "We need to preserve park land now while it's still available *even if our taxes do go up a bit* [emphasis added]." Residents of the District did not show strong support for increased spending by THPRD.

Another question posed during the survey dealt with ratings of statements' effectiveness in garnering support for a bond measure. The statement that received the most positive support was "A strong park and recreation system is an important way to keep kids off the streets and out of gang activity." This response, perhaps to be expected in "less-advantaged" areas of Portland, shows up even in this suburban District. This is an important message about the role of parks which should be considered in developing the conceptual station area plan and proposed classification matrix.

Overall faith in the economy has improved somewhat since 1994, so the same survey conducted today might yield somewhat more positive opinions in regard to spending. However, the emphasis on improved maintenance and development on land the District already owns evidenced by several questions is unlikely to change dramatically.

Station areas present more uncertainty. In the Metro 2040 Growth Concept, these station areas will receive a good portion of the population growth within the District, yet the attitudes and preferences of future residents cannot be assessed at this time.

B.2 Community Workshops, 1995

A series of neighborhood workshops was conducted by THPRD between mid-October and early November of 1995. These were conducted as part of the 20-Year Comprehensive Master Plan process. Attendance was not overwhelming (between 3 and 9 participants at each of six workshops), but a number of important issues were raised. Although the results of these workshops cannot be assumed to be representative of residents of the entire District, they provide indications of residents' concerns.

Many issues were raised at each meeting. After generating a list of concerns and comments, ranks were assigned to the most important elements. We highlight a few of the most prevalent here. The need to ensure flexible use of THPRD facilities was raised repeatedly. As stated in the summary of Workshop #1, "Flexible use of facilities will provide [the] best value."

Another concern centered around Neighborhood Parks. The participants indicated a desire to limit parking around Neighborhood Parks to ensure the predominant users were locals. The parks should not be an "invitation for beer parties and drug dealers." This sentiment reiterates the fear of inappropriate use mentioned during the telephone survey. One important role that parks are perceived to play is improving the community by providing alternatives to negative activities. Another activity idea generated by the workshops was that THPRD have community gardens at neighborhood centers.

Participants identified the need to improve communications with those who might be involved in land acquisition by the District. This included the need for the District to "better explain benefits of donations [of land to THPRD] to landowners."

The need for parks in dense areas with apartments was identified by workshop participants. Significantly, it was indicated that the low income families in these areas would need parks. The assumption that apartments will necessarily be inhabited by low-income families is perhaps not surprising for an area where housing is predominantly single-family. However, it indicates a challenge in the future acceptance of the station areas.

Other needs indicated were the development of the Portland General Electric powerline corridor for a trail/linear park, open space preservation, preservation of small natural spaces and conservation of resource areas, and the need for trails to make connections with other significant trails, sites or destinations.

One group of participants emphasized the importance of parks planning for station areas. They wanted THPRD to focus land acquisition on future high density areas such as station areas and Town Centers. This was ranked of highest importance during that workshop.

The interest in higher density areas was mirrored in a different way at Workshop # 6. Here, participants identified the need to serve the Farmer's market and other uses requiring a hardscape in central Beaverton. Pioneer Square was raised as one example of a central hard surface location that THPRD could maintain (perhaps through partnership with the City of Beaverton) for varied uses.

Finally, the issue of developers' responsibilities was raised. The idea that developers should provide pocket parks, or contribute land and money (SDCs) for parks to meet the demand created by new residents in their developments was ranked highest in importance by several participants.

The workshops provided a somewhat different picture of the District residents' attitudes than the earlier phone survey. The need for more parks in the future was identified repeatedly. Yet, at the same time, the cost of acquiring land in an inflated land market was seen as a real problem. Thus, today's public opinion climate is one in which there are many desires, but a clear sense of fiscal limitations.

B.3 Mail Survey, 1995

In September 1995, a mail survey was conducted on behalf of THPRD. The survey was intended to obtain input from residents who were unable to attend the public workshops. Response rates to the mail survey were above 20 percent. This survey provided an array of useful information for THPRD. Selected portions of the survey have direct application to this report.

All five of the highest rated priorities deal with outdoor spaces. The consultant conducting the study characterized this as "concern for the loss of open space, of land for future park needs and of trails and bikeways". Also, "stream and wetland protection were mentioned frequently." Furthermore, "passive activity such as walking, enjoying nature and relaxing receive a higher preference than do the active pastimes such as jogging or bike riding." In fact, almost 25 percent indicate ride bikes. The second block of highest priority is recreation for kids. The third block is recreation centers and aquatics.

Benefits cited include "socialization, and community (social and natural) emphasis. "there seems to be a very clear expression that people see THPRD providing an important basis for a safe, healthy, livable community."

Of respondents, 34 percent gave "no time in my schedule" as a reason for not visiting parks or participating in programs. Parks that are well-integrated with transit will help address this problem for those who use transit for their commute. The parks will then be on the way home.

Respondents indicated that the District should provide safe places and programs for children and fill the void left by reduced school programs. Childcare, however, was not significantly supported.

B.4 Issues from 20-Year Master Plan Process

Several issues were raised by residents and participants both in committee meetings and workshops. One issue dealt with flexibility in parks design. For example, soccer was “not even a blip on the radar screen 20 years ago”. This provides an important warning for predicting future needs over the long term. New interests that are marginal at best now, or even unknown, may be the next ‘new thing.’ Only by incorporating flexibility in design and process can this problem be addressed.

A second set of issues dealt with future land acquisitions for the District. Concerns were raised that the District needs to be more aggressive with land acquisition. The idea was to obtain the land now and worry about exact uses later. They also supported future joint acquisition and programming with the Beaverton School District and other agencies. Connected to these issues were ideas for funding new parks. System Development Charges applied to new developments were raised as a possibility, as were Local Improvement Districts for specialized needs.

Importantly for the focus of this report, members demonstrated support for non-automobile access to parks from light rail stations and other transit. Also mentioned was the need for “urban parks” near stations.

❖ APPENDIX C ❖

PRIVATE PROVISION OF SERVICES AND FACILITIES

C.1 Recreation Facilities in Apartment Complexes

Higher density residential developments, especially apartment complexes, often provide recreation facilities for their residents. To the extent that such facilities are provided to residents in the new station areas, this will reduce the need for public provision of facilities by THPRD. It is, of course, difficult to project the extent and type of facilities that developers will provide in new future developments. However, in order to develop some understanding of what might be expected, the Hexagon Group informally surveyed a number of recently-constructed apartment developments in Washington County. The results are displayed in Figures C-1 and C-2.

Interviews were conducted over the telephone, with questions posed to on-site management staff. Properties range from 65 to 630 units and were built between 1986 and 1996, with the majority constructed in the 1990's. The properties chosen should give a reasonable idea of current provision of facilities. However, we must caution that these developments were not chosen randomly, but rather a cross-section was chosen based on geographic location within the District and ease of contact. Thus, it is possible that responses are not representative. However, this should have no real impact on the conclusions drawn given the general nature of our analysis.

Several facilities stood out above all others. All 21 complexes provide an outdoor pool and fully 20 provide both a spa/jacuzzi and fitness gym. Slightly less frequent, but still in the majority are clubhouses (17 properties), tot lots (14 properties) and saunas (12 properties). Other facilities are provided at 1/3 of the properties at best.

To the extent that new residents in station areas will live in such apartment and condominium complexes, their demand for certain facilities will be low. Our survey suggests that there will be little need for new outdoor pools, spa/jacuzzi facilities or fitness gym equipment, except by those not in such developments. Even the smallest development, at 65 units, had an outdoor pool, spa/jacuzzi, fitness gym, tanning facilities, clubhouse and even a community garden.

At this stage it is impossible to accurately predict what percentage of new residents will live in such developments. It is safe to say, however, that demand for THPRD provision of those facilities that are widely available will be lower than if the same population growth

were somehow accommodated by single-family dwellings without common recreational and sports facilities.

Other results that stand out from this survey point to facilities that THPRD probably should focus on due to the lack of provision by private entities. Only three of the 21 locations provided an indoor pool. Given our local weather, we can assume that demand for indoor pool space will keep pace with population growth. In addition, few locations offer basketball, tennis, racquetball or community gardens. These, then, may be more important to explore as possible facilities to provide at station areas.

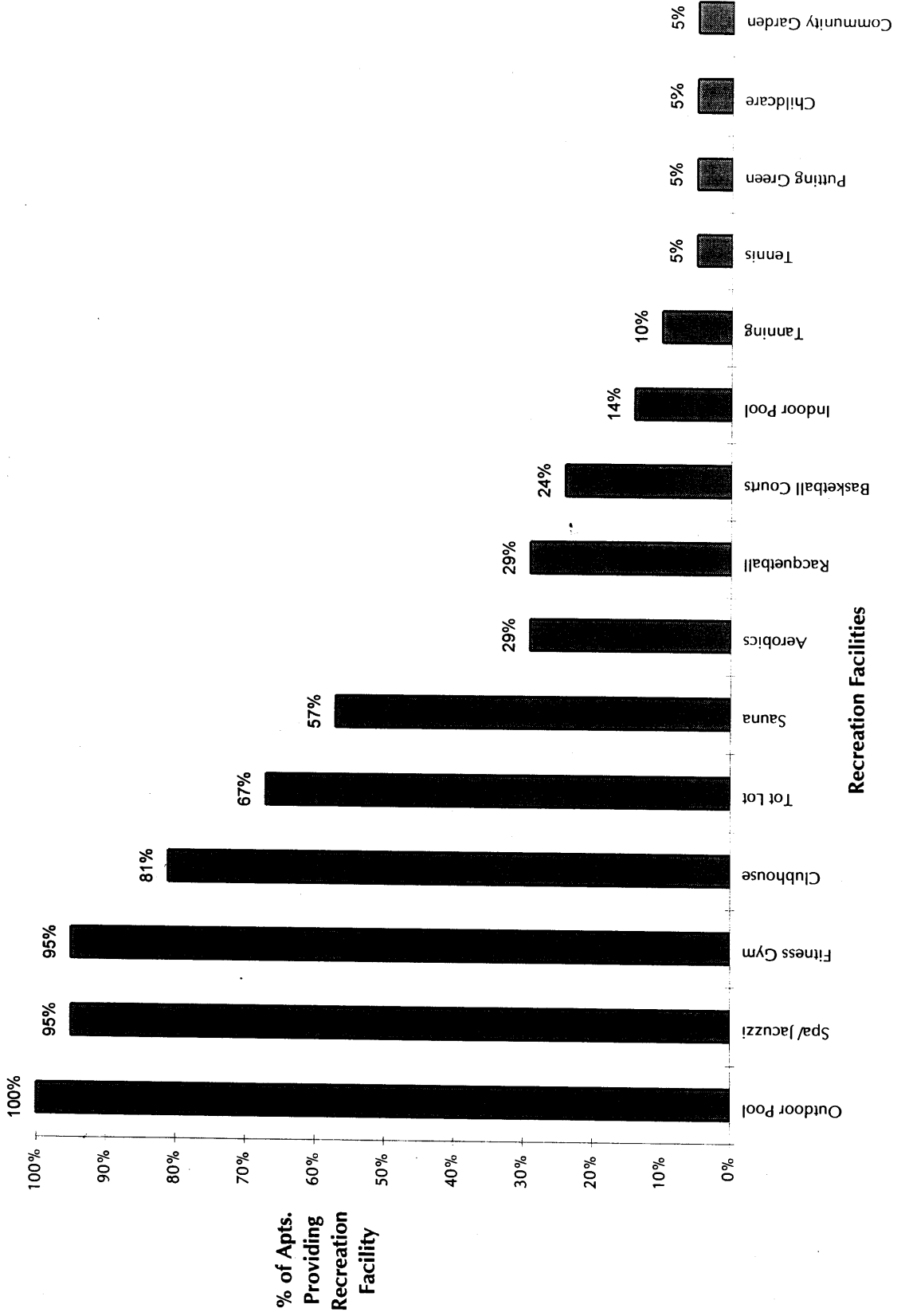
Other facilities are provided at only a few locations. Tanning facilities, putting greens, and childcare facilities fall into this category. For various reasons, we have not included these services among those that THPRD should provide in the future. Tanning is widely available from private companies and does not truly fit the "park and recreation" goal. Putting greens are most useful when connected to a golf course. Because golf courses require huge amounts of land, they should not be sited in station areas. Finally, District provision of childcare has not been well supported in recent public input processes.

A caution about the results is necessary. Although many future apartment developments are likely to provide fitness and recreation facilities, it is certainly *not* true that all will do so. In addition, there will be new developments such as Steele Park that provide higher densities than the more typical large-lot single-family developments. These are very unlikely to provide private sports or recreation facilities. Furthermore, it is possible that the residents who are most likely to live in housing (especially apartments) that does not include facilities may be the ones for whom other private fitness facilities would be too expensive. THPRD strives to keep program fees low in order to allow lower-income people to take advantage of District programs. Thus, it is important to consider that, although private facilities provision may lower demand, they *cannot* supplant public facilities. Failure to provide public facilities would result in shutting some people out of the sports and recreation programs the District wants to provide to all of its residents.

Figure C-1
Results from Survey of Recent Apartment Developments in Washington County

| Name of Property | Location | Phone Number | Year Built | Number of Units | Outdoor Pool | Indoor Pool | Spa/Jacuzzi | Sauna | Fitness Gym | Aerobics | Tanning | Basketball Court | Tennis Court | Racquetball Court | Putting Green | Tot Lot | Childcare | Clubhouse | Community Garden | Miscellaneous |
|----------------------|-------------|--------------|------------|-----------------|--------------|-------------|-------------|-----------|-------------|----------|----------|------------------|--------------|-------------------|---------------|-----------|-----------|-----------|------------------|-----------------------------|
| Andover Park | Murrayhill | 579-8442 | 1990 | 240 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| Beaver Ridge | Tanasbourne | 645-2552 | 1990 | 350 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | |
| Briercliff Park | Beaverton | 643-4882 | 1989 | 65 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| Colonnade | Tanasbourne | 617-5000 | 1995 | 268 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | |
| Commons at Creekside | Tanasbourne | 681-0123 | 1992 | 250 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | |
| Country Gables | Murrayhill | 579-4141 | 1991 | 288 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| Creekside | Tanasbourne | 614-4700 | 1995 | 150 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | |
| Evanbrook | Cedar Mill | 644-1242 | 1986 | 148 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | |
| Golf Creek | Beaverton | 292-1411 | 1991 | 282 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| Greensboro | Beaverton | 526-9739 | 1992 | 260 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | |
| Hunters Run | Beaverton | 690-6663 | 1989 | 318 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | |
| Kings Court | Beaverton | 629-0133 | 1989 | 460 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | park/walk trail |
| Landmark | Tanasbourne | 629-2021 | 1990 | 285 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | |
| Meridian | Murrayhill | 579-5522 | 1990 | 312 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | picnic area |
| Preston's Crossing | Murrayhill | 579-0462 | 1996 | 228 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| Reflections | Murrayhill | 579-2424 | 1990 | 350 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | duck pond |
| South Parc | Bethany | 690-3400 | 1996 | 152 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | |
| Sterling Pointe | Murrayhill | 579-1400 | 1990 | 630 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | duck pond, volleyball court |
| Tanasbourne Terrace | Tanasbourne | 645-8311 | 1987 | 373 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | |
| The Club | Tanasbourne | 690-8100 | 1990 | 350 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| The Courtyards | Rock Creek | 690-8778 | 1995 | 128 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| Total | | | | | 21 | 3 | 20 | 12 | 20 | 6 | 2 | 5 | 1 | 6 | 1 | 14 | 1 | 17 | 1 | |

Figure C-2
Percentage of Recent Apartment Developments in Washington County
Providing Selected Recreation Facilities



❖ APPENDIX D ❖

DEMOGRAPHIC DATA

D.1 Metro's Regional Forecast

The demographic data and forecasts contained in the accompanying tables were taken directly from Metro's regional forecast for the Portland-Vancouver metropolitan area (Metro 1993). This is the most up-to-date information available at this time. Metro is preparing a revised forecast, but the information is not yet available. The revised forecast is expected to indicate more growth than forecast in 1993.

Metro's data only goes down to the census tract level. Forecasting demographics for smaller areas, such as station area communities, is very difficult. However, a look at how demographics will change overall provides some insight into future conditions in THPRD's service area.

Metro divided the Portland metropolitan region into 20 subareas for analysis. Subareas 13 and 14, as shown on Figure D-1, approximate THPRD's service area. Tables D-1 through D-6 present demographic data for Subareas 13 and 14, both areas combined (THPRD), and, for comparison, the metropolitan region as a whole.

Population and Households

As shown in Table D-1, the average annual rate of population growth over the past 25 years in Subarea 14 has been at least twice that of Subarea 13 or the region as a whole. The forecast indicates that Subarea 14 will continue to grow at a relatively rapid rate over the next 20 years, absorbing 12 percent of the total growth anticipated in the metropolitan region between 1990 and 2015. The THPRD service area will absorb 16 percent of the region's expected growth over the same time period.

In 1970, Subarea 14 had less than half the population of Subarea 13. By 2015, Subarea 14 is expected to have almost 50,000 (over 45 percent) more residents than Subarea 13. Both subareas, and virtually every census tract within them, will gain population and housing units over the next 20 years.

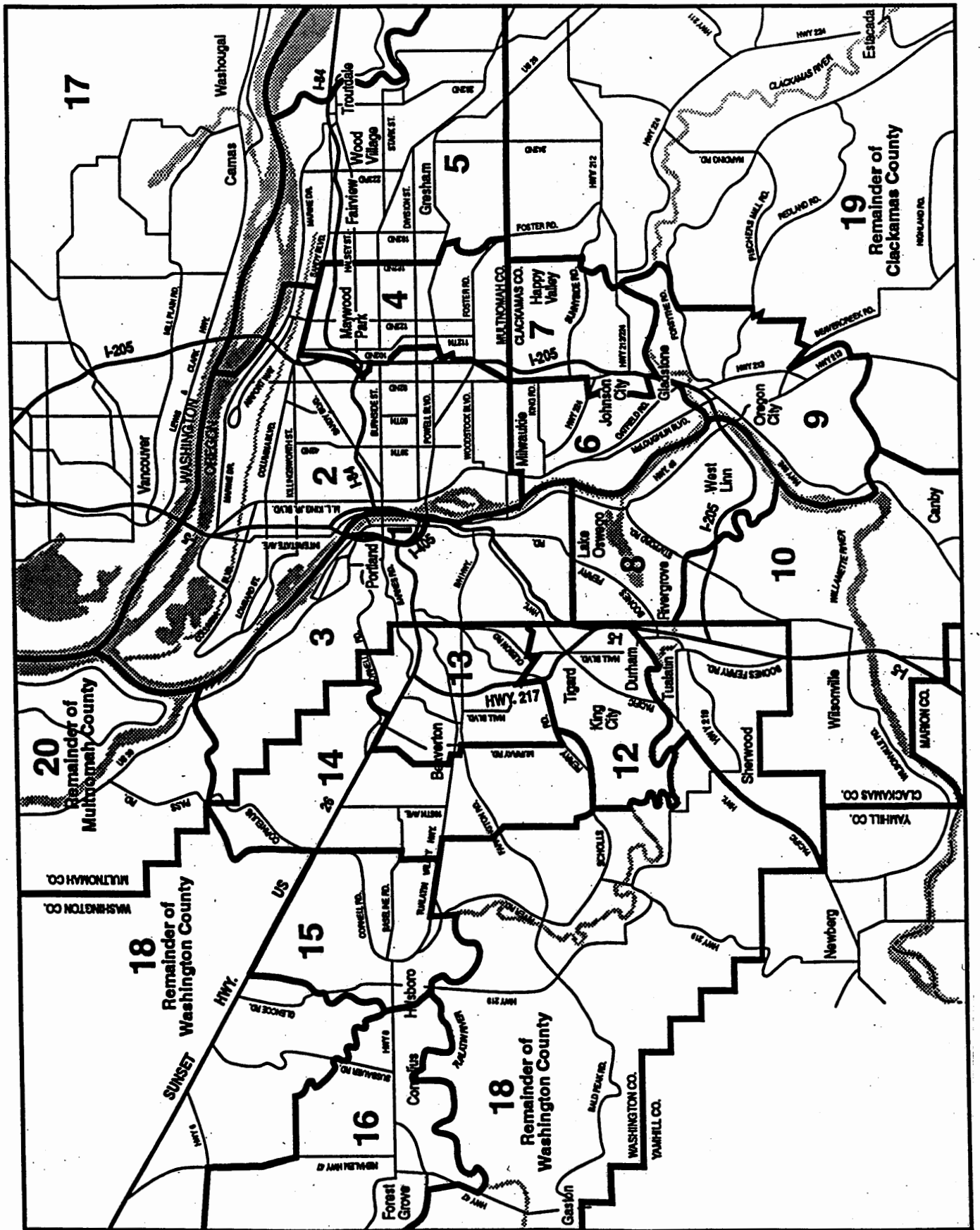


Figure D-1 Metro Subareas

**Table D-1
Population Trends**

| | Annual Average Rate of Growth | | | | Growth Share | | Amount | | | | | |
|------------------------|-------------------------------|-------|----------|-------|--------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | Historical | | Forecast | | Forecast | Historical | | | | | Forecast | |
| | 70-80 | 80-90 | 87-92 | 90-15 | 90-15 | 1970 | 1980 | 1985 | 1987 | 1990 | 1992 | 2015 |
| County Subareas | | | | | | | | | | | | |
| 13 | 2.2% | 1.2% | 1.8% | 1.0% | 4.0% | 58,680 | 72,875 | 75,957 | 78,880 | 82,364 | 86,244 | 105,698 |
| 14 | 9.9% | 3.7% | 6.2% | 2.5% | 12.0% | 22,490 | 57,702 | 64,754 | 70,704 | 83,296 | 95,738 | 153,857 |
| THPRD | | | | | | | | | | | | |
| Region Share | 4.9% | 0.8% | 2.1% | 1.8% | 15.9% | 81,170 | 130,577 | 140,711 | 149,584 | 165,660 | 181,982 | 259,555 |
| | | | | | | 8.1% | 10.5% | 11.0% | 11.5% | 11.7% | 12.1% | 13.0% |
| Region | | | | | | | | | | | | |
| | 2.1% | 1.3% | 2.8% | 1.4% | 100.0% | 1,007,130 | 1,241,918 | 1,282,002 | 1,303,403 | 1,412,344 | 1,498,277 | 2,001,730 |

**Table D-2
Population and Household Projections**

| | POPULATION | | | | HOUSEHOLDS | | | | HOUSEHOLD SIZE | | | |
|------------------------|------------|-----------|-----------|---------|------------|---------|----------|-------|----------------|------|----------|-------|
| | Historical | | Forecast | | Historical | | Forecast | | Historical | | Forecast | |
| | 1990 | 1992 | 2015 | 90-15 | 1990 | 1992 | 2015 | 90-15 | 1990 | 1992 | 2015 | 90-15 |
| County Subareas | | | | | | | | | | | | |
| 13 | 82,364 | 86,244 | 105,698 | 23,334 | 34,992 | 48,832 | 13,840 | 2.35 | 2.42 | 2.16 | 0.07 | -0.19 |
| 14 | 83,296 | 95,738 | 153,857 | 70,561 | 30,255 | 60,705 | 30,450 | 2.75 | 2.83 | 2.53 | 0.08 | -0.22 |
| THPRD | | | | | | | | | | | | |
| | 165,660 | 181,982 | 259,555 | 93,895 | 65,247 | 109,537 | 44,290 | 2.54 | 2.62 | 2.37 | 0.08 | -0.17 |
| | | | | 56.7% | | | 67.9% | | | | 3.3% | -6.7% |
| Region | | | | | | | | | | | | |
| | 1,412,344 | 1,499,196 | 2,001,730 | 589,386 | 553,107 | 849,234 | 296,127 | 2.55 | 2.59 | 2.36 | 0.04 | -0.20 |
| | | | | 41.7% | | | 53.5% | | | | 1.4% | -7.7% |

Table D-3
Household, Income and Age (HIA) for 1990

| | HOUSEHOLD SIZE | | | | HOUSEHOLD INCOME | | | | AGE OF HOUSEHOLDER | | | | | County Subarea |
|-------------------|----------------|----------------|------------------|-----------------|--------------------|------------------------|-------------------------|------------------|--------------------|-------------------|-------------------|------------------|--------|-------------------|
| | One Person | Two Persons | Three Persons | Four Persons | \$0 to \$17,499 | \$17,500 t \$28,999 | \$29,000 to \$40,499 | \$40,500 Plus | Under 25 Years | 25 to 54 Years | 55 to 64 Years | 65 Years Plus | | |
| County Subarea | | | | | | | | | | | | | | |
| 13 | 10,255 | 12,793 | 5,360 | 6,775 | 7,057 | 7,580 | 6,410 | 14,136 | 2,137 | 22,826 | 4,016 | 6,204 | 13 | |
| 14 | 5,520 | 10,025 | 5,798 | 9,066 | 3,797 | 5,040 | 5,686 | 15,885 | 1,471 | 22,928 | 2,855 | 3,155 | 14 | |
| THPRD | 15,775 | 22,818 | 11,158 | 15,841 | 10,854 | 12,621 | 12,096 | 30,022 | 3,608 | 45,754 | 6,871 | 9,359 | THPRD | |
| Region | 145,329 | 186,812 | 90,130 | 131,413 | 139,668 | 115,037 | 98,089 | 200,891 | 29,752 | 351,305 | 62,829 | 109,798 | Region | |

Table D-4
Household, Income and Age (HIA) for 2015

| | HOUSEHOLD SIZE | | | | HOUSEHOLD INCOME | | | | AGE OF HOUSEHOLDER | | | | | County Subarea |
|-------------------|----------------|----------------|------------------|-----------------|--------------------|------------------------|-------------------------|------------------|--------------------|-------------------|-------------------|------------------|--------|-------------------|
| | One Person | Two Persons | Three Persons | Four Persons | \$0 to \$17,499 | \$17,500 t \$28,999 | \$29,000 to \$40,499 | \$40,500 Plus | Under 25 Years | 25 to 54 Years | 55 to 64 Years | 65 Years Plus | | |
| County Subarea | | | | | | | | | | | | | | |
| 13 | 16,432 | 19,048 | 7,016 | 6,337 | 8,328 | 8,911 | 8,557 | 23,036 | 2,960 | 27,272 | 8,887 | 9,713 | 13 | |
| 14 | 13,537 | 23,203 | 11,412 | 12,554 | 6,707 | 8,467 | 10,370 | 35,162 | 2,668 | 39,506 | 9,955 | 8,577 | 14 | |
| THPRD | 29,969 | 42,251 | 18,427 | 18,891 | 15,036 | 17,377 | 18,927 | 58,197 | 5,628 | 66,777 | 18,842 | 18,290 | THPRD | |
| Region | 243,500 | 318,803 | 138,785 | 148,146 | 179,685 | 149,931 | 144,794 | 374,825 | 40,727 | 461,867 | 155,173 | 191,468 | Region | |

**Table D-5
Household, Income and Age Change 1990 to 2015**

| County | HOUSEHOLD SIZE | | | | HOUSEHOLD INCOME | | | | AGE OF HOUSEHOLDER | | | | County | |
|--------|----------------|-------------|---------------|--------------|------------------|---------------------|----------------------|---------------|--------------------|----------------|----------------|---------------|--------|---------|
| | One Person | Two Persons | Three Persons | Four Persons | \$0 to \$17,499 | \$17,500 t \$28,999 | \$29,000 to \$40,499 | \$40,500 Plus | Under 25 Years | 25 to 54 Years | 55 to 64 Years | 65 Years Plus | | Subarea |
| | | | | | | | | | | | | | | |
| 13 | 6,177 | 6,255 | 1,656 | (438) | 1,272 | 1,330 | 2,147 | 8,900 | 823 | 4,446 | 4,871 | 3,509 | 13 | |
| 14 | 8,017 | 13,178 | 5,614 | 3,488 | 2,910 | 3,426 | 4,684 | 19,276 | 1,197 | 16,578 | 7,100 | 5,422 | 14 | |
| THPRD | 14,194 | 19,433 | 7,269 | 3,050 | 4,182 | 4,757 | 6,831 | 28,176 | 2,020 | 21,023 | 11,971 | 8,931 | THPRD | |
| Region | 98,171 | 131,991 | 48,655 | 16,733 | 40,017 | 34,894 | 46,705 | 173,934 | 10,975 | 110,562 | 92,344 | 81,670 | Region | |

**Table D-6
Household, Income and Age Share Change 1990 to 2015**

| County | HOUSEHOLD SIZE | | | | HOUSEHOLD INCOME | | | | AGE OF HOUSEHOLDER | | | | County | |
|--------|----------------|-------------|---------------|--------------|------------------|---------------------|----------------------|---------------|--------------------|----------------|----------------|---------------|--------|---------|
| | One Person | Two Persons | Three Persons | Four Persons | \$0 to \$17,499 | \$17,500 t \$28,999 | \$29,000 to \$40,499 | \$40,500 Plus | Under 25 Years | 25 to 54 Years | 55 to 64 Years | 65 Years Plus | | Subarea |
| | | | | | | | | | | | | | | |
| 13 | 4.50% | 2.65% | -0.87% | -6.28% | -3.00% | -3.30% | -0.70% | 6.99% | -0.01% | -9.03% | 6.78% | 2.26% | 13 | |
| 14 | 4.15% | 5.25% | -0.27% | -9.13% | -1.44% | -2.63% | -1.62% | 5.68% | -0.44% | -10.32% | 7.01% | 3.75% | 14 | |
| THPRD | 3.31% | 3.78% | -0.19% | -6.91% | -2.82% | -3.38% | -1.16% | 7.36% | -0.36% | -8.79% | 6.73% | 2.43% | THPRD | |
| Region | 2.43% | 3.80% | 0.06% | -6.29% | -4.07% | -3.12% | -0.67% | 7.85% | -0.58% | -9.06% | 6.92% | 2.72% | Region | |

Table D-2 indicates that the number of households within the THPRD area will increase at a slightly faster rate than population, indicating a trend toward smaller household sizes. Data in Table D-6 reinforce this, showing the share of larger households declining and that of smaller households increasing. In fact, household size throughout the region is expected to decline over the next 20 years, following a national trend. Smaller households are indicative of single-parent families, couples without children, and singles. Because household size in multi-family units is typically smaller than in single-family, Subarea 13 is expected to have a smaller average household size than Subarea 14.

Age

The average age of the population in THPRD's service area will shift upward if projections hold true. The majority of householders will still fall within the 25-to-54 age group, but both of the older age groups (55 to 64 and 65 and over) will increase their share of the total population. (See Table D-6.)

Income

As indicated in Table D-6, the only income category that will increase its share is the \$40,500 Plus category. This is due to an assumed increase in real household incomes and the underlying growth in asset wealth associated with an aging population. It is interesting to note that the THPRD area household income share in the upper quartiles currently exceeds the regional shares by substantial margins. The projections suggest this will still be the case in 2015.

Culture, Race, Ethnicity

Metro's forecast does not include any data on cultural composition of the Portland metropolitan region. However, recent growth has been accompanied by greater influxes of people from a variety of different cultures. It is likely that this trend will continue.

❖ APPENDIX E ❖

OTHER CITIES

E.1 Learning from Other Cities and Transit Agencies

To obtain information about how parks are provided in TODs and other high-density areas, we contacted several cities that have developed light rail transit, or that are recognized for providing good park facilities in urban environments. We also contacted other cities in the Portland region to learn how they are changing development patterns to comply with Metro's 2040 Growth Concept. Most of the information was obtained through telephone interviews and publications, though some was acquired through personal visits to the cities (e.g., Vancouver, BC, Seattle, WA).

MetroLink, St. Louis, Missouri

MetroLink is the light rail system recently completed in St. Louis, Missouri. Kiel Center is a sports and event center near downtown, served by the MetroLink rail system. For Portland-area residents, the new Rose Garden facility with light rail stop and bus transfer center nearby is a reasonable comparison. The Bi-State Development Agency, which operates the region's transit system, is in the process of creating an urban park called Triangle Park at this station.

"The primary objective of the Triangle Park project is to facilitate and organize pedestrian access between the Kiel Center and the Kiel Center MetroLink Station. Additionally, it is intended to provide safer access to surrounding parking facilities as well as nearby entertainment and employment centers. Moreover, it is expected to serve as a gathering spot for system riders, the traveling public, Kiel patrons, office workers and tourists.... A balanced amount of paved and unpaved space is proposed The amount of unpaved area is important to create an appropriate park-like setting." [emphasis added] (Bi-State Development Agency 1995)

The design objectives created during the process are illuminating for any urban park development:

1. **Safety.** Though this need is primarily seen as one of pedestrian safety in traversing the space between Kiel Center and the MetroLink Station, this objective can be more generally stated as that of providing a safe environment for all users of the park.

2. **Access.** Again, in application to this park alone, this objective primarily considers pedestrian access from nearby developments and parking lots. This objective could be more generally applied with a concern for accessibility by all potential users to and from the park and its facilities.
3. **Identity and Sense of Place.** This is essential in all truly successful parks, especially in urban areas. Specifically for this station, the designers considered design that reflected the Kiel Center as well as stressing creation of unique public space with gathering or meeting spaces as well as performance areas for events of varying size. A good example of this is the use of the metaphor of a river to serve as a general guide for all identified alternatives for this park. This metaphor mirrors the dominant natural feature of the St. Louis metropolitan region, the Mississippi River.
4. **Compatibility.** For Bi-State, this was primarily a concern for future multi-modal compatibility in terms of transportation. However, again, this can be restated much more broadly and becomes an essential element of parks and recreation design. The elements of design and facilities must be compatible with the surrounding land uses.
5. **Maintenance and Operations.** This is an essential element of design and planning in considering the long-term viability of parks and recreation facilities. Proper design can substantially reduce the costs of maintenance, allowing more parks or more comprehensive and innovative facilities, programs, and recreation in the future. Examples in application of this concept include the use of low-care plants such as ornamental grasses and clump-forming herbaceous perennials that are chosen for their "drought tolerance, color, texture, and pest free characteristics" (Bi-State Development Agency 1995).

All of the design alternatives include a water feature, abundant seating places on low walls and other structures. Each design consciously strives to create central places of varying size within the park to accommodate public gatherings and events.

A final, important feature of the design for this park involves the phasing of plans for future developments. Improvements are identified in discrete units and prioritized to allow development over a period of time that can vary with funding and construction realities.

MARTA, Atlanta, Georgia

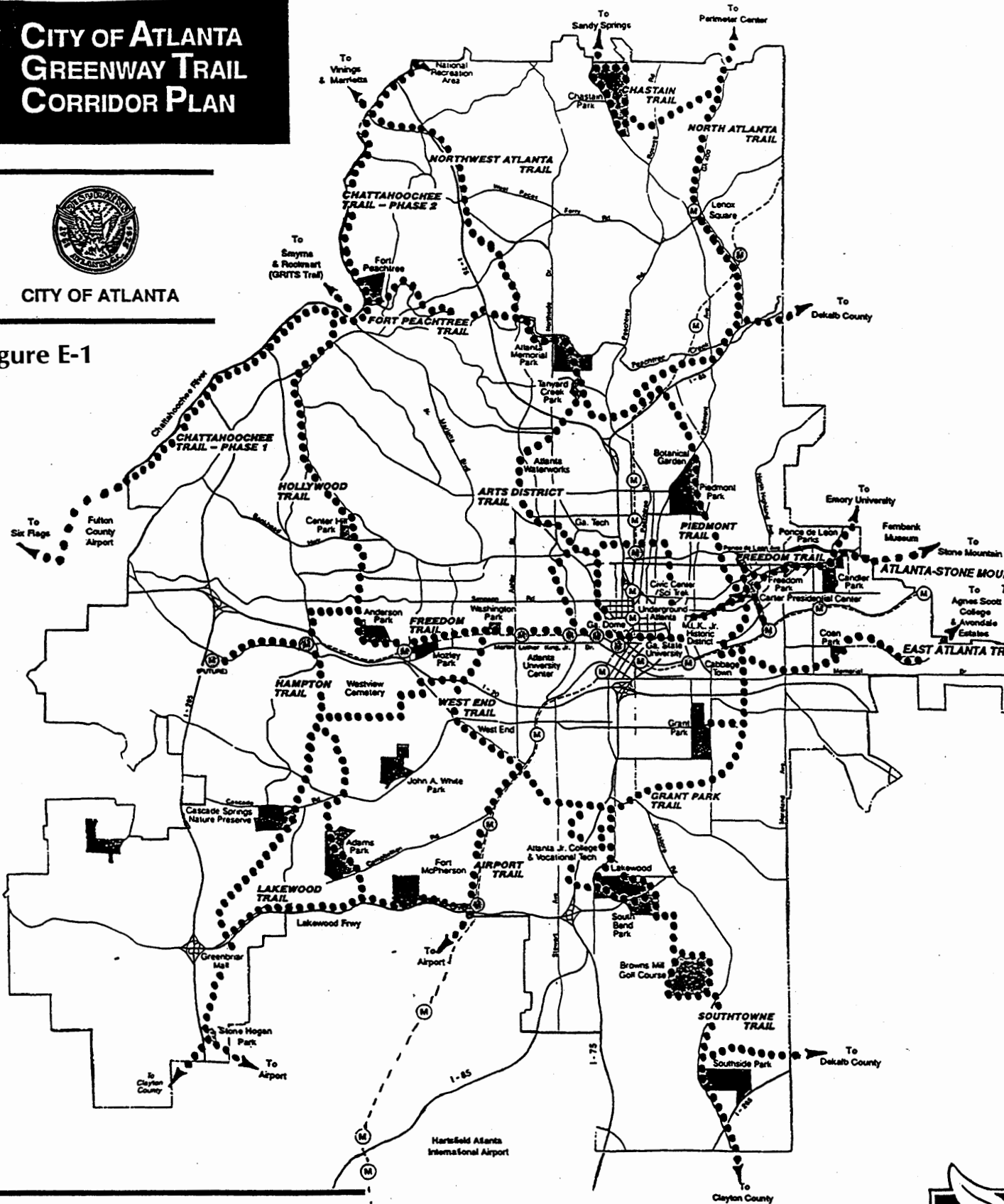
The city of Atlanta has developed an excellent plan that links parks and open spaces together through a greenway system which is aligned with their transit line, MARTA (Metropolitan Area Regional Transit Agency). (See Figure E-1.) Since Atlanta is hosting the 1996 Summer Olympics, it is not surprising that some innovative planning is occurring

CITY OF ATLANTA GREENWAY TRAIL CORRIDOR PLAN



CITY OF ATLANTA

Figure E-1



- LEGEND**
- TRAIL CORRIDOR
 - PARK
 - (M) MARTA STATION

Prepared for PATH by
Ashley, Hughes, Good & Associates, Inc. 1992



there to improve the transportation system and link recreational facilities (as well as Olympic venue sites).

One of the visions of Atlanta's Parks, Open Space and Greenways Plan is to provide "wide, beautifully landscaped paths within a chain of parks filled with families and friends from across Atlanta, playing games, picnicking, enjoying special events, and socializing" (City of Atlanta 1993). The city's system of paths will link open space areas, as well as the city's transit system, which will provide access to recreational opportunities from all communities within the city.

Two objectives of Atlanta's Greenway Plan are very similar to recommendations we are making for the Westside Light Rail station area communities:

1. Provide public parks and plazas in commercial areas to include spaces for socializing, special events, outdoor dining, sculpture, fountains, landmarks and gateways.
2. Strengthen neighborhood unity and stability by creating neighborhood parks that increase opportunities for neighbors to interact.

Not knowing exactly what the needs of future residents will be, it is important to secure and protect passive open space. This is listed as an important objective of Atlanta's plan.

The provision of bicycle and pedestrian trails is also a key element of Atlanta's plan. Many of these trails are planned along the alignment of the transit system. This both enhances the accessibility to station areas by travel modes other than the automobile, and provides increased rationale for developing the transit corridor into an aesthetically pleasing park-like corridor.

Regarding the cost and service of a greenway trail along a light rail line, Atlanta provides an interesting statistic. *The City estimates that the proposed greenway trail system will cost \$30 million to build and will serve approximately 5 percent of Atlanta's commuters; while MARTA cost \$1.5 billion and serves approximately 4 percent of commuters.*

Regional Transit of Sacramento, California

We contacted Regional Transit of Sacramento and learned that at the present time, Sacramento is not directly addressing the issue of parks in light rail station area community development. However, they are involved in the issue of joint use of public facilities which has direct relevance to implementation strategies that we are exploring for THPRD.

Sacramento County's Executive Office defines Joint Use as:

"shared use—to the greatest extent possible—of land, capital facilities, capital costs, operation and maintenance costs, staff, and programming responsibilities among respective government jurisdictions." (County of Sacramento 1994)

In California, Proposition 13 has forced local jurisdictions to look for alternative financing strategies for public facilities in the face of a decreased tax base. Thus capital costs for public services have been shifted from taxpayers, to developers and ultimately to home buyers. In Oregon, this strategy can prove equally effective in maximizing the financial and natural resources available within growing communities. As discussed in Appendix F, recent legislation (House Bill 3133) addresses the issue of exempting multi-family housing developments within light rail station areas of property taxes, by means of providing public open space or recreational facilities (among other requirements).

Sacramento County has created a Joint Use Task Force to investigate and seek implementation of strategies for shared use of public facilities. These include:

- ◆ joint use of detention basins and portions of a park;
- ◆ joint use of community centers, satellite offices, libraries, and fire protection facilities;
- ◆ joint use of parking facilities between various service providers; and
- ◆ joint use of parks and school facilities.

THPRD should work in cooperation with Washington County, the City of Beaverton, and private developers wherever possible to negotiate for shared use of these kinds of public facilities.

Santa Clara Transportation Agency, Santa Clara, California

The Santa Clara Transportation Agency, the City of San Jose, and private developers have been working intensively together to create high density transit-oriented developments along the light rail system which was begun in 1987. It is one of the most extensive light rail systems in the nation. Peter Calthorpe has worked with the Santa Clara Transportation Agency to develop TOD design concepts to create mixed-use communities around the light rail station areas.

The Santa Clara Transportation Agency has not specifically addressed park provision in these station area communities specifically, parks and open spaces are integral components of any successful TOD design. Other features being planned at the TODs which relate to public services and recreational facilities are day care centers, recreation centers, libraries, theaters, and tree lined streets which connect the transit stop with local destinations.

There has been an extensive Station Area Planning Program within the Santa Clara light rail system which has involved the Transportation Agency and the cities of Milpitas, San Jose,

Sunnyvale and Mountain View. These cities have rezoned the station areas for higher density and mixed use development.

Like Sacramento, the Santa Clara Transportation Agency is also working intensively to promote joint development opportunities in the area. The Agency's goal is to transform underutilized Agency-owned land around the light rail stations into "safer and more attractive" areas. Currently, two joint development projects stand out as innovative examples of public-public and public-private partnerships.

The first is the Tamien Child Care Center, the first child care center to be located at a station site. The Tamien Station is a multi-modal station which serves riders of Cal-Train (a commuter train which operates between San Jose and San Francisco), light rail, and bus. For many working parents, the trip to the daycare center on the way to work is a deterrent to taking public transit. The presence of a childcare facility at the station site makes commuters' schedules simpler and more efficient, thus encouraging ridership and ultimately decreasing traffic congestion.

The Tamien Child Care Center was built by the Santa Clara Transportation Agency but will be operated by an independent non-profit contractor. It is located only six minutes from San Jose State University, which could facilitate the use of student interns and teachers, keeping operating costs down. Funding for the Center will come from local, state and federal funds. Eighty percent will come from the Intermodal Surface Transportation Efficiency Act (ISTEA), which encourages development compatible with intermodal transportation.

The second innovative development project is the Almaden Lake Village Project, a joint development between Almaden Lake Village Associates and the Santa Clara County Transportation Agency. The term "Trandominium" (a combination of train and condominium) has been coined to describe this development, the first of its kind in the nation. It is being constructed on top of a park and ride lot at the Almaden light rail station, and will consist of two and three story luxury apartment buildings on podiums over subgrade parking, at a density of 47.2 dwelling units per acre. The development is geared toward the high end of the rental market and will include amenities such as inner courtyards, a lap pool, a large recreation center, meeting rooms, fitness center, water features and lush landscaping. This development conjures up a rather futuristic image of commuters riding a vertical elevator from their home to the transit station and then taking a "horizontal elevator" to work.

Pocket Parks, Seattle, Washington

Pocket Parks are very small public spaces, often no larger than a single lot, most often situated in highly dense residential areas. They serve the purpose of creating a small piece of urban greenery to break up the monolithic built environment. Seattle, Washington has a

number of such parks. These successfully give nearby residents a small piece of open space with attractive surroundings, something which is not provided on their own lots due to the lack of private yards.

Two common concerns about such small parks can be addressed with sensitivity to these needs in the initial design. Costs of maintenance for small parks are increased proportionally due to coordination, travel distance and time impacts from having multiple small, discrete sites versus more centralized, larger sites. However, design elements, such as native, low-maintenance plantings and incorporation of enough space to maneuver maintenance vehicles and mowers can significantly reduce these costs. Safety concerns are addressed by ensuring compatibility with surrounding land uses and visibility across and through the park from the sidewalk, street and surrounding residences and businesses.

Vancouver, British Columbia

Vancouver, British Columbia, is often lauded for its exceptional public spaces. Part of these parks' success is due to the context in which they are located. Good urban design that integrates many uses in an easily accessible pattern provide a solid foundation in which to create good, well-used public open space.

Vancouver's land use patterns provide examples of transit-oriented development. The city has many areas of medium and high-density housing interspersed with commercial development and public spaces that provide social gathering spots and recreation areas. Two notable community centers are placed in very busy mixed-use neighborhoods. One, in the fashionable West End, is located along a bustling pedestrian-oriented commercial street. It provides community meeting areas, childcare facilities, recreation classes for all ages, and is linked to a public library. It serves not only the residents in the neighborhood but also the people who work there. Another community center is located on Granville Island, a publicly supported artist colony that also serves as both a tourist destination and a neighborhood commercial center. The community center offers similar services to the West End facility. Both centers are successful because they are located where people of all ages can reach them easily and where a variety of activities occur.

Vancouver took a bold step in preserving access to its scenic beaches along English Bay. Rather than allowing development to occur, the city created a greenway along English Bay that connects Stanley Park to False Creek. Separated walking/jogging and bike trails are provided. On a sunny day the popularity of the trail system is evident by the throngs of people competing for space on the walkways and bikeways.

Extensive nature trails provide city kids with the opportunity to experience nature first hand almost in their own backyards. There are duck ponds, a miniature train ride, a farm animal petting zoo, and a world-class aquarium. Play structures are provide in several locations

throughout the park. Particularly creative is the water park: a hardscaped plaza with many structures that spray, spurt, and splash water at young (and not so young) participants.

Public plazas are integrated into the pattern of the city. In the West End, a few streets are closed to auto traffic but allow pedestrian and bikes to continue through. The result is small plazas sandwiched between apartments. The plazas contain both decorative, hardscaped surfaces and vegetation. There are benches to sit on and soak up the sun but there is also a clearly defined path between two streets. Such plazas serve a variety of functions: social gathering place, pathway, and traffic-calming device.

Vancouver's success with its parks and recreation facilities is a combination of good planning, good urban design, and strong public support.

Gresham, Oregon

The City of Gresham is involved with planning the Gresham Civic Neighborhood, a new transit-oriented development adjacent to a light rail stop, park and ride lot, and Gresham City Hall. To accommodate this development, the City of Gresham created a new zoning overlay district with three components: a grid street plan, minimum floor area ratio requirements, and maximum parking standards.

Several park spaces have been designated within the plan for the Gresham Civic Neighborhood. Park designs are not finalized, but character sketches have been made. A one-acre plaza is planned at the light rail station, which is the high-density center of the development and the place where two major streets converge. A three- to four-acre park is planned in the single-family neighborhood on the west side of the development. This park will provide flexible space for active recreational uses. The park concept also includes a picnic area. The park will encompass and preserve an existing stand of firs valued by residents.

The Gresham Civic Neighborhood Plan reflects the notion that different types of parks are appropriate for different areas and land uses within a station area. It also reflects the importance of planning for multiple-use park facilities.

Clackamas County, Oregon

Clackamas County has been working in conjunction with consulting firms and developers to plan East Sunnyside Village, a neo-traditional development covering 360 acres. When completed, the village will contain approximately 2000 units at an overall density of 10 units per acre. The plan for the area states that most residences and jobs will be less than four blocks from a park (Calthorpe Associates 1993). The plan identifies important natural features such as creeks and wooded canyons. It proposes preserving these features by

either incorporating them into park design or by designating them as Resource Protection areas. The natural areas will form an open space network providing wildlife corridors, helping to maintain a diverse set of habitats, and creating recreational opportunities for residents. The plan recommends maintaining trail connections or the potential for future trail connections to major open space areas.

The development will have a 2.7-acre Village Green adjacent to its central commercial area, providing a focus for the village. In addition to the neighborhood green, small parks placed throughout the neighborhood will provide nodes of community activity. Six neighborhood parks, each at least an acre in size, have been incorporated into the land use plan. Designated park areas include 1.3-acre, 2.2-acre and 2.4-acre parks. Preliminary designs for neighborhood parks include the following elements: a trail system, an amphitheater, half-court basketball, and play areas. East Sunnyside Village will also contain two community service sites, the form of which has not yet been determined. (Mastrantonio-Meuser 1996).

Clackamas County has created a new zoning district to implement the plan for Sunnyside Village. One section of the County's new ordinances deals specifically with parks provision in the Village (see Appendix K). The ordinances set a standard of 2.5 acres of park area for each 1,000 residents or employees (602.02,A). They also state that an applicant requesting a land use action shall dedicate land for park purposes if their parcel has been identified as a park site on the East Sunnyside Village Plan Map (602.02, B). (Park sizes represented on the plan map are minimums.) Modifying a park location is allowed only when it can be shown that access, topographic conditions, or extreme engineering costs make the identified location impractical to develop as a park. The ordinances and Plan Map also stipulate an interconnecting system of trails and accessways. "A system of interconnecting accessways shall be provided from subdivisions and multifamily developments to . . . public amenities such as . . . parks and plazas" (1600.01).

The Clackamas County ordinances offer residential developers the option of park land dedication or fees in lieu of dedication. In either instance, the ordinances provide a model for calculating the area to be dedicated or the fee to be paid (see Appendix K). All nonresidential development is required to pay a fee in lieu of dedication.

All park acquisition fees are to be deposited in a special Park Acquisition Fund, which may be used only for park acquisition, not maintenance. Any residual money can be transferred to the North Clackamas Parks District's Park Development account, to be utilized only for park development within the Sunnyside Village Plan area.

Clackamas County's ordinances contain other design guidelines which contribute to successful parks by assuring that surrounding uses are appropriate and well-designed. In village residential zones, streets, public paths, or open space must abut the entire perimeter of all parks (1603.07.B.2). In no case is the rear of a building allowed to face a park. The Sunnyside Village ordinances also include provisions for building heights and

setbacks, and a standard that primary dwelling front facades be designed with balconies and/or bays. Facades facing a public street shall not consist of a blank wall (1603.09, B,3). Both commercial and apartment zones allow towers or other special vertical elements in order to focus views.

The ordinances also contain strategies encouraging private developers to contribute to the provision of park and recreation facilities. The Sunnyside Village zoning district includes a special Community Service District, in which public recreation facilities, daycare centers, and community/senior centers are permitted outright. Conditional uses within this zone (art galleries, athletic clubs, developer sales offices, and professional offices) may be permitted by providing community facilities like meeting rooms, gymnasiums, or performance facilities. The code requires retail buildings to be built to the street right-of-way, but allows additional setbacks if they accommodate small plazas and outdoor seating.

Fairview Village, Fairview, Oregon

Fairview Village is an 88-acre neo-traditional village being constructed in Fairview, Oregon, east of Portland. The entire development of about 600 units is planned to be pedestrian-friendly with mixed uses and ample access by foot and bicycle. Nine pocket parks are incorporated for residential areas, and a two-acre community park serves as an anchor for the south end of the village. The plan includes a requirement that all residents must be within a two-minute walk of a park.

❖ APPENDIX F ❖

REGULATORY ISSUES

Oregon has been one of the leading states in developing land use laws and regulations that provide for the preservation of open space and agricultural lands. In recent years, Portland-area residents showed their support for Oregon's planning system by approving bond measures to acquire more open space in the region (Metro's 1994 Greenspaces Bond Measure) and to construct the Westside Light Rail line. Oregon legislators have created a variety of innovative laws and regulatory tools that have paved the way to change the form of development in the Portland metropolitan region. Regulations to reduce reliance on automobiles and require more compact development are crucial in preserving the region's natural resources and residents' quality of life. This appendix discusses some of Oregon's most significant land use regulations and how they apply to this project.

F.1 Statewide Planning Goals

Oregon's Statewide Land Use Planning Goals were established in 1974 by the Land Conservation and Development Commission (LCDC). Several goals relate directly to the provision of parks and preservation of open spaces.

Goal 5: Open Spaces, Scenic and Historic Areas, and Natural Resources

Goal 5 addresses issues of open spaces, scenic and historic areas, and natural resources. Goal 5 directs:

"(P)rograms shall be provided that will (1) ensure open space, (2) protect scenic and historic areas and natural resources for future generations, and (3) promote healthy and visually attractive environments in harmony with the natural landscape character."

Historically, open space provision has been targeted mainly at the edges of urban areas, such as in the "greenbelts" surrounding the early "garden cities." But as cities have become more dense, open space provision and zoning within the city limits has become increasingly important. Open space has two primary functions within urban areas:

1. The retention of scenic, environmental, and recreational assets, and
2. The alleviation of urban density.

Goal 8: Recreational Needs

The purpose of Goal 8 is "to satisfy the recreational needs of the citizens of the state and visitors and, where appropriate, to provide for the siting of necessary recreational facilities (including destination resorts)". The communities along the Westside Light Rail line will require recreational facilities suited to a more compact urban environment. On a local and regional level, park districts such as THPRD are the main implementers of Goal 8, and are charged with providing recreational facilities that meet the needs of the District's residents. Their contribution will affect the livability of the region as a whole, in addition to serving the needs of District residents.

Goal 12: Transportation (and the Transportation Planning Rule)

The Transportation Planning Rule (TPR) (OAR 660-12) was adopted by the LCDC in 1991 in response to Goal 12. The TPR's purpose is to "develop a multimodal transportation system, reduce reliance on the single-occupant vehicle, integrate land use and transportation planning, and improve coordination among planning entities." The TPR requires larger jurisdictions "to provide adequate resources for pedestrian, bicycle and transit circulation, and further, to make roadways and buildings more accessible for those not driving automobiles" (Clark and Seltzer 1995)

The key issues of the TPR are:

- ◆ Building orientation.
- ◆ Street connectivity - more interconnectedness = more pedestrian friendly.
- ◆ Provision of facilities for transit, bicycles, and pedestrians - sidewalks, and bicycle lanes; and infrastructure improvements for travel modes other than the automobile.
- ◆ Reduction of vehicle miles traveled (VMT) by 10 percent within the first 20 years and 20 percent within the next 30 years.
- ◆ Creation of a Transportation System Plan (TSP), a 20-year multi-modal assessment of the mobility needs of the jurisdiction.

Jurisdictions were required to rewrite their development codes to include these provisions by May 1996.

Construction of the Westside Light Rail line and development of transit-oriented communities around the stations is a direct response by Washington County, Tri-Met, and the City of Beaverton to the mandates of the TPR. The City of Beaverton recently distributed their revisions to existing City codes to the public, in compliance with the TSP requirement for local jurisdictions. Implementation of the TSP includes "Neighborhood activity centers, which include but are not limited to existing or planned schools, parks, shopping areas, transit stops or employment centers" (City of Beaverton 1996).

The TPR specifies the design of station areas to meet the needs of transit users and provide an efficient system for accessing and using the area. It states that there should be "a desirable, efficient and workable interrelationship among buildings, transit stops, facilities and routes, parking, loading areas, circulation, open spaces, landscaping and related activities and uses on the site" (LCDC 1995). Development at "major transit stops" (such as at light rail stations) should either locate buildings within 20 feet of a street or provide a "pedestrian plaza."

The TPR defines a Pedestrian Plaza as "a small semi-enclosed area usually adjoining a sidewalk or a transit stop which provides a place for pedestrians to sit, stand or rest. They are usually paved with concrete, pavers, bricks or similar material and include seating, pedestrian-scale lighting and similar pedestrian improvements. Low walls or planters and landscaping are usually provided to create a semi-enclosed space and to buffer and separate the plaza from adjoining parking lots and vehicle maneuvering areas. Plazas are generally located at an intersection and connect directly to adjacent sidewalks, walkways, transit stops and buildings. A plaza including 150 to 200 square feet would be considered small" (LCDC 1995).

The TPR defines Transit Oriented Development (TOD) as "a mix of residential, retail and office uses and a supporting network of roads, bicycle and pedestrian ways focused on a major transit stop designed to support a high level of transit use. Key features include:

- ◆ Mixed use center at transit stop oriented to transit riders and pedestrian and bicycle travel from the surrounding area.
- ◆ High density of residential development proximate to the transit stop sufficient to support transit operation and neighborhood commercial uses within the TOD.
- ◆ A network of roads and bicycle and pedestrian paths to support high levels of pedestrian access within the TOD and high levels of transit use" (LCDC 1995).

Development at the station areas along the Westside Light Rail line should create communities which fit this definition, even though it may not happen all at once. As growth occurs over time within these new communities, older single family residential areas will give way gradually to higher density development, and new commercial areas will be needed to serve these larger populations. New construction around light rail stations should develop incrementally into communities that are truly transit-oriented. As more development occurs in station communities, land values will rise. For economic reasons, THPRD should acquire land for parks and open space as early as possible.

Goal 14: Urbanization (and the Urban Growth Boundary)

The Urban Growth Boundary (UGB) was created in 1980 in response to Goal 14: Urbanization. Its goal was "to provide for an orderly and efficient transition from rural to urban land use." To achieve this goal, LCDC required that, "Urban growth boundaries

shall be established to identify and separate urbanizable land from rural land." (Knaap and Nelson 1992).

The UGB was established to help preserve farmland outside its borders. The UGB has encouraged infill development within the Portland metropolitan region, which leads to higher density housing. In order to alleviate effects of higher density, the provision of parks and open space within these new developments is increasingly important.

F.2 House Bill 3133

House Bill 3133, enacted during the 1995 Regular Session of the Oregon Legislature, was designed to promote construction of multiple unit rental housing in light rail station areas, and transit oriented areas through the exemption of property taxes. The bill allows a tax exemption for such development, and offers the following rationale:

1. It is in the public interest to "stimulate the construction of (rental) transit supportive multiple-unit housing in the core areas of Oregon's urban centers to improve the balance between the residential and commercial nature of those areas, and (thus) to ensure full-time use of the areas as places where citizens of the community have an opportunity to live as well as work, and
2. It is in the public interest to promote private investment in transit supportive multiple-unit housing in light rail station areas and transit oriented areas in order to maximize Oregon's transit investment to the fullest extent possible and that the cities and counties should be enabled to establish and design programs to attract new development of multiple-unit housing, and commercial and retail property, in areas located within a light rail station area or transit oriented community.

An application for tax exemption may be approved if the developer provides open spaces, parks, recreational facilities, common meeting rooms, day care facilities, and transit amenities or pedestrian design elements. This provides an opportunity not only to promote high density development within the light rail station community, but to enhance the livability of the area through the provision of these amenities. By working in coordination with developers, THPRD can expand the number of facilities within their district and/or contract with developers to offer programs and classes at these facilities.

F.3 Metro 2040 Growth Concept

Metro's 2040 Growth Concept, adopted in December of 1994, integrates many of the ideas and policies that have come out of the above-mentioned regulations into a growth plan for the Portland metropolitan region.

The Growth Concept calls for:

- ◆ More compact urban form—especially along transportation corridors and areas of new development.
- ◆ Pedestrian and bicycle access improvements.
- ◆ New housing types and designs, including row houses and single family detached houses on smaller lots.
- ◆ Commercial and retail development near major light rail corridors and bus corridors.
- ◆ Designation of open spaces, including parks, stream and trail corridors, wetlands, and floodplains.

Metro's Regional Transportation Plan (RTP) was adopted in the summer of 1995 as part of the 2040 Growth Concept. It allocated \$27 million in federal funds to transportation projects that will help implement the 2040 Growth Concept. Among the projects to be funded is a revolving fund for transit-oriented development to ensure that jobs and housing are located in areas served by light rail.

❖ APPENDIX G ❖

PARK ISSUES IN HISTORIC CONTEXT

G.1 Transportation's Effects on Urban Form

Since the early era of American park planning, there has been a circular evolution of the urban form, depending upon the availability and accessibility of transportation between the population's residence and workplace. In the communities of 19th century America, the working population had to live close to their place of work because travel was restricted to available modes of transportation. The predominant urban form was compact to allow for foot travel, and contained a mix of uses to allow the population to perform all of their daily functions—work, shopping, attending school and church, and other business and social functions—within a short distance of their home. Because of this compact form, residents of urban areas did not have far to travel to escape the urban environment, for the rural countryside existed within a relatively short distance from the center of the community.

With the advent of improved transportation systems, i.e., streetcars, the urban form began to change radically. The city expanded outward as workers moved their place of residence into the more open environment at the periphery of the community. They were no longer forced to live close to their workplace because streetcars provided an affordable, efficient mode of transportation. As the urban area continued to expand, many residents found that their once semi-rural home environment had become engulfed by urban development, and they would have to travel increasingly long distances to escape their hectic city life. This dilemma is what stimulated the beginning of the American Park movement—to provide the residents of urban areas with a "bit of country" in the city.

Today, people have even more transportation freedom because of the personal automobile. However, auto dependence has created land-consumptive development patterns. The urban environment sprawls out for miles, destroying the rural areas used for agriculture and recreation. If cities are to create and maintain a livable environment in the face of an ever growing population, there must be a revolution in urban form. This is especially true for the Portland metropolitan area which is experiencing rapid growth.

As they have in the past, available transportation options will play a key role in shaping the form of urban development. Westside Light Rail will play a large part in shaping the development that will occur along its line between downtown Portland and Hillsboro. Plans are in the works for TODs near the light rail stations. These communities will consist of mixed uses: housing, working environments, commercial areas, and institutional

entities, as well as recreational facilities. After decades of dispersion and separation of these land uses, communities pay a heavy price in the form of urban sprawl, traffic congestion, air pollution, and loss of open and natural areas. Using the light rail to provide alternatives to individual auto travel, and designing mixed-use communities around the stations can improve the urban environment. Incorporating parks and open spaces in light rail communities will allow residents a peaceful retreat into nature – from their daily life within the urban environment.

G.2 Historical Context for Station Area Parks

The provision of parks and open space in light rail station communities presents a different set of parameters for suburban park planners than they have encountered in the past. Due to higher density housing, and commercial development, parks will be smaller in size, but more frequently distributed. Each park's qualities and uses can be greatly enhanced by providing a system of parks linked by trails and the light rail system.

A connected system of parks is not a new idea. The parkways of Frederick Law Olmsted and Calvert Vaux in the late 19th century were designed to serve the function of linking parks in New York, and Boston. Even at that early stage in the development of the American Park Movement, its chief advocates realized that the large parks, such as Portland's Washington Park, could not be accessible on a daily basis to the majority of a city's population and that small urban parks could serve an important function in the everyday life of urban residents.

The Greenway movement has been very strong in Oregon. In fact, Oregon is credited with having the first actual greenway plan in the United States. Frederick Law Olmsted's sons, Frederick Law, Jr. and John Charles, were commissioned by the City of Portland in 1903 to help spruce up the city for the Lewis and Clark exposition. Instead of a park, they proposed a 40-mile loop of trails which would link a number of parks throughout the city.

"Parks should be connected and approached by boulevards and parkways. . . . They should be located and improved to take advantage of beautiful natural scenery . . ." (Olmsted Brothers 1904)

The first section of the loop through Forest Park was set aside in a bond measure in 1907, but the land was not actually acquired until 1948. The rest of the loop has been added a piece at a time. The 40-Mile Loop Land Trust has been coordinating efforts to close the loop. One of the most recent additions to the system is the Springwater Corridor Trail, which follows a Burlington Northern Railroad right-of-way. It uses a rail alignment to link park areas with greenways in the Portland area. The 40-Mile Loop Land Trust has proposed an additional 100 miles of trails to link even more Portland area parks. Their goal was to close the loop by 1995, but there are still a few bits and pieces that need to be acquired.

The idea of using greenways to link parks, as suggested by the Olmsteds and Calvert Vaux, has become increasingly relevant as land available for parks and open spaces becomes more difficult to acquire. Linking greenspaces with recreational greenways can maximize park use.

❖ APPENDIX H ❖

CONCEPTUAL AND DESIGN ISSUES

H.1 The Positive Roles of Urban Parks

"Urban parks are community assets. They provide a convenient setting for a broad variety of leisure and recreational activities, as well as enhancing the image and perceived value of the community. Urban parks can serve the needs and interests of all kinds of people and many subgroups of the population: young and old, groups and individuals, affluent and poor, male and female, athletic or not, and all ethnic and cultural groups. This wide appeal makes city parks a tremendous asset - in a social and behavioral sense as well as a physical sense - to the quality of urban life." (Hayward 1989)

H.2 The Role of Nature

Design With Nature

McHarg's *Design With Nature* (1969) deals with our relation to environment as a whole. His fundamental message is that natural features and forms must take precedence if we are to build livable and rational communities. In a number of examples of large scale planning projects, he and his colleagues first identified the most important natural features, setting those aside. Only after protecting the important features can planning for development begin. Here is a sample list from a project in Philadelphia, in order of "natural-value" and degree of intolerance to development (McHarg 1969):

- Surface water
- Marshes
- Floodplains
- Aquifer recharge areas
- Aquifers
- Steep slopes
- Forests, woodlands
- Flat land

Reverse this list and it is a fair representation of those areas most suitable for urban development.

Though the exact priority features may differ from area to area, the approach that McHarg advocates remains an important guide anywhere. THPRD is one of the primary defenders of natural space within the urban area of its District. As such, natural features should command great interest for acquisition. At the same time, in setting parks and facilities development priorities, these same features should be protected from harm.

Psychological Benefits of Natural Space

Intuitively, we know that natural space—even a stand of trees or a stream—has positive psychological and spiritual benefits. It is also true that research “findings tend to be consistent with the conjectures of Olmsted and others that visual exposure to trees and other nature have restorative psychological effects” (Ulrich 1990). In fact,

“many scenes dominated by trees foster restoration because they elicit positive feelings; reduce negatively toned emotions such as fear, anger, and sadness; effectively hold interest; and accordingly, might block or reduce stressful thoughts.” (Ulrich 1990)

H.3 Parks and Urban Density

The relationship between urban density and open space is not simple. High density development does not necessarily entail limited park space, nor does low density ensure usable scenic and recreational land.

“It matters little to a child that he lives in the “objectively” low density of suburbia if he still must travel miles to a public playfield, duck pond, or urban wilderness.... Where community mobility means the automobile, parks may simply not exist for children, aside from family trips.” (Fadely 1987)

Park proximity is essential. Christopher Alexander, et al. state that parks should be no more than three minutes away from any residence (Alexander 1977). Though the need for the positive aspects of parks is great, according to their research, only those who live very close (generally within 3 minutes) make full, daily use of them. Alexander also stresses the need for central public squares as public spaces.

Public spaces, both hardscape and greenscape, are essential for the full social potential of a community to be realized. The existence of parks, and their proximity to people, is more important than their size. “A park the size of a single lot can serve many park functions if it is well designed” (Fadely 1987)

❖ APPENDIX I ❖

NOTES FROM "BRAINSTORMING" SESSIONS

The Hexagon Group conducted two brainstorming sessions during the process of preparing this plan. The first was with the students in Planning Workshop, a course in the Master's of Urban and Regional Planning program at Portland State University. The second was with a group of THPRD staff members. Both were designed to generate ideas about what makes a good park (and bad park), what roles parks play, and issues that should be considered in planning for parks in station area communities. Comments from both sessions are included in this appendix. In addition, many of the ideas resulting from these sessions are included throughout this plan.

I.1 Session with Planning Students

On January 17, 1996, the Hexagon Group conducted a class session in Planning Workshop. Eighteen students and two professors attended and contributed their comments, most of which are presented here, in response to specific questions.

1. What is your favorite park and why?

Mt. Tabor Park, Portland, Oregon (SE 60th Avenue and Hawthorne)

- ◆ close
- ◆ refuge
- ◆ destination - activity center
- ◆ variety; open, trails, multiple use
- ◆ basketball hoop - even half court
- ◆ allows a variety of people to play in small space
- ◆ periodic closing to auto, top of park better without cars

Mohonk, New York State

- ◆ crystal clear mountain lake
- ◆ rock trail with ladders - rock climbing for all ages
- ◆ paddle boats
- ◆ water and views

Gas Works, Seattle, Washington

- ◆ transformation (was an industrial site)
- ◆ unique play structures

- ◆ view of downtown and lake
- ◆ varied landscape
- ◆ open space
- ◆ bike friendly on Burke-Gilman Trail

Peninsula Park, North Portland, Oregon

- ◆ classical Olmsted design
- ◆ trees and roses in formal plantings
- ◆ passive and active recreation for both the young and old
- ◆ many facilities: swimming pool, basketball and tennis courts, classrooms

A Tower in Berlin, Germany

- ◆ vine covered tower - not really a park
- ◆ view
- ◆ invites you to go in and up to the top

Water Park in Vienna, Austria

- ◆ near city hall/national theater
- ◆ used to be for aristocrats
- ◆ high plantings
- ◆ place to sit and talk

Boston Common, Boston, Massachusetts

- ◆ public garden
- ◆ formal
- ◆ labeled plants
- ◆ swan boats
- ◆ ducklings
- ◆ passive recreation/education
- ◆ statue
- ◆ ballfield
- ◆ greenspace
- ◆ special element
- ◆ playgrounds
- ◆ old fountain (flooded in the winter and used for skating)
- ◆ always busy and lively
- ◆ three transit stations

Pioneer Park, Walla Walla, Washington

- ◆ undiscovered corners
- ◆ duck ponds
- ◆ small aviary
- ◆ bandstand with concerts
- ◆ serves whole city

- ◆ walk/drive through
- ◆ old cannon that kids climb on
- ◆ great trees with horizontal branches to sit on

Hendricks Park, Eugene, Oregon

- ◆ half natural areas and half rhododendron garden
- ◆ big picnic lawn
- ◆ quiet and open
- ◆ beautiful in spring
- ◆ located on top of a hill

Lone Fir Cemetery, Portland, Oregon

- ◆ close
- ◆ jogging; park to run/move through
- ◆ peaceful
- ◆ a few benches
- ◆ historic headstones
- ◆ not perfect - shows age
- ◆ always something new to see

Stone Face Park, near Berkeley, California

- ◆ bit of nature
- ◆ defining feature is a huge rock

Park in Philadelphia, Pennsylvania

- ◆ triangle
- ◆ on transit
- ◆ juxtaposition of grids
- ◆ close to small-scale shopping etc.
- ◆ small park about 150'x50'

Toronto, Ontario, Canada

- ◆ bushy place by the side of the road
- ◆ get away
- ◆ serene
- ◆ near creek
- ◆ path that leads away from noise of traffic
- ◆ quiet to be sought

2. What are some of the things you least like about parks?; What makes a bad park?

- ◆ safety issues (berms around edges so can't see into it, St. Francis at SE 12 & Stark)
- ◆ dark is threatening

- ◆ lack of visibility
- ◆ feeling of darkness
- ◆ ignore traffic patterns
- ◆ no paved path -no use during Portland winter because of the mud
- ◆ not enough trash cans
- ◆ auto access and big parking lots - big waste of land
- ◆ highly manicured - modern can be too sterile
- ◆ too much clutter gets in the way
- ◆ spaces that are too large and vacant are not enjoyable; need intrigue and things to discover
- ◆ if not integrated, extra things don't add to variety
- ◆ what's around urban parks is essential as part of the area
- ◆ buildings need to be maintained or be removed

3. What are the Functions and Roles of Parks?

- | | |
|-----------------------------|-----------------------------|
| ◆ respite | ◆ theater groups |
| ◆ BBQ | ◆ music |
| ◆ not privately owned space | ◆ focus center |
| ◆ waiting | ◆ helps define community |
| ◆ sleep | ◆ garden |
| ◆ shade | ◆ group activities |
| ◆ playing | ◆ enduring/constant |
| ◆ reading | ◆ leisure |
| ◆ people watching | ◆ partying |
| ◆ dog walking | ◆ out of consumer loop |
| ◆ exercising kids | ◆ kids mix more w/ turf |
| ◆ cruising - cars | ◆ informal |
| ◆ duck feeding | ◆ truly public space |
| ◆ fountains - cool off | ◆ gives area identity |
| ◆ festivals | ◆ political events |
| ◆ connecting w/ natural | ◆ meeting people w/ similar |
| ◆ environment | interest |
| ◆ special events/shows | |

4. What public spaces do you use that are not traditional parks? What are non-traditional roles of parks?

- ◆ the "stoop" (stairs in front of a house or apartment - a place to watch activity on the street)
- ◆ railroad tracks (like in Astoria, where they are right on the water behind other buildings so they have to be "discovered")

- ◆ tops of buildings; gardens, new perspective, historic, view of area
- ◆ connecting different parts of city malls
- ◆ beach
- ◆ in Golden Gate Park; connection, dirt trails
- ◆ linear parks
- ◆ stairways
- ◆ bridges; view, water
- ◆ middle of street for kids
- ◆ block parties
- ◆ abandoned houses; old plants, poke around, discovery
- ◆ building lobbies; escape from outside
- ◆ plazas, a place to escape cars
- ◆ train stations
- ◆ airports; play areas and shopping areas
- ◆ MAX (Portland's light rail line) as play and watch area
- ◆ play structures as art
- ◆ stream as link to park
- ◆ noise buffer
- ◆ garden space
- ◆ meandering path and picnic knoll
- ◆ community garden
- ◆ greenspace for neighborhood
- ◆ matrix of small parks w/varied uses
- ◆ incidental to transit
- ◆ amphitheater to MAX
- ◆ allow "musical" inviting movement w/ MAX
- ◆ airspace for development and linking

Summary of Workshop Session

These are some themes and elements that came up repeatedly. They are things people like in a park or the roles that parks play:

- ◆ parks built with a variety of uses in mind; open space, trails, gardens and varied landscape
- ◆ playing fields and courts for activities such as soccer, basketball, baseball and tennis
- ◆ accommodates and allows a variety of people to use the same space
- ◆ unique play structures, e.g. animal sculptures, historical items
- ◆ views
- ◆ water features such as swimming pool, wading pool and duck pond
- ◆ picnic area
- ◆ open space
- ◆ parks should include defined areas for play and leisure

- ◆ natural or planted trees, shrubs and/or flowers should be part of the park design
- ◆ passive and active recreation for both the young and old
- ◆ parks serves as a connection between the built and natural environment
- ◆ parks helps to define a community and serve as a focus for a neighborhood or an area.
- ◆ a place to walk pets
- ◆ water fountain

I.2 THPRD “Experts” Meeting

The Hexagon Group met with five members of THPRD’s staff on February 23, 1996. The purpose of the meeting was to get staff input—as park and recreation professionals and as park users—on issues relating to park planning. We talked about broad issues, such as the roles of parks, as well as issues relating to parks around light rail stations and our conceptual plan for the 170th/Elmonica station community. THPRD staff who attended the brainstorming session were:

Andy Priebe, Project Planning Coordinator
 Mark Hokkanen, Director of Recreation and Community Services
 Lisa Novak, Special Activities, historic sites, Nature Park
 Vicki Vanneman - Superintendent of Sports Activities
 Laurie Conlin - Aquatics

1. What are the roles of parks? What is important in parks?

- ◆ Gathering points for community
- ◆ Open space at more of a premium in dense development. People need a place to walk their dogs.
- ◆ Important to have open space for children and pets, they act as natural space, especially in tightly knit areas.
- ◆ Parks offer solitude and observation and knowledge of nature.
- ◆ Importance of natural areas.
- ◆ Play equipment for children, facilities for adults - soccer, tennis, climbing wall, wading pools.
- ◆ In context of light rail station area facility - an activity pool (wave pool) might attract people from outside the district.
- ◆ Gardening/garden space
- ◆ The Beaverton area is lacking in a good trail system - there needs to be more connectivity of trails for bikes, skates, rollerblades, etc.
- ◆ In the Trails and Pathways Master Plan, connectivity and continuity are the two major issues— trails need to go somewhere.
- ◆ Parks provide visual and sensual relief from the concrete environment.

- ◆ Hardscapes have their place - a place for kids to play ball - but the major role of parks is to provide a soft-scape.
- ◆ A hardscape can provide a good gathering place and should be surrounded by soft-scape.
- ◆ A new skate park is being developed at Terpenning—a half-acre site for skate boarding, and street hockey.
- ◆ Traffic is always an issue when designing a park

2. How can parks improve light rail station areas? What special issues are raised by station area development?

- ◆ Keep dogs and bikes out of the Nature Park.
- ◆ Tri-Met is building a boardwalk trail from the Merlo Station to the Nature Park.
- ◆ At the Elmonica Station, the area along the creek/wetland area will probably have a boardwalk trail; it could be made of recycled material.
- ◆ Community garden with children's play area adjacent.
- ◆ Provide a mix of play structures for all different groups (i.e., preschool, elementary, teens and adults, for example, Landscape (specific brand) play structures for pre-teen kids.
- ◆ The denser the area the less back yard and green there is, so government need to provide these spaces for the public.
- ◆ A combination of soft and hard surfaces such as grass areas and basketball courts is good because it attracts a variety of users.
- ◆ Could locate appropriate bike facilities such as racks and lockers next to station

3. Are there special maintenance issues we should be aware of?

- ◆ Accessibility is important. There should be hardscape under picnic tables etc.. (for ease of lawn mowing). Cooperative agreements with school districts for mowing.
- ◆ Size isn't as critical as design.
- ◆ The issue of maintenance of small parks can be mitigated by improving accessibility to and between parks and also by improved designs.
- ◆ It costs about \$3,800 to maintain an acre of park per year.

(It should be noted that Dave Chrisman, THPRD Maintenance, was unable to attend the brainstorming session. He was interviewed February 28, 1996, over the phone. His comments are included below.)

4. How does the size of a park affect its function? What can be incorporated in a small park (less than one acre)?

- ◆ Small parks could include a play structure, play pad, trees, picnic tables, and small amphitheater (no tennis court)
- ◆ It is important to look at physical and topographical constraints when considering what facilities will fit into a small park site.
- ◆ Two parks that serve as good examples and comparisons of facilities at small parks are Rock Creek Park (trail, play pads, play structure), and Rock Creek Landing (2 tennis courts).
- ◆ There needs to be a happy medium between too small and too big. A Neighborhood Park feel is appropriate for station areas.

5. How can THPRD provide an equitable level of service and a quality park experience in higher density areas, as compared to other areas?

- ◆ Joint Partnerships? Public/Private partnerships? Possibilities with Nike? Partnerships should be encouraged.
- ◆ Encourage designation of open space in new developments (by developers)
- ◆ Joint use arrangements: THPRD could negotiate with apartment owners to use apartment facilities (parks, community centers, gyms) for THPRD classes and programs.
- ◆ Possible facilities for small parks could include:
 - a putting course (pitch and putt) - which can be done on less than an acre
 - frisbee golf - a course could be set up in a linear park.

6. If you could see anything at a station area park, what would you like to see most?

- ◆ An aquatic park would attract a lot of people and could provide revenue for THPRD.
- ◆ Community Center - includes recreation, aquatics, senior center, library, and after-school activities.
- ◆ In aquatics centers, develop an ice rink next to the pool - these are compatible because the heat removed from the ice rink can be used to heat the pool. This has been done in Canada.

Follow-Up: Telephone Interview About Maintenance Issues:

Dave Chrisman, THPRD Maintenance, stressed that the size of a park is not as critical as the state of its development. THPRD does a thorough inventory of the physical resources or assets of a park, then classifies the park into one of three categories.: 1) Priority Parks, 2) Secondary Parks, and 3) Undeveloped Parks. The level of service (maintenance) corresponds to the classification of the park. Category 1 receives a higher level of service

than categories 2 and 3. Services such as mowing, sweeping, watering and pruning all vary according to the classification of a park.

Factors that affect how much and how often a park is serviced include:

- ◆ usage and busyness,
- ◆ accessibility,
- ◆ visibility,
- ◆ design, and
- ◆ physical assets.

❖ APPENDIX J ❖

A NEW STANDARD FOR FACILITIES PROVISION

J.1 Standardized Use Ratio

Current NRPA facilities provision standards seem to be somewhat arbitrary (e.g., 1 badminton court should be provided for each 30,000 population in the service area; see Figure 2-2). A standardized system is needed to plan for activities that become popular in the future. A final reiteration of the standard warning is appropriate: these numbers are only *guides*. People are too variable and mutable to treat as engineered objects, especially over the long term. Nevertheless, the following is an attempt to provide some structure and a basis with which to begin deciding on specific population numbers needed to support different types of facilities.

One logical measure is the number of people who could make use of the facility per hour per 1,000 people in the service area (number of people "per 1K pop-hr"). This measure is developed in three steps. First, the number of people who can use a facility at once is determined (e.g., 22 people—11 on each team—can typically play soccer at once). Next, the turnover rate per hour is determined (e.g., a soccer game takes about one and one-half hours, which means about two-thirds of a game is played in a single hour). Finally, the standard developed for the population, such as NRPA standards, is used to compensate for population differences (e.g., the NRPA standard for soccer is 1 field per 10,000 population).

The formula is:

$$\text{Standardized use ratio} = \frac{((\text{capacity per unit}) * (\text{turnover rate per hour}))}{\text{population per facility standard}}$$

A value of 1.47 for soccer means that for each 1,000 population, 1.47 people should be accommodated by that facility per hour. The number itself has no meaning (what is 1.47 people?), but can be applied to any facility. The standardized use ratio allows comparison across different capacities of various activities for different population sizes. In short, it is a fully standardized figure that can be applied in any case.

In application, facilities standards can be derived by estimating a capacity per unit and a turnover rate per hour, then inserting a preferred standardized use ratio (between 1 and 2 and modified by the expected popularity). The equation can then be solved for the population per facility standard.

Figure J-1 shows the current standards of the NRPA as well as four Pacific Northwest park districts. The stated current standard is shown followed by the equivalent standardized use ratio of "per 1K pop-hr."

Evaluation

All of the standardized use ratios except for bicycling and hiking trails are within the same order of magnitude. While they range between 0.48 for golf (which traditionally serves a small portion of the population) up to 4.80 for baseball (in Olympia, Washington, which has targeted baseball as an activity to support), most values fall between 1 and 2.

Application: Why Does This Matter?

Twenty years ago, during the mid 1970s, soccer was played by a very small portion of the population in Washington County. Now it is one of the most popular sports within THPRD. New sports are almost certain to appear over the next 20 years and beyond. This standardized use ratio can provide general guidance for developing new standards. The idea is that new, suddenly popular, sports facilities can be compared in some sense with other existing sports.

Why include this in a study focused on light rail station areas? One of the issues raised at the beginning of this process was the sudden popularity of skateboard and in-line skate facilities. Light rail stations are prime areas for such facilities because light rail transit allows better accessibility for the transit-dependent age groups that are typically active in these sports. The same may also be true of sports that have not yet emerged. The standardized use ratio can be used to generate service guidelines in any case.

The standardized use ratios vary with popularity and accessibility of the facilities, and thus *cannot* be applied wholesale. As with NRPA standards, they should be used only as an estimate from which to begin.

**Figure J-1
Example Facility Standards and Standardized Use Ratios**

| | capacity per unit (1) | turnover rate per hour (2) | NRPA | | Olympia | | Gresham | | Vancouver | | Clark County | |
|---------------------|-----------------------------|----------------------------------|-----------------|----------------------|-----------------|----------------------|-----------------|----------------------|-----------------|----------------------|-----------------|----------------------|
| | | | standard (3) | per 1K pop-hr (4) | standard (3) | per 1K pop-hr (4) | standard (3) | per 1K pop-hr (4) | standard (3) | per 1K pop-hr (4) | standard (3) | per 1K pop-hr (4) |
| Tennis | 2 | 1.00 | 2,000 | 1.00 | 1,600 | 1.25 | 2,000 | 1.00 | 2,000 | 1.00 | 2,000 | 1.00 |
| Baseball | 18 | 0.67 | 5,000 | 2.40 | 8,000 | 1.50 | 5,000 | 2.40 | 5,000 | 2.40 | 5,000 | 2.40 |
| Soccer | 22 | 0.67 | 10,000 | 1.47 | 3,500 | 4.19 | 10,000 | 1.47 | 10,000 | 1.47 | 10,000 | 1.47 |
| Swimming Pool | 24 | 2.00 | 20,000 | 2.40 | 20,000 | 2.40 | 50,000 | 0.96 | 50,000 | 0.96 | 50,000 | 0.96 |
| Volleyball | 12 | 1.00 | 5,000 | 2.40 | 15,000 | 0.73 | 5,000 | 2.40 | 5,000 | 2.40 | 5,000 | 2.40 |
| Golf | 4 | 6.00 | 20,000 | 0.55 | 2,500 | 14.40 | 50,000 | 0.48 | 50,000 | 0.48 | 50,000 | 0.48 |
| Football | 22 | 0.50 | 20,000 | 0.55 | 15,000 | 0.73 | 5,000 | 24.00 | 5,000 | 24.00 | 5,000 | 24.00 |
| Bike trails (mi.) | 12 | 10.00 | | | 5,000 | | | | | | | |
| Hiking trails (mi.) | 12 | 3.00 | | | 2,500 | | | | | | | |

(1) Number of persons who can utilize one unit of facility at a given moment.

(2) Number of different groups served by facility in one hour.

(e.g. 0.5 for football means each hour 1/2 of a game is played- assuming games take approx. 2 hours each)

(3) Represents the current standard for designated district. Units are number of residents per one unit of facility

(e.g. 2,000 under Tennis means 1 Tennis Court per 2,000 population).

(4) Represents a standardized number to compare standards. Number of people accommodated per hour per 1,000 population.

(e.g. 2.40 under Baseball means 2.4 people per hour can be served under this standard for each 1,000 people within the service district)

❖ APPENDIX K ❖
CLACKAMAS COUNTY SUNNYSIDE VILLAGE DISTRICT PLAN
AND ORDINANCE PROVISIONS

The Clackamas County Sunnyside Village District Plan and ordinance provisions included in this appendix were adopted by the Board of County Commissioners on November 29, 1995. The copy of the plan and ordinances presented herein indicate the latest revisions. New text is underlined, and deleted text is struck through (e.g., ~~East~~).

**BEFORE THE BOARD OF COUNTY COMMISSIONERS
OF CLACKAMAS COUNTY, STATE OF OREGON**

The Matter of an amendment
to the Zoning and Development
Ordinance related to the Sunnyside
Village Including Sections 1600, 1602,
1603, 1604, 1605, 1608 and the Village
Community Plan: ZDO-123

ORDER NO. 95-1091

This matter coming regularly before
the Board of County Commissioners, and it appearing that the County
Planning Department Staff has proposed amending the sections of the
Clackamas County Zoning and Development Ordinance related to Sunnyside
Village and the corresponding Community Plan; and

It further appearing that the
Zoning Commission at its August 28 and September 25, 1995 hearings
reported the proposed amendment package; and

It further appearing that after
appropriate notice public hearings were held before the Board of County
Commissioners in the County Courthouse Annex, at 906 Main Street, Oregon
City, OR, on October 4, November 1 and November 29, 1995, in which
testimony and evidence were presented, and that a preliminary decision
was made at the time; and

Based upon the evidence and testimony
presented, this Board finds that the proposed amendment is in the best
interest of the citizens of the area and the County as a whole.

NOW, THEREFORE, IT IS HEREBY ORDERED
that Sections 1600, 1602, 1603, 1604, 1605, 1608 of the Zoning And
Development Ordinance and the Sunnyside Village Community Plan be
amended as shown on the attached Exhibit A.

DATED this 29th day of November, 1995

BOARD OF COUNTY COMMISSIONERS

Judie Hammerstad, Chair

Darlene Hooley, Commissioner

Ed Lindquist, Commissioner

600 VILLAGE GENERAL PROVISIONS

B. AREA OF APPLICATION

The East Sunnyside Village Plan is applied within the area located generally east of I-205 along the south side of Sunnyside Road between 142nd and 152nd Avenues, including portions of land west of 142nd and east of 152nd, in addition to a section north of the intersection of 142nd and Sunnyside Road. The East Sunnyside Village Plan is illustrated on Plan Map X-7.

1600.01 ACCESSWAYS

A system of interconnecting accessways shall be provided from subdivisions and multifamily developments to commercial facilities and public amenities such as existing or planned transit stop or facility, school, park, church, day care center, children's play area, outdoor activity areas, plazas, library, or similar facility and to a dead-end street, loop, or mid-block where the block is longer than 600 ft.

- A. The accessway shall include at least a 15 ft. right-of-way and a 10 ft. wide paved surface.
- B. Accessways shall be illuminated so that they may be safely used at night.
- C. The maximum height of a fence along such a facility shall not exceed 4 ft.
- D. Bollards or other similar types of treatment may be required in order to prevent cars from entering the accessway.
- E. The designated East-West pedestrian accessway shall include a minimum 10 ft. wide concrete surface within a 10 ft. wide right-of-way, easement, or other legal form satisfactory to the county. Planting areas adjacent to the easement with street trees should be provided along at least one side of this accessway. However, alternatives to this standard may be considered through the Design Review process. If the accessway is within a parking area, it shall be lined by parking lot trees planted at a maximum of 30 ft. on-center along both sides.

1600.02 ONSITE WALKWAYS FOR COMMERCIAL, MULTIFAMILY (4 OR MORE UNITS), INSTITUTIONAL AND OFFICE DEVELOPMENT.

C. Walkways shall be constructed of concrete, ~~or paving bricks, textured and colored concrete e.g. bomonite or other similar material~~ and be at least five (5) ft. in unobstructed width.

~~J. Walkways with a distance greater than 15 ft. shall be covered.~~

1600.03 STREETS/SIDEWALKS

A. The following streets are unique to the East Sunnyside Community Plan area in addition to the arterial and collector streets. The corresponding figures are found in the Comprehensive Plan Amendment. (Map X-8, Street Classifications).

~~A. Connector streets with bike lanes: 58 feet (41 feet when adjacent to Resource Protection Areas) rights-of-way including two 10-foot travel lanes, two 8-foot wide parking strips and two 4-foot wide bike lanes along both sides of the street with a 9-foot wide sidewalk adjacent to retail and a 5-foot wide sidewalk adjacent to residential. Trees shall be 54 feet on center and shall be located inside the curb line within the parking strips (Figure X-1).~~

1. Connector streets with bike lanes shall include two 10-ft. wide travel lanes, two 6 in. wide standard curbs, two 7-ft. wide parking strips, two 4 to 5-ft. wide planting strips, two 4-ft. wide bike lanes and two 5-ft. wide sidewalks. The minimum right-of-way width shall be 61 to 63 ft. depending on the planting strip width. If commercial/retail are adjacent to the site, then 9-ft. wide sidewalks are required (Figure X-1).

~~B. Connector streets without bike lanes: 50 feet (33 feet when Resource Protection Area is on one side and 29 feet when Resource Protection Area is on both sides) rights-of-way including two 10-foot travel lanes, two 8-foot wide parking strips with a 9-foot wide sidewalk adjacent to retail and a 5-foot wide sidewalk and a 4-foot wide tree planting strip adjacent to residential. Trees shall be 54 feet on center and shall be located inside the curb line within the parking strip (Figure X-2).~~

2. Connector streets without bike lanes shall include two 10-ft. wide travel lanes, two 6 in. wide standard curbs, two 7-ft. wide parking strips, two 4 to 5-ft. wide planting strips and two 5-ft. wide sidewalks. The minimum right-of-way width shall be 53 to 55 ft. If commercial/retail is adjacent to the site, then 9-ft. wide sidewalks are required (Figure X-2).

~~C. Local streets: 42-foot rights-of-way including two 8-foot travel lanes, one 8-foot wide parking strip, one 5-foot wide sidewalk and one 4-foot wide tree planting strip on each side of the street between the curb and the sidewalk. Trees shall be 54 feet on center (Figure X-3). Or,~~

3. Local streets include two 8-ft. wide travel lanes, two 6 in. wide standard curbs, one 8-ft. wide parking strip, two 5-ft. wide sidewalks and two 4 ft. wide tree planting strips. The minimum right-of-way width shall be 43 ft. (Figure X-3)

~~42-ft. right of way including two 8 ft. travel lanes, two 8 ft. wide parking strips, and one 5 ft. wide sidewalk on each side. Trees shall be 54 ft. on center and shall be located inside the curb line within the parking strip (Figure X-4).~~

4. All streets adjacent to Resource Protection Areas shall have at least one 5 ft. wide sidewalk along one side of the street. If there are no significant trees (at least 8 in. in diameter) along the Resource Protection area adjacent to the street, then a minimum 4 ft. wide planting strip is required along both sides of the street. If it is determined that a unique view is to be preserved, then staff will determine if street trees are required.

5. Access Spacing - New street connections and private access driveways should be located along arterial and collector roadways within Sunnyside Village to provide safe and efficient traffic operations. New street connections along arterial streets are shown on Map X-8 of the Sunnyside Village Community Plan. New street connections to collector roadways shall be a minimum of 150 feet apart, measured road centerline to centerline.

New individual driveway connections shall not be permitted along arterial and collector roadways. The removal and/or consolidation of existing private driveways on arterial and collector streets should be investigated as redevelopment of properties occur.

At existing or future major street intersection (existing or proposed traffic signals), no new driveways or street connections shall be allowed within the influence area of the intersection. The influence area is defined as the distance that vehicles will queue from the signalized intersection. The influence area shall be based upon traffic volumes summarized in the Sunnyside Area Master Plan (November 1994) or based upon information acceptable to DTD Traffic Engineering. This influence area shall include an additional 100 feet beyond the queue length for back-to-back left turns.

The preferred minimum intersection spacing on minor arterials is 500 feet, measured road centerline to centerline. Major arterial intersection spacing is preferred to be between 600 feet and 1,000 feet, measured road centerline to centerline.

6. Roadway Design - The interior angles at intersection roadways shall be as near to ninety (90) degrees as possible, and in no case shall it be less than eighty (80) degrees or greater than 100 degrees. Minimum centerline radius for local roadways shall be 100 feet unless the alternative horizontal curve illustrated on Map X-10 is used.
- B. Planting strips which include street trees are part of the street cross sections, see Section 1600.04 for details.
- C. Sidewalks within the Village shall have a minimum unobstructed width of 5 ft. No street lights, mailboxes, fire hydrants, etc. are allowed within the sidewalk.

1600.04 STREET TREES

Street trees are required along both sides of all connector and local streets within the East Sunnyside Community Plan. One to two street trees are required per interior lot, and 2-4 for corner lots depending on the canopy of the tree species proposed. If a small canopy (less than or equal to 25 ft. in diameter at maturity) is proposed, then 2 per interior lots and 4 per corner lots are required. If a larger canopy (greater than 25 ft. in diameter at maturity) is proposed, then 1 per interior lot and 2 per corner lots are required.

1600.07 TRAILS AND PEDESTRIAN CONNECTIONS

An interconnecting system of trails and accessways throughout the East Sunnyside Community Plan area shall be provided. The general trail locations are shown on Map X-7. are conceptual. The precise location of the trails shall be set at the time a land use application is approved. The locations of the trails are based on achieving connections to streets and/or pedestrian ways and protection of the significant features of the Resource Protection areas.

1600.08 SIGNS

Signs shall be as per section 1010 unless otherwise stated. When Section 1010 conflicts with this section, the standards of this section shall apply.

Freestanding signs shall be constructed of brick, masonry, wood or other natural material used in the development.

Signs in the Village Commercial, Village Apartment, and Village Office Districts are subject to Design Review.

VILLAGE PARK PROVISIONS

01 PURPOSE

- A. This section shall apply to the development of property located within the boundaries of the East Sunnyside Village Plan area in Clackamas County.
- B. The purpose of this section is to provide a minimum level of public parks to adequately serve the demands of this new community. It will ensure that future growth contributes its fair share to the cost of new parks. This cost is for park acquisition and park road frontage construction only and does not include park development, operations, or maintenance costs.
- C. The park dedication or fee in lieu of dedication is incurred upon the application for a building permit or land use action.
- D. The existence of public parks has substantial benefits to proximate development. These benefits include aesthetic, recreational, and environmental benefits to the neighborhood. Actual use of these parks will be by residents and employees of businesses.
- E. The park dedication or fee in lieu of dedication is not intended to be a tax on property as a direct consequence of ownership of property within the meaning of Section 11b, Article XI of the Oregon Constitution or the legislation implementing that section.

02 GENERAL PROVISIONS

- A. The public interest, convenience, health, welfare, and safety require that a minimum of two and one half (2½) acres for each one thousand (1,000) persons residing or employed within the village be devoted to local parks as identified in Table IX-1 of the Clackamas County Comprehensive Plan.
- B. An applicant requesting a land use action shall dedicate land for park purposes if the site has been identified as a park site on the East Sunnyside Village Plan Map X-9. Park sizes represented on Map X-9 are minimum park sizes.
- C. Modifying park location shall occur only when it can be shown that access, topographic conditions, or extreme engineering costs make the depicted location impractical to develop as a park.

- D. Land dedications shall be conveyed by plat and deed to the North Clackamas Parks District. All dedications shall be platted with the final ~~residential~~ plat adjacent to the designated park site or by alternate arrangement specified in a recordable agreement as determined by the Planning Director or designate.
- E. The development and maintenance of these parks will be the responsibility of the North Clackamas Parks District. The Parks District will also be responsible for maintaining the center landscaped portion of the Village Traffic Circle north of the Village Green.
- F. Prior to issuance of a residential building permit the applicant shall pay a fee in lieu of dedication for park acquisition ~~if the lot was not part of the original parcel in which dedication was required.~~ Fees ~~in lieu of dedication~~ shall be determined in accordance with Section 1602.03,B,1.
- G. Prior to issuance of a residential building permit the applicant shall pay a fee for park road frontage construction. This fee shall be used for the construction of the connector roads and local streets adjacent to parks 3,4, and 5 as depicted on the East Sunnyside Village Plan Map X-9. Fee for park road frontage construction shall be determined in accordance with Section 1602.03,C.
- H. Prior to issuance of nonresidential building permit the applicant shall pay a fee in lieu of dedication for park acquisition ~~if said site is not identified as a park site on the East Sunnyside Road Community Plan.~~ Fees ~~in lieu of dedication~~ shall be in accordance with Section 1602.03,B,2.
- I. All fee payments shall be made prior to the issuance of a building permit. No building permit shall be issued by the County until the applicant has satisfied the provisions of this ordinance.

1602.03 PARK DEDICATION OR FEES IN LIEU OF DEDICATION

A. Park Land Dedication per Dwelling Unit.

- 1. The actual amount of park land to be dedicated shall be determined by the following formula:

| | | | |
|------------------|-----------------|------------------|-----------|
| Amount of | Total Number | No. of Persons | .0025 Net |
| Req'd Park (=) | of Proposed (X) | Per Dwelling (X) | Acres Per |
| Land (Net Acres) | Dwelling Units | Unit | Person |

- a. The total number of dwelling units shall be the actual number of units reflected on the final plat.
- b. Determination of population density, that is, the number of persons per dwelling unit (PPU) shall be based on the latest US Census data.

Persons Per Dwelling Unit By Type

| PPU Single-Family Detached | PPU Single-Family Attached | PPU Multi-Family Unit | PPU Accessory Dwelling |
|----------------------------------|----------------------------------|-----------------------------|---------------------------|
| 3.04 | 2.27 | 2.03 | 1 |

Source: Metro, computed from the 1980 census.

- c. ~~Ownership of identified park land which is in excess of the amount requested for dedication and located on property under review for a development permit shall be required to transferred ownership to the North Clackamas Parks District. Compensation will be provided at the time of transfer based upon an appraisal representing fair market value.~~

B. Fee in Lieu of Dedication

1. Residential Development

- a. Park land fee in lieu of dedication shall be based upon the average appraised value of all designated park sites. The park land fee in lieu of dedication shall be determined in accordance with the following formula:

$$\text{Park Land Netary Fees/Dwelling Unit} \quad (=) \quad \text{Park Land Value/AC} \quad (X) \quad .0025 \text{ Acres per Person} \quad (X) \quad \text{Net People Per Dwelling Unit}$$

- b. People per dwelling unit shall be in accordance with Section 1602.03,A,1,b.

2. Non Residential Development

- a. All nonresidential development shall be required to pay a fee in lieu of dedication. The formula for determining the fee shall be determined by the following formula:

Park Land
Fee/per
Employee

$$(\text{=}) \quad \begin{array}{l} \text{Park} \\ \text{Land} \end{array} \quad (\text{X}) \quad \begin{array}{l} .0025 \\ \text{Acres per} \\ \text{Value/AC} \end{array} \quad \text{Employee} \quad (\text{X}) \quad \begin{array}{l} \# \text{ of} \\ \text{Employees} \end{array}$$

- b. The number of employees per nonresidential use shall be determined by a the "study of employment density" completed by Metro in 1990 or any updated version of this study ~~the most current Institute of Transportation Engineers (ITE) Trip Generation Manual. If from the information provided in this study an employee figure cannot be obtained, then the proposed use is not listed in the Manual~~ the Planning Director or designate shall determine the number of employees based upon similar uses in the County listed in the Manual. to the extent possible.

C. Park/School road frontage and utilities construction fee

1. The park road frontage construction fee shall be determined in accordance with the following formula: $X = ([A / B] / C) \times D$

X = Park Road Frontage construction fee per Unit.

A = Cost of all connector and local roads adjacent to all parks, utilities in these park roads, and the Connector road adjacent to the south property line of the School.

B = 2 (half street).

C = Estimated population at build-out.

D = Net people per dwelling unit (from most recent census).

~~Park Road Frontage const. (-) fee per Unit~~ ~~Cost of all Connector & Local Roads adj. to all parks & the Connector adj. to the South p/l of the School~~ ~~Pop. at Bld. out (7,500)~~ ~~Net. people X per Unit~~

2. People per dwelling unit shall be in accordance with Section 1602.03, A, 1, b.

3. Reimbursement to Developers for Half Street Improvements Adjacent to Parks

When a developer completes construction of utilities and roads adjacent to a park or the connector road adjacent to the south property line of the School as per County requirements, the developer shall be reimbursed according to the fee schedule for local and connector streets. This rate may be changed at a rate commensurate with a change in construction costs.

D. All fees shall be rounded to the nearest dollar.

5-2.04 REFUND OF FEES PAID

A. If a residential building permit encompassing fee-paying development expires or is revoked, the fee payer shall be entitled to a refund of the fee.

6Q2.05 EXEMPTIONS

A. The following shall be exempted from park dedication and fee in lieu of dedication:

1. Alterations, expansion or replacement of existing dwelling unit(s) where no additional dwelling units are created.
2. Construction of accessory buildings and structures not creating additional dwelling units.
3. The issuance of a temporary permit for a mobile home.
4. Any land use action which does not result in the creation of a new lot(s), excluding Design Review actions.

702.06 RECORDS

A. Fees collected. Clackamas County shall maintain accurate records of each park fee imposed including the following:

1. Name, address and, telephone number of the applicant or fee payer;

2. Social security number or taxpayer identification number of applicant or feepayer;
 3. Amount and method of payment;
 4. Date of payment; and
 5. Building permit number
- B. Fee Trust Account Funds Expended. Clackamas County shall maintain accurate records of all ~~trust~~ fee funds expended, including the following:
1. Name and location of park;
 2. Legal description, area, and sketch of parent tract, the number and type of dwelling units;
 3. Amount and date of each fee for sub-parcels of the parent tract together with the legal description, area and sketch of said sub-parcel;
 4. Building and Zoning hearing number for which contributions have been approved; and
 5. Amount and date of refunds paid by Clackamas County.

1602.07 FEE ~~TRUST~~ ACCOUNTS

- A. To insure that fees collected will benefit feepaying developments, all park acquisition fees described in Section 1602.02, F shall be deposited in the Park Acquisition Account Fund of the "East Sunnyside Village Park Acquisition Fund." This ~~account~~ fund shall be maintained by the Finance Department of Clackamas County and with fees accountable by the Finance Department, North Clackamas Parks District, and the Planning Department.
- B. To insure that fees collected will benefit feepaying developments, all park road frontage construction fees described in Section 1602.02, G shall be deposited in the Park Road Frontage Construction Account fund of the "East Sunnyside Village Park Road Frontage Construction Fund." This ~~account~~ fund shall be maintained by the Finance Department of Clackamas County and with fees accountable by the Finance Department and the Planning Department.
- C. All fees collected by the Director shall be promptly deposited into the trust accounts listed in Sections 1602.07 A. and B. above.

- D. Fees, including any accrued interest, not encumbered in any fiscal period, shall be retained in the ~~trust funds~~ into the next fiscal period except as provided by the refund provisions of this section.
- E. Fees may be used only for park land acquisition and park road frontage construction within the East Sunnyside Village Planning area as depicted on the Comprehensive Plan Map X-9 and described in Section 1602.01, B.
- F. The provisions of this section will sunset at the time all designated park land has been acquired and all park acquisition and road frontage fees for all building permits within the Sunnyside Village have been collected. Any residual money will be transferred to the North Clackamas Parks District's Park Development account. This residual may be utilized only for park development within the East Sunnyside Village Plan area.

1603 VILLAGE STANDARD AND SMALL LOT RESIDENTIAL (VR-5/7, VR-4/5)
(06-02-94)

1603.01 PRIMARY USES

- A. Detached single family dwelling units and manufactured homes. (06-02-94)
- B. Residential homes.
- C. Public parks, playgrounds, recreational and community buildings and grounds, tennis courts, and similar recreational uses, all of a noncommercial nature, provided that any principal building, swimming pool, or use shall be located not less than forty-five (45) feet from any other lot in the residential district. These uses may be designated Open Space Management under Section 702 when the criteria under Section 1011 are satisfied.

1603.097B.1B.2. Streets, public paths or open space shall abut the entire perimeter of all parks. In no case shall the rear of a building or a residential lot face a park. Street alignments and lotting patterns shall ensure that building fronts or sides face parks, with building sides acceptable along not more than one-third of a park's perimeter.

Purpose: Streets, paths, or open space around neighborhood parks provide parking, appropriate access, and visibility from nearby development.

- D. Utility carrier cabinets, subject to Section 830.
- E. Commonwall dwelling units when a 0-ft. lot line option is used.
- F. Townhouse dwelling units when transferring density from the Resource Protection Area into the VR 4/5 zone only (See Section 1604 for Development Standards).

1603.02 ACCESSORY USES

- A. Accessory uses, buildings, and structures customarily incidental to any primary use located on the same lot. Subject to the provisions of Section 1603.07E-1603.05 (~~Exceptions to General Requirements~~).
- B. Accessory residential units ~~shall be located~~ either above a detached garage, subject to the provisions of Section 1603.07E., or integral to the primary

dwelling unit, as provided under Section 1603.07D. ~~all setbacks and height limits are met.~~

- C. Home occupations, subject to the provisions of Section 822.
- D. Bed and breakfast homestays, subject to the major home occupation provisions under Section 822.
- E. Signs, as provided under Section 1010.
- F. Temporary buildings for uses incidental to construction work, which shall be removed upon completion or abandonment of the construction work.
- G. Bus shelters under the provisions of Section 823, bicycle facilities, street furniture, drinking fountains, kiosks, art works, sculptures, and other pedestrian and transit amenities.
- H. Solar collection apparatus.
- I. Family daycare provider home facilities, as defined in Section 202.

1603.03 CONDITIONAL USES

The following conditional uses may be allowed in the Standard and Small Lot Residential Districts subject to review by the Hearings Officer, pursuant to Section 1300, or the review procedures provided under the specific 800 Section. Approval shall not be granted unless the proposal satisfies the criteria under Section 1203, the applicable provisions of Section 800, and all other requirements of this Ordinance.

- A. Two- and three-family dwellings, and the conversion of single-family dwellings into duplexes, see Section 802.
- B. Townhouse units, except when transferring density from resource protection to VR-4/5, as per 1603.01.F., in which case see Section 1604 for development standards.
- C. Churches, see Section 804.
- D. Public schools and private and parochial schools offering curricula similar to public schools, see Section 805.
- E. Schools: parochial and private, see Section 806.
- F. Daycare centers, see Section 807.
- G. Nursing homes, see Section 810.

1603.04 PROHIBITED AND PREEXISTING USES

A. PROHIBITED USES

1. Except as provided below, Uses of structures or land not specifically permitted in Section 1603 are prohibited in this zone.

2. The use of a mobile home as a residence, unless specifically authorized under the provisions of Section 1204 for Temporary Permits.

B. PREEXISTING USES

C. 1. Designated Historic Landmarks shall be preserved as provided under Section 707.

D. 2. Preexisting single family residences or residential homes may be allowed to remodel or expand and shall not be subject to the provisions of Section 1206. In addition, the following provisions shall apply:

a. Density: A preexisting dwelling shall be one (1) dwelling unit for purposes of calculating density under Subsection 1603.05, unless:

(1). The structure will be removed prior to occupancy of the new development on the same property, or

(2). The dwelling will be used for another allowed use incidental to the primary use of the property.

b. Lot Division, Adjustments, and Setbacks:

(1). A new lot created for a preexisting dwelling shall be a maximum of 15,000 square feet. This lot need not be included in the calculation of average lot size.

Preexisting dwellings in Resource Protection Areas shall be exempt from this maximum lot size, but shall meet other standards of Resource Protection Areas.

(2). Lot line adjustments may be allowed under the provisions of Subsection 902.03.

~~1603.05 EXCEPTIONS TO GENERAL REQUIREMENTS: The general requirements of this zone shall be subject to the provisions under Sections 900 and 1000 and the following described below. If there is a conflict, then the standards of this subsection shall apply.~~

0 ft. one side &
3 ft. other side

0 ft. one side &
5 ft. other side

Age
Alley

6 ft. from alley

6 ft. from alley first level,
no projections

along the alley way, a second
level accessory residential
unit may cantilever
up to 4 ft.

Age
on Alley 3 ft.

5 ft.

ae. The front yard setback shall be no less than the
front facade of the primary dwelling unit excluding
the porch, and garage, and other architectural
features. Garages shall meet the front setbacks of
Section 1603.07F.3.

d. Structures shall comply with yard requirements of
the state of Oregon Building Code.

~~B. Accessory Residential Unit:~~

~~An accessory residential unit up to 720 square feet
may be located either above a garage or integral to
the primary dwelling unit, provided that all
setbacks and height limits are met.~~

603.068 VARIANCES

The requirements of the ~~section 1603.07~~ above dealing with
~~Exceptions to General Requirements~~ may be modified, subject
to staff review and the criteria for a variance under
Section 1205 with notice pursuant to Section 1305.02. The
effect of the proposed modification on the natural features
of the site and the use and preservation of solar access
shall be considered, when applicable.

603.075 DENSITY

A. VR-5/7

The minimum land area required per dwelling unit
("District Land Area") for purposes of calculating
density pursuant to Section 1012 shall be 5,000 square
feet per lot. (See Section 1601). When there is a
conflict between this section and Section 1012, this
section shall apply.

~~Accessory residential units shall not be considered when calculating density.~~

B. VR-4/5

The minimum land area required per dwelling unit ("District Land Area") for purposes of calculating density pursuant to Section 1012 shall be 4,000 square feet per lot. (See Section 1601). When there is a conflict between this section and Section 1012, this section shall apply.

C. Accessory residential units and park sites shall not be considered when calculating density.

63.086 INDIVIDUAL LOT SIZE

A. VR-5/7

Except as provided in Subsection 1603.06C, Each lot created within the Standard Lot Village Residential District shall be no smaller than 5,000 square feet and no larger than 7,000 square feet, or each lot shall be a minimum of 5,000 square feet and the average size of all lots shall not exceed 6,500 square feet except that those areas designated Resource Protection shall be excluded from the lot size calculations.

B. VR-4/5

Except as provided in Subsection 1603.06C, Each lot created within the Small Lot Village Residential District shall be no smaller than 4,000 square feet and no larger than 5,000 square feet, or each lot shall be a minimum of 4,000 square feet and the average size of all lots shall not exceed 5,000 square feet except that those areas designated Resource Protection shall be excluded from the lot size calculations.

C. Lot Size Exceptions

1. A master plan for development shall be required for any application which leaves a portion of a property capable of further division. The master plan shall demonstrate that the property can be developed consistent with applicable standards. Any area included within the master plan shall not be included for purposes of calculating maximum allowable average lot size (Sections 1603.08.A).
2. New lots created for a preexisting dwelling shall conform with the provisions of Subsection

1603.04.B.2(a) when the parcel is not intended to be divided further in the future and no master plan has been prepared.

3.097 DEVELOPMENT STANDARDS

- A. All development in these zones shall be subject to the applicable provisions of Sections 900 and 1000, ~~as specified under Subsections 1001.02 and 1001.03.~~ In addition, and the following specific standards, shall apply. If there is a conflict, then the standards of this section shall apply.

1603.097

BD. Primary Dwelling

1603.07D1. Height -- Buildings within this district shall not exceed 35 feet maximum in height.

1603.07D.2. Setbacks

- a. Front Yard Setbacks, except for dwellings within the Resource Protection Area (see 1600.07 D. 2. d.).

The front yard setbacks of the units primary dwellings with recessed garages shall be setback a minimum of 10 feet and a maximum of 18 feet from street rights-of-way or as close to the street as possible if a public utility easement along the public street frontage precludes meeting this maximum setback standard. A porch may extend up to four (4) ft. into a front yard setback. Primary dwellings located on lots with less than thirty-five (35) feet of street frontage shall be exempt from the maximum setback standards.

Front yard setback of primary dwellings with attached garages extending beyond the front facade shall be 20 ft. (min./max.) from the sidewalk to the foremost point of the side of the garage with the garage door.

Primary dwellings on lots having more than one street frontage are required to meet the maximum front setback only on two intersecting street frontages. The minimum setback shall be met on all sides.

- b. Sides of units primary dwellings shall be set back at least 5 feet from property lines unless a zero-lot line condition is used, then a single 5 ft. side yard is required.

c. Primary structures dwellings shall be set back at least 15 feet from the rear property line.

d. Yard Setbacks in Resource Protection Areas:

Standards are applicable to lots recorded after November 29, 1995.

Development of dwellings and accessory structures within the Resource Protection area shall be subject to Design Review. Development shall meet the following requirements:

1. Minimize disturbance of natural features, including slopes in excess of 20%, trees and treed areas, wetlands and stream corridors;
2. Comply with Sections 1002.03, 1002.04 and 1002.05;
3. The maximum disturbed area shall be 5,000 sq. ft.; all buildings and yard areas shall be contained within this area. Driveways and required trails and utility construction shall be excluded from calculation of the disturbed area.
4. Shared driveways are encouraged and shall be designed to be as narrow as possible, consistent with the requirements of the Fire District.

1603.097 AC.3-Building Coverage -- Maximum 50%

1603.07G.1603.09A.4-Fences, Screening, and Buffering

Fences, screens, and sight-obscuring plantings shall meet the intersection sight distance requirements as established by Clackamas County Engineering Department.

The maximum height of a fence, screen, or sight-obscuring plantings shall be 6 feet, along the side and rear yards back from the front building line and 4 feet, forward of the front building line.

1603.07F. 1.5- Off-Street Parking:

At least one (1) offstreet parking space located behind the front yard setback line shall be provided for each dwelling unit.

Offstreet parking for other permitted uses shall be as specified in Subsection 1007.07.

1603.07F.2.6-Driveways

a. ~~VR-5/7~~

Driveways shall not exceed a width of 16 ft. at the front property line.

b. ~~VR-4/5~~

~~Driveways shall not exceed a width of 12 ft. at the front property line.~~

b. For subdivisions receiving final plat approval after November 29, 1995, a minimum of 50% of lots constructed on alleys shall have alley access only.

c. In no case shall a lot have more than one driveway.

1603.09A.7.B.1. Streets and alleys shall be designed according to Section 1600, General Provisions.

1603.07H.8. Developments within this district shall meet the Solar Access requirements of Subsections 1017, 1018 and 1019.

~~B. Additional standards applying to all development in the VR-5/7 and VR-4/5 zones.~~

1603.097B.1D.4. Entries and Porches

The following standard shall apply to primary dwellings in all subdivisions which have final plat approval after November 29, 1995.

Primary entries shall be accessed directly from a public street and must be visible from the street. At least 50% of the dwellings in all VR-4/5 and VR-5/7 developments shall have porches. A covered porch or patio shall be placed immediately adjacent to the primary entry and ~~cover at least 30% of the primary facade (not including the garage) with a depth of at least 6 feet for at least 50% of the dwellings in all VR-4/5 and VR-5/7 developments.~~ The porch shall have a net depth of at least 6 ft. and a net width of at least 10 ft. A porch may extend into a front yard setback by four (4) ft.

1603.07F.3.2. Garage Requirements:

- ~~a. A detached garage may be placed at the rear of lots, or~~
- ~~b. An attached garage shall be located at least 5 feet behind the front facade of the unit (not including porches, bays and other minor projections) and at least 20 feet from the street right-of-way.~~
- c. Tandem parking (or end-to-end) is permitted.
- ~~d. Rear garages may be accessed from an alley or side drive.~~
- d. Multi-car garages are permitted, provided all setback and configurational requirements are met.

1603.07E.4.(c) Rear and side yard setbacks shall be as follows. 5 (Exceptions to General Requirements) except where adjacent to a street, pedestrian path, sidewalk or accessway in which case a setback of at least 5 feet is required.

~~A detached accessory structure with a garage which takes access from an alley shall be setback a minimum of six (6) feet from the alley. No architectural projections are allowed on the first level where a garage opens onto an alley. All other detached accessory building setbacks shall be as follows:~~

~~ae. VR-5/7~~

~~Up to 50% of all garages may extend beyond the front facade of the unit (not including porches, bays and other minor projections) up to 5 ft.~~

At least 50% of the primary dwellings shall have:

- ~~1) Garages with a front yard setback at least recessed 5 ft. more than minimum behind the front yard setback facade of the primary dwelling unit (not including porches, bays and other architectural features minor projections).~~
- ~~2) Rear garage, side drive accessed~~

~~3) Rear garage, alley accessed~~

bdf. VR-4/5

~~All garages shall have a front setback at least be either recessed a minimum of 5 ft. greater than the behind the front yard setback of facade of the unit the primary dwelling (not including porches, bays and other architectural features minor projections), or have access from a side or rear drive.~~

1603.097BD.32.Facades

~~Building~~ Primary dwelling front facades shall be designed with balconies and/or bays. Facades facing a public street shall not consist of a blank wall.

Window trim shall not be flush with exterior wall treatment. Windows shall be provided with an architectural surround at the jamb, head and sill.

41603.07D5.Roofs

Hipped, gambrel or gabled roofs are required. Flat roofs are not permitted.

VILLAGE TOWNHOUSE RESIDENTIAL DISTRICT (VTH) (2-9-95)

04.01 PRIMARY USES

- A. ~~Townhouses Attached dwellings~~, congregate housing facilities and nursing homes.
- B. Condominiums.
- C. Public parks, playgrounds, recreational and community buildings and grounds, tennis courts, and similar recreational uses, all of a noncommercial nature, provided that any principal building or swimming pool shall be located not less than thirty (30) feet from any other lot in a residential district. These uses may be designated Open Space Management under Section 702 when the criteria under Section 1011 are satisfied.
- D. Utility carrier cabinets, subject to Section 830.
- E. Bed and Breakfast Residences, subject to the provisions of Section 832.
- F. Duplexes, triplexes, and fourplexes.

04.02 ACCESSORY USES

- A. Accessory uses, buildings, and structures customarily incidental to any primary use located on the same lot therewith, including but not limited to indoor and outdoor recreational facilities, such as swimming pools, saunas, game and craft rooms, exercise rooms, community meeting rooms, lounges, playgrounds, tennis and other courts, bike and walking trails, and pedestrian plazas, private bus shelter and courts.
- B. Accessory residential units according to Section 1604:07D. ~~shall be located either above a garage, or integral to the primary dwelling unit, provided all setbacks and height limits are met.~~
- C. Rental information offices.
- D. Repair and maintenance services in association with a primary or accessory use.
- E. The temporary storage within an enclosed structure of source-separated recyclable/reusable materials generated and/or used on site prior to onsite reuse or removal by the generator or licensed or franchised collector to a user or broker.
- F. Solar collection apparatus.

- G. Home occupations, subject to the provisions of Section 822.
- H. Temporary buildings for uses incidental to construction work; which shall be removed upon completion or abandonment of the construction work.
- I. Bus shelters under the provisions of Section 823, bicycle facilities, street furniture, drinking fountains, kiosks, art works, sculptures, and other pedestrian and transit amenities.
- J. Family daycare provider home facilities, as defined in Section 202.

1604.03 CONDITIONAL USES

- A. Conditional uses may be established in the Townhouse Residential District subject to review and action on the specific proposal, pursuant to Section 1300, or the review procedures provided under the specific 800 section. Approval shall not be granted unless the proposal satisfies the criteria set forth in Section 1203 and the special use requirements under Section 800.
 - 1. Daycare centers, see Section 807.

1604.04 PROHIBITED AND PREEXISTING USES

- A. Except as provided below, all uses of structures and land not specifically permitted in Section 1604 shall be prohibited in the Townhouse District.
- B. The use of a trailer house or mobile home as a residence, unless specifically authorized under the provisions of Section 1204 for Temporary Permits.
- C. Preexisting single family residences or residential homes may be allowed to remodel or expand without public hearing when consistent with remaining provisions of the Ordinance. In addition, the following provisions shall apply:
 - 1. Density: A preexisting dwelling shall be one (1) dwelling unit for purposes of calculating density under Subsection 1604.07, unless:
 - a. The single family residence will be converted into a townhouse structure, or
 - b. The structure will be removed prior to occupancy of the new development on the same property, or

- c. The dwelling will be used for another allowed use incidental to the primary use of the property.

2. Lot Division, Adjustments, and Setbacks:

- a. A new lot created for a preexisting dwelling shall be a minimum of 3,000 square feet, and a maximum of 5,000 sq. ft.
- b. Preexisting dwellings shall satisfy the VR-4/5 setback requirements.
- c. Lot line adjustments may be allowed under the provisions of Section 1020. (2-9-95)
- d. The lot created for a preexisting dwelling shall not be included in the land area used to determine the allowed density for the remaining lot.

D. Any religious facility which was legally established prior to July 1, 1993, may be altered or expanded subject to Hearings Officer review, pursuant to Section 1300. Approval shall not be granted unless the applicant demonstrates that all the following conditions are satisfied:

1. The use shall not extend beyond the property which was under the ownership of, or occupied by, the preexisting religious facility, and associated facilities, prior to July 1, 1993.
2. The proposed altered or expanded religious facility satisfies conditions B-E under Subsection 1203.01.

~~4.05 EXCEPTIONS TO GENERAL REQUIREMENTS: The general requirements of this zone shall be subject to the provisions under Sections 900 and 1000 described below. If there is a conflict, then the standards of this subsection shall apply.~~

D.A. Accessory Structures: A maximum of two (2) accessory structures (including an accessory residential unit) may be permitted subject to lot coverage limitations. An accessory structure and its projections shall be detached and separated from other structures by at least three (3) feet. Only one accessory structure may exceed 100 square feet in area. Those greater than 100 square feet shall meet the following requirements:

1. The accessory structure shall be constructed with similar exterior building materials as that of the primary dwelling.

in Alley 3 ft.

5 ft.

ae. The front yard setback shall be no less than the front facade of the primary dwelling unit excluding the porch, and garage, and other minor projections. Garages shall meet the front setbacks of Section 1604.07E..

4. ~~Accessory Residential Unit:1607D.2.~~

An accessory residential unit may not exceed up to 500 square feet in size. It shall be located either above a garage or integral to the primary dwelling unit, provided that all setbacks and height limits are met.

4.068 VARIANCES

The requirements of the Section 1604.05 above dealing with Exceptions to General Requirements may be modified, subject to staff review and the criteria for a variance under Section 1205 with notice pursuant to Section 1305.02. The effect of the proposed modification on the natural features of the site and the use and preservation of solar access shall be considered, when applicable.

4.075 DENSITY

The minimum land area required per dwelling unit ("District Land Area") for purposes of calculating density pursuant to Section 1012 shall be 2,000 square feet per lot. (See Section 1601). When there is a conflict between this section and Section 1012, this section shall apply.

Accessory residential units shall not be considered when calculating density.

4.086 INDIVIDUAL LOT SIZE

Each townhouse lot created within the Village Townhouse Residential District shall be no smaller than 2,000 square feet and no greater than 3000 square feet, or each lot shall be a minimum of 2,000 square feet and the average size of all lots shall not exceed 2,500 square feet.

Lots created for congregate care facilities, duplexes, triplexes or fourplexes are not subject to the minimum, maximum, or average lot size standards. The density provision of 1604.05 are applicable.

4.097 DEVELOPMENT STANDARDS

A. All development in this zone shall be subject to the applicable provisions of Sections 900, and 1000, as

specified under Subsections 1001.02 and 1001.03. In addition, the following specific standards shall apply. If there is a conflict, then the standards of this subsection shall apply.

1604.07C. Primary Dwelling

1. Height

Buildings within this designation shall not exceed 35 feet in height.

2. Setbacks

a. The fronts of the primary dwelling units shall be setback a minimum of 12 ft. and a maximum of 20 ft. from street rights-of-way and designated accessway. Awnings, porches, bays and overhangs may extend up to 6 feet into this setback. ~~Sides of units shall be setback at least 5 feet from street rights-of-way and pedestrian connections.~~

b. No side setback is required adjacent to another unit. Any side of a primary dwelling unit which is not a common wall with another unit shall be setback at least 5 ft. from the property line and pedestrian connections.

c. Primary structures shall be setback at least 1520 feet from the rear property line.

B3. Lot coverage - 65%

F4. Fences, Screening, and Buffering

Fences, screens, and sight-obscuring plantings shall meet the intersection sight distance requirements as established by Clackamas County Engineering Department.

The maximum height of a fence, screen, or sight-obscuring plantings shall be 6 feet, along the side and rear yards back from the front building line and 4 feet, forward of the front building line.

E5. OFFSTREET PARKING/GARAGES

1. Off-Street Parking:

a. At least ~~one (1) two (2)~~ offstreet parking spaces shall be located in ~~street-facing garages recessed behind the front facade or in alley-accessed garages at the rear of the lot.~~

b. No required parking or loading space shall be used for storing a recreational vehicle, camper, or boat.

~~B. Additional standards applying to all development in the Townhouse District:~~

41. Entries and Porches

Primary entries shall be accessed directly from a public street and must be visible from the street. Porches are required for each unit and must be located immediately adjacent to the primary entry. Porches must cover at least 50% of the primary facade (not including the garage) with net a depth of at least six (6) feet.

E.2. Garage/Driveway Requirements:

a. A detached garage may be placed at the rear of a lot.

~~b. No setback is required for detached garages from the rear or side property line, except where adjacent to a public street or pedestrian connection, in which case a setback of at least 5 feet is required. Rear garages may be accessed from an alley or side drive.~~

~~Alley access garages shall be set back 6' from the alley.~~

be. An front access attached garage contained within the dwelling structure shall be recessed at least two (2) feet behind the front facade ~~at least two (2) feet~~ (not including porches, bays and other architectural features, minor projections) and at least 20 feet from the street right-of-way, ~~and a~~

c. A minimum 2 ft. deep trellis or bay window shall be placed above the garage opening. The trellis shall extend the full width of the garage and the bay window shall be at least 8 ft. in width.

d. If located in the front, the garage opening and the driveway shall not exceed a width of 10 feet.

e. Tandem (end-to-end) parking is permitted.

f. If an alley adjoins a lot, then garage access from the street is not permitted.

1604.07C.3. Configuration and Facades

Townhouses shall orient to and line streets with a series of attached "rowhouse" units.

Primary dwelling front Building facades shall be designed with balconies and/or bays. Facades facing a public street or designated accessway shall not consist of a blank wall.

Window trim shall not be flush with exterior wall treatment. Windows shall be provided with an architectural surround at the jamb, head and sill.

1604.07C.54. Roofs

Hipped, gambrel or gabled roofs are required. Flat roofs are not permitted.

1604.07G.5. Landscaping

A minimum of 25% landscaping is required.

1605 VILLAGE APARTMENT DISTRICT (VA)

1605.05 DENSITY

~~The unit square footage requirement ("District Land Area") for purposes of calculating density pursuant to Section 1012 shall be 1,500 square feet per lot.~~

The minimum land area required per dwelling unit ("District Land Area") for purposes of calculating density pursuant to Section 1012 shall be 1,500 sq. ft. and a maximum of 3,000 sq. ft. (See Section 1601). When there are conflicts between this section and Section 1012, these provisions shall prevail.

1608.07 DEVELOPMENT STANDARDS .

D. ACCESS AND ONSITE CIRCULATION

3. Motor vehicles .

In addition to the provisions of Section 1007, the location, design, and development of access and onsite circulation shall comply with the following. When Section 1007 conflicts with specific parking standards of this section, the standards in this section shall prevail.

Shared driveway entrances, shared parking and maneuvering areas, rear-yard parking, and interior driveways between parking lots shall be required for all nonresidential uses. The maximum width for a driveway shall be ~~twenty (20) ft.~~ twenty-six (26) ft. Driveways for service vehicle routes may be 30 ft. in width if a Service Vehicle Circulation Plan is approved through the Design Review application process. Curb cuts shall line up with each other across 147th Avenue.

F. ENTRIES

1. Primary entries shall face a public street or designated accessway and shall be accessed from a public sidewalk. These entries shall be designed to be attractive and functional, and shall be open to the public during all business hours. Secondary entries may face parking lots or loading areas.
2. Anchor store entries must face 147th Avenue. Anchor stores shall be connected to 147th Avenue, Sunnyside Road, and the required pedestrian connection with a continuous walkway lined by parking lot trees planted at least every 30 feet.
3. Buildings except for anchor stores shall have entries every 25 to 30 feet.

G. FACADES

1. For storefronts facing public streets or pedestrian connections, building facades shall be designed with windows, entries, and/or bays.

~~Display windows shall line facades facing public streets and accessways with no more than 6 feet of blank non window wall space in every 25 feet of storefront. Sides or rears of buildings shall not consist of an undifferentiated wall when facing a public street, accessway, or a residential area.~~

Windows shall line facades facing public streets and accessways with no more than 30% of blank non-window wall space on average for all such facades added together. No front facade shall have less than 70% window space. No side facade shall have less than 50% window space. For the anchor store (building greater than 40,000 sq.ft.) other pedestrian environment enhancing features such as architectural features, wall articulation, art, landscaping, or seating may be used in addition to or instead of windows. A landscaped pedestrian walkway with seating may be substituted for this requirement along elevations where public entrances do not occur. Sides or rears of buildings shall not consist of an undifferentiated wall when facing a public street, accessway, or a residential area.

The above section shall not require display windows or a landscaped pedestrian plaza adjacent to facades with loading bays; however, special landscaping and screening shall be required to lessen the potential adverse impacts of loading areas to the public.

J. Screening

Mechanical equipment and satellite dishes should be screened from public view, however, alternatives to physical screening, such as painting and/or alternative placement of the equipment, may be considered through the Design Review process.



CLACKAMAS COUNTY

Department of Transportation & Development

THOMAS J. VANDERZANDEN
DIRECTOR

COMPREHENSIVE PLAN CHANGES

September 20, 1995

1. Replace Figures X-1 and X-2 (Street Cross Sections - Connector Street With Bike Lanes and Without Bike Lanes) with new Figures X-1 and X-2 illustrating the new connector street standards.
2. Eliminate (Street Cross Section - Local Street With Tree Wells) Figure X-4.
3. The east-west connector street located just south the school site shall be changed to a local street. Map X-8 will be modified to accommodate this change.
4. 142nd north of Sunnyside Road shall be changed from a connector to a collector street. Map X-8 shall be modified to illustrate this change.

"An analysis of the present alignment of 147th and its connection to Sunnyside Road shall be considered. This analysis shall occur prior to or in conjunction with the development of the Village Commercial site. The realignment of 147th should be with 142nd. This project should be included in the County's Capital Improvement Plan as a "high priority" safety project."

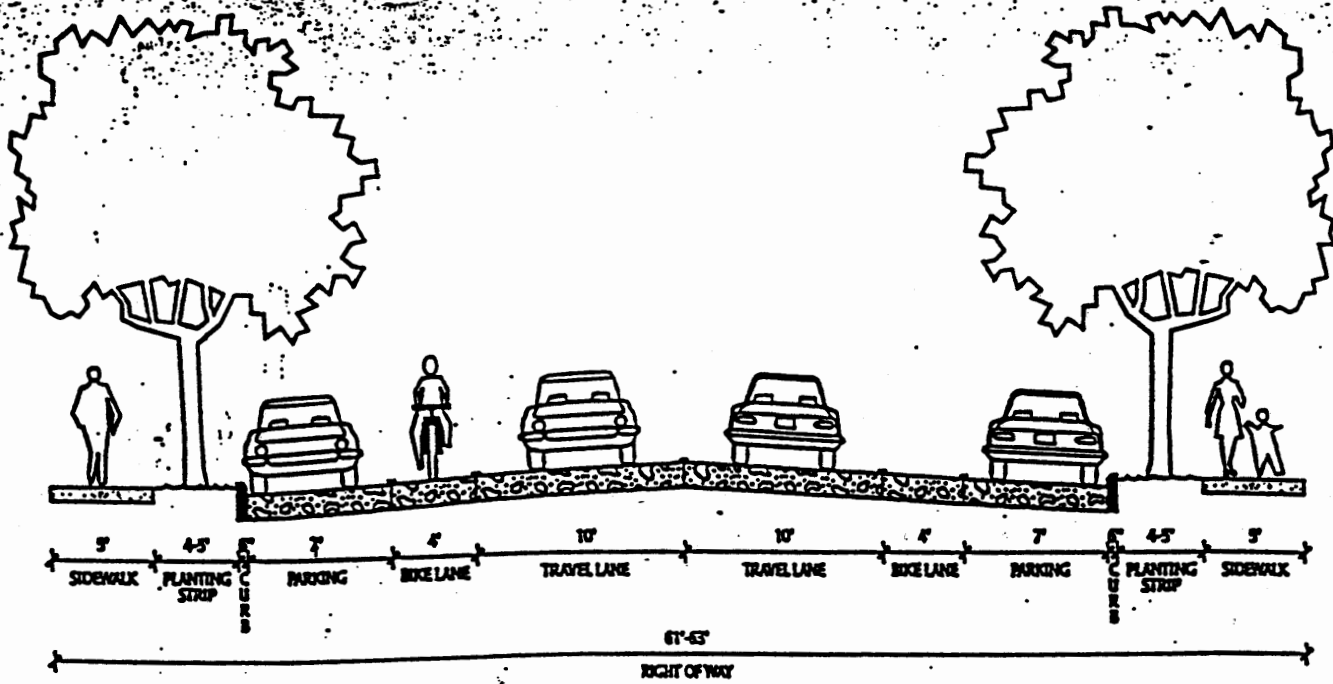
5. The east-west connector street located just west of Park #5 and west of 152nd Avenue shall be changed to a local street. Map X-8 will be modified to accommodate this change.
6. The east-west connector street with a Bike Lane designation was inadvertently labelled incorrectly. The correct east-west connector street designated with a Bike Lane is the street running through the turnaround. Modify Map X-8 illustrating the correct connector with a designated Bike Lane.

The current location of the Summers Lane Extension alignment is not possible as a subdivision has been developed where the street would have been constructed. As described in Ron Weinman's memorandum dated April 21, 1995, an alternate route has been recommended as the preferred alternative. This alignment is currently being finalized. It is recommended that Maps X-7 (Sunnyside Village Plan Land Use Plan Map), Map X-8 (Sunnyside Village Plan Street Classifications) and Map X-9 (Sunnyside Village Plan Park Locations & Sizes) be amended to reflect the new location of Summers Lane and that the original alignment be eliminated.

8. Add Policy 7.0 under V. Parks

7.0 A connector or higher level street shall be located along one side of Park site #2.

9. The north/south connector street illustrated on the Sunnyside Village Plan Street Classifications Map X-8 is not illustrated on the adopted Land Use Map for the Village, Map X-7. This was an error. It is recommended that this street be eliminated from Map X-8.
10. The streets surrounding Park # 5 were appropriately designated when Map X-8 was originally drawn. Currently, the street abutting the park to the north and east is designated as "collector" and should be "connector". The street abutting the park to the south and west is designated as "residential" and should be "collector". Maps X-7, X-8 and X-9 will be modified to reflect these changes.
11. It is recommended that the term "East" be omitted throughout the Sunnyside Village Community Plan text which is consistent with a similar change throughout the implementing ordinance sections, generally sections 1600-1608.
12. The proposed Plan text amendment allows the extension of the Sunnyside Village boundary when certain criteria are met. Exhibit "A" details this change.
13. Modify Maps X-7, X-8, and X-9 to reflect the realignment of 152nd as approved by the Rock Creek Community Association at its June 13, 1995, general meeting (Exhibits 14 and 19).

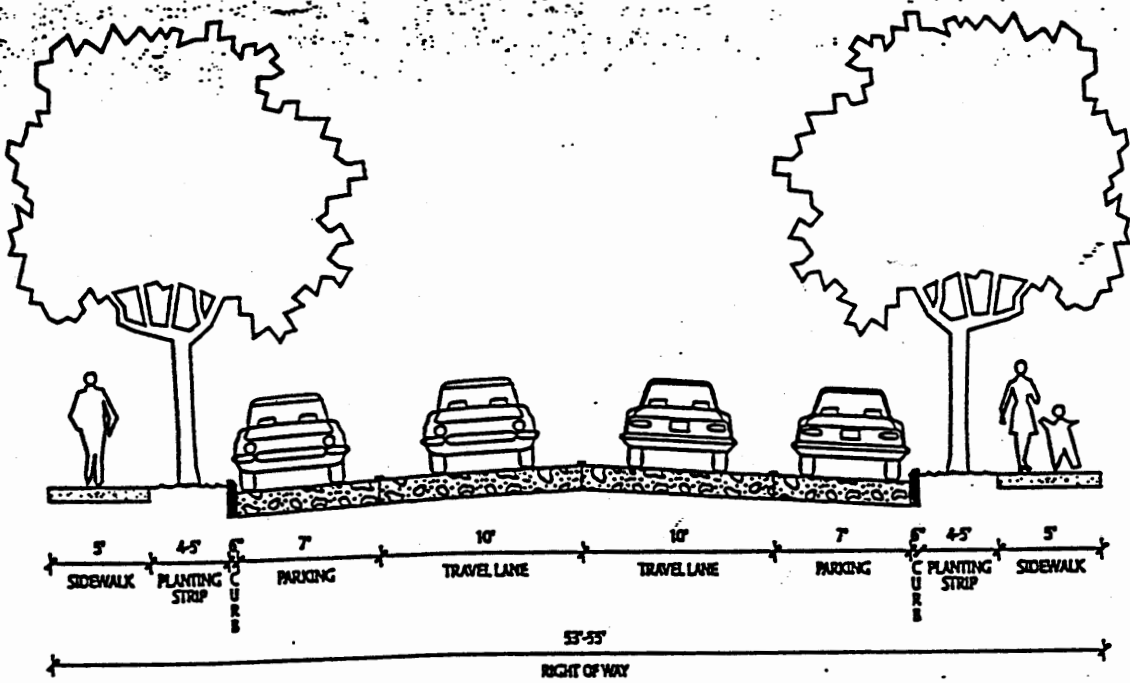


EAST SUNNYSIDE VILLAGE PLAN STREET CROSS SECTION

CONNECTOR STREET WITH PLANTING STRIPS AND BIKE LANES

CLACKAMAS COUNTY
COMPREHENSIVE PLAN

●
FIGURE X-1



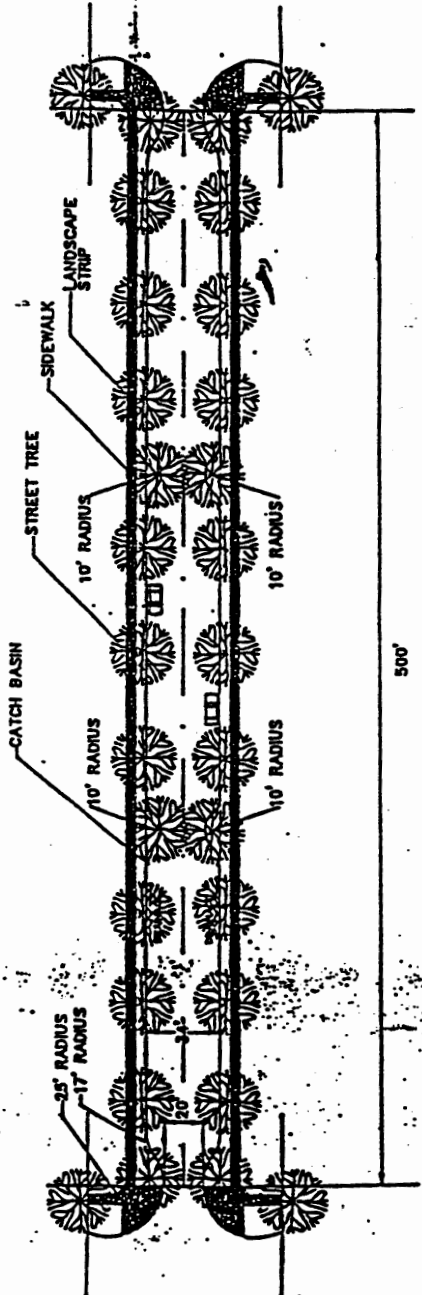
*Add Figures 2A & 2B
& Table 1

EAST SUNNYSIDE VILLAGE PLAN
STREET CROSS SECTION
 CONNECTOR STREET WITH PLANTING STRIPS

CLACKAMAS COUNTY
 COMPREHENSIVE PLAN

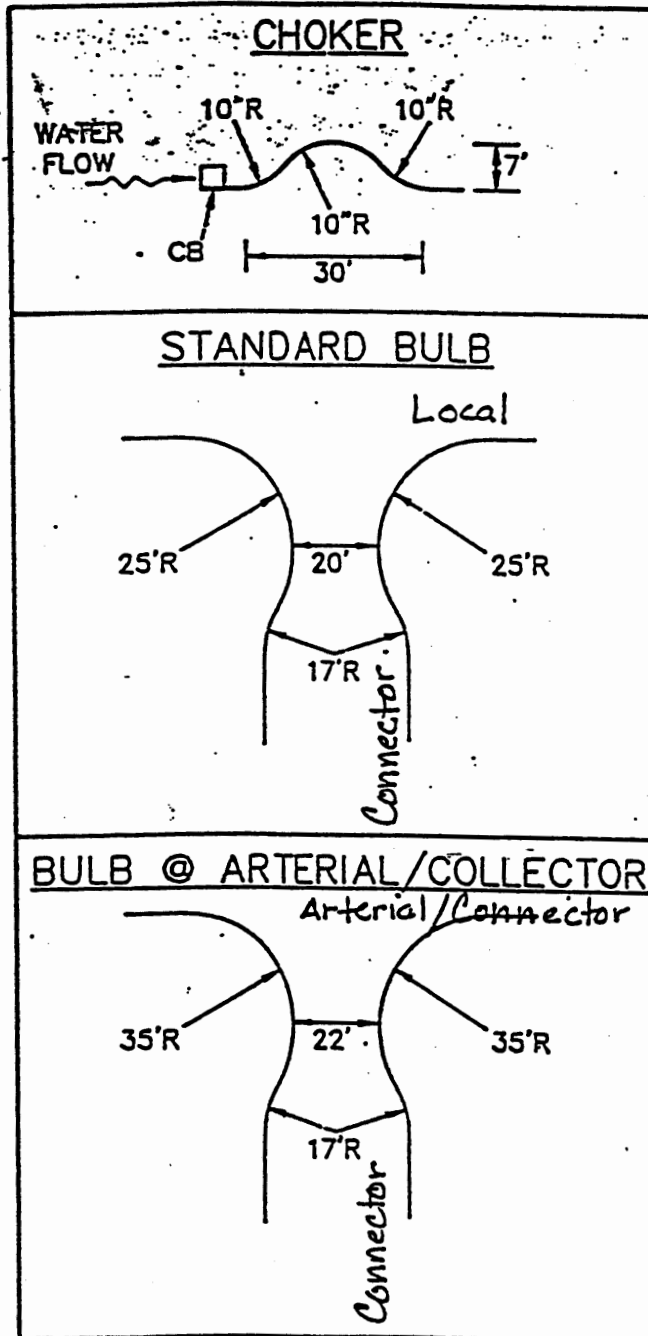
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FIGURE X-2

FIGURE 2
TYPICAL CONNECTOR STREET PLAN



| | | |
|---|-------------------|------------------------|
| CLACKAMAS COUNTY DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT 902 ASSESSMENT ROAD • OREGON CITY, OREGON | | SHEET 2 of 3 |
| SUNNYSIDE VILLAGE STREET PLAN | | SCALE 1 INCH = 60 FEET |
| DESIGNED JM | DATE AUGUST, 1994 | FILE 1111 |
| DRAWN JM | | |
| CHECKED JM | | |

FIGURE 2A CHOKER @ CURB EXTENSION DESIGN



CLACKAMAS COUNTY
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
602 ASHFORTH ROAD • GRESHAM CITY, OREGON

CHOKER AND CURB EXTENSION DESIGN

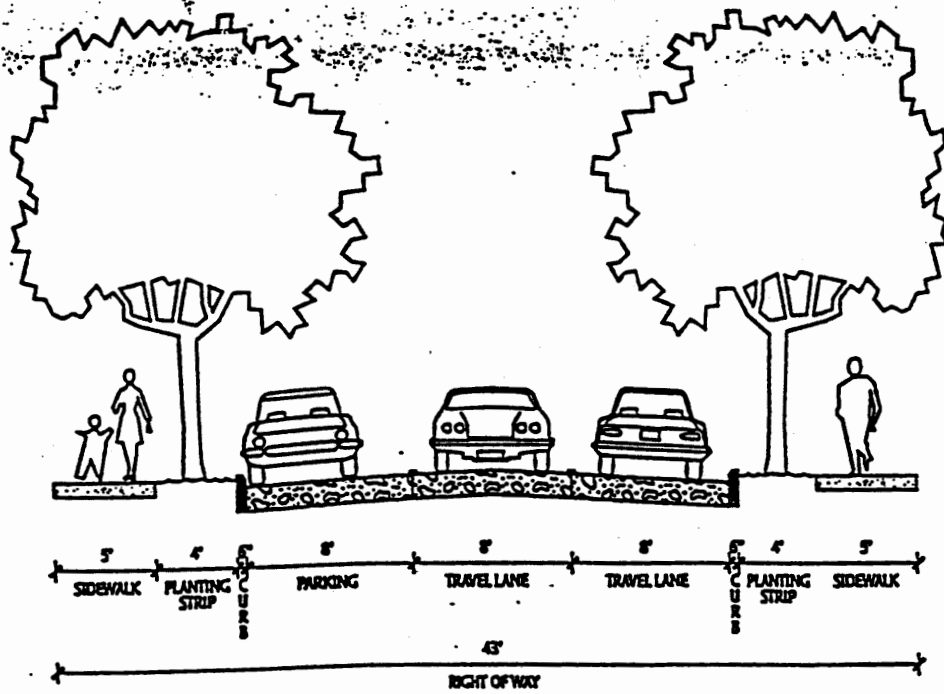
DESIGNED JM

SCALE NOT TO SCALE

SHEET

TABLE 1
MID-BLOCK CHOKER SPACING

| BLOCK LENGTH (FEET) | NUMBER OF MID-BLOCK CHOKERS |
|------------------------------|------------------------------------|
| Less than 300 feet | 0 |
| 300 to 400 feet | 1 |
| 400 to 700 feet | 2 |
| Greater than 700 feet | Every 150 to 200 feet |

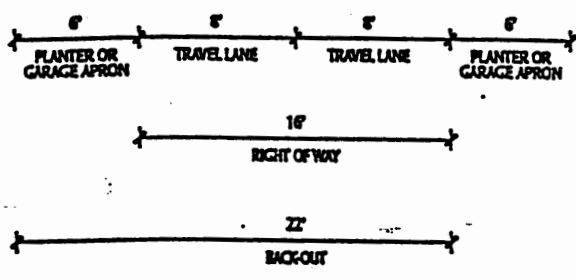
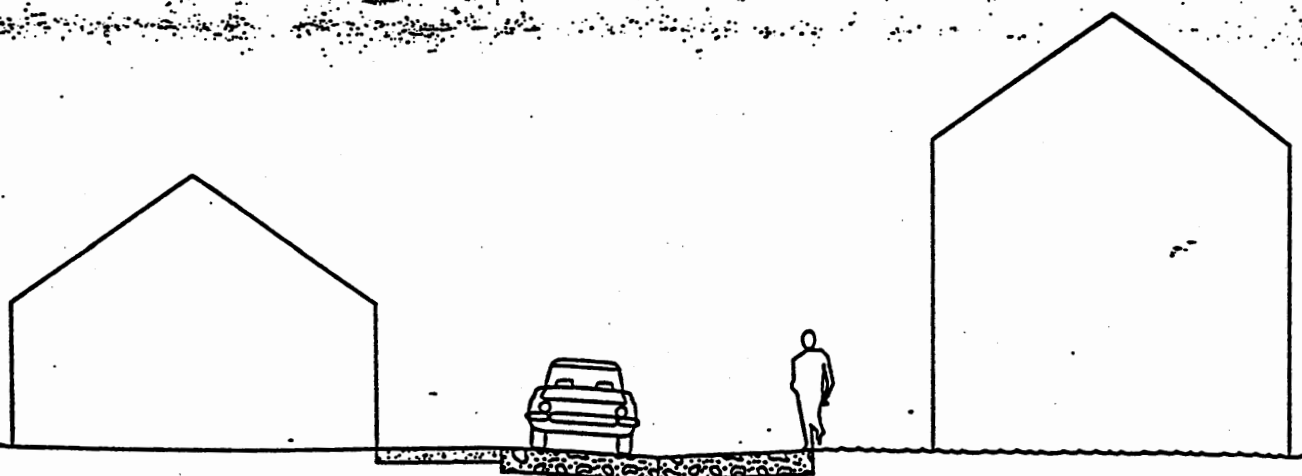


EAST SUNNYSIDE VILLAGE PLAN STREET CROSS SECTION

LOCAL STREET WITH PLANTING STRIPS

CLACKAMAS COUNTY
COMPREHENSIVE PLAN

●
FIGURE X-3















**EAST SUNNYSIDE VILLAGE PLAN
STREET CROSS SECTION
ALLEYS**

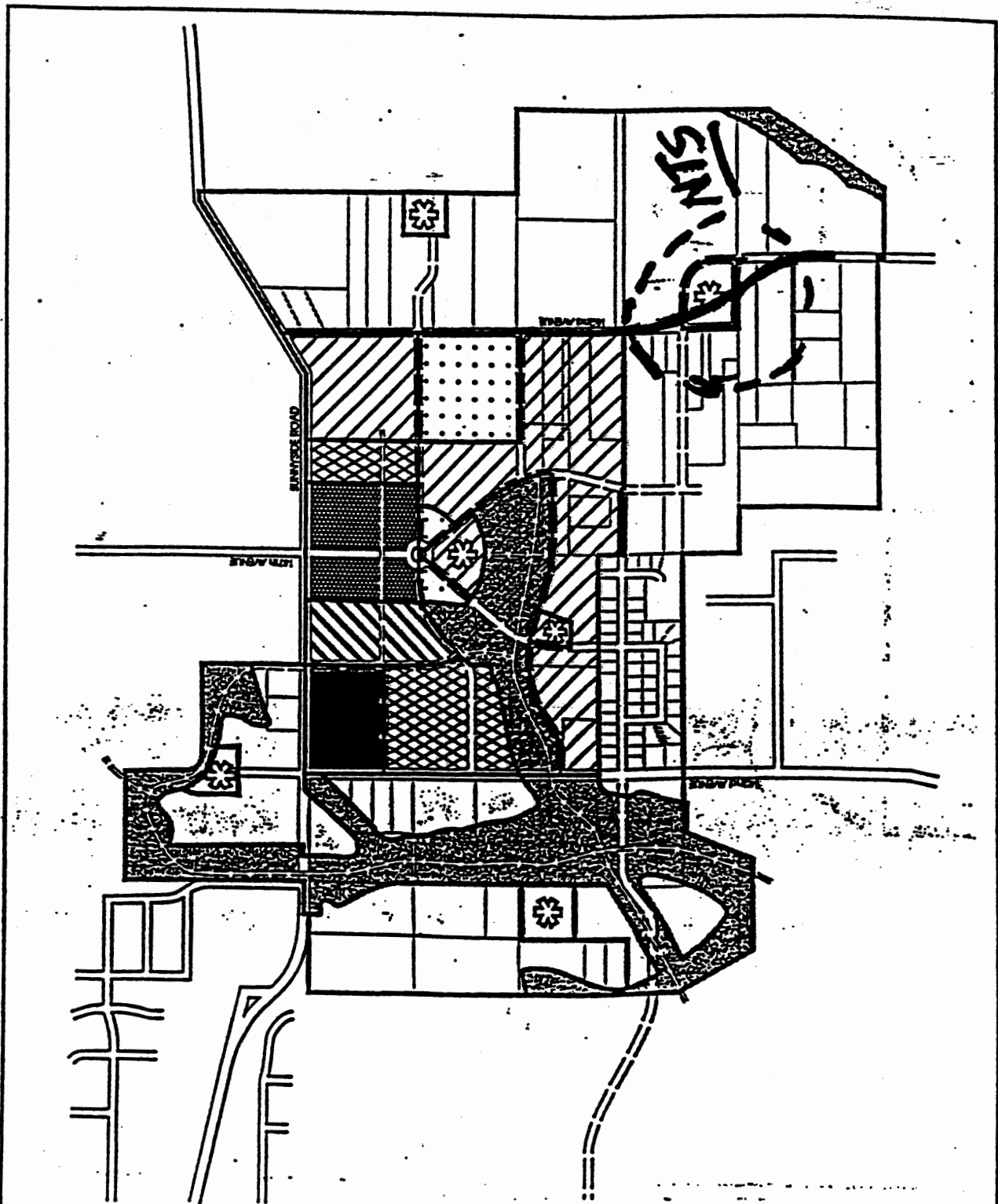
CLACKAMAS COUNTY
COMPREHENSIVE PLAN

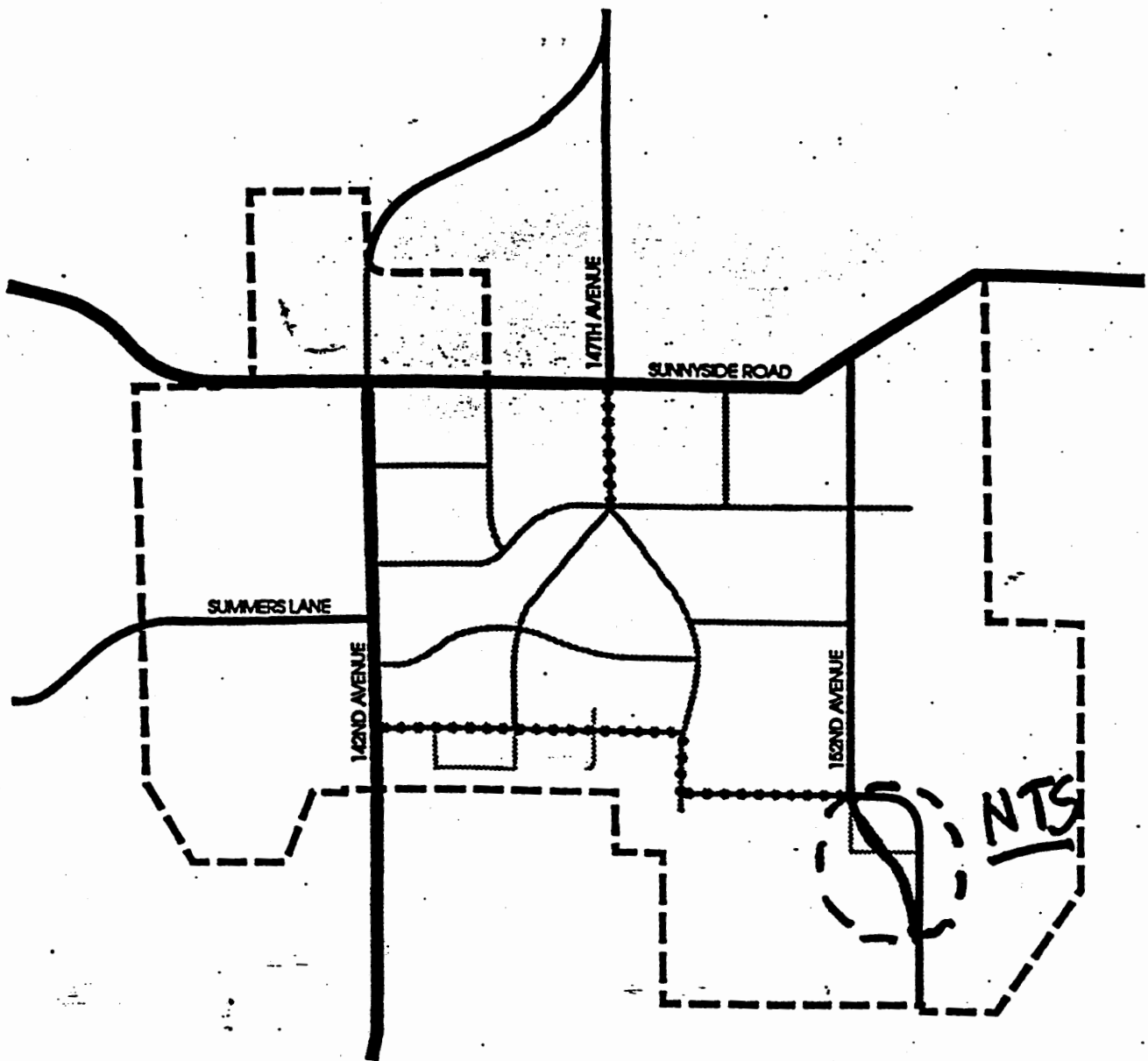


FIGURE X-4

**EAST SUNNYSIDE
VILLAGE PLAN
LAND USE PLAN MAP**

-  Village Commercial
-  Village Office
-  Village Apartments
-  Village Townhouse
-  Small-Lot Single-Family
-  Standard-Lot Single-Family
-  Village Community Service
-  Resource Protection
-  Parks
-  Existing Streets
-  Required Streets
-  Pedestrian Accessways & Trails





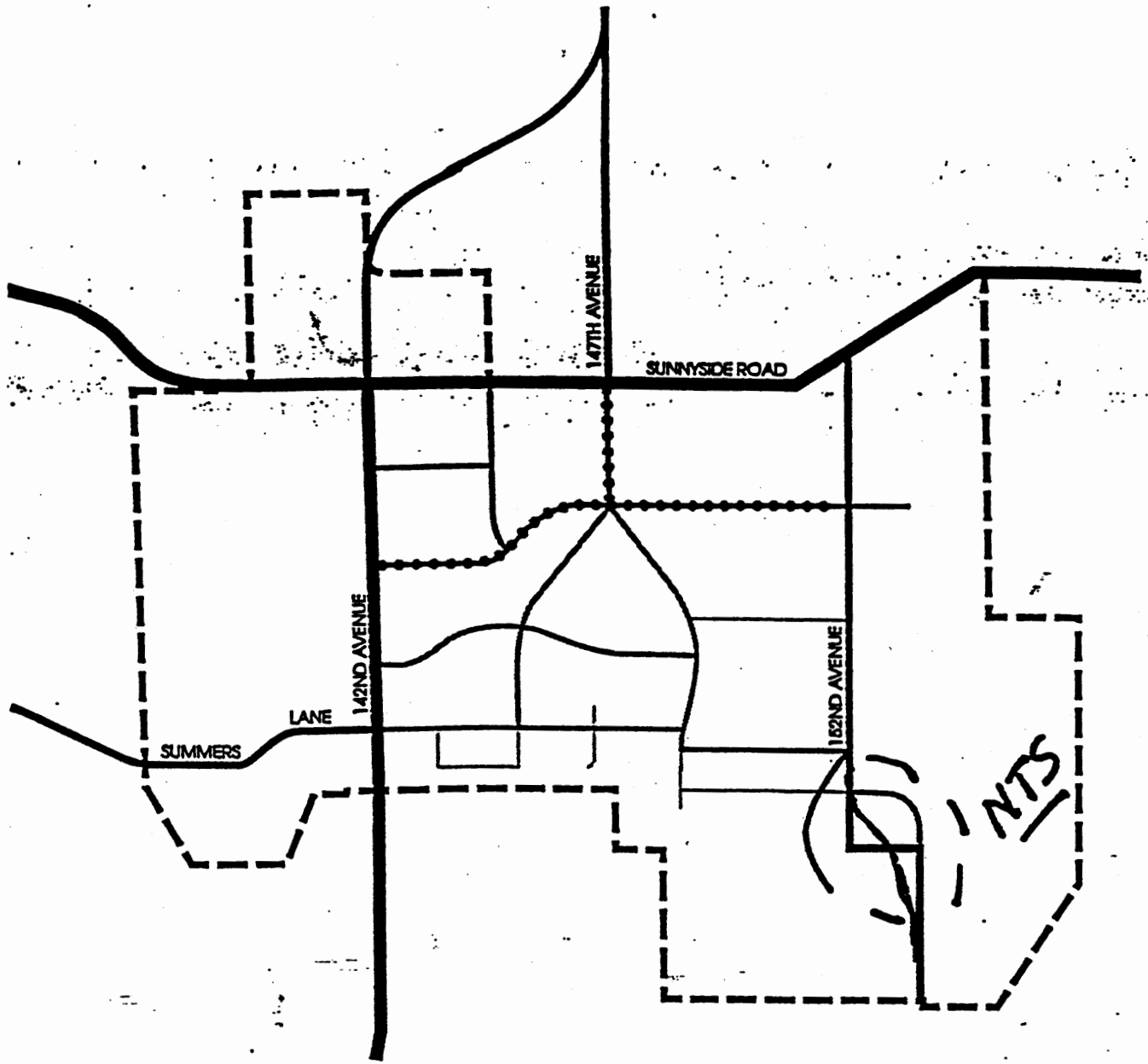
EAST SUNNYSIDE VILLAGE PLAN

STREET CLASSIFICATIONS

-  Arterial
-  Collector
-  Residential
-  Connector With Bike Lane

CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP X-8a



EAST SUNNYSIDE VILLAGE PLAN

STREET CLASSIFICATIONS

-  Arterial
-  Collector
-  Connector
-  Connector With Bike Lane
-  Residential

CLACKAMAS COUNTY
COMPREHENSIVE PLAN



MAP X-8b

**EAST SUNNYSIDE
VILLAGE PLAN
PARK LOCATIONS & SIZES**



Park Locations

Park Sizes (minimum)

- 1 1.3 AC.
- 2 2.5 AC.
- 3 2.7 AC.
- 4 1.0 AC.
- 5 2.2 AC.
- 6 1.6 AC.

