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Comprehensive Plan adopted June 23, 1995 and amended by ordinances 200-99, 208-01, 210-01, 215-03 and 259-16

EXECUTIVE SUMMARY

Background

In 1975, the City of Durham was a very small community of 250 inhabitants, and the surrounding area within a five-mile radius contained some 30,000 residents. By the year 2000, this same area will contain over 100,000 people. The management of future growth in the Durham area will involve land use planning decisions made by the City of Durham and neighboring cities such as Tigard and Tualatin, plus Washington County and related public service agencies.

For purposes of this plan, the limits of the City planning area are coterminous with existing City limits. Furthermore, all land within the City limits is considered urban in this plan

Plan Elements

As a guide to future growth, the Durham Plan provides findings, goals and policies that pertain to three key plan elements - natural resources, growth and development, and support systems. These plan elements are summarized below:

A. Natural Resources

Durham will be obtaining over 70 acres of river land and floodplains for an open space (Greenway) network stretching from Tigard to Tualatin. This Greenway will provide a variety of passive and some active recreational opportunities for all Durham residents. As of 1994, the City has acquired over 56 acres of Greenway and park lands through dedications from development or private donation. Preservation of the Greenway and the City's natural vegetation, i.e., trees, represent major policy statements which are embodied in the comprehensive plan.

B. Growth and Development

Durham's population is projected to exceed 1,600 people by the year 2000. In 1979, 94% of all housing stock in the City consisted of a detached single-family dwelling. As of 1994, detached single-family housing accounted for 57% of the housing stock, with multiple family dwellings accounting for 43%. Durham is clearly making a substantial effort to provide for a range of shelter

needs which serve an expanding population, including affordable rental housing and home ownership opportunities.

Durham is also providing employment opportunities locally so people can live near their workplace. The comprehensive plan designates specific locations for office park, business park, and industrial park development, which will combine to provide a stable and diverse economic base for the City.

C. Support Systems

In order to manage growth in an orderly manner, basic public services such as a transportation system, water and sewer facilities must be made available to serve new development. The comprehensive plan recognizes this fact and provides policies and a Public Facilities Plan intended to accomplish this objective without adverse effect on the City's residential character. In particular, a primary transportation goal is the development of SW 72nd Avenue and SW Lower Boones Ferry Road as the principal traffic and truck route, which bypasses SW Upper Boones Ferry Road that provides access to Durham's residential areas.

Future Plan Amendments

The comprehensive plan in its entirety or any of its elements may be amended through future legislative review by the City. The plan may also be amended by future Periodic Review as required under the Oregon Land Conservation and Development Commission (LCDC) statewide planning requirements. An individual property owner (quasi-judicial proceeding) may submit a plan map amendment request at any time.

2003 De-annexation Decision

When the City of Durham was incorporated on February 25, 1966, the original city boundary included an approximately 6.37 acre territory in the southwest quarter of Section 13, Township 2 South Range 1 west (Washington County Assessor’s map 2S1 13CC, Tax Lot 1800). The triangular shaped territory is located on the south and west banks of the Tualatin River, which separates the area from the remainder of Durham.

The City of Tualatin became the owner of Tax Lot 1800 on March 7, 1975. The territory is used for public park purposes and comprises the northern quarter of Tualatin Community Park. A main sewer line serving the City of Tualatin is located along the west side of the territory. On March 10, 2003, the Tualatin City Council adopted Resolution No. 4088-03 that directed the City Manager to initiate application to DE annex the subject territory from the Durham City Limits and to initiate annexation of the area into the City of Tualatin.

The Tualatin Community Park Master Plan designates the subject territory for a passive recreation use that would maintain the existing natural environment. The park master plan will preserve the open space and protect natural resources consistent with Durham's Natural Resource goals and policies.

On March 31, 2003, The Durham City Council concurred with the proposal and approved the subject de-annexation application.

NATURAL RESOURCES FINDINGS

1. LAND RESOURCES

A. TOPOGRAPHY

Durham ranges in elevation from slightly less than 100 feet to slightly more than 200 feet. The Fanno Creek and Tualatin River drainage system provides the sharpest relief found in the area, with slopes found as steep as 60% in some areas.

B. SOILS AND SLOPES

More than 95% of the soils within Durham are Classes I-IV (Soil Conservation Service classification). The capabilities and restrictive features of these soils found in Durham are summarized in the Appendix on Table **I** and on the map listed as Figure 1.

C. STRUCTURAL GEOLOGY

Durham is located in the lower Tualatin Valley. This Valley is itself located in the southeastern end of an elongated, bowl-shaped syncline (basin) caused by broad, regional down-warping. Columbia River basalt underlies the valley at a depth of about 560 feet, and has a thickness of about 1,000 feet in places. The Columbia River Basalt formation has been buried by the Troutdale formation and younger alluvial and lacustrine (lake-like) deposits. A northeast trending fault, which structurally separates the Chehalem Mountains and Parret Mountain crosses the lower Tualatin Valley in the immediate vicinity of the City of Troutdale. The fault is not apparent in the valley because it is buried underneath the Troutdale and younger sediments. This fault may be extended northeasterly through the Oswego gap.

The geologic units within the City of Durham include Young Alluvium, Willamette Silt, and Lacustrine Sands and Gravels. Young Alluvium consists mainly of silty clay, clayey silt, and fine sand with localized areas of peat and organic clay. The unit is exposed along the Tualatin River and Fanno Creek. The Young Alluvium is generally 15 to 30 feet thick and overlies the Troutdale formation.

Torrential floods deposited sand, gravel, and boulders which form the Lacustrine Sand and Gravel unit. This unit overlies the Troutdale formation and ranges from 20 to 70 feet in depth. However, due to their relatively poor quality and the magnitude of urbanization which is expected and has already occurred, this resource should not be considered for further development. Willamette Silt consists of consolidated beds and fine sand, silt, and clay stratified in 4- to 6-inch layers.

D. VEGETATION

Vegetation is one of the primary elements of the natural landscape. Vegetation plays a crucial role in fixing sunlight which provides food for a wide variety of animal species. Vegetation provides living space for these animals. Vegetation also cleanses the environment by providing (1) noise buffering, (2) settling areas for dust and air pollution, and (3) soil binding to hold run-off waters in preventing soil erosion and changing natural conditions.

A variety of vegetation types characterizes the City. Both coniferous and deciduous trees are found on the upland areas. The northwestern portion of the City has an abundance of ornamental vegetation which was introduced into the area by a nursery, which has since been abandoned. These ornamental bushes, trees and shrubs provide Durham with a wide range of vegetation and give Durham an unusual natural asset.

The area around Fanno Creek has been identified as a significant natural area by local and regional planning agencies. The lower reaches of Fanno Creek, that portion which flows through the City, has been identified as having various forest types and marsh environments which are described as follows:

1) Riparian Forest - The forest along the banks of the Tualatin River and Fanno Creek is subject to annual flooding and is characterized by deciduous trees. Willow (salix sp) often form a light colored forest edge to the waters. Above the willow are ash (Fraxinus latofilia and cotton-wood (Populus trichocarpa). Oregon Ash is characteristic of seasonally flooded and swampy habitats. Black cottonwood lies higher on the floodplain and is subject to less frequent inundation.

The understory of herbaceous species varies with openings in the canopy.

2) Marsh/Swamp - Marsh/swamp habitats are differentiated by the presence or absence of tree cover. Marshes do not have tree cover while swamps do.

Freshwater marshes support a wide variety of species. Areas of marsh without standing waters support common rush (Juncus effusus), horsetail (Equisetum sp), sedges (Carex sp.), rushes (Juncus sp.), watercress (Rorippa Nasturtiumaquaticum), marsh pennywort (hydroctyle vanunculoides), mint (mentha arvensis), and other herbaceous plants.

Swamp vegetation is characterized by a tree canopy cover of ash, willow, and black hawthorne (Crataegus douglasii) of swamp areas, cascara (Rhamnus phushiana) occurs with spirea (Spirea douglasii), and snowberry (Symphoricarpos albus). These species form the dense shrubby edge of swamp areas

Reed canarygrass (Phalaris arundinaces) is a common wetland plant found in both marsh and swamp areas. The swamp understory in areas of standing water is similar to the herbaceous vegetation of marshes.

3) Mixed Conifer-Deciduous Forest - The mixed conifer-deciduous forest generally represents a successional situation in which canopy dominance is shared by Douglas fir (pseudotsuga mensiesii) and deciduous trees. The primary deciduous trees that are found in mixed conifer deciduous forests are big-leafed maple (Acer macrophyllum) and oak (Quercus garryana).

The understory of these forests commonly has small Douglas Firs, hazel (Corylus cornuta), snowberry, and poison oak (Rhus diversiloba). A mixed conifer-deciduous forest may be the result of widespread fires being stopped which maintained an oak forest in the past.

4) Conifer Forest - Forested lands within the City are dominated primarily by Douglas fir. The dryer areas, Madrone (Arbutus menziesii) occurs with fir, and in wetter areas, western red cedar

(Thuja plicata) occurs with fir. Oak is a common understory canopy element in coniferous forest and shares the canopy in mixed conifer-deciduous forests.

A typical forest structure of the coniferous forest is an overstory layer of Douglas fir with occasional oak and big leafed maple trees, an understory of hazel, vine maple (Acer circinatum), snowberry and rose (Rose, sp), and a variety of herbaceous species as ground cover.

5) Ornamental Vegetation - Throughout the City there exists substantial quantities of ornamental vegetation which were introduced to the area by the now-abandoned Pilkington Nursery. Throughout this area are found: silver fir (Albies alba), white fir (Albies grandis), spanish fir (Albies pinsapo), deodar (Decrus deodras), atlantis (Cedrus atlantica), blue atlantic cedar (Cedrus atlantica glauca), small cone cedar (Cedrus chamaecyparis), port orford cedar (Cedar lawsoneana), italian cypress (Cypresses sampervirens), oriental spruce, (Picea orientalis), blue spruce (Picea pungens), himalayan pine (Pinus griffithi), japanese umbrella (Sciadopitys verticillata), redwood (Sequois sampervirens), several varieties of Japanese maples (genus Acer), tulip trees (Liriodendron tulipfera), european beech (Quercus coccinea), pin oak (Quercus palustric), and varieties of lindens (Filia) and larch (Larix)

E. FLOODPLAIN

The land area adjacent to Fanno Creek and the Tualatin River is subject to periodic flooding, which usually occurs between mid-November and mid-February as the result of rain and snowmelt. Unlike most streams, the wide flat floodplains of the Tualatin Valley store large volumes of water which causes the river to peak slowly and remain above flood stage for several days.

The Federal Emergency Management Agency (FEMA) has performed a Flood Insurance Study for Durham. This study is used to convert Durham to the regular program of flood insurance by the Federal Insurance Administration. The study identifies the floodway and flood-plain areas within Durham. For example, a flood of a probable 10-year frequency would have a maximum water surface elevation of 120.4 feet at the Boones Ferry Bridge. The 100-year frequency flood would have a

maximum elevation of 124.5 feet at the bridge. The developed areas of Durham are situated considerably above these flood levels.

The 100-year floodplain is mapped on Figure 2 in the Appendix. Figure 2 generally conforms to Metro Title 3 maps adopted on 6/18/98 by Metro Ordinance No. 98-730C. Title 3 quadrangle maps for Durham include the area to the south along the Tualatin River (Section 2s1w24) and the area to the west along Fanno Creek and the Tualatin River (Section 2s1w13). In lieu of more precise information, the Title 3 maps will serve to establish generally accepted boundaries for the Flood Management Area and Water Quality Resource Areas.

A more detailed description of the 100-year floodplain and floodway for the Tualatin River and Fanno Creek is designated in the most current Flood Insurance Rate Map (FIRM) for the City of Durham, Oregon developed by the Federal Emergency Management Agency (FEMA). This information will be used as a basis for establishing the floodplain elevation for sites in the northwest section of the city.

2. WATER RESOURCES

A. WATERWAYS

The Durham planning area consists of two major waterways - the Tualatin River and Fanno Creek. The Tualatin River originates on the eastern slope of the Coast Range at 3,400 feet elevation. The watershed averages 40 miles long and 25 miles wide, draining approximately 711 square miles before entering the Willamette River.

Fanno Creek flows in a well-defined channel in a southerly direction through the cities of Tigard and Durham north of the Tualatin River. It flows through several miles of flat but urbanized land, crossing under several major arterials in the area.

The State Water Resources Commission has adopted a Water Management Plan for the Willamette River Basin on January 31, 1992. This Plan is implemented through the Oregon Administrative Rules listed

under the "Willamette Basin Program," which controls water uses in the Tualatin Sub-Basin.

This Program stipulates utilizing the Durham portion of the Tualatin River for domestic, livestock, municipal, irrigation, power development, industrial, recreation, wildlife and fish life uses from November 1 through April 30, and only for domestic, commercial use for customarily domestic purposes not to exceed 0.01 cfs, livestock, wetland enhancement public instream uses from May 1 through October 31.

It should be acknowledged that Durham is located in a designated water quality limited basin, and the City accepts the provisions of the Willamette Basin Program discussed in the previous paragraph. In addition, the City has undertaken extra precautions to restore and enhance water quality for the Tualatin River. These precautions relate to the total daily maximum loading (TMDL) plan developed by Clean Water Services (CWS), i.e., requiring on-site erosion control and water quality facilities for new development proposals.

The City also participates in the Surface Water Management Program for the Tualatin River watershed. This program was implemented on July 1, 1990 and is administered by the CWS. The purpose of the program is to:

1) Protect wetlands and flood plains;
2) Control erosion from construction sites;
3) Prevent or reduce pollution from new development;
4) Provide coordinated designs and construction practices throughout the urban area;
5) Identify pollutant sources and strategies for dealing with pollution and flood control issues on each stream.

The City has also implemented CWS's *Design and Construction Standards for Sanitary and Surface Water Management* (February 2000), as adopted by the Unified Sewerage Agency (USA) on February 22, 2000 by Resolution and Order No. USA 00-7, through an intergovernmental agreement with CWS. The purpose of the CWS standards is to protect water quality and floodplain areas in compliance with the performance standards found in *Title 3: Water Quality, Flood Management, and Fish and Wildlife Conservation* described in the *Metro Urban Growth Management Functional Plan.*

B. GROUNDWATER

Almost the entire Durham area and the City of Durham is underlain by water bearing materials. The Tualatin Valley floor and hillsides contain clay, silt, sand, and some gravel beds. Groundwater is present in varying quantities, generally depending upon the porosity of the material and its proximity to adjacent streams. The shallower alluvial materials are replenished each year by precipitation and infiltration for surface runoff. Wells developed in the alluvial material are generally low producing, suited only for domestic and minor agricultural use.

Below the alluvial materials and valley fill is a saucer-shaped layer of Columbia River basalt, which is a lava unit forming the top several hundred feet of the bedrock. Groundwater is present in the basalt cracks, fissures, and other porous zones. The Columbia River basalt frequently affords high producing wells, sufficient for municipal and industrial uses. Wells in Tigard and Sherwood, for example, have been pumped and tested in excess of 500 gallons per minute.

3. FISH AND WILDLIFE

A. FISH

The Tualatin River and Fanno Creek support both anadromous (migratory) and resident fish populations. No rare or endangered species of fish or other aquatic life are known to inhabit the Tualatin River or its tributaries. However, crayfish were once common and in amounts plentiful enough to support annual crayfish feeds in the City of Tualatin until recent years when water quality deterioration caused severe losses of the species. Fish species which may be found in the Tualatin River and Fanno Creek are listed on Table **II** in the Appendix.

B. WILDLIFE

Durham contains a variety of habitats which support diverse wildlife. The habitats are composed of grasslands, forests, shrublands, and riparian forests. Protection of these habitats ensures maintenance of wildlife

within Durham as the City develops. Wildlife species which may be found in Durham are listed on Table 3 in the Appendix.

4. OUTSTANDING VIEWS AND SITES

Durham does not provide any Oregon-approved hiking trails, cultural areas, historic sites, structures, and State scenic waterways. Preservation of Durham's most significant natural asset, its aged conifers and ornamental vegetation, would maintain the natural visual appearance which may be seen throughout the City.

5. AIR QUALITY

Durham lies within the Portland-Vancouver Interstate Air Quality Maintenance Area (AQMA). The State Department of Environmental Quality (DEQ) utilizes this area to monitor air pollution in the Portland region. Air pollution exists in a variety of forms. For example, carbon monoxide results mainly from gasoline and diesel engines; sulfur oxides result from diesel and heating oil combustion; nitrogen oxides result from transportation sources; and particulate matter results from industry, road dust, open burning, wood stoves and agricultural operations. These sources are all regulated by DEQ's air quality program. Excessive noise is also considered a form of air pollution, and DEQ noise regulations are enforced by local authorities.

The City is also located in a non-attainment area for carbon monoxide (CO) and ozone. This means that restrictive limits have been placed on volatile organic compounds for small industrial operations, and the potential for emission offsets for new or expanded industrial sources. In accord with the Transportation Planning Rule, the City will be seeking ways to reduce automobile use, which in turn reduces CO emissions.

6. ENERGY USE AND CONSERVATION

Durham is reliant upon electricity and natural gas for most of its residential energy requirements. New housing construction under current building codes must satisfy energy conservation requirements, i.e., wall and ceiling insulation, storm windows, etc.

7. REGIONAL WATER QUALITY, FLOOD MANAGEMENT AND FISH AND WILDLIFE CONSERVATION

The comprehensive plan presently contains policy statements which support the intent of Metro's Title 3 requirements. These policies are listed as follows:

1. POLICIES TO PROTECT LIFE AND PROPERTY FROM NATURAL DISASTERS AND HAZARDS.

See policy statement 1.A - 1.E. on page 9, CLUP.

2. POLICIES TO CONSERVE OPEN SPACE AND PROTECT NATRUAL AND SCENIC RESOURCES.

See policy statements 2.A. - 2.E. on page 10, CLUP.

3. POLICIES TO MAINTAIN AND IMPROVE THE QUALITY OF THE AIR, WATER, AND LAND.

See policy statements 3.A. - 3.D. on page 10 and 11, CLUP.

Preservation and protection of the Greenway represents perhaps the most fundamental principle embodied in the Comprehensive Plan. From a planning standpoint, the Greenway symbolizes the most significant natural resource with Durham to be maintained in its natural state.

In adopting the CLUP policies, the City has protected water quality, flood management, fish, and wildlife conservation consistent with Title 3 requirements. In addition, the implementation of surface water management requirements within Durham is performed through intergovernmental agreement by the Unified Sewerage Agency. The City will continue to rely on USA's judgement and recommendations that may become necessary for compliance with specific Title 3 requirements.

NATURAL RESOURCES GOALS AND POLICIES

GOALS

1. Protect life and property from natural disasters and hazards.

2. Conserve open space and protect natural and scenic resources.

3. Maintain and improve the quality of air, water, and land.

4. Conserve energy.

POLICIES

1. POLICIES TO PROTECT LIFE AND PROPERTY FROM NATURAL DISASTERS AND HAZARDS.

   A. The City shall adopt the Flood Insurance Study published for the City of Durham through the National Flood Insurance Program, as administered by the Federal Emergency Management Agency (FEMA). This study includes maps and measurements pertaining to the floodway and 100-year floodplain in Durham.

      No new residential development will be allowed within lands designated as "floodway" according to the Flood Insurance Study (FIS), or as may be updated by Metro Title 3 maps adopted on 6/18/98, or the Fanno Creek Watershed Flood Insurance Restudy 100-Year & 500-Year Floodplain, or the most current FEMA Floodway, and Base Flood Elevation. Any new residential development proposed within the 100-year "flood fringe", as designated by the aforementioned sources and verified by a topographic survey provided by a licensed surveyor, shall be flood-proofed as stated in the Uniform Building Code.

   B. Land found to be subject to slumping, sloping, or having movement shall not be developed unless geotechnical evidence provided by a licensed geotechnical engineer is provided to demonstrate that hazards associated with such land limitations will be avoided or successfully mitigated.

C. All new building construction shall be designed to meet seismic requirements of the Uniform Building Code.

D. The City shall restrict the alteration of natural drainage ways unless it can be demonstrated that the benefits realized are greater than the detrimental effects.

E. All new development shall have building roofing which is manufactured of fire resistant materials.

2. POLICIES TO CONSERVE OPEN SPACE AND PROTECT NATURAL AND SCENIC RESOURCES.

A. The City shall adopt standards and restrictions governing the removal and/or displacement of natural flora and fauna pursuant to ORS 527.722.

B. The 100-year floodplains of Fanno Creek and the Tualatin River shall be established as the foundation of an open space network. This network will also be subject to the *Design and Construction Standards for Sanitary and Surface Water Management* as adopted by Clean Water Services of Washington County. This network may be developed for recreational activity if included as part of a planned development, or if otherwise secured by the city.

C. Any development proposal which contains Greenway area on-site may be required to dedicate the Greenway for use as a public park to the extent that the development has effects on the City's need for public parks. Such Greenway dedication shall not preclude other recreation area dedication as may be specified under policies pertaining to recreational opportunities.

D. The City shall support the preservation and protection of historic and cultural resources which may be identified within Durham's jurisdiction.

E. Hunting within the City shall not be permitted. Fishing is permitted only when in compliance with State fishing regulations.

3. POLICIES TO MAINTAIN AND IMPROVE THE QUALITY OF THE AIR, WATER AND LAND.

A. The City shall coordinate its planning efforts with Metro, Oregon Department of Environmental Quality (DEQ) and Unified Sewerage Agency (USA) in order to maintain the quality of air, water and land resources. Existing and future development must meet DEQ regulations pertaining to environmental quality including noise control. New development proposals shall satisfy USA requirements to provide water quality treatment of storm water run-off, and requirements as to the placement of fill in wetlands and sensitive areas.

B. Alternative modes of transportation such as mass transit shall be encouraged through the transportation element of the Plan and improvements to the local street system whenever possible.

C. All new developments shall be required to be served by public water and public sanitary sewers. However, construction of a new single-family house on a pre-existing or partitioned lot may not be required to connect to sanitary sewer, if existing sewer is not located within the distance allowed by Washington County, and the property can comply with County standards regarding on-site sanitary septic systems.

Permits to build on septic systems must include clauses prohibiting owners of the property from remonstrating against future efforts to construct sanitary sewer facilities or to connect the subject property to sanitary sewer facilities.

D. The City will provide solid waste collection through a franchise agreement with a private sanitation company. Provision for solid waste disposal including recycling shall be performed through an intergovernmental agreement with Washington County in order to meet current and long range solid waste needs.

4. POLICIES TO CONSERVE ENERGY.

A. The City shall allow office parks and industrial parks to offer employment opportunities for residents.

B. In low density development areas, the City shall minimize paved land covering by (1) allowing streets to be developed to a standard which is less than normal urban standards, and (2) clustering dwelling units.

C. The City shall encourage the development of a wide range of recreational facilities to minimize the need of residents to travel to recreational sites.

D. Developments shall be designed to take advantage of arterials, collectors and mass transit, plus encourage pedestrian and bicycle travel.

E. Potential energy inefficiencies caused by low density development in designated areas should be offset by encouraging planned developments to (1) cluster dwellings, (2) incorporate energy conserving methods in the construction of residences, and (3) utilize site planning techniques which consider energy conservation.

F. The City should, when practicable, make energy efficiency and the use of renewable resources a regular practice in its design and operation of buildings, equipment, and public facilities and services.

G. The City should encourage local residents and businesses to conserve energy, recycle and use renewable resources.

H. The City encourages energy efficient designs and development through provisions of the adopted solar access ordinance.

GROWTH AND DEVELOPMENT FINDINGS

1. NON-BUILDABLE LAND

Land which is located in the 100-year floodplain has slopes in excess of 20 percent, or which is submerged, will be considered non-buildable for development purposes. Table 4.1 shows the amount of non-buildable land in Durham that existed during the 1995 Periodic Review and as amended during the 2003 Plan text update. The 2003 acreage figures reflect a deannexation of land to the City of Tualatin and GIS adjustments:

Table 4.1 - NON-BUILDABLE LAND

Type	**Acres**(1995)	**Acres** (2003)
Floodplain (including Fanno Creek)	63.20	57.32
Slopes greater than 20%	2.20	2.20
Submerged land (Tualatin River)	11.10	4.49
Total	76.50	64.01

(Source: City of Durham)

2. HOUSING NEEDS

A. Background

When Durham was incorporated as a city in 1966, the community was characterized by large lot residential properties. There were approximately 76 dwellings, and the majority of these housing units were single-family homes. Since that time, new home construction has attempted to meet local housing needs, and the City's housing inventory has increased substantially since incorporation. The 2000 Census housing data shows the total number of housing units in Durham to be 552 dwellings.

B. Condition of Housing

The existing housing stock of the City of Durham is relatively new and in good repair. Table 4.2 shows the number of housing units by age and includes new housing construction through September 2003. Housing demolitions are not

reflected in the table and will reduce the actual total housing units by a small amount.

Table 4.2 - AGE OF HOUSING BY YEAR CONSTRUCTED

Year Structure Built	Number Units
April 2000 – Sep. 2003	*6*
1999 to March 2000	2
1995 - 1998	164
1990 - 1994	124
1980 - 1989	59
1970 - 1979	145
1960 - 1969	15
1940 - 1959	28
1939 or earlier	15
Total	**548**

(Source: 2000 U. S. Census & City of Durham)

C. Occupancy and Tenure

2000 Census data indicates that owner-occupied housing comprises 57.2% of all occupied housing in Durham. This percentage is significantly less than the 1990 Census figure of 87.3% and is caused by the 210 unit Tualatin View apartment development that was constructed after the 1990 decennial census.

The year 2000 average household size per owner-occupied unit was 2.64, compared to 2.92 persons in 1990. The year 2000 average household size per renter-occupied unit was 2.59, compared with the average renter-occupied unit size of 2.64 persons in 1990. Durham's 2000 average household size for all housing units was 2.62 persons, compared to 2.96 persons in 1990. These figures reflect a long-term trend of declining household sizes.

D. Housing Cost

According to 2000 Census data, the annual median income (1999) was $51,806 for a Durham household, compared to $58,151 in 1989. The 2000 median monthly mortgage payment for an owner-occupied house in Durham amounted to $1,630, compared to $1,179 in 1990. This monthly cost represented 30% or more of household income for 62 owner-occupied dwellings in 1999, compared to 31 owner-occupied dwellings in 1989. Regarding rental housing, the 1999 median monthly gross rent amounted to $708 (compared to $422 in 1989), which represented 30% or more of household income for 124 renter-occupied dwellings.

Monthly housing payments exceeding 30% of household income is generally considered to impose an excessive cost burden on family finances. As is indicated for Durham in 1999, there were 62 households paying 30% or more of monthly income for housing, which represented 11.2% of the total households. The year 2000 median value for an owner-occupied dwelling was $248,300, compared to $134,200 in 1990.

E. Metropolitan Housing Rule

Cities within the urban growth boundary of Metropolitan Portland must comply with regional residential density and mix standards. The purpose of these standards is to provide needed housing at varying price ranges and rent levels for local citizens. The housing standards which apply to Durham are summarized as follows:

- Achieve a 65 percent to 35 percent split between single family and multiple family housing units, respectively.

- Achieve a building rate of 50 percent single family (detached) and 50 percent multiple family or attached single-family housing for new residential units.

- Achieve an overall density of six or more dwelling units per "net buildable acre," which consists of 43,560 square feet of residentially designated buildable land, after excluding present and future rights-of-way, restricted hazard areas, public open spaces and restricted resource protection areas.

Implementation of the Metro Housing Rule has represented a key housing objective for Durham since adoption of the original comprehensive plan in 1979. The City has attempted to provide for housing affordability and diversity through the following actions:

- Provide for both single family and multiple family housing alternatives;

- Within designated single-family residential areas, provide for a diversity of permitted lot sizes.

- Within designated single family residential areas, also provide adequate incentives for clustering of housing units into townhouses, zero lot line houses, and small lot sizes;

- Allow accessory dwelling units in detached single-family dwellings.

F. Mobile Home and Manufactured Dwelling Parks

The Oregon Revised Statutes (ORS) impose a statewide policy that provides for mobile home or manufactured dwelling parks within all urban growth boundaries. The purpose of this policy is to allow persons and families a choice of residential settings. At a minimum, cities must allow these facilities as an allowed use in areas planned and zoned for a residential density of six to twelve units per acre sufficient to accommodate anticipated need.

Cities are authorized to adopt clear and objective standards and criteria for the placement and design of mobile home parks and may condition the approval of park siting in accord with these standards and criteria. Durham has amended its Comprehensive Land Use Code to allow a mobile home park or manufactured dwelling park to be sited in the Single Family Residential and Multiple Family Residential Districts, subject to meeting standards and criteria as authorized by state statute.

G. Siting of Manufactured Housing on Single Family Lots

ORS provisions have also been amended to require that manufactured housing be allowed as a permitted use in single family zoned lands for cities under 2,500 population. Previously, small cities were exempt from this requirement which allows a bona fide manufactured house to be sited on a single family zoned lot.

The law further eliminates the requirement for a "needs analysis", since manufactured housing is defined by statute as a needed housing type. The legislation does not affect any recorded restrictive covenant that would prohibit the siting of manufactured dwellings on single family zoned lands. The City has amended the Comprehensive Land Use Code to allow a manufactured home to be placed on property within the Single Family Residential District, subject to meeting development requirements and design features.

H. Residential Land Allocations

In order to meet Durham's housing needs, three primary housing areas are designated within the community. These areas are shown on Figure 3 in the Appendix and are known as:

- West Durham Single Family Residential;
- East Durham Multiple Family Residential; and
- South Durham Multiple Family Residential.

Each area was selected on the basis of certain criteria including the following:

1) Commitment to a particular kind of land use;
2) Access;
3) Availability of services;
4) On-site amenities;
5) Contributions to Durham's housing objectives; and
6) Compatibility between uses.

Within certain single family residential areas, the "planned development concept" provides an alternative design in comparison with the standard subdivision layout. The key design features of the planned residential development are characterized as follows:

1) Common open space (excluding the Greenway);

2) Provision for recreational improvements, which are suited for the proposed development;
3) Dedication of Greenway (if applicable);
4) Minimum site area of five net buildable acres;
5) Variable lot sizes not less than 5,000 sq. ft.;
6) Provision for modified yard setbacks, including allowance for zero side lot line housing;
7) 30% density bonus.

In order for a development proposal to receive the 30% density bonus, common open space not including the Greenway will be a required prerequisite. The purpose of the common open space is to provide a design amenity, which would create a more preferred living environment by helping to preserve remaining upland wooded areas for ecological and recreational benefits.

The significance of the common open space will be determined by its location, shape, size and compliance to the above-described purpose. Open space shall contain a minimum area equal to 30% of the net buildable area.

Maintenance of the common open space should be a minimal task since the area would remain in its natural state. Nevertheless, the maintenance responsibility would either be public or private. If the open space were to provide a benefit to the general public, i.e., linkage to the Greenway, then the common open space would be dedicated to the City for public park purposes.

On the other hand, where the common open space is isolated from the Greenway and would primarily benefit residents within the development, maintenance would become a private matter. The mechanism for accomplishing maintenance would be a homeowner's association or other method as may be proposed by the developer and accepted by the City.

Another option for residential development on property, which contains Greenway is allowing a density transfer onto the buildable site area. This option addresses the "takings issue" with respect to the kind of exactions which are legally permissible through the land development review process. It provides an incentive for the owner to dedicate the Greenway in exchange for the density transfer, which would require review and approval by the Planning Commission.

The West and East areas are predominantly committed to single family and multiple family residential activities respectively. The south area contains the 210-unit apartment complex which has been constructed. All areas have adequate access to streets. All areas will have adequate availability of public water, sewer, and utilities.

The West and South areas enjoy the potential Greenways of Fanno Creek and the Tualatin River for recreational and open space activities. The East area is virtually without adequate on-site recreational opportunities. All areas, at full build-out, should satisfy Durham's housing needs. The West and South areas should be compatible with neighboring activities owing to separation between different uses and on-site buffer opportunities. The East area is not developed to its full potential and offers future redevelopment possibilities. These housing areas are described as follows:

a) South Durham

This area consists of about 13.25 acres which includes area within the Tualatin River floodplain. The actual buildable land is closer to 10 acres, and this area is designated for 16 units per acre. The purpose of the 16 unit per acre designation is to allow for density transfer from the floodplain land to buildable land. As part of this density transfer, the floodplain shall remain undeveloped to provide open space and recreational opportunities to residents of this area.

This area has been developed with a 210-unit apartment development (Tualatin View) which is consistent with the designated density and includes dedication of the floodplain for Greenway purposes. It is also noted that the development was financed through the State Low Income Housing Tax Credit Program and will be providing affordable housing to families below the median income level in Durham and the Tigard/Tualatin area.

b) East Durham

This area consists of 1.78 acres, all of which is developed. Three four-plexes and one single family house provide 13 dwelling units in this area. East Durham is planned for a density of 16 units per acre, which means an additional 15 dwelling units could conceptually be provided with an acceptable redevelopment plan. Access to this area shall be limited to Findlay Road. Due to the presence of adjacent office park and shopping

center developments, redevelopment of this area should provide a substantial share of the land area in landscaping to buffer the residential use.

c) West Durham

This area consists of 128 acres and contains 235 total single family dwelling units. There are two subareas, which have significant potential for residential development - Northwest and West Ellman Lane. The Northwest subarea contains 16 acres, which could yield a maximum 78 housing units under the present plan designation. The Ellman Lane subarea was approved and constructed with a 62 lot planned development (Heron Grove). Figure 4 in the Appendix shows these subarea locations.

In addition, there are many large lots, i.e., one-acre size, which contain an existing single family house in the Peters Road/Ellman Lane neighborhood. These parcels provide future redevelopment potential, i.e., minor partitions and small subdivisions, and would yield a significant amount of new housing units.

I. Residential Lands Assessment

Table 4.3 shows the inventory of developed, new and buildable (undeveloped net) residential lands currently in Durham.

Table 4.3 RESIDENTIAL LANDS INVENTORY (ACRES) THROUGH 2003

Category	Single-Family	Multi-Family	Total
Developed Land	78.37	11.58	89.95
Buildable Land (net)	28.65	0.00	28.65
Total Residential Land	107.02	11.58	118.60

(Source: City of Durham)

As shown in Table 4.3 above, 78.37 acres (73.23%) of the single family land is developed, and the entire acreage designated for multi-family use is already developed. The amount of existing dwelling units by housing type is shown as follows:

Table 4.4 HOUSING UNIT INVENTORY THROUGH SEPTEMBER 2003

Category	Single-Family	Multi-Family	Total
Existing Dwellings	336 (60%)	222 (40%)	558

(Source: City of Durham)

The development of additional housing in Durham would occur on the remaining buildable land (shown as undeveloped land in Northwest and Southwest Durham on Figure 5 in the Appendix). The amount of buildable land is 28.65 net acres (Table 4.3), which is located in the Durham's northwest and southwest neighborhood areas. Based on the existing development pattern and present zoning provisions, the new housing potential for these areas is estimated to be 146 single family dwellings.

It should be further noted that an estimated five single family dwellings units listed in Table 4.4 are located on properties which are currently designated for Office Park (OP) development. When these properties are redeveloped for OP uses, the existing dwellings will be removed from the housing inventory. Also, there is a redevelopment potential for the East Durham Housing Area that would add 16 multi-family units and eliminate one single family dwelling from the inventory.

These factors have been taken into account for purposes of estimating the total single family (SF) and total multi family (MF) units listed in Table 4.5 below:

Table 4.5 COMPARISON OF DURHAM'S HOUSING ELEMENT WITH METROPOLITAN HOUSING RULE AT BUILD-OUT

Metro Objective	Durham
65% Total SF units	476 Total SF units (66.7%)
35% Total MF units	238 Total MF units (33.3%)
	714 Total Dwelling Units (100.00%)
Housing density of 6.0 dwelling units or more per net acre of buildable land.	Housing element allows 6.0 dwelling units per net acre of buildable land.

(Source: City of Durham)

As shown in the above table, Durham compares quite favorably with the Metro Housing Rule objectives. It is further noted that the City's zoned capacity for housing will comply with Metro's dwelling unit capacity estimates as identified in Title 1 of the Regional Functional Plan.

J. 1999 Regional Functional Plan Housing Accommodation

1) Recent Development Exceeding 80 Percent of Maximum Zoned Density

The Regional Functional Plan requires that all cities shall determine whether actual built densities for housing during 1990-1995 were less than 80 percent of maximum zoned densities. The 1990 -1995 actual built densities within Durham are compared with the zoned densities for housing units in Table 4.5.B. below:

Table 4.5A. COMPARISON OF ACTUAL BUILT DENSITIES WITH ZONE DENSITIES, 1990-1995

a) Single Family Housing by Minor Partition Approval

1] Minor Partition Applications:	7
2] Total Area:	4.08 ac
3] Total Lots Created:	15 lots
4] Max Zoned Density:	16 lots
5] Percentage of Max Density:	93.8%

b) Single Family Housing by Subdivision Approval

1] Subdivision Applications:	2
2] Total Area:	24.23 ac.
3] Total Lots Created:	78 lots
4] Maximum Zoned Density	88 lots
5] Percentage of Max. Density	88.6%

c) Multi Family Housing Development Approval

1] MF Development Applications:	1
2] Total Area:	13.16 ac
3] Total Swellings Built:	210 dwellings
4] Maximum Zoned Density:	210 dwellings
5] Percentage of Maximum Density:	100%

d) Housing Building During 1990-1995

1] Single Family Partitions:	15 dwellings
2]Single Family Subdivision:	88 dwellings
3] Multi Family Development:	210 dwellings
4] Total housing:	313 dwellings

As shown in Table 4.5.A., new housing constructed during 1990-1955 was approved through minor partition, subdivision, or development review (multi-family housing) applications. For each type of application, the housing actually constructed exceeded 80% of maximum-zoned densities (Section 3.07.140). Therefore, the City complies with Metro's requirements.

2) Housing Capacity

State law and the Metro Code require that the regional urban growth boundary (UGB) have sufficient capacity to accommodate expected growth for 20 years. Each city within the Metro region must contribute its fair share towards increasing the development capacity of land within the UGB.

Metro has determined that the housing target capacity for Durham from year 1994 to 2017 is 262 dwelling units. The calculations for Durham's residential development capacity are shown in Table 4.5.B below:

Table 4.5.B.
Residential Development Capacity

Northwest Neighborhood (Single Family-DB/PD)

a)	Gross Vacant Acreage:	23.37ac
b)	Deduct Exist Housing:	1.84 ac
c)	Deduct Flood Plain:	4.04 ac
d)	Deduct Street Right-of-way:	3.85 ac
e)	Net Buildable Land:	13.64 ac
f)	Single Family Density:	59.42 dwellings (e divided by 10,000 sq. ft.)
g)	30% Density Bonus:	17.83 dwellings (.30 x 59.42)
h)	Greenway Bonus:	4.00 dwellings
i)	Total Housing Potential:	81.25 = **81 Dwellings** (f+g+h)

Southwest Neighborhood (Single Family)

a) Gross Vacant Acreage: 27.19 ac.
b) Deduct Exist Housing: 5.51 ac
c) Deduct Flood Plain: 2.41 ac
d) Deduct Street Right of-way: 0.96 ac
e) Net Buildable Land: 18.31ac
f) S.F. Density/Housing Potential: 79.76 = **80 dwellings** (18.31ac/10,000 sqft)

Multi Family Redevelopment for Tax Lots 1500 & 1600 (2S1 13 AC)

a) Total Site Area: 1.78 ac
b) Allowable Multi Family Density: 28 dwellings
c) Existing Development: 13 dwellings
d) MF Redevelopment Potential: 15 dwellings

Single Family House Building Permits issued 9-1-94 through 8-31-96

67 dwellings

Total Development Potential

a) Northwest Neighborhood: 81 dwellings
b) Southwest Neighborhood: 80 dwellings
c) Multi Family Redevelopment 15 dwellings
d) Single Family Permits Issued: 67 dwellings
e) Total: 243 dwellings

Durham's future residential development potential is focused on the Northwest Neighborhood, which could yield 81 dwellings under existing zoning; and the Southwest Neighborhood, which has the potential for 80 dwellings. Also, the existing multi-family site at the southeast corner of Upper Boones Ferry Road and Findlay Road is significantly underutilized in terms of existing zoning and could be expected to redevelop with 15 additional dwellings.(In fact, a development application has been submitted but put on hold due to apparent financial decisions by the owner.)

As shown above, the future development potential within Durham would produce 176 dwellings. In addition, the building permit data between 9-1-94 and 8-31-96 show that 67 dwelling units were developed during this period. These units also count towards the City's housing target and, combined with

the future development potential (176 dwellings), would total 243 dwellings. This total figure amounts to 93 percent of Metro's target projection, which the City deems to be in substantial compliance with meeting Metro's housing target capacity, i.e., compliance with Metro Code Section 3.07.150.

3. EMPLOYMENT AND ECONOMIC BASE

A. Regional and Local Trends

The Portland metropolitan economy has steadily expanded in past decades and its composition of jobs has shifted dramatically. Metro has prepared a recent overview of economic trends, which could affect growth in the region, and the following excerpt from this publication provides an excellent summary of the regional economy:

The regional economy has expanded and diversified a great deal since 1970. Especially in recent years, diversification has helped produce a strong and vibrant regional economy. The emergence of a high-technology electronics industry has developed a broader and more resilient manufacturing sector. The growth in high-tech in turn spurs more growth in other support businesses.

The downstream economic impact has helped generate strong growth in services and trade. Growth has also spurred new residential growth that has been drawn to Portland by the emergence of a "Silicon Forest" similar to California's Silicon Valley. Additionally, other manufacturers - notably high-tech plastic manufacturers - have grown to meet demand created by the expanding high-tech manufacturing base. The diversity of firms in the region and more resilient manufacturing industries makes the region well positioned to reach for economic opportunities which may arise in the future."

(Page 8, "Profiles of the Portland-Vancouver Economy", Metro, May 1994.)

The severe economic recessions which impacted Oregon in 1980 and 1982 have reshaped the regional economy from a resource-based to an intellectual- and information-based economy. The high-tech sector presently supersedes the lumber and wood products industry in terms of employment and industry income. Nearly 9 out of 10 new jobs created during the past two decades have occurred in the non-manufacturing industry. The employment creation trend has emphasized service- and trade-related jobs, with

employment in non-manufacturing industries averaging 3.2% growth annually since 1970.

B. Site Requirements

The number and size of commercial and industrial sites in Durham is limited compared to the metropolitan area. The largest commercial site covers 5.1 acres and is occupied by the Bridgeport Woods Business Park. Although the City cannot provide a large development site, there are smaller sites, i.e., less than one acre, which can accommodate a portion of the regional economic growth. Durham occupies a strategic location within the I-5 corridor and is suited to small scale development consistent with the regional trend, i.e., high-tech support businesses, service- and trade-related employment.

C. Commercial and Industrial Land Inventory

The City's commercial and industrial land uses are designated Office Park (OP) and Industrial Park (IP). A commercial retail classification in Durham is unnecessary due to the surrounding pattern of commercial retail uses located nearby in Tigard and Tualatin, i.e., the daily shopping needs of Durham residents are met by existing facilities in neighboring cities. The inventory for developed and vacant OP and IP land is shown in Table 4.6 as follows

TABLE 4.6 OFFICE (OP) AND INDUSTRIAL (IP) LAND INVENTORY (2003)

Category	Developed Ac.	Vacant Ac.	Total
Office Park (OP)	29.25	6.83	36.08
Industrial Park (IP)	10.38	0.00	10.38
Total:	39.63	6.83	46.46

(Source: City of Durham)

As indicated in Table 4.6, the majority (81.07%) of OP land is developed, and all of the IP land is developed. It is further noted that some of the vacant OP land is comprised of small lots (generally under an acre in size) having an existing single family house which will be removed when the property is redeveloped

Durham has selected six areas for designation as office park or industrial park. These areas are shown on Figure 6 in the Appendix and are identified as:

1) North Durham Industrial Park;
2) Northeast Durham Office Park;
3) East Durham Office Park;
4) Southeast Durham Industrial Park;
5) South Durham Industrial Park; and
6) Kingsgate Office Park.

The reasons for selecting these areas include the following factors:

1) Accessibility to collectors, arterials, freeways, and mass transit.
2) Availability of facilities and services currently or expected in the future.
3) Separation from residential activities.
4) Compatibility with neighboring commercial, industrial, and gravel pit activities.
5) Function as a buffer between freeway related or gravel pit activities and residential activities.
6) Availability of vacant land or land upon which structures will be amortized and ripe for conversion prior to the year 2000.

D. Economic Development Potential

By regional standards, there is obviously very limited development potential for Durham's remaining buildable commercial lands. With respect to the City inventory, however, these undeveloped lands represent a significant potential for future job creation. Table 4.7 shows the current employment situation in Durham:

TABLE 4.7 DURHAM EMPLOYMENT

Zone	Businesses	Employees
Office Park	53	843
Industrial Park	10	110
Total:	63	953

(Source: City of Durham)

As shown in Table 4.7, the number of businesses and employees is substantially greater for OP development than IP uses. The 53 businesses occupy 29.25 acres of OP land with an employee count of 843 persons.

Therefore, the existing OP business/acre ratio can be computed at 1.81 businesses per acre, and the employee/acre ratio computed at 28.82 employees per acre.

Presuming that the remaining OP buildable lands (6.83 ac.) were to develop at the same ratios, then Durham could expect to have *12 new businesses* which would create *197 new jobs*. This economic development potential would certainly appear significant from the City's standpoint. Thus, based on the present commercial and industrial land use designations, the total employment potential in Durham would amount to 1,150 jobs.

Compared with the total housing potential of 714 housing units identified earlier, it appears that the future employment and housing opportunities will benefit local residents by providing them greater opportunities to live and work in Durham.

E. BUSINESS PARK OVERLAY IN THE OFFICE AND INDUSTRIAL PARK DISTRICTS

Although Office and Industrial Park Districts provide important employment opportunities within Durham, the City has determined a need to provide a flexibility of uses within these districts and still achieve high quality developments. The permitted uses in the Office Park (OP) District are limited to office uses which are subject to certain development standards including traffic and employment generation impacts. The permitted uses in the Industrial Park (IP) District limit office uses to the sale and service of industrial products, plus allow a range of light industrial uses subject to development and environmental standards.

In recent years, market trends have given rise to the "Business Park" type of development, which is generally characterized by mixed uses on large development sites, which are controlled by a single developer according to a master development plan. Individual tenants are regulated by private covenants, conditions, and restrictions (CC&R's), which maintain high standards of design and development on a continuing basis.

The Business Park concept in Durham is applicable in either the Office or Industrial Park Districts. However, certain modifications are necessary in order to tailor this development concept to the City's benefit. The following considerations are appropriate:

1) Business Park Size

Business Parks usually occupy multiple acres of land in order to support the mix of uses which may locate in these developments. In Durham's case, several Business Parks have already been developed, and the supply of vacant buildable OP land is limited to less than ten acres, and many of these properties are less than one acre in size.

While this development concept is suited to large acreages, i.e., 10 or more acres, it is still workable for smaller sites comprising at least three acres, which would allow for the siting of two or more buildings, adequate setbacks, landscaping, parking and loading, etc. In order to satisfy the three acre size standard, land assembly will be necessary for smaller property owners who choose to pursue a business park development. Such a land assembly has been performed for the Business Parks already constructed in Durham.

2) Flexibility of Uses

A mixed-use approach usually applies to Business Parks, meaning that commercial office uses, certain non-polluting light manufacturing activities, and limited retail uses intended to serve the employees and businesses within the development may be allowed. The flexibility of combining office and clean manufacturing uses would be suitable for Durham. However, allowing retail uses even on a limited basis is inappropriate for two reasons.

First, the Business Park sites in Durham lack sufficient size to accommodate a large Business Park development. This means that the internal employee and business population base would likely not be able to fully support the retail uses, which would then have to rely more on outside customers. The resulting reliance on outside customers defeats the intent of limiting the retail uses to serving the development. Also, additional traffic would be generated on SW Upper Boones Ferry Road, and this impact is contrary to the City's policy of minimizing traffic on this road.

Second, the City has intentionally disallowed retail sales activities in either the Office or Industrial Park Districts. Commercial retail uses tend to attract high traffic volumes, which would be inconsistent with the traffic generation standards of both districts.

Even without the retail allowance, the Business Park concept still enables Durham to provide a flexibility of allowing certain acceptable non-residential uses within a project. This capability is presently unavailable in either the Office Park or Industrial Park Districts.

3) Business Park Locations

The Comprehensive Plan map designates sites for Office and Industrial Park Development. Only two sites are located west of SW Upper Boones Ferry Road. One site is designated Industrial Park to recognize an existing use (Watt Welding) located at the southwest corner of SW Upper Boones Ferry and SW Durham Road. This site comprises 2.06 acres and fails to meet the proposed minimum site size for a Business Park in Durham.

The second site is undeveloped and designated Office Park at a location between SW Willowbottom Way and SW Rivendell Drive. This site is composed of four tax lots, which collectively amount to three acres. The entire site is part of the adopted Kingsgate Development and was approved solely for office development. However, it should be noted that the site has been acquired by the City for park purposes as approved by voters through a special levy election conducted in year 1999.

All other OP and IP lands are designated east of SW Upper Boones Ferry Road based on specified locational criteria. These criteria also apply to the location of Business Park developments within Durham.

4) Zone Change Mechanism

While the Plan allows Business Park developments in the above locations, the City's Zone Change procedure will decide which properties are assigned the overlay district. This means that property owners must submit a Zone change application as provided under the Land Development Code.

F. 1999 REGIONAL FUNCTIONAL PLAN EMPLOYMENT CAPACITY

Metro’s target capacity employment for Durham is 498 jobs. Since the last comprehensive plan update, the following office park and business park developments have been approved and constructed:

Project Name	Site Acreage	Employees
Tabor Office Park	0.39	12
Kuhl Dental Clinic	0.27	2
Learning Tree	0.95	20
Boones Ferry Business Park	4.28	86
Durham Business Park	5.05	164
Total:	10.94	284

Construction of these project occurred well after July 1994, and the 284 jobs created with these developments would eligible for counting towards Metro's target employment projection. The remaining vacant and redevelop able land is zoned Office Park and comprises 9.15 total acres.

Presumably, the jobs/acreage ratio of 26 jobs/acre represented by the above projects would be typical for future business developments in Durham. Utilizing this employment ratio, the, job potential for the remaining vacant and redevelop able OP properties is calculated at 238 (9.15 x 26).

The combined total of potential jobs (238) and jobs created by recent projects (284) amounts to 522 jobs, which exceeds the Metro projection by 24 jobs. Therefore, the City complies with Metro's target employment projection, i.e., compliance with Metro Code Section 3.07.150.

Jobs/Housing Balance

A primary objective of the functional plan is for cities to create a balance between new housing development and new employment opportunities. An acceptable standard for maintaining such a balance in an urban setting may be considerably to be 1.2 jobs per household. Since the last CLUP update, the City has added eight more single family houses to its inventory. This results in the total current number of dwellings in Durham to equal 542.dwellings.

Based on a 1998 business license survey done by City staff, the total number of jobs within Durham amounts to 687 positions: Given this information, the City's current jobs/housing ratio is calculated at 1.27 fobs per household (687/542).

The long-term outlook is slightly better. The remaining residential vacant land has a potential for an additional 176 dwellings, and the remaining OP vacant land could potentially create an additional 238 jobs. At plan build-out, the total counts would be 718 dwellings and 925 jobs which results in a jobs/housing ratio of 1.29 jobs per household (925/718). Thus, the current and projected growth for Durham can be expected to maintain an ideal jobs/housing balance.

4. CITY LAND USE ALLOCATIONS

The city-wide allocation of land by type of use and development status is shown in Table 4.8 as follows:

TABLE 4.8 - LAND USE ALLOCATIONS 2003 (Acres)

Land Use Category	Developed	Undeveloped	Total*
Single Family Res. (SF)	90.18	28.65	118.83
Multi Family Res. (MF)	11.58	0.00	11.58
Office Park (OP)	29.25	6.83	36.08
Industrial Park (IP)	10.38	0.00	10.38
Subtotal:	141.39	35.48	176.87
Non-Buildable Land:			
Floodplain			57.32
Slopes > 20%			2.20
Submerged (Tualatin River)			4.49
Subtotal:			64.01

Right-of-way			33.24
Total (within City Limits):			**274.12**
Overlay areas:			
Greenway Overlay		6.05	6.05
Density Bonus PRD	64.71	26.53	91.24
Business Park (BPO)	19.85		19.85

* Acreage figures do not include rights-of-way areas included in GIS mapping shown on (Figure 5).

(Source: City of Durham)

Table 4.8 shows how urban land is currently allocated by land use activity, and how much developed and undeveloped land exists in Durham. Undeveloped single-family land is defined as lots which exclude non-buildable land and are clear of any home, or in the case of large lots with an existing house, the vacant portion of the lot after allocating 10,000 sq. ft. for the homesite. The Right-of-Way category includes State, county, and city streets. Undeveloped lands are shown on Figure 5 in the Appendix.

GROWTH AND DEVELOPMENT
GOALS AND POLICIES

GOALS

1. Provide for housing opportunities commensurate with Durham's ability to accommodate an expanding population.

2. Provide for economic development opportunity to create a local employment source and broaden the economic base.

3. Provide for a physically attractive community.

POLICIES

1. HOUSING

   A. In the Northwest subarea, a density bonus of 30 percent shall be allowed for a planned residential development, which shall be subject to the following standards:

      1) Common open space (excluding the Greenway) which meets the following requirements:
         a) Preserves wooded area for ecological and recreational benefit; and
         b) contains a minimum area equal to 30% of the net buildable area;
      2) Construction of recreational improvements which are suited for the proposed development;
      3) Dedication of Greenway (if applicable);
      4) Minimum site area of five net buildable acres;
      5) Variable lot sizes not less than 5,000 sq. ft.;
      6) Provision for modified yard setbacks, including allowance for zero side lot line housing in addition to the following yard setbacks:
         a) 20 ft. front yard;
         b) 5 ft. side yard;
         c) 15 ft. corner yard
         d) 15 ft. rear yard.

Common open space which provides a city-wide public benefit, i.e., connection to Greenway system, shall be dedicated to the City for park purposes. Otherwise, the common open space will remain under private ownership for maintenance purposes by either a homeowner's association or other entity as may be proposed by the developer and accepted by the City.

B. For other than a planned residential development, the Planning Commission may allow a density transfer or modification of other development restrictions in consideration of dedication for Greenway or other open space.

C. Within the West Durham single family residential area there is a diversity of housing densities. Where planned residential developments occur throughout the West Durham area, a variety of housing types will be allowed. Single family detached and attached dwelling units situated on lots as small as 5,000 square feet and on zero lot line lots shall be allowed.

D. All residential developments requiring land use approvals shall be reviewed and approved in accordance with the following criteria:

1) Access

a) Project takes into consideration traffic safety.

b) Project has direct access to public streets capable of serving the project.

2) Site Characteristics

a) Site is of a size and shape to reasonably accommodate present and future users in a manner which emphasizes user convenience and energy conservation.

b) Natural hazards such as flooding, landslides, erosion, sinking, are adequately incorporated into the project design.

3) Services

a) Project has access to public water.
b) Project is served by sanitary sewer.

c) Project provides for fire protection.

d) Project provides for storm drainage.

e) Project provides recreational improvements in accordance with the recreation policies of the plan.

f) Project provides improvements of Greenways in accordance with the Greenway policies of the Plan.

g) Local Schools can serve additional students.

h) Project provides provision for mass transit access by residents.

4) Community Benefits

Project makes consideration of providing affordable housing.

5) Applications to partition or subdivide property shall not be prohibited where existing lot size are two or more times that of the minimum lot size specified in the Comprehensive Land Use Code, provided that application complies with the applicable development standards.

6) One accessory dwelling unit is allowed either within or as an addition, with at least one common wall, to a detached single dwelling residential dwelling in zones where the latter are a permitted use. The size and maximum occupancy of the accessory dwelling unit shall reflect the average density of single-family residential districts so as not to allow overcrowding or the perception of the same. Accessory dwellings shall be subject to design review for size, proposed occupancy, and such features as lighting, color, roof slope, parking and entrances, but the City shall not prohibit rental occupancy, separate access or full kitchens in accessory dwellings.

E. The following approval criteria shall be applied to plan amendments involving the conversion of residential land to the Office Park or Industrial Park Districts

1) Compatibility with Residential Uses

Demonstrate how the proposal will be compatible with adjoining existing and future housing and not diminish the residential character of the neighborhood.

2) Effect on Property Values

Explain how the proposal may affect adjacent residential property values.

3) Railroad Separation

Demonstrate that the proposal will buffer any railroad impacts similar to or better than a development allowed under the existing residential zone.

4) Neighborhood Location

Demonstrate why the particular location of the subject property within the residential neighborhood is best suited for the requested change.

5) Housing Inventory

Demonstrate that the proposal will not have an adverse impact on the City's housing inventory and the City's ability to satisfy regional housing objectives.

6) Environmental Impacts

Demonstrate that the environmental impacts of the proposal, in comparison with the impacts which would result under the existing zone, would be similar to or less than a development allowed under the existing residential zone, with emphasis on the following considerations:

a) Effects on the 100 year flood plain;
b) Potential nuisance for noise, smoke, odors, vibration, heat and glare, stored and liquid waste materials;
c) Amount of tree removal.

7) Traffic Assessment

Demonstrate that any difference in traffic impacts created by the proposal in terms of trip generation for passenger vehicles and trucks will not cause adverse impacts on surrounding adjacent properties.

8) Public Facilities and Services

Demonstrate that the proposal will not have an adverse effect on the adequacy of public facilities and services, including:

a) Water supply and distribution;
b) Sanitary sewer distribution and treatment;
c) Storm drainage;
d) Street system;
e) Police protection;
f) Fire protection.

9) Development Standards

Demonstrate that the proposal can satisfy the prescribed development standards of the requested Office Park or Industrial Park District if the Plan Amendment and Zone Change applications were to be approved.

10) Conversion Benefits

Explain what overall benefits would be gained by the City in approving the proposal.

2. ECONOMIC DEVELOPMENT

A. Durham will provide locations suitable for office parks and industrial parks. It is intended that these activities will be compatible with surrounding uses, will provide buffers between potentially conflicting activities, and will broaden the City's economic base.

Office parks shall be designed to provide a park-like setting and shall not exceed the following intensity standards:

1) Leasable floor area ratio of .35 per gross acre.
2) Forty (40) employees per gross acre.
3) Two-hundred (200) vehicle trips per day per gross acre.

Industrial parks shall be designed to provide a park-like setting for light industries and businesses, and shall not exceed the following intensity standards:

1) Floor area ratio of .35 per gross acre.
2) Forty (40) employees per gross acre.
3) One-Hundred (100) vehicle trips per day per gross acre.

B. Office and industrial park developments shall be reviewed and approved in accordance with the following criteria:

1) Access

a) Project takes into consideration traffic safety.

b) Project will have direct access onto an arterial or collector.

2) Site Characteristics

a) Site is of sufficient size and shape to reasonably accommodate the present and future use in a manner which emphasizes user convenience and energy conservation.

b) Natural hazards are incorporated into the design plan.

3) Services

a) Project has access to public water.

b) Project is served by sanitary sewers.

c) Project provides for fire protection.

d) Project provides for storm drainage.

e) Project provides for access to mass transit by employees and customers.

f) Project provides crime deterrence.

4) Community Impact

a) Project will be consistent with orderly and timely development.

b) Associated light and noise will not harm surrounding properties.

c) Privacy of nearby residential uses will be respected.

d) Project meets appropriate standards for pollution control as administered by the DEQ.

e) Project is aesthetically landscaped and designed.

f) Project will be compatible or enhance nearby industrial, office and commercial activities.

5) Benefits

a) Project will provide the opportunity for people to live close to where they work.

b) Project may provide multiple uses which support industrial and office activities and provide user convenience.

c) Project will enhance economic linkages.

C. Business Parks shall be allowed at the following locations:

1) Northeast Durham Office Park;
2) East Durham Office Park;
3) Southeast Durham Industrial Park;
4) South Durham Industrial Park.

3. PROVIDE FOR A PHYSICALLY ATTRACTIVE CITY.

A. The City shall:

1) Encourage originality, flexibility and innovation in site planning and development, including the architecture, landscaping and graphic design of said development.

2) Discourage monotonous, drab, unsightly, dreary and inharmonious development.

3) Promote the City's natural beauty and visual character and charm by insuring that structures, signs and other improvements are properly related to their sites, and to surrounding sites and structures, with due regard to the aesthetic qualities of the natural terrain and landscaping.

4) Establish sign regulations for commercial zones that insure that proper attention is given to the appearance of signs based on standards related to the following factors:

   a) A comprehensive sign program shall be developed which controls on-premise signs for each development application and subsequent changes to the original proposal.

   b) Signage shall include a coordinated graphics system that communicates information in a distinctive and aesthetically pleasing manner.

   c) Sign size shall be limited to small-scale dimensions, which shall be further defined by potential use with the comprehensive sign program proposal.

   d) Sign height shall convey a low profile appearance, with building signs not to exceed the level of the roof line.

   e) Signing shall not be internally illuminated.

5) Establish regulations that limit the location, size, design and function of placement of signs in all zones.

6) Forbid all signs in public rights-of-way except traffic or other governmental street signs, signs required by law, temporary emergency signs, and public utility signs that serve as an aid to public safety.

7) Protect and enhance the City's appeal to tourists and visitors and thus support and stimulate business and industry and promote the desirability of investment and occupancy in office and industrial properties.

8) Foster civic pride and community spirit so as to improve the quality and quantity of citizen participation in local government and in community growth, change and improvements.

9) Sustain the comfort, health, tranquility and contentment of residents and attract new residents by reason of the City's favorable environment; and thus promote and protect the peace, health and welfare of the city.

B. The implementation of a design review process in the Code shall not be used to discourage the development of needed low and moderate income housing. The code shall establish the limitations of design review to protect against any unreasonable requirements affecting development proposals.

SUPPORT SYSTEMS FINDINGS

1. TRANSPORTATION

A) Traffic

Specific traffic circulation concerns and problems in Durham are identified as follows:

1) The end of Findlay Road does not provide adequate turn-around space.

2) Heavy truck traffic on Upper Boones Ferry Road poses some safety and noise problems.

3) Existing residential driveways which access directly onto Upper Boones Ferry Road pose a safety hazard to on-coming traffic as well as residents using these driveways.

4) The intersections of Peters and Findlay Roads with Upper Boones Ferry Road provide an insufficient turning radius for vehicles turning off Upper Boones Ferry Road.

5) Travel speeds on Upper Boones Ferry Road appear to exceed safe driving habits.

6) Pedestrian crosswalks are striped and signalized at the intersections of Durham Road, Bridgeport Road and Lower Boones Ferry Road with Upper Boones Ferry Road. A bike lane is signed and striped for the full length of Upper Boones Ferry Road through Durham. Nevertheless, provision for inter-neighborhood pedestrian and bicycle travel is very limited.

7) The City is coordinating development of Lower Boones Ferry Road as a major arterial providing a cross-town connection between Nyberg Road and 72nd Avenue. Unless adequate bypass measures are taken, arterial-level traffic may find itself spilling over into the residential areas of Durham.

8) Durham is located next to substantial traffic generators. The City of Tualatin, which adjoins to the south and east, and the City of Tigard, which adjoins to the north and east, have adopted land use plans which will require substantial street improvements to accommodate the anticipated traffic.

In order to alleviate traffic pressure on Upper Boones Ferry Road, a unified transportation network should be developed for the area. Otherwise, the residential neighborhoods of Durham can expect ever- increasing traffic volumes due to commercial, industrial and commuter vehicles. In addition, any improvements to Upper Boones Ferry Road will require approval by the Oregon Department of Transportation (ODOT), which controls this road facility.

B. Public Transportation

Durham residents have public bus access to downtown Portland, Tigard and Tualatin via Tri-Met Routes 37 and 38. Service is provided at 30-45 minute intervals between approximately 6:00 a.m. and 7:30 p.m. on weekdays, and no bus service on weekends.Park-and-ride lots have been established at the K-Mart/Safeway Shopping Center and at the southeast corner of Lower Boones Ferry Road and Bridgeport Road in Tualatin.

Route 37 terminates at the Lake Oswego transit center and would require a transfer into downtown Portland. Route 38 provides direct service into downtown Portland. Tri-Met is continuously developing plans for improved service throughout the region. These improvements may include express bus service, park-and ride stations, alternative modes such as light rail.

C. Neighborhood Circulation Plan

The City has adopted a Neighborhood Circulation Plan July 1987), which identifies the development of future local streets. The plan also provides additional policies and implementation measures which are incorporated into the Durham Comprehensive Plan by reference.

D. Transportation Planning Rule

The Oregon Land Conservation and Development Commission (LCDC) adopted the Transportation Planning Rule (TPR) in 1991. The TPR's principal purpose is to develop a multi-modal transportation system which reduces reliance on the single-occupant automobile. Achieving this purpose will help implement State Land Use Planning Goal 12,Transportation, which requires local plans to consider all modes of transportation.

The TPR requires a ten percent reduction in vehicle miles traveled (VMT) per capita in the Portland metropolitan area in the next 20 years and a 20 percent reduction in the next 30 years. In order to accomplish these objectives, Durham will be updating its land use and subdivision ordinances to incorporate the following requirements:

1. Bicycle parking in multi-family residential, commercial, industrial, and institutional developments;
2. Safe and convenient pedestrian and bicycle access in all types of new development;
3. Commercial and institutional developments located on major transit corridors to provide preferential access to transit riders;
4. Industrial and commercial developments to provide preferential parking to carpools and vanpools.

It is also noted that the TPR requires Metro to adopt a Regional Transportation System Plan (TSP) consistent with TPR provisions by May 1995. One year later, local governments will then need to adopt local TSP's that implement the Regional TSP.

E. Regional Parking Policy

The Regional Parking Policy under Title 2 is intended comply with the Oregon Transportation Planning Rule and federal mandates for air quality accomplishing the following objectives:

- Reduction in vehicle miles travelled per capita;
- Restrictions on new parking space construction as a means of responding to transportation and land use impacts of growth;
- Protection of air quality within the Portland region.

While it is recognized that these objectives are applicable to Durham, the City presents certain characteristics relative to off-street parking that should be considered, such as:

- Narrow street widths which provide a limited amount of parking on public streets; i.e., local streets provide parking on one side only; the

major thoroughfares through town such as SW Upper Boones Ferry Road, SW Bridgeport Road and SW Lower Boones Ferry Road are posted for no parking on both sides of the street.

- Small-scale office developments under 10,000 sq. ft. total floor area per project; generally speaking, parking ratio's for small office projects should be higher than larger scale developments, i.e., ·100,000 sq. ft. or greater to meet actual parking needs.

- Limited land development potential, i.e., approximately 50 ac. of buildable Single Family Residential and less than 11 acres of Office Park land (includes redevelopment of 6.78 ac. presently in non-office uses) provide nearly all the remaining development potential in Durham.

- 20-minute peak hour transit service is not available within a one-quarter mile walking distance for bus transit within Durham, and the bus route serving the City requires transfers for travel into downtown Portland. These factors do not encourage bus transportation and undoubtedly account for low bus ridership in Durham.

In view of the above discussion, the City would attempt to implement Title 2 objectives insofar as local parking needs could be met in a fair and reasonable manner. An approach accomplishing a realistic balance between local and regional parking needs is discussed as follows:

1) Residential Uses

a) Single Family (SF) Housing

The majority of the remaining buildable residential land in Durham is anticipated to be subdivided or partitioned into single-family lots. Typically, the house plan for these lots would include a two-car garage that would be consistent with the Title 2 parking ratio, which requires at least one space per house and no maximum parking requirement.

b.) Multi Family (MF) Housing

No vacant MF land is available in Durham, although there is the potential to redevelop a small MF site with up to 15 new dwelling units. The Title 2 parking ratios are based on the number of bedrooms per unit, i.e., 1.25 spaces for one bedroom, 1.5 spaces per two bedrooms, and 1.75 spaces per three bedrooms; and provide standards that could reasonably suit Durham's MR redevelopment potential.

2) General Office

The General Office category under Title 2 includes Office Park, "Flex-Space," Government Office & Misc. Services·: The minimum parking requirement is 2.7 spaces per 1,000 Gross Square· Feet (GSF), and the maximum ratio for Zone B (Durham area) is 4:1 spaces per 1,000 GSF.

Under the City's current code, General Office uses exclude "Flex-Space" and Government Office uses. The City's minimum parking requirements for these uses-are shown as follows:

A. Flex-Space, i.e., Business Park:	3.20 spaces per 1,000 GFA;
B. Government Office:	3.75 spaces per 1,000 GFA;
C. General Office:	3.50 spaces per 1,000 GFA.

Regarding the Flex-Space standard, the City has previously reduced the parking ratio from 3.5 to 3.2 spaces per 1,000 square feet of Gross Floor Area (GFA) during the last LCDC Periodic Review. The City· has since approved two business park proposals providing Flex-Space and finds this standard to be appropriate for this type of development in Durham. Therefore, this standard should be retained as the minimum parking requirement.

Regarding the City's General Office ratio, with one exception (Tiburon Office Park), the parking needs for the existing office developments in town appear to be adequately served by the 3.5 parking ratio. Visual observations by the City Administrator and City Planner support this finding, which would indicate that the existing 3.5 ratio should be retained as the minimum parking ratio.

The Tiburon Office Park may have a parking problem, which may be caused by an insufficient number of on-site spaces. However, the reason for the parking problem may be attributed to the development exceeding the City's

employee density standard rather than the 3.5 parking ratio. Further investigation will be required to resolve the problem.

Regarding Government Office use, this particular use tends to generate a higher visitor rate than the General Office category. Therefore, it would seem prudent to retain the City's current parking ratio of 3.75 as the minimum requirement.

3.) Medical/Dental Clinic

The Title 2 minimum parking requirement is 3.9 spaces per 1,000 GFA, and the maximum ratio for Zone B (Durham area) is 5.9 spaces per 1,000 GFA. The City's current parking ratio for medical/dental offices is 5.5 spaces per 1,000 GFA, which falls within the Title 2 range. However, medical/dental offices can attract a very high clientele volume requiring a high parking demand. In order to void a future parking problem, the City's 5.5 ratio could serve as the minimum parking requirement.

4) Manufacturing, Light Industrial, Industrial Park

The Title 2 minimum parking requirement of 1.6 spaces per 1,000 GFA is identical to the City's current parking ratio for manufacturing uses. Title 2 does not specify a maximum parking ratio, which is not a problem from the City's standpoint. Therefore, the Title 2 requirements for this category can be adopted as proposed by Metro.

5) Warehouse (Title2 parking ratios apply to warehouse 150,000 GSF or greater)

Durham does not have an existing warehouse development of the size specified under Title 2 and probably would not experience such a large warehouse operation even if existing industrial land were to be redeveloped in the future. If a warehouse use were to be developed in Durham, the size of the facility would most likely be considerably less than 150,000 GSF. Therefore, it would seem appropriate for the City to retain its standard of 1.1 spaces per 1,000 GFA for a warehouse smaller than 150,000 GSF, arid adopt the Title 2·standarcl in the event that a 150,000 GSF warehouse facility were to be developed.

6) Wholesale Establishment

Metro does not specify a parking ratio for this industrial use, so the City may determine the parking requirement. The City's current parking ratio for a wholesale establishment is 3:0 spaces per 1,000 GFA, which may serve as the minimum parking requirement for this use.

As discussed in the prior paragraphs, the City has reasons to request the exceptions cited above from the Title 2 parking requirements. However, the exceptions apply only to selected minimum parking requirements, and no exceptions are requested for the maximum parking ratios.

In addition, the City acknowledges the· 6-15-99 correspondence from ·the Commercial Real Estate Economic Coalition (CREEC), which verifies use of gross square feet (GSF) for calculating the maximum parking ratio for general office uses. The City presently uses gross floor area (GFA) which is the same measurement as GSF, and for purposes of uniformity wilt continue using this measurement.

F. Regional Accessibility

The intent of the regional accessibility requirements (Title 6) is to ensure that the local transportation system is compatible in design with the Regional Transportation Plan (RTP). The City's small amount of vacant land limits the amount of new street construction for Durham. The Northwest Neighborhood will probably be the only location for new street construction, and this will be guided by the adopted Neighborhood Circulation Plan, which provides street design consistent with regional guidelines. In addition the CLUP's adopted support system policies regarding transportation (see policy statements 1.A - 1.H., pages 39-42, CLUP) presently· comply with Title 6 requirements.

2. PUBLIC FACILITIES AND SERVICES

A. Water

Public water service is provided by the City through a written agreement with the City of Tigard (former service with defunct Tigard Water District). Tigard maintains the existing

water system and is responsible for constructing new water line improvements through their capital improvements program. Tigard has indicated that their water supply is of sufficient capacity to meet Durham's present and future water needs.

B. Sanitary Sewer

The City provides sewer service through a written agreement with the United Sewerage Agency (USA). All new development is connected to the public sewer system. Future sewer hook-ups will be reviewed by the City and USA. Existing and proposed sewer lines are shown in the Sewerage Collection System Master Plan Update prepared by Lee Engineering, Inc. in July 1987. This Master Plan Update is part of the Durham Comprehensive Plan.

C. Storm Drainage

The City controls storm drainage through an intergovernmental agreement with Clean Water Services (CWS) of Washington County. CWS administers the Design and Construction Standards for Surface Water Management, which are applicable to all properties with the City of Durham. The Design and Construction Standards comply with Title 3, Metro's Water Quality, Flood Management and Fish and Wildlife Conservation requirements associated with the 2040 Urban Growth Management Functional Plan. The Design and Construction Standards also supersede the 1982 Storm Sewer Master Plan, which should be re-evaluated in view of CWS requirements.

C. Energy /Communications

Durham is served by Portland General Electric Company, Northwest Natural Gas, General Telephone, and Columbia Cable of Oregon.

D. Education

Existing and planned school buildings within the Tigard School District 23J serves Durham school-aged children.

E. Police Services

Durham currently contracts with the Tualatin Police Department for police protection services.

F. Fire Protection

Durham is served by Tualatin Valley Fire and Rescue, with stations located within five minutes from any part of town.

G. Solid Waste

The City's solid waste is collected from individual households by a private sanitation company and delivered to the Oregon City Transfer Station. The same company also provides monthly curbside pickup of recyclable material according to the provisions of Metro.

H. Parks and Recreation

The existing inventory of public park land in Durham is shown as follows:

	Acres
City Park	20.85
Afton Commons I/II:	3.10
Afton Commons III:	2.73
Schirado Donation: (T.L. 2200)	17.98
Heron Grove-Greenway +Adj.	
Rec. Area A:	1.07
Rec. Area B:	0.41
Tualatin View:	4.22
Total:	50.36

Nearly all of the park acreage indicated above is located in the Fanno Creek or Tualatin River Greenway. City Park has been developed with improvements, which include paved parking pathways, children's play equipment, picnic tables, and site lighting. Pedestrian pathways have also been paved in Heron Grove (Rec Area B) and in the Tualatin View Greenway. The majority of the existing park inventory remains as unimproved public open space and is shown on Figure 7 in the Appendix.

3. PUBLIC FACILITY PLAN

OAR 660, Division 11 - "Public Facilities Planning" requires that a city prepare a public facility plan which describes the water, sewer and transportation facilities necessary to support the land uses designated in an acknowledged comprehensive plan. The City of Durham has prepared water and sewer studies which serve as the support documents for the Public Facility Plan, which is attached in the Appendix

SUPPORT SYSTEMS

GOALS AND POLICIES

GOALS

1. Provide a safe, convenient, and economic transportation system.
2. Provide for the public facilities and service needs of Durham residents.
3. Provide recreational opportunities.

POLICIES

1. POLICIES TO PROVIDE A SAFE, CONVENIENT, AND ECONOMIC TRANSPORTATION SYSTEM.

A. Road Classification

The City shall utilize the following general classification of roads:

1) Major Arterial Streets

Major arterial streets shall be designed to accommodate up to 20,000 vehicle trips per day for speeds between 35 and 45 miles per hour. Access to abutting properties will be limited for traffic control and safety reasons. Durham streets within this category include:

a) SW Boones Ferry Road;
b) SW Lower Boones Ferry Road.

2) Minor Arterial Streets

Minor arterial streets shall be designed to accommodate up to 15,000 vehicle trips per day for speeds between 25 and 35 miles per hour. Access to abutting properties will be limited to traffic control and safety reasons. Durham streets within this category include:

a) SW Upper Boones Ferry Road.

3) Major Collector Streets

Major Collector Streets shall be designed to accommodate up to 12,000 vehicle trips per day for speeds between 25 and 35 miles per hour. These streets will carry traffic to arterial streets and provide limited access to abutting properties. Durham streets within this category include:

a) SW Bridgeport Road.

4) Neighborhood Collector Streets

Neighborhood Collector Streets shall be designed to accommodate low volume neighborhood traffic for speeds between 20 and 30 miles per hour. These streets will serve abutting properties and convey traffic to arterial streets. Durham streets within this category include:

a) SW Findlay Road;
b) SW Ellman Lane;
c) SW Rivendell Drive;
d) SW Arkenstone Drive;
e) SW Cambridge Drive;
f) Future streets as designated by the Neighborhood Circulation Plan.

5) Neighborhood Streets

Neighborhood streets will be designed to accommodate low volume local traffic for speeds between 15 and 25 miles per hour. The primary function for these streets is to provide access to abutting properties. All streets not otherwise classified as Major or Minor Arterials and Major or Neighborhood Collectors will be identified in this category.

B. Traffic Patterns

The City shall pursue measures to provide for the following traffic patterns:

1) Elimination of through truck traffic on Upper Boones Ferry Road.

2) Development of 72nd Avenue and Lower Boones Ferry as a truck route and heavy volume traffic route, which bypasses the City's residential areas.

3) Internal traffic circulation on developed properties may be regulated by the City for the purpose of limiting access onto arterials and collectors. Following this, the City may require site plans of proposed developments to meet present and future concerns relating to safe and convenient access onto arterials and collectors.

4) Development of a "Findlay-East" loop circulation pattern in the northeastern part of the City in order to improve a potentially unsafe traffic pattern. In order to implement this loop circulation, however, several properties (Tax Lots 400-600 and 1000, 2S1 13AC) should be assembled into a common development. The City may require additional traffic analysis at the time of development for any of these properties to determine the appropriate means of access and Circulation.

5) Improvement of Ellman Lane to a 50 foot wide right-of-way state

C. Parking

The City shall implement measures to regulate parking in accordance with the following policies:

1) Parking shall not be allowed along arterials or collectors. Parking may be restricted along any local street.

2) Office Park and industrial park developments shall provide off-street parking for employees and customers.

3) Planned residential developments shall provide off-street parking for residents.

4) Industrial and commercial developments shall provide preferential parking to carpools and vanpools.

D. Traffic Safety

The City shall pursue measures to provide for the following safety features:

1) Promotion of new traffic patterns and/or City by-pass routes which will reduce traffic volumes on Upper Boones Ferry Road.

2) Developments may be required to contribute towards the expense, commensurate with their degree of traffic impacts, of providing for safe and controlled intersections.

3) Lower Boones Ferry Road shall be designed to provide for continuous uninterrupted flow between the City of Tualatin and 72nd Avenue, while the intersection of Upper Boones Ferry and Lower Boones Ferry Road shall be designed to discourage vehicles from using Upper Boones Ferry Road as a through street. This may require development of a controlled intersection that is designed to funnel traffic along arterial and limit access onto the collector.

4) New developments shall be required to demonstrate that traffic safety problems will not be created by the proposed development.

5) New developments shall construct street improvements per plan standards in order to alleviate the additional traffic burden generated by the proposed development.

E. Mass Transit

1) The City shall cooperate in metropolitan mass transit planning by encouraging local use of mass transit and educating residents about new transit proposals through the City newsletter and literature made available at City Hall.

2) The City shall support maintenance of a bus route that passes through Durham between Tualatin and Washington Square.

3) The City shall encourage development of bus stops at regular intervals along Upper Boones and Lower Boones Ferry Roads. Bus shelters and other special bus stop improvements may be required of a development.

4) Commercial and institutional developments located on major transit corridors shall provide preferential access to transit riders.

F. Needs of Disabled Persons

1) Bus stops and shelters shall be designed to accommodate the needs of the elderly and handicapped.

2) Sidewalks shall be made accessible for use by handicapped persons in future developments.

G. Pedways and Bikeways

1) Safe and convenient pedestrian and bicycle access shall be established in all developments.

2) Pedestrian paths shall be constructed in Durham City Park, the Fanno Creek and Tualatin River Greenways, plus provide for linkage to Neighboring parks such as Tualatin City Park and Cook Park in Tigard. Where appropriate, these pathways may also be designed to accommodate bicycle travel.

3) Bikeways will be developed along Upper Boones Ferry Road between Tigard and Tualatin, and include linkage between Durham City Park, Tualatin City Park and Cook Park in Tigard. Where appropriate, these bikeways may also be designed to accommodate pedestrian travel.

4) Bicycle parking will be provided in multi-family residential, commercial, industrial, and institutional developments

H. Coordination

1) The City shall coordinate its transportation planning activities with those of other local, regional, and state agencies. In particular, the City will work with ODOT regarding the implementation of traffic reduction measures on Upper Boones Ferry Road, i.e., signing, intersection realignment, etc.

2) The City shall endeavor to create a regional truck routing system that bypasses areas of residential and institutional uses.

3) The City recognizes the continuing need to make local decision regarding land use and transportation planning consistent with the "Oregon Transportation Plan."

2. POLICIES TO PROVIDE FOR PUBLIC FACILITIES AND SERVICE NEEDS

A. Water

1) The City shall maintain its agreement with the City of Tigard for the

provision of water until acceptable alternative provider sources become available and/or preferable.

2) Extension of public water to developments shall be the responsibility of the developer. The City may assist in extending public water through sponsorship of a local improvement district, or other method which has the effect of the user paying for such improvement.

3) All residential, office park and industrial park developments shall utilize the City's public water source.

B. Sanitary Sewer

1) The City shall coordinate and carry-on its agreement with the U.S.A. for the maintenance and improvement of sanitary sewer services.

2) Extension of sanitary sewer services shall be the responsibility of the developer.The City may assist in extending sanitary sewer service through sponsorship of a local improvement district, or other method which has the effect of the user paying for such improvement.

3) All residential, office park and industrial park developments shall utilize sanitary sewer services. However, construction of a new single family house on a pre-existing lot may not be required to connect to sanitary sewer, if the property can satisfy Washington County Health Department standards regarding on-site sanitary septic systems.

C. Storm Drainage

All development proposals shall demonstrate compliance with the Design and Construction Standards administered by Clean Water Services of Washington County. These standards will serve to implement the City's 1982 Storm Sewer Master Plan, which is amended de facto for compliance with Title 3, Metro's Water Quality, Flood Management and Fish and Wildlife Conservation requirements associated with the 2040 Urban Growth Management Functional Plan.

D. Schools

The City shall coordinate decisions relating to approvals of planned residential developments with the Tigard School District 23J. When the School District enacts a Facilities Plan, the City shall incorporate the District's Plan as part of the Public Facilities Element of this plan.

E. Solid Waste Disposal

The City shall require solid waste disposal as necessary, but encourage recycling of waste materials whenever possible, for approval of any planned residential development, or office or industrial park development.

F. Fire Protection

1) The City shall require fire protection provisions within developments.

2) The City shall coordinate decisions relating to approvals of planned residential developments, office parks, or industrial parks with Tualatin Valley Fire and Rescue.

G. Utilities

1) The City shall require energy and communications services within all developments.

2) All cable or plumbing utilities shall be underground.

3) The City shall coordinate the distribution network of utilities within the City.

H. Police Services

1) The City will provide police services and may contract with extra jurisdictional police service agencies or private police service providers.

2) The City shall require that crime prevention measures, i.e., security lighting, be incorporated into plans for planned residential develop-ments, office parks, or industrial parks.

I. Health Services

The City may allow the location of health-related services In office of industrial parks.

J. Administration of Public Facilities and Services

1) The City shall coordinate the provision of any public facility or service and may charge administrative fees for this purpose.

2) The City shall require that developments improve public facilities and services in accord with the Public Facilities Plan.

K. Senior Citizen Center

The City will continue to support the Tualatin-Durham senior citizens center which provides needed services to elderly persons in the area.

L. Parks and Recreation

1) Park classifications and standards shall be established and implemented to insure a supply of usable open space and recreational facilities directly related to the specific needs of local residents.

2) New residential developments shall be responsible for providing their share of public parks, including recreational improvements, consistent with the park and open space system standards specified in sub-paragraph 6 below, and access to park facilities.

3) Acceptance by the City of any land dedicated for active recreational purposes shall be based upon its usefulness and adaptability to the City's park and open space system. However, Greenway dedications will not always be suited for active recreational activities and will also be accepted for passive recreational purposes.

4) Safe and convenient pedestrian and bicycle routes shall be provided throughout the community. All street construction or improvements shall be coordinated within the pedway/bikeway path plan. When appropriate, developments shall provide easements and/or construct improvements to accommodate pedestrian or bicycle access.

5) The City should budget a portion of Public Works or General Account funds for path construction and maintenance each budget year. The City should also seek additional funding for these purposes through grants, special levies, and other sources.

6) Park and Open Space System

a) Mini-Parks:

Purpose - To supply a small scale park and recreation space for serving the recreational needs of new residential developments.

Size:	Minimum 2,500 square feet.
Service Area:	Proposed Development
Location:	Within projects having a minimum of 15 and less than 30 housing units.
Facilities & Activities:	Children's play equipment, hard surface for wheeled toys, sand area, benches and tables, trash receptacles, and/or similar types of activities
Public Access:	Determined through development review process.
Ownership & Maintenance:	Public or private

B) Neighborhood Parks:

Purpose - To provide the neighborhood area with a center for passive and active recreation.

Size:	Minimum 1/2 acre.
Service Area:	Neighborhood areas.

Location: Within projects having 30 or more housing units.

Facilities & Activities: Active play areas, children equipment, picnic areas, drinking fountains, trash receptacles, and/or similar types of activities.

Public Access: Yes

Ownership & Maintenance: Public

c) Community Parks:

Purpose - To provide facilities which serve the community at large.

Size: Multiple acres

Service Area: Community wide

Location: Fanno Creek & Tualatin River Greenway

Facilities & Activities: Ball Fields, Tennis courts, multi-use paved areas (for basketball, volleyball, etc.) picnic areas with cooking facilities, open play, trails, restrooms, irrigation, trash receptacles, fencing, lighting, parking

Ownership & Maintenance: Public

d) Pedways/Bikeways:

Purpose - To interconnect other elements of the park system, schools, and other public places. To provide for conservation of scenic and natural areas, especially water courses and areas subject to flooding. To provide buffer areas along thoroughfares or between conflicting land uses.

Size: N/A

Service Area:	Community wide.
Location:	Bordering waterways and areas subject to flooding along transportation and utility corridors.
Facilities & Activities:	Scenic ways shall provide trails or activities: walkways and trash receptacles. The land shall be retained primarily in its natural condition along waterways and other areas of natural value. In areas already developed, additional landscaping and rest areas should be provided.
Public Access:	Yes
Ownership & Maintenance:	Public

NATURAL RESOURCES APPENDIX

Table 1 Soils and Slopes in Durham

Soil Name		Class	Slopes	Residential Foundation Rating*	Commercial Rating
Chehalis	7A	II	0-3%	Severe	Severe Unsilted
Hillsboro	18B	II	3-7%	Moderate	Moderate Unsilted
Hillsboro	18C	III	7-12%	Moderate	Severe Unsilted
Hillsboro	18D	II	12-20%	Moderate	Severe Unsilted
McBee	22A	II	0-3%	Severe	Severe Unsilted
Bridewell	24B	III	0-7%	Slight	Slight Unsilted
Bridewell	25D	II	0-3%	Slight	Slight Unsilted
Wapato	46A	III	0-2%	Severe	Slight Unsilted
Terrace - Escarpment	58E	VI	20-60%	Severe	Slight

Source: U.S.D.A. Soil Conservation Service

* with or without basements

Table 2 - General List of Fish Species Found in Durham

Fish Species - Common Name	Biological Name	Tualatin River	Fanno Creek
Game Fish			
Black Crappie	Pomoxis nigromaculatus	R	
Bluefill	Lepomis macrrochirus	R	
Brown Bullhead	Ictalurus nebulosus	R	
Channel Catfish	Ictalurus punctatus	R	
Coho Salmon	Oncorhynchus kisutch	M	
Crayfish	Pacificastacus sp.	R	R
Cutthroat Trout	Salmo Clarki	M	
Fall Chinook Salmon	Oncrohynchus tshawytscha	S	
Largemouth Bass	Micropterous Salmonides	R	
Pumpkinseed	Lepomis gibbosus	R	
Warmouth Bass	Lepomis gulosus	R	
White Crappie	Pomoxix annularis	R	
Winter Steelhead Trout	Salmo gairdneri	M	
Yellow Perch	Perca flacescens	R	
Non-Game Fish			
Carp	Cyprinus carpio	R	
Largescale Sucker	Catostomus macroheilus	R	
Northern Squawfish	Ptychocheilus oregonensis	R	
Pacific Lamprey	Lampetra Tridentata	S	
Redside Shiner	Richardsonius balteatus	R	
Sculpins	Cottus sp.	R	

R - Resident
M - Migratory
S - Suspected

Source: Oregon Department of Fish and Wildlife

Table 3 - General List of Wildlife Found In Durham

Species	Habitat Requirements	Remarks
Reptiles		
Alligator lizard	brush	
Rubber snakes	brush	
Garter snakes	brush, fields	
Western painted turtle	riparian	
Amphibians		
Bullfrog	riparian	
Pacific tree frog	riparian	
Red-legged frog	riparian	
Rough-skinned newt	riparian	
Salamanders	riparian	
Tailed frog	riparian	
Western toad	riparian	
Birds		
Orange-crowned Warbler	brush	
Steller's jay	brush	
American Vestrel Hawk	open country & farms	most common Cooper's Area
Yellow-rumped Warbler	brush, riparian	
Evening Grosbeak	trees with seeds	usually seen in flocks
Fox Sparrow	brush, patches	
Western Meadowlark	open grasslands	incompatible w/res.devel.
Purple Finch	mixed conifers & herbweeds	
Traill's Flycatcher	brush, riparian	
MacGuilliuroy's Warbler	low growing brush	
White-crowned Sparrow	open woodlands	
Barn Swallow	varied	catch flying insects

American Robin	varied	likes lawns & parks
Downy Woodpecker	deciduous trees	
Rough-winged Swallow	varied	catch flying insects
Black-headed Grosbeak	riparian, brush	
Cowbirds	farm lands	
Warbling Vireo	brush	

(Table 3 continued)

American Goldfinch	trees, brush	weedsthistle & Rufous-sided
Gull	agricultural lands	adapts well to land fill sites
Towhee	thick brush	
Chipping Sparrow	open woodlands	
House Sparrow	urban	crowd out native birds
Horned Lark	grasslands	
Swainsons Thrush	mixed conifers & deciduous brush	
Yellow-bellied Sapsucker	deciduous trees	
Tree Swallow	varied	catch flying insects
Screech Owl	brushy areas	
House Wren	brushy areas	cavity nester
Cliff Swallow	varied	catch flying insects
Starling	farm lands, riparian	
Rufous Hummingbird	need flowering plants	feeds on plant nectar
Common Crow	farmland	
Common Bushtit	brush	
Violet-green Swallow	varied	catch flying insects
Red-breasted Nuthatch	conifers	
White-breasted Nuthatch	deciduous trees	
Winter Wren	brushy areas	
Song Sparrow	brush patches	
Mourning dove	farm land	

Band-tailed pigeon forested areas use mineral springs
Thrush brush & forest
Great Horned Owl brushy areas
Ruby-crowned Kinglet brush
Golden-crowned Kinglet conifers
Cedar Waxwing brush, farm land
Common Nighthawk forest & open areas
Yellow Warbler riparian
Common Yellow-throatbrush wet grass
Belted Kingfisher riparian feeds on small fish
Common Flicker forested areas, riparian
American Pigeon ponds, marshes, feeds on park riparian lawns
Bewick's Wren brushy areas

Blue-winged Teal ponds, marshes, riparian
Buffle Headdeeper ponds, lakes dives for food
California Quail farm lands with adjacent brush
Canada Goose ponds, grassy fields
Canvasback deeper ponds dives for food & lakes
Golden-crowned Sparrow open woodlands
Black-capped Chickadee deciduous trees
Cinnamon Teal ponds, marshes, may nest in riparian area Common Snipwet meadows
Common Merganzer lakes & rivers
Great Blue Heron ponds, marshes, nests in rivers colonies
Harsh Hawks open agricultural land
House Finch shrubs, cropland adapts well to urban areas
Killdeer grassy areas bear water
Lesser Scaup deeper ponds, dives for food

	& lakes	
Mallard	ponds, marshes	nests in area
	riparian	
Northern Shoveler	ponds, marshes	
	riparian	
Pintail	ponds, marshes	
	riparian	
Red-tailed Hawk	open country, farms	
Red-winged blackbirds	farm lands	
Ring-necked Pheasant	farm lands with	
	adjacent brush	
Ring-necked duck	deeper ponds	dives for food
	and lakes	
Rough-legged Hawk	open country,	rare winter
	farms	visitor
Ruddy duck	deeper ponds	dives for food
	and lakes	
Turkey vulture	open farm land	
	& forested areas	
Wood ducks	riparian	nests in tree
		cavities

Mammals

Beaver	riparian		
Black-tailed Deer	woodlots, riparian		
Brush Rabbit	brushy areas, riparian		
Californis	ground		
Chickoree	woodlots		
Coyote	woodlots, riparian		
Deer mouse	woodlots, brush		
Gray Fox	fields, brush		
House Mouse	urban, brush		
Little Brown Bat	riparian, woodlots		
Mink	riparian		
Muskrat	riparian		
Nutria species	riparian	introduced	
Opossum species	riparian, urban	introduced	Pocket
Gopher	fields		
Raccoon	riparian		

Red Fox	fields, brush	Shrews	
woodlots, brush			
Squirrel	brush, cropland		Striped skunk
brush riparian			
Weasel	riparian		

Source: Oregon Department of Fish and Wildlife

PUBLIC FACILITY PLAN

1. WATER

   A. A discussion regarding the inventory and general assessment on the condition of water facility systems is provided on pages 1-3 of the February 1985 Water Study performed by Lee Engineering, Inc.

   B. A discussion and list of significant water facility projects is shown on pages 15-18 of the 1985 water study.

   C. A list of cost estimates for each public facility project is provided on pages 16 and 17 of the 1985 water study.

   D. A written description of each project's location is also shown on pages 15 and 18 of the 1985 water study.

   E. The City has contracted with the City of Tigard as the sole water purveyor to meet the community's present and future water needs. Present City policies require all new development to be served by a public water source.

   F. The timing for each facility project proposed by the City of Tigard is discussed on page 18 of the of the 1985 water study. Also, the previous Tigard Water District has constructed a 12-inch water line in Upper Boones Ferry Road. Installation of these lines will result in a looped water system, which in turn will provide greater fire flows and better system reliability.

   G. Funding mechanisms are discussed on pages 18-26 of the 1985 water study.

2. SANITARY SEWER

   A. An inventory and discussion of sanitary sewers in Durham is provided by the 1979 Sewerage Collection Master Plan prepared by the Unified Sewerage agency (USA) and the July 1987 Master Plan Update prepared by Lee Engineering, Inc.

   B. A list of significant sanitary sewer projects is provided as follows:

1) Northwest Neighboring Laterals;
2) Afton Commons Extensions;
3) NW of Kingsgate Lateral;
4) Central Office Park Laterals;
5) Southwest Neighborhood Laterals;
6) Lower Boones Ferry Road Lateral;

C. Cost estimates for the above projects have been performed in Table 1 of the Master Plan Update.

D. A map showing the proposed projects is shown as Figure 2 in the Master Plan Update.

E. The City has contracted with USA to provide present and future sanitary sewer service needs. The City's current policies require new development to utilize public sanitary sewers.

F. The Upper Boones Ferry Road projects are needed to serve future Office Park (OP) and Industrial Park (IP) properties which front on that road. The timing on constructing these projects will depend on property owner support to form local improvement districts (LID's).

Other projects such as Ellman Lane and Peters Road laterals in the Southwest Neighborhood are probably more long term. This neighborhood is already established, and properties therein are served by individual septic systems. Again, the timing for construction of these projects will depend on LID formation(s).

G. As discussed above, the primary funding mechanisms for the sanitary sewer projects is the LID method. Other funding alternatives do not appear encouraging. For example, the City probably does not qualify for grant funds from either the Federal Community Development Block Grant Program or the Federal Farmers Home Administration Public Works Program. Economic Development funding from the State Lottery is available, but the City must first assemble a competitive economic development project. USA has indicated that no funding is available from their agency to assist with any of Durham's sewer projects.

3. <u>STORM SEWER</u>

A. The existing storm drainage system is discussed on page 2 of the Durham Storm Sewer Study prepared by Lee Engineering, Inc. in December 1982.

B. Storm sewer design is discussed on pages 4-6, and a list of significant storm sewer projects is shown in Table 2 of the Durham Storm Sewer Study.

C. Cost estimates for each storm sewer projects are shown in Table 2 of the Durham Storm Sewer Study.

D. A map showing the location of the storm sewer projects is provided in Figure 3 of the Durham Storm Sewer Study.

E. The City will control storm drainage as was recommended in the Durham Storm Sewer Study and adopted by the City. The pertinent recommendations in this regard were:

> "Storm drainage management review should be stressed during the review process of any new developments in Durham."
>
> "Drywells should not be permitted."

In addition, the City will manage storm drainage in accord with requirements of the Unified Sewerage Agency regarding erosion control and water quality treatment.

F. The storm drain facilities projects will be needed as development occurs. The City's policy is that each development provide adequate drainage, so that storm drain facilities are provided as properties are developed. Since the City does not control when individual properties are actually developed, it is very difficult to ascertain the timing for constructing a given storm sewer project.

G. The financial considerations and implementation of said storm sewer projects is discussed in Chapter IV of the Durham Storm Sewer Study.

4. <u>TRANSPORTATION</u>

A. The major street system is composed of SW Upper Boones Ferry Road and short segments of SW Bridgeport Road (east of Upper Boones Ferry Road), SW Lower Boones Ferry Road (east of Upper Boones Ferry Road), and SW

Boones Ferry Road (between Lower Boones Ferry Road and the Tualatin River). These streets are classified as follows:

SW Upper Boones Ferry Road - Minor Arterial
SW Bridgeport Road - Major collector
SW Lower Boones Ferry Road - Major Arterial
SW Boones Ferry Road - Major Arterial

Some sections of Upper Boones Ferry have been widened and constructed with curb and sidewalks. The physical condition of Upper Boones Ferry is generally good, although future widening will be needed to accommodate increasing traffic volumes. The sections of Bridgeport Road, Lower Boones Ferry Road, and Boones Ferry Road have been improved with the development of abutting properties.

The transportation system does not presently include any bridges, mass transit facilities, or airport facilities. The Comprehensive Plan does designate bikeways along Upper Boones Ferry Road.

B. A list of significant transportation projects needed to support designated land uses is provided as follows:

1) Widening of Upper Boones Ferry Road to Plan standard;

2) Widening of Lower Boones Ferry Road to Plan standard.

C. The cost estimates for the street projects have yet to be calculated.

D. The location of the street projects is described in "A." above.

E. The Oregon Department of Transportation (ODOT) controls Upper Boones Ferry Road. Any road widening or bikeway or bikeway projects must receive ODOT approval. Bridgeport and Lower Boones Ferry Roads are still within the jurisdiction of Washington County, although the majority of these two roads are located within the City of Tualatin. The City of Durham has and will continue to coordinate its transportation planning regarding these roads with the City of Tualatin and Washington County.

F. The road projects will be needed when the existing facilities reach their traffic capacities (Reference discussion under Transportation Plan Update on page 11, Durham LCDC Draft Review Order, November 1985, for traffic

count information). The rate of growth for Durham has been rapid in recent years, and the surrounding area in Tigard and Tualatin have also experienced fast growth. Thus, traffic generated from neighboring cities are likely to cause a need for said road improvements within the near and long term.

G. Funding for the widening of Upper Boones Ferry is mainly dependent on ODOT, which has not assigned a high priority to the project in its Six Year Plan. Half street improvements can be required of developers as development occurs along the Upper Boones Ferry frontage, and this piece-meal approach will also be applied to Lower Boones Ferry Road.

MAPS