

ORDINANCE NO. 99-2517

AN ORDINANCE ADOPTING THE SPRINGBROOK OAKS SPECIFIC PLAN AMENDING THE COMPREHENSIVE PLAN TEXT, THE NEWBERG DEVELOPMENT CODE, THE COMPREHENSIVE PLAN MAP FROM IND/COM/LDR/MDR TO IND/COM/LDR/MDR/HDR/MIX, AND AMENDING THE ZONING MAP FROM M-1/C-2/R-1/R-2 TO M-1/C-2/R-1/R-2/R-3/R-P FOR THE PROPERTY LOCATED SOUTH OF HIGHWAY 99W, EAST OF SPRINGBROOK ROAD, NORTH OF FERNWOOD ROAD, AND WEST OF THE UGB: YAMHILL COUNTY TAX LOT 3216-2001 AND 3216-2010.

RECITALS:

1. On August 3, 1998, Newberg City Council initiated the specific plan process for the subject property at the land owner's request. The City Council appointed 13 members to the Springbrook Oaks Specific Plan Steering Committee. By April 15, 1999, the steering committee, in conjunction with the land owner and city staff, had developed and accepted the draft Springbrook Oaks Specific Plan to be forwarded to the Newberg Planning Commission and Newberg City Council for their review and consideration of adoption.
2. On May 4, 1999, notice of this proposed comprehensive plan amendment/zone change was mailed to the owner of record as identified in Yamhill County Assessor's Office, and all adjoining property owners within a distance of 300 feet, prior to the Planning Commission meeting on May 13, 1999.
3. Notice was published in the Graphic Newspaper on April 28, 1999, which is at least ten days prior to the public hearing before the Planning Commission on May 13, 1999; and on April 21, 1999, notice of the Planning Commission was posted on the site and at four public places to comply with Oregon Revised Statute requirements for comprehensive plan amendments.
2. On May 13, June 10, and July 8, 1999, the Newberg Planning Commission held a public hearing on the draft Springbrook Oaks Specific Plan. On July 8, 1999, the Newberg Planning Commission deliberated the Specific Plan, in consideration of public testimony and staff recommendations. At this meeting, the Planning Commission voted to recommend that the City Council grant the comprehensive plan amendment/zone change request and adopt the draft Springbrook Oaks Specific Plan with amendments.
6. On July 23, 1999, notice of this proposed comprehensive plan amendment/zone change was mailed to the owner of record as identified in Yamhill County Assessor's Office, and all adjoining property owners within a distance of 300 feet, prior to the City Council meeting on August 2, 1999.
7. Notice was published in the Graphic Newspaper, July 21, 1999, which was at least 10 days prior to the City Council hearing on August 2, 1999; and on July 15, 1999, notice of the City Council hearing was posted at four public places.
8. After proper notice, on August 2, 1999, at the hour of 7:00 PM in the Newberg Public Safety Building, 401 E. Third, the City Council held a Public Hearing on the item: accurately stated objections to jurisdiction, bias, and ex-parte contact; considered public testimony; examined the record; heard the presentation from staff and the applicant; examined and discussed the appropriate criteria to judge the project (as listed in the staff report); considered all relevant information regarding the item; and deliberated.

NOW, THEREFORE, BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF NEWBERG AS FOLLOWS:

1. The City Council finds that the comprehensive plan amendment and zone change request are governed by Section 10.20.030 of the Newberg Development Code.
2. Requirements of the City of Newberg Comprehensive Plan and Newberg Development Code regarding comprehensive plan amendments and zone changes have been met; and
3. The City Council adopts the findings which are attached hereto as Exhibit A and incorporated herein by reference.
4. The territory shown in Exhibit B and described in Exhibit C, is hereby changed from an IND/COM/LDR/MDR comprehensive plan designation to an IND/COM/LDR/MDR/HDR/MIX comprehensive plan designation and changed from an M-1/C-2/R-1/R-2 zoning designation to an M-1/C-2/R-1/R-2/R-3/R-P zoning designation. The Newberg, Oregon Comprehensive Plan Map, the Newberg Zoning Map, and the Supply and Demand Analysis table in the Comprehensive Plan shall be amended to reflect the change.
5. The City Council adopts the Springbrook Oaks Specific Plan in Exhibit C with amendments described in Planning Commission Resolution No. 99-117 in Exhibit D .
6. The Newberg Comprehensive Plan text is amended by deletion of section IV.G.12 - **Commercial/Industrial/Residential Area South of Highway 99W/East of Springbrook Road**. The subject property will now be governed by section IV.G.14 - **Specific Plan (SP)** of the Newberg Comprehensive Plan.
7. The Newberg Development Code is amended with a section 10.44..318 - The Springbrook Oaks Specific Plan. Content of this section will include Appendix B of the Springbrook Oaks Specific Plan.

ADOPTED by the Newberg City Council this 2nd day of August, 1999, by the following votes:

AYES: 5

NAYS: 1 (Currier)

ABSTAIN: 0

ABSENT: 0


Duane Cole - City Recorder

ATTEST by the Mayor this 2nd day of August 1999.


Charles Cox, Mayor

Attachments:

Exhibit A.	Findings
Exhibit B.	Map
Exhibit C.	Springbrook Oaks Specific Plan (see Attachment B - May 13, 1999 Staff Report)
Exhibit D.	Planning Commission Resolution No. 99-117

ORDINANCE NO. 99-2517

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feet, prior to the City Council meeting on August 2, 1999.

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ADOPTED by the Newberg City Council this 2nd day of August, 1999, by the following votes:

AYES: NAYS: ABSTAIN: ABSENT:

Duane Cole - City Recorder

ATTEST by the Mayor this 2nd day of August 1999.

Charles Cox, Mayor

Attachments:

- Exhibit A. Findings
- Exhibit B. Map
- Exhibit C. Springbrook Oaks Specific Plan (see Attachment B - May 13, 1999 Staff Report)
- Exhibit D. Planning Commission Resolution No. 99-117

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FINDINGS

A. *The proposed change is consistent with and promotes the objectives of the Newberg Comprehensive Plan and this Code.*

1. Comprehensive Plan Description

The following description is provided on page 51 of the Newberg Comprehensive Plan. Please note that the tax lot numbers identified in this section do not correspond with the current tax lot numbers of the proposed Springbrook Oaks development. This is due to changes since this section Comprehensive Plan was last updated (see page 11 of this report).

12. Commercial/Industrial/Residential Area South of Highway 99W/East of Springbrook Road (Tax Lots 3221-100 and 3216- 2000)

The large size of these parcels provides a special opportunity for a flexible development pattern. As a result, the location of designated uses in this area are not intended to be specific. Percentages of indicated land uses should be approximately as follows:

Industrial	52%
Commercial	8%
Medium Density Residential	14%
Single Family Residential	26%

If the proposed specific plan is adopted, the subject property will be designated as a Specific Plan district. This designation is described on page 52 of the Comprehensive Plan as follows:

14. Specific Plan (SP)

The Specific Plan district identifies those areas where a specific plan has been approved and will apply upon annexation. Inside the City limits, approved specific plans are also identified by the SP Specific Plan zoning subdistrict.

Specific plans provide a coordinated master plan for the development or redevelopment of an area. Specific plans are intended to promote coordinated planning concepts and pedestrian oriented mixed use development. The adopted specific plan for an area will set forth permitted uses and development standards for that area. Procedures are to be set forth in the Specific Plan subdistrict section in the Zoning

Ordinance. (As amended by Ord. 2379, 4-19-94).

2. Development Code - Description and Purpose

The subject property is currently zoned M-1, C-2, R-2, and R-1. The Newberg Development Code describes these zones as follows:

10.40.300 R-1 LOW DENSITY RESIDENTIAL DISTRICT

10.40.302 Description and Purpose

The R-1 Low Density Residential District is intended for low density, urban single family residential and planned unit development uses. A stable and healthful environment, together with the full range of urban services, makes this the most important land use of the community. The R-1 district is intended to be consistent with the "Low Density Residential" designation of the Comprehensive Plan.

10.40.310 R-2 MEDIUM DENSITY RESIDENTIAL DISTRICT

10.40.312 Description and Purpose

The purpose of this land use designation is to provide a wide range of housing types and styles, while maintaining a maximum overall density of 8.8 units per gross residential acre.

Typical housing types will include single-family dwellings on small lots, attached and detached single family, duplex or multi-family housing, cluster developments and townhouses. The R-2 district is intended to be consistent with the "Medium Density Residential" designation of the Comprehensive Plan.

10.40.350 C-2 COMMUNITY COMMERCIAL DISTRICT

10.40.352 Description and Purpose

The C-2 Community Commercial District is intended to create, preserve and enhance areas with a wide range of retail sales and service establishments serving both long and short term needs in compact locations typically appropriate to commercial clusters near intersections of major thoroughfares. This district also includes some development which does not strictly fit the description of 10.40.350 through 10.40.360 but also does not merit a zoning district. The C-2 district is intended to be

consistent with the "commercial" and "mixed use" designations to the Comprehensive Plan.

10.40.370 M-1 LIMITED INDUSTRIAL DISTRICT

10.40.372 Description and Purpose

The M-1 Limited Industrial District is intended to create, preserve and enhance areas containing manufacturing and related establishments with limited external impact, and with an open and attractive setting. The M-1 Limited Industrial District is typically appropriate to locations near major thoroughfares and non-manufacturing areas. The M-1 district is intended to be consistent with the "industrial" and "mixed use" designations of the Comprehensive Plan.

The proposed specific plan adds two zone types to the already existing zones: R-3 and R-P. The Newberg Development Code describes these zones as follows:

10.40.320 R-3 HIGH DENSITY RESIDENTIAL DISTRICT

10.40.322 Description and Purpose

The purpose of this land use designation is to provide multi-family dwellings of different types and styles while maintaining a maximum overall density of 21.8 units per gross residential acre.

Typical housing types will include apartments, townhouses, condominiums, and cluster developments. Density may vary depending on lot size, off street parking area, transportation, landscaping and other site considerations. The R-3 district is intended to be consistent with the "High Density Residential" designation of the Comprehensive Plan.

10.40.330 RP RESIDENTIAL-PROFESSIONAL DISTRICT

10.40.332 Description and Purpose

The RP Residential-Professional District provides for a desirable mixing of residential land uses with professional office uses in possible close proximity to adjacent low density residential areas. The professional office building and parking coverage, traffic generation, open space and other external factors with the residential uses permitted. This district may be appropriate in transition areas between major land uses as indicated in the adopted plan. The RP district is intended to be consistent with

commercial or residential designations on the Newberg Comprehensive Plan. RP districts shall be located as to conform to goals and policies identified within the Newberg Comprehensive Plan and in areas which have a minimal impact on the livability or appropriate development of abutting property.

3. Comprehensive Plan Goals and Policies

CITIZEN INVOLVEMENT GOAL: To maintain a Citizen Involvement Program that offers citizens the opportunity for involvement in all phases of the planning process.

At the request of the landowners, the City Council initiated the specific plan development process. The proposed Springbrook Oaks Specific Plan was developed by a Newberg City Council appointed steering committee. Members of the committee represented a wide range of community interests.

LAND USE PLANNING GOAL: To maintain an on-going land use planning program to implement statewide and local goals. The program shall be consistent with natural and cultural resources and needs.

POLICIES

2. The Comprehensive Plan and implementing ordinances shall be reviewed continually and revised as needed. Major reviews shall be conducted during the State periodic review.

FINDING: Creation of specific plans are permitted within the Newberg Comprehensive Plan. Adoption of the Springbrook Oaks Specific Plan requires amendments of the Comprehensive Plan and Map, the Development Code, and the Zoning Map.

Both statewide and locally, the emphasis is upon living within the urban growth boundary with high quality, affordable housing. The proposal includes a mixture of density levels while providing a wide range of housing opportunities. The proposal also provides for future business development that will bring employment opportunities to Springbrook Oaks residents as well as the greater Newberg community.

The proposal offers a plan for development that will be in character with the Newberg community. The plan includes development standards for the wooded areas and water resources for the subject land.

The Newberg Comprehensive Plan states that the Werth Property would be developed with approximately the following percentages and acreage:

IND	52%	166 acres
COM	8%	26 acres
MDR	14%	45 acres
LDR	26%	82 acres
Total	100%	319 acres

Since this portion of the Comprehensive Plan was updated, approximately 35 acres of the property have been developed:

12 acres of IND (EFTC)

23 acres COM (Fred Meyers and various small businesses.)

By subtracting the acreage of the recently developed lands from the Comprehensive Plan estimates, the total acreage of the subject property for the Springbrook Oaks development is approximately 284 acres.

The impact of the proposed land uses in the specific plan upon the current lands inventory for land within Newberg's UGB are as follows:

	<u>Comp. Plan</u>	<u>Proposed*</u>	<u>Loss/Gain*</u>
M-1	154 acres	85 acres	69 acre loss
C-2	3 acres	7 acres	4 acre gain
R-P	0 acres	66 acres	66 acre gain
R-1	82 acres	87 acres	5 acre gain
R-2	45 acres	25 acres	20 acre loss
R-3	0 acres	13 acres	13 acre gain

*Rounded to the nearest whole acre.

AGRICULTURAL LANDS GOAL: To provide for the orderly and efficient transition from rural to urban land uses.

POLICIES

8. The conversion of urbanizable land from agricultural to urban land uses shall be orderly and efficient.
2. Inclusion of lands in agricultural use within the Urban Growth Boundary is recognition of a commitment to future urbanization, as such lands are necessary to meet long-range population and economic needs, based on criteria outlined in the statewide Urbanization Goal.

FINDING: The current uses of the subject property is farm and forest. However, the subject property has been included within the Newberg city limits, which is an acknowledgment that it is a proper site for urbanization given its location and the ability of the City to provide urban services. There is significant urban development immediately adjacent, including a significant amount of commercial, industrial, and residential land uses. A full complement of urban services are currently or soon to be available. Development of this site under the proposed Springbrook Oaks Specific Plan is consistent with this policy's requirement for orderly and efficient development.

Before development can occur in the portion of the subject property east of the eastern fork of Springbrook Creek, it may be necessary to obtain transportation access through unincorporated lands. Such access would be through lands currently designated Urban Reserve Area or located in Yamhill County. The specific plan call for transportation access off of Fernwood Road and from the northern vicinity of the Springbrook Oaks property.

WOODED AREAS GOAL: To retain and protect wooded areas.

POLICIES

8. Existing wooded areas shall be encouraged to remain as open areas for wildlife habitat and limited recreational uses.
2. Development in drainageways shall be limited in order to prevent erosion and protect water quality. Trees provide needed protection from erosion and should be maintained.

FINDING: The specific plan states that for each proposed development within the wooded eastern portion of the subject property (zoned R-1), a tree management plan is to be prepared by a third party licensed arborist.

A small grove of oak trees is located behind Fred Meyer. The specific plan states that

this area will be protected as open space.

Two significant stream corridors have been identified within the subject property: the east and west fork of Springbrook Creek. The specific plan states that development within those stream corridors will be developed in accordance with the section 10.44.115 Stream Corridor Sub-District of the Newberg Development Code as well as the development requirements of applicable local, state and federal agencies.

AIR, WATER, AND LAND RESOURCE QUALITY GOAL: To maintain and, where feasible, enhance the air, water and land resource qualities within the community.

POLICIES

8. Water quality in the Willamette River and tributary streams shall be protected.
3. As public sanitary sewer systems become available, all development shall connect to the public system. To encourage economic development, the City may permit subsurface sewerage disposal where the system meets State and County requirements and where unique circumstances exist.
5. New industry should be located in areas which minimize impacts upon the air, water, and land resource base, as well as upon surrounding land uses.
6. The City will cooperate with State and Federal agencies which regulate environmental quality and shall adhere to the standards established by these agencies in the issuance of any permits or approvals given by the City. This policy is intended to cover discharges and emissions which may impair air, water or land quality or exceed the established standards for noise or other emissions.
7. The threat of excessive noise will be considered when reviewing land use requests. In addition, any new commercial and industrial developments shall conform to DEQ noise pollution standards.

FINDING: The specific plan states that development within Springbrook Oaks will follow the Newberg Storm Water Master Plan. It also states that developments in or around the stream corridors will be subject to applicable local, state and federal regulations.

The area designated for industrial development is compatible with surrounding uses. Uses to the north include industrial and commercial use. Empty, fallow fields designated URA also adjoin the area to the north. To the east, there is a stream corridor that will buffer the industrial uses to the zoned R-1 area. To the south and west is land with a proposed zoning of R-P, which will buffer the residential areas located west of the future Brutscher Road extension.

AREAS SUBJECT TO NATURAL DISASTERS AND HAZARDS GOAL: To protect life and property from natural disasters and hazards.

POLICY

3. In other areas of potential or existing hazards, development shall be subject to special conditions. Reasonable development may be permitted in these areas when it can be shown, based on sound engineering and planning criteria, that adverse impacts can be mitigated and kept to a minimum. Hazardous areas shall be considered to be lands with slopes 20% or greater, potential and existing slide areas, fault areas, and areas with severe soil limitations.

FINDING: The majority of the property is essentially flat. However, the proposed R-1 zoned area east of the eastern fork of Springbrook Creek is wooded with significant variations in topography. The specific plan requires that any proposed development within the proposed R-1 area must be preceded with the production of a geotechnical report of the area.

OPEN SPACE, SCENIC, NATURAL HISTORIC AND RECREATIONAL GOALS

GOAL 1. To ensure that adequate land shall be retained in permanent open space use and that natural, scenic and historic resources are protected.

GOAL 2. To provide adequate recreational resources and opportunities for the citizens of the community and visitors.

OPEN SPACE AND NATURAL RESOURCE POLICIES

- b. In selecting areas to be maintained as open space, parcels shall be of adequate size and possess desirable natural and locational qualities. Cost and ease of acquisition shall also be important considerations.
- d. The dedication of easements for public drainageways and stream corridors should be encouraged when properties are either developed or redeveloped. Developed densities that would normally be allocated to portions of the property within delineated stream corridors may be transferred to adjoining areas up to a maximum increase of 20 percent. (Adopted by Ord. 96-2452, approved by City Council 11-4-96).
- e. The floodplains and natural drainageway areas in Newberg should be preserved with a largely open character to provide a basic open space framework for the community. The capacities of these areas shall be maintained to provide a natural storm water and natural drainage system, as well as to continue to provide a natural habitat for local fish and wildlife. Natural drainageways should be kept in open space uses. Bicycle and pedestrian pathways might be included in these areas. Care should be taken to minimize disturbances in these often erosive and steep areas. All uses should be compatible with the specific sites.
- g. The City shall coordinate with State and Federal agencies to protect identified wetland areas. The National Wetlands Maps prepared by the U.S. Fish and Wildlife Service in 1981 provides an initial inventory of wetlands in Newberg.

4. RECREATION POLICIES

- a. Recreational facilities and services shall expand to meet growing recreational demands. In cooperation with Chehallem Park and Recreation District, these demands shall periodically be assessed and plans for programs and facilities shall be revised accordingly.
- b. To ensure that adequate lands shall be available for recreation, areas which are suitable recreational sites due to locational and natural qualities shall be designated as park land on the land use plan map. Other less specific park sites shall also be indicated on the plan.
- e. Recreational facilities shall be located throughout the planning area in order to minimize distances between residential areas and recreational opportunities.
- f. The continued multiple use of public facilities for recreational and other purposes shall be encouraged. In particular, schools and parks shall be located on adjacent sites wherever possible.

4. **Recreation Policies (cont.)**

- g. Recreational standards for the planning area shall be as follows. These standards shall be considered as desirable guidelines to be achieved whenever possible.

<u>Classification</u>	<u>Acres Per 1000 People</u>	<u>Service Size Range</u>	<u>Area</u>
Neighborhood Parks 1/4 Mile	2.5	Free-standing; -10 acres. Adjacent to an elementary school; 2-5 acres with the school supplying about 6 acres of playground.	1/4-1/2
Community Parks	2.5	Free-standing; 10-25 acres. Adjacent to junior or senior high school; 8-15 acres with school supplying about 12 acres.	Not more than 1-1/2 miles
A City-Wide Park	---	25 acre minimum	Entire City

Source: Chehalem Park & Recreation District

- i. The City shall cooperate with Chehalem Park and Recreation District to provide recreational opportunities which meet the needs of Newberg and Yamhill County residents as well as any transient and regional population.
- k. The City will cooperate with the Chehalem Park and Recreation District to locate parks and scenic areas which are easily accessible to the City's population and which can be developed to provide recreational opportunities for a variety of age and interest groups.

FINDING: The proposed specific plan states that at least two neighborhood parks will be established in Springbrook Oaks. One will be located within the medium to high density residential areas located west of Brutscher Road. The other will be located in the low density residential area located east of the eastern fork of Springbrook Creek. Both parks will be conveniently located to the area residences. Total acreage of the two parks will be a minimum of five acres, with each park no less than 1 acre in size.

The plan also calls for park and recreational facilities to be closely linked to any future school facilities.

Other areas of open space have been identified. A grove of oak trees located behind Fred Meyer will also be developed as open space. A central plaza park shall be located near the center of the development to provide a focal point for community activities and a common identity for the community. Pedestrian paths will be created to interconnect different communities. Finally, a public golf course may be developed in the eastern portion of the property, possibly contiguous to the eastern fork of Springbrook Creek.

Two significant stream corridors are located within the subject property: the eastern and western forks of Springbrook Creek. Development within those areas will be regulated under the Newberg Development Code and the regulations by other applicable state and federal agencies. A conservation easement has already been conveyed by the property owner to the Chehalem Parks and Recreation District for the eastern fork.

The Springbrook Oaks Steering Committee included as a member the Director of the Chehalem Parks and Recreation District. The specific plan calls for the conveyance of open space to the District when possible.

ECONOMY GOAL: To develop a diverse and stable economic base

1. GENERAL POLICIES

- a. In order to lessen the percentage of persons who live in Newberg but must work elsewhere, the City should encourage a diverse and stable economic base through tax incentive programs, land use controls, preferential assessments and capital improvement programs. The formation of a community development corporation should also be considered.
- b. The City shall encourage economic expansion consistent with local needs.
- c. The City will encourage the creation of a diversified employment base, the strengthening of trade centers, and the attraction of both capital and labor intensive enterprises.
- f. The City shall participate with local and regional groups to coordinate economic planning.
- g. The City shall encourage business and industry to locate within the Newberg City limits.

2. INDUSTRIAL AREAS POLICIES

- a. Industrial expansion shall be located and designed to minimize impacts on surrounding land uses.
- d. The City shall reserve land for industrial development prior to demand and attract new industries in accordance with future community needs.
- e. Established industrial areas may be extended and new industrial areas designated by plan amendment where development trends warrant such extension or designation. Full urban services will be extended into the area if appropriate, if the extension of land use and services is consistent with all other goals and policies of the plan.
- f. Concerted community efforts should be made to see that industrial development expands outward from existing areas rather than occurring in haphazard patterns.

3. COMMERCIAL AREAS POLICIES

- b. Adequate neighborhood commercial areas will be provided to serve localized needs.

FINDING: The specific plan designates land uses for commercial, light industrial, and professional offices. These designated areas are contiguous to similar land uses to the north of the property, which are located along Highway 99W. Business development in these areas should provide a wide range of employment opportunities for Newberg residents. Residents of the development will be within easy access to the current commercial developments along Highway 99W as well as those developed within Springbrook Oaks.

The specific plan states that utility services to serve the proposed uses of the site already exist or will soon be in place. Water supplies have been a recent concern for the City of Newberg. A strategic plan to increase the water supply capacity was developed by the City in 1998 (ATTACHMENT C). As development is proposed within

Springbrook Oaks, the ability of the City to deliver water supplies to the development will be monitored closely.

Table 1

**Industrial Land Analysis
City of Newberg
May 1999**

Vacant and Buildable Acres of IND Land Needed by 2010 (1999-2010) ³	Current IND Land Within UGB		Surplus at 2010 (acres) ⁴	Estimated Annual Consumption Rate (acres) ⁵	Number of Years Land Supply ⁶
	Developed and Vacant Buildable Acres	Vacant Buildable Acres			
357	774	427	70	30	14

³Data Source: Current Newberg Comprehensive Plan

⁴Estimated currently available vacant, buildable IND land subtracted from IND land needs projected in current Comprehensive Plan

⁵Projected vacant, buildable IND land needed by 2010 divided by current number of years remaining in planning period (1999-2010).

⁶Estimated current vacant, buildable IND land divided by annual consumption rate.

To address Section 2.f. of the **ECONOMY GOAL**, the proposed specific plan includes industrial land in an area that has been designated industrial since the 1979 Newberg Comprehensive Plan. Since that time, the electronics firm of EFTC has developed a manufacturing plan within this industrial area.

Staff estimates that the proposed specific plan will subtract 69 acres from the current industrial land inventory. Staff has estimated possible effects of this proposal using three different data sources.

Table 1 uses estimated industrial land needs from the current Comprehensive Plan. The remainder of the table are Planning Staff estimates of the current industrial lands inventory.

The Residential Needs Analysis (1997), prepared by Benkendorf Associates Corp., estimated that Newberg would need 337 acres of buildable industrial lands from 1997-2016. Using these estimates, the average annual consumption rate of industrial land would be about 17 acres per year.

The 1979 Comprehensive Plan estimated that approximately 260 acres of industrial land within the UGB were developed at that time. 1999 inventories show that approximately 347 acres of industrial land is developed. Using these two figures, it is calculated that approximately 87 acres of industrial land has been developed between 1979 and 1999. The average annual industrial land consumption rate is slightly over 4 acres per year.

Based on the preceding three analyses, the potential effects of subtracting 69 acres of industrial land from the lands inventory would be as follows⁷:

	Annual Consumption Rate	Current Industrial Land Supply	Supply with Specific Plan Adoption
Current Comprehensive Plan Estimates (2000-2010)	30 acres	14 years	12 years
Actual Use (1979-1999)	4 acres	107 years	90 years
1997 Residential Needs Analysis (1997-2016)	17 acres	25 years	21 years

In summary, although the current comprehensive plan numbers suggest a lack of industrial lands in the UGB, more recent projections and more data on actual land usage show that the UGB will maintain a 20 year or more supply of industrial land even after adoption of Springbrook Oaks specific plan. This demonstrates that section 2.d. of the **ECONOMY GOAL** has been addressed by the specific plan.

In addition, the plan would add a 66 acres of R-P land. This can be used to promote economic development opportunities for service based industries, such as offices, hospitals, and medical laboratories.

The proposed C-2 land use of the specific land will only have a slight impact upon the land inventory in that category (4 acre gain).

⁷Based on Planning Staff estimate of current vacant, buildable industrial land of 427 acres. Also assume no redevelopment of industrial lands.

HOUSING GOAL: To provide the housing needs of the community commensurate with regional income levels.

1. DENSITY POLICIES

b. Density classifications shall be as follows:

Classification	Units Per Gross Acre*
Urban Low Density	4.4
Urban Medium Density	4.4 - 8.8
Urban High Density	8.8 - 21.8

*Includes a 25 percent allowance for streets

c. In determining net residential densities, developers may be given density credit for land donated and accepted by the City for needed public facilities.

2. LOCATION POLICIES

a. Medium and high density areas should be located for immediate access to collector streets or minor arterials and should not cause traffic to move through low density areas. High density areas should be easily accessible to arterial streets. They should also be located near commercial services and public open spaces.

3. MIX POLICIES

h. To reduce distances between land uses, a mixture of all compatible uses will be encouraged. As such, convenience commercial areas may be located within residential districts provided they meet special development standards.

j. The City shall encourage innovation in housing types and design as a means of offering a greater variety of housing and reducing housing costs.

k. The City shall encourage an adequate supply of rental housing dispersed throughout the City to meet the needs of renters.

l. The City shall encourage residential occupancy of upper floors within multi-story commercial buildings.

m. Within the urban area, land use policies will attempt to provide a broad range of residential uses and encourage innovative development techniques.

FINDING: This project will provide additional housing opportunities to meet the needs of the growing population in the City of Newberg. It will also provide the opportunity for greater innovation in housing types and design through a variety of housing options and a range of residential uses. Development of Owner occupied dwelling units are anticipated as well as rental units. Areas zoned Residential Professional will provide

opportunities for development that will permit residents to live nearby their employment facilities.

All development within Springbrook Oaks will comply with Codes, Covenants, and Restrictions (CCRs), which will be instituted before development begins. To further promote quality development for attached residential dwellings, the specific plan includes a suggested set of Building Design and Development Standards.

Residential development will be within easy access to Brutscher Road, Springbrook Road, Fernwood Road and Highway 99W. Residents will also have easy access to commercial businesses along Highway 99W.

The specific plan established different density standards for the proposed zones in Springbrook Oaks than those established in the Comprehensive Plan. This will provide opportunities for development of a wider range of housing types. The specific plan also provides for some density shifting, including for land donated for public purposes. This will allow further flexibility in types of residential development.

Table 2 shows that there is a current surplus of either LDR and MDR land, and only a slight deficit of HDR acreage for the planning period ending at 2010. With the land already developed on the Werth Property and the proposed land uses in the specific plan, the combined affect of the is a proposed 18 acre gain of MDR land and 14 acre gain of HDR land in Newberg's lands inventory.

The proposed specific plan will not affect the land inventory of LDR land. The amount of residential development in the proposed R-P land is unknown at this time. The specific plan allows residential development in the R-P land west of Brutscher Road of up to one-hundred percent and up to twenty percent of the R-P land east of Brutscher Road.

Table 2

**NEWBERG URBAN GROWTH BOUNDARY
RESIDENTIAL LAND SUPPLY AND DEMAND
May 1999**

Plan Category	Land Needed by Plan Category 1999-2010 ⁸ (acres)	Current			Proposed		
		Buildable Land Within UGB (acres)	Surplus at 2010 (acres)	Number of Years Land Supply ⁹	Buildable Land Within UGB (acres)	Surplus at 2010 (acres)	Number of Years Land Supply ¹⁰
LDR	416	496	80	14	501	85	14
MDR	217	302	85	17	322	105	18
HDR	27	22	(-5)	10	35	8	16
TOTAL	660	820	160	NA	853	193	NA

⁸The 1999-2010 land need is pro-rated based on figures in the Newberg Comprehensive showing the land need for 1996-2010.

⁹Estimated currently available vacant, buildable IND land needed by annual consumption rate.

¹⁰Estimated vacant, buildable IND land with proposed Springbrook Oaks Specific Plan divided by annual consumption rate.

URBAN DESIGN GOAL: To maintain and improve the natural beauty and visual character of the City.

1. GENERAL POLICIES

- a. Design review should be performed at the staff level.
- b. Design review should be provided for all new developments more intensive than duplex residential use.
- e. Developments should respect the natural ground cover of their sites to the extent possible and plans should be made to preserve existing mature, non-hazardous trees in healthy condition.
- f. The planting of street trees should be required in conjunction with a list of City-approved trees.
- g. Community appearance should continue to be a major concern and subject of a major effort in the area. Street tree planting, landscaping, sign regulations and building improvements contribute to community appearance and should continue to be a major design concern and improvement effort.
- h. Landscaping shall be required along street frontage strips within the street right-of-way in order to soften the appearance of commercial and industrial developments.
- i. The City shall encourage tree planting for aesthetic purposes.
- l. The City shall encourage compatible architectural design of new structures in the community.
- n. The City shall encourage innovative design and ensure that developments consider site characteristics and the impact on surrounding areas.
- r. Developments of medium or high density shall be of a quality and design which will effectively offset the greater density.
- t. The City shall encourage residential-professional uses as a buffer between intensive commercial uses and less intensive residential uses.

2. INDUSTRIAL AREAS POLICIES

- b. Industrial developments should be well landscaped and maintained and existing trees should be preserved where possible.
- c. Where industrial uses abut residential zones or uses, special development standards relating to setbacks, screening, signs, building height and architectural review should be established.

4. RESIDENTIAL AREAS POLICIES

- a. The City will require buffering and landscaping to minimize impacts between housing and potentially conflicting uses.
- b. The City will evaluate and encourage various innovative and alternative approaches to zoning, including but not limited to the following: zero lot lines, cluster and density zoning, planned unit developments, performance standards and condominiums.
- d. Special development and design standards shall be adopted in the Development Code to ensure that multi-family, attached single-family and manufactured home park/subdivision projects are aesthetically-pleasing and compatible with nearby

FINDING: Design review for proposed developments within Springbrook Oaks will be performed at the staff level. A series of building and development standards for proposed developments of attached dwelling units are included within the specific plan. Proposed developments which follow these suggested standards will be reviewed under a Type I review process instead of the usual Type II process.

Street construction will be required to follow city standards, which includes construction of sidewalks and tree planting strips. Trees will be selected from the city approve tree list, with a preference for oak trees, in keeping with the development's namesake: Springbrook Oaks.

The wooded portion of the subject property located to the east is proposed for R-1 development. The specific plan states that prior to any proposed development within this area, a tree management plan will be produces by a third party licensed arborist.

Codes, Covenants, and Restrictions (CCRs) will be developed prior to any type of development within Springbrook Oaks.

The eastern and western forks of Springbrook Creek provide natural buffers between proposed residential, commercial and industrial uses. Road, such as Brutscher Road, will provide a buffer between the residential areas and the residential professional area. The specific plan call for the construction of an buffer between Fred Meyer and any proposed residential development in the land contiguous to it within Springbrook Oaks.

At the request of the landowners, the City Council the specific plan development process. The proposed Springbrook Oaks Specific Plan was developed by a Newberg City Council appointed steering committee. Members of the committee represented a wide range of community interests. The plan was developed over approximately a six month period.

TRANSPORTATION

GOAL 1: ESTABLISH COOPERATIVE AGREEMENTS TO ADDRESS TRANSPORTATION BASED PLANNING, DEVELOPMENT, OPERATION, AND MAINTENANCE.

POLICIES

- a. The City shall coordinate with the State Department of Transportation to manage access to the state highway system and to implement the State Highway Improvement Program.
- b. The City shall coordinate its Transportation System Plan with the planning process of other jurisdictions to assure adequate connections to streets and transportation systems outside City boundaries.

GOAL 2: ESTABLISH CONSISTENT POLICIES WHICH REQUIRE CONCURRENT CONSIDERATION OF TRANSPORTATION/LAND USE SYSTEM IMPACTS.

POLICY: Transportation improvements shall be used to guide urban development and shall be designed to serve anticipated future needs.

GOAL 3: PROMOTE RELIANCE ON MULTIPLE MODES OF TRANSPORTATION AND REDUCE RELIANCE ON THE AUTOMOBILE.

POLICIES

- a. Design the transportation system and related facilities to accommodate multiple modes of transportation where appropriate and encourage their integrated use; and
 - 1) The City shall plan for a network of transportation facilities and services including but not limited to air, water, rail, auto, pedestrian, bicycle and public transit.
 - 2) The City shall encourage the continued operation of the existing public transit system.
 - 6) The City should establish a local transit service district to include but not be limited to the City of Newberg, City of McMinnville and Yamhill County.
 - 9) The City shall encourage more efficient use of existing transportation systems including car pooling, park and ride stations and bus service.
- b. Modifications should be made to the City's land use plan and development ordinances that will decrease trip length and encourage non-auto oriented development.
 - 1) The City shall encourage neighborhood commercial development.
 - 2) The City shall encourage higher density development around commercial areas.

GOAL 7: MINIMIZE THE CAPITAL IMPROVEMENT AND COMMUNITY COSTS TO IMPLEMENT THE TRANSPORTATION PLAN.

POLICIES

- a. The Transportation System Plan shall identify short and long term improvements to the collector/arterial street system, the public transit system, the pedestrian/bicycle

4. TRANSPORTATION (CONT.)

GOAL 8: MAINTAIN AND ENHANCE THE CITY'S IMAGE, CHARACTER AND QUALITY OF LIFE.

POLICIES:

- a. Adopt transportation/land use system design standards which emphasize visual and aesthetic quality.
- b. New office park and commercial developments shall provide internal pedestrian circulation by clustering of buildings, construction of pedestrian ways, covered walkways and skywalks, and other similar techniques.
- c. Encourage plans which protect the integrity of existing neighborhoods, commercial, and industrial areas.

GOAL 9: CREATE EFFECTIVE CIRCULATION AND ACCESS FOR THE LOCAL TRANSPORTATION SYSTEM.

POLICIES

- b. Enhance existing and add alternative routes for local travel.
- 1) The City shall coordinate the development of a continuous interconnected street pattern which connects adjacent developments and minimizes the use of cul-de-sacs.

GOAL 11: ESTABLISH FAIR AND EQUITABLE DISTRIBUTION OF TRANSPORTATION IMPROVEMENT COSTS.

POLICIES:

- a. Define appropriate phasing and funding which relates to the benefits received.
- b. The City shall utilize the Transportation Improvement Funding policies outlined in the Transportation System Plan for determining responsibilities and costs for funding improvements.
(As amended by Ord. 94-2384, 8-1-94 and as amended by Ord. 98-2494, 4-6-98.
Ord. 94-2384 also adopted the Newberg Transportation System Plan, a technical supplement to the Comprehensive Plan).

Finding: The proposed transportation requirements of the specific plan are based upon the city's adopted Transportation System Plan (TSP) and a Traffic Impact Analysis of the proposed Springbrook Oaks development. The TSP includes provisions for all modes of transportation, including but not exclusive to motorized vehicles, pedestrian, bicycle, and mass transit.

A number of significant street improvements are proposed for Springbrook Oaks. Brutscher Road will be extended to intersect with Fernwood Road. An east/west minor collector road will bisect the development. Fernwood Road will be upgrade to major

collector standards from Springbrook Road to the development's eastern access point along Fernwood Road.

The specific plan identifies when transportation improvements will be constructed. The plan also identifies who is responsible for particular costs of improvements to the transportation system. Some of the costs with improvement of the transportation system will be paid for through the city's transportation System Development Charges (SDCs) fund.

L. PUBLIC FACILITIES AND SERVICES

GOAL: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban development.

POLICIES:

1. ALL FACILITIES & SERVICES POLICIES

- a. The provision of public facilities and services shall be used as tools to implement the land use plan and encourage an orderly and efficient development pattern.
- b. The extension of publicly-owned facilities and services into currently undeveloped areas shall occur only in accordance with the Public Facilities and Service Plan.
- c. New public facilities and services shall be designed at levels consistent with planned densities and designated land uses for the area.
- d. Services shall be planned to meet anticipated community needs.
- g. Public facilities and services necessary to meet the special needs of industrial activities should be planned for those areas designated industrial on the comprehensive plan map and should be provided at a level sufficient to support proposed activities, if public funds are available.
- h. New residential areas shall have: paved streets, curbs, pedestrian ways, water, sewer, storm drainage, street lights and underground utilities.

2. SEWERS AND WATER POLICIES

- b. Water systems within the planning area will be designed to provide an adequate peak flow for fire protection.
- c. Developments with urban densities should be encouraged to locate within the area which can be serviced by Newberg's present sanitary sewer system.

5. SCHOOLS POLICIES

- a. Elementary schools should be centrally located with reference to their service areas.
- b. In accordance with the land use plan, the school district should anticipate development and acquire the best sites in advance of urbanization.
- c. Elementary schools should not be located on arterial streets.
- d. Schools should be built with parks wherever possible. To this end, the City together with the School and Park Districts should coordinate development plans.
- e. The location of schools should be used as a major tool for directing future residential growth.
- f. Schools shall be encouraged to serve as centers for neighborhood and community activities.
- g. New schools shall be located in such a manner as to provide adequate and safe pedestrian, bicycle, and automobile access. Streets shall be fully improved and major intersections shall provide signalization where necessary.

7. PARK FACILITIES POLICIES

- a. In conjunction with Chehalem Park and Recreation District, park facilities shall be provided consistent with recreational needs.

FINDING: The specific plan states that utility services to serve the proposed uses of

the site already exist nearby or will soon be in place. All new utility infrastructure will be placed underground. Water supplies have been a recent concern for the City of Newberg. A strategic plan to increase the water supply capacity was developed by the City in 1998 (ATTACHMENT C). As development is proposed within Springbrook Oaks, the ability of the City to deliver water supplies to the development will need to be monitored closely. The Newberg Fire Department was involved with the development of the specific plan and their issues have been addressed within the plan. Infrastructure development will follow the guidelines of the Newberg Storm Water Master Plan.

Street construction will be required to follow city standards, which includes construction of sidewalks and tree planting strips. Trees will be selected from the city approved tree list, with a preference for oak trees, in keeping with the development's namesake: Springbrook Oaks.

A representative of the Newberg School District was a member of the Springbrook Oaks Steering Committee. The School District may want to place a school facility within the residential areas west of Brutscher Road, but has not committed to that location. The specific plan allows for such facility if it is desired. The school will be located in a safe, convenient location and closely linked with park and recreation facilities when feasible.

The Springbrook Oaks Steering Committee also included as a member the Director of the Chehalem Parks and Recreation District. In conjunction with this Steering Committee member, concerns of the District for recreation and park facilities were addressed within the specific plan.

M. ENERGY

GOAL: To conserve energy through efficient land use patterns and energy- related policies and ordinances.

POLICIES:

1. PLANNING POLICIES

- a. The City will encourage energy-efficient development patterns. Such patterns shall include the mixture of compatible land uses and a compactness of urban development.

2. PUBLIC ENERGY CONSERVATION POLICIES

- c. Public buildings shall be designed for multiple use and located in easily accessible areas.

FINDING: The specific plan allows for urban density growth near a regional transportation corridor (Highway 99W). The proposed development includes a wide range of land uses in a design pattern that should be compatible. The location of the

development is convenient to nearby commercial services and will generate its own services and industry that residences can take advantage of.

The School District may want to place a school facility within the residential areas west of Brutscher Road, but has not committed to that location. The specific plan allows for such facility if it is desired. The school will be located in a safe, convenient location and closely linked with park and recreation facilities when feasible.

N. URBANIZATION

GOALS:

1. To provide for the orderly and efficient transition from rural to urban land uses.
2. To maintain Newberg's identity as a community which is separate from the Portland Metropolitan area.
3. To create a quality living environment through a balanced growth of urban and cultural activities.

POLICIES:

1. URBAN GROWTH BOUNDARY AND URBAN RESERVE AREA POLICIES

- a. The conversion of lands from rural to urban uses within the Urban Growth Boundary will be based on a specific plan for the extension of urban services.
- c. The City shall encourage urban development within the City limits.
- h. The designated Urban Reserve Area identifies the priority lands to include within the Newberg Urban Growth Boundary to meet projected growth needs to provide a thirty (30) to fifty (50) year land supply. Designated Urban Reserve Area lands will be included within the Urban Growth Boundary on a phased basis at periodic review. Property owners will also have the opportunity to request that land within the designated Urban Reserve Area be included within the Newberg Urban Growth Boundary, based on the criteria outlined in LCDC Goal 14 and the Urban Growth Management.
- i. The City of Newberg will initiate transportation and utility corridor planning for the Urban Reserve Area in coordination with Yamhill County and property owners. The corridor plans shall provide the framework to guide interim rural development and long-range urban development within the Urban Reserve Area.

2. ANNEXATION POLICIES

- c. Property outside the Urban Growth Boundary may be annexed only upon inclusion of such property into the Urban Growth Boundary.

3. GENERAL POLICIES

- a. In new development areas all utility lines shall be placed underground. In existing areas an effort will be made to locate power, telephone, cable television and other utility cables underground over a period of time.
- c. The City may use the following or similar implementation measures to promote and encourage the establishment and expansion of industry in the planning area: tax incentives, land use controls and ordinances, preferential assessments, capital improvement programming, fee and less than fee acquisition techniques, and available state and federal programs or grants.
- d. Transfer of development rights may be used as a tool to aid in the preservation of historic sites, natural resources and open space areas.

FINDING: The proposed specific plan is located within the Newberg city limits and is

urbanizable. The development would have a wide range of land uses, including residential, business, and recreational opportunities. The development should create a balanced community that will unlikely be viewed as just another bedroom community to the Portland metropolitan area.

The Springbrook Oaks property is surrounded by properties within the city as well as Yamhill County lands, including lands designated within Newberg's Urban Growth Boundary and Urban Reserve Areas. To fully develop the proposed Springbrook Oaks, developer will need to work with the City and Yamhill County on: 1) improvements to Springbrook Road; 2) improvements to Fernwood Road; and 3) transportation access points to the proposed R-1 area east of the eastern fork of Springbrook Creek. To achieve these developments, the involved lands may be required to be included in the URA, UGB and/or ultimately annexed to the City of Newberg. Development within the stream corridor and wetland areas will also need to consult with applicable local, state and federal agencies.

All new utilities within the Springbrook Oaks development will be placed underground. The new sewer and water utilities being installed this year along Fernwood Road are being financed through a loan from the Oregon Economic Development Department. The facilities are being installed to service the growing needs of that portion of the city, including the Springbrook Oaks development.

The specific plan allows for density shifting to residential areas for land donated for public purposes.

In summary, the proposed zone change and comprehensive plan amendment promotes the objectives of the Development Code and Comprehensive Plan.

B. *Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change.*

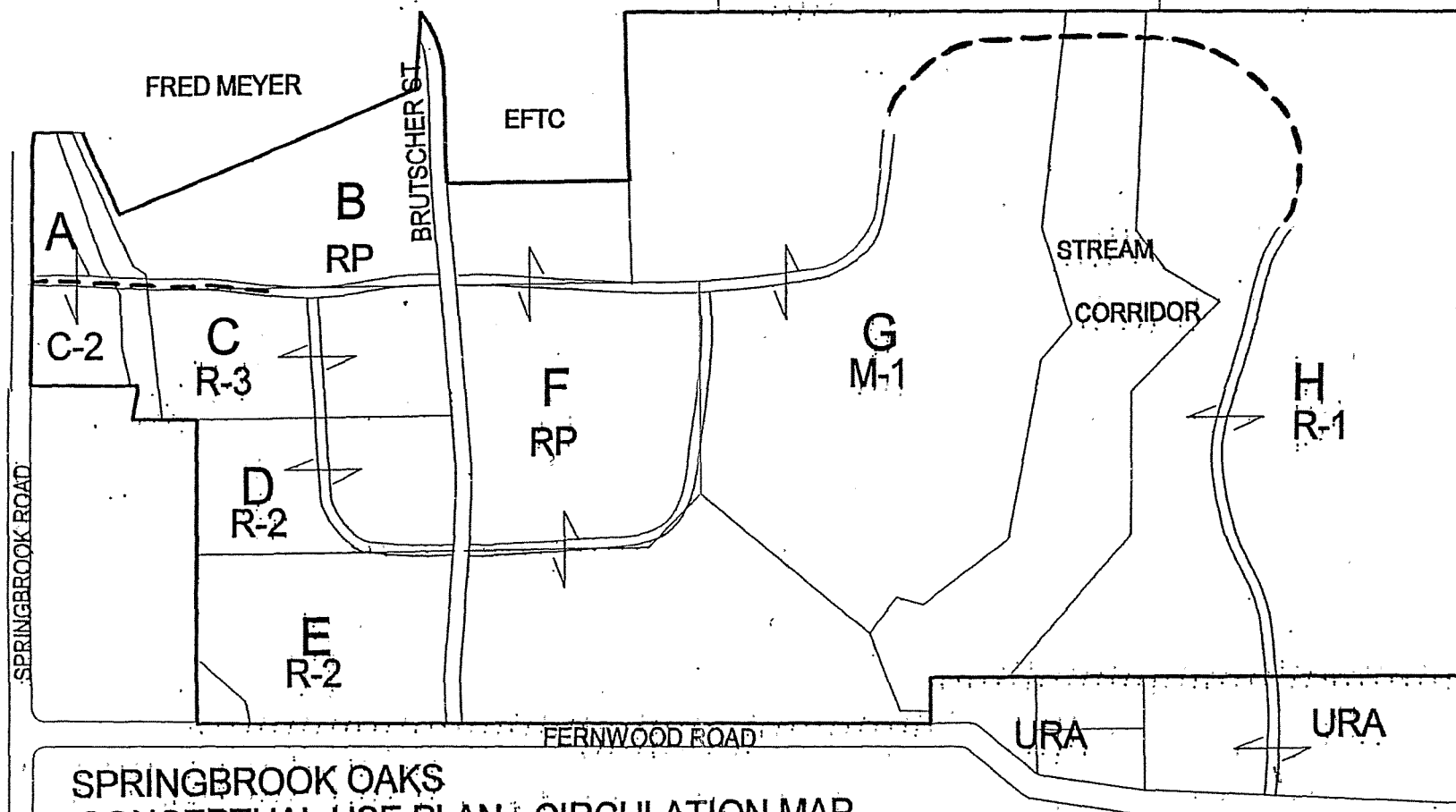
Please see the **FINDINGS** section of page 28 for Comprehensive Plan goal **PUBLIC FACILITIES AND SERVICES**.

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AREA	ZONE	GROSS	CORRIDOR	NET	NOTES
		ACRES	ACRES	ACRES	
A	C-2	6.8	1.2	5.6	FOR ZONES WHICH ABUT A STREAM CORRIDOR, THE BOUNDARY IS THE CENTER OF THE STREAM CORRIDOR
B	RP	15.3	0.7	14.6	
C	R-3	13.0	0.6	12.4	ROADS AREAS INCLUDED IN THE CONTAINING ZONE, EXCEPT BRUTSCHER
D	R-2	11.3		11.3	
E	R-2	14.1	0.7	13.4	
F	RP	50.8	0.5	50.3	
G	M-1	85.0	13	72.0	
H	R-1	87.0	12	75.0	
BRUTSCHER		4.1		4.1	
TOTALS		287.5	28.7	258.8	

ROAD ALIGNMENT SHOWN WITH — — SYMBOL ARE TO INDICATE POTENTIAL ROUTING ONLY. EXACT LOCATION WILL BE DETERMINED AT TIME OF DEVELOPMENT.

N
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SPRINGBROOK OAKS CONCEPTUAL USE PLAN - CIRCULATION MAP

SPECIFIC PLAN FILE CPA-14/Z-14-99

Tax Lots 3216-2001 and 3216-2010

JUNE 10, 1999

SCALE 1" = 667 FT

Exhibit B

Exhibit C

Please see Attachment B - May 13, 1999 Staff Report

PLANNING COMMISSION RESOLUTION NO. 99-117

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF NEWBERG RECOMMENDING THAT THE CITY COUNCIL APPROVE FILE CPA-14/Z-14-99 (SPRINGBROOK OAKS SPECIFIC PLAN), A COMPREHENSIVE PLAN AMENDMENT AND REZONING FOR PROPERTY LOCATED SOUTH OF HIGHWAY 99W, EAST OF SPRINGBROOK ROAD, NORTH OF FERNWOOD ROAD, AND WEST OF THE UGB, YAMHILL COUNTY TAX LOTS 3216-2001 AND 3216-2010.

WHEREAS, On August 3, 1999, the City of Newberg City Council, by unanimous vote, initiated an application requesting a comprehensive plan amendment and zone change for property located at South of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the UGB. This action was taken at the request of the property owner.

WHEREAS, On April 15, 1999, the Newberg City Council appointed Springbrook Oaks Specific Plan Steering Committee voted unanimously to accept the Draft Springbrook Oaks Specific Plan and forward it to the Newberg Planning Commission for their consideration.

WHEREAS, On May 4, 1999 notice of this proposed comprehensive plan amendment/zone change was mailed to the owner of record as identified in Yamhill County Assessor's Office, and all adjoining property owners within a distance of 300 feet.

WHEREAS, Notice was published in the Graphic Newspaper on April 28, 1999, which is at least ten days prior to the public hearing before the Planning Commission on May 13, 1999; and on April 21, 1999 notice of the Planning Commission was posted on the site and at four public places to comply with Oregon Revised Statute requirements for comprehensive plan amendments.

WHEREAS, On May 13, 1999 a hearing was held by the Newberg Planning Commission. The hearing was continued to the next Newberg Planning Commission on June 10, 1999.

WHEREAS, On June 10, 1999 a hearing was held by the Newberg Planning Commission. The hearing was continued to the next Newberg Planning Commission on July 8, 1999.

WHEREAS, On July 8, 1999, the Newberg Planning Commission deliberated the Draft Springbrook Oaks Specific Plan, in consideration of public testimony and staff recommendations. The hearing was closed during this meeting.

NOW THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Newberg that it recommends to the City Council approve the Springbrook Oaks Specific Plan draft dated April 15, 1999 with the following amendments:

1. Amend the seventh policy under Open Space and Parks (pages 17-18 of the plan) as follows:
 - A minimum of two neighborhood parks shall be established within Springbrook Oaks. One park will be located within the residential area west of Brutscher Street and one will be located within the residential area east of the eastern fork of Springbrook Creek. The parks shall be in a location that is convenient to the area residents. Total acreage of the parks shall be a minimum of five acres, with each park no less than ~~one~~ two acres in size. ~~Some of the~~ None of the park

requirements may be fulfilled through future school facilities.

2. Add the following policy in the **Utilities** section (pages 21 and 22 of the plan):
 - Each development application shall show that its water requirements can be met adequately by municipal water supply and storage that are in place or will be at time of occupancy.
3. Amend the 10th policy in the **Transportation: Motorized Vehicles** section of the specific plans policies (Page 15 of the Specific Plan).
 - ~~The Springbrook Oaks Specific Plan shall include a traffic impact analysis as a basis for transportation improvements with the area of influence of Springbrook Oaks.~~
 - Development shall follow the recommendations provided within the *Transportation Impact Analysis for Springbrook Oaks*. The analysis shall be updated as changes in circumstances require.
4. Add the following under the subsection **Springbrook Road** of the **Transportation** section (Page 17 of the Specific Plan):
 - A traffic signal shall be installed at the intersection of the east/west road and Springbrook Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document.
 - A separate southbound left turn lane shall be constructed at the intersection of the east/west road and Springbrook Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document.
 - Each development that occurs within Springbrook Oaks prior to the need for the necessary improvements (including signalization) of the intersection of the east/west road and Springbrook Road shall provide a bond or other alternative finance mechanism towards the intersection improvements. The value of the bond will be a percentage of the cost of the intersection improvements. The percentage will be the ratio of the impacts of the development to the traffic at the intersection. Adjacent developments outside the Springbrook Oaks Specific Plan area will also be required to participate in the signalization using the same formula.
5. Add the following policies could be placed under the subsection **Brutscher Road** of the **Transportation** section:
 - A traffic signal shall be installed at the intersection of the east/west road and Brutscher Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document. An interconnected roadway system dispersing the traffic from this intersection may eliminate the need for this signal.
6. Amend the circulation plan map as shown in Attachment B. This shows the conceptual location of the roadway serving Area H to be within the boundaries of Springbrook Oaks. Previous versions showed this roadway on adjoining properties to the north. Plan policies still allow the roadway to be on the adjoining properties, but this would depend on neighboring property owners willingness to participate in the project.

Approval of this resolution is also based upon the expectation that city staff will provide findings to the Newberg City Council that address points **2.d** and **2.f** under section **H. THE**

ECONOMY of the City of Newberg Comprehensive Plan Text.

This recommendation is based on the staff report, findings and testimony.

DATED this 8th day of July, 1999.

AYES: 6

NAYS: 0

ABSTAIN: 1

ABSENT: 0

ATTEST:

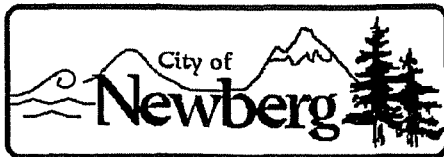
Barton Brierley
FOR Planning Commission Secretary

St. J. Hannum
Planning Commission Chair

Exhibits to be forwarded to Council as part of adoption ordinance:

Exhibit A - Staff Report, May 13, 1999

Exhibit B - Springbrook Oaks Specific Plan - Staff Update, June 10, 1999



PLANNING COMMISSION AGENDA

MAY 13, 1999

**7 p.m. Regular Meeting
Newberg Public Safety Building
401 E. Third Street**

Attachment B

I. ROLL CALL

II. OPEN MEETING

III. CONSENT CALENDAR(items are considered routine and are not discussed unless requested by the commissioners)

1. Approval of April 8, and April 22, 1999, Planning Commission Meeting Minutes

IV. COMMUNICATIONS FROM THE FLOOR (5 minute maximum per person)

1. For items not listed on the agenda

V. QUASI-JUDICIAL PUBLIC HEARINGS (complete registration form to give testimony - 5 minute maximum per person, unless otherwise set by majority motion of the Planning Commission). No new public hearings after 10 p.m. except by majority vote of the Planning Commissioners.

1. **APPLICANT:** Bill's Quality Construction, Inc.; Owner: Vicente Gonzales
REQUEST: Approval of a 625 square foot commercial addition to the Panderia, a Historic Landmark property
LOCATION: 619 E. First Street
TAX LOT: 3219AA-5000
FILE NO.: H-9-99
CRITERIA: NDC 10.44.157
RESOLUTION NO.: 99-116
2. **APPLICANT:** Mike Gougler for Werth Joint Ventures
REQUEST: Adoption of the Springbrook Oaks Specific Plan. The plan would create areas for industrial, commercial, office, multiple dwelling, and single family dwelling uses. It includes plans for open space, utilities, transportation, and so forth. It would amend the Newberg Comprehensive Plan, Development Code, Comprehensive Plan map and Zoning map.
LOCATION: A tract of land generally located south of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the Urban Growth Boundary
TAX LOT: 3216-2001 and 3216-2010
FILE NO.: CPA-14/Z-14-99
CRITERIA: NDC 10.20.030
RESOLUTION NO.: 99-117

VI. LEGISLATIVE PUBLIC HEARINGS (complete registration form to give testimony - 5 minute maximum per person, unless otherwise set by majority motion of the Planning Commission)

1. **APPLICANT:** City of Newberg
REQUEST: Amendments to the Newberg Comprehensive Plan and the Newberg Development Code relating to street standards
LOCATION: City Wide
FILE NO.: GR-4-95
CRITERIA: NDC 10.20.030
TOPIC: Parking standards for downtown residential
RESOLUTION NO.: 99-115

VII. ITEMS FROM STAFF

1. Update on Council items
2. Other reports, letters, or correspondence
3. Next Planning Commission Meeting: June 10, 1999 (or May 27, if a second meeting is desired)

VIII. ITEMS FROM COMMISSIONERS

IX. ADJOURN

FOR QUESTIONS PLEASE STOP BY, OR CALL 537-1240, COMMUNITY DEVELOPMENT - P.O. BOX 970 - 719 E. FIRST STREET

ACCOMMODATION OF PHYSICAL IMPAIRMENTS:

Please notify City Administration of any special physical or language accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements please contact Becky Manning at (503) 537-1261.

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PLANNING COMMISSION STAFF REPORT

May 13, 1999

PREPARED BY: City of Newberg Planning Staff

APPLICANT: Mike Gougler

CONTACT: Mike Gougler

OWNER: Werth Joint Ventures

REQUEST: Adoption of the Springbrook Oaks Specific Plan. The plan would create areas for industrial, commercial, office, multiple dwelling, and single family dwelling uses. It would amend the Newberg Comprehensive Plan and map, Development Code, and Zoning Map.

ZONING: M-1/C-2/R-2/R-1

LOCATION: South of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the UGB.

TAX LOT: 3216-2001 and 3216-2010

FILE NO: CPA-14/Z-14-99

**PLAN
DESIGNATION:** IND/COM/MDR/LDR

ATTACHMENTS:

- A. Reso. 99-117 w/findings, map, and Springbrook Oaks Specific Plan (draft) - attached
- B. Draft Final Meeting Minutes, Springbrook Oaks Steering Committee -attached
- C. Water System Strategic Direction - Memo
- D. Comprehensive Plan Map - attached
- E. Zoning Map - attached
- F. Newberg Comprehensive Plan - by reference
- G. Newberg Development Code - by reference

Figure 1

Springbrook Oaks Specific Plan

The Planning staff has determined that the following criteria apply to the subject proposal. The Planning Commission or other interested parties should direct their comments to the criteria listed or state why they feel other criteria may apply.

Procedures for Comprehensive Plan Map and Zoning Map Amendments of Zoning Districts, Sub-districts and Land Use Regulations, Newberg Development Code, Section 10.20.030

The applicant must demonstrate compliance with the following criteria:

- (a) The proposed change is consistent with and promotes the objectives of the Newberg Comprehensive Plan and this Code; and
- (b) Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change.

The Newberg City Council has the authority to make the final decision on this matter. The Planning Commission has an advisory role.

Request:

Adoption of the Springbrook Oaks Specific Plan. The plan would create areas for industrial, commercial, office, multiple dwelling, and single family dwelling uses. It would amend the Newberg Comprehensive Plan and map, Development Code, and Zoning Map.

Project Description:

The site is located south of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the UGB (tax lots 3216-2001 and 3216-2010). The site contains approximately 284 acres. The property's current land uses are farm and forest. The parcels are zoned M-1/C-2/R-2/R-1.

Issues:

- **Public facilities:** Sufficient public facilities must be established in the specific plan to properly service the residents of the development as well as those affected by the proposed development within the greater Newberg community. This includes water, sewer, stormwater, energy, telecommunications, fire, medical, police, recreational areas, and schools.
- **Transportation/Circulation:** Sufficient transportation facilities must be established in the specific plan to properly service the residents of the development as well as those affected by the proposed development within the greater Newberg community.
- **Future Development Potential:** If rezoned, it is estimated that the tax lots could accommodate a maximum of 669 dwelling units under the proposed zoning.

R-1	271 dwelling units
R-2	202 dwelling units
R-3	196 dwelling units

This is compared to the current zoning, which could accommodate up to 757 dwelling units.

R-1	361 dwelling units
R-2	396 dwelling units

The proposed R-P zones are intended a mix of office and residential development. These areas could potentially accommodate a maximum of 794 dwelling units.

- Land Use Changes: The proposed land use changes should address the land use needs of the community.
- Effect upon natural environment: Development safeguards should be established to sufficiently protect the natural environment.
- Urban design: Development standards should be established to ensure a livable community.

The Springbrook Oaks Specific Plan addresses the aforementioned issues to ensure that a high quality community is developed.

Preliminary Staff Recommendation:

The preliminary staff recommendation is made in the absence of public hearing testimony, and may be modified subsequent to the close of the public hearing. At this writing, the staff recommends the following action:

- Continue the public hearing to a date certain. This will provide adequate time review the upcoming transportation impact analysis of the proposed Springbrook Oaks Specific Plan.

PLANNING COMMISSION RESOLUTION NO. 99-117

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF NEWBERG RECOMMENDING THAT THE CITY COUNCIL APPROVE FILE CPA-14/Z-14-99 (SPRINGBROOK OAKS SPECIFIC PLAN), A COMPREHENSIVE PLAN AMENDMENT AND REZONING FOR PROPERTY LOCATED SOUTH OF HIGHWAY 99W, EAST OF SPRINGBROOK ROAD, NORTH OF FERNWOOD ROAD, AND WEST OF THE UGB, YAMHILL COUNTY TAX LOTS 3216-2001 AND 3216-2010.

WHEREAS, On August 3, 1999, the City of Newberg City Council, by unanimous vote, initiated an application requesting a comprehensive plan amendment and zone change for property located at South of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the UGB. This action was taken at the request of the property owner.

WHEREAS, On April 15, 1999, the Newberg City Council appointed Springbrook Oaks Specific Plan Steering Committee voted unanimously to accept the Draft Springbrook Oaks Specific Plan and forward it to the Newberg Planning Commission for their consideration.

WHEREAS, On May 4, 1999 notice of this proposed comprehensive plan amendment/zone change was mailed to the owner of record as identified in Yamhill County Assessor's Office, and all adjoining property owners within a distance of 300 feet.

WHEREAS, Notice was published in the Graphic Newspaper on April 28, 1999 , which is at least ten days prior to the public hearing before the Planning Commission on May 13, 1999; and on April 21, 1999 notice of the Planning Commission was posted on the site and at four public places to comply with Oregon Revised Statute requirements for comprehensive plan amendments.

WHEREAS, On May 13, 1999 a hearing was held by the Newberg Planning Commission.

NOW THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Newberg that it recommends to the City Council approve the requested specific plan. This recommendation is based on the staff report, findings and testimony.

DATED this ____ day of _____, 1998.

AYES:

NAYS:

ABSTAIN:

ABSENT:

ATTEST:

Planning Commission Secretary

Planning Commission Chair

Exhibits to be forwarded to Council as part of adoption ordinance:

Findings, Legal Description and Area Map

EXHIBIT A - FINDINGS

A. *The proposed change is consistent with and promotes the objectives of the Newberg Comprehensive Plan and this Code.*

1. Comprehensive Plan Description

The following description is provided on page 51 of the Newberg Comprehensive Plan. Please note that the tax lot numbers identified in this section do not correspond with the current tax lot numbers of the proposed Springbrook Oaks development. This is due to changes since this section Comprehensive Plan was last updated (see page 11 of this report).

12. Commercial/Industrial/Residential Area South of Highway 99W/East of Springbrook Road (Tax Lots 3221-100 and 3216- 2000)

The large size of these parcels provides a special opportunity for a flexible development pattern. As a result, the location of designated uses in this area are not intended to be specific. Percentages of indicated land uses should be approximately as follows:

Industrial	52%
Commercial	8%
Medium Density Residential	14%
Single Family Residential	26%

If the proposed specific plan is adopted, the subject property will be designated as a Specific Plan district. This designation is described on page 52 of the Comprehensive Plan as follows:

14. Specific Plan (SP)

The Specific Plan district identifies those areas where a specific plan has been approved and will apply upon annexation. Inside the City limits, approved specific plans are also identified by the SP Specific Plan zoning subdistrict.

Specific plans provide a coordinated master plan for the development or redevelopment of an area. Specific plans are intended to promote coordinated planning concepts and pedestrian oriented mixed use development. The adopted specific plan for an area will set forth permitted uses and development standards for that area. Procedures are to be set forth in the Specific Plan subdistrict section in the Zoning Ordinance. (As amended by Ord. 2379, 4-19-94).

2. Development Code - Description and Purpose

The subject property is currently zoned M-1, C-2, R-2, and R-1. The Newberg Development Code describes these zones as follows:

10.40.300 R-1 LOW DENSITY RESIDENTIAL DISTRICT

10.40.302 Description and Purpose

The R-1 Low Density Residential District is intended for low density, urban single family residential and planned unit development uses. A stable and healthful environment, together with the full range of urban services, makes this the most important land use of the community. The R-1 district is intended to be consistent with the "Low Density Residential" designation of the Comprehensive Plan.

10.40.310 R-2 MEDIUM DENSITY RESIDENTIAL DISTRICT

10.40.312 Description and Purpose

The purpose of this land use designation is to provide a wide range of housing types and styles, while maintaining a maximum overall density of 8.8 units per gross residential acre.

Typical housing types will include single-family dwellings on small lots, attached and detached single family, duplex or multi-family housing, cluster developments and townhouses. The R-2 district is intended to be consistent with the "Medium Density Residential" designation of the Comprehensive Plan.

10.40.350 C-2 COMMUNITY COMMERCIAL DISTRICT

10.40.352 Description and Purpose

The C-2 Community Commercial District is intended to create, preserve and enhance areas with a wide range of retail sales and service establishments serving both long and short term needs in compact locations typically appropriate to commercial clusters near intersections of major thoroughfares. This district also includes some development which does not strictly fit the description of 10.40.350 through 10.40.360 but also does not merit a zoning district. The C-2 district is intended to be consistent with the "commercial" and "mixed use" designations to the Comprehensive Plan.

10.40.370 M-1 LIMITED INDUSTRIAL DISTRICT

10.40.372 Description and Purpose

The M-1 Limited Industrial District is intended to create, preserve and enhance areas containing manufacturing and related establishments with limited external impact, and with an open and attractive setting. The M-1 Limited Industrial District is typically appropriate to locations near major thoroughfares and non-manufacturing areas. The M-1 district is intended to be consistent with the "industrial" and "mixed use" designations of the Comprehensive Plan.

The proposed specific plan adds two zone types to the already existing zones: R-3 and R-P. The Newberg Development Code describes these zones as follows:

10.40.320 R-3 HIGH DENSITY RESIDENTIAL DISTRICT

10.40.322 Description and Purpose

The purpose of this land use designation is to provide multi-family dwellings of different types and styles while maintaining a maximum overall density of 21.8 units per gross residential acre.

Typical housing types will include apartments, townhouses, condominiums, and cluster developments. Density may vary depending on lot size, off street parking area, transportation, landscaping and other site considerations. The R-3 district is intended to be consistent with the "High Density Residential" designation of the Comprehensive Plan.

10.40.330 RP RESIDENTIAL-PROFESSIONAL DISTRICT

10.40.332 Description and Purpose

The RP Residential-Professional District provides for a desirable mixing of residential land uses with professional office uses in possible close proximity to adjacent low density residential areas. The professional office building and parking coverage, traffic generation, open space and other external factors with the residential uses permitted. This district may be appropriate in transition areas between major land uses as indicated in the adopted plan. The RP district is intended to be consistent with commercial or residential designations on the Newberg Comprehensive Plan. RP districts shall be located as to conform to goals and policies identified within the Newberg Comprehensive Plan and in areas which have a minimal impact on the livability or appropriate development of abutting

property.

3. Comprehensive Plan Goals and Policies

CITIZEN INVOLVEMENT GOAL: To maintain a Citizen Involvement Program that offers citizens the opportunity for involvement in all phases of the planning process.

At the request of the landowners, the City Council initiated the specific plan development process. The proposed Springbrook Oaks Specific Plan was developed by a Newberg City Council appointed steering committee. Members of the committee represented a wide range of community interests.

LAND USE PLANNING GOAL: To maintain an on-going land use planning program to implement statewide and local goals. The program shall be consistent with natural and cultural resources and needs.

POLICIES

2. The Comprehensive Plan and implementing ordinances shall be reviewed continually and revised as needed. Major reviews shall be conducted during the State periodic review.
3. Industrial land use needs shall be periodically evaluated.

FINDING: Creation of specific plans are permitted within the Newberg Comprehensive Plan. Adoption of the Springbrook Oaks Specific Plan requires amendments of the Comprehensive Plan and Map, the Development Code, and the Zoning Map.

Both statewide and locally, the emphasis is upon living within the urban growth boundary with high quality, affordable housing. The proposal includes a mixture of density levels while providing a wide range of housing opportunities. The proposal also provides for future business development that will bring employment opportunities to Springbrook Oaks residents as well as the greater Newberg community.

The proposal offers a plan for development that will be in character with the Newberg community. The plan includes development standards for the wooded areas and water resources for the subject land.

The Newberg Comprehensive Plan states that the Werth Property would be developed with approximately the following percentages and acreage:

IND	52%	166 acres
COM	8%	26 acres
MDR	14%	45 acres
LDR	<u>26%</u>	<u>82 acres</u>
Total	100%	319 acres

Since this portion of the Comprehensive Plan was updated, approximately 35 acres of the property have been developed:

12 acres of IND (EFTC)
23 acres COM (Fred Meyers and various small businesses.)

By subtracting the acreage of the recently developed lands from the Comprehensive Plan estimates, the total acreage of the subject property for the Springbrook Oaks development is approximately 284 acres.

The impact of the proposed land uses in the specific plan upon the current lands inventory for land within Newberg's UGB are as follows:

	<u>Comp. Plan</u>	<u>Proposed</u>	<u>Loss/Gain</u>
M-1	154 acres	77 acres	77 acre loss
C-2	3 acres	8 acres	5 acre gain
R-P	0 acres	76 acres	76 acre gain
R-1	82 acres	82 acres	no change
R-2	45 acres	27 acres	18 acre loss
R-3	0 acres	15 acres	15 acre gain

AGRICULTURAL LANDS GOAL: To provide for the orderly and efficient transition from rural to urban land uses.

POLICIES

1. The conversion of urbanizable land from agricultural to urban land uses shall be orderly and efficient.
2. Inclusion of lands in agricultural use within the Urban Growth Boundary is recognition of a commitment to future urbanization, as such lands are necessary to meet long-range population and economic needs, based on criteria outlined in the statewide Urbanization Goal.

FINDING: The current uses of the subject property is farm and forest. However, the subject property has been included within the Newberg city limits, which is an

acknowledgment that it is a proper site for urbanization given its location and the ability of the City to provide urban services. There is significant urban development immediately adjacent, including a significant amount of commercial, industrial, and residential land uses. A full complement of urban services are currently or soon to be available. Development of this site under the proposed Springbrook Oaks Specific Plan is consistent with this policy's requirement for orderly and efficient development.

Before development can occur in the portion of the subject property east of the eastern fork of Springbrook Creek, it may be necessary to obtain transportation access through unincorporated lands. Such access would be through lands currently designated Urban Reserve Area or located in Yamhill County. The specific plan call for transportation access off of Fernwood Road and from the northern vicinity of the Springbrook Oaks property.

WOODED AREAS GOAL: To retain and protect wooded areas.

POLICIES

1. Existing wooded areas shall be encouraged to remain as open areas for wildlife habitat and limited recreational uses.
2. Development in drainageways shall be limited in order to prevent erosion and protect water quality. Trees provide needed protection from erosion and should be maintained.

FINDING: The specific plan states that for each proposed development within the wooded eastern portion of the subject property (zoned R-1), a tree management plan is to be prepared by a third party licensed arborist.

A small grove of oak trees is located behind Fred Meyer. The specific plan states that this area will be protected as open space.

Two significant stream corridors have been identified within the subject property: the east and west fork of Springbrook Creek. The specific plan states that development within those stream corridors will be developed in accordance with the section 10.44.115 Stream Corridor Sub-District of the Newberg Development Code as well as the development requirements of applicable local, state and federal agencies.

AIR, WATER, AND LAND RESOURCE QUALITY GOAL: To maintain and, where feasible, enhance the air, water and land resource qualities within the community.

POLICIES

1. Water quality in the Willamette River and tributary streams shall be protected.
3. As public sanitary sewer systems become available, all development shall connect to the public system. To encourage economic development, the City may permit subsurface sewerage disposal where the system meets State and County requirements and where unique circumstances exist.
5. New industry should be located in areas which minimize impacts upon the air, water, and land resource base, as well as upon surrounding land uses.
6. The City will cooperate with State and Federal agencies which regulate environmental quality and shall adhere to the standards established by these agencies in the issuance of any permits or approvals given by the City. This policy is intended to cover discharges and emissions which may impair air, water or land quality or exceed the established standards for noise or other emissions.
7. The threat of excessive noise will be considered when reviewing land use requests. In addition, any new commercial and industrial developments shall conform to DEQ noise pollution standards.

FINDING: The specific plan states that development within Springbrook Oaks will follow the Newberg Storm Water Master Plan. It also states that developments in or around the stream corridors will be subject to applicable local, state and federal regulations.

The area designated for industrial development is compatible with surrounding uses. Uses to the north include industrial and commercial use. Empty, fallow fields designated URA also adjoin the area to the north. To the east, there is a stream corridor that will buffer the industrial uses to the zoned R-1 area. To the south and west is land with a proposed zoning of R-P, which will buffer the residential areas located west of the future Brutscher Road extension.

AREAS SUBJECT TO NATURAL DISASTERS AND HAZARDS GOAL: To protect life and property from natural disasters and hazards.

POLICY

3. In other areas of potential or existing hazards, development shall be subject to special conditions. Reasonable development may be permitted in these areas when it can be shown, based on sound engineering and planning criteria, that adverse impacts can be mitigated and kept to a minimum. Hazardous areas shall be considered to be lands with slopes 20% or greater, potential and existing slide areas, fault areas, and areas with severe soil limitations.

FINDING: The majority of the property is essentially flat. However, the proposed R-1 zoned area east of the eastern fork of Springbrook Creek is wooded with significant variations in topography. The specific plan requires that any proposed development within the proposed R-1 area must be preceded with the production of a geotechnical report of the area.

OPEN SPACE, SCENIC, NATURAL HISTORIC AND RECREATIONAL GOALS

GOAL 1. To ensure that adequate land shall be retained in permanent open space use and that natural, scenic and historic resources are protected.

GOAL 2. To provide adequate recreational resources and opportunities for the citizens of the community and visitors.

OPEN SPACE AND NATURAL RESOURCE POLICIES

- b. In selecting areas to be maintained as open space, parcels shall be of adequate size and possess desirable natural and locational qualities. Cost and ease of acquisition shall also be important considerations.
- d. The dedication of easements for public drainageways and stream corridors should be encouraged when properties are either developed or redeveloped. Developed densities that would normally be allocated to portions of the property within delineated stream corridors may be transferred to adjoining areas up to a maximum increase of 20 percent. (Adopted by Ord. 96-2452, approved by City Council 11-4-96).
- e. The floodplains and natural drainageway areas in Newberg should be preserved with a largely open character to provide a basic open space framework for the community. The capacities of these areas shall be maintained to provide a natural storm water and natural drainage system, as well as to continue to provide a natural habitat for local fish and wildlife. Natural drainageways should be kept in open space uses. Bicycle and pedestrian pathways might be included in these areas. Care should be taken to minimize disturbances in these often erosive and steep areas. All uses should be compatible with the specific sites.
- g. The City shall coordinate with State and Federal agencies to protect identified wetland areas. The National Wetlands Maps prepared by the U.S. Fish and Wildlife Service in 1981 provides an initial inventory of wetlands in Newberg.

4. RECREATION POLICIES

- a. Recreational facilities and services shall expand to meet growing recreational demands. In cooperation with Chehalem Park and Recreation District, these demands shall periodically be assessed and plans for programs and facilities shall be revised accordingly.
- b. To ensure that adequate lands shall be available for recreation, areas which are suitable recreational sites due to locational and natural qualities shall be designated as park land on the land use plan map. Other less specific park sites shall also be indicated on the plan.
- e. Recreational facilities shall be located throughout the planning area in order to minimize distances between residential areas and recreational opportunities.
- f. The continued multiple use of public facilities for recreational and other purposes shall be encouraged. In particular, schools and parks shall be located on adjacent sites wherever possible.

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4. **Recreation Policies (cont.)**

- g. Recreational standards for the planning area shall be as follows. These standards shall be considered as desirable guidelines to be achieved whenever possible.

<u>Classification</u>	<u>Acres Per 1000 People</u>	<u>Service Size Range</u>	<u>Area</u>
Neighborhood Parks	2.5	Free-standing; -10 acres. Adjacent to an elementary school; 2-5 acres with the school supplying about 6 acres of playground.	1/4-1/2 Mile
Community Parks	2.5	Free-standing; 10-25 acres. Adjacent to junior or senior high school; 8-15 acres with school supplying about 12 acres.	Not more than 1-1/2 miles
A City-Wide Park	—	25 acre minimum	Entire City

Source: Chehalem Park & Recreation District

- i. The City shall cooperate with Chehalem Park and Recreation District to provide recreational opportunities which meet the needs of Newberg and Yamhill County residents as well as any transient and regional population.
- k. The City will cooperate with the Chehalem Park and Recreation District to locate parks and scenic areas which are easily accessible to the City's population and which can be developed to provide recreational opportunities for a variety of age and interest groups.

FINDING: The proposed specific plan states that at least two neighborhood parks will be established in Springbrook Oaks. One will be located within the medium to high density residential areas located west of Brutscher Road. The other will be located in the low density residential area located east of the eastern fork of Springbrook Creek. Both parks will be conveniently located to the area residences. Total acreage of the two parks will be a minimum of five acres, with each park no less than 1 acre in size. The plan also calls for park and recreational facilities to be closely linked to any future school

facilities.

Other areas of open space have been identified. A grove of oak trees located behind Fred Meyer will also be developed as open space. A central plaza park shall be located near the center of the development to provide a focal point for community activities and a common identity for the community. Pedestrian paths will be created to interconnect different communities. Finally, a public golf course may be developed in the eastern portion of the property, possibly contiguous to the eastern fork of Springbrook Creek.

Two significant stream corridors are located within the subject property: the eastern and western forks of Springbrook Creek. Development within those areas will be regulated under the Newberg Development Code and the regulations by other applicable state and federal agencies. A conservation easement has already been conveyed by the property owner to the Chehalem Parks and Recreation District for the eastern fork.

The Springbrook Oaks Steering Committee included as a member the Director of the Chehalem Parks and Recreation District. The specific plan calls for the conveyance of open space to the District when possible.

ECONOMY GOAL: To develop a diverse and stable economic base

1. GENERAL POLICIES

- a. In order to lessen the percentage of persons who live in Newberg but must work elsewhere, the City should encourage a diverse and stable economic base through tax incentive programs, land use controls, preferential assessments and capital improvement programs. The formation of a community development corporation should also be considered.
- b. The City shall encourage economic expansion consistent with local needs.
- c. The City will encourage the creation of a diversified employment base, the strengthening of trade centers, and the attraction of both capital and labor intensive enterprises.
- f. The City shall participate with local and regional groups to coordinate economic planning.
- g. The City shall encourage business and industry to locate within the Newberg City limits.

2. INDUSTRIAL AREAS POLICIES

- a. Industrial expansion shall be located and designed to minimize impacts on surrounding land uses.
- d. The City shall reserve land for industrial development prior to demand and attract new industries in accordance with future community needs.
- e. Established industrial areas may be extended and new industrial areas designated by plan amendment where development trends warrant such extension or designation. Full urban services will be extended into the area if appropriate, if the extension of land use and services is consistent with all other goals and policies of the plan.
- f. Concerted community efforts should be made to see that industrial development expands outward from existing areas rather than occurring in haphazard patterns.

3. COMMERCIAL AREAS POLICIES

- b. Adequate neighborhood commercial areas will be provided to serve localized needs.

FINDING: The specific plan designates land uses for commercial, light industrial, and professional offices. These designated areas are contiguous to similar land uses to the north of the property, which are located along Highway 99W. Business development in these areas should provide a wide range of employment opportunities for Newberg residents. Residents of the development will be within easy access to the current commercial developments along Highway 99W as well as those developed within Springbrook Oaks.

The specific plan states that utility services to serve the proposed uses of the site already exist or will soon be in place. Water supplies have been a recent concern for the City of Newberg. A strategic plan to increase the water supply capacity was developed by the City in 1998 (ATTACHMENT C). As development is proposed within Springbrook Oaks, the ability of the City to deliver water supplies to the development will be monitored closely.

Table 1

**Industrial Land Analysis
City of Newberg
May 1999**

Vacant and Buildable Acres of IND Land Needed by 2010 (2000-2010) ¹	Current IND Land Within UGB		Surplus at 2010 (acres) ²	Estimated Annual Consumption Rate (acres) ³	Number of Years Land Supply ⁴
	Developed and Vacant Buildable Acres	Vacant Buildable Acres			
357	774	427	70	36	12

¹Data Source: Current Newberg Comprehensive Plan

²Estimated currently available vacant, buildable IND land subtracted from IND land needs estimated in current Comprehensive Plan

³Estimated currently available vacant, buildable IND land divided by current number of years remaining in planning period (2000-2010).

⁴The number of years land supply is based on figures in the Newberg Comprehensive Plan showing the land need for 1996-2010. Annual need is a straight line extrapolation past 2010.

Staff estimates that the proposed specific plan will subtract 77 acres from the current industrial land inventory. Staff has estimated possible effects of this proposal using three different data sources.

Table 1 uses estimated industrial land needs from the current Comprehensive Plan. The remainder of the table are Planning Staff estimates of the current industrial lands inventory.

The Residential Needs Analysis (1997), prepared by Benkendorf Associates Corp., estimated that Newberg would need 337 acres of buildable industrial lands from 1997-2016. Using these estimates, the average annual consumption rate of industrial land would be about 17 acres per year.

The 1979 Comprehensive Plan estimated that approximately 260 acres of industrial land within the UGB were developed at that time. 1999 inventories show that approximately 347 acres of industrial land is developed. Using these two figures, it is calculated that approximately 87 acres of industrial land has been developed between 1979 and 1999. The average annual industrial land consumption rate is slightly over 4 acres per year.

Based on the preceding three analyses, the potential effects of subtracting 77 acres of industrial land from the lands inventory would be as follows⁵:

	Annual Consumption Rate	Current Industrial Land Supply	Supply with Specific Plan Adoption
Current Comprehensive Plan Estimates (2000-2010)	64 acres	12 years	10 years
Actual Use (1979-1999)	4 acres	107 years	88 years
1997 Residential Needs Analysis (1997-2016)	17 acres	25 years	20 years

In summary, although the current comprehensive plan numbers suggest a lack of industrial lands in the UGB, more recent projections and more data on actual land usage show that the UGB will maintain a 20 year or more supply of industrial land even after

⁵Based on Planning Staff estimate of current vacant, buildable industrial land of 427 acres. Also assume no redevelopment of industrial lands.

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adoption of Springbrook Oaks specific plan.

In addition, the plan would add a 76 acres of R-P land. This can be used to promote economic development opportunities for service based industries, such as offices, hospitals, and medical laboratories.

The proposed C-2 land use of the specific land will only have a slight impact upon the land inventory in that category (5 acre gain).

HOUSING GOAL: To provide the housing needs of the community commensurate with regional income levels.

1. DENSITY POLICIES

b. Density classifications shall be as follows:

Classification	Units Per Gross Acre*
Urban Low Density	4.4
Urban Medium Density	4.4 - 8.8
Urban High Density	8.8 - 21.8

*Includes a 25 percent allowance for streets

c. In determining net residential densities, developers may be given density credit for land donated and accepted by the City for needed public facilities.

2. LOCATION POLICIES

a. Medium and high density areas should be located for immediate access to collector streets or minor arterials and should not cause traffic to move through low density areas. High density areas should be easily accessible to arterial streets. They should also be located near commercial services and public open spaces.

3. MIX POLICIES

h. To reduce distances between land uses, a mixture of all compatible uses will be encouraged. As such, convenience commercial areas may be located within residential districts provided they meet special development standards.

j. The City shall encourage innovation in housing types and design as a means of offering a greater variety of housing and reducing housing costs.

k. The City shall encourage an adequate supply of rental housing dispersed throughout the City to meet the needs of renters.

l. The City shall encourage residential occupancy of upper floors within multi-story commercial buildings.

m. Within the urban area, land use policies will attempt to provide a broad range of residential uses and encourage innovative development techniques.

FINDING: This project will provide additional housing opportunities to meet the needs of the growing population in the City of Newberg. It will also provide the opportunity for greater innovation in housing types and design through a variety of housing options and a range of residential uses. Development of Owner occupied dwelling units are anticipated as well as rental units. Areas zoned Residential Professional will provide opportunities for development that will permit residents to live nearby their employment facilities.

All development within Springbrook Oaks will comply with Codes, Covenants, and Restrictions (CCRs), which will be instituted before development begins. To further promote quality development for attached residential dwellings, the specific plan

includes a suggested set of Building Design and Development Standards.

Residential development will be within easy access to Brutscher Road, Springbrook Road, Fernwood Road and Highway 99W. Residents will also have easy access to commercial businesses along Highway 99W.

The specific plan established different density standards for the proposed zones in Springbrook Oaks than those established in the Comprehensive Plan. This will provide opportunities for development of a wider range of housing types. The specific plan also provides for some density shifting, including for land donated for public purposes. This will allow further flexibility in types of residential development.

Table 1 shows that there is a current surplus of either LDR and MDR land, and only a slight deficit of HDR acreage for the planning period ending at 2010. With the land already developed on the Werth Property and the proposed land uses in the specific plan, the combined affect of the is a proposed 18 acre gain of MDR land and 15 acre gain of HDR land in Newberg's lands inventory.

The proposed specific plan will not affect the land inventory of LDR land. The amount of residential development in the proposed R-P land is unknown at this time. The specific plan allows residential development in the R-P land west of Brutscher Road of up to one-hundred percent and up to twenty percent of the R-P land east of Brutscher Road.

Table 1

**NEWBERG URBAN GROWTH BOUNDARY
RESIDENTIAL LAND SUPPLY AND DEMAND
May 1999**

Plan Category	Land Needed by Plan Category 1999-2010 ⁶ (acres)	Current			Proposed		
		Buildable Land Within UGB (acres)	Surplus at 2010 (acres)	Number of Years Land Supply ⁷	Buildable Land Within UGB (acres)	Surplus at 2010 (acres)	Number of Years Land Supply ⁸
LDR	416	496	80	13	496	80	13
MDR	217	302	85	15	320	103	16
HDR	27	22	(-5)	9	37	10	15
TOTAL	660	820	160	NA	853	193	NA

⁶The 1999-2010 land need is pro-rated based on figures in the Newberg Comprehensive showing the land need for 1996-2010.

⁷The number of years land supply is based on figures in the Newberg Comprehensive showing the land need for 1996-2010. Annual need is a straight line extrapolation past 2010.

⁸The number of years land supply is based on figures in the Newberg Comprehensive showing the land need for 1996-2010. Annual need is a straight line extrapolation past 2010.

1-2-23

URBAN DESIGN GOAL: To maintain and improve the natural beauty and visual character of the City.

1. GENERAL POLICIES

- a. Design review should be performed at the staff level.
- b. Design review should be provided for all new developments more intensive than duplex residential use.
- e. Developments should respect the natural ground cover of their sites to the extent possible and plans should be made to preserve existing mature, non-hazardous trees in healthy condition.
- f. The planting of street trees should be required in conjunction with a list of City-approved trees.
- g. Community appearance should continue to be a major concern and subject of a major effort in the area. Street tree planting, landscaping, sign regulations and building improvements contribute to community appearance and should continue to be a major design concern and improvement effort.
- h. Landscaping shall be required along street frontage strips within the street right-of-way in order to soften the appearance of commercial and industrial developments.
- i. The City shall encourage tree planting for aesthetic purposes.
- l. The City shall encourage compatible architectural design of new structures in the community.
- n. The City shall encourage innovative design and ensure that developments consider site characteristics and the impact on surrounding areas.
- r. Developments of medium or high density shall be of a quality and design which will effectively offset the greater density.
- t. The City shall encourage residential-professional uses as a buffer between intensive commercial uses and less intensive residential uses.

2. INDUSTRIAL AREAS POLICIES

- b. Industrial developments should be well landscaped and maintained and existing trees should be preserved where possible.
- c. Where industrial uses abut residential zones or uses, special development standards relating to setbacks, screening, signs, building height and architectural review should be established.

4. RESIDENTIAL AREAS POLICIES

- a. The City will require buffering and landscaping to minimize impacts between housing and potentially conflicting uses.
- b. The City will evaluate and encourage various innovative and alternative approaches to zoning, including but not limited to the following: zero lot lines, cluster and density zoning, planned unit developments, performance standards and condominiums.
- d. Special development and design standards shall be adopted in the Development Code to ensure that multi-family, attached single-family and manufactured home park/subdivision projects are aesthetically-pleasing and compatible with nearby lower-density residential development.

6. SPECIFIC PLANS

- a. The City shall encourage the use of specific plans to coordinate development and create neighborhood identity. Specific plans are intended to serve as master plans for land development or redevelopment and may be applied to one parcel or multiple parcels. Specific Plans will be used to promote coordinated planning concepts and pedestrian oriented mixed use development. (As amended by Ord. 2379, 4-19-94).
- b. The Zoning Ordinance shall set forth the process and procedure for adoption of and amendments to specific plans. Approval of new specific plans will require Comprehensive Plan Map amendments to apply the SP (Specific Plan) plan district overlay to the affected property. (As amended by Ord. 2379, 4-19-94).

V-2-24

FINDING: Design review for proposed developments within Springbrook Oaks will be performed at the staff level. A series of building and development standards for proposed developments of attached dwelling units are included within the specific plan. Proposed developments which follow these suggested standards will be reviewed under a Type I review process instead of the usual Type II process.

Street construction will be required to follow city standards, which includes construction of sidewalks and tree planting strips. Trees will be selected from the city approve tree list, with a preference for oak trees, in keeping with the development's namesake: Springbrook Oaks.

The wooded portion of the subject property located to the east is proposed for R-1 development. The specific plan states that prior to any proposed development within this area, a tree management plan will be produces by a third party licensed arborist.

Codes, Covenants, and Restrictions (CCRs) will be developed prior to any type of development within Springbrook Oaks.

The eastern and western forks of Springbrook Creek provide natural buffers between proposed residential, commercial and industrial uses. Road, such as Brutscher Road, will provide a buffer between the residential areas and the residential professional area. The specific plan call for the construction of an buffer between Fred Meyer and any proposed residential development in the land contiguous to it within Springbrook Oaks.

At the request of the landowners, the City Council the specific plan development process. The proposed Springbrook Oaks Specific Plan was developed by a Newberg City Council appointed steering committee. Members of the committee represented a wide range of community interests. The plan was developed over approximately a six month period.

TRANSPORTATION

GOAL 1: ESTABLISH COOPERATIVE AGREEMENTS TO ADDRESS TRANSPORTATION BASED PLANNING, DEVELOPMENT, OPERATION, AND MAINTENANCE.

POLICIES

- a. The City shall coordinate with the State Department of Transportation to manage access to the state highway system and to implement the State Highway Improvement Program.
- b. The City shall coordinate its Transportation System Plan with the planning process of other jurisdictions to assure adequate connections to streets and transportation systems outside City boundaries.

GOAL 2: ESTABLISH CONSISTENT POLICIES WHICH REQUIRE CONCURRENT CONSIDERATION OF TRANSPORTATION/LAND USE SYSTEM IMPACTS.

POLICY: Transportation improvements shall be used to guide urban development and shall be designed to serve anticipated future needs.

GOAL 3: PROMOTE RELIANCE ON MULTIPLE MODES OF TRANSPORTATION AND REDUCE RELIANCE ON THE AUTOMOBILE.

POLICIES

- a. Design the transportation system and related facilities to accommodate multiple modes of transportation where appropriate and encourage their integrated use; and
 - 1) The City shall plan for a network of transportation facilities and services including but not limited to air, water, rail, auto, pedestrian, bicycle and public transit.
 - 2) The City shall encourage the continued operation of the existing public transit system.
 - 6) The City should establish a local transit service district to include but not be limited to the City of Newberg, City of McMinnville and Yamhill County.
 - 9) The City shall encourage more efficient use of existing transportation systems including car pooling, park and ride stations and bus service.
- b. Modifications should be made to the City's land use plan and development ordinances that will decrease trip length and encourage non-auto oriented development.
 - 1) The City shall encourage neighborhood commercial development.
 - 2) The City shall encourage higher density development around commercial areas.

GOAL 7: MINIMIZE THE CAPITAL IMPROVEMENT AND COMMUNITY COSTS TO IMPLEMENT THE TRANSPORTATION PLAN.

POLICIES

- a. The Transportation System Plan shall identify short and long term improvements to the collector/arterial street system, the public transit system, the pedestrian/bicycle system and the air, rail, water, and pipeline systems.
- b. The list of improvement projects in the Transportation System Plan shall guide development of the city's capital improvement plan for transportation projects.
- h. Transportation facilities will be designed to minimize impacts on:
 - Present and Planned Land Use patterns;
 - Natural and Scenic Resources;
 - Air Resource Quality, including noise;
 - Water and Land Resource Quality; and
 - Existing and Planned Transportation Facilities.
- i. New development and existing development undergoing expansion or modification shall be designed to accommodate planned long-term transportation improvement projects which are adjacent to the development.
- j. The City shall encourage the use of specific area plans in order to minimize the impacts of transportation facilities on neighboring properties.

4. TRANSPORTATION (CONT.)

GOAL 8: MAINTAIN AND ENHANCE THE CITY'S IMAGE, CHARACTER AND QUALITY OF LIFE.

POLICIES:

- a. Adopt transportation/land use system design standards which emphasize visual and aesthetic quality.
- b. New office park and commercial developments shall provide internal pedestrian circulation by clustering of buildings, construction of pedestrian ways, covered walkways and skywalks, and other similar techniques.
- c. Encourage plans which protect the integrity of existing neighborhoods, commercial, and industrial areas.

GOAL 9: CREATE EFFECTIVE CIRCULATION AND ACCESS FOR THE LOCAL TRANSPORTATION SYSTEM.

POLICIES

- b. Enhance existing and add alternative routes for local travel.
- 1) The City shall coordinate the development of a continuous interconnected street pattern which connects adjacent developments and minimizes the use of cul-de-sacs.

GOAL 11: ESTABLISH FAIR AND EQUITABLE DISTRIBUTION OF TRANSPORTATION IMPROVEMENT COSTS.

POLICIES:

- a. Define appropriate phasing and funding which relates to the benefits received.
- b. The City shall utilize the Transportation Improvement Funding policies outlined in the Transportation System Plan for determining responsibilities and costs for funding improvements.
(As amended by Ord. 94-2384, 8-1-94 and as amended by Ord. 98-2494, 4-6-98. Ord. 94-2384 also adopted the Newberg Transportation System Plan, a technical supplement to the Comprehensive Plan).

Finding: The proposed transportation requirements of the specific plan are based upon the city's adopted Transportation System Plan (TSP) and a Traffic Impact Analysis of the proposed Springbrook Oaks development. The TSP includes provisions for all modes of transportation, including but not exclusive to motorized vehicles, pedestrian, bicycle, and mass transit.

A number of significant street improvements are proposed for Springbrook Oaks. Brutscher Road will be extended to intersect with Fernwood Road. An east/west minor collector road will bisect the development. Fernwood Road will be upgrade to major collector standards from Springbrook Road to the development's eastern access point along Fernwood Road.

The specific plan identifies when transportation improvements will be constructed. The plan also identifies who is responsible for particular costs of improvements to the transportation system. Some of the costs with improvement of the transportation system will be paid for through the city's transportation System Development Charges (SDCs) fund.

L. PUBLIC FACILITIES AND SERVICES

GOAL: To plan and develop a timely, orderly and efficient arrangement of public facilities and services to serve as a framework for urban development.

POLICIES:

1. ALL FACILITIES & SERVICES POLICIES

- a. The provision of public facilities and services shall be used as tools to implement the land use plan and encourage an orderly and efficient development pattern.
- b. The extension of publicly-owned facilities and services into currently undeveloped areas shall occur only in accordance with the Public Facilities and Service Plan.
- c. New public facilities and services shall be designed at levels consistent with planned densities and designated land uses for the area.
- d. Services shall be planned to meet anticipated community needs.
- g. Public facilities and services necessary to meet the special needs of industrial activities should be planned for those areas designated industrial on the comprehensive plan map and should be provided at a level sufficient to support proposed activities, if public funds are available.
- h. New residential areas shall have: paved streets, curbs, pedestrian ways, water, sewer, storm drainage, street lights and underground utilities.

2. SEWERS AND WATER POLICIES

- b. Water systems within the planning area will be designed to provide an adequate peak flow for fire protection.
- c. Developments with urban densities should be encouraged to locate within the area which can be serviced by Newberg's present sanitary sewer system.

5. SCHOOLS POLICIES

- a. Elementary schools should be centrally located with reference to their service areas.
- b. In accordance with the land use plan, the school district should anticipate development and acquire the best sites in advance of urbanization.
- c. Elementary schools should not be located on arterial streets.
- d. Schools should be built with parks wherever possible. To this end, the City together with the School and Park Districts should coordinate development plans.
- e. The location of schools should be used as a major tool for directing future residential growth.
- f. Schools shall be encouraged to serve as centers for neighborhood and community activities.
- g. New schools shall be located in such a manner as to provide adequate and safe pedestrian, bicycle, and automobile access. Streets shall be fully improved and major intersections shall provide signalization where necessary.

7. PARK FACILITIES POLICIES

- a. In conjunction with Chehalem Park and Recreation District, park facilities shall be provided consistent with recreational needs.

FINDING: The specific plan states that utility services to serve the proposed uses of the site already exist nearby or will soon be in place. All new utility infrastructure will be placed underground. Water supplies have been a recent concern for the City of Newberg. A strategic plan to increase the water supply capacity was developed by the City in 1998 (ATTACHMENT C). As development is proposed within Springbrook Oaks, the ability of the City to deliver water supplies to the development will need to be monitored closely. The Newberg Fire Department was involved with the development of the specific plan and their issues have been addressed within the plan. Infrastructure development will follow the guidelines of the Newberg Storm Water Master Plan.

Street construction will be required to follow city standards, which includes construction of sidewalks and tree planting strips. Trees will be selected from the city approved tree list, with a preference for oak trees, in keeping with the development's namesake: Springbrook Oaks.

A representative of the Newberg School District was a member of the Springbrook Oaks Steering Committee. The School District may want to place a school facility within the residential areas west of Brutscher Road, but has not committed to that location. The specific plan allows for such facility if it is desired. The school will be located in a safe, convenient location and closely linked with park and recreation facilities when feasible.

The Springbrook Oaks Steering Committee also included as a member the Director of the Chehalem Parks and Recreation District. In conjunction with this Steering Committee member, concerns of the District for recreation and park facilities were addressed within the specific plan.

M. ENERGY

GOAL: To conserve energy through efficient land use patterns and energy-related policies and ordinances.

POLICIES:

1. PLANNING POLICIES

- a. The City will encourage energy-efficient development patterns. Such patterns shall include the mixture of compatible land uses and a compactness of urban development.

2. PUBLIC ENERGY CONSERVATION POLICIES

- c. Public buildings shall be designed for multiple use and located in easily accessible areas.

FINDING: The specific plan allows for urban density growth near a regional transportation corridor (Highway 99W). The proposed development includes a wide range of land uses in a design pattern that should be compatible. The location of the development is convenient to nearby commercial services and will generate its own services and industry that residences can take advantage of.

The School District may want to place a school facility within the residential areas west of Brutscher Road, but has not committed to that location. The specific plan allows for such facility if it is desired. The school will be located in a safe, convenient location and closely linked with park and recreation facilities when feasible.

N. URBANIZATION

GOALS:

1. To provide for the orderly and efficient transition from rural to urban land uses.
2. To maintain Newberg's identity as a community which is separate from the Portland Metropolitan area.
3. To create a quality living environment through a balanced growth of urban and cultural activities.

POLICIES:

1. URBAN GROWTH BOUNDARY AND URBAN RESERVE AREA POLICIES

- a. The conversion of lands from rural to urban uses within the Urban Growth Boundary will be based on a specific plan for the extension of urban services.
- c. The City shall encourage urban development within the City limits.
- h. The designated Urban Reserve Area identifies the priority lands to include within the Newberg Urban Growth Boundary to meet projected growth needs to provide a thirty (30) to fifty (50) year land supply. Designated Urban Reserve Area lands will be included within the Urban Growth Boundary on a phased basis at periodic review. Property owners will also have the opportunity to request that land within the designated Urban Reserve Area be included within the Newberg Urban Growth Boundary, based on the criteria outlined in LCDC Goal 14 and the Urban Growth Management.
- i. The City of Newberg will initiate transportation and utility corridor planning for the Urban Reserve Area in coordination with Yamhill County and property owners. The corridor plans shall provide the framework to guide interim rural development and long-range urban development within the Urban Reserve Area.

2. ANNEXATION POLICIES

- c. Property outside the Urban Growth Boundary may be annexed only upon inclusion of such property into the Urban Growth Boundary.

3. GENERAL POLICIES

- a. In new development areas all utility lines shall be placed underground. In existing areas an effort will be made to locate power, telephone, cable television and other utility cables underground over a period of time.
- c. The City may use the following or similar implementation measures to promote and encourage the establishment and expansion of industry in the planning area: tax incentives, land use controls and ordinances, preferential assessments, capital improvement programming, fee and less than fee acquisition techniques, and available state and federal programs or grants.
- d. Transfer of development rights may be used as a tool to aid in the preservation of historic sites, natural resources and open space areas.

FINDING: The proposed specific plan is located within the Newberg city limits and is urbanizable. The development would have a wide range of land uses, including residential, business, and recreational opportunities. The development should create a balanced community that will unlikely be viewed as just another bedroom community to the Portland metropolitan area.

The Springbrook Oaks property is surrounded by properties within the city as well as Yamhill County lands, including lands designated within Newberg's Urban Growth Boundary and Urban Reserve Areas. To fully develop the proposed Springbrook Oaks, developer will need to work with the City and Yamhill County on: 1) improvements to Springbrook Road; 2) improvements to Fernwood Road; and 3) transportation access

points to the proposed R-1 area east of the eastern fork of Springbrook Creek. To achieve these developments, the involved lands may be required to be included in the URA, UGB and/or ultimately annexed to the City of Newberg. Development within the stream corridor and wetland areas will also need to consult with applicable local, state and federal agencies.

All new utilities within the Springbrook Oaks development will be placed underground. The new sewer and water utilities being installed this year along Fernwood Road are being financed through a loan from the Oregon Economic Development Department. The facilities are being installed to service the growing needs of that portion of the city, including the Springbrook Oaks development.

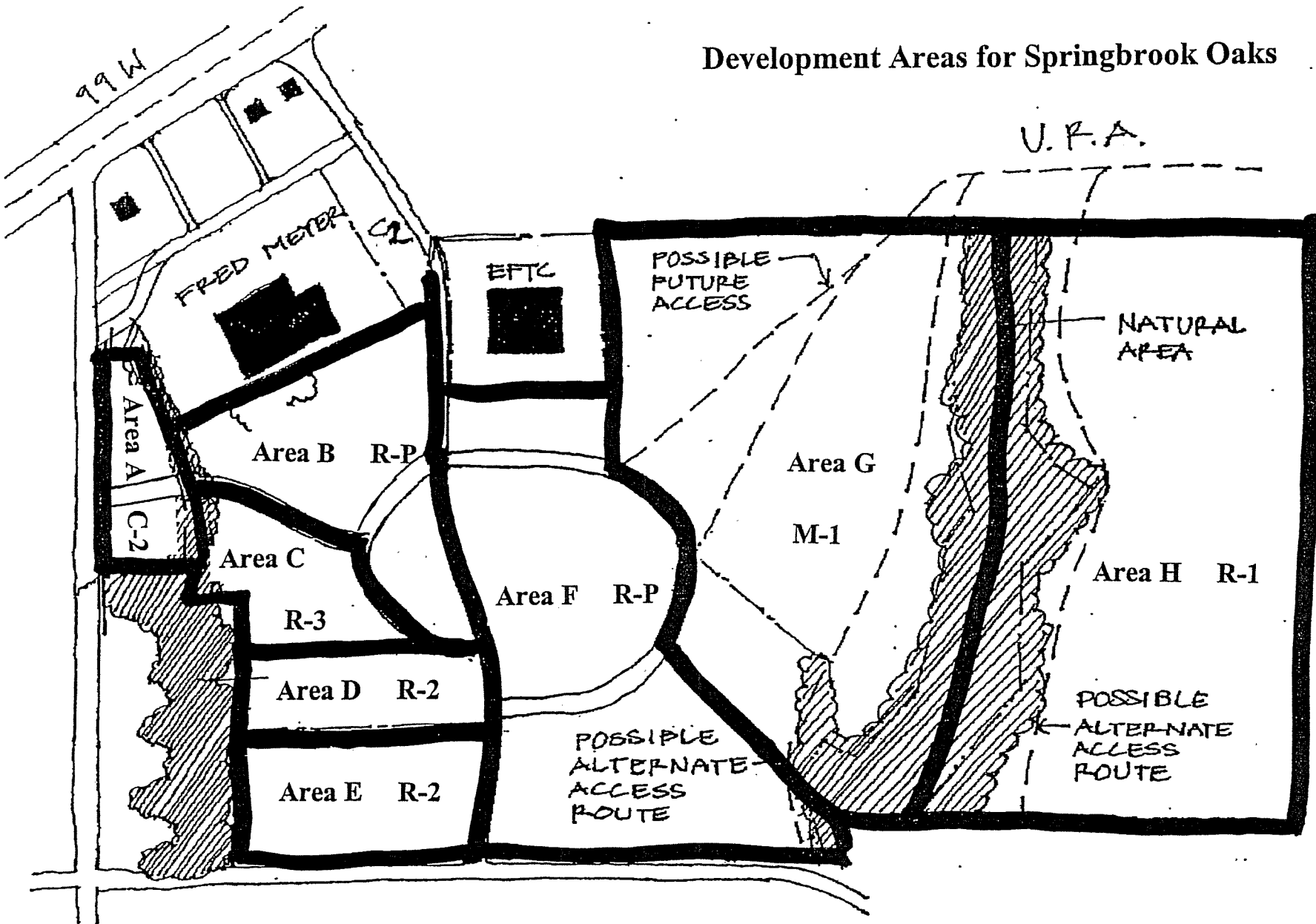
The specific plan allows for density shifting to residential areas for land donated for public purposes.

In summary, the proposed zone change and comprehensive plan amendment promotes the objectives of the Development Code and Comprehensive Plan.

B. *Public facilities and services are or can be reasonably made available to support the uses allowed by the proposed change.*

Please see the **FINDINGS** section of page 21 for Comprehensive Plan goal **PUBLIC FACILITIES AND SERVICES**.

Development Areas for Springbrook Oaks



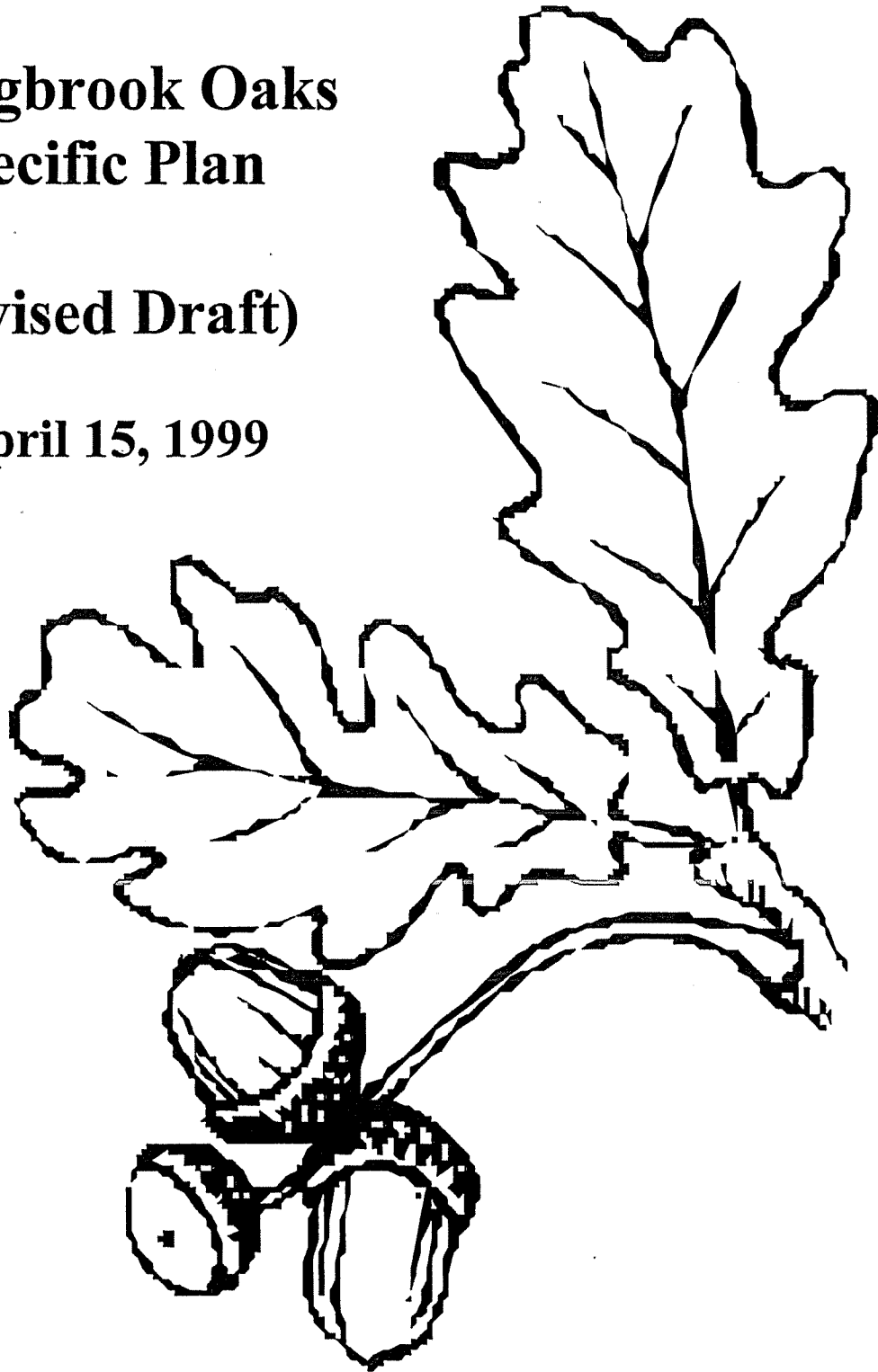
SPRINGBROOK OAKS CONCEPTUAL USE PLAN



Springbrook Oaks Specific Plan

(Revised Draft)

April 15, 1999



**City of Newberg
P.O. Box 970
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THE SPRINGBROOK OAKS SPECIFIC PLAN

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THE SPRINGBROOK OAKS SPECIFIC PLAN

SUMMARY

The Springbrook Oaks Specific Plan is intended to provide a coordinated framework for development of one of the largest undeveloped areas in Newberg. Springbrook Oaks will be a mixed use development, containing multi-family and single family residential, office, and industrial uses. The Specific Plan establishes a framework plan for land use, streets, and utilities for the approximately 284-acre parcel located southeast of the Springbrook Road / Highway 99W intersection.

Land uses for the property will be mixed. A range of housing opportunities will be provided. Residential facilities may include apartments, single family attached housing, duplexes, and single family detached homes. Light industrial and office development will provide a convenient work location for community residents as well as support the economy of the greater Newberg area. The plan also takes into consideration the significant natural features of the property. It protects the stream corridors, preserves an existing oak grove for open space, and ensures the integrity of a wooded area in the eastern portion of the project area through low-density residential development. The plan accommodates the recreational needs of the community through the designation of neighborhood parks within residential areas. Infrastructure needs for water, sewer, storm drainage and energy have been addressed. The plan also provides for the circulation requirements of a variety of transportation modes. The transportation plan will serve the intra-connectivity needs of the Springbrook Oaks development as well as ensure a quality addition to the overall transportation network of the City.

A set of development policies have been established to ensure the proper implementation of the Specific Plan. These policies can be found in Appendix A.

The needs of the property owner, the developer, neighbors, and the community have been incorporated into this Plan. The draft plan was developed by a broad-based steering committee of 14 members appointed by City Council in Autumn 1998. The steering committee built consensus for the plan by balancing community needs with development realities and the wishes of the property owner. The draft plan was reviewed and modified by the Newberg Planning Commission and the Newberg City Council. The Springbrook Oaks Specific Plan was adopted by the City of Newberg on (????date).

In summary, the Springbrook Oaks Specific Plan includes:

- Residential developments of various densities and housing types;
- Significant natural resources protection;
- Recreational opportunities;
- Economic development and employment opportunities; and
- Adequate infrastructure.

PLAN PURPOSE AND OBJECTIVES

The primary purpose of the Springbrook Oaks Specific Plan is to establish a vision for the project area that helps meet the current and future needs of the local community. Proper implementation of the development guidelines within this plan will ensure the creation of an attractive, balanced, coordinated, high quality development that will be a positive addition to the City of Newberg.

The specific plan development process was initiated by the Newberg City Council at the land owner's request. The intent of the property owner and the City of Newberg was to prepare a specific plan that would establish specific development guidelines which would support the goals and objectives of Newberg's Comprehensive Plan.

The Specific Plan was developed under several important principals:

- Land use and zoning district locations should respond to existing surrounding uses.
- Land uses should be mixed to encourage a balanced development.
- A variety of residential densities and housing types should be developed to provide greater housing opportunities.
- Densities should be laid out so as to allow a low impact transition between use zones, ranging from most dense in the north to least dense in the south.
- Brutscher Street should be used as a buffer between zoning districts.
- The site should contain a connected street pattern that is integrated into the Newberg Transportation Plan.
- Secondary collector streets should be used as an alternative to Highway 99W.
- A strong pedestrian circulation system should be developed to provide connectivity and to reduce vehicular traffic.
- Sensitive stream corridors should be protected as much as is practical.
- Wooded areas of the property should be retained as much as is practical.
- Recreational opportunities should be provided in residential areas through neighborhood parks.
- Implementation policies should provide developers with some flexibility to respond to future design and market forces.

THE SITE AND ITS CONTEXT

Location and Size

The Springbrook Oaks Specific Plan site is approximately 284 acres in size. It is located southeast of the Springbrook Road / Highway 99W intersection, and is within the city limits. The site adjoins unincorporated County land. Some of these adjoining County lands are located within the City of Newberg's Urban Growth Boundary and identified Urban Reserve lands (see Graphic I).

Natural Features

The site is located along the western edge of the Chehalem Mountains, within the upper Springbrook drainage (see Graphic II). The western two-thirds of the site slopes to the south, with slopes varying from 1% to 7%. Most of this area is a broad, gently sloping terrace bounded by the western fork of Springbrook Creek and eastern fork of Springbrook Creek, with an average slope of 2%. The eastern third of the site is moderately sloping hills. Outside of the stream corridor, the slopes vary from 3% to 20%.

Two stream corridors cross the site. The stream corridor for the western fork of Springbrook Creek averages approximately 120' in width. The stream corridor for the eastern fork of Springbrook Creek averages approximately 400' in width. Both streams generally run in a southerly direction. To the east of the eastern fork of Springbrook Creek is a wooded area containing mixed brush and hardwood and softwood trees. South of the Fred Meyer store, there is a small grove of mature oaks. This grove, encompassing approximately 2.5 acres, is located on a flat piece of ground.

Current Uses

The Springbrook Oaks area is currently a mixture of farmland and forest uses. Surrounding uses to the north and west of the property include commercial development: retail (including Fred Meyer), auto sales, banks, restaurants, auto service, a movie theater, and an animal hospital. Additional commercial uses are present along the Highway 99W strip.

Rural residential development borders the property to the east and south. The majority of these properties are located within unincorporated Yamhill County. Light industry, a manufactured home park and medium density residential uses are located to the west and southwest across Springbrook Road. The remaining county land adjoining the site to the north, east, and south is zoned for agricultural and forest uses.

Comprehensive Plan - Land Uses

Prior to this plan, the land within Springbrook Oaks area was designated for Industrial, Low Density Residential, and Medium Density Residential uses by the Newberg Comprehensive Plan. The Newberg Zoning Map shows land uses of Light Industrial, Medium Density Residential and Low Density Residential. The Springbrook Oaks Specific Plan amends the Comprehensive Plan text and map for the project area.

While the designated uses shown on the comprehensive plan and zoning maps were not intended to be tied to specific locations within the property, the map does establish the approximate percentages of the designations. The approximate land use percentages described in the Newberg Comprehensive Plan are as follows:

Industrial	52%
Commercial	8%
Medium Density Residential	14%
Single Family Residential	26%

It should be noted that these figures included property to the north of the project area that was in possession of the property owners at the time Comprehensive Plan's adoption. These northern properties have since been sold by the land owner and have been developed for commercial and light industrial uses. Business developments include the Fred Meyer complex, US Bank, Davis Lock and Safe, Wendy's, Taco Bell, Jiffy Lube, West Coast Bank, and EFTC.

Circulation

Vehicular Circulation

The Springbrook Oaks property is currently accessible by three (3) existing roads: Brutscher Street, Springbrook Road, and Fernwood Road. North of the site, both Brutscher Street and Springbrook Road have signalized intersections with Highway 99W, a major arterial (see Graphic III).

Springbrook Road is classified as a major arterial south of Hancock, and as a major collector north of Hancock. This street is not currently improved to its classification, and currently contains two lanes with no curbs and an asphalt sidewalk on the west side separated by a planting strip.

Brutscher Street is classified as minor collector. The street currently extends 900 feet south from its intersection with Highway 99W, where it dead ends at the Springbrook Oaks' northern boundary line.

Fernwood Road is classified as a major collector, but is not improved to its classification. This two lane road currently has no curbs, sidewalks or bike lanes.

Public Transportation

Bus service is available along Springbrook Road and Highway 99W. Local service is provided by the Chehalem Valley Senior Citizen Council (CVS). Inter-city connections are provided by the Yamhill Community Action Agency (YCAP). This transit system connects Newberg to areas between McMinnville and the Tri-Metropolitan Transit District (Tri-Met).

Pedestrian Circulation

Sidewalks currently exist along the south side of Highway 99W. Brutscher Street has sidewalks on the east side and on the west side from Highway 99W to Fred Meyer.

Bicycle Circulation

Bicycle lanes are on Springbrook Road and Brutscher Street.

Transportation System Plan (TSP)

The TSP calls for improvements to Fernwood Road as a major collector. Springbrook Road is identified as a major collector north of Hancock Street and a minor arterial south of Hancock Street. The TSP also shows Brutscher Street being extended south to Fernwood Road as a minor collector street. All of these roads will ultimately be 46 feet in width curb to curb. Finally, a future limited access highway is identified to be located within the study area. Typical cross sections of these streets are shown in Graphic IV.

Development of Springbrook Oaks will have an impact upon transportation facilities beyond those within its immediate vicinity. Improvements to these facilities as specified in the TSP will need to be made as development occurs in Springbrook Oaks.

Utilities (see Graphic V)

Sewer

- Springbrook Road is served by a 15 inch line.
- Highway 99W is served by an 8 inch line in the Fred Meyer access drive. This line terminates at Brutscher.
- Fernwood Road does not have sewer service east of Springbrook.

System improvements for Fernwood Road have been designed and are expected to go out to bid in Spring 1999. The improvements will include a 10 inch gravity line, a 6 inch force main, a 12 inch force main, and a new pump station.

Water

- Springbrook Road contains a 12 inch water main.
- Highway 99W contains a 10 inch water main.
- Fernwood Road lacks water service east of Springbrook.

System improvements scheduled for the area include a new 4 million gallon reservoir east of the property with a 24 inch main along Fernwood Road and a 16 inch main from Highway 99W at Fernwood Road.

Electricity

A new substation has been installed along Springbrook Road. The substation has the capacity to serve all the intended uses of the property. High voltage power is available from Highway 99W and Springbrook Road for industrial uses.

Gas

- Springbrook Road and 99W west of Newall Road are served by 8 inch high pressure lines.
- A 2 inch line runs from Springbrook around the south side of the Fred Meyer store at the edge of the paved area, terminating at Brutscher.
- Fernwood Road lacks gas service east of Springbrook.

Site Drainage

The site drains generally to the two stream corridors, with the tributary area split roughly 50/50 between the two. The western and eastern forks of Springbrook Creek are the natural drainage channels contained in the stream corridors. Drainage tiles run in the existing agricultural field into the eastern fork of Springbrook Creek in the northeast corner of the site and through the culvert under Fernwood Road.

The western fork of Springbrook Creek crosses under Fernwood Road in a 36 inch round culvert. The eastern fork of Springbrook Creek crosses under Fernwood Road in a 70 inch round culvert. Both culverts are considered undersized by 1999 Newberg Storm Water Master Plan Update. The plan states that these culverts will be upgraded as improvements are made along Fernwood Road. The plan also identifies detention requirements for the Springbrook Oaks property.

FUTURE LAND USE PLAN

The Springbrook Oaks Specific Plan provides a framework for development beyond the Comprehensive Plan designations. Without the Specific Plan, the Springbrook Oaks site would probably be developed in a less coordinated, piecemeal manner. With the Specific Plan, a quality development will be created that will be a positive addition to the Newberg community.

A mix of land uses are planned that will ensure the creation of a well-balanced development. Included within the plan is a range of housing densities that makes use of the site's location, surrounding uses and natural features. Office and light industrial uses are planned for the central portion of the site. This location will provide good access to Highway 99W via Brutscher Street and utilize Brutscher Street as a buffer to the residential areas west of this road. This location will also allow the eastern stream corridor to act as a natural buffer to the residential area planned for the eastern portion of the site.

The eastern portion of the site, which is adjacent to unincorporated Yamhill County, will be used for the low density, single family housing, taking advantage of the stream corridor to buffer the housing from the commercial and industrial uses. This type of development will also lessen the impact upon the wooded nature of this portion of the site and the adjacent stream corridor. The plan anticipates the development of higher density residential uses west of Brutscher Street, such as detached homes, attached homes, townhouses, apartments, and senior housing. Density will vary in this area, with higher density expected to the north and then decreasing to the south.

Commercial development has been planned for the land east of Springbrook Road and west of the western fork of Springbrook Creek. This land use designation is contiguous to commercial activities along Highway 99W. Businesses developed at this location will be easily accessible for Springbrook Oaks residents and the greater Newberg community from Springbrook Road and the east/west collector road designated to be built within the Specific Plan.

Implementation of design policies within this plan will bring about a more attractive, livable community. Design policies address such issues as staggered setbacks, non-repetitive home designs, varied building types, aesthetically attractive exterior building materials, and pedestrian-friendly building orientation.

Infrastructure needs for water, sewer, and transportation have been defined. Adequate utilities for water and sewer will be provided for the Springbrook Oaks development while making provisions to service adjacent properties within the Urban Growth Boundary and Urban Reserve areas. Routes and standards for both motorized and non-motorized modes of transportation have been designed to provide good circulation within the development as well to the greater Newberg community.

The plan provides recreational opportunities through the establishment of neighborhood parks in residential areas and a central plaza. The plan has also been configured to allow later development of a golf course that is tentatively planned for the area. If developed, the golf course is anticipated to be located on both sides of the stream corridor of the eastern fork of Springbrook Creek.

Environmentally sensitive areas will be protected. Buffer zones for stream corridors have been established. A grove of oak trees behind Fred Meyer will be preserved as open space. Residential

development within the forested area in the eastern portion of the site will be guided by a tree management plan and a geotechnical report. Storm water mitigation measures have been identified.

The Springbrook Oaks Specific Plan provides some flexibility in how actual development occurs. Tools exist for minor density transfers and boundary changes through minor review processes. This will allow developers to better respond to design and market forces while still protecting the integrity of the plan.

The establishment of schools are permitted, if necessary, within appropriate zones. This will provide for the educational needs for the residents of Springbrook Oaks as well as those of surrounding areas. Site location policies for schools have been established to ensure that these educational facilities will be safe, convenient, and pedestrian-friendly.

Eight (8) development areas have been established within Springbrook Oaks (see Graphic VI). A brief description of these development areas is as follows:

- | | |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Areas A | This area is zoned Community Commercial (C-2). The purpose of this land use is to create, preserve, and enhance areas with a wide range of retail sales and service establishments. The land use will serve both long and short term needs in compact locations typically appropriate to commercial clusters near intersections of major thoroughfares. Examples of permitted uses include banks, book stores, service stations, dry cleaners, gift shops, restaurants, and grocery stores. |
| Areas B and F | These areas are zoned Residential-Professional (R-P). The purpose of this land use designation is to create a desirable mixing of residential land uses with professional offices in possible close proximity to adjacent low density residential areas. Examples of permitted uses include group care facilities, medical labs, clinics, professional offices, and single-family dwellings. |
| Area C | These areas are zoned High Density Residential (R-3). The purpose of this land use designation is to provide for multi-family dwellings of different types and styles. Examples of permitted uses include apartments, townhouses, condominiums, and cluster developments. |
| Areas D and E | These areas are zoned Medium Density Residential (R-2). The purpose of this land use designation is to provide a wide range of housing types and styles. Examples of permitted uses include single-family dwellings on small lots, attached and detached single family, duplex or multi-family housing, cluster developments and townhouses. |
| Area G | This area is zoned Limited Industrial (M-1). The purpose of this land use designation is to create, preserve and enhance areas containing manufacturing and related establishments with limited external impact, and with an open and attractive setting. Examples of permitted uses include manufacturing and assembly of electronic equipment, storage facilities, wholesale businesses, and professional offices. |

Area H This area is zoned Low Density Residential (R-1). The purpose of this land use designation is to provide for low density, urban single family residential and planned unit development uses. This area is expected to be developed primarily as single family residential.

A series of policies have been established to guide development of Springbrook Oaks. These development policies can be found in Appendix A of this document. Appendix B describes the codification of this plan in the Newberg Development Code, Section 10.44.317 (2). Appendix C establishes building design and development standards for proposed attached residential dwelling unit developments within Development Areas B through F. Such development proposals meeting these standards will be reviewed under a Type I process.

Springbrook Oaks Specific Plan

Development Policies

General Policies

- Homeowner associations shall be formed to maintain a high quality of life for the community's residents. Responsibilities of the associations may include the long-term ownership, financing, and maintenance of community areas such as landscaped areas, storm water detention areas, open space, and pedestrian paths. The associations may also establish an architectural/site plan review committee to ensure that the Building Design and Development Standards established within these policies are adhered to. Decisions of the architectural/site plan review committee shall be subject to an appeal process to the City of Newberg.
- Changes to the adopted specific plan shall follow the procedure described in the Newberg Development Code, Section 10.44.312, unless otherwise specified in this policy document.
- Development permit approval process for subdivisions shall follow the Type II application procedure described in the Newberg Development Code, Section 10.10.060.
- Proposed developments for attached residential dwelling units within Development Areas B through F (Graphic VI) that meet the standards established in APPENDIX D of this specific plan shall be reviewed under a Type I process.
- Proposed boundary modifications for Development Areas B through E that increase any individual area no more than five percent (5%) of its original total acreage will be reviewed under a Type I process. Proposed boundary modifications that change the total acreage of any of the aforementioned Development Areas more than five percent (5%) will be reviewed under a Type III process.
- Proposed boundary modifications for Development Areas F through G that increases any individual area no more than ten percent (10 %) of its original total acreage will be reviewed under a Type I process. Proposed boundary modifications that change the total acreage of any of the aforementioned Development Areas more than ten percent (10 %) will be reviewed under a Type III process.
- Proposed boundary changes for Development Areas A and H will be reviewed under a Type III process.
- A proposed shifting of alignment of any road from what is described in the circulation/transportation plan of the Springbrook Oaks Specific Plan will follow the procedure

described in the Newberg Development Code, Section 10.44.312.

- Proposed changes to the policies listed in the **Transportation** section will be review under a Type I process.
- Development activity not covered in this policy document shall be governed by the Newberg Development Code. In the case of a conflict between the Springbrook Oaks Specific Plan and the Newberg Development Code, the Springbrook Oaks Specific Plan shall govern.

Transportation

Bicycle and Pedestrians

- Pedestrian and bicycle paths/sidewalks (on or off-street) shall be provided:
 1. Over the east and west forks of Springbrook Creek (subject to approval by applicable local, state, and federal agencies);
 2. Along Brutscher Road to Fernwood Road;
 3. To Fred Meyer (subject to Fred Meyer approval);
 4. As interconnections between developments within the Springbrook Oaks area; and
 5. To local parks and schools.

Motorized Vehicles

- An interconnected street system shall be provided between residential areas.
- Local streets shall have two separate access points, except for cul-de-sacs. At a minimum, street access plans shall meet Newberg Fire Department Fire Safety Design Standards. All street access plans must be approved by the Newberg Fire Department.
- Access to and from the residential area east of the eastern fork of Springbrook Creek (Development Area H) shall be provided as follows: (1) to Fernwood Road, and (2) across the eastern fork of Springbrook Creek at the northern vicinity of the development (subject to approval by applicable local, state, and federal agencies). This crossing may be inside or outside of the boundaries of Springbrook Oaks. Regardless of which access develops first, the second access to and from Development Area H shall be provided as traffic and/or public safety needs warrant it.
- Access to Fernwood Road from the residential area east of the eastern fork of Springbrook Creek should be granted only when the Urban Reserve Area between the development and

Fernwood Road has been brought into Newberg's Urban Growth Boundary.

- Access shall be provided for the future development of the property north of the Springbrook Oaks area located within the Urban Reserve Area.
- A minor collector road shall be built as an east/west connection between Springbrook Road and Brutscher Street, crossing the western fork of Springbrook Creek (subject to approval by applicable local, state, and federal agencies).
- Brutscher Street shall be built as a minor collector road.
- Brutscher Street shall be of a curvilinear or similar design to discourage excessive speeds.
- Fernwood Road shall be improved to major collector road standards.
- The Springbrook Oaks Specific Plan shall include a traffic impact analysis as a basis for transportation improvements within the area of influence of Springbrook Oaks.
- A traffic light shall be installed at Springbrook Road and Fernwood Road at the time recommended by the traffic impact analysis report for Springbrook Oaks.
- All streets shall be built to City public street standards.
- All street access points shall be spaced to City public street standards.
- Public roads shall meet Newberg Fire Department Fire Safety Design Standards.
- The Newberg Transportation System Plan includes a limited access highway through the Springbrook Oaks property. Property owners and developers should be made aware that this project area is included within the Newberg Transportation System Plan.
- Continuous address numbering shall be used for all streets.
- Street trees shall be installed and maintained to at least the minimum city standards.
- No private streets shall be allowed in Springbrook Oaks.

Fernwood Road

Fernwood Road shall be improved to City of Newberg Major Collector standards from Springbrook Road to the access road to development Area H as development proceeds. The improvements shall provide, at a minimum, a three-quarter street improvement along the Springbrook Oaks frontage, and safe pedestrian and bicycle access to Springbrook Road. An engineer shall design the stream crossings on Fernwood Road. This design shall balance needs for

vehicle, pedestrian, and bicyclist safety, stream corridor protection, and economic efficiency. The crossings shall meet all local, state, and federal requirements.

These Fernwood Road improvements shall be made as vehicle, bicycle, and pedestrian volumes, and safety warrant. In no case shall the improvements be made later than the following schedule:

- 1) From Springbrook Road to Brutscher Street: when Brutscher Street connects to Fernwood Road and twenty-five percent (25%) of Areas B through E, F and G, or both have been developed.
- 2) From Brutscher Street to the eastern fork of Springbrook Creek: When sixty percent (60%) of the development Areas F through G have been developed.
- 3) From the eastern fork of Springbrook Creek to the access road in Development Area H: When residential development occurs in Area H.

The developer of Springbrook Oaks is generally obligated for the costs of improving Fernwood Road along the frontage of the property, including an equitable share of the stream crossings. The developer may need to install improvements beyond this basic obligation to provide safe access for the development. In these cases the City should assist the developer in recovering costs beyond this basic obligation through methods that may include system development charges, advanced financing agreements, or a local improvement district (LID).

Each development that occurs prior to the Fernwood Road improvements shall provide a bond towards the required street improvements. The value of the bond will be a percentage of the cost of the road improvement. The percentage will be the ratio of the area of the property to be developed to the area of the entire Springbrook Oaks development.

Improvements to Fernwood Road will be performed in a contiguous, sequential manner, from Springbrook Road to the access road serving Development Area H.

Brutscher Street

Brutscher Street and associated utilities will be extended to accommodate development as it occurs.

In addition to the Brutscher Street/Highway 99W access, a second access from Development Areas B through G to Fernwood Road or Springbrook Road shall be provided as traffic and/or public safety needs warrant it. In no case shall the second access be provided later than when:

- 1) Twenty-five percent (25%) of the land included within Development Areas B through E have been developed; or
- 2) Twenty-five percent (25%) of the land included within Development Areas F

through G have been developed; or

3) Twenty-five percent (25%) of the land included within Development Areas B through G have been developed.

Brutscher Street shall be completed to Fernwood Road under the following conditions:

1) Sixty- percent (60%) of the land included within Development Areas B through E have been developed; or

2) Sixty- percent (60%) of the land included within Development Areas F through G have been developed; or

3) Sixty- percent (60%) of the land included within Development Areas B through G have been developed.

Springbrook Road

Street improvements for Springbrook Road shall be constructed prior to or at the time of development of the lands within Development Area A.

Open Space and Parks

- Where possible, open space shall be conveyed to the Chehalem Parks and Recreation District.
- Proposed development of stream corridor sub-districts shall be subject to the review and approval process provided within the Newberg Development Code, Sections 10.44.115 through 10.44.240.
- A plan shall be developed for the oak grove area behind Fred Meyer that adequately addresses the unique issues it presents, especially concerns regarding public safety.
- A central plaza park shall be located near the center of the Springbrook Oaks to provide a focal point for community activities and a common identity for the community.
- Major pedestrian pathways should be located along public streets rather than along stream corridors.
- The plan allows for development of a golf course next to the stream corridor of the eastern fork of Springbrook Creek.
- A minimum of two neighborhood parks shall be established within Springbrook Oaks. One park will be located within the residential area west of Brutscher Street and one will be located within the residential area east of the eastern fork of Springbrook Creek. The parks shall be in a location that is convenient to the area residents. Total acreage of the parks shall be a minimum of five

acres, with each park no less than one acre in size. Some of the park requirements may be fulfilled through future school facilities.

Building Design and Development Standards

Residential

- Setback standards shall be as set forth in the Newberg Development Code, Section 10.44.317(D). The referenced (g) subsection shall read as follows for purposes of the Springbrook Oaks Specific Plan:

Building Orientation. All development shall be oriented to a local or collector street when possible. Orientation shall be achieved by the provision of an entry door fronting upon the street with a direct sidewalk connection from the door to the public sidewalk.

- Multiple, non-repetitive home designs (detached dwelling units) shall be used in the development. No two identical designs shall be located closer than every three residences on any street frontage.
- A mixture of different building types shall be encouraged within the residential areas (e.g. single family residential, duplex, attached single family residential, multiple family).
- Porches shall be encouraged in the design of residential units.
- A visual and sound buffer shall be installed between the Fred Meyer property and Springbrook Oaks. The buffer will be specifically designed to mitigate conflicts between the adjacent uses.
- Prior to development of the residential lands east of the eastern fork of Springbrook Creek, the developer shall produce a geotechnical report.
- Prior approval of any proposed development within Development Area H, a tree management plan must be approved through a Type II process. The tree management plan should provide a program that will ensure the creation of an appropriate urban level tree canopy for the development. The plan will describe; (1) what types and size of existing trees should remain and their location; (2) what types and size of existing trees should be removed and their location; (3) what types and size of trees should be planted and their location; and (4) who will install and/or maintain the trees and how they will be maintained. The tree management plan shall specify methods for amending the plan.

Industrial

- Prior to the development of any industrial zoned land within Springbrook Oaks, the developer will establish codes, covenants and restrictions (CCRs) that will ensure high quality development. The CCRs will be subject to approval by the City of Newberg. The document will, at minimum, address the following issues:

- Street frontage building design;
- Parking lot location;
- Exterior building materials; and
- Street design and development standards.

Schools

- Schools shall be allowed within Development Areas B through E or Area H.
- School sites shall meet the intent of the City's Comprehensive Plan concerning the siting of schools.
- Schools should be sited with the main entrance onto a local or minor collector street.
- School sites shall be located, to the extent reasonably possible, at the center of that portion of the residential development most likely to house children of the appropriate ages considering the type of development intended and related socioeconomic factors.
- School sites shall be located so as to minimize student foot traffic along and/or across major collector and arterial streets.
- Park and recreation facilities should be linked closely with schools.

Density

- The following development standards shall be applied to Springbrook Oaks (please refer to Graphic VI for map of development areas A through H). These standards shall supersede any density or density transfer standards established in the Newberg Development Code.

Area	Zone	Minimum Lot Size (square feet)	Minimum Lot Area Per Dwelling Unit (square feet)	Maximum Density (dwelling units per acre)
A	C-2	5,000	NA	NA
B	R-P	1,500*	1,500*	21.8* ¹
C	R-3	2,500*	2,500*	13.1*
D	R-2	3,750*	3,750	8.8
E	R-2	5,000	5,000*	6.6*
F	R-P	1,500*	1,500*	21.8* ²
G	M-1	20,000	NA	NA
H	R-1	5,000*	10,000* ³	3.3*

* Different than the standards established in the Newberg Development Code.

- A density shift of up to twenty percent (20%) is permitted between any two lots or portions of lots of equal acreage within the same or different residential areas (Areas B, C, D and E). The shift may be up to twenty percent (20%) of total units permitted within the lower density zone regardless of which direction the shifting is occurring. Any such shift shall be approved through a Type I process. An agreement must be drafted and signed by parties involved. An example is as follows:

Present maximum density
permitted by zone:

A 5 acre lot in Area B = 109 units
A 5 acre lot in Area C = 65.5 units
(20% = 13.1 units)

¹ Up to one-hundred percent (100%) of the land zoned R-P within Area B may be developed for residential use.

² Up to twenty percent (20%) of the land zoned R-P within Area F may be developed for residential use.

³ Average lot area per dwelling in any one subdivision.

Proposed 20% shift:

Lot in Area B = 122 units*

Lot in Area C = 52 units*

OR

Lot in Area B = 95 units*

Lot in Area C = 78 units*

- Increases in density of residential Areas B, C, D and E may be permitted in consideration for land designated for public purposes such as schools, neighborhood parks, plazas, etc.. For any given acreage designated for the aforementioned purposes, the density of an equal amount of acreage may be increased twenty percent (20%) in another area of Springbrook Oaks which has the same zone type as that where the public area is located. The density shift may also be directed to a different zone, in a similar manner to the above. For example:

Present maximum density of public land:

A 5 acre lot in Area D zoned R-2 = 44 units
(20% = 8.8 units)

Proposed 20% density shift to another
5 acres in Area D zoned R-2

44 units + 8.8 units = 52 units*.

OR

Proposed 20% density shift to another
5 acres in Area B zoned R-3

109 units + 8.8 units = 117 units*.

- Any area of land whose allowed density has increased due to a density shift may include a corresponding decrease in the area's minimum lot size and minimum lot area per dwelling unit.
- No lot within any given zone may increase density due to a density shift more than once.
- Larger size lots shall be encouraged within Area H where natural features present greater development challenges.

Utilities

- Development shall accommodate and address issues related to:
 - water storage
 - irrigation
 - storm water
 - fire flow

*Rounded down to a whole unit number.

- All waste water infrastructure shall connect to the Fernwood Road pump station. No other public pump stations shall be allowed.
- Public water systems ultimately shall be of a loop design.
- Storm water access points to the stream corridor shall be designed to minimize erosion.
- Smaller, multiple retention ponds shall be preferred over the creation of large retention facilities.
- The development shall have a plan for storm water collection and detention to mitigate storm water runoff.

Springbrook Oaks Specific Plan

**Newberg Development Code
Section 10.44.317 (2)**

10.44.317 (2) The Springbrook Oaks Specific Plan.

- (1) Report Adopted. The Springbrook Oaks Specific Plan Final Report dated 1999 is hereby adopted by reference. The development standards listed in this section are intended to implement the policies of the Springbrook Oaks Specific Plan. Development of Springbrook Oaks shall follow the standards of this code section as well as the policies of the plan. If a conflict exists between the Springbrook Oaks Specific Plan Policies and the Newberg Development Code, the Springbrook Oaks Specific Plan shall govern.
- (2) Permitted Uses and Conditional Uses. Eight (8) development areas have been established with corresponding zones within the Springbrook Oaks Specific Plan (see Graphic VI). The permitted and conditional uses allowed under the "SP" subdistrict shall be the same as those uses permitted in the base zoning districts. Exceptions to this standard include the following:
 - (A) A golf course shall be permitted within the M-1 area, adjacent to the stream corridor; and
 - (B) Densities and lot sizes shall be in accordance to the standards established in Section 10.44.318 (8) (A) of this code.
- (3) Street and Pedestrian Pathway Standards. Street and pedestrian pathway development standards are established in the Newberg Development Code under Sections 10.60.112 through 10.60.137 and Section 10.80.
- (4) Residential Design. Multiple, non-repetitive home designs (detached dwelling units) shall be used in the development. No two identical designs shall be located closer than every three residences on any street frontage.
- (5) Setbacks. Figures 1 and 2 of the Springbrook Oaks Specific Plan identify special setback standards that apply to the property.

Residential

- (A) Development Areas A through F Setbacks - Figure 1. Minimum and maximum front setbacks for structures shall be met in Development Areas A through F of

the Springbrook Oaks Specific Plan. Residential structures shall be no closer nor further from the front property line than as follows:

	Minimum	Maximum
Porch	10'	25'
Dwelling	15'	25' (without porch)
Garage or Carport	20'	None

The front of a garage may not be closer to the property line than the front of the house unless each front on different streets.

- (B) Development Area H Setback - Figure 2. Special minimum front setbacks for residential structures shall be met in Development Area H of the Springbrook Oaks Specific Plan. No maximum setback is required. Front setbacks are as follow:

	Minimum	Maximum
Porch	10'	None
Dwelling	15'	None
Garage or Carport	20'	None

- (C) Interior Setbacks. Interior yard setbacks shall be the same as the base zone. An exception to this standard is made for single family attached housing, where no interior setback is required for the "zero" lot line.
- (D) Staggered front setbacks of at least two (2) feet shall be established for attached homes. No two attached dwelling units with the same setback shall be located closer than every two residences on any street frontage.

Professional and Industrial Setbacks

- (E) Except as set forth in subsection (D) above, setbacks for professional and industrial developments within Development Areas A, F, and G shall be set by the base zone or as otherwise required in this Code.
- (7) Street Trees. Street trees shall be provided adjacent to all public rights-of-way abutting or within a subdivision or partition. Street trees shall be installed in accordance with the provisions of the Newberg Development Code, Section 10.50.160 (2) (D). Trees shall be selected from the street tree species list authorized by City Council. Preference should be given towards the selection of oak species to maintain the character of the development's namesake: Springbrook Oaks.

(8) Residential Density. Residential density is governed by the "SP" overlay subdistrict.

(A) The following development standards shall be applied to Springbrook Oaks (please refer to Graphic VI for map of development areas A through H). These standards shall supersede any density or density transfer standards established in the Newberg Development Code.

Area	Zone	Minimum Lot Size (square feet)	Minimum Lot Area Per Dwelling Unit (square feet)	Maximum Density (dwelling units per acre)
A	C-2	5,000	NA	NA
B	R-P	1,500*	1,500*	21.8* ⁴
C	R-3	2,500*	2,500*	13.1*
D	R-2	3,750*	3,750	8.8
E	R-2	5,000	5,000*	6.6*
F	R-P	1,500*	1,500*	21.8* ⁵
G	M-1	20,000	NA	NA
H	R-1	5,000*	10,000* ⁶	3.3*

* Different than the standards established elsewhere in the Newberg Development Code.

(B) A density shift of up to twenty percent (20%) is permitted between any two lots or portions of lots of equal acreage within the same or different residential areas (Areas B, C, D and E). The shift may be up to twenty percent (20%) of total units permitted within the lower density zone regardless of which direction the shifting is occurring. Any such shift shall be approved through a Type I process. An agreement must be drafted and signed by all parties involved. An example is as follows:

Present maximum density
permitted by zone

A 5 acre lot in Area B = 109 units
A 5 acre lot in Area C = 65.5 units
(20% = 13.1 units)

⁴ Up to one-hundred percent (100%) of the land zoned R-P within Area B may be developed for residential use.

⁵ Up to twenty percent (20%) of the land zoned R-P within Area F may be developed for residential use.

⁶ Average lot area per dwelling in any one subdivision.

Proposed 20% shift:

Lot in Area B = 122* units

Lot in Area C = 52* units

OR

Lot in Area B = 95* units

Lot in Area C = 78* units

- (C) Increases in density of residential Areas B, C, D and E may be permitted in consideration for land designated for public purposes such as schools, neighborhood parks, plazas, etc. (excluding stream corridors). For any given acreage designated for the aforementioned purposes, the density of an equal amount of acreage may be increased twenty percent (20%) in another area of Springbrook Oaks which has the same zone type as that of where the public area is located. The density shift may also be directed to a different zone, in a similar manner to the above. For example:

Present maximum density of public land: A 5 acre lot in Area D
zoned R-2 = 44 units
(20% = 8.8 units)

Proposed 20% density shift to another
5 acres in Area D zoned R-2 44 units + 8.8 units = 52 units*.

OR

Proposed 20% density shift to another
5 acres in Area B zoned R-3 109 units + 8.8 units = 117 units*.

- (D) Any area of land whose allowed density has increased due to a density shift may include a corresponding decrease in the area's minimum lot size and minimum lot area per dwelling unit.
- (E) No lot within any given zone may increase density due to a density shift more than once.
- (F) Maximum lot coverage is described in the Newberg Development Code, Section 10.50.147.
- (9) Commercial and Industrial Standards. In addition to site review standards, all commercial and industrial development will conform to the Code, Covenant, and Restrictions (CCRs) approved for the Springbrook Oaks development. A Certificate of Compliance with these CCRs shall be submitted with a design review application for any commercial or industrial development.

*Rounded down to a whole unit number.

- (10) Sign Standards. Signs must comply with the Newberg Development Code, Sections 10.50.180 through 10.50.191.
- (11) Tree Management Plan. Any proposed development within Development Area H must follow the approved tree management plan for Development Area H. The plan shall be developed by a third-party licensed arborist.
- (12) Permitting Process. Any proposed development shall follow the permit approval process described in the Newberg Development Code, Section 10.08 through 10.10. Exceptions to this standard are as follows:
- (A) Proposed subdivisions will be reviewed under the Type II process, and;
 - (B) Any proposed development within Development Areas A through F that meet the Building Design and Development Standards in Appendix D will be reviewed under the Type I process. The applicant shall provide written documentation showing that each development standard has been met.
- (13) Plan Amendments. Proposed amendments and adjustments to the specific plan will follow the procedure described in the Newberg Development Code, Section 10.44.312. Exceptions to this amendment and adjustment procedure are as follows:
- (A) Proposed boundary modifications for Development Areas B through E (Graphic VI) that increases any individual area no more than five percent (5%) of its original total acreage will be reviewed under a Type I process. Proposed boundary modifications that change the total acreage of any of the aforementioned Development Areas more than five percent (5%) will be reviewed under a Type III process.
 - (B) Proposed boundary modifications for Development Areas F through G that increases any individual area no more than ten percent (10 %) of its original total acreage will be reviewed under a Type I process. Proposed boundary modifications that change the total acreage of any of the aforementioned Development Areas more than ten percent (10 %) will be reviewed under a Type III process.
 - (C) Proposed boundary changes for Areas A and H will be reviewed under a Type III process.

Springbrook Oaks Specific Plan

Building Design and Development Standards Attached Residential Dwelling Units in Development Areas B through F

The following standards have been established for attached residential dwelling units within Development Areas B through F of Springbrook Oaks. The purpose of these standards are:

- To protect the character and the social and economic stability of Springbrook Oaks.
- To ensure the orderly and beneficial development of each component of Springbrook Oaks.
- To expedite the design review process for proposed development.

Proposed developments for attached residential dwelling units within Development Areas B through F of Springbrook Oaks will be examined for compliance to these standards under a Type I process. Any such development not in compliance with these standards will be reviewed under the appropriate process specified within the Newberg Development Code.

Design Standards

- A. Primary individual unit entries shall be oriented towards a road. Entries shall be covered and architecturally differentiated from other building elements, in order to clearly express their location and function (see Figure A-1).
- B. Buildings shall be articulated in such a manner that no more than 25' of horizontal, flat building facade will be permitted. In the case of rowhouse or townhouse units, no more than two units may be paired together in the same facade or without a minimum of 2'-0" difference between adjacent facades (see Figures B-1 and B-2).
- C. When possible, garages and carports should not be adjacent to primary streets or roads. They should be located internally within each development or complex where their designated dwelling units are located. Attached garages shall not extend beyond any primary entry facade.
- D. All buildings shall utilize materials that meet or exceed current industry standards (American Institute of Architects or American Society of Testing Materials) for a medium to high level range of quality. The proposed building materials will be recommended by a licensed architect and will be compatible with the Springbrook Oaks development.

The following are some examples of unacceptable building products:

1. T1-11 siding panels.
2. Three tab composition roofing.
3. Single-ply vinyl siding

In addition, all exterior walls shall utilize a "double-wall" system. This incorporates the use of an air infiltration barrier and secondary water resistive membrane, exterior sheathing beneath, and a covering with an acceptable siding product. Buildings will meet all applicable building codes and current construction requirements.

- E. Each dwelling unit shall incorporate individual areas of exterior space no less than 50 square feet per unit. Each space shall have a minimum dimension of 5', in any direction. This can be achieved through the use of porches, decks, patios, balconies etc. or designated yards other than those adjacent to primary streets or roads.
- F. On buildings with sloped roofs, no slope shall be less than a 4:12 pitch. These roofs shall utilize eaves, rakes, and overhangs of no less than 12".
- G. The minimum landscape percentage or "pervious" surface area shall not be less than 30% of the overall site area.
- H. No building shall be greater than 35', or three stories, in overall height. This shall include garages in rowhouse or townhouse type buildings.
- I. Where trash enclosures are required; they are to be located internally within the complex or development. They shall not be adjacent to any primary road or street. They shall be enclosed on all sides by walls, gates or fences and provided with a secondary buffer of landscape screening on at least three sides. Access to the enclosure shall be limited to one side only (see Figure I-1).
- J. Each complex or development shall provide an internal pedestrian circulation system. Each system shall be interconnected with adjacent circulation systems to form a master pedestrian circulation system. All internal systems shall be appropriately illuminated to meet current City standards.
- K. All parking ratios shall meet current City standards.
- L. All buildings shall be colored in earth tones of medium range value. No building or buildings shall be brightly colored or colored in such a manner as to emphasize its overall mass. Subtle contrasts between adjacent buildings and individual building elements (i.e. trims, facades etc.) shall be provided.
- M. Exterior trim will be provided around all windows and at building corners. Window trim pieces shall be painted a contrasting color to the building body.
- N. All primary collector streets and neighborhood secondary streets, shall comply with figures N-1, N-2, and N-3.

- O. All setbacks shall comply with figure O-1, and O-2.

APPENDIX D

Springbrook Oaks Specific Plan

Project Participants

Steering Committee Members:

Robert Andrews, City Traffic Safety Committee Member (Chair)
Deborah Sumner, Former City Councilor (Vice Chair)
Don Clements, Chehalem Park and Recreation District
Frank Dittman, Neighboring Property Owner
Sam Farmer, George Fox University
Rob Molzahn, Cornerstone Group Realtors
Andrew Poole, Citizen
Paul Frankenburger, Newberg School District
Michael Wallace, Citizen
Jim Henderson, EFTC
Mike Livingstone, Portland General Electric
Johann May, Citizen
Bob Youngman, Citizen

City of Newberg Staff:

Duane Cole, City Manager
Mike Soderquist, Community Development Department Director
Barton Brierley, City Planner
Larry Anderson, City Engineer
David Beam, Economic Development Coordinator, Planner

Property Owner:

Dean Werth, Property Owners Representative
Mike Gougler, Development Representative

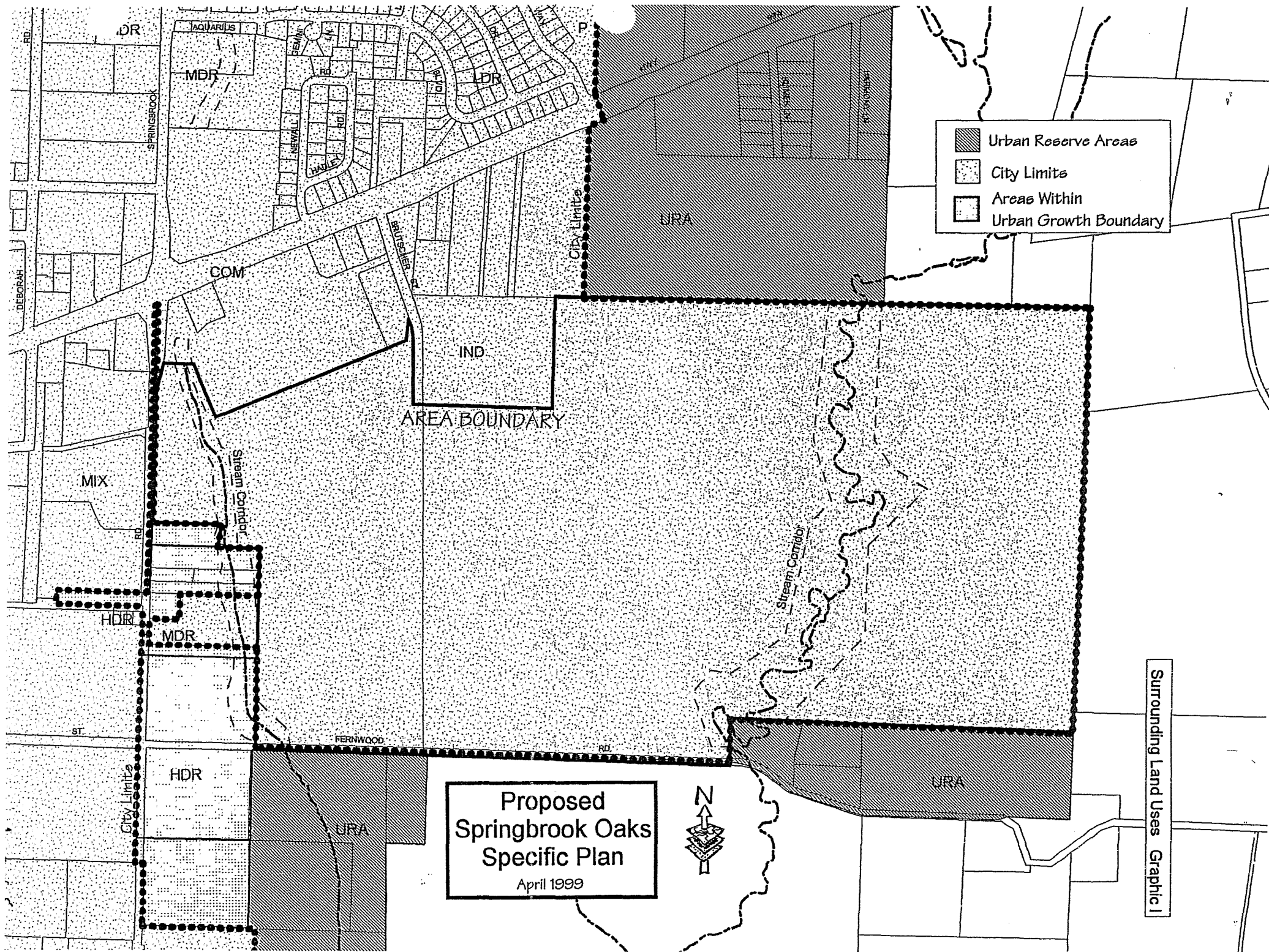
Consultants:

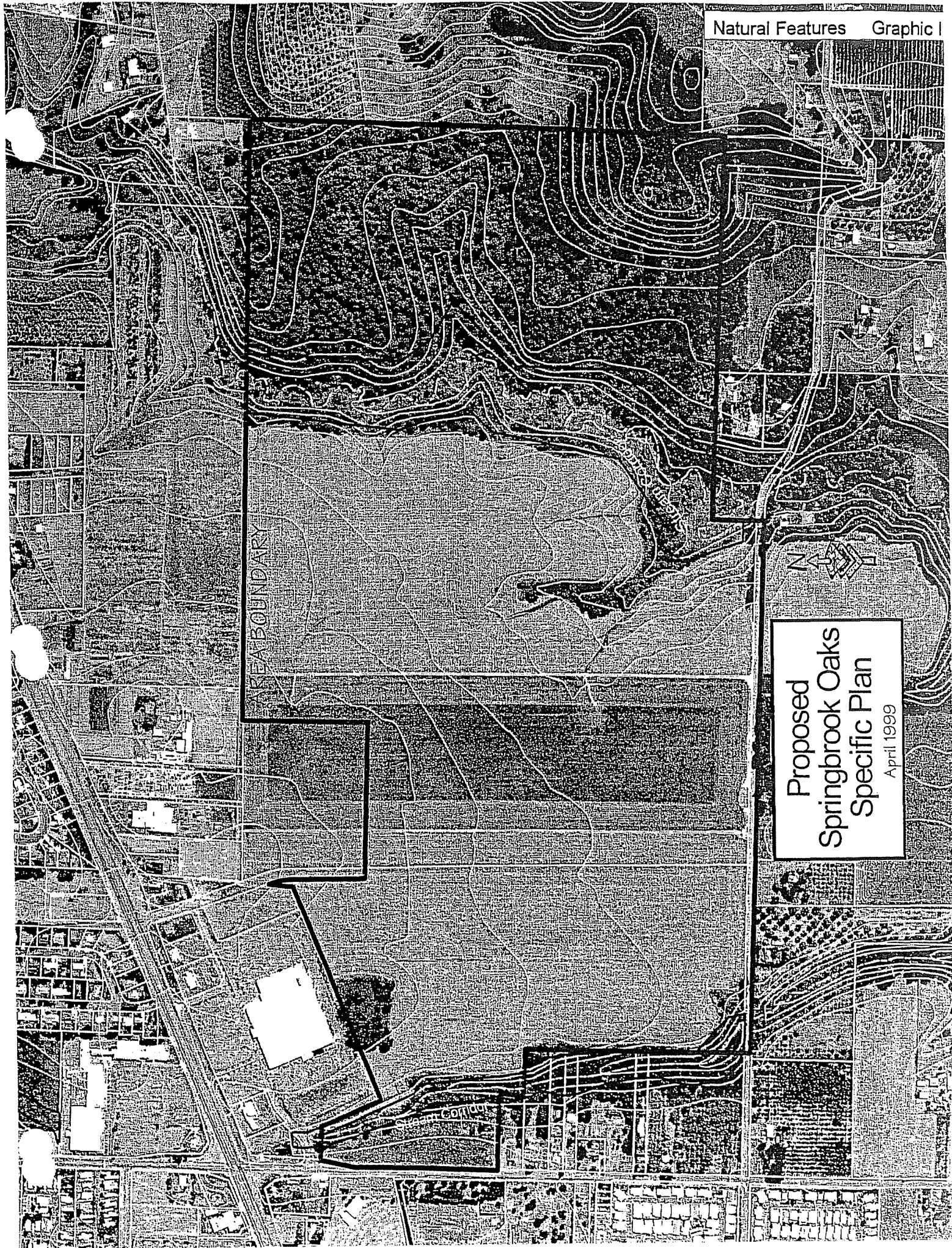
Ankrom Moisan Architects (Concept Plan and sketches)
Kittelson and Associates, Inc. (Traffic Analysis)

APPENDIX E

Springbrook Oaks Specific Plan

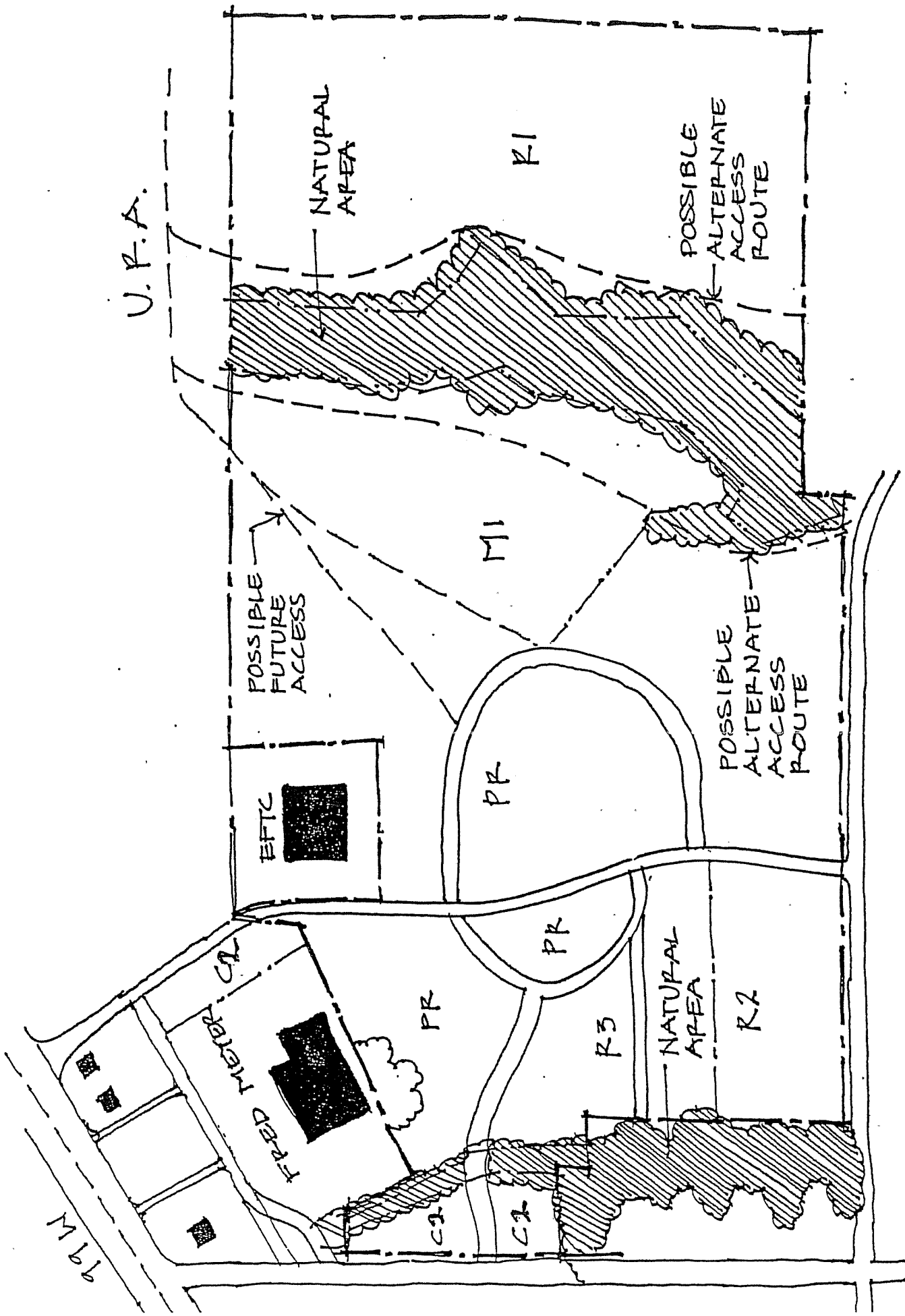
Graphics and Figures





AREA BOUNDARY

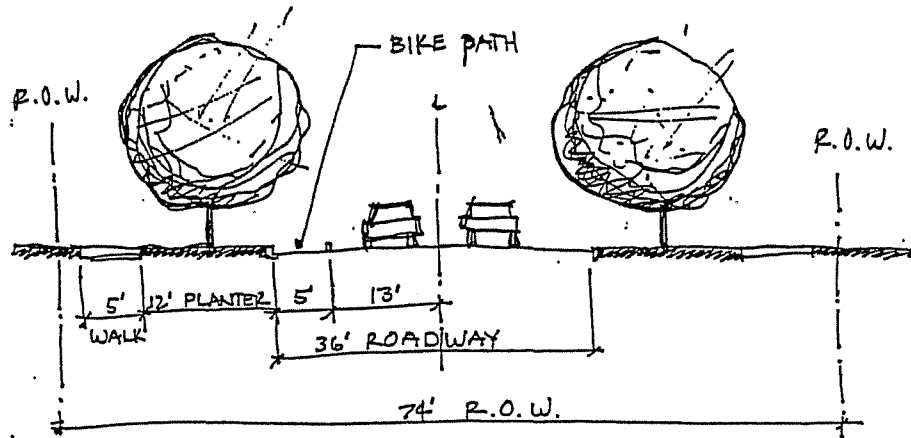
Proposed
Springbrook Oaks
Specific Plan
April 1999



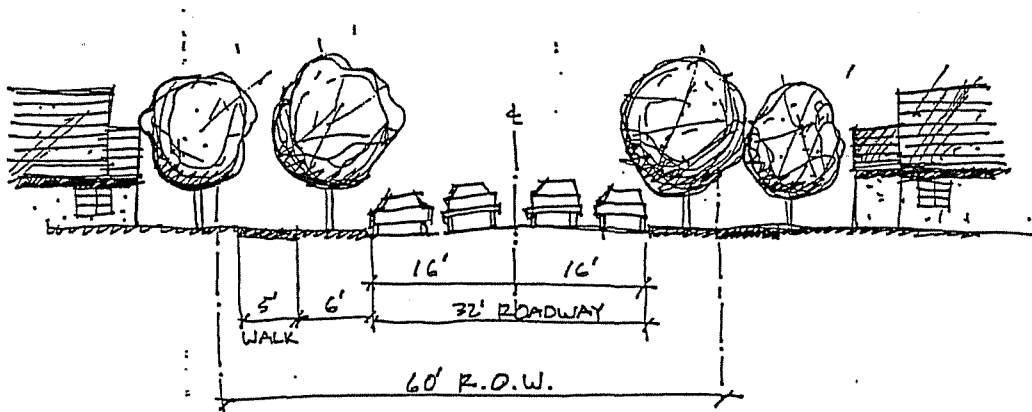
SPRINGBROOK OAKS

11-2-62

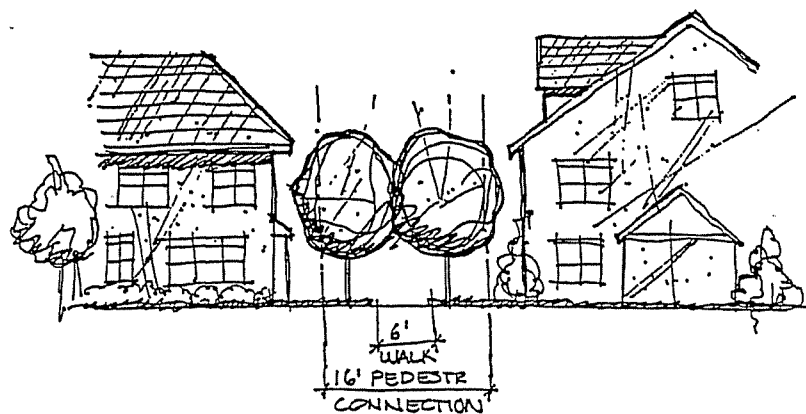
Graphic IV - Street and Pedestrian Path Cross-section



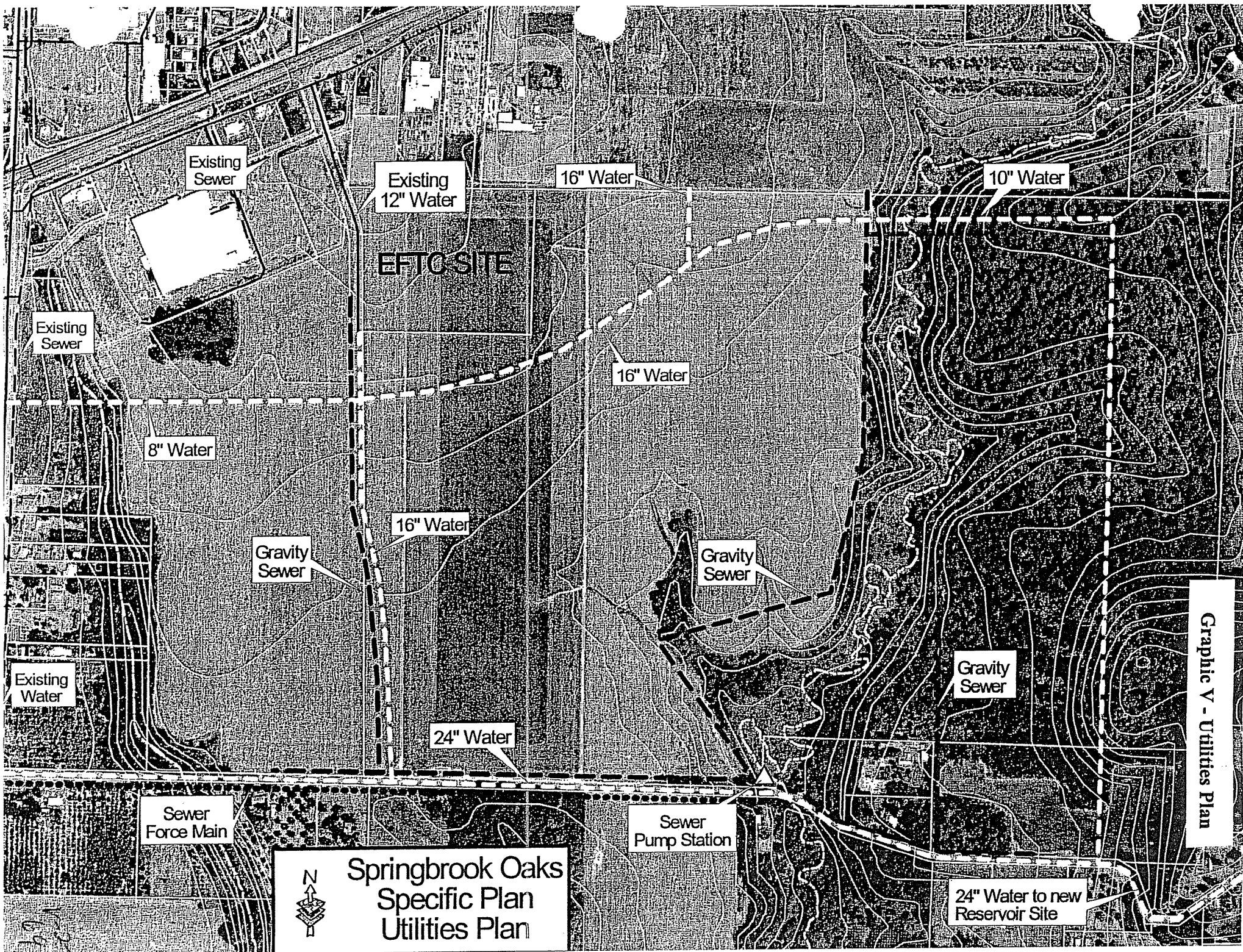
COLLECTOR STREET



NEIGHBORHOOD STREET



PEDESTRIAN CONNECTIONS



Springbrook Oaks
Specific Plan
Utilities Plan

Graphic V - Utilities Plan

Vote on Motion #1:

The Motion carried (3 Yes; 2 Absent (Molzahn & Hannum); 1 Vacant

V. COMMUNICATIONS FROM THE FLOOR (five minute maximum per person)

None.

Commissioner Molzahn arrived at the meeting at 7:12 p.m.

VI. QUASI-JUDICIAL PUBLIC HEARINGS

Continued from the May 13, 1999 Planning Commission Meeting

1. **APPLICANT:** Mike Gougler for Werth Joint Ventures
REQUEST: Adoption of the Springbrook Oaks Specific Plan. The plan would create areas for industrial, commercial, office, multiple dwelling, and single family dwelling uses. It includes plans for open space, utilities, transportation, and so forth. It would amend the Newberg Comprehensive Plan, Development Code, Comprehensive Plan map and Zoning map.
LOCATION: A tract of land generally located south of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the Urban Growth Boundary
TAX LOT: 3216-2001 and 3216-2010
FILE NO.: CPA-14/Z-14-99
CRITERIA: NDC 10.20.030
RESOLUTION NO.: 99-117

OPEN FOR PUBLIC HEARING:

Vice Chair Wall entered ORS 197, relating to the Public Hearing process into the record, and opened the Public Hearing.

Abstentions/ex-parte contact: Commissioner Parrish said he attended several meetings of the ad hoc steering committee but he did not answer or entertain questions. He attended about 6 -7- meetings and does not feel this contact would bias his decision.

Commissioner Haug said he met with David Beam and Barbara Mingay to review the project. He studied the report extensively and brought in materials to be entered into the record for the Commission and the applicant: saving trees, increasing density, small town America subdivisions, materials from the Audubon Society, maintenance and preservation of the natural habitat in connection with building golf course projects. He would later discuss the materials during the Commission's deliberation.

Commissioner Molzahn said he was on the ad hoc steering committee prior to his appointment to the Planning Commission and is familiar with the information to be presented.

Objections: None.

Staff Report and Preliminary Staff Recommendation: Mr. David Beam presented the staff report and provided information on issues in which the Commission previously requested further documentation. He further reviewed areas referenced in the staff report:

1. Access to Springbrook - He said the access has to do with the physical layout of the land. The land next to Springbrook is limited in depth due to the location of the stream corridor.
2. Land Use Inventory in Newberg and how the plan would affect the inventory (industrial land). There were three different analysis from the City's Comprehensive Plan (annual consumption rate was different).

Staff reviewed the information and found reasons it was too high. There was a mistake in the calculations. He was not sure where the number came from. Staff reviewed the assumptions based upon the usage rate. The assumption was that industrial land would increase at the rate of 5.1% per year. Staff felt it was unrealistically high, even though economy has done well.

Commissioner Parrish discussed Westlake Consultant representative's statement at the last City Council meeting made on another annexation noting that the industrial land was needed. Mr. Brierley responded by saying there is a lot of industrial land in the UGB, but little of it has services next to it.

Commissioner Haug asked how many acres EFTC requested. Mr. Beam said they asked for 20 and received 12 acres.

Commissioner Parrish asked about the information contained in the Commission meeting minutes of May 13, 1999 involving:

1. Sewer on Fernwood Road and how it would affect the subject project. Does Chehalem Park & Recreation District (CPRD) or the tax payers have to pay for this service?

Mr. Beam said the sewer portion would be paid by the Oregon Economic Development Department (OEDD) to encourage economic development.

2. The reservoir (water issue). He said he is confused on how it all would happen.

Mr. Brierley said the reservoir would be paid by system development charges. The Citizens Rate Review Committee approved this procedure. The main source would be from system development charges which have not yet been collected. The reservoir would be built within about two years. Discussion was held concerning the strategic plan on improving the City's water system.

3. Emergency vehicle access (more than one access)?

Mr. Beam said it would be determined by the fire and police departments. He discussed the population estimates: built-out, the development could accommodate 3300 people.

Proponent: Mr. Mike Gougler, developer for the Springbrook Oaks property, provided a brief over-view of the status. **Mr. Brierley** said the traffic engineer from Kittleson is also present to answer any questions which may arise. Discussion was held concerning opening the testimony for the Commission to ask questions of the proponents after they have presented their testimony. Mr. Gougler said the questions that Commission Haug had were addressed in the specific plan. He said that EFTC is the second serious purchaser that they have had in 30 years since the property was zoned by the Comprehensive Plan for industrial use. They originally looked at 20 acres. It was speculative, they did not know what they were going to do with that amount of land. They settled on 12 acres. It is not new industry, not a new increase, but a move from one area of the City to another. Mr. Gougler said they have deferred their safety and access concerns with the fire marshal (addressed cul-de-sacs, etc.). Concerning the water tower, the owners of Springbrook Oaks has offered property and right-of-way access for the location of a reservoir. The traffic engineer was present to answer any questions regarding the traffic impact of the proposed development (Chris Stanley from Kittleson & Associates).

Commissioner Parrish questioned the following statements contained in the May 13, 1999, meeting minutes:

1. Easement granted to CPRD. Mr. Gougler stated that an easement was gifted for the stream corridor. The golf course is separate.

Tape 1 - Side 2:

Mr. Gougler said that the transfer of the stream corridor property was done to preserve the natural area. The golf course will not occur in the stream corridor. It is not to be used as a fishing pond or walking park. It is a separate issue than the golf course project.

2. Hospital or medical facility. **Mr. Gougler** reviewed the map designating the various zones (M-1, R-1, etc.). He said that a plan is good, but to plan may be difficult (obligated to build a plan and to follow, regardless of changes that may occur in the community, they may be unnecessarily restricted. They anticipated that they wanted to make the master plan as flexible as possible, but still establish criteria which must be followed by the developers within the project. They noticed that the M-1 property was restricted and what could be placed in that area. If restrictions were made, it may have restricted medical or hospital facilities. The current hospital (Providence Newberg Hospital) has not made any commitment to relocate on the subject property. If the hospital or medical facility does relocate, it will change the other industrial possibilities.

Commissioner Haug asked where the golf course would be located. **Mr. Gougler** said it is anticipated that it would require crossing Fernwood Road to get to the other side. Discussion was held concerning the golf course dissecting the R-1 zone and other access issues. **Mr. Gougler** said there are issues dealing with off-site improvements (they have access to Corral Creek). Ideally, there would be an east-west road to connect (by going north) to the subject development.

Vice Chair Lon Wall asked why there has only been two qualified applicants for the property. Discussion was held concerning EFTC purchasing as much property as they wanted. **Mr. Gougler** said that the property is unique because it requires a special kind of industry to place itself on a piece of property which is difficult, at best, to get to and from the property. Discussion was held concerning the particular issues for M-1 properties and the types of industry in which M-1 would be suitable (software or medical industry), with jobs and residents in Newberg (limited need of transportation).

Vice Chair Lon Wall asked what has prevented this property from being previously annexed and used for development. **Mr. Gougler** said the property must be used in accordance with what is already on the plans (industrial). They have not turned anyone down who has shown serious interest involving the purchase of the property.

Vice Chair Lon Wall said that if the entire project had commercial or industrial property, he understands why it may have a problem, but he also feels there is too little industrial and commercial designations. He asked for the argument of why so much industrial or commercial? Is it saleable, or what does the applicant want to do with the property? **Mr. Gougler** said it really is the market and what can conceivably be done and what is going on around the immediate area. Concerning the rezoning, it is not easy to come up with a continuation program.

Commissioner Haug said he agreed with the comments made by **Mr. Gougler**. He asked about the proposed southern bypass and what impact it would have on the need for industrial land for the City's industrial growth.

Mr. Gougler said there is a need for industrial land. He has not received any direction on the bypass. We cannot hold up growth in Newberg dependent upon the possibility of a bypass. **Mr. Gougler** said that there has been some discussion (old plans) on the bypass being near the vicinity of the proposed development.

Commissioner Haug asked that the traffic engineer walk through the executive summary of the Kittleson & Associates report.

Vice Chair Lon Wall called for a break at 8:10 p.m. The meeting reconvened at 8:20 p.m.

Mr. Mike Wallace, 1532 E. Third Street, Newberg, said he was a Specific Plan Steering Committee. He

said the Committee discussed the transportation and fire safety routes. All safety issues were met and he does not see any problem with the statements made in the staff report and requested that the Commission approve the report.

Mr. Andrew Poole, 1113 E. 4th, Newberg, said he also served on the ad hoc steering committee. There is nothing in the plan that goes against the policy and nothing is controversial. As a citizen, he would like to see the matter addressed at this meeting and not continue the deliberation. He is puzzled why the decision would be delayed for another month. Discussion was held concerning delaying the finalization of the approval.

Vice Chair Lon Wall said it is a large project and is controversial in some areas. The Commission and staff wants to fully disclose and complete the deliberation process.

Mr. Chris Stanley, Kittleson & Associates, provided testimony and reviewed the information contained in the traffic study (executive summary) and assessing the impact of the development. He said they went with the City's transportation plan (2012). They assumed very dense and highest traffic uses. He continued with reviewing the executive summary conclusions. Mr. Stanley also reviewed alternative "roundabouts". Mr. Stanley said the determination of the east-west road should be done through environmental and connectivity analysis.

Mr. Curt Landis, 212 Springbrook Road, Newberg, said he is a property owner adjacent to and which surrounds the subject property. He read a statement concerning zoning changes and the inquired what the impact would be to the surrounding residences? Will the improvements to Springbrook Road and the access, and the extra lane come down to their homes and lose lane access? In addition, with all the improvements, will the residents on Springbrook Road be required to hook up to City services? He is not against it and they are trying to think of everything, but he is looking out for his own interests.

Mr. Brierley responded to Mr. Landis' concerns. The zoning change would not affect the surrounding properties. Most of the properties are outside the City limits (medium density residential district) and when annexed, they would be designated R-2 (unless property owners request a different designation). As far as Springbrook Road is concerned, it is substandard and it is planned for widening (three lane with center turn lane). Some right-of-way rights may need to be acquired. City ordinances say that if they are within 300 feet of the sewer line and they are within the City limits, they would be required to connect to City sewer services. Discussion was held concerning who would pay for the improvements (LID, collected SDC's)? Mr. Brierley said it would be decided at the time the road is completed. It could be done by the City, or through an LID if a sufficient number of property owners agree. The City could choose to initiate an LID but the abutting property owners could be charged for their respective portions of the road. Discussion was held concerning the time frames for improvements (within 5-10 years). The improvements will occur whether the property is developed or not.

Commissioner Haug asked what determines whether the signal lights go in? Mr. Brierley said that the decisions would be made at a later time, at least when the traffic impacts reach the respective points and when funds are available (it would be determined what share the property owner would have to pay).

Commissioner Haug said he was concerned about the routes: how close does it come to the buffer zone and the greenway? Mr. Stanley said he was not sure.

Commissioner Parrish said that in the course of the study, did they have contact with City staff concerning City staff and businesses that may impact Springbrook Road? Mr. Stanley said that they reviewed other specific development uses near the site; Valley Bank is looking at relocating along Brutscher. Commissioner Parrish reviewed the study (page 9 - existing conditions, 2nd paragraph: traffic volume and peak hour operations). Discussion was held concerning Adec and Ushio traffic impacting the study which apparently were not addressed in the study time frames.

TAPE 2 - SIDE 1:

Mr. Stanley said the "window" of the study would be between 7:00 a.m. - 9:00 a.m. and the noon hour. The traffic volumes on Springbrook Road, although they may peak at a different amount themselves, the traffic study on Hwy. 99W was used. Commissioner Parrish said he lives on Wilsonville Road and he has seen traffic backed up to the south because of the intersection at Wilsonville and Fernwood Roads. Discussion was held concerning Corral Creek Road statistics. Mr. Stanley reviewed the five minute increment statistical reporting.

Mr. Wallace commented on the timing of the lights which determines the amount of congestion. Mr. Stanley said when looking at the placement of a signal (significant distance), signal warrants would be conducted, which is a tool to determine when to install a signal.

Mr. Bob Andrews, 1103 N. Sitka, Newberg, said he chaired the Springbrook Oaks Steering Committee. They looked at the over-view to concern themselves with the transportation analysis (it is, without objection, consistent with the report and findings of the steering committee).

Vice Chair Lon Wall said the City Attorney told two members of the Planning Commission that it would be a conflict of interest if they served on the steering committee. Discussion was held concerning the appropriateness of who was and was not on the committee.

Frank Dittman, 1217 Klimek Lane, Newberg, said the Committee was selected by Mayor Donna Proctor. He said that everyone was given the opportunity to serve on the committee.

Staff Recommendation: Mr. Beam said it was staff's recommendation to approve the Resolution.

Hearing Closed. Vice Chair Lon Wall closed the public hearing.

Discussion was held concerning whether or not to continue the deliberation and hearing.

Commission Deliberation:

Commissioner Haug suggested that the Commission members comment on their feelings on the project.

Commissioner Molzahn said that he is also a former member of the Steering Committee. The only thing that they had as a contingent was to review the traffic study in its entirety. He is ready to approve and move it on to the City Council.

Commissioner Haug said he would like to review the available alternatives, the golf course affecting the local habitat, and how he would suggest more protection on the stream corridor, tree protection (where practical), industrial land loss (satisfy future industrial needs), R-1 design standards, density issues and brief discussion on increasing density (consistency). Other issues would be: who would pay for stop lights relative to who was putting the burden on the need? He would like to discuss the problem with the home builders association who were wanting to cut the SDC's in half. He is uncomfortable in paying for the project through capital improvements.

Commissioner Parrish said he is in favor of the project but is concerned with two areas:

1. History of how water is dealt with within the two year time frame established. Discussion was held concerning Wells 7 and 8 and how it ties into the project.
2. He is not satisfied with the traffic report especially with the east-west issues and the bottle-necks which occur. He would like to see the light at Springbrook and Fernwood Roads go in when the residential portion is developed.

Commissioner Ashby said he feels the project is "a go" and should be adopted.

Vice Chair Lon Wall said that in reviewing the conclusions page of the traffic study, his opinion would be that there are issues in certain areas. He said this is the largest development ever suggested in the community. As a business owner, he realizes that government does not work as private enterprise. He cannot see how this cannot be continued to another meeting.

Commissioner Haug said that there are issues to be resolved which could be discussed briefly at this meeting, but could really be fully deliberated at a subsequent meeting. Discussion was held concerning further deliberation.

Commissioner Molzahn said that some issues are outside the scope of the plan. The rates issue is also outside the scope the project. It may affect the funding, but is not part of the issue.

Commissioner Haug reviewed the staff report which included the specific plan (page VI-2-49 through VI-2-50). He is concerned with the project guidelines and the acreage appropriated for parks. He would propose no less than two acres in size and change the wording. Discussion was held concerning the possibility of losing valuable park space. He would like a choice and asked staff to put in pages 17-19, some choices for discussion. He would suggest that a choice be "some" or "none."

Commissioner Parrish said he is aware of the NW Specific Plan and what did not get done. There are promises made for a soccer field in other areas and trees to be placed, but they have yet to be seen.

Commissioner Ashby said he is not sure of the validity of the concerns. Discussion was held concerning the reasoning for recommended sizes for parks (including neighborhood parks). Mr. Beam said the maximum density would be 2.5 parks per 2,000 people. The specific plan does specify one acre.

Motion #2 :	Haug/Ashby approve the Plan.
Amendment to Motion #2: Motion: 3	Haug/Ashby to amend the Motion to change the wording on page 17 and 18 so that the total acreage for parks shall be a minimum of five acres, with each park not less than two acres in size. Change the wording that "no park requirements may be fulfilled through future school facilities".

Commissioner Ashby said he was in favor of the amendment.

Commissioner Haug responded by commenting on the livability in satisfying the park requirement (further enhances the area).

TAPE 2 - SIDE 2:

Commissioner Ashby said that the Plan provides for placement of schools and parks on adjacent sites.

Vote on Motion #3 :	The motion carried (5 yes; 1 Absent (Hannum); 1 Vacant).
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Motion #4 :	<p>Haug/Wall moved to amend the Motion: Streams corridors should be protected during development in the following way:</p> <ol style="list-style-type: none"> 1. Removal of trash and general clean-up. 2. Removal of non-native species (blackberry plants). 3. Enhancement of planting native trees and bushes as recommended by staff".
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Commissioner Haug discussed his concerns about the greenway and river front and volunteer groups cleaning up the corridor by developers who do not clean up (protection of stream corridor).

Commissioner Parrish said Mr. Gougler addressed the stream corridor issues in that the owner was very concerned about the stream corridors.

Commissioner Molzahn said the issues raised are not part of the scope of development. They have addressed their intention of making the developer plant native plants. He is in favor of the language as originally presented.

Commissioner Haug said he is trying to make sure the stream corridor will add economic and habitual value to the area.

Commissioner Ashby asked for clarification of removal of native and non-native plants. Commissioner Haug addressed "noxious" plants such as blackberries, etc. Discussion was held concerning the standards for planting native plants. Commissioner Ashby said Mr. Gougler presented testimony concerning the stream corridor protection and he thinks we are taking a hard case of abuse and trying to make rules apply to everyone, when it may not involve "everyone". He does not see any reason to amend as referenced by Commissioner Haug.

Commissioner Parrish said he feels that Mr. Gougler and Mr. Dean Werth have established a good pattern of taking care of the property.

Commissioner Haug said he has concerns for on-going development, not necessarily with Mr. Gougler or Mr. Werth, but he is concerned with the stream corridor.

Commissioner Molzahn called for the question.

Vice Chair Lon Wall said there is no question as to Mr. Werth's being a good steward for the land.

Vote on Motion #4:	The motion failed.
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Motion #5:	<p>Haug/Ashby To amend the language on page 5 of the report, formerly: "Wooded areas of the property should be retained as much as is practical", with the following language:</p> <p>"Tree removal shall be approved by staff".</p>
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Discussion was held concerning the types and sizes of trees for review (12" in diameter).

Commissioner Molzahn said putting tighter restraints on the developer which is already dedicated and committed to keeping the trees.

Mr. Beam reviewed the plan which provided language concerning a tree plan (page 27 of the staff report)

Commissioner Parrish reminded the Commission that the project is entitled "Springbrook Oaks". He is intended to vote against the motion.

Vice Chair Lon Wall said the Commission is laboring under certain assumptions, but the general concept brought up by Commissioner Haug, it is a big project.

Commissioner Parrish discussed "may, shall, or will" language on page 27 which is also a part of the Development Code language.

Commissioner Haug said he is concerned about the indiscriminate removal of trees for various purposes. He would like to have staff determine these types of issues. It is inappropriate for the Commission to accept the plan without reviewing concerns.

Commissioner Parrish called for the question.

Vote on Motion #5:	The motion failed.
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Motion #6:	Parrish to continue the hearing to July 8 1999.
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Vice Chair Lon Wall noted that Mr. Gougler wanted to make a final statement.

Vote on Motion #6:	The motion failed for a lack of a second.
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Motion #6	Haug/ to direct staff to generate a list of R-1 design standards from the materials previously accumulated over the last year for possible inclusion on page 18 under residential building design standards for purpose of evaluating and deliberating at the next meeting.
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Vote on Motion #7:	The motion failed for lack of second. .
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Motion #8:	Molzahn/Haug to close the Commission's deliberation in order to have Mr. Gougler address the issues raised by the Commission (not to exceed 10 minutes).
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Vote on Motion #8:	The motion carried: 4 Yes; 1 Absent (Hannum); 1 Vacant
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Mr. Gougler said that he would recommend continuing the discussion, but feels that the information the Commission wants to do is included in the staff report and the testimony presented.

Commissioner Haug offered a work session format to exchange ideas (open discussion) to resolve the remaining issues. Discussion was held concerning the quasi-judicial procedure and not being able to proceed with a work session format. Mr. Brierley said the Commission needs to make sure that the deliberations are open to the audience, although less formal than a typical hearing, and that at some point, the Commission stops the public input, and then proceeds.

Vice Chairman Lon Wall said the Commission and staff should consult with the City Attorney which is out of the ordinary quasi-judicial hearing procedure.

Commissioner Molzahn said the Commission needs to address specific issues which were part of the

original discussions held by the ad hoc steering committee. Further discussion was held concerning additional concerns in which some Commission members may have which have not yet been resolved.

Commissioner Ashby said it is not clear what issues those are.

TAPE 3 - SIDE 1:

Mr. Brierley said there is some flexibility on the format. Mr. Gougler could provide input and address the Commission's concerns. The Commission should make sure that both the proponents and opponents are allowed to comment, and then at the end, the Commission could close the public comments and deliberate.

Discussion was held concerning providing sufficient input to evaluate the issues and arrive at a good decision. Mr. Gougler said he is not attempting to accelerate the discussion, but is offering his assistance. He said he will provide truthful and accurate information, but would request that the Commission and the City provide the rules.

Vice Chair Lon Wall said the Commission members could not participate in the steering committee process due to legal issues in hearing the matter at the Commission level.

Commissioner Ashby requested that the Commission come up with a process.

Motion #9:	Parrish/Ashby to continue the hearing until the July 8, 1999 meeting.
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Vote on Motion #9:	The motion carried (unanimously).
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NOTE: THE ORIGINAL MOTION TO APPROVE THE PLAN IS PENDING.

VII. ITEMS FROM STAFF

1. Update on Council items

Mr. Brierley noted that the Waterbury annexation has been approved by the Council and will be sent to the voters at the September 21, 1999 meeting. A decision on the alignment of the Crestview issue will be forthcoming.

The City and the Newberg Area Chamber of Commerce are co-hosting a meeting to discuss how to build streets and revision of the City's transportation plan (scheduled for June 19, 1999).

2. Other reports, letters, or correspondence - None.
3. Next Planning Commission Meeting: **July 8, 1999.**

VIII. ITEMS FROM COMMISSIONERS

Commissioner Parrish inquired about the Commission not taking the Type II subdivisions. Mr. Brierley said the Council wished to have the Commission develop and review policy issues. He said there is citizen input into the process, if they so choose. The Council felt that if there are issues with development that are appropriate, they should be addressed through the legislative and not the quasi-judicial process. Staff recommended that the Council adopt the proposals. Discussion was held concerning housing subdivision issues dealing with stream corridor issues.

Commissioner Parrish said the NUAMC agreement said the Planning Commission member is to be selected be on the NUAMC Committee. Commissioner Haug said he would like to apply. Mr. Brierley said the document that creates the body is the NUAMC agreement between the City and Yamhill County. That agreement runs on a yearly (July 1 to June 30 basis), which is automatically extended unless terminated. The Council notified the County to terminate and that they participate in the process to re-write the agreement to satisfy both parties. The County Commissioners have turned down a proposal for a facilitator to coordinate negotiations. After July 1, 1999, the NUAMC agreement may not be in effect. The County said the agreement is 20 years old and it is time to review the issues which are before the City.

IX. ADJOURNMENT

Motion #10:	Parrish/Ashby to adjourn at 10:55 p.m.
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Vote on Motion #10:	The motion carried.
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Passed by the Planning Commission of the City of Newberg this 8th day of July, 1999.

AYES: 7 NO: 0 ABSTAIN: ABSENT: 0 VACANT: 0

ATTEST:

Peggy R. Nicholas
Planning Commission Recording Secretary Signature

Peggy R. Nicholas
Print Name
Date

**INFORMATION RECEIVED INTO THE RECORD
AT THE JUNE 10, 1999 PLANNING COMMISSION MEETING.**

**THIS INFORMATION IS ON FILE AT THE COMMUNITY DEVELOPMENT OFFICE
ATTACHED TO THE MINUTES OF THE MEETING AND IN THE PROJECT FILE IT
PERTAINS TO.**

PROJECT FILE # CPA-14/Z-14-99: (Resolution No. 99-117):

Kittleson & Associates, Inc. Springbrook Oaks Mixed-Use Development, dated June, 1999.

PLANNING COMMISSION MINUTES
Newberg Public Safety Building - Newberg, Oregon
THURSDAY, JULY 8, 1999 AT 7 P.M.

DRAFT

Subject to Approval at the August 12, 1999 Planning Commission Meeting

I. PLANNING COMMISSION ROLL CALL

Planning Commission Members Present:

Stephen Ashby
Warren Parrish
Robert Andrews

Steve Hannum, Chair
Lon Wall

Matson Haug
Rob Molzahn

Staff Present:

Barton Brierley, City Planner
Barbara Mingay, Planning Technician
Peggy Nicholas, Recording Secretary

II. OPEN MEETING

Chair Hannum opened the meeting at 7:00 p.m. He announced the procedure of testimony. Citizens must fill out a public comment registration form to speak at the meeting.

Duane R. Cole, City Manager, performed the oath of office to Robert Andrews, the new Planning Commission member appointed to complete the term of Paula Fowler. Mr. Andrews provided a brief background of his service with the City as well as his employment history. He is also the Chair of the Newberg Traffic Safety Committee.

III. CONSENT CALENDAR

1. Approval of June 10, 1999 Planning Commission Meeting Minutes

Discussion was held concerning amendments made by Commissioners Wall, and Parrish. Mr. Andrews interjected comments concerning page 6.

Mr. Andrews reviewed his comments (see page 6).

Motion #1:	Haug/Ashby voted to approve the consent calendar items, approving the minutes of the Planning Commission Meetings.
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Vote on Motion #1:	The Motion carried (unanimous).
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IV. COMMUNICATIONS FROM THE FLOOR (five minute maximum per person)

None.

V. QUASI-JUDICIAL PUBLIC HEARINGS

CONTINUED FROM THE JUNE 10, 1999 MEETING

1. **APPLICANT:** Mike Gougler for Werth Joint Ventures
REQUEST: Adoption of the Springbrook Oaks Specific Plan. The plan would create areas for industrial, commercial, office, multiple dwelling, and single family dwelling uses. It includes plans for open space, utilities, transportation, and so forth. It would amend the Newberg Comprehensive Plan, Development Code, Comprehensive Plan map and Zoning map.
LOCATION: A tract of land generally located south of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the Urban Growth Boundary
TAX LOT: 3216-2001 and 3216-2010
FILE NO.: CPA-14/Z-14-99
CRITERIA: NDC 10.20.030
RESOLUTION NO.: 99-117

OPEN FOR PUBLIC HEARING:

Chair Hannum entered ORS 197, relating to the Public Hearing process into the record, and opened the Public Hearing.

Commissioner Andrews expressed a potential conflict of interest, will be involved in discussion, but will abstain from voting.

Commissioner Haug questioned Commissioner Andrews' abstaining from voting. He described how those Commissioners who have potential conflict, would remove themselves from the meeting to prevent any gestures, etc. or comments from the other Commissioners witnessing the event.

Commissioner Parrish said he has been under the impression that the Commission members could remain in the room, but they removed themselves from the room.

Commissioner Wall said that Oregon State law indicates said that they were not able to participate in the discussion as a sitting commissioner, but they did not have to leave the room. They were also not allowed to address the Commission. He would not be opposed to having Commissioner Andrews be present and participate in the discussion, but as he understands it, he cannot be involved in deliberation.

Mr. Barton Brierley explained the conflict of interest provides that one could not stand up and give testimony for one's own property. If there is ex parte contact, they must be disclosed, or it would be objectionable whether they would know more of an issue rather than the other Commissioners.

Commissioner Molzahn said he was on the Committee and Commissioner Andrews was the Chair of the Committee. He does not see a conflict with them just doing their work. They were appointed by the City Council. He questioned whether or not he was also to step aside.

Commissioner Haug said it is a recommendation by the Planning Commission. As far as bias, it would involve personal interest. The issue of bias is entered into the record. He said it is potential bias for Commissioners Molzahn and Andrews.

- The Planning Commission is involved in the public hearing process through a quasi-judicial process, not legislative. The City Council will hear it as a quasi-legislative process.
- Understanding the philosophy of the Comprehensive Plan
- At the City Council level, it is quasi-legislative and more political. An issue may arise with Council member Fred Howe. He would recommend that the two Commissioners be allowed to vote.

Commissioner Ashby referred to the Development Code and the hearings and disqualifications. If the Commissioner himself decides he cannot participate, he can be disqualified from the hearing. If another Commissioner feels he/she would be disqualified, then it would be by a vote of the Commission to allow the Commission member to vote or not.

Commissioner Andrews said there is a potential of conflict of interest. The Steering Committee presented it to the Planning Commission. There may be some vestiges of possible conflicts of interest and he feels it would be a wise statement to abstain from voting.

Commissioner Wall said his concern is not a conflict of interest. He doubts whether Molzahn or Andrews would qualify. He is concerned with bias with specific opinions as noted at the June 10th meeting. Commissioner Molzahn may have a conflict of interest. He does not agree with Commissioner Haug. He would accept his deliberation but not allow his vote.

Commissioner Parrish said he was told not to participate in the Springbrook Oaks Committee because of potential bias. He was appointed, then he was removed due to this position on the Planning Commission. He would agree with Commissioner Wall is that Commissioner Andrews is very articulate in running a meeting and they had a goal. Commissioner Parrish said he did not see any objections to anything that was opposed. He wondered if there was a bias present. He would agree with Commissioner Wall. He does not have a problem with Commissioner Andrews' involvement in the deliberation, but not allowing him to vote. As to Commissioner Molzahn, he had no way of knowing that two Planning Commission members were not allowed to be on the Committee, but later was appointed.

Commissioner Wall said the Committee was told by the City Manager that no Planning Commission member could sit on the Committee. As far as the process, quasi-judicial, the Committee he believes had voting members that had financial interests in the project, which would be prohibited for the Council or Planning Commission. He is concerned with Molzahn and Andrews in quasi-judicial hearings, that this is a big project and we cannot rush it through (also by law).

Commissioner Haug said he wanted to re-enforce that he was told by the City Manager that it would not be appropriate for the Planning Commission member to be a Committee member. He said it is a serious statement to be made to a Planning Commission member. He said a month before the hearing started, it was a wonderful plan (bias and pre-judgment of the value of the proposal) coming before the Commission. He contacted staff to express his concerns. The feeling was that he should not raise the issue. He feels there is a potential bias and prejudgment present.

Chair Hannum noted that the Commission that Commissioner Andrews is welcome to participate in the discussion.

Commissioner Ashby reviewed the disqualification of a member of a hearing body, vacating the seat and sitting in the audience and not participate in the deliberation or hearing. The process would be for him to abstain and leave the table.

Commissioner Wall said he wants to hear Commissioner Andrews input, and would not want to avoid the information.

Discussion was held concerning Commissioner Andrews being a full participant, or to remove himself rather than be present partially.

Commissioner Andrews said he originally had no vested interest in the beginning. He said that he can address and hearing the matter on an impartial basis. He feels as a Commission member, it will be a learning process. He wanted to get the issue on the table in advance. He believes he can participate in the discussion on an impartial basis. Discussion was held concerning the vote of the Commission to allow him to continue.

Motion #2 :	Wall/Parrish to disqualify Commissioner Andrews from the discussion.
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Commissioner Wall said as a new member of the Commission, we cannot get past the clear bias and be involved, but due to state law, the Commission has to be "all or nothing", and part of it is a question of voting, he is opposed, so is Commissioner Andrews, he feels the process would be seriously compromised if Commissioner Andrews was allowed to vote.

Commissioner Parrish said it was a most uneasy situation as well. He said that from the hearings of the Committee, he did not hear any objections to what was being presented at the Committee.

Commissioner Haug said that he feels that it is appropriate for Commissioner to step aside based upon the information presented and the state statutes.

Commissioner Wall called for the question.

Vote on Motion #2 :	The motion carried (4 Yes/2 No).
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TAPE 1 - SIDE 2:

Commissioner Haug said he would like to ask Commissioner Molzahn and whether or not he had potential bias and prejudgment and whether or not Commissioner Molzahn intended to vote.

Commissioner Molzahn said that he feels he could vote on the matter.

Commissioner Haug said that as far as declaring ex parte contact, he talked with Don Clements from Chehalem Park & Recreation District concerning the matter. He could not recall exactly what the discussion was. Mr. Clements said that the schools and park lands should be contained. The Committee meeting when it was done. They discussed the greenway had been turned over, Commissioner Haug said he was not aware of it. Other than that, it was a basic discussion.

Commissioner Andrews vacated his seat on the Commission and relocated to the audience.

Staff Report and Preliminary Staff Recommendation: **Mr. Brierley** presented the staff report and the general issues that the Commission has raised prior to tonight. He also noted that if the Commission wished to allow more testimony, they should vote on it. He also recommended the discussion to be outlined in parts, discussed among the Commission

1. City water supply
2. Transportation
3. M-01 zoning
4. Metro resource protection
5. Park space.

Commissioner Parrish noted that there is a road easement since the last time. Mr. Brierley said the matter would be discussed under Section 2.4

Motion #3 :	Wall/Haug to reopen the public hearing to allow for testimony from the audience.
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Vote on Motion #3 :	The motion carried (unanimously).
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Mr. Gougler said that he was available to answer any questions that the Commission may have.

Commissioner Parrish said he wished to discuss the Kittleson & Associates traffic study. He reviewed the report. He is not in agreement with assumption. He is having trouble with "peak volume" interpretation. He contends the time frames are incorrect due to the two large companies that utilize Springbrook Road, which affect the traffic flow. Commissioner Parrish said it should be 7:00 - 9:00 a.m. and 3:00 - 5:00 p.m. The report notes 4:00 - 6:00 standard peak time frame.

Discussion was held concerning north and south bound traffic and the peak times. He explained that they wanted to see what the "viewer's traffic" and the occurrences (3 time periods (Saturday and recreational traffic). They also looked at weekday a.m. and weekday p.m. The weekday p.m. hours are significantly higher.

Commissionerf Parrish said his job is to look behind the developer's intention and they have a concern for the residential areas< it will have a dramatic impact on the road. He said there is a problem with Wilsonville Road and Hwy 219 and Springbrook Road. He feels there will be some costs to the developer and hypothetically with the City sharing the costs. He said it is a concern for public safety without a traffic light.

Mr. Gougler said the last thing in the world is to attempt to influence an engineer or Planning Commissioner. Coming up with \$30,000 to do a study, he hopes that there is something there to save money. Because they went to Kittleson, they have the experience. As a developer, he has to follow the rules. He will do what is asked to be done. The study shows that it is already in need of a traffic light. The cost should be absorbed by the City. If the base data as established by Kittleson that the project is creating an additional impact, the studies will show that and they will do what they have to do.

Commissioner Parrish discussed 7:00 - 9:00 a.m. (Northbound) highest traffic. He noted that he feels that the peak hours to be beginning at 6:00 a.m.

Mr. Gougler said the negative impact is already critical.

Commissioner Wall said that what he is trying to communicate is that regardless of what the conclusions are made, if we have to sit at an intersection for a period of time, or drive the road a certain time of the day, try to get onto Hwy 219, and then a report that more or less says that the plan should proceed as they way they have, because the problems are already there, it is someone else's expense, someone will pay. Commissioner Wall said that it seems logical that there would be an impact to the area. There is no guarantee that the City will do anything such as putting in a light (who will pay for it?). He said that he is concerned that with all the discussion, some things are not completed as discussed.

Mr. Gougler said the developer must participate in the building of the specific plan for the area (pay for the improvements immediate proximate to the project) The Specific Plan is outlined to require that certain things be completed accordingly.

Commissioner Parrish said that 60% of the project is dictated by the traffic volume. When he read the figure, the light has to be placed at Springbrook at the location. What entity will dictate that the traffic volume is at the limit and the work must be done.

Mr. Gougler said that he is trying to establish the highest marketable value for the area. If the traffic is impacted to his development, he is forced by the market to do certain things. When he goes to do a development< he has to prepare and submit that subdivision proposal to City staff. AT that time, they will (engineering) will evaluate the traffic impact (trips) for the project. He discussed secondary traffic that will

be going through which will negatively impact his development. Staff has to make a decision to discuss with the developer concerning signals or left turn lanes, etc. (Condition of approval).

Commissioner Wall said that developers are optimistist and planners are pesimists. Discussion was held at what times would portions be triggered to be done (V-1-3).

Mr. Gougler addressed issues raised by the Commission at the last meeting.

1. Stream Corridor. The stream corridor (east branch of springbrook creek) was deloinated in excess what was required by the Committee. It took in more land. That stream corridor has been conveyed to CPRD as a preservation area. Things can be done to the spring banks at the direction of Diviision of State Land sand Corps. Of Engineers. Cannot be touched by developer or the City.
2. Trees. Tree removal (type 2 process) has to be evaluated and approved by the licenses arborist.
3. Industrial land and the conversion of the property. He referenced a list of the top 100 growing companies in Oregon. In the portland area 3,351 acres of industrial land (most within 5 miles of the airport). IN the Salem corridor, there are 572 acres of property, not counting an additional 600 acres which are already on line for development. These areas are for industrial purposes. The top 100 fastest growing industies in Oregon, in industrial sites comprised \$54 million o f 1998 revenue (398 jobs). Businesses which occur on professional or office commercial \$1,117,000,000 revenuesand 1,940 people. One-third of start-ups (people working in homes), 1/3 in sotftware, 1/3 in retail). He presented a hand-out reflecting the information concerning primary growth. The industry that has created the most living wage jobs. The most loss is the inustrial designated property. He reviewed various layoffs in the software industry. He wants to make sure tht the property accommodates what is going on today, as well as the future. The increase is professional and medical support complexes, but also be friendly to software companies.

Commissioner Wall reviewd the discussion from the last meeting involving an informal process to review the proposal.

Chair Hannum said he wuld suggest that the staff continue with the staff report in the sections presented.

Commissioner Wall sid that when the issue of manufacturing, industrial or commercial lands come up, statements have been made by City staff and other invididuals, about the concept of 1979 it was decided that the City needs so much manfucaturing and commercial for the next 20 years. He feels it was over-stated. Discussion was h eld concdrning reduction in the types of land. He said the Commission has gone under some assumptions whcih could be faulty.

Commissioner Haug said he provided a copy of his comments to the staff report.

TAPE 2 - SIDE 1:

Chair Hannum called for a break at 8:40 p.m. The meeting reconvened at 8:50 p.m.

1. Water:

Mr. Brierley reviewed issues dealing with water (update of the elements of the strategic plan). He reviewed Housebill 2865 concerning placement of utilities (such as wells) in farming zones. It is on its way to the Governor. It passed the Senate and the House. Commissioner Haug asked if there was information concerning whether the Governor intended to veto or not. The effective date is 90 days past a date (he was uncertain as to that date, but hoped before the end of the year).

Commissioner Parrish asked when the plan was adopted by the City Council? Mr. Brierley said he believes it was February 2, 1998. Commissioner Parrish discussed capital improvements and the development of reservoirs as it relates to budget constraints. If ready to do the reservoir, is the money available to construct the reservoir in accordance with the 1999-2000 budgeted funds? Mr. Brierley said the future monies are based upon rates and system development charges (anticipated that it will be collected to fund the improvements in those years). There is not an adopted budget to pay for these costs.

Commissioner Parrish said that each phase would review the water availability prior to authorization and meet the objection needs.

Commissioner Haug asks who determines that the objections have been met. Mr. Brierley said it would be staff, City Engineers, City Manager, etc. Commissioner Haug said the Homebuilder's Association may challenge the Newberg water SDC's. As a rate payer, he does not want to pay for an infrastructure to pay for new growth. Mr. Brierley said he understands that the Homebuilder's Association has filed something in Court (in the form of a writ).

Commissioner Ashby asked about the requirements of adequately meeting the needs (peak demand periods). Mr. Brierley said that the controlling factor is fire flow and those numbers can be calculated, the numbers can be determined through engineering.

Commissioner Haug asked if the City does not have adequate supply for this development. Mr. Brierley said that if the whole development was to be built out. He would like to suggest the Commission to approve additional language to note that adequate municipal water supply and storage are not available. He would recommend amending Section 1.1

Chair Hannum discussed storm run-offs and contaminants. Mr. Brierley said the current storm management does not require such action (retention basin to test quality of water versus the volume of water due to erosion). Mr. Brierley said the City encourages it where it could be factored in, but it is not a requirement.

Chair Hannum said he feels that we will in the not too distant future, some sort of system whereby run-offs of parking lots, will have the oils, etc. be filtered before it goes into the stream. If it is not considered, fish restoration, etc. will suffer.

Mr. Gougler said the new storm water regulations concerning retention and treatment go into effect next month.

Discussion was held concerning presenting a motion for approval while the Commission is still in deliberation.

Consensus of adoption of 1.1: Molzahn agreed with language. Commissioner Wall said he would like to put the additional language in 1.1

2. Transportation:

Mr. Brierley said the steering Committee developed the plan without the Traffic Study. There are minor changes. He reviewed the options. The traffic signal on the new east/west location of Springbrook Road> The light at fernwood road and springbrook and Hwy 219 and Wilsonville Hwy are already in the transportation system plan and SDC charge plan. The city is collecting SDC in anticipation that the fund would pay for the traffic signals. Mr. Brierley said they are listed in the capital improvement program, but he is not sure of the exact dates. The Hwy 219 and Wilsonville Road will involve the state and their respective timing.

Mr. Brierley reviewed the east/west road (eastern portion of the site). IN the specific plan as adopted by the Committee (V-2-67 - Circulation Plan), the policies V-2-46 concerning access to and from the residential area east of the eastern fork of Springbrook Creek somewhere near the northern vicinity of the property. He said he talked with adjacent neighbors and did not have a problem as long as they were allowed to be participants in the process. Topographically, it makes sense to have it located in the northern part of the property.

Councilor Parrish asked when it was discussed to keep it within the northern vicinity of the property, as early as the early stages of the steering committee. Mr. Brierley said that at least from November/December, 1998. He asked what federal entities will be involved if a bridge is constructed. Mr. Brierley said that numerous federal agencies (US Army Corp of Engineers, DEQ, Fish and Wildlife, etc.). Commissioner Parrish asked if the location is the best utilized for the project. Mr. Brierley said it works best north of the Springbrook Oaks area and in the Urban Growth Boundary.

Commissioner Haug said that when he was pleading for enhancements and having it restored to a useful habitat. He reviewed information concerning a builder placing a drain in the creek and caused damage. He could not continue with the development or other phases without first restoring the creek.

Mr. Gougler said that he has had a lot of experience in his developments in mitigating crossings. Anything dealing with trees are Type 2. Anything dealing with stream crossings, with obtaining permits, he will make sure that any crossings is mitigating, but he is trying to eliminate all crossings altogether.

Commissioner Haug said that the stream is wider than the minimum mandate. What are the stream corridor zone lines? The stream corridor was not as large as the area that was surveyed and dedicated to CPRD. Mr. Gougler said he is not certain and could not answer Commissioner Haug's question.

Commissioner Haug asked if the City had contact with federal agencies concerning placing a bridge.

Mr. Gougler said he has already met with federal and county agencies. They have been presented with copies of wetland delineations. Ms. Mingay said that at the time the subdivision was done as noted by Commissioner Haug, the adopted stream corridor is more detailed than what had been previously noted on prior subdivisions.

Mr. Gougler said the condition of conveyance is 50 yards. They delineated the area as preservation. It is more restrictive.

Commissioner Parrish said he had a conversation with a representative from ODOT (Mr. Sanders) about a month ago. Commissioner Parrish said he resides on Wilsonville Road and is concerned about what is going on in connection with Wilsonville Road. He discussed Mr. Sanders' comments concerning reconfiguring the area. Mr. Sanders said he would not give any time frame. He expressed that if he adopts the recommendations, he is relying upon the comments made by Mr. Gougler concerning the changes which are to be made.

Mr. Gougler said the developer is required to bond at a percentage as it proceeds toward the intersection. He said he has a concern that the City is playing with their money for as long as they choose to do it. He is not obligated to pay for the entire intersection. Discussion was held concerning everyone following the

rules. Another concern, does the bond offset the SDC's? It is not over and above the SDC's. It is not spelled out in the proposal. Everyone has known about the Wilsonville -Hwy 219 issue. No one knows when it will be installed.

Consensus: Commissioner Haug said he is comfortable with staff's recommendation. Commissioner Wall agreed.

3. More M-1 Industrial Zoning.

Mr. Brireley said when the Comprehensive Plan was adopted in 1979, discussion was held concerning percentages and the adoption of certain types of lands. When looking at Springbrook Oaks Specific Plan, they considered how the property would be zoned to benefit the community. Through the process and the information gathered, a consensus of the developer, the City and the engineers. Mr. Brireley reviewed the existing and proposed percentages. The plan does not convert industrial land nor trade out other land to allow for more R-1, 2 or 3 land. The number of acres is close. What it does do, the areas (160 acres are zoned M-1), a chunk is zoned as R-P (Residential/Professional). They did not want to lose the opportunity for economic development (apartments near medical facility, but limit it so that the whole area would not be R-1 land). What the land was intended to do was to provide economic development opportunities for what was coming to the community (offices, software companies, medical, educational, etc.) Which generates jobs and things to help the communities with job/housing balances. The purpose of the plan was to provide the best use for the property for the property and the community as a whole. It is staff's recommendation to adopt the plan as recommended by the Steering Committee.

Commissioner Haug asked how much housing is allowed in the RP? Mr. Brireley said it is up to 20%: smaller area "B" and the larger area "F". "B" is up to 100% and could be all residential. "F" is 20%. Commissioner Haug addressed extremes. Mr. Brireley said it is 25 acres out of 65 acres (30%) would be allowed to be residential. Area "B" would be a great site for a school.

Commissioner Haug said that Mr. Gougler noted that M-1 would not allow start-up software firms. Certain of the businesses would be best fit for the area would not be best zoned in an M-1 area. Mr. Brireley said that hospitals are permitted in M-1. Mr. Gougler said the market for area "B" would be making sure land was available for school use and the other part was that they wanted an option of putting a product there (behind the Fred Meyer's complex) could not have residential due to truck traffic, etc. Mr. Gougler reviewed the level of services that could be located in a certain area. Most people in a software industry don't like to be in semi-truck traffic. Mr. Gougler addressed keeping the zoning flexible to accommodate multiple uses.

Chair Hannum called for a five minute break to allow the Commission members to read Commissioner Haug's prepared statement noting his concerns. (9:40 - 9:45 p.m.)

Commissioner Haug summarized his concerns. Periodic review in 1999. Needs need to be preserved prior to the demand. He also addressed economic independence (appropriate ratio for self sustaining and not a bedroom community). The need for this land is growing slowly. He is advocating that it is not an appropriate analysis. Need to establish jobs/housing balance. His findings are different from the staff report. If we want to make a change, his view is that they are in essence stripping the land in certain areas to allow for residential. The whole area is M-1 which is intended for job growth. It contradicts what the vision of the City. He reviewed the needs analysis and the public involvement process during a periodic review. He would propose to hold off zoning of B, C and D until they have an appropriate process for public input and review to involve the community. He said it is not fair.

Commissioner Molzahn said he does not see how a number of acres being reserved equated with jobs. The industrial land does not equate industrial jobs. In planning for growth, we are not the only area that certain industrial users are looking at. Newberg does not have the ideal proximity for transportation corridors.

Commissioner Haug said he asked City Manager DRC when the City will be needing to change and trigger a periodic review (it is unknown).

Mr. Gougler said that the Committee's mandate was to create with 13 citizens, by law, they had the right to modify the zoning of the Comprehensive Plan. Each meeting was a public meeting to provide testimony. It was the specific purpose to do so. Mr. Gougler reviewed the Comprehensive plan demarcation of the M-1 property. The Comprehensive Plan refers to percentage as to Residential and M-1. When the Comprehensive Plan was drawn, zoning lines were drawn as an accommodation to show what they would look like over a piece of property. The developer did not make the recommendations, but were made by the Committee and City staff to allow for flexibility in zoning. He is concerned that if they disregard the legal obligation which has been met by the Committee (over 8 months of public hearing and recommended to Planning Commission), everything Commissioner Haug has requested has been done.

Commissioner Haug said the Goal 1 process periodic review has not been met. Mr. Gougler said the Committee was given the charge of making recommendations to the Planning Commission and the City Council for suggestions. He was given a set of rules to follow. He took what was given to him by the City in good faith and the Committee was to review the

Commissioner Haug said the staff's finding are in error (need jobs/housing balance). Mr. Gougler said he wants the opportunity to provide schools and a retirement facility. Instead of a community served by the demographics of the area. He said the property owners will cooperate with the City in developing a community around a retirement facility that could be placed on RP property.

Commissioner Wall addressed viability of commercial and manufacturing property. Mr. Gougler said the owner's concern is that he does not view himself as a social engineer. He would like to have the apartment residents be able to be provided the opportunity to work close to home. The property has been available for some time. Discussion was held concerning what industry would lessen traffic impact. A retirement facility would allow people to utilize immediate services and the accommodation of a hospital, if one chose to relocate which all would encourage jobs (office park). The City has tremendous resources with a huge recreation area where people would want to retire. Software industry does exist in M-1 areas. To try and encourage a campus atmosphere, they promote a reason to be here: place to live, jobs and having services. For every subdivision proposed, the developer has to review and obtain approval from the City. To put together a PR zoning, it offers flexibility to provide a school or church/school or retirement facility.

Commissioner Wall addressed M-1 property being reduced due to the market not selling well and has been relocated to a least attractive saleable location. Mr. Gougler said that a hospital cannot go into a M-1, it must go into an RP. He noted that residential housing has been relocated to retail services which would reduce auto traffic. You want neighborhoods to be contiguous, use of mini-parks and pedestrian paths (eliminating numerous trips).

Commissioner Parrish asked to get a consensus to move forward.

Commissioner Haug said that his concern is job growth. Item "D" and "F" industrial development and future community needs. He would propose:

What is missing is an analysis of how job growth would occur. Need to satisfy criteria to tell community where additional job bounds will occur. What would help is if staff or Mr. Gougler could show where the job growth would occur. Mr. Gougler said that he is not sure where that it would grow.

Consensus: Parrish would adopt/ Wall would not/Ashby said that most job growth has occurred in small business which is more appealing; but the probability of a larger employer (short of Sumitomo) is quite small. Discussion was held concerning tax breaks. **Residential construction** creates jobs. It takes people to provide these services. He would concur with staff. Mr. Molzahn said he would concur

with staff.

4, Stream Corridor. Mr. Brierley reviewed Page V-1-4 recommending adoption of 4.0 with no changes. Commissioner Haug presented Audobon Society information concerning golf courses. It does require additional costs. Staff feels the proposal is a good one. Staff is recommending encouraging to do this, but not make it a requirement at this time. The Plan adds a lot to preserve the property.

Commissioner Parrish said the Audobon Society would like to have CPRD absorb the cost for this. There is adequate protection in place. He would adopt the recommendation of the staff with CPRD paying for the Audobon review.

TAPE 3 - SIDE 1:

Mr. Gougler said the course they designed with a pond. Grass would not go to the edge of the water. There would be reeds and cat-tails around the area. It is a benefit to the development and the community.

Mr. Don Clements, CPRD, said the City is going to be facing other problems down the road (environmental from the river), they are doing soil testing, etc. The proposal will be brought back to address concerns. At this point, they would like to keep options open which are in the best interest of the community.

Commissioner Molzahn said the golf course is not part of the Springbrook Oaks Development. He would not endorse any change. Everyone concurred.

5. Park Space. Mr. Brierley reviewed what the Plan provides as noted on V-1-5. 28.7 acres of preserved stream corridor is approximately 10% of the entire site). There is a reasonable possibility that a school could be placed on the property, but there are not commitments. A golf course is also a possibility, but with no commitments. **Ms. Mingay said that every property has landscaping requirements (15%).**

Mr. Brierley said recommendation of 5.0 with no changes.

Mr. Don Clements and Commissioner Haug addressed park space area requirements of 2.5 acres. He said that CPRD shares the Commission's concerns.

Mr. Gougler discussed the bond language in 2.2 (item 3) for intersection improvements. Bond deposits would be SDC credits. Once bond is deposited, improvements will be started with 22 months or the bond will be returned. Mr. Brierley said some improvements are SDC projects. The reason for the bond deposit is that we are trying to avoid a "clip where a development happens and they don't put in signals, etc. When the next development is placed in, and the City requires that a development (down the road) provides for a signal. Each development that goes in would contribute to the cost of the intersection rather than having one development pay for the entire project.

Mr. Gougler said that the intersection would take a tremendous amount of stress off the Fred Meyer intersection. His development is not really wanting to do it. It is an intersection not just triggered by the proposed development. Discussion was held concerning the east/west corridor as required by the engineer (Hayes Street signal). The SDC district could be expanded to other properties.

Mr. Brierley suggested that they would provide a bond at the intersection of improvements or shall provide other acceptable means of guaranteeing participation

Ms. Barbara Mingay suggested the following language: Providing a bond or alternative financial mechanisms toward the intersection improvements.

Commissioner Parrish questioned how many other businesses would be derived from the benefit of the intersection. He would like to place a 24 month window in the proposal.

Commissioner Wall said that he is concerned that each development pays their respective. Discussion was held concerning placing a sunset clause into the proposal.

Discussion was held concerning tying up developer's money until the need arises and to say if the intersection is not going to happen, the developer's money is returned. Mr. Gougler addressed whether or not the proposed development is responsible for paying for the entire project.

Chair Hannum closed the public hearing.

Motion #__ :	Haug/Ashby move to adopt 1.1
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Vote on Motion #2 :	The motion carried ().
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Motion #2 :	Haug/Asbhy to adopt. 2.2, 23, and 2.4
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Mr. Brirley reviewed changes - third bullet. Shall provide a bond or other financing mechanism. (3)

Motion #2 :	Haug/Wall to adopt the language as noted by Barb and Barton. (Bullet 3)
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Commissioner Parrish suggested the following language:

AMENDMENT: MOTION: Molzahn/Haug :

Adjacent developments outside the specific plan area will also be required to participate in the signalization based upon the same formula.

CARRIES UNANIMOUSLY.

Roll call on motion as amended. Haug called for the question.

Motion #2 :	Molzahn/Parrish to adopt 4.3 as recommended by staff.
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AMEND MOTION: haug/Wall TO DIRECT staff to see how analysis of D & F on the Comprehensive Plan would be satisfied (Job/growth/needs), etc. Commissioner Haug read the statements (Economy section policy). Current available zone land. He reviewed "F". The changes would accompany the final decision making hearing at the Council. Commissioner Haug called for the question.

ROLL CALL 4 Yes/2 No (Ashby/Hannum). Motion carried.

Commissioner Wall said that so many assumptions for the City's balance is unclear and reflects inaccuracies in industrial lands required for the City's balance). He thinks the original assessment of 1979 was overestimated but appears to now be reasonable. If for no other reason, the information industry (software) we want to put so many eggs in one basket, it may be perfectly okay, but it deals with a lot of speculation. We need to have some kind of compromise. As far as commercial property, it is not being undervalued much. To attract on business, we cannot solely rely on software type facilities.

TAPE 3 - SIDE 2:

Commissioner Wall addressed the fact that Newberg has been a tourist area (traveling through Hwy 99w) and agricultural zoning. He thinks that it is too far off balance. He would recommend increasing the commercial area and where it is located right now, he would put in more commercial, or something that could pass for it one way or another. He is concerned that the M-1 or RP is for some big project to come in and that is pretty much all there is and there is not much left for anyone else. He does not agree with the concept that commercial property is hard to sell in Newberg. He has been monitoring commercial property and feels that it is selling pretty good.

Commissioner Parrish asked if Commissioner Wall's concern of a large complex only providing for few jobs. Commissioner Wall said that he is afraid of one large entity taking up the entire M-1 property. If there is a reasonable chance with M-1 or RP sections (hospitals or retirement homes), it is not that he objects to those particular uses at all, if reduce commercial area in a project to where it is still or reasonable size, or if the site is being used up real quick, they have not done enough research.

Chair Hannum said the lack of commercial has not been mentioned. In the original long range plan, a certain amount was to be commercial. He inquired whether or not a majority of the M-1 property has already been taken up by Fred Meyer's. In the specific Plan, certain roads are required, other roads are not prevented. In the course of the next 10 years, the M-1 properties is divided up into 10 acre lots and if another road is put through, there is nothing to prevent that.

Commissioner Molzahn said he appreciates Commissioner Wall's comments, but he feels the proposal addresses a more equitable balance.

Commissioner Haug said he would like to see the jobs balance go up, but on balance, he thinks it offers more positive than negative on all issues. There is an opportunity to make it a magnet. He is worried about job loss in the community. If it builds out right, it would be a solid foundation for jobs. He would say yes.

Commissioner Parrish said the developer has stated an intent to increase a positive livability. He liked the comment concernignn the intent is there, but he would hope that it would potentially allow people to work in an area adjacent to where they live. There is no way to guarantee, he would hope that with the M-1 area, that it occurs. It would be good for the City.

ROLL CALL:

Vote on Motion #2 :	The motion carried ().
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Other property owners outside the SPoO SPA shall contribute their percentage

Vote on Motion #2 :	The motion carried ().
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Haug/Molzahn: to adopt 4. With no changes. Commissioner Wall called for the question.

Motion #__:	Haug/Molzahn to approve 5.0 as recommended by staff.
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Commissioner Parrish asked for clarification of the park location. Mr. Brierley said one would be east fort of springbrook creek and one would be between the two creeks. Discussion was held concerning build-out.

Vote on Motion #2 :	The motion carried ().
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Commsioner Ashby addressed the density chart. (Page 20) concerning minimum lot area per dwelling unit be 5,000. In any one subdivison shall be 10,000 sq.ft. Discussion was held concernign the standard minimum lot size. Commsioner Molzahn said that where the R-1 is located, it would be diffcult.

Ashby - under min, lot area for dwelling unit. It should be 5,000, and not 10,000. Discussion was held concerning "av. size".

Motion #_ :	Page 7 of the 06/10/99 minutes to approve Resolution No. 99-117, as amended.
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Vote on Motion #2 :	The motion carried (Unanimous).
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Mr. Brierley said the matte will be scheduled for the August 2nd City Council meeting>

Commssioner Andrews returned to the table.

VII. ITEMS FROM STAFF

1. Update on Council items:

Mr. Brirreeley said the Council voted to appeal a subdivision the County approved in the UGB. They dealt with TSP amendments. They got thoroughmost of it, with minor changes, on August 2, 1999. They approve the privilege tax which would remodel the City Hall. The Commission will review at their next meeting the historic review. CPRD has requested a zone change for the Central School facility. A CUP for an expansion of the armory building from CPRD.

2. Other reports, letters, or correspondence

Commisisoner Haug attended a meeting and made a presentation and

3. Next Planning Commission Meeting:

MOTIOM TO ADJOURN AT 11:35 P.M.

VIII. ITEMS FROM COMMISSIONERS

IX. ADJOURNMENT

The meeting was adjourned at approximately p.m.

Passed by the Planning Commission of the City of Newberg this ____ day of _____, 1999.

AYES: NO: ABSTAIN: ABSENT:
(list names)

ATTEST:

Planning Commission Recording Secretary Signature

Print Name

Date

**INFORMATION RECEIVED INTO THE RECORD
AT THE JULY 8, 1999 PLANNING COMMISSION MEETING.**

**THIS INFORMATION IS ON FILE AT THE COMMUNITY DEVELOPMENT OFFICE
ATTACHED TO THE MINUTES OF THE MEETING AND IN THE PROJECT FILE IT
PERTAINS TO.**

PROJECT FILE #

SPRINGBROOK OAKS SPECIFIC AREA PLAN STEERING COMMITTEE MEETING SUMMARY

Thursday, November 5, 1998 3:00 P.m.

Newberg Public Safety Building - Newberg, Oregon

Approved at the December 10, 1998 meeting

Committee Members Present:

Mike Livingston, Debbie Sumner, Frank Dittman, Don Clements, Bob Youngman, Sam Farmer, Jim Henderson, Rob Molzahn, Andrew Poole, Michael Wallace, Bob Andrews

Committee Members Absent:

Roger Sauer, Johann May, Fred Howe

Others Present:

Mayor Donna Proctor, City Manager Duane Cole, Economic Development Coordinator/Planner David Beam, City Planner Barton Brierley, Larry Anderson, Engineering Manager, City Councilor Chuck Cox, Planning Commissioner Warren Parrish, Owner Representative Mike Gougler, Dean Werth, Dennis Werth, Paul Frankenberger (714 E. 6th Street, Newberg, OR 97132), Pat Haight (501 E. Illinois)

- I. Welcome: Mayor Proctor opened the meeting and welcomed the committee. She appointed Bob Andrews as Chair and Debbie Sumner as Vice-Chair
- II. Introductions: Committee members, staff, and the owners representative introduced themselves.
- III. Presentations:
 - A. David Beam outlined the packet materials. He detailed the roles of the committee, owners, and staff, and explained the rules of conduct. He explained the maps and other items in the packet.

It was decided that the chair and/or vice-chair could attend the Planning Commission and City Council meetings to present the committee's recommendation on the project. A minority report, if there will be one, could be presented by a member of the committee or another person.
 - B. Larry Anderson outlined utility plans for the area.

It was questioned whether water availability was an issue for the Committee's

consideration. Duane Cole answered that the City Council has adopted a policy to add water production capacity and storage to the water system. It is not the role of the Committee to decide this issue: they should assume that water will be available. If they are concerned about this assumption they could convey that message to the Planning Commission.

- C. Mike Gougler outlined the history, geography, and ownership of the property. He stated that a better title would be a "general plan" for a "specific area." He outlined a general concept of the plan: large lot single family residential on the hill in the east and industrial in the middle. The area to the west of Brutscher would have multi-dwellings near Fred Meyer with decreasing residential density going south.

IV. Questions and Answers:

- A. It was questioned what are the benefits of a Specific Plan. Barton Brierley stated that it was a big project and would be too big of a bite for the Planning Commission to deal with considering their schedule. The Specific Plan allows you to look at the "big picture" instead of dealing with disjointed pieces. Mike Gougler stated the specific plan gives the ability for flexibility in writing the rules.
- B. Don Clements explained that Chehalem Parks and Recreation District owns a large property south of Fernwood Road. Their intention is to develop this as open space, parks, and possibly a golf course. Their intention is not to develop residences.

V. Public Comment

- A. Paul Frankenberger stated that Roger Sauer will not be attending these meetings for the School District. He would like to have a replacement appointed. Mayor Proctor appointed Paul to the committee to replace Roger Sauer. Paul joined the committee at the table.
- B. Pat Haight expressed concerns about disturbing the natural tree growth on the east of the property. She is also concerned about traffic on Fernwood Road. She thinks the Planning Commission can do an adequate plan.

VI. Conclusion

- A. David Beam presented a survey to the committee. The survey asks them to list their five biggest concerns with the project. Surveys are to be returned no later than Monday, November 9, 1998 at 5:00 p.m.

B. The next meeting was set for Thursday December 10, 1998, 3:00 p.m. The location would be the Public Safety Building unless otherwise directed.

C. The meeting adjourned at 4:50 p.m.

VII. APPROVED

Bob Andrews, Committee Chair

Date

SPRINGBROOK OAKS SPECIFIC AREA PLAN STEERING COMMITTEE MEETING SUMMARY

Thursday, December 10, 1998 3:30 P.m.

Newberg Public Safety Building - Newberg, Oregon

Committee Members Present:

Debbie Sumner, Frank Dittman, Don Clements, Sam Farmer, Rob Molzahn, Andrew Poole, Michael Wallace, Bob Andrews, Johann May (late), Bob Youngman (late)

Committee Members Absent:

Paul Frankenburger, Mike Livingston, Jim Henderson

Others Present:

City Manager Duane Cole, CDD Director Mike Soderquist, Economic Development Coordinator/Planner David Beam, City Planner Barton Brierley, Larry Anderson, Engineering Manager, Owner Representative Mike Gougler, Dean Werth, Dennis Werth, Jeff Meyer and Tom Moison of Ankrom Moison Architects, Pat Haight (501 E. Illinois)

- I. Chair Andrews opened the meeting
- II. Meeting Summary: The November 12, 1998 meeting summary was approved unanimously.
- III. Survey Results: David Beam presented the results of the survey of major issues. Drainage and sewer were mentioned as important issues.
- IV. Water System: City Manager Duane Cole outlined the strategic direction the City is taking to handle the water system.
- V. UGB/URA: David Beam showed the Urban Growth Boundary and Urban Reserve areas. He outlined the various comprehensive plan districts.
- VI. Draft Plan: Mike Gougler presented the draft plan. He noted that the owners have not entered into any agreements with anyone regarding sale or use of the property.

The plan is intended to encourage pedestrian use. There will be low density uses to the east of the eastern fork of Springbrook Creek. This is likely to be the last area to develop.

The plan is to provide the greatest amount of flexibility, to respond to market forces, and to meet the needs of the community.

The RP areas could accommodate a variety of offices.

Jeff Meyer presented a slide show showing the proposed plan. The area to the east of the eastern fork of Springbrook Creek would be zoned R-1 and would be less dense. They have not prepared a detailed plan for this area.

Circulation would be centered on Brutscher Street. There would be a landscaped buffer on both sides of the street.

To the west of the western fork of Springbrook Creek would be an assisted living facility. Parcel B would be market rate apartments. Parcel C would include townhouse and rowhouse apartments at about 12 units per acre. These could be purchased. Parcel D would have duplexes at approximately 9 units per acre. Parcel E would have single family residences on lots averaging approximately 8000 square feet.

The RP district would be largely horizontal buildings, low to the ground. They could include office building of human scale. Industrial loading could be in the rear.

Frank Dittman suggested residential development on the east side of Brutscher and industrial development on the west side.

The plan includes pedestrian connections between developments. There would not be any encroachment into the stream corridor.

They would be asking for average or blended densities across the project.

Johann May mentioned that the items that make a community: the church, the park, and the pub, are missing.

The question was raised regarding a potential school site. Mike Gougler said they have talked to the school district. The district's preference is probably for a school site north of 99W instead.

The plan includes one single access to Fernwood. A question was raised concerning the interconnectedness of the developments. The question was also raised concerning the bypass. Mike Gougler stated that they have no intention of land banking for the bypass: if the State wants the land they can buy it.

Andrew Poole asked if the development met City Codes. Mike Gougler said that it would have to.

Mike Gougler said that they would like to build the apartments first, and develop the other parts later.

VII. Next Steps: The next meeting should address:

- A. The need for a school site.
- B. Provision of services
- C. Overview of potential traffic
- D. Recreation and open space.

The next meeting was set for January 14th at 3:30 p.m. in the Public Safety Building.

VIII. Public Comment: Pat Haight expressed concerns about the water supply and getting correct information before making a decision.

IX. The meeting adjourned at 4:45 p.m.

X. APPROVED

Bob Andrews, Committee Chair

Date

SPRINGBROOK OAKS SPECIFIC AREA PLAN STEERING COMMITTEE MEETING SUMMARY

Thursday, January 14, 1999 3:30 P.m.

Newberg Public Safety Building - Newberg, Oregon

Committee Members Present:

Debbie Sumner, Paul Frankenburger, Jim Henderson, Mike Livingston, Frank Dittman, Don Clements, Sam Farmer, Michael Wallace, Bob Andrews, Bob Youngman

Committee Members Absent:

Johann May, Rob Molzahn, Andrew Poole

Others Present:

City Manager Duane Cole, Economic Development Coordinator/Planner David Beam, City Planner Barton Brierley, Community Development Director Barton Brierley, Community Development Director Mike Soderquist, Owner Representative Mike Gougler, Dean Werth, Dennis Werth

- I. Chair Andrews opened the meeting
- II. Meeting Summary: Mike Soderquist's name was added to the list of attendees at the latest meeting. The December 10, 1998 meeting summary was approved unanimously as modified.
- III. Report:

David Beam said that City staff had met and discussed the project. They had met also with Mike Gougler and discussed certain issues. Mike Gougler will address those issues.

Mike Gougler addressed the following issues

- A. North-south circulation between developments: This is provided. Mike handed out an amended plan showing north-south links.
- B. Neighborhood parks: These were shown conceptually on the revised plan.
- C. Open areas maintenance: These would be maintained by a homeowners' association. Don Clements mentioned that these might be given to CPRD for maintenance.
- D. East-west access to Springbrook Road: This could be accommodated with a new road access near the Grange Hall. Extension of Hayes Street was not practical due to the grades.

- E. Hospital: The plan could accommodate a hospital. However, the hospital has no definite plans.
- F. Marketing M-1 land: This industrial land will be difficult to market. It has no rail, air, or significant transportation access.
- G. Most eastern portion of the property: Two accesses to this area could be built from Fernwood Road.
- H. Golf Course: He stated that they have been approached by CPRD about the possibility of constructing a golf course near the stream corridor.

David Beam presented the pros and cons of crossing the east fork of Springbrook Creek.

Jim Henderson asked why the City wanted the east-west circulation.

David Beam said that it was to improve traffic circulation. The connection would meet the City's standards for collector street spacing.

Bob Youngman pointed out the need for a trip generation study.

Mike Gougler described his reluctance to building the stream crossing: increasing costs, combining M-1 and R-1 land, and crossing the stream corridor.

Barton Brierley said the crossing was needed for emergency vehicle access, and for vehicular, pedestrian, and bicycle circulation.

Noreen Chamberlain commented on the effect of the bridge crossing. She wouldn't want to force a bridge just to serve 20 homes.

Barton Brierley noted that 150-200 homes could be built on 10,000 square foot lots east of the creek.

Mike Gougler said that area would probably accommodate 40 homes. 80 would be a high number.

The group discussed a possible connection to Corral Creek Road.

Paul Frankenburger addressed school siting. The school would like 8-10 acres of land for an elementary school. They would like it to be next to a stream or park, but not on an arterial.

- IV. Public Comment: Larry Chamberlain said he is involved with developing property at the southwest corner of 99W and Springbrook Road. He outlined some of the difficulties in accessing Springbrook Road and the issues with the Fred Meyer access.

Don Clements passed out a letter regarding the potential for a golf course on the Specific Plan property. He said he had a plan that he could show people after the meeting.

V. Next Meeting:

- A. The next meeting was set for February 11th at 3:30 p.m. This would be a workshop session.

VI. The meeting adjourned at 5:25 p.m.

VII. APPROVED

Bob Andrews, Committee Chair

Date

SPRINGBROOK OAKS SPECIFIC AREA PLAN STEERING COMMITTEE MEETING SUMMARY

Thursday, February 18, 1999 3:30 P.m.

Newberg Public Safety Building - Newberg, Oregon

Committee Members Present:

Debbie Sumner, Paul Frankenburger, Jim Henderson, Frank Dittman, Don Clements, Michael Wallace, Bob Andrews, Bob Youngman, Rob Molzahn (late), Andrew Poole (late)

Committee Members Absent:

Johann May, Mike Livingston, Sam Farmer

Others Present:

City Manager Duane Cole, Economic Development Coordinator/Planner David Beam, City Planner Barton Brierley, Community Development Director Barton Brierley, City Engineer Larry Anderson, Community Development Director Mike Soderquist, Owner Representative Mike Gougler, Dean Werth, Dennis Werth, Elmer Werth, Jim Snell, Warren Parrish, Larry Chamberlain

- I. Chair Andrews opened the meeting at 3:35 p.m.
- II. Meeting Summary: Debbie Sumner noted that future summaries need to identify which "Mike" is speaking. The January 14, 1999 meeting summary was approved unanimously.

III. Draft Policies

David Beam reviewed the draft policy document dated 2/10/99.

A. Utilities

Chair Andrews noted that the creeks would be used for storm water conveyance. He questioned whether storm water quality would be addressed.

Larry Anderson stated that current City policies deal with storm water volume through detention and retention. They do not deal with storm water quality.

B. Open Space and Parks

Don Clements questioned why the policy stated that major pedestrian pathways shall be located along streets instead of along stream corridors.

Debbie Sumner noted that during the hearings on the stream corridor, many people spoke in opposition to having pathways in the stream corridor.

David Beam explained that the policy stated "should" rather than "shall." The preference is for paths adjacent to streets. The intent was not to preclude off-street pathways. If they are appropriate off-street, they can be put in.

Don Clements was pleased to see that the plan included many pedestrian pathways - far more than a minimum requirement. As long as it is understood that off-street pathways can be allowed, he is not opposed to the policy.

Don Clements added that pedestrian pathways are not allowed in the stream corridor, but that they are allowed adjacent to the corridor.

Don Clements said that Chehalem Park and Recreation District (CPRD) could maintain the common public open spaces. Since the taxpayer is footing the bill whether the City or CPRD maintains the open spaces, the main question is who does is make the best sense to maintain them. CPRD would not maintain private common areas around the buildings.

Michael Wallace questioned the liability issue of public open spaces.

Don Clements replied that those who are going to sue will go wherever they think they can get money.

David Beam stated the policies allow a golf course in the M-1 area.

Don Clements said that CPRD has a preliminary proposed golf course plan for the area adjacent to the stream corridor. He distributed copies of the plan, emphasizing that this was only a preliminary concept drawing. The golf course would not be in the stream corridor itself.

It was noted that there needs to be safe pedestrian crossings at the parks.

Paul Frankenburger stated that the school district is interested in an elementary school site on the property. The site would be approximately eight acres.

Don Clements said that CPRD would like to cooperate with a park site near the school.

Duane Cole suggested policies for schools. These would be:

1. Schools should be imbedded in residential areas.
2. They should not be located on collector streets.

3. Where possible, schools should be located adjacent to parks.

Bob Andrews asked Mike Gougler to discuss the current status of potential medical facilities on the site.

Mike Gougler said they have discussed the possibility with Providence Newberg Hospital. Providence said they are currently evaluating their options. They are not close to expressing an interest in any one particular property.

C. Building Design and Development Standards

Mike Gougler explained that they will submit design considerations with each proposed project.

Don Clements asked what is an “adequate” buffer at Fred Meyer.

Mike Gougler suggested the policy be reworded to require a buffer to a “relevant industry standard.”

Duane Cole suggested rewording the porch policy to say, “Porches shall be encouraged in the design of residential units.”

D. General Policies

David Beam passed out modifications of the policy on zone changes.

Don Clements stated that some flexibility is needed. He pointed out that in the Northwest Newberg Specific Plan, the map didn’t always correspond with what was actually on the ground.

Mike Gougler asked to rephrase the policy on homeowners’ associations to say that the association may establish architectural/site plan review committees. The committee agreed.

Mike Gougler explained the purpose of homeowners’ associations. He distinguished between associations for multi-dwelling and single dwelling projects.

David Beam reviewed the policies for boundary changes. No area could be increased by more than five percent without a Type III process.

Bob Andrews asked if this was cumulative or per project.

Barton Brierley clarified that it was five percent of the original area. Developers could not ask for a five percent zone change each month.

E. Transportation - Bicycle and Pedestrian

Mike Gougler said that access to Fred Meyer would have to be subject to Fred Meyer's approval.

Jim Henderson said it was unlikely that Fred Meyer would want access to their rear loading dock.

Mike Gougler asked that it be included that creek crossings are subject to proper permitting through the Division of State Lands, U.S. Army Corps of Engineers, or other agencies.

Duane Cole added a fifth area where pedestrian and bicycle access would be needed: to parks and schools within the plan area.

Bob Andrews questioned what "sufficient" paths meant. The committee agreed to drop the word "sufficient."

F. Transportation - Motorized Vehicles

Andrew Poole said he felt the policy that use of cul-de-sacs be minimized was too discretionary. It would lead to arguments between the City and the developer.

Bob Youngman expressed concern about having long cul-de sacs.

Barton Brierley said that the Development Code limits the length of cul-de-sacs to 400 feet.

The committee discussed whether cul-de-sacs should be prohibited unless the developer can provide a reasonable rationale for providing one.

Mike Gougler said he would not mind having to prove a reasonable rationale for cul-de-sacs.

Jim Henderson questioned what the need was to minimize use of cul-de-sacs.

Mike Gougler explained that it was the current planning philosophy that cul-de-sacs make it difficult to bike and walk places. In some senior developments, very short cul-de-sacs can be desirable.

Larry Anderson said that the Oregon Transportation Planning rule encourages a connected street patterns. Model rules discourage cul-de-sacs. The committee agreed to drop the policy on cul-de-sacs. Existing rules adequately address this issue.

Chair Andrews asked the committee if they would like to continue to go through the policies, or stop at this point. The committee chose to continue the discussion to the next meeting.

Mike Soderquist said that the City is planning a fourth reservoir to serve properties at higher elevations.

Paul Frankenburger questioned how the policy document and the Development Code worked together. Which superceded which?

David Beam explained that the policy document would prevail where there were conflicts between the two. An example is a golf course. M-1 zoning does not allow a golf course, but the plan policy would allow a golf course anyway.

David Beam explained that the traffic impact analysis would not be ready by the next meeting. Staff hopes to have a draft plan to present at the next meeting.

IV. Public Comment: None

V. Next Meeting: The next meeting was set for March 18 at 3:30 p.m.

VI. Other items:

Don Clements stressed that there is no correlation between Chehalem Parks and Recreation District and Royale Chinook Development. There have been rumors to the contrary, and he wanted to dispel these rumors.

Bob Youngman agreed there was no connection between the two.

Mike Gougler stated that there is no relationship between the Werth family and Royale Chinook.

Michael Wallace asked why the information on Royale Chinook was presented.

Barton Brierley said it was to bring the information out in the open and to dispel rumors.

Bob Youngman said the information on the web site was reviewed by the Royale Chinook marketing team. The marketers verified that the letters were accurately worded.

Royale Chinook was to remove the letters from web site.

Michael Wallace asked if Royale Chinook owned any property in the area.

Bob Youngman said they did not.

VII. Adjournment: The meeting adjourned at 5:25 p.m.

VIII. APPROVED

Bob Andrews, Committee Chair

Date

SPRINGBROOK OAKS SPECIFIC AREA PLAN STEERING COMMITTEE MEETING SUMMARY

Thursday, March 18, 1999 3:30 p.m.

Newberg Public Library - Newberg, Oregon

Committee Members Present:

Jim Henderson, Frank Dittman, Don Clements, Michael Wallace, Bob Andrews, Andrew Poole, Sam Farmer, Rob Molzahn, Mike Livingston (late).

Committee Members Absent:

Paul Frankenburger, Johann May, Bob Youngman,

Others Present:

Economic Development Coordinator/Planner David Beam, City Planner Barton Brierley, Community Development Director Barton Brierley, City Engineer Larry Anderson, Community Development Director Mike Soderquist, Owner Representative Mike Gougler, Dean Werth, Dennis Werth, Elmer Werth, Jim Snell, Larry Chamberlain, Richard Clark
Chair Andrews opened the meeting at 3:45 p.m.

- I. Meeting Summary: Don Clements corrected the minutes to note that pedestrian pathways are not allowed in the stream corridor, but that they are allowed adjacent to the corridor. Andrew Poole asked if Don Clements had in fact provided copies of the golf course plan. Don stated that he put them on the table for people to pick up. The committee unanimously approved the February 18, 1999 meeting summary as corrected.

II. Draft Policies:

David Beam reviewed the draft policy document. He showed that corrections have been made since the last meeting. He asked if there were any additional corrections.

Andrew Poole asked whether the plan needed to note that churches would be allowed.

Barton Brierley said that churches would be allowed in all zones except M-1.

The committee accepted the policies as corrected.

Andrew Poole asked if the plan could be opposed once approved.

Barton Brierley stated that individual developments could be appealed to the City Council and then to LUBA. The Division of State Lands must approve the bridge crossing the

creek; this is why the plan spells out that the crossing is subject to their approval.

Sam Farmer asked for the definition of a minor collector.

Larry Anderson explained what it meant.

David Beam said the City's policies are to space collector streets $\frac{1}{4}$ to $\frac{1}{2}$ mile apart.

Barton Brierley said staff is considering locating Hayes Street through the PGE property.

The committee discussed the policy for phasing improvements to Fernwood Road.

Mike Gougler requested some proportionality between the improvements and the development. He wouldn't want the first small development to have to put in the road.

Debbie Sumner said there must be other communities that have done this. We could borrow from their experience.

Andrew Poole said that a good solution should be available for this situation.

Bob Andrews asked when Brutscher would be put in.

Michael Wallace asked when the Traffic Impact Analysis would be done.

David Beam said it may be 1 to 2 months.

Bob Youngman asked if the developer had looked at the property value appreciation resulting from the improvements.

Mike Gougler said he had.

Bob Andrews asked the committee for consent to ask staff to revise the language for phasing improvements to Fernwood Road.

Paul Frankenburger asked staff to include Michael Sherman (Fire Chief) in the discussion.

The committee agreed to have staff revise this policy.

Bob Youngman asked that the developer have some flexibility in street standards. There are some new designs that make very nice neighborhoods.

Debbie Sumner said the City Council looked at street standards very carefully. They definitely want a uniform standard.

Don Clements asked why the policy was in the document for a limited access highway.

Barton Brierley said that this is the bypass route. Unless the City can show that the development causes the need for the highway, they can't require the developer to pay for it.

Andrew Poole said he hadn't understood that the limited access highway was the bypass.

Mike Gougler showed a "Plan B" zoning layout. Under this plan, the area west of the west fork of Springbrook Creek would be zoned commercial. The area next to Fred Meyer would be zoned RP. This would allow a school to be located there. This would also minimize conflicts with Fred Meyer.

Bob Andrews asked how this proposal would affect the allowed densities.

Mike Gougler said that RP would allow R-3 densities, which is what was originally proposed anyway.

The committee unanimously approved the "Plan B" concept.

III. Plan Text

David Beam went through the plan text with the committee.

Don Clements asked about the plan percentages for commercial, industrial, and residential land.

David Beam said those are the plan percentages in the existing Comprehensive Plan.

Barton Brierley said these percentages will go away once the specific plan is adopted.

Michael Wallace questioned the utility policy on the substation.

David Beam said the substation is currently operating, and will be able to serve this property.

Paul Frankenburger said that if a school is placed on the property, there should be residences next to it.

Mike Gougler said he would like to deal with the school separately.

Paul Frankenburger said that existing policies that schools be sited in residential areas should cover this situation.

IV. Code Language

David Beam said he had put proposed code language at each member's seat.

Mike Gougler said that he would like the tree management plan to be reviewed by a third party independent arborist.

Bob Andrews asked when the traffic impact analysis would be ready.

Barton Brierley said Mike Gougler would like to present a set of design standards. If the plan met these design standards, then the project would undergo a Type I review.

Mike Gougler said he would present these at the next meeting.

V. Public Input

Larry Chamberlain said it would be acceptable if the agenda listed when the public comment period could be.

The committee consented that there would be a 10 minute public comment period at the beginning of the meeting. There could be additional public comment at the end.

VI. Next Meeting

David Beam said the traffic impact analysis is still two months out.

Debbie Sumner said the committee would want to see the report before making a decision.

Mike Gougler said he could bring a representative from Kittleson to give a preliminary analysis at the next meeting.

The next meeting was set for April 1 at 3:30 in the Public Safety Building.

VII. Adjournment: The meeting adjourned at 5:30 p.m.

VIII. APPROVED

Bob Andrews, Committee Chair

Date

SPRINGBROOK OAKS SPECIFIC AREA PLAN STEERING COMMITTEE MEETING SUMMARY

Thursday, April 1, 1999 3:30 p.m.

Newberg Public Library - Newberg, Oregon

I. Call to Order - Chairman Robert Andrews (3:45 p.m.)

II. Roll Call

Committee Members Present:

Jim Henderson, Frank Dittman, Don Clements, Michael Wallace, Bob Andrews, Andrew Poole, Sam Farmer, Rob Molzahn, Mike Livingston (late).

Committee Members Absent:

Paul Frankenburger, Johann May, Bob Youngman, Debbie Sumner

Others Present:

Economic Development Coordinator/Planner David Beam, City Planner Barton Brierley, Community Development Director Barton Brierley, City Engineer Larry Anderson, Community Owner Representative Mike Gougler, Chris Stanley; Kittleson and Associates, Dean Werth, Dennis Werth, Elmer Werth, Larry and Noreen Chamberlain

III. Meeting Summary: Andrew Poole corrected the minutes to note that Duane Cole was not in attendance at the last meeting. The committee unanimously approved the March 18, 1999 meeting summary as corrected.

IV. Public Comment - none.

V. Preliminary Traffic Impact Report - Kittleson & Associates

Chris Stanley, Kittleson & Associates, described the scope of work of the study. He stated that the study would examine Springbrook Oaks impact on such issues as roadway capacities and designs, intersections, turn lanes, traffic control devices, etc.

Mike Wallace asked if bike and pedestrian issues would be addressed.

Chris Stanley stated that if needed improvements are identified in the report, the recommended improvements will meet city standards.

Mike Wallace asked if the transportation needs of potential medical facilities would be

examined.

Chris Stanley stated that they will look at the design of Springbrook Oaks, including access issues.

Jim Henderson asked about a referred to preliminary report.

Mike Gougler stated that this was referring to the trip generation report that given to the Steering Committee members a few meetings back.

Bob Andrews asked if traffic issues for both weekend and weekdays will be examined.

Chris Stanley stated that the worst case scenarios will be analyzed.

Bob Andrews asked if the by-pass will be considered.

Chris Stanley stated that the most likely transportation scenario will be examined.

Bob Andrews asked if the future improvements to Highway 99W will be taken into consideration.

Chris Stanley replied yes.

Don Clements asked that if a manufacturing business developed in Springbrook Oaks, would the application be handled administratively.

Barton Brierley replied yes.

Mike Gougler asked if the proposed street layout of Springbrook Oaks could handle the generated traffic.

Chris Stanley replied that the roads should be able to handle the traffic. The report will reveal what type of road improvements will be needed at the intersections.

Don Clements asked if the stream crossings will be considered.

Chris Stanley said the environmental impacts of the roads on those streams will be examined.

VI. Draft Policies Review

David Beam asked the Committee if the transportation section could be tabled until the

next meeting. The Committee agreed with the request.

David Beam reviewed the density section.

Mike Gougler ask for an explanation of the 10,000 square foot minimum lot size in the R-1 area.

Barton Brierley explained that this was the average minimum lot size for a subdivision within the R-1 area.

Bob Andrews noted that footnote #1 to the density table addresses area B, not A.

David Beam made the correction.

David Beam explained the density shifting concept.

Don Clements questioned the policy that stated since density shifting was already allowed between zoned and public lands, then densities couldn't be from stream corridors.

Mike Gougler stated that he felt that this policy was unnecessary, since the specific plan already sets the densities for the area.

The Committee discussed this issue, and ultimately asked for staff to rework the policy.

VII. Draft Development Code Review

Don Clements felt that point #5, Building Orientation, was too restrictive. He moved that this section be deleted. The motion was unanimously passed.

Mike Wallace asked for an explanation of staggered front setbacks.

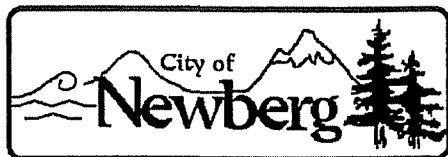
Bob Andrews explained it was non-repetitious.

David Beam explained that the tree management plan required for Development Area H will be performed by a third party licensed arborist.

The Committee accepted the remainder of the Development Code.

VIII. Design Standards Review

Mike Gougler asked if the word "faced" could be struck in point A. He said that while all the primary individual dwelling units could be oriented to the road, sometimes, good



PLANNING COMMISSION AGENDA

JUNE 10, 1999

7 p.m. Regular Meeting

Newberg Public Safety Building

401 E. Third Street

I. ELECT TEMPORARY CHAIRPERSON

II. ROLL CALL

III. OPEN MEETING

IV. CONSENT CALENDAR(items are considered routine and are not discussed unless requested by the commissioners)

1. Approval of May 13, 1999 Planning Commission Meeting Minutes

V. COMMUNICATIONS FROM THE FLOOR (5 minute maximum per person)

1. For items not listed on the agenda

VI. QUASI-JUDICIAL PUBLIC HEARINGS (complete registration form to give testimony - 5 minute maximum per person, unless otherwise set by majority motion of the Planning Commission). No new public hearings after 10 p.m. except by majority vote of the Planning Commissioners.

CONTINUED FROM THE MAY 13, 1999 MEETING

1. **APPLICANT:** Mike Gougler for Werth Joint Ventures
REQUEST: Adoption of the Springbrook Oaks Specific Plan. The plan would create areas for industrial, commercial, office, multiple dwelling, and single family dwelling uses. It includes plans for open space, utilities, transportation, and so forth. It would amend the Newberg Comprehensive Plan, Development Code, Comprehensive Plan map and Zoning map.
LOCATION: A tract of land generally located south of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the Urban Growth Boundary
TAX LOT: 3216-2001 and 3216-2010
FILE NO.: CPA-14/Z-14-99
CRITERIA: NDC 10.20.030
RESOLUTION NO.: 99-117

VII. ITEMS FROM STAFF

1. Update on Council items
2. Other reports, letters, or correspondence
3. Next Planning Commission Meeting: June 24 or July 8, 1999. TBA.

VIII. ITEMS FROM COMMISSIONERS

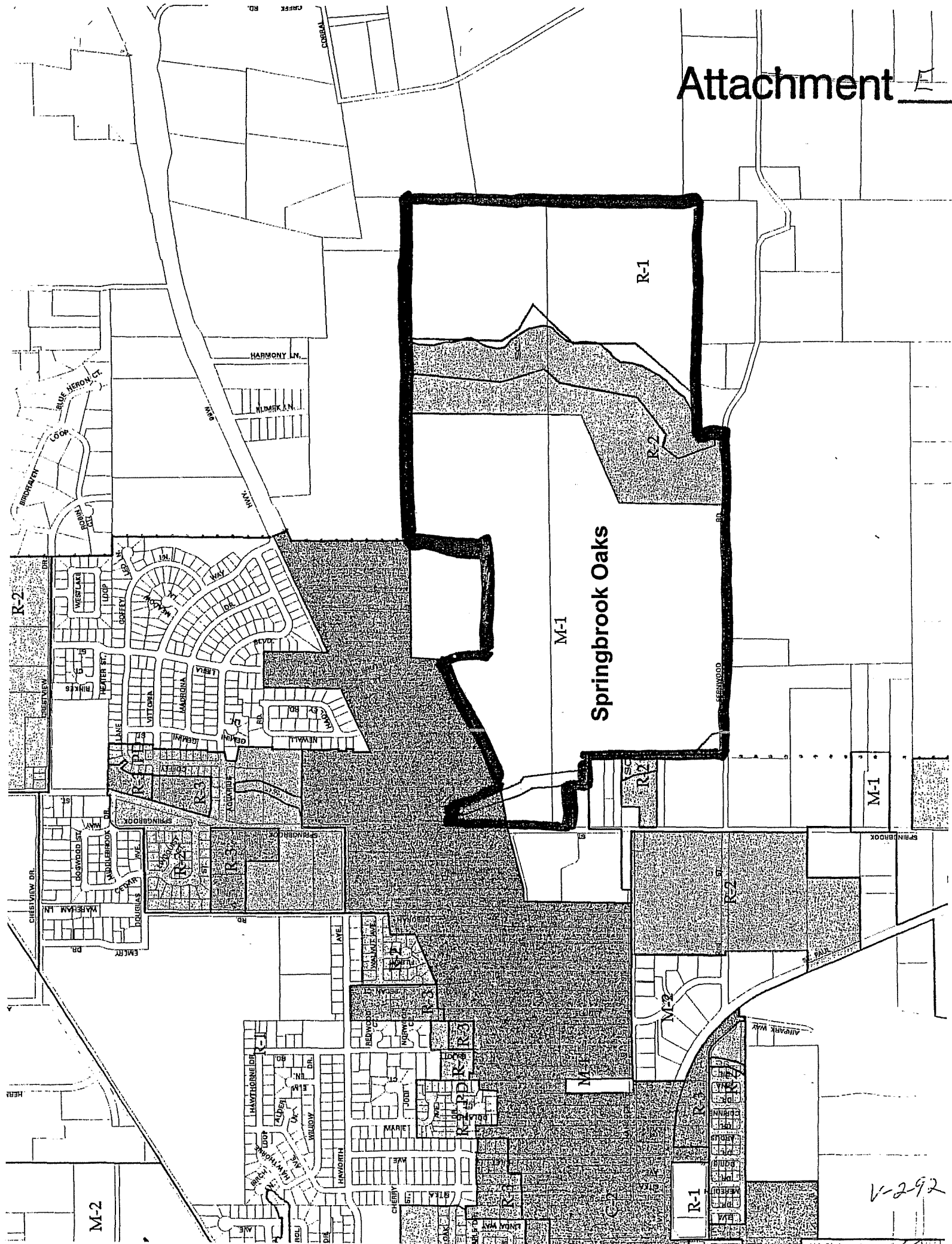
IX. ADJOURN

FOR QUESTIONS PLEASE STOP BY, OR CALL 537-1240, COMMUNITY DEVELOPMENT - P.O. BOX 970 - 719 E. FIRST STREET

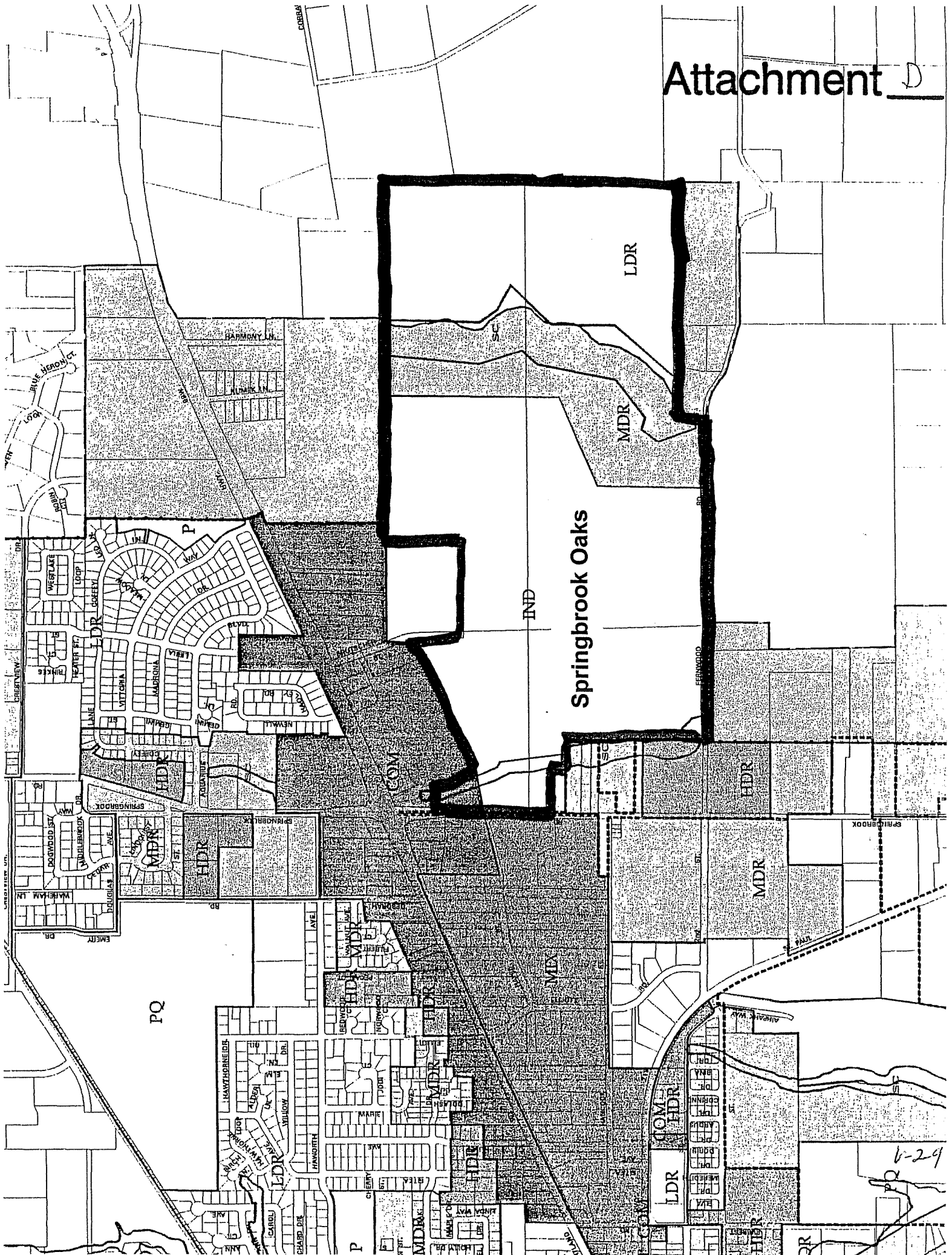
ACCOMMODATION OF PHYSICAL IMPAIRMENTS:

Please notify City Administration of any special physical or language accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements please contact Becky Manning at (503) 537-1261.

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V-292



6-29

system. A rate recommendation should be available by the Spring of 1999. The Citizens Rate Review Committee meetings are open to the public and the members are committed to conservative rates which are designed to achieve the strategic direction established by the Council at the least cost to the residents.

Summary

The City's water strategic plan is designed to address the long term water needs of Newberg by developing the storage, supply and treatment capacity of the system. Conservation and curtailment policies are also in place, since even when the system is completely constructed, City residents will need to be conservative with their water use, especially on hot days. The system being developed will not be able to meet the worst case water use situation without everyone doing their share to use water wisely. The following is the current estimate of the cost (in 1998 dollars) to complete the strategic plan as adopted by the Mayor and Council.

Cost estimate:	New Reservoir	\$3,480,000
Cost estimate:	Well # 7	\$ 600,000
	Well # 8	\$ 510,000
	Preliminary Engineering-Gearins Ferry	<u>\$ 225,000</u>
	SUBTOTAL	\$1,335,000
Cost estimate:	Treatment Plant Expansion	<u>\$3,000,000</u>
TOTAL COST OF STRATEGIC DIRECTION:		\$7,815,000 ¹
Cost estimate:	Conservation	\$ 225,000 ² Annually

The costs of these projects most likely will be financed partially through revenue bonds (paid for by the rate payers) and partially through system development charges (which are assessed to new buildings in the City).

ut\wttrcy\memo198.wpd

¹Estimates are based on figures provided to the Citizens Rate Review Committee as of November 17, 1998. The project costs will continue to be refined as information on the design and cost is developed.

²The conservation amount is based on budgeted items.

- Use of Willamette River as a source — rejected due to quality concerns (real or imagined), water rights issues, and the need for additional expensive treatment.

The least expensive option was to continue to pursue the well field expansion in Marion County. The City owns the rights to approximately 9.8 million gallons of groundwater per day and owns approximately 100 acres of land above the aquifer to which the City has water rights. To develop a back-up and future source, the Mayor and Council instructed staff to do some hydro-geological investigations of the groundwater and preliminary engineering in the Gearin's Ferry area (in Yamhill County).

Cost estimate:	Well # 7	\$ 600,000
	Well # 8	\$ 510,000
	Preliminary Engineering-Gearins Ferry	\$ 225,000
	SUBTOTAL	\$1,335,000

Treatment — Expand the Water Treatment Plant to Treat the Additional Flow

Increasing the City's water supply will require additional treatment capacity at the water treatment plant. The plant's design capacity is currently 5.6 mgd with the City's operational need being about 2.5 mgd on average. Without conservation, the peak demand in summer can exceed the plant's design capacity. The next step for expansion of the treatment plant will bring the plant to 7.5 mgd which will be necessary when the new well or wells are brought on line.

Cost estimate:	Treatment Plant Expansion	\$3,000,000
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Conservation and Curtailment

The conservation and curtailment policy was reviewed by the City Council in May of 1998 and adopted in June. The policy provides a general conservation program and specifies a protocol for curtailing service in case of an emergency. The City during the Summer of 1998 worked closely with the high-volume water users to conserve water use during the critical hot summer days. The residents of Newberg also cooperated by respecting the conservation guidelines. As a result, and with some luck, the City survived another year without having to take dramatic action to curtail use due to a water shortage. The policy adopted assumes that the City will continue an aggressive conservation program.

Cost estimate:	Conservation	\$ 225,000 (annually)
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Activate the Citizens Rate Review Committee

The final part of the strategic program is to ensure that revenue is sufficient to support the cost of the strategic program. System improvements are paid for either through the rates or by going in debt through the use of bonds or system development charges which are paid by new development. The Citizens Rate Review Committee has been meeting during 1998 and will propose an increase in the system development charges in early 1999. A rate study is currently underway and will help guide the discussion of who pays for the expansion of Newberg's water

The population figures beyond 2010 are as follows: 2015 — 32,102; 2020 — 38,312; 2030 — 47,162; and 2040 — 55,822. During the eight years since 1990, the City population projections have been right on target with the actual growth in the City. Obviously, projecting populations for the more distant years in the future, is increasingly difficult. For public facilities planning, the projections provide a general target, but the construction of facilities will be phased as much as possible to meet demand as growth occurs. This means that expansion of the utility system may be delayed if population growth slows or accelerated if growth exceeds projections.

Storage — Design and Build a Reservoir East of Newberg

The City water system needs additional storage capacity in order to maintain adequate fire flows, pressure and supply during high water use periods. Several locations were reviewed by the staff, including the existing site of the City's two 4 million gallon reservoirs on North College and proposed sites in east Newberg on the lower slope of Parrot Mountain. The following information was presented to the Council on February 17, 1998 by the Utilities Manager:

The reservoir east of town (with its associated transmission system) represents less overall cost than the west (existing reservoir site) option and has significant distribution system advantages. It would, however, be more difficult to implement due to the necessary land use process and land acquisition required.

Despite the land use process and land acquisition required, the overall system benefits, in terms of fire flows, pressure and quality of the supply through better circulation, were taken into consideration and this strategic direction was adopted by the City Council.

Cost estimate:	New Reservoir	\$3,480,000
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Supply — Construct Wells #7 and #8 and Pursue Source Redundancy at Gearins Ferry.

The Mayor and Council spent the greatest amount of time at the three meetings discussing future water sources. Several options were reviewed in detail, including:

- ▶ Developing Otis Springs — rejected due to inadequate supply available (only 0.4 million gallons per day-mgd); expense of treatment due to changes in treatment standards by E.P.A. during the early 1990s and the remote site location; and, potential impact on anadromous fish habitat if stream flow is restricted.
- ▶ Connecting to Bull Run or Wilsonville Treatment Plant — rejected due to cost of constructing line to new treatment plant and this would effectively eliminate pursuing other options due to the expense.
- ▶ Connecting to an inter-tie with cities up the Willamette — rejected due to cost, water rights issues, land use issues which would be difficult to resolve, and loss of local control.

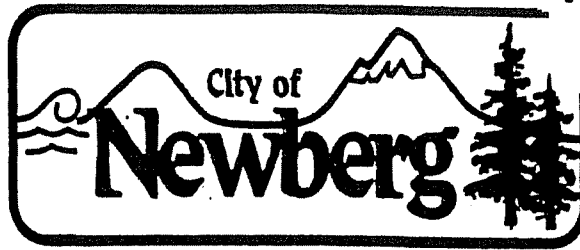
of these areas are explained in the following, but first a review of the basic foundation of planning our City, Newberg.

City Adopted Population Projections

The foundation of planning for the future is the City's adopted population projections which were developed by the City through the Urban Reserve Area process in the early nineties. These projections are based on past history and the City's best estimates with regard to the future. They also provide the City with an estimate of the land area which will be needed in the future to accommodate the City's residents. This is also the City's public facility planning boundary and the City is guaranteeing property owners in this area that services will be available, of course for a price, to serve them when the property is developed.

The population projections indicate that Newberg will grow at a rate of 3.6% from 1990 through 2020, then at a rate of 2.1% to 2030; and finally at a rate of 1.5% to 2040. These rates of growth were based on the historical growth rate of Newberg, projected pressure from the Portland area and the fact that as the City's population increases, the percentage increase in growth tends to decrease. The projected population increase creates the need for public investment in the water system either by the City's existing residents, or by new residents, who build in the City, or by both. The following chart depicts the City-adopted population projections.

NEWBERG POPULATION			
Year	Population	Percent Increase	Average Eight Years
1990	13,086		
1991	13,495	3.13	
1992	13,735	1.78	
1993	14,064	2.40	
1994	14,700	4.52	
1995	15,285	3.98	
1996	16,160	5.72	
1997	16,765	3.74	
1998	17,355	3.52	3.60
1999	17,980	3.60	
2000	18,627	3.60	
2001	19,298	3.60	
2002	19,992	3.60	
2003	20,712	3.60	
2004	21,458	3.60	
2005	22,230	3.60	
2006	23,030	3.60	
2007	23,860	3.60	
2008	24,719	3.60	
2009	25,608	3.60	
2010	26,530	3.60	



MEMORANDUM

To: Mayor and City Council, Commissions, Committees
From: Duane Cole, City Manager *Duane R. Cole*
Subject: Water System Strategic Direction
Date: November 30, 1998

The Mayor and City Council set the strategic direction for the development of the City water system after three public meetings which were held November 17, 1997, January 20, 1998, and February 17, 1998. Public testimony and input was received and carefully considered during each meeting. The policy adopted by the Council is stated in Resolution No. 98-2097 as follows:

1. The Council accepts the report by staff regarding the status and information on the Newberg Water Utility System;
2. The Council directs staff to follow the specifically identified strategic direction as follows:
 - a. Design and build a reservoir East of Newberg.
 - b. Request a permit to construct Well #7 and #8 in Marion County.
 1. Pursue source redundancy by authorizing the feasibility study and preliminary engineering for the development of a well field at Gearins Ferry.
 - c. Design and build the expansion of the water treatment plant to treat the additional flow.
 - d. Implement an aggressive water conservation program.
3. The City Council authorizes City staff to take the action necessary to activate the Citizens Rate Review Committee with the specific mission assigned to the Citizens Rate Review Committee to review and make a recommendation to the City Council on the City water rates based on the strategic direction identified in the Resolution.

The policy direction by the Mayor and City Council addresses the four areas of concern which are critical to the City's future water system: storage, supply, treatment, and conservation. Each

development area boundaries will more accurately defined as well as acreages of the development areas.

Bob Andrews asked staff how they would like the Committee to proceed.

David Beam stated he would like the Committee to accept the draft plan with the changes made today and with the conditions of acceptance set forth by the Committee at the last meeting associated with the future traffic study.

Don Clements responded that he felt acceptance at this time would be fine under those conditions, as long as the draft plan doesn't get so far ahead in the approval process as to negate the possibility of the Committee to revisit the Plan if need be.

Andrew Poole moved that the draft plan be accepted by the Committee with the day's changes and the mentioned contingencies. Sam Farmer seconded the motion.

Bob Andrews added one more change regarding controlling documents. He wanted the plan to say that if the specific plan conflicted with any section of the Newberg Development Code, then the specific plan would govern. The Committee agreed with that change.

Andrew Poole amended his motion to include that change.

The Steering Committee unanimously voted to accept the draft specific plan.

Mike Gougler thanked the staff. He stated that had worked city staffs from all over the Portland Metro area and that the Newberg Community Development was the best in his estimation. Mr. Gougler also thanked the committee members for their hard work and that their input made this specific plan truly great. He especially thanked Chairman Andrews for his efforts.

Chairman Andrews and Dean Werth also thanked the Committee and staff.

VIII. Public Comment

Thanks to all involved were offered by Larry Chamberlain, Dennis Werth, and Elmer Werth.

V. Adjournment - 5:45 p.m.

Bob Andrews, Committee Chair

Date

Mike Wallace asked about the Hayes Street connection with Springbrook Road.

David Beam said that staff is working with PGE to see if an alignment through their property could be designed. This route would bring the Hayes Street crossing further away from the Springbrook Road/Highway 99W intersection.

Don Clements asked if Fernwood Road was major collector street because of the recommended spacing between those types of roads.

Larry Anderson stated that it also has to do with future traffic counts as well.

Larry Anderson asked if there was any trigger for a second access within Development Area H.

David Beam said no. He then suggested that the trigger could be the same as with Brutscher Street: a second access would be needed as traffic and/or safety concerns required it. The Committee agreed on this and asked staff to add this language.

David Beam stated the he learned today that a portion of the density policy language had not been changed in the corresponding NDC section. He stated that those changes would be made.

Bob Andrews asked if the word "faced" had been deleted in building orientation policy.

David Beam responded yes.

David Beam presented the revised Design Standard regarding types of building materials to be used.

Bob Andrews asked what "community" meant.

David Beam suggested that the phrase "Springbrook Oaks development" be substituted for "community". The Committee agreed with that change.

Mike Gougler mentioned that on page 29 of the draft plan, there is reference to painting of trim pieces. Mr. Gougler said that this should be regarding window trim only. The Committee agreed to this change.

David Beam stated the graphics related to circulation and the development areas (graphics III and VI) will be more definitive before the specific plan is done so that related policies will work (i.e. density shifting). Alignments of major roads and boundaries of

Mr. Mayfield expressed safety concerns regarding the potential of Springbrook Oaks development creating more traffic at the Corral Creek Road/Highway 99W intersection.

Don Clements stated the biggest danger at that intersection would be folks coming off Corral Creek Road and turning left towards Newberg. However, he doubted many folks would use that route over Fernwood Road or Brutscher Street.

Mr. Mayfield also asked about water pressure along Brutscher Street.

Larry Anderson stated that there should be not problem on the pressure issue. Until the new reservoir comes on line, the water supply issue will be judged on a case by case basis with each development.

VI. Springbrook Oaks Property Tour Review

Committee members took a tour of the Werth property from 1:30 to 3:00 p.m. earlier in the day. All the members agreed that it was worthwhile. Seeing the property in person gave everyone a better perspective, especially in regards to the stream corridors.

VII. Draft Specific Plan Review

David Beam reviewed proposed revised policies that have been developed. The revised policies were intended to address the issues of concern that were expressed by the Committee at the last meeting. Mr. Beam first explained the revisions to the policy that stated the density policies within the plan would supersede densities and density shifting references within the Newberg Development Code (NDC). The Committee agreed to the revision.

Mr. Beam the reviewed the transportation policies. He specifically pointed out that within the General Policies section, a policy stated that any proposed changes within the transportation section would be reviewed under a Type I process. This was put in due to the many unknown factors regarding transportation related issues at this present time. The Committee agreed to this addition.

Michael Wallace asked if Fred Meyer had provided any input to date.

Mike Gougler stated that he had spoken to Fred Meyer and that their biggest concern was conflicts with potential uses in Development Area B.

David Beam stated that Fred Meyer was receiving notice about the Steering Committee meetings.

SPRINGBROOK OAKS SPECIFIC AREA PLAN STEERING COMMITTEE MEETING SUMMARY (DRAFT)

Thursday, April 15, 1999 3:30 p.m.

Newberg Public Library - Newberg, Oregon

I. Call to Order - Chairman Robert Andrews (3:40 p.m.)

II. Roll Call

Committee Members Present:

Jim Henderson, Frank Dittman, Don Clements, Bob Andrews, Debbie Sumner, Andrew Poole, Sam Farmer, Rob Molzahn, Michael Wallace (late).

Committee Members Absent:

Paul Frankenburger, Johann May, Bob Youngman, Mike Livingston

Others Present:

Economic Development Coordinator/Planner David Beam, City Planner Barton Brierley, Community Development Director Barton Brierley, City Engineer Larry Anderson, Community Owner Representative Mike Gougler, Dean Werth, Dennis Werth, Elmer Werth, Larry and Noreen Chamberlain

III. Review of March 18, 1999 Meeting Summary

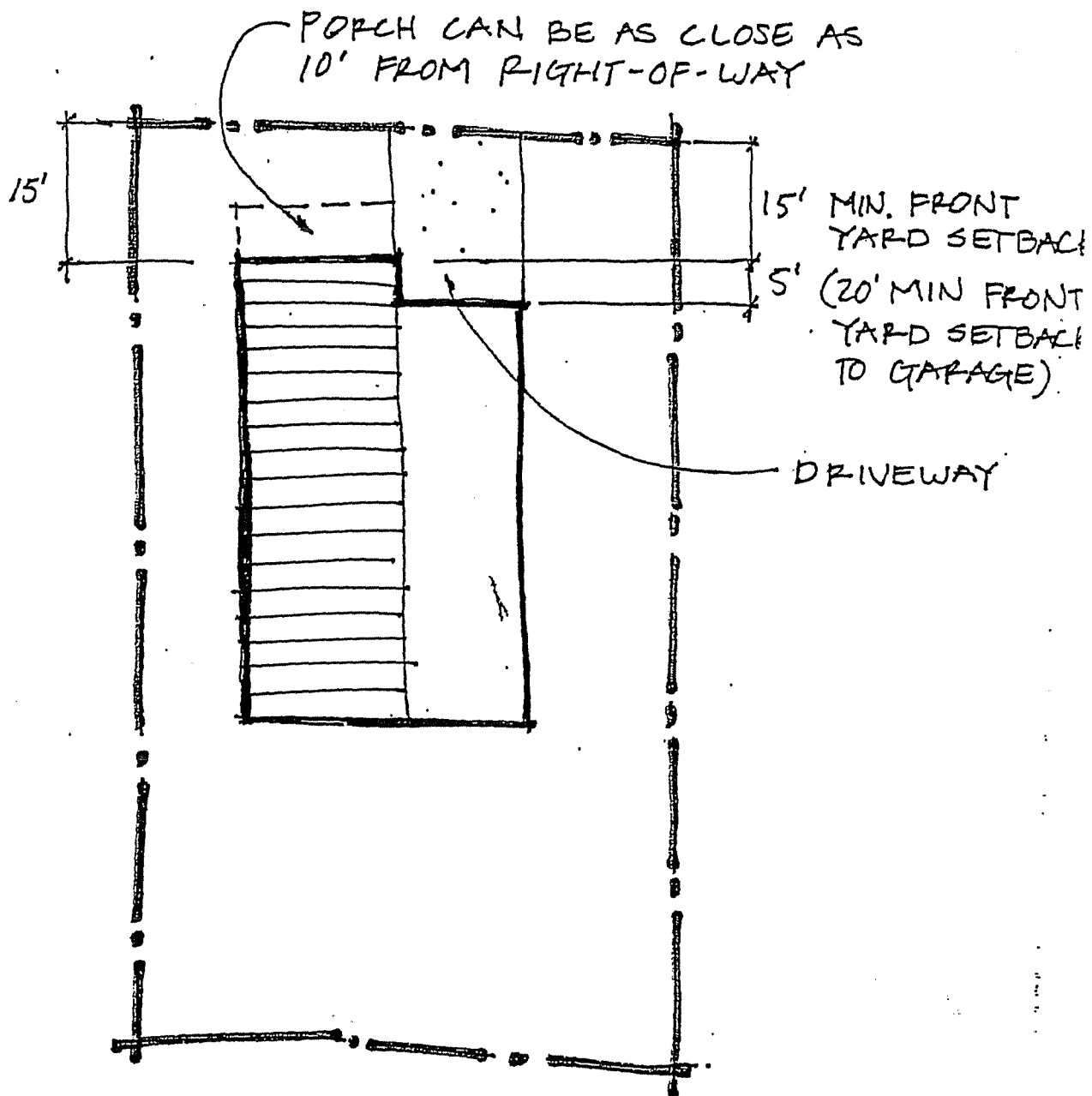
Rob Molzahn move to accept the minutes as written. Motion was seconded by Sam Farmer. The committee unanimously approved the summary.

IV. Public Comment - none.

V. Newberg Fire Department

Chris Mayfield of the NFD attended the meeting til about 4:00 p.m. to help answer questions regarding fire and safety issues with the draft specific plan.

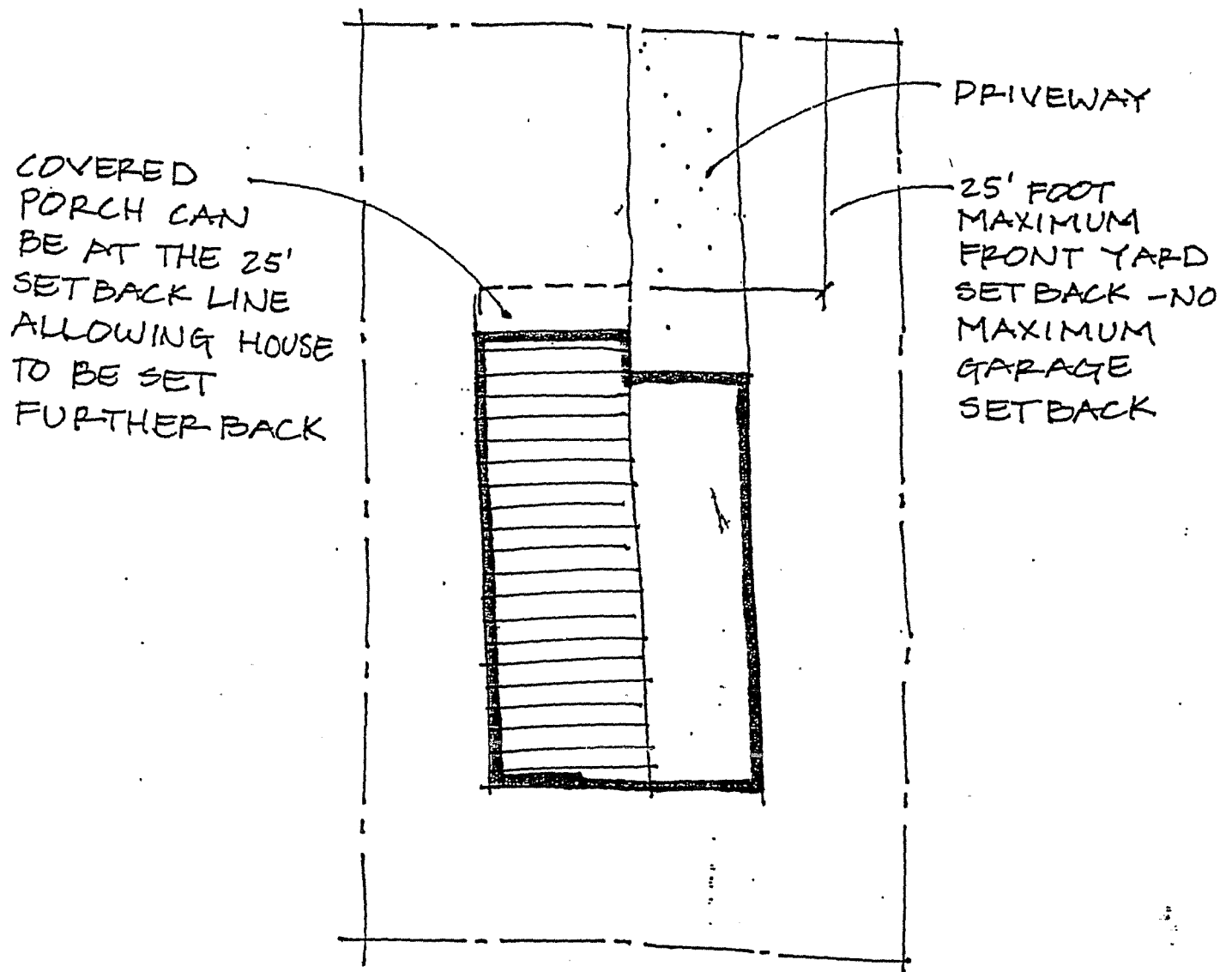
The issue of when would a second access off of Brutscher Street be required was brought up. Mr. Mayfield stated that it would all depend upon the type of development proposed. For example, 3 or 4 large industrial developments may be allowed to be developed without a second access requirement. Residential and school developments would need to be looked at closer. Two accesses off of Brutscher Street may be sufficient.



MINIMUM FRONT SETBACKS

10' PORCH
15' HOUSE
20' GARAGE

FIG - 0-2



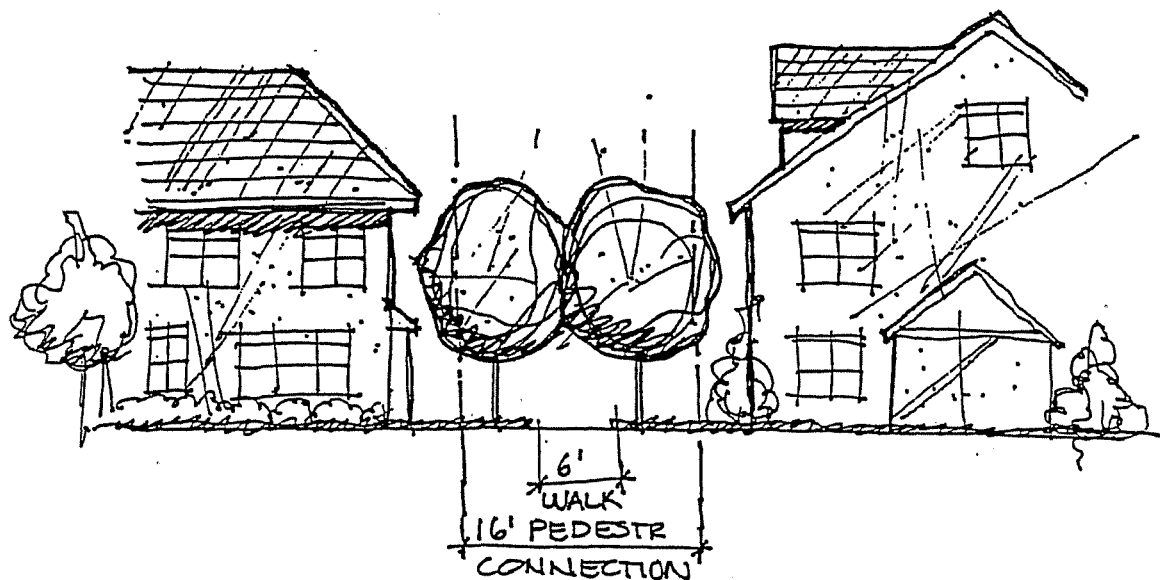
MAXIMUM FRONT SET BACKS

25' PORCH

25' HOUSE W/O PORCH

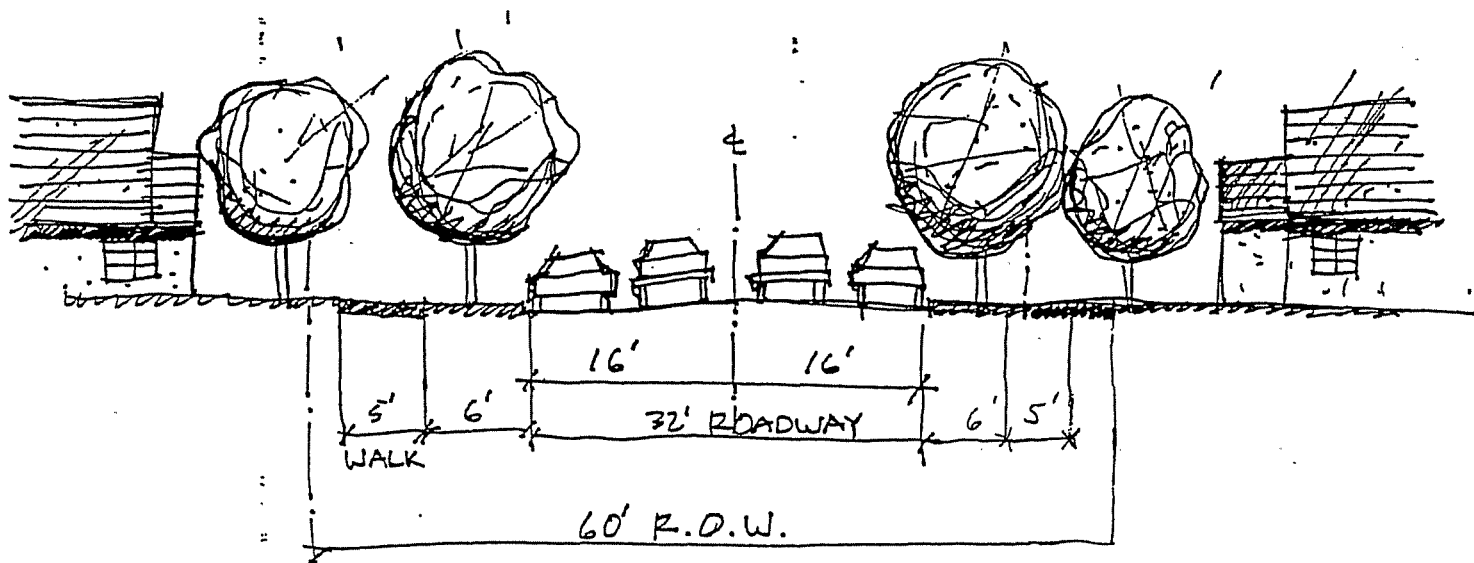
NA' GARAGE

FIG - 0-1



PEDESTRIAN CONNECTIONS

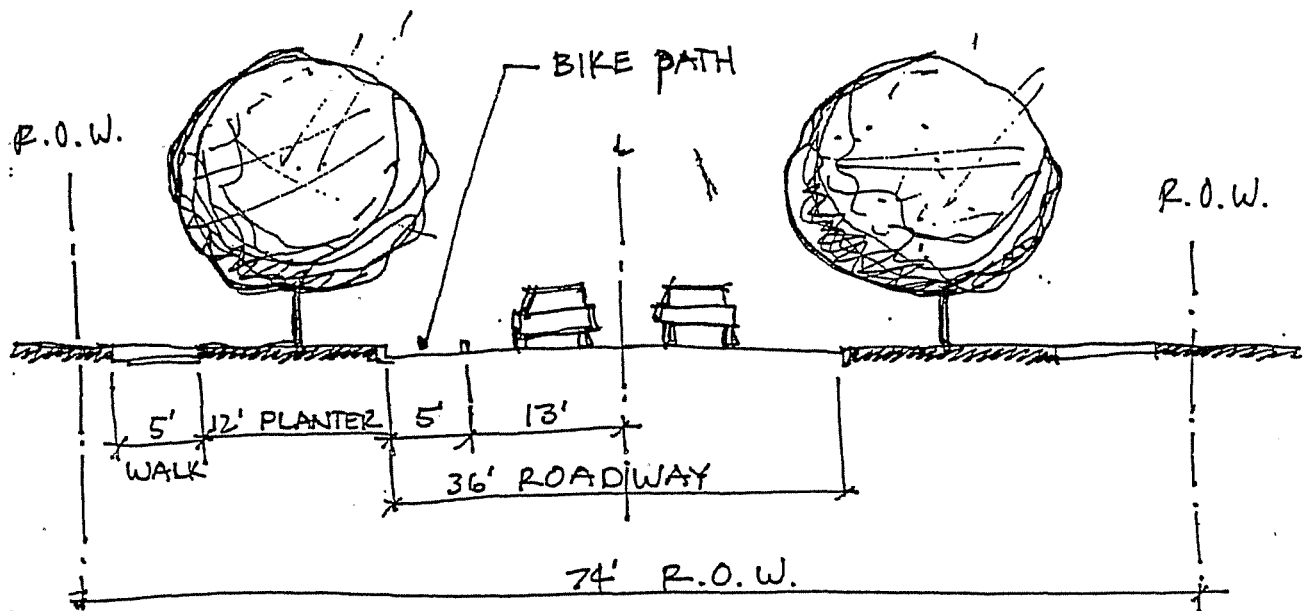
FIG N-2



NEIGHBORHOOD STREET

FIG N-3

V-2-77



COLLECTOR STREET

FIG N-1

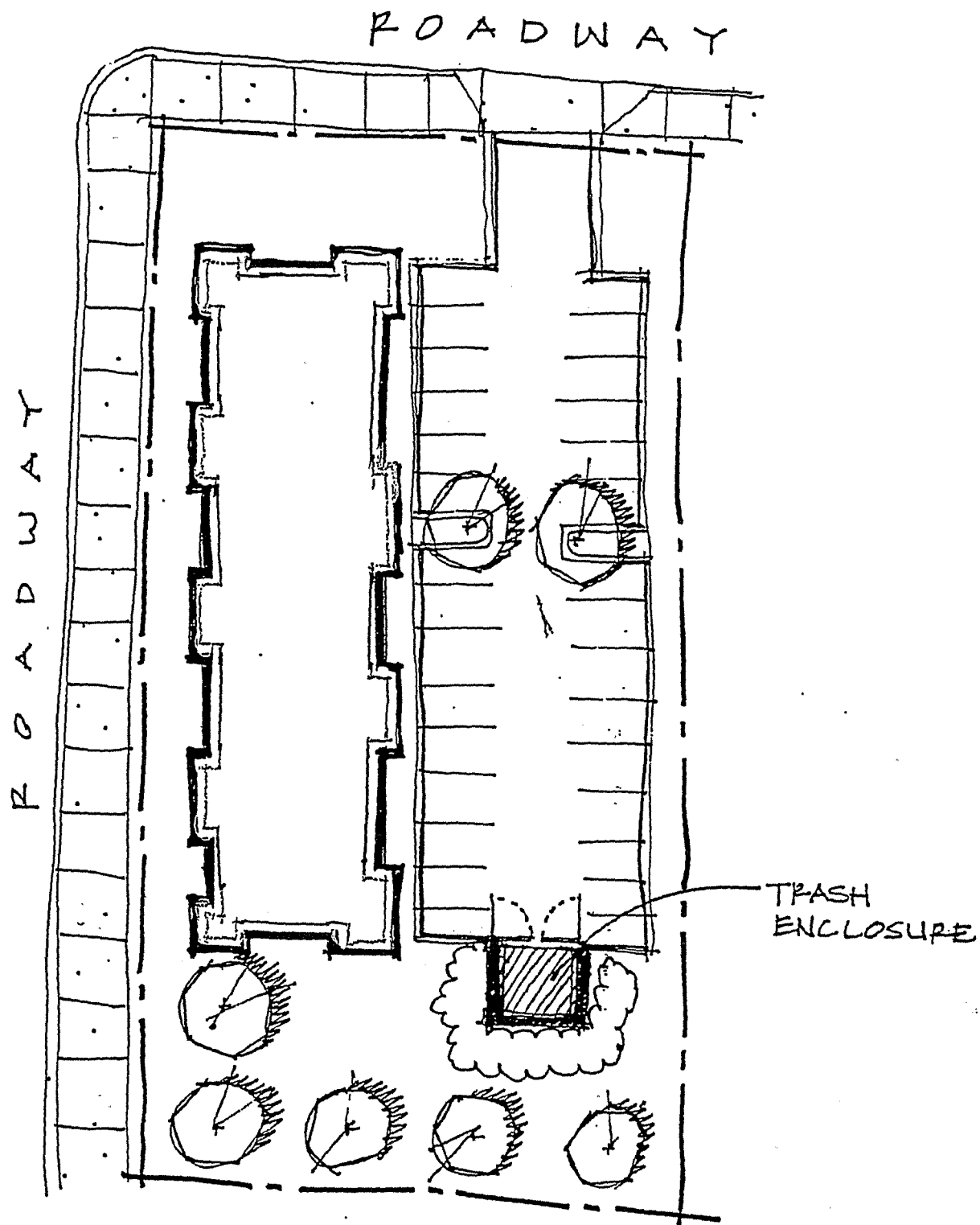
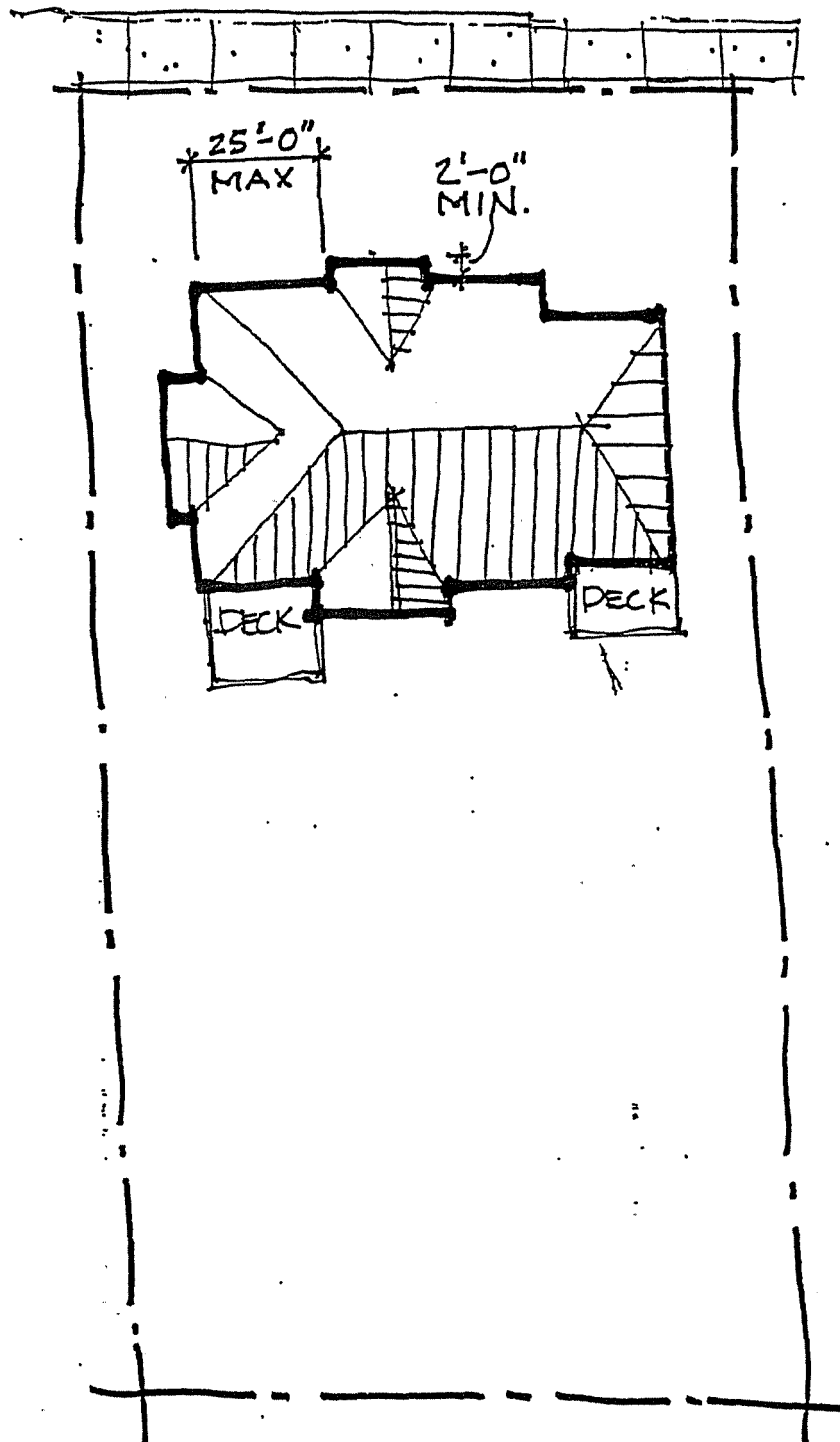


FIG I-1

V-2-75

R O A D W A Y



D E S I G N S T A N D A R D

FIG B-2

V-2-74

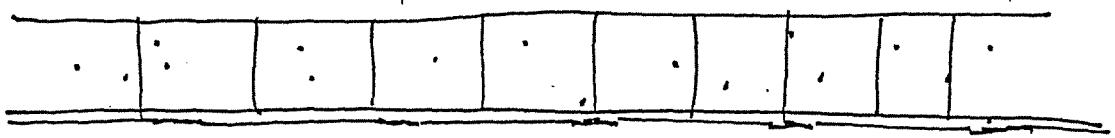
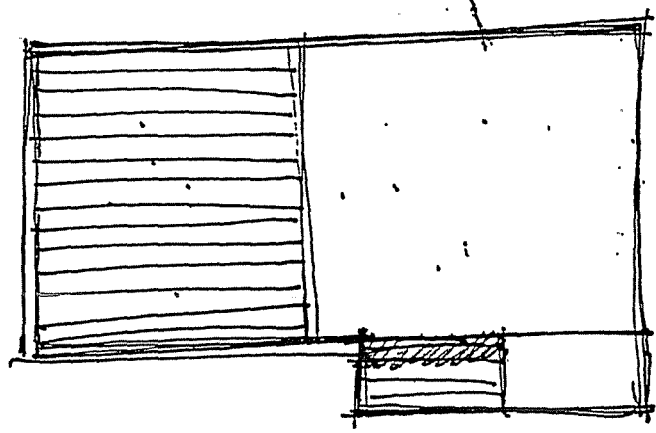
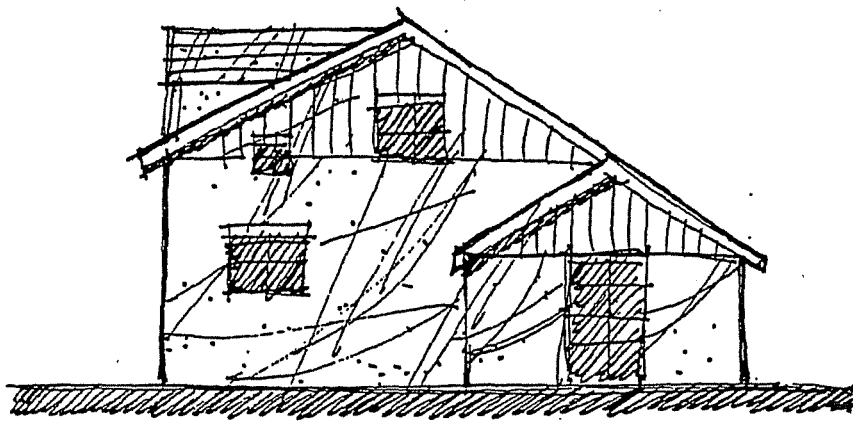
Hand-drawn floor plan of a three-bay industrial building. The plan shows three bays separated by two interior walls. The exterior walls are thick and hatched. The interior walls are thin. Dimensions are given for the bays and the clearances between the interior walls. The left bay is labeled "25'-0" MAX". The middle bay is labeled "2'-0" MIN". The right bay is labeled "25'-0" MAX". The clearance between the interior walls is labeled "2'-0" MIN". The plan is oriented with the entrance at the top.

TOWN HOUSES/
ROW HOUSES

DESIGN STANDARD

FIG B-1

V-2-73



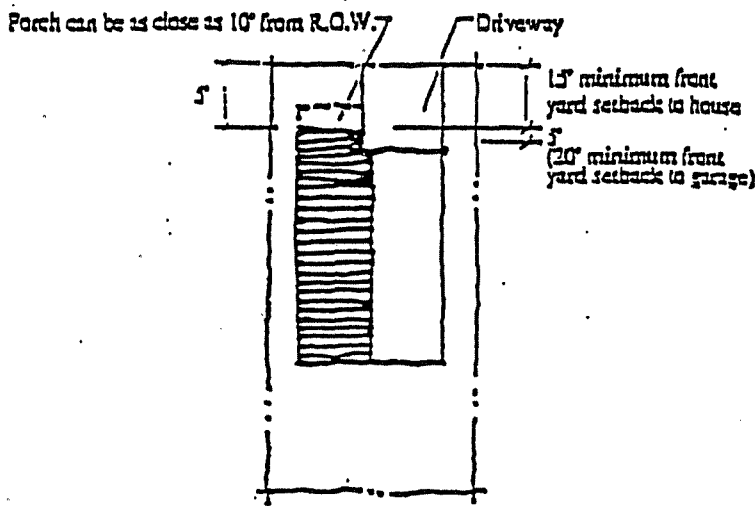
— — — ROADWAY — — —

DESIGN STANDARD

FIG-A-1

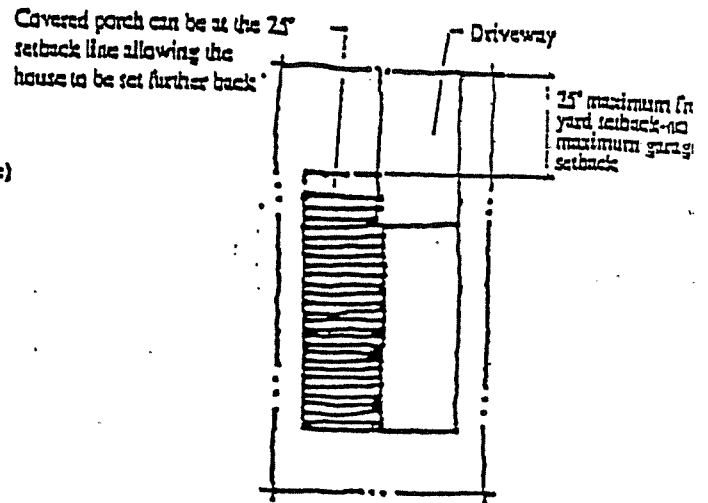
1-2-72

Figure 1



Minimum Front Setbacks

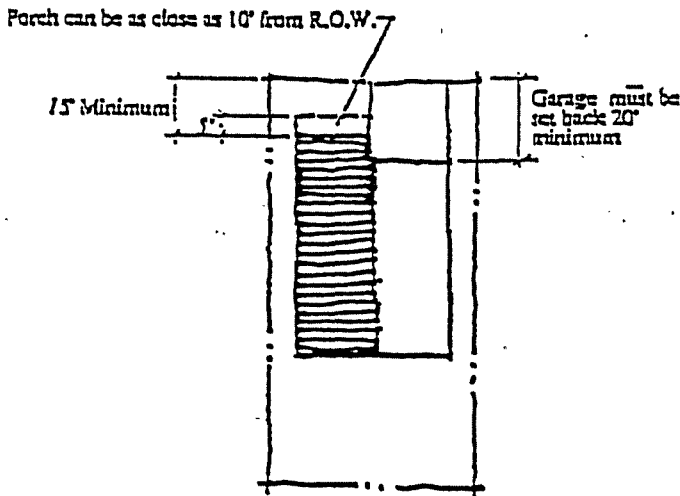
- 10'-Porch
- 15'-House
- 20'-Garage
- Garage may not be closer to the front property line than the front of the house.



Maximum Front Setbacks

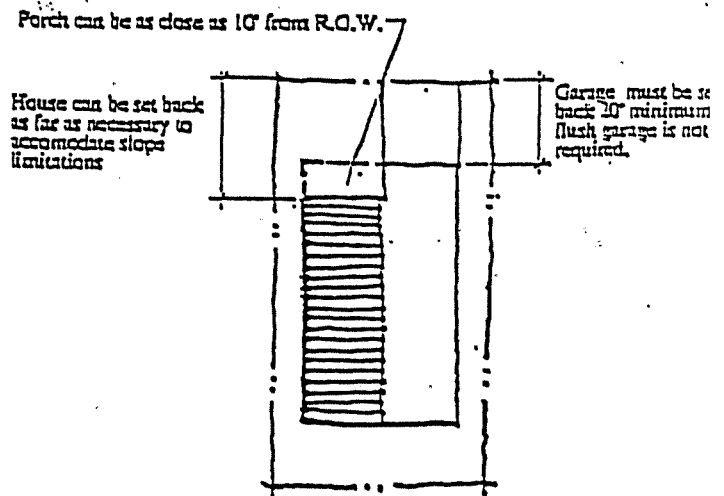
- 25'-Porch
- 25'-House (without porch)
- None-Garage
- Garage may not be closer to the front property line than the front of the house.

Figure 2



Minimum Front Setbacks

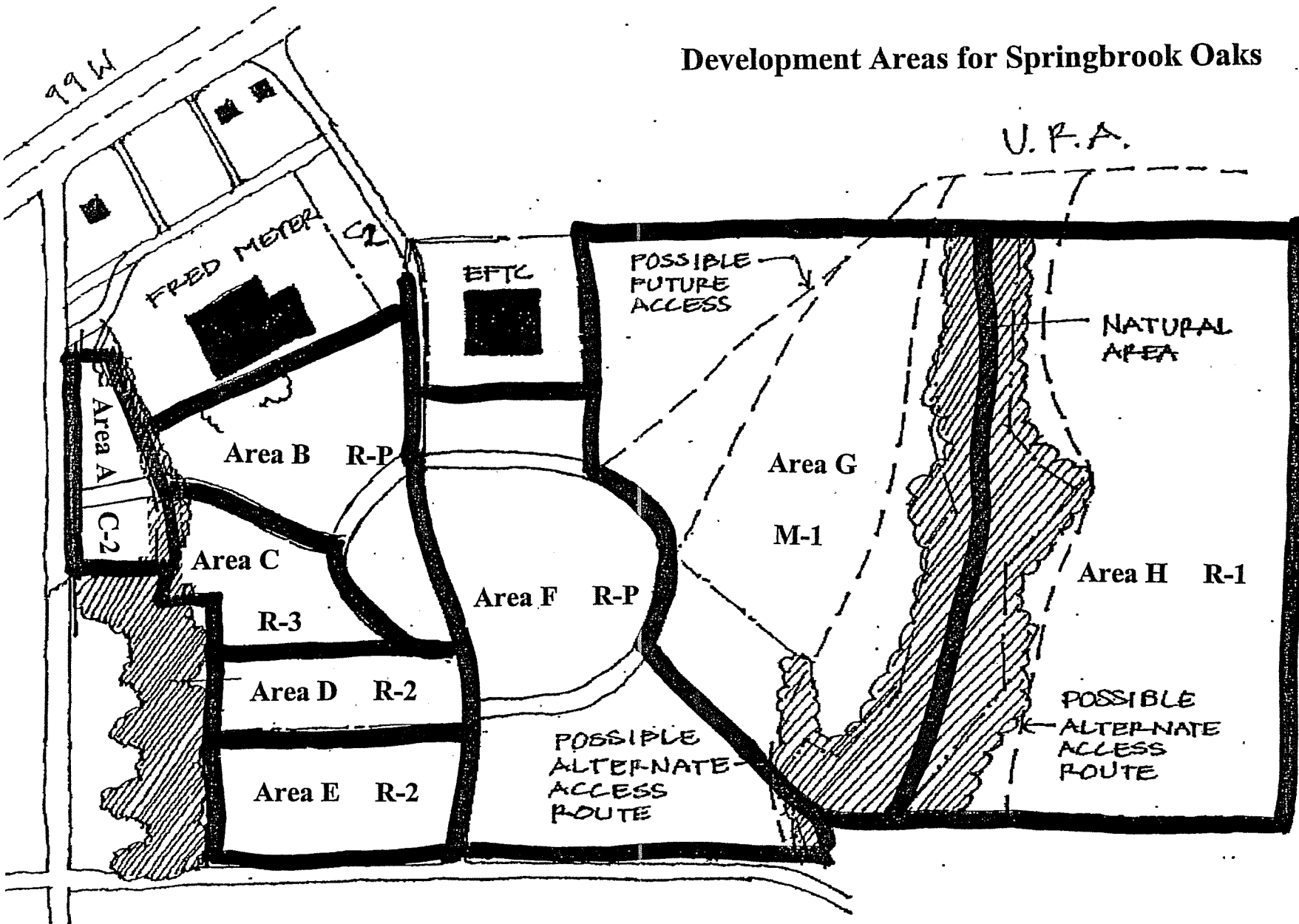
- 10'-Porch
- 15'-House
- 20'-Garage



Maximum Front Setbacks

- None

Development Areas for Springbrook Oaks



SPRINGBROOK OAKS CONCEPTUAL USE PLAN



PLANNING COMMISSION MINUTES
Newberg Public Safety Building - Newberg, Oregon
THURSDAY, JUNE 10, 1999 AT 7 P.M.

Approved at the July 8, 1999 Planning Commission Meeting

I. ELECT TEMPORARY CHAIRPERSON

Parliamentarian Steve Ashby discussed the procedure for the election of the temporary Chairman and the appointment of the Vice Chair. Further discussion was held concerning the election of a Vice Chair.

Nominations for Vice Chair:

Commissioner Warren Parrish/Lon Wall nominated Lon Wall (4 Yes/2 Absent [Molzahn/Hannum/1 Vacant [Fowler]]. Motion carried.

Vice Chair Lon Wall proceeded with the regular business of the meeting.

II. PLANNING COMMISSION ROLL CALL

Planning Commission Members Present:

Stephen Ashby
Lon Wall
Vacant Position

Matson Haug
Rob Molzahn

Warren Parrish

Staff Present:

Barton Brierley, City Planner
David Beam, Economic Development Coordinator/Planner
Peggy Nicholas, Recording Secretary

III. OPEN MEETING

Vice Chair Wall opened the meeting at 7:00 p.m. He announced the procedure of testimony. Citizens must fill out a public comment registration form to speak at the meeting.

IV. CONSENT CALENDAR

1. Approval of May 13, 1999 Planning Commission Minutes.

Commissioner Parrish asked for clarification of a statement made by staff (page 3 of the Minutes noting Mr. Beam's statements, concerning the total acreage and the central plaza to be planned somewhere near Brutscher Road. He asked about the 27 hole golf course and how much information was available. Mr. Beam replied that it was 200 acres and not 260 with 18 holes on the property and 9 holes located on the south of the Werth property along the stream corridor and R-1 area).

Mr. Brierley said the staff reviewed the plans. The area south of Fernwood Road is not being approved through this process. Mr. Beam said that particular land is outside the City limits. Fernwood Road is the UGB.

Motion #1:	Ashby/Haug voted to approve the consent calendar items, approving the minutes of the May 13, 1999, Planning Commission Meeting, as amended.
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**INFORMATION RECEIVED INTO THE RECORD
AT THE MAY 13, 1999 PLANNING COMMISSION MEETING.**

**THIS INFORMATION IS ON FILE AT THE COMMUNITY DEVELOPMENT OFFICE
ATTACHED TO THE MINUTES OF THE MEETING AND IN THE PROJECT FILE IT
PERTAINS TO.**

PROJECT FILE # N/A

Mr. Brierley distributed a news release soliciting members for a Sign Citizen Advisory Ad Hoc Committee.

A handout was distributed to commissioners on file CPA-14/Z-14-99 regarding "Conceptual Use - Circulation Map"

IX. ADJOURNMENT

The meeting was adjourned at approximately 9:28 p.m.

Passed by the Planning Commission of the City of Newberg this 10th day of June, 1999.

AYES: 3

NO: 0

ABSTAIN: 0
(list names)

ABSENT: 2 (Hannum/
Molzahn)

Vacant: 1

ATTEST:

Peggy R. Nicholas
Planning Commission Recording Secretary Signature

Peggy R. Nicholas
Print Name Date

Public Testimony:

Jules Drabkin addressed limiting parking for future residents. Mr. Drabkin said that as a property owner, to put an elevator into an older building is expensive and difficult due to historic reasons, to name a few. To add to what Mr. Brierley said, the safety issue, if he had not had residential people next door who had reported the fire, damage could have been more. He is in favor of the changes.

Letters: None.

Hearing Closed.

Motion #2 :	Ashby/Molzahn to adopt Resolution based upon the staff report and testimony.
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Commissioner Ashby said he was initially concerned about the parking restrictions in the business area. Staff has amended and addressed the concerns.

Commissioner Wall said he is concerned about the commercial district with restricted parking. He cannot give a good argument to vote against it, but there is a lack of business community members represented at the meeting.

Vote on Motion #2 :	The motion carried (5-2 absent: Haug & Parrish).
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Mr. Brierley said it would go to the City Council on June 7, 1999.

VII. ITEMS FROM STAFF

1. Update on Council items

Mr. Brierley reviewed the upcoming City Council meeting. The Council denied the request that the Commission reviewed Subdivisions (10 and over).

2. Other reports, letters, or correspondence
3. Next Planning Commission Meeting:

Mr. Brierley said the Sign Citizen Advisory Ad Hoc Committee news release will be out to solicit members.

The next meeting is June 10, 1999, and the hearing on Springbrook Oaks will continue to that meeting.

VIII. ITEMS FROM COMMISSIONERS

Commissioner Fowler said she has accepted a position for a different agency in Lake Havasu, Arizona. As a result, she has submitted her resignation from her City positions. Tonight will be her last meeting.

Chairman Hannum said he also will not be in town for the June 10, 1999 meeting.

Discussion was held concerning a vice-chair to be appointed to chair the June 10, 1999 meeting and to select a person at the meeting.

Mr. Beam said he is not sure at this point, and that further investigation and input is being requested to determine this.

Mr. Brierley said that replacing a culvert may be developed (more fish friendly on the east fork). The west fork is more challenging because of the depth.

Motion #3:	Wall/Fowler to continue the discussion to the June 10, 1999, meeting and to leave the public record open.
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Vote on Motion #3:	The motion carried (5 Yes/2 Absent).
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Chair Hannum called for a break at 8:40 p.m. The meeting reconvened at 8:50 p.m.

VII. LEGISLATIVE PUBLIC HEARINGS

- APPLICANT:** City of Newberg
REQUEST: Amendments to the Newberg Comprehensive Plan and the Newberg Development Code relating to street standards
LOCATION: City Wide
FILE NO.: GR-4-95
CRITERIA: NDC 10.20.030
TOPIC: Parking standards for downtown residential

RESOLUTION NO.: 99-115

Objections, ex parte contacts, conflicts of interest: None.

Staff Report: Mr. Brierley said the Commission previously addressed amendments which would allow dwelling units on the ground floor of buildings in the C-3 zone, as long as they are not in the store front area. The current code restricts them in the upper floors. The code requires one parking space for each dwelling unit in the downtown core area. Mr. Brierley reviewed the concerns addressed by the Commission and testimony provided by Mr. Jules Drabkin. Mr. Brierley stated that 19 sites have residential units, six (6) have units on the second floor and seven (7) sites could be converted to residential. He reviewed the surveys that were taken and the effects of street sweeping and other restrictions. The Second Street public parking facility is restricted to two hour parking during day hours (business hours).

Ms. Mingay said the C-2 designation is between Hancock and Main Streets (bounded by Second and Hancock Streets). It does not go north beyond Hancock or South on Second Streets). Discussion was held concerning C-2 requirements (two parking spaces per dwelling unit). Ms. Mingay further clarified the C-2/C-3 requirements and which ones were conditional.

Commissioner Ashby asked for clarification of the two-hour/15-minute parking designations. Second and Hancock Streets have mixed parking restrictions. He also asked where the residents of the downtown units would park and what the process to convert certain parking areas would be?

Mr. Brierley said the City's Traffic Safety Commission would be contacted and make a recommendation to the staff and City Council.

Mr. Brierley said that it is important to maintain the livability and revitalization of the downtown core area. There are ADA requirements for multi-family units, four or more units in one structure, and they must have a disabled adaptable unit in the complex, accessible to a person in a wheelchair; for upstairs units, a lift or elevator. A lot of the parking would be done after business hours. He recommended that the Commission adopt the text amendment as proposed.

Proponents: Mr. Mike Wallace, 1532 E. Third Street, Newberg, said he was on the steering committee. They discussed the City's benefit in making the area a more livable place (make Newberg #1 in the project). Protecting the stream corridors and natural resources was very important. They worked with the developer and the owner to make sure the City and the surrounding properties would be best served. He approves the project.

Mr. Bill Rosacker, he said it is a good example of seeing how the process works and feels the project should be approved.

Christina Morez, nothing to add.

Carl Mars, 11220 NE Fettig Lane, Newberg, (south side of Fernwood), said from what he has seen at the meeting, he is quite pleased, and is reserving the right to speak in the future, if needed. He is interested to see how the project is being developed. He would like to see the project and process continue.

Opponent: Garrin Ingrahm, owner of two tax lots on the northeast corner of the plan (where the proposed road goes up from the M-1 zoning to the east). He picked the 10 acre parcel out because of isolation and secrecy. He only owns 4 acres of the 27 acres. He only got word of it about a week ago. He did not receive prior notification. The plan is a great plan, but he is not in the URA, not in the City limits, nor the UGB. If the road has to come through the middle of his property, he will have to make different plans. He has two tax lots with one house.

Mr. David Beam said the road to the northern area is only stated in the area for the specific plan and will be working with the surrounding property owners.

Mr. Don Clements, Superintendent of CPRD who also was a Committee member, was looking at the residential requirements and sometimes the open space and stream corridors are not considered. It is the intention of CPRD to protect the stream corridor. They are looking into the future beyond the 20 years. They also recommend approval.

Commissioner Wall asked if it was CPRD's official position that they supported the project.

Mr. Clements replied yes.

Chairman Hannum closed the public hearing and reviewed the procedure to follow for future actions.

Hearing Closed.

Commission Deliberation:

TAPE 2: -

Commissioner Wall asked about the City's previous intent of changes in the Comprehensive Plan.

Chair Hannum said it was not clear concerning access (off Springbrook Road out of the C-2 zone area).

Discussion was held concerning the traffic impact study.

Chairman Hannum inquired about the access to the Fred Meyer parking area. Mr. Beam noted that median were projected to prevent traffic congestion off of the Fred Meyer parking area. He also asked when Fernwood Road would be developed, will it require a bridge crossing at Springbrook Creek or a culvert due to the larger amount of water at that location.

Mr. Beam reviewed page 23 of the staff report which reflected the residential land supply and demand. The proposed plan affects the supply. The industrial land supply (page 19 of the staff report) in which they used "actual" use to arrive at the calculations. It is staff's opinion that the City has at least a 20-year supply which will take the City into the next planning period.

Mr. Mike Gougler expanded on how he sees the project developing. He too provided a background of the Werth property ownership. The father owned the property since 1950's. The plan did not designate zoning "lines", which were to be followed by a zoning effort. The family had two choices to develop:

1. They could have gone with map and did partitions. They could have partitioned with a developer.
2. Do a planned urban development (lay out roads, etc.) in great detail (which is recorded). Staff suggested that a specific plan be formed to design a master plan for the area. A steering committee was formed with originally 14 members (one being removed), with a remaining 13 body. The public was given opportunity for input over about seven (7) months. Only one member from the community came to express his concerns. Anyone could have been involved. The desire was to try and create something that would not only encourage controlled residential development, but would also encourage a development which would allow the creation of jobs. The desire was not to eliminate acreage for industrial purposes. "Professional residential" allows assisted living facilities, hospitals, and professional buildings which are not in an industrial type area. Discussion was held concerning alternatives in relocating the hospital. Ancillary development would be supported by such relocation. Mr. Gougler stated that Brutscher Street was named after the City's first postmaster. Developments west of Brutscher would be best for residential, to the east would be light industrial and commercial. One of the things that the Committee constantly asked of the owners and developer was if there was a "market" there and is it do-able? Mr. Gougler said they feel comfortable, but there are no guarantees. The Werths have already gifted 26 acres of the stream corridor to CPRD by way of an easement. The CPRD has also requested additional land for the creation of another park in the form of a golf course. The maximum number of homes in the R-1 district will be reduced. Mr. Gougler provided a map of the zones.

Mr. Gougler reviewed the Hayes Street extension that goes through the property. Discussions have been held with PGE concerning this roadway. He also reviewed the types of zoning for the project, and addressed the acreage figure noted on the handout.

Commissioner Wall asked about the M-1 designation being located anywhere else on the property (toward Springbrook Road). Mr. Gougler said they viewed the western area most suitable for residential due to easy access to the north for existing services and it was more convenient to both the existing and soon to be developed offsite utilities to service the area.

Commissioner Wall noted that there would have to be unique marketability for the property; it would make more sense to make it more attractive to a prospective owner for its intended use. Mr. Gougler said that most users would be generally larger users for the property, who are capable in paying for the services.

Commissioner Molzahn asked how big the EFTC parcel was. Mr. Gougler noted it was 12 acres. They originally asked for 20 acres.

Commissioner Ashby discussed the annual consumption rate and how it compared to the Comprehensive Plan estimate (projected 64 acres).

Mr. Barton Brierley reviewed the various periods in which the Comprehensive Plan had projected the usage. **Mr. Beam** said the Comprehensive Plan estimate was projected in 1989. **Mr. Brierley** said it is a difference in the type of industrial use that has occurred. He also noted typical 1979 uses: paper plants, auto repair, etc., and things that don't take up the same type of land mass.

2.	<p>APPLICANT: Mike Gougler for Werth Joint Ventures</p> <p>REQUEST: Adoption of the Springbrook Oaks Specific Plan. The plan would create areas for industrial, commercial, office, multiple dwelling, and single family dwelling uses. It includes plans for open space, utilities, transportation, and so forth. It would amend the Newberg Comprehensive Plan, Development Code, Comprehensive Plan map and Zoning map.</p> <p>LOCATION: A tract of land generally located south of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the Urban Growth Boundary</p> <p>TAX LOT: 3216-2001 and 3216-2010</p> <p>FILE NO.: CPA-14/Z-14-99</p> <p>CRITERIA: NDC 10.20.030</p>	<p>RESOLUTION NO.: 99-117</p>
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Objections: None

Commissioner Molzahn arrived at the meeting at 7:25 p.m.

1. What impact will traffic have on the City? We are awaiting analysis until making a statement. Kittleson & Associates discussed their issues with the Steering Committee.

2. What changes to land use will the proposal bring? The Comprehensive Plan allows for this type of development in the stated area.

OPEN FOR PUBLIC HEARING:

Chair Hannum entered ORS 197, relating to the Public Hearing process into the record, and opened the Public Hearing.

Abstentions/ex-parte contact: None.

Objections: None.

Staff Report and Preliminary Staff Recommendation: **Ms. Barbara Mingay** presented the staff report and noted that staff recommended adoption of Resolution 99-116. She reviewed page two of the staff report which reflected the criteria. There are six issues listed:

1. Parking lot improvements (striping and ADA access) if intended to be used as a parking lot.
2. Both the old and new portions must meet Oregon Specialty Code access.
3. Sanitary sewer service (old pipe to be replaced).
4. Roof drainage system may be compromised to the adjustments of the renovation.
5. Removal or relocation of air conditioner on wall.
6. Existing gas meter will require relocation.

Staff recommended approval with final conditions and the relocation of the items mentioned and other issues raised in the staff report.

Discussion was held concerning other historic buildings in the area.

Roger Minthorn submitted a letter concerning 619 E. First Street, noting that he does not see a reason to deny the request.

Proponent: Mr. Bill Rohsaker, applicant, discussed parking. The owners do not wish to make the parking part of the use of the building (grading to allow water to run off). The owner will be relocating his Mexican bakery and restaurant business. Mr. Rohsaker said he does not believe the owner was aware that the property was historic in nature.

Opponent: None

Staff Recommendation: **Ms. Mingay** stated it would be an appropriate activity for that location.

Hearing Closed. Chair Hannum

Motion #2 :	Fowler/Wall to adopt Resolution 99-116.
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Commissioner Wall said that often times is it difficult to reason why some buildings are on the historic list, and does not see any objections.

Commissioner Ashby said the application clearly meets the requirements.

Chair Hannum agreed.

Vote on Motion #2 :	The motion carried 4 Yes/3 Absent: Haug Parrish, Molzahn, approving the requested addition to a Historic Landmark property.
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Ms. Mingay announced the procedure for appeal.

PLANNING COMMISSION MINUTES

Newberg Public Safety Building - Newberg, Oregon

THURSDAY, May 13, 1999 AT 7 P.M.

Approved at the June 10, 1999 Planning Commission Meeting

I. PLANNING COMMISSION ROLL CALL

Planning Commission Members Present:

Stephen Ashby Paula Fowler Steve Hannum, Chair
Lon Wall Rob Molzahn (arrived late)

Absent:

Matson Haug Warren Parrish

Staff Present:

Barton Brierley, City Planner
Barbara Mingay, Planning Technician
David Beam, Economic Development Coordinator/Planner
Peggy Nicholas, Recording Secretary

II. OPEN MEETING

Chair Hannum opened the meeting at 7:00 p.m. He announced the procedure of testimony. Citizens must fill out a public comment registration form to speak at the meeting.

III. CONSENT CALENDAR

1. Approval of the April 8, 1999 Planning Commission minutes, and approval after corrections to the April 22, 1999 Meeting Minutes.

Commissioner Ashby corrections noted on the April 22, 1999 meeting minutes.

Motion #1:	Fowler/Wall voted to approve the consent calendar items, approving the April 8 and April 22, 1999, minutes of the Planning Commission Meetings.
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Vote on Motion #1:	The Motion carried (4 Yes/3 Absent: Haug, Parrish, Molzahn).
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Duane R. Cole, City Manager, gave the oath of office to Steve Ashby.

IV. COMMUNICATIONS FROM THE FLOOR (five minute maximum per person)

None.

V. QUASI-JUDICIAL PUBLIC HEARINGS

1. **APPLICANT:** Bill's Quality Construction, Inc.; Owner: Vicente Gonzales
REQUEST: Approval of a 625 square foot commercial addition to the Panderia, a Historic Landmark property
LOCATION: 619 E. First Street
TAX LOT: 3219AA-5000
FILE NO.: H-9-99
CRITERIA: NDC 10.44.157

RESOLUTION NO.: 99-116

THE NEWBERG GRAPHIC

Serving Newberg, Dundee, St. Paul, Eastern Yamhill County and Northern Marion County since 1888

Valley
Classifieds
Page B1

City faces fight over increase in water SDCs

■ **A homebuilder's group may take city to court to reduce the rate recently adopted by the city**

By GARY ALLEN
NEWBERG GRAPHIC NEWS EDITOR

When the Newberg City Council approved a four-fold increase in the city's water system development charges in late April, building industry officials vowed they would fight the decision. They made good on their promise last week.

The Home Builders Association of Metropolitan Portland contacted

the city last week contending that the model the city used to determine the SDC rate was flawed. The group represents builders, developers and building-related businesses in Yamhill and four other counties. The association has slated a meeting for next week, at which point its officials will ask that the city re-evaluate and cut the rate nearly in half.

In April, the council approved a jump in the water SDC rate from the current \$850 to \$3,416, the first rate change since 1990. The council's decision follows the recommendation of a Citizens Advisory Committee it commissioned nearly a year before.

The decision to raise the SDCs coincided with an expanded water rate system devised by the city that promised reductions for the majority of household users in the city.

The homebuilder's association backed up their claim by a study done of the city's SDC model by an economist, said Kevin Wing, director of local government affairs for the group. Wing argued that the complicated system the city used for determining SDCs actually double-charged new homeowners by making them pay for upgrades in future capacity for the system while charging them for using existing capacity.

"So they're selling new homeowners what they have and making you pay for what they're planning to build in their capital improvement plan," Wing said. "What it does is, if they were to calculate it right, we believe the fee should be around \$1,876 per dwelling unit. Actually the charge is \$3,416 was adopted."

City manager Duane Cole commented that the methodology used to arrive at the SDC figure is the same used in cities across the state and has been checked and rechecked by

Please see SDC, pg.

SDC: New charge goes into effect on June 21

● Continued from page A1

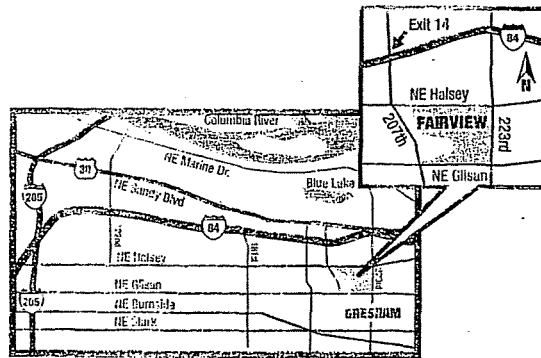
city's consultant, CH2M Hill. The city has maintained that it has been subsidizing developers with low SDC rates in the past and the increase makes developers pay their fair share of capital improvement costs.

Cole also said it was unlikely the city will voluntarily change the SDC rate.

Wing said if the city refuses to budge the homebuilder's association will file a writ of review with Yamhill County Circuit Court. The writ will contend that the city made a mistake in its calculations and ask that the court order the city to correct its methodology and change the SDC rate.

"Either we'll fix the error or we'll end up in court," Wing said.

The homebuilder's association has 60 days, until around June 17, to contest the issue. The water SDC is set to go into effect June 21.



DESCRIPTION: A planned community encompassing residential, retail and commercial uses

SIZE: 95 acres

LOCATION: East Multnomah County between Northeast Halsey Street, Northeast Gilsen Street and Northeast 223rd Avenue

COMMUTES: To Portland, 15 minutes; to Portland International Airport, 7 minutes; to Timberline Lodge, 45 minutes.

HOUSING STYLES: Single-family residences, duplexes, townhomes, rowhouses and apartments

DWELLING SIZES: 1,200 to 3,100 square feet

HOME PRICES: \$145,000 to \$370,000

SCHOOLS: Woodland Elementary School, Reynolds Middle School, Walt Morey Middle School and Reynolds High School

SPECIAL FEATURES: Walking trails connecting residential area to schools, retail and commercial areas; nine parks and 30 acres of wooded area

SALES: Holt & Haugh, 1200 N.W. Naito Parkway, Suite 620; 222-5522, and Village Realty, 21874 N.E. Park Lane, Fairview: 669-9999.

Profile: Project to be complete in three years

Continued from Page H1
upwardly mobile professionals who may eventually buy.

The zoning code allows owners to convert first-floor areas in their rowhouses to commercial use, so rowhouse residents can open such businesses as accounting or legal offices beneath their living spaces. Many of the single-family homes have carriage houses — complete one-bedroom apartments — located over their garages that can be rented or used as in-law quarters.

When completed in another three years, the community will include about 600 residences, 140,000 square feet of commercial space, 200,000 square feet of retail, 30,000 square feet of civic space, nine parks, trails and open space.

About 104 single-family homes (31 with carriage houses), 34 rowhouses and townhomes and 11 duplexes have been built so far. Another 51 single-family homes, 24 rowhouses and townhomes and 152 apartment units are scheduled for construction this year.

The single-family homes range from about 1,200 to

3,100 square feet and are priced at \$145,000 to \$370,000. The average lot size is 5,500 square feet.

Construction started this month on the apartments, which will rent for \$500 to about \$1,100 per month. Eventually the community will include a church, grocery store, restaurants and neighborhood shops. Construction started last month on a new City Hall.

Praise from residents

Even though Fairview Village is a work in progress, residents say they feel a significance in living there. Greg Ash, who moved in last December, said there's "a specialness to this village."

"I had scoured the landscape for about three years and finally saw this," said Ash, an account manager for a floor covering firm. "I was immediately struck by the uniqueness of it. There's nothing like it in this area."

Ash and his wife, Patty, like the old-style front porches, the rock bridges over Fairview Creek and the "pocket parks" that encourage residents to gather outside their homes. They also enjoy the variety of residents in their neighborhood.

"It's like having grandpa and grandma down the street," he said.

Frank and Eleanor Williams, a retired teacher and school secretary, said the mix of ages was also important to them when they were considering Fairview Village.

"We just didn't feel very comfortable going into a retirement center yet," said Eleanor. "We love the children here. We're able to mix with the families that have children."

Another attraction was the opportunity to become less dependent on their automobile. Sidewalks and walking paths connect virtually everything in Fairview Village, allowing residents to walk or bicycle to the new, 500-student Woodland Elementary School, the village



"There's a specialness to this village," says Greg Ash, who moved to Fairview with his wife Patty and son Hudson, 2 1/2, in December.

post office, Gold's Gym and other destinations.

The project has its skeptics, including those who scoff at building expensive homes directly across from entry-priced homes. But Holt tells buyers that property values will hold as long as the quality of construction and the materials are the same in both price ranges. And people are buying. A \$270,000 house sits across the street from one purchased for \$135,000. A \$190,000 rowhouse is across from a \$370,000 single-family home. All are sold.

But it's been a slow process.

Sales occurred at a snail's pace in the beginning, and even now the pace of sales doesn't compare to those in many new subdivisions. Three of the five original builders decided not to continue in the project, both because of the

slow sales and because of the strict control Holt & Haugh maintain over the architecture and design of the homes.

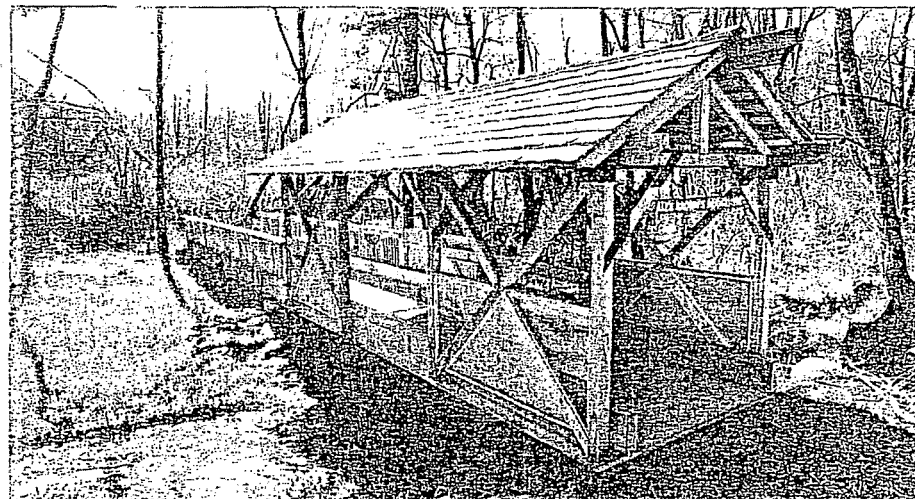
But three additional builders have joined in, and Holt & Haugh ended up starting their own construction company about two years ago to build homes in the project.

Alfonso, who was one of the first to move in, said buying in Fairview Village for him was a matter of trust.

"You had to have the vision of what it's going to be," he said, "and trust it will happen."

There are still those who wonder if the developers will be able to deliver on their promises, but Holt is gratified to find more and more people catching on.

"At first, it was always, 'Will you finish what you start?'" he said. "Now people are walking in and saying, 'I get it!'"



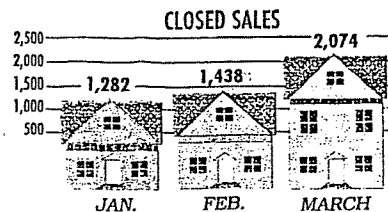
Alex Brown's Bridge, which leads to the new elementary school, was named after a resident's child. The name was chosen by lottery from the names of the children who live in Fairview Village.

HOUSES

& REAL ESTATE

QUARTERLY REPORT

Source: Realtors Multiple Listing Service™



Comparisons represent the number of closed sales of residential listings as reported to RMLS™, the Portland metro area multiple listing service, for the period ending March 31, 1999.

Sunday, May 2, 1999

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Premiere Crossword & Solution.....	H25, & H34



A COMMUNITY PROFILE

Fairview Village

Front porches, walkways and pocket parks encourage Fairview residents to walk the neighborhood and get to know one another. Future plans for the community include a church, shops and restaurants.

New east Multnomah County subdivision recaptures look, feel of small-town America

By CONNIE POTTER
Special Writer

Robert Alfonso takes a

ASK THE EXPERT



By JIM KREIPE
Square Deal Remodeling

What should I know about lead in older homes?

Q: Before remodeling an older home, what methods can be used to determine whether lead is present in paint or other building materials?

A: Only homes built prior to 1978 are in danger of containing lead-based paints. Efforts to reduce lead in paints began in the 1950s and lead-containing paint products were totally banned in 1978.

There are two professionally accepted methods for determining lead's presence in your home. The first is called XRF, or Portable X-ray Fluorescence. This is a fairly expensive device that uses a form of X-ray to determine the presence of lead paints without removing samples. Cost can be high, \$300 to \$500 plus per house.

The second method is to actually remove paint chips or surfaces in quantities large enough to test. The samples can be taken to a laboratory for analysis. Lab costs can be \$25 or more per sample. Call the Oregon Health Division's Lead-Based Paint Program, 1-503-731-4500, for a list of state-certified companies that perform these tests.

Home test kits for do-it-yourselfers, often found in hardware or paint stores, are not always accurate and consumers should not rely on the results.

Infill: Anti-density initiative could appear on 2000 ballot

Continued from Page E1

inward for land on which to house newcomers. Gresham recently lowered the average lot size in residential areas to 4,000 square feet instead of 5,000. Twenty years ago, the standard lot was double that.

Debate moves to inner city.

Not surprisingly, reaction has been harsh. The demand for "in-fill" has opened up a new front in the war over growth in the Portland area.

Instead of the perennial battles about development of open space and rural areas, land-use conflicts are breaking out in inner-city neighborhoods, where residents worry about more cars, crowds and crime.

"Nobody's proposing Hong Kong here, or even Los Angeles," said Metro Executive Mike Burton, the primary defender of the region's approach to controlling surging population growth.

Denser cities are the natural by-product of strong population growth and an even stronger desire to keep cities contained, Burton said. But he acknowledges that with congested streets, overbooked schools and "more people in the grocery line," complaints are increasing.

"Those are things that make people say it's not as fun to be here as it used to be," Burton said. "It's still better than anywhere else."

Seizing on the new mood of urban unrest, veterans of past ballot measure campaigns have joined forces to develop an anti-density initiative for the 2000 ballot.

Larry George, director of Oregonians in Action, a property rights group, said he is working with Bill Sizemore, tax activist and former gubernatorial candidate, to come up with language for a measure that would protect neighborhoods against urban density policies.

"There are two things people don't like: density and sprawl," Sizemore said. "It's time we decided which one we dislike the most."

Increased density in cities "is part of the liberal agenda" to prevent people from building homes on rural acreage, he said.

Burton called Sizemore's proposal a "knee-jerk, emotional reaction" to a complex problem.

George, whose organization might help sponsor the signature drive, thinks the group has tapped into a growing sentiment that longtime neighborhoods should be left alone.

"Bill's got a winner if he goes

with it," George said. "This is an issue that will have to be dealt with eventually."

Profits from subdividing tempt

Eventually can't come soon enough for Mike McGuire, who lives next door to Booth on 202nd Avenue. McGuire, 50, a retired machinist, said he moved to the neighborhood nine years ago precisely because of the big lots and wide distance between houses.

"I'm an Oregon boy. I want some breathing room," McGuire said. "You go out here, and you feel like you're still in the country."

His property, like Booth's, measures 80 feet across and 325 feet deep — about four times the size of the typical residential lot in the Portland area. Gresham's zoning laws would allow him to partition his land into as many as six new home sites.

McGuire said he hasn't even considered doing that. But others in the neighborhood have. With new houses in the area costing between \$150,000 and \$250,000, a developer can make a tidy bundle subdividing and building homes on the large lots.

It's a method that's not only accepted but encouraged in Gresham and throughout the Portland area.

"We're responding to the region's goal to include more housing density, to handle future housing needs within the current urban growth boundary rather than expand the urban growth boundary," said Janet Young, a lead planner for Gresham. "The region as a whole is looking at a lot more infill. We're trying to make more efficient use of the land inside the boundary."

Young said wedging new homes amid existing ones can forestall the need for cities to expand on Oregon's farmland and forest areas. But Booth and other density critics say the practice places the burden of growth on local residents.

Schools in the area already are stuffed, and there are no plans to build new ones. And traffic along 202nd has thickened and quickened with each year.

"I bought this place in 1956," Booth said. "When a car went by, you looked out the window to see who it was."

Booth said he talked to Sen. John Lim, R-Gresham, who represents the area, but was told that growth is inevitable. Lim suggested that Booth form a neighborhood association to protest the changes.

Booth and McGuire also have scheduled a meeting this week with Gresham Mayor Chuck Becker to press the issue.

Even those who are looking to subdivide the neighborhood say they don't like to do it but think they are forced to because there is so little land left to develop for homes.

Ward Walker, a Re/Max real estate agent who is helping the developers with their plans to build

next door to Booth, said he'd rather see the houses built on a 35-acre vacant plot to the west. But the plot lies just outside the urban growth line and is off limits.

"I've lived here all my life," Walker said. "I've seen this density thing ruin our city."

Metro's Burton said Oregonians have taken a long view on growth. They know it's going to keep coming, and they want it contained and controlled, he said. But individually, people always grumble when it happens next to them.

"Every time somebody moves in here, it changes the place," Burton said.

You can reach Harry Esteve at 503-294-5972 or by e-mail at harry_esteve@news.oregonian.com.

The Oregonian



Metro/State

MONDAY ♦ MAY 17, 1999

Infill breeds resentment in those who like elbow room

Big-lot neighborhoods in the Portland area are battlegrounds in the war of urban sprawl vs. inner-city density

By HARRY ESTEVE
THE OREGONIAN

GRESHAM — For 43 years, Harold Booth watched the city grow up around his neighborhood, a skinny oasis of towering firs and oversized lots along Northeast 202nd Avenue.

Apartments and businesses closed in from all sides. But on this shady street, where modest ranch homes sit like afterthoughts on sprawling yards, the country lane atmosphere seemed locked in time.

Until now. Pressures of growth and the region's new emphasis on urban density have caught up with Booth, 70, and his neighbors.

Gresham recently approved a propos-



ROGER JENSEN/THE OREGONIAN

Harold Booth (left) and Mike McGuire worry that subdivisions will ruin their spacious neighborhood along Northeast 202nd Avenue in Gresham. "You go out here, and you feel like you're still in the country," McGuire says.

al for a 17-unit subdivision a stone's throw from Booth's house. Last week, his next-door neighbor filed for permission to chop his yard into six plots for new houses.

"For sale" signs have sprouted up and down the street as longtime residents prepare to flee a future of noise, congestion and other problems associated with urban growth. Booth, too, thinks he's seeing the beginning of the end.

"This is the kind of thing we don't want to lose," he said, standing proudly in a back yard that could host an average

company picnic. "But what can we do about it?"

The answer is not much. To curb sprawl, Portland-area cities have adopted policies aimed at packing more people into established areas. Lots the size of those on 202nd Avenue are considered underdeveloped and ripe for subdividing.

As cities begin to strain against their growth boundaries, they now look

Please see **INFILL**, Page E8

Other Sources of Information

BOOK

"*Trees and Building Sites*" is the proceedings from a major conference on Trees and Buildings sponsored by the International Society of Arboriculture in 1995. Edited by Drs. Dan Neely and Gary Watson, this book is probably the most comprehensive source available for the latest on research and management practices related to the effects of construction on trees. Available for \$45 (\$35 for ISA members) plus \$5.00 shipping/handling:

International Society of Arboriculture
PO Box 3129
Champaign, IL 61826-3129

VIDEOS

Two useful videotapes are available for self-study, or to show at meetings of builders, developers, architects, planning and zoning boards, tree commissions, neighborhood associations, civic groups and others that can make a difference. Both tapes are VHS 1/2" and can be purchased for \$32 each (\$25 for ISA members). Contact International Society of Arboriculture at the above address.

"Effects of Construction Damage to Trees on Wooded Lots"

The purpose of this video is to create an awareness that trees are easily damaged during construction, and why. Examples are shown, including some techniques for prevention. (15 min.)

"Avoidance of Construction Damage to Trees on Wooded Lots"

This is an interesting and comprehensive overview of how developers, builders, landscape architects, arborists and homeowners need to work together to avoid damage to existing trees on a building lot. Testimonials and examples make this a very effective tape. (22 1/2 min.)

BOOKLET

"Protecting Trees When Building on Forested Land"

This excellent, 12-page, full color booklet is especially applicable in California and the west coast. It includes discussions of insect and disease threats that should be considered when building on a wooded lot. Single copies are for sale at \$2.89 ppd. Phone for information on volume discounts. Order from:

ARA Publications
University of California
6701 San Pablo Ave.
Oakland, CA 94608-1239
(Phone: 510-642-2431)

TRAINING OPPORTUNITIES

Learn a system and specific techniques for saving trees during construction by attending a Building With Trees Workshop. For a list of workshop dates and locations, contact Conference Services, The National Arbor Day Foundation, P.O. Box 81415, Lincoln, NE 68501 or phone 402-474-5655.

TRENCHLESS TECHNOLOGY

For a look at the potential of drilling or boring in lieu of the more traditional (and damaging) digging of trenches, visit the Web site of a trade publication, *Trenchless Technology*, at www.ttmag.com or write to P.O. Box 190, Peninsula, OH 44264.

To join the Friends of Tree City USA... to receive a subscription to *Tree City USA Bulletin*, and to become more involved in the urban forestry movement in your town and throughout America, send a \$10 dues-donation to Friends of Tree City USA, The National Arbor Day Foundation, 100 Arbor Avenue, Nebraska City, NE 68410. Make your check payable to The National Arbor Day Foundation.

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John E. Rosenow, publisher; James R. Fazio, editor; Gerreld L. Pulsipher, graphic designer; Gene W. Grey, William P. Kruidenier, James J. Nighswonger, Steve Sandfort, technical review committee.



Fencing is just one of many techniques for saving trees that are shown in the videos described on this page.

Tree City USA Bulletin ORDER FORM

Name _____
Organization _____
Address _____
City _____ State _____ Zip _____
Phone _____

1. How to Prune Young Shade Trees
2. When a Storm Strikes
3. Resolving Tree-Sidewalk Conflicts
4. The Right Tree for the Right Place
5. Living With Urban Soils
6. How to Hire an Arborist
7. How to Save Trees During Construction

— Tree City USA Annual Report

1 Issue	\$3.00 ea.
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7. \$	
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Annual Friends of Tree City USA

Membership \$15.00 \$

Tree City USA Bulletin 3-Ring Binder \$ 5.00 \$

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Photocopy this form and mail with your payment to:

National Arbor Day Foundation, 211 N. 12th St., Lincoln, NE 68508

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TREE CITY USA.

The Tree City USA program is sponsored by The National Arbor Day Foundation in cooperation with the USDA Forest Service and National Association of State Foresters. To achieve the national recognition of being named as a Tree City USA, a town or city must meet four standards:

- Standard 1: A Tree Board or Department
- Standard 2: A Tree Care Ordinance
- Standard 3: An Annual Community Forestry Program
- Standard 4: An Arbor Day Observance and Proclamation

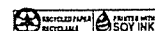
Each winning community receives a Tree City USA flag, plaque, and community entrance signs. Towns and cities of every size can qualify. Tree City USA application forms are available from your state forester or The National Arbor Day Foundation.

Published for the Friends of Tree City USA by



The National Arbor Day Foundation®

100 Arbor Avenue Nebraska City, NE 68410



V-1-21

Construction and the Urban Forestry Program

To save trees during construction, the right action begins with awareness of the values of large trees and a "can do" attitude. The result is a better community for everyone!

In communities where the urban or suburban forest is endangered by building projects, protection of existing trees deserves high priority in the urban forestry program. There are three primary paths to action:

1 Ordinances

Many communities have found it necessary to regulate the development of private property in order to protect the public asset value of trees. This will be covered in more detail in a future issue of *Tree City USA Bulletin*. However, there are alternatives to legal restrictions, and in most cases the benefits from enlightened private enterprise pay higher dividends to the community.

2 Education

Professionals in urban forestry are usually in a good position to provide the education necessary to save trees during construction, or at least to begin the chain reaction. In this process, there are several distinct audiences to reach, each needing a different approach. For example:

Homeowners

Whether for do-it-yourself projects or planning a new home, homeowners need to be made aware of the benefits provided by mature trees and how to protect these assets. The owner is in the catbird seat when it comes to working with builders, but he or she needs to know the available options.

Architects

Some architects specialize in designing with nature, but to others the potentials need to be pointed out. Architects not only have the opportunity to prevent many kinds of tree problems for their clients, they can also enhance their firm's reputation by demonstrating a sensitivity toward trees on wooded lots.

Developers / Builders

Once a developer or builder understands the concept of saving trees, it has been estimated that he or she can add 3-7 percent to sale prices — and sometimes even save on labor costs by clearing less land. However, more is required than simply not cutting down trees. Knowledge of the long-term effects of each activity is needed, and how to avoid negative impacts.

City Employees

Sewer and utility workers, sidewalk crews and engineers need to understand the damage that trenching can do. Without their respect for roots, all other efforts can come to naught.

Others

Real estate agents, planning and zoning boards and others need to be made aware that wooded property is more appealing, offers a higher standard of living, and commands higher resale prices than similar property that has been denuded during construction.

In all cases, copies of this bulletin may serve as a good starting point. Encouraging all parties to seek the assistance of urban foresters and arborists *before* construction begins would also be a valuable service.

3 Public Action

Actions do speak louder than words and they are a good way to get public attention. Saving trees during construction must include the projects of government. Whether it is widening a street or building a new office complex, an urban forestry program can guide the way to saving trees and set a good example for others to follow.

Building With Trees Awards

In The National Arbor Day Foundation tradition of honoring individuals and companies whose actions demonstrate high ideals in tree planting and care, an awards program was created in 1998 specifically for builders and developers. Co-sponsored by the National Association of Home Builders, the purpose of the program is primarily to encourage the preservation of trees during construction. It does this by calling attention to the value of trees, showing what techniques can save trees, and focusing the public spotlight on projects where the job has been done in an exemplary way.

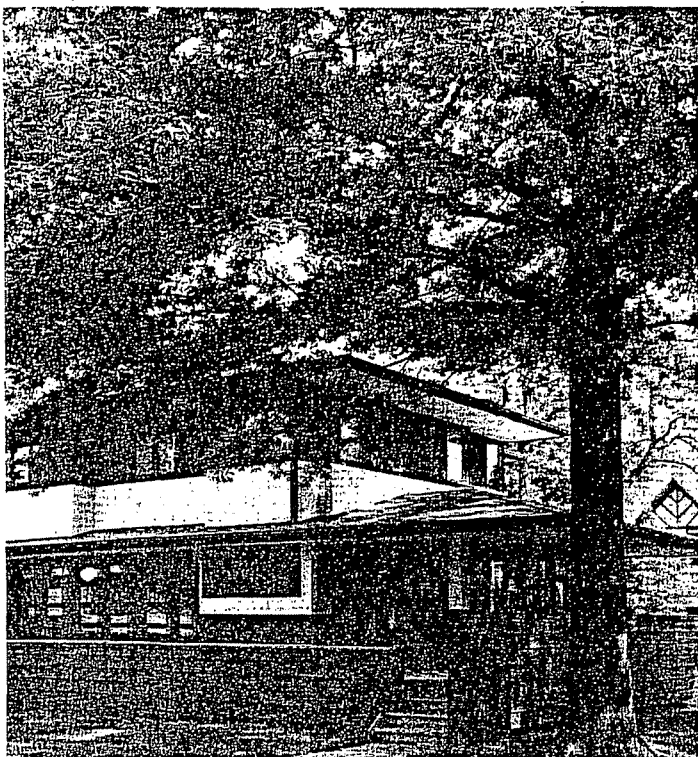
The Building With Trees recognition program has two phases. Builders and developers that plan and design projects in accordance with prescribed tree protection techniques — and sign a pledge to continue the commitment to trees during and after construction — are eligible for recognition they can use in their sales and promotion activities.

Once construction has been completed, projects may be entered in an annual competition that is judged by a jury of industry and urban forestry professionals. Awards are presented at the annual Building With Trees Conference at Arbor Day Farm's Lied Conference Center. Again, the honor can be used by the company in future sales programs and in working with local government entities when planning future projects.

If you intend to build or to develop land, or if you know builders and developers who should know about this program, contact The National Arbor Day Foundation for a free copy of the program's entry form and award criteria. For fastest service, phone Member Services at 402/474-5655.



TREE CITY USA.



To Save A Tree...

When this house was recently constructed, the 30-year-old pin oak directly adjacent to it was kept vigorously healthy, a result of good planning and communications. These are the steps that were taken:

- The house was designed so that a terrace on piers was located near the tree, not a wall requiring a foundation and footings.
- As much of the tree's root zone as possible was fenced off to minimize the compaction of the roots by construction equipment and workers.
- The pier at the corner of the terrace nearest the tree was carefully located between major roots so the roots were not severed.
- Following construction the soil in the root zone was aerated by an arborist injecting pressurized water.
- A fertilizer high in phosphorus was applied to stimulate root growth.

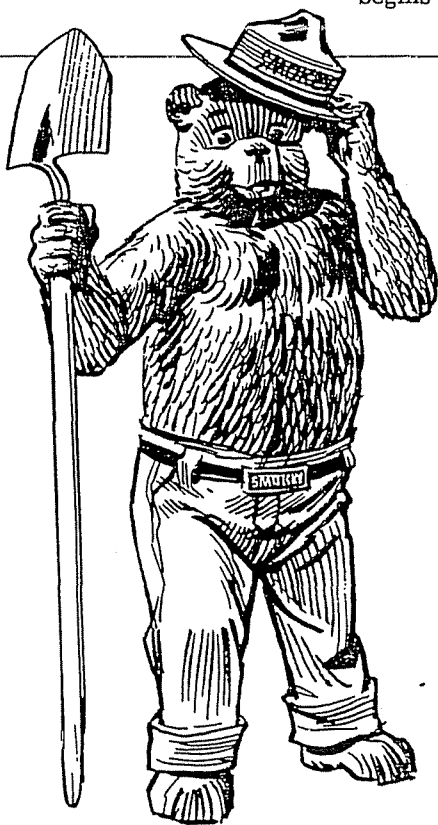
A beautiful, healthy, mature tree shading a new house is the result.

A Word about Water, Bugs and Disease

Despite your best efforts, trees in construction areas will suffer some degree of stress. Unfortunately, trees under stress fall victim more easily to insect and disease attacks.

A good way to help your trees stay healthy is to provide adequate water during dry spells both during construction and afterwards. Soil should be moistened to a depth of approximately 12-18 inches. A good rule of thumb is to slowly apply at least one inch of water per week over the entire area beneath the tree's branches.

Inspect your trees regularly and consult an expert if insect or disease damage begins to appear.



Keep Your Property Fire Safe

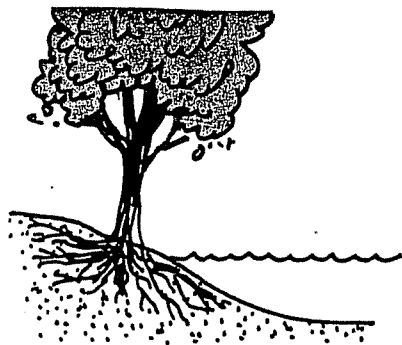
In all regions of the country, homes in wooded areas are destroyed each year by wildfires. Keep your home and neighborhood safe by:

- breaking up solid areas of evergreens.
- asking nursery professionals about fire-resistant shrubs to use in landscaping.
- keeping trees well-watered, regularly pruned and in healthy condition.
- preventing build-up of leaves and old branches.
- making sure your roads and bridges allow access for heavy fire equipment.
- and, of course ... think! Prevent forest fires.

For more information about fire-safe construction in wooded areas, contact your state forester's office, Cooperative Extension in your county, or your local fire department.

Drainage Changes

If terrain is altered, there will be a change in how water drains from the land. If flows are created that add too much moisture to a wooded site, a drainage system may be needed to maintain the previous amount of moisture (which provided the natural growing conditions for the existing trees). Similarly, existing trees along the edge of a new pond may eventually die from their roots suffocating. On sites *deprived* of water, irrigation may be needed to maintain existing trees.

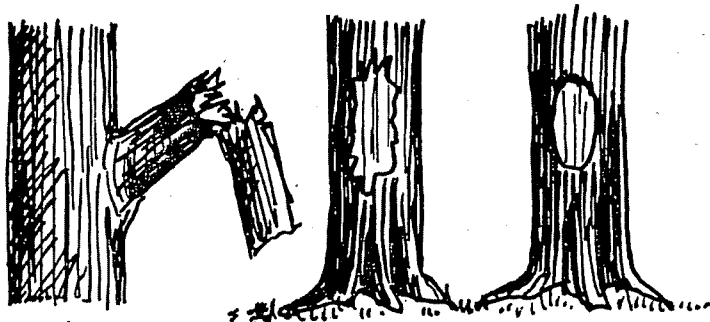


Soil Chemistry

Poisoning or otherwise altering the soil can result in weakened trees, making them more susceptible to insects and disease. In some cases, trees can be killed outright within a few years after construction. To prevent adverse effects on soil chemistry:

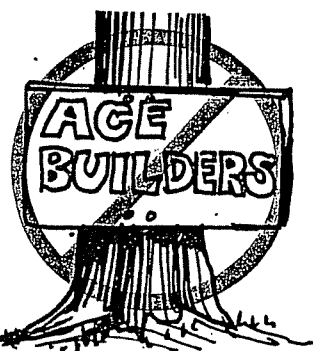
- ✓ Spread heavy plastic tarp where concrete is to be mixed or sheet rock will be cut. The alkalinity of these materials can change the soil pH.
- ✓ Read labels. Do not use wood products containing pentachlorophenol. These are deadly to roots. CCA-treated timber (greenish color) is a safer alternative.
- ✓ Paint brushes and tools should not be cleaned over tree roots.
- ✓ Chemical wastes (paint thinner, etc.) should be disposed of properly and not drained on site. Local sanitary authorities can advise on recommended disposal methods.

Above the Ground



Breaks and Scrapes

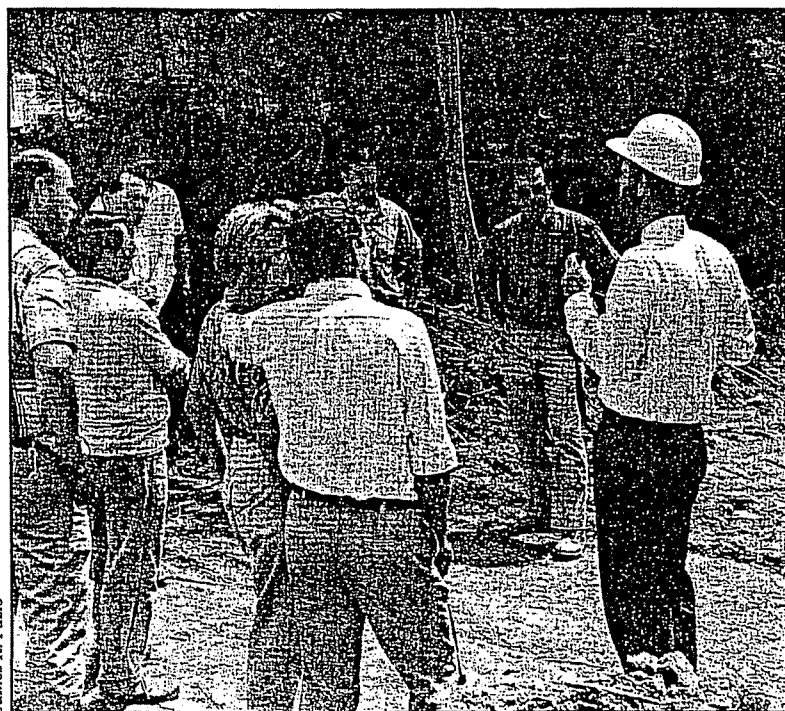
Even with barriers around trees, equipment sometimes breaks limbs or gouges tree trunks. Watch for damage and repair it promptly. See *Tree City USA Bulletin No. 2*.



Nails

Keep trees free of nails, screw eyes and other fastening devices. Use posts, not trees, for signs, electrical wires, pulleys, etc.

Communication is Essential



James R. Fazio

There are many techniques that will help save trees during construction, but this is only one part of the challenge. The key to success is communication. It begins with the property owner making it very clear to the architect that mature trees on the lot are just as important as the size of the kitchen. In fact, you may want to seek out an architect who has interest and experience designing with trees in mind. Communication continues as plans are discussed with landscape architects, arborists, foresters, extension agents or other experts.

Most importantly, communication with the actual builder is essential. Many builders sympathize with the need to save trees, but often they view it as too time-consuming or otherwise costly. Still others may not know as much about tree-saving techniques as you do, so there is an education challenge.

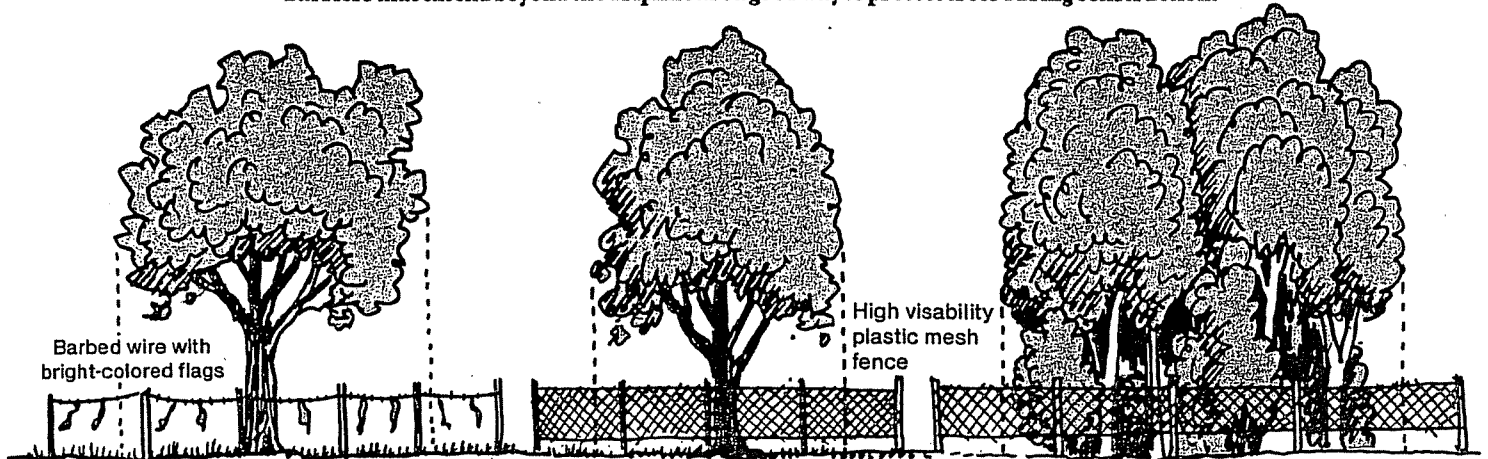
Finally, there are the dozer operators, truck drivers, painters, masons, and a small army of others who are on the site daily. While it is usually not possible to work with each one or even visit the site daily, it is possible to convince contractors and foremen that you are serious in your desire to save trees and that they need to relay this concern to their workers.

Avoiding Damage During Construction

As the organized chaos of building takes place, the surest way to protect trees that are to be saved is to: (1) work with the builder to locate and mark with flagging and/or signs all construction roads, parking places for workers, and areas for

storage of building materials, gravel and soil, (2) work with utility contractors to stake out the exact locations of trenches, and (3) erect physical barriers around all "save" trees or, better yet, around *groups* of trees, near the construction activity.

Barriers that extend beyond the dripline are a good way to protect trees during construction.



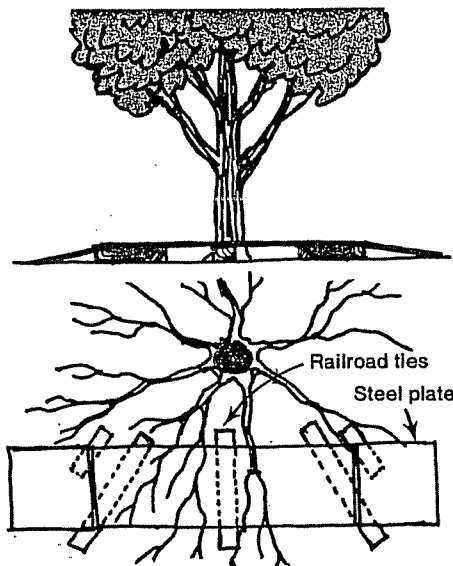
Below the Ground

A Cardinal Principle:

What happens below the ground is more important than what meets the eye above ground!

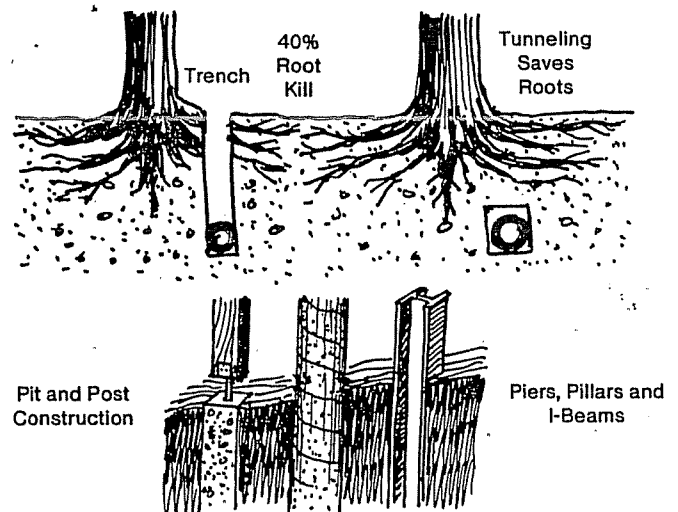
Soil Compaction

The key to tree survival in the years following construction is protection of the roots *during* construction. This is probably the most insidious problem because the results of compaction cutting off air and water passages in the soil show up slowly. When barriers are not possible to keep away vehicles and foot traffic, other protective methods that can be used include: spreading several inches of wood chips; pumping concrete from the truck through conveyor pipes instead of driving over root systems; and bridging root areas with plates of steel.



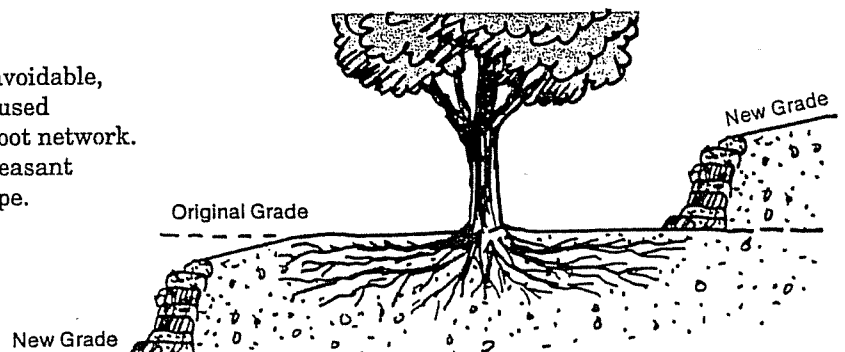
Severing Roots

Some cutting of roots near construction is inevitable, but much is avoidable. For example, the routing of underground utilities does *not* have to follow a straight line from street to house. Careful route selection can often avoid important trees. When that is not possible, tunneling is a good way to reduce damage. To reduce trenching for foundations, posts and pillars can be substituted for footers and walls.

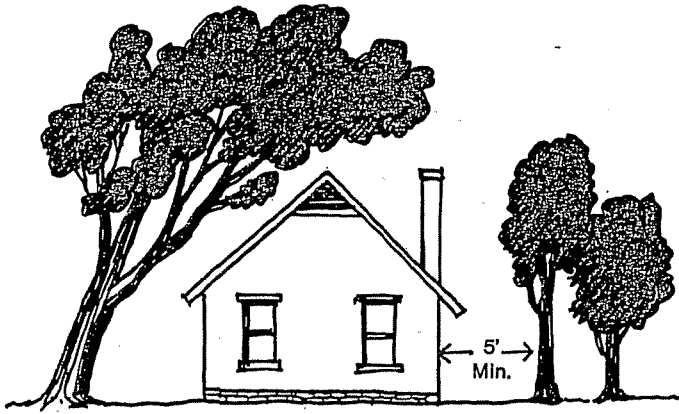


Changing Grade

If a grade change is unavoidable, a retaining wall can be used to protect much of the root network. It can also lend some pleasant diversity to the landscape.



Removals and Pruning



- ✓ Remove trees that are leaning over the site of future structures.
- ✓ It is usually best to remove trees that will be closer than five feet from a new house.
- ✓ Rather than destroying all trees where structures will be located, consider transplanting trees that are under two inches in diameter and ten feet tall. Tree spades can move larger trees.
- ✓ After all trees to be saved are selected and marked with bright-color flagging, prune each one as needed. Follow the guidelines of good pruning that are available from local experts or are shown in *Tree City USA Bulletins 1 and 2*. Pruning will help trees survive the stresses of construction activities. Also, for safety, remove large limbs that will overhang structures.

Design with Nature

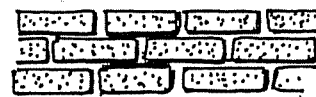
To minimize root damage, do not alter the terrain except where absolutely necessary. Levelling, cutting and filling:

- severs roots
- removes nutrient-rich topsoil
- dries roots when soil depth is reduced
- smothers roots when soil depth is increased
- changes the natural flow of water

An architect can help by:

- ✓ locating buildings to harmonize with the natural terrain
- ✓ using posts, bridges and decks to suspend parts of buildings over uneven terrain
- ✓ raising paved driveways and using similar techniques that minimize excavation

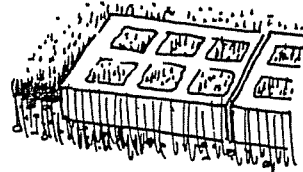
To allow maximum aeration and water penetration to tree roots, select walk materials other than concrete or asphalt:



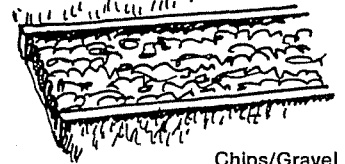
Brick



Flagstone

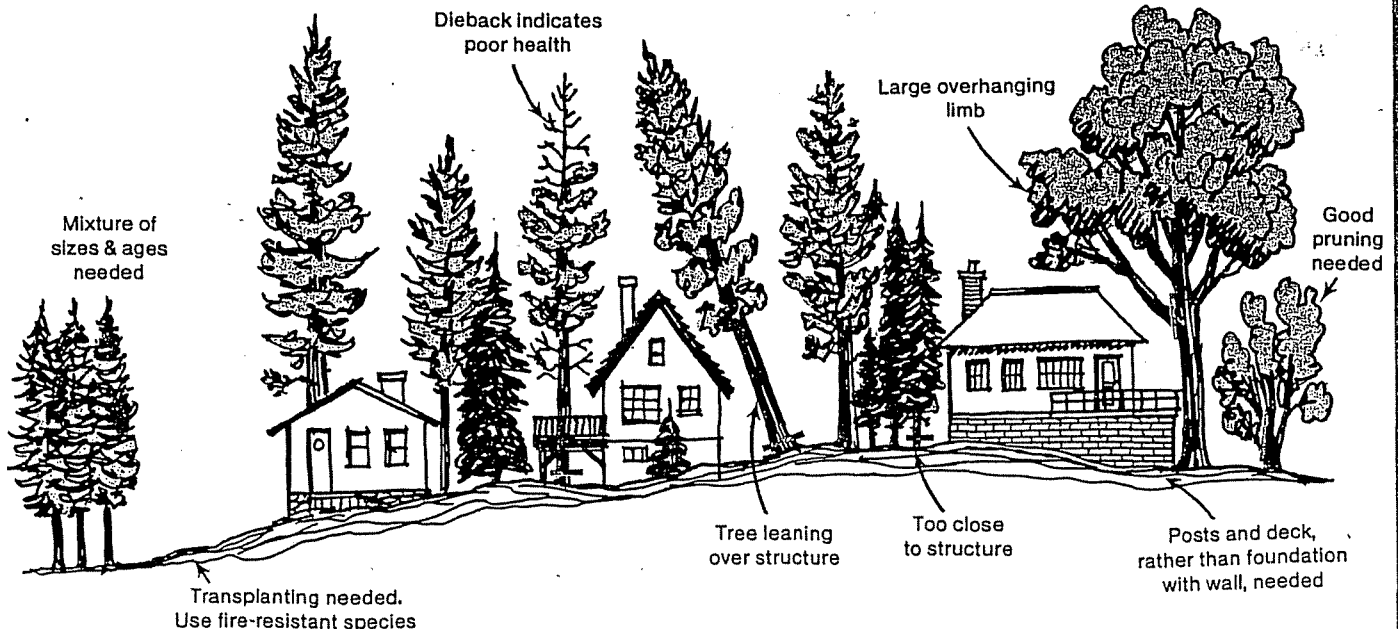


Honeycomb Block



Chips/Gravel

Some Problems that Planning can Prevent



Plan to Avoid Trouble

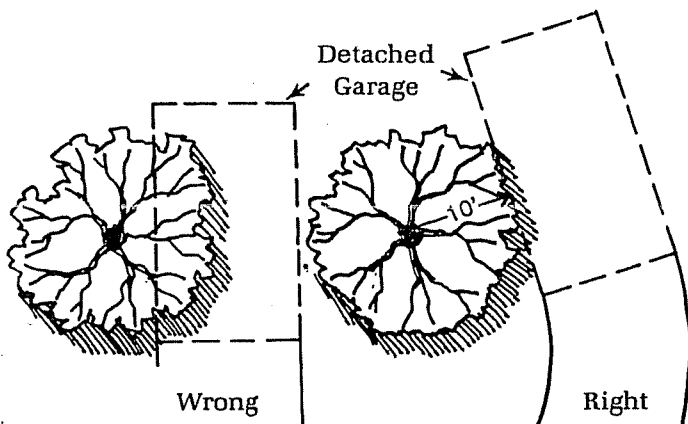
One of the toughest parts of building on a wooded lot is also the first step — deciding which trees to save and which to cut. A good rule to remember is that it is easier, cheaper and safer to remove future problems *before* construction begins.

Here's how:



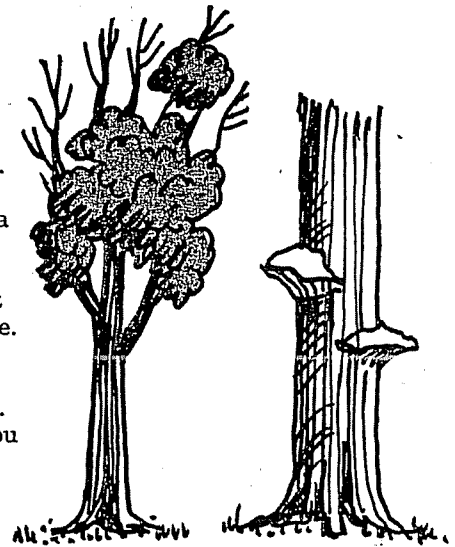
Randy Barger

Right Site, Right Trees



3

Consider the vigor and health of existing trees. If the tips of the branches are dying on a large tree or fruiting bodies of fungus are growing on its trunk, it is probably over-mature. In general, it is best to keep only those trees that are in good health. An arborist can help you evaluate tree health.



1

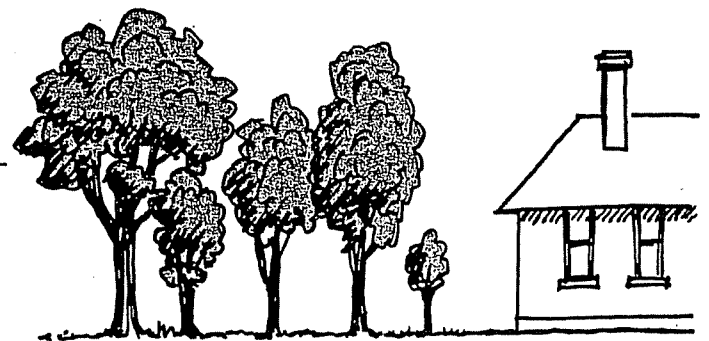
On a plat of your property, show the location of trees that are important to you. Consider these in deciding the location of the house, garage, driveway, walks, and patio. Stake out the location of improvements for better visualization. Sometimes by changing the angle of a building or curving a walk you can preserve the essential root space of a prized tree.

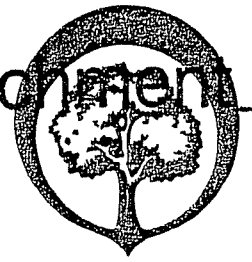
2

Know your trees, or find someone who does. This is necessary to help make the right decisions. For example, some species growing in shade may do poorly if changes result in more sunlight. Each species also differs in how it can withstand root cutting or how susceptible it is to local insects and disease. A knowledge of trees will help guide your decisions about which to remove and which to save.

4

If the existing trees make it possible, try for a good mix of ages and sizes in the stand that remains after construction. This is more visually pleasing, and reduces the impact when a tree does die.





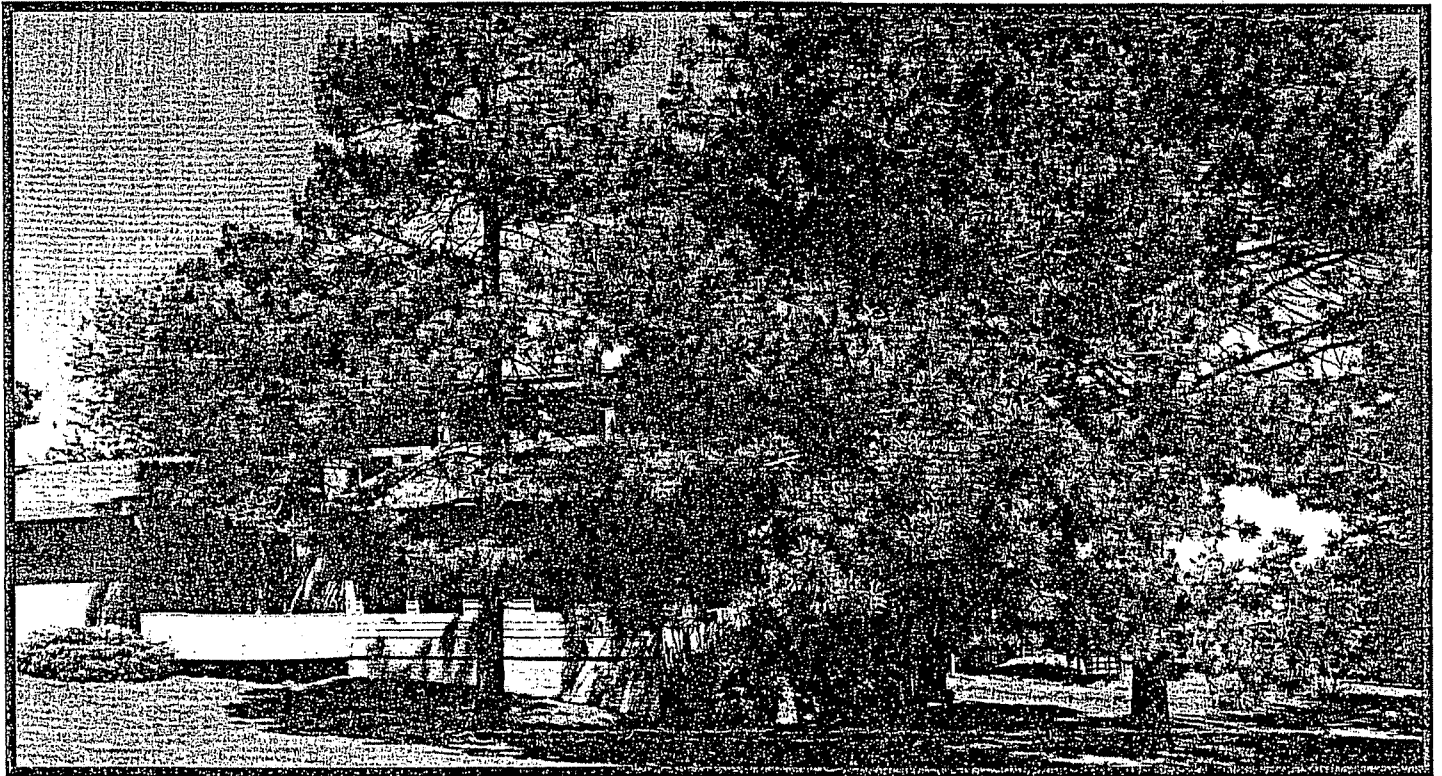
TREE CITY USA. BULLETIN

7

No.

Dr. James R. Fazio, Editor • \$3.00

How to Save Trees During Construction



Kathy Barger

Life is just better when you are surrounded by trees. Bird songs fill the air adding delight to daily routine. Trees cast their sheltering shade as they moderate the temperature, quiet the noise, and clean the air.

In summer, shade trees can save up to 50% of air-conditioning costs. In winter, windbreaks can reduce heating bills as much as 30%.

As an organization, The National Arbor Day Foundation works hard to encourage people to plant trees. However, it is equally important to save the trees that Mother Nature has invested years in growing.

Saving trees during construction often requires courage by an individual — especially in communities where the common practice is simply to bulldoze everything in sight before construction begins. Of all the letters I receive here at the Foundation, few inspire me more than the stories of people who battled to save trees that were to have been needlessly

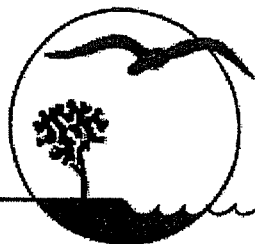
destroyed for a construction project. And few sadden me more than the stories of people who willfully destroy trees that could and should be saved.

But saving trees during construction requires more than the right attitude. It requires the right actions. Bulletin editor Jim Fazio has prepared a concise description of the actions you need to take to ensure the health of existing trees long after the sounds of construction fade away. I hope you will put this good information to good use. Your efforts will pay off for years as you enjoy the trees you've saved.

John Rosenow
President
The National Arbor Day Foundation

V-1-14

AUDUBON INTERNATIONAL



Audubon Cooperative Sanctuary System

"The mission of the Audubon Cooperative Sanctuary System is to educate people about environmental stewardship and motivate them to take action, to enhance and protect wildlife and their habitats, and conserve natural resources."

Why is the program important to golf courses?

Golf courses provide valuable open spaces, greenbelts, natural sanctuaries, and wildlife habitats, especially in areas of urban expansion. Many golf courses already provide a variety of habitat and most have the opportunity to enhance what is present. The ACSP will increase awareness about positive golf course contributions to the environment and the community.



The Audubon Cooperative Sanctuary Program encourages and recognizes golf courses taking a leadership role in conservation projects. The ACSP encourages habitat

enhancement, establishment of Integrated Pest Management (IPM) programs, and protection of water resources.

Participation in the ACSP offers the golf course superintendent and course owners help through publications, telephone consultations, and on-site visits by special arrangement.

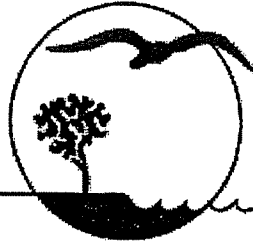
"I encourage all golf courses to participate in the Audubon Cooperative Sanctuary Program. It is fun, educational, and emphasizes the positive environmental impact golf courses have on the community."

-- P. Stan George, Superintendent, Prairie Dunes Country Club.--



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AUDUBON INTERNATIONAL



Audubon Cooperative Sanctuary System

"The mission of the Audubon Cooperative Sanctuary System is to educate people about environmental stewardship and motivate them to take action, to enhance and protect wildlife and their habitats, and conserve natural resources."

What is the "Adopt - a - school Program"?

With increasingly tight budgets, many schools face difficulties affording special programs like the Audubon Cooperative Sanctuary Program (ACSP). The "Adopt-A-School" effort encourages businesses, golf courses, and other community members to sponsor schools in the ACSP. By paying the registration fee or offering additional financial assistance, business leaders show their support for environmental education that benefits students, wildlife, and the local community.

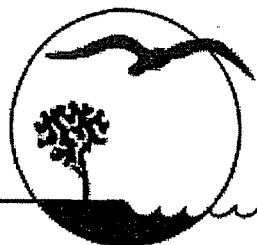


If your school is interested in joining and would like more information about potential sponsors in your area, please contact us. We look forward to working with you and bringing valuable environmental education and conservation activities into your classroom!



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AUDUBON INTERNATIONAL



Audubon Cooperative Sanctuary System

"The mission of the Audubon Cooperative Sanctuary System is to educate people about environmental stewardship and motivate them to take action, to enhance and protect wildlife and their habitats, and conserve natural resources."

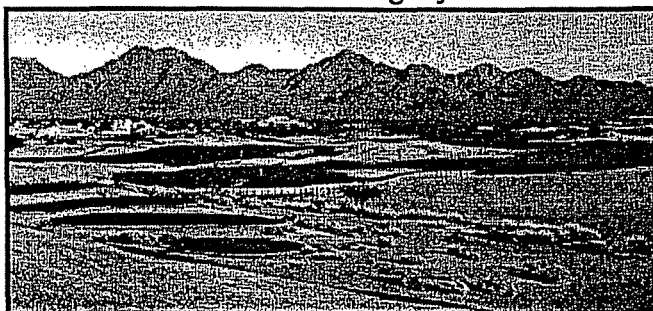
How do you become a Certified Cooperative Sanctuary?

The certification process is designed to recognize and support superintendents or other land managers who have worked to ensure a high degree of environmental quality on the golf course. In order to become certified, your course must complete and manage certain tasks. There are six "Achievement Categories" of the Audubon Cooperative Sanctuary Program for Golf Courses:

1. Environmental Planning
2. Wildlife and Habitat Management
3. Integrated Pest Management
4. Water Quality Management
5. Outreach and Education
6. Water Conservation

A "Certificate of Achievement" for each category will be granted to your course once a written plan is developed and various appropriate projects have been implemented.

Your course will be a Certified Audubon Cooperative Sanctuary once all six certificates have been achieved.



As a Certified Cooperative Sanctuary, you will receive:

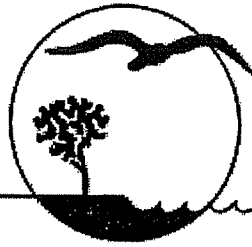
1. A Certified Cooperative Sanctuary art print to display at the golf course.
2. Media press releases highlighting golf course environmental conservation efforts.
3. Regional, National, and International recognition.





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AUDUBON INTERNATIONAL



Audubon Cooperative Sanctuary System

"The mission of the Audubon Cooperative Sanctuary System is to educate people about environmental stewardship and motivate them to take action, to enhance and protect wildlife and their habitats, and conserve natural resources."

The Audubon Cooperative Sanctuary Program for Golf

The Audubon Cooperative Sanctuary Program for existing Golf Courses (ACSP) promotes ecologically sound land management and the conservation of our natural resources. Golf courses can enhance and protect wildlife habitat and water resources. This program provides an advisory information service about how to conduct proactive environmental projects for golf courses.

The Audubon Cooperative Sanctuary Program for Golf Courses (ACSP) was created by Audubon International and is sponsored by the United States Golf Association (USGA). Together, the USGA and Audubon International are striving to:



1. Enhance wildlife habitats on existing golf courses by working with the golf course manager and providing advice for ecologically sound course management.
2. Encourage active participation in conservation programs by golfers, golf course superintendents, course officials, and the general public.
3. Recognize golf courses as important open spaces and credit the people actively participating in environmentally responsible projects.
4. Educate the public and golf community on the benefits of golf courses and the role they play relative to the environment and the wildlife.

- How do I become an Audubon Certified Cooperative Sanctuary?
- What is the Adopt-a-School program for golf courses?
- Why is the program important to golf courses?
- How can I become involved?
- Join the Program
- Search our Golf Members Directory

For more information about the Audubon Cooperative Sanctuary program for Golf courses e-mail Joellen Zeh

The Audubon Cooperative Sanctuary System was created in 1991 by Audubon International, a not-for-profit, independent 501(c)(3) environmental organization.

Golf Program

School Program

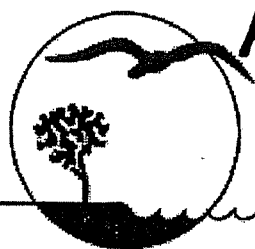
Business Program

Backyard Program



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AUDUBON INTERNATIONAL



Attachment D

Audubon Cooperative Sanctuary System

"The mission of the Audubon Cooperative Sanctuary System is to educate people about environmental stewardship and motivate them to take action, to enhance and protect wildlife and their habitats, and conserve natural resources."

The Audubon Cooperative Sanctuary System (ACSS) was founded on the belief that if we all work toward conservation and habitat enhancement on our own properties, in our schools, and where we work and play, we can create a national and an international system of wildlife habitat and environmental conservation.

Members of the Audubon Cooperative Sanctuary System receive information about how to manage their property with wildlife in mind as well as how to incorporate sound environmental practices such as energy and water conservation, recycling, and waste reduction. Cooperators have an opportunity to learn about and become involved in landscaping for wildlife, using native plants and naturalizing areas of their property, monitoring water quality, planting special gardens for hummingbirds or butterflies, and many other wildlife enhancement and conservation activities that are designed for their property.



The Audubon Cooperative Sanctuary System is a nationwide membership network comprised of four programs for Individuals, Businesses, Schools and Golf Courses

As an Audubon Cooperative Sanctuary member, you become part of a nationwide network of members. Our members are people who share a genuine concern for wildlife habitat and natural resources, and who promote good environmental decision making. The ACSS network includes business and corporate properties, schools, individual backyards, and golf courses.

Membership fees for the programs of the ACSS are \$35/year for Individual Backyards, and \$100/year for Golf Courses, Schools, and Business and Corporate Properties.

For more information about the Audubon Cooperative Sanctuary System e-mail Joellen Zeh

The landowner has total control over property registered in the Audubon Cooperative Sanctuary System. All activities are voluntary and there are no requirements or restrictions placed on the property or property owner, except as they relate to the Certification process.

in asking for more than the minimum in park space?

Who is "watching the store for us" in this area?

c. Long-term stream corridor protection.

Enhancement and guaranteed long-term protection of the two stream corridors is yet another way to improve the livability of the entire area, especially since they will need protection from high-density residential impacts.

As currently proposed, the streams and trees will only be protected "as much as practicably" during development, with the developers being primarily responsible for that determination.

As an example of the economic and environmental improvements that can be made to stream ways, I suggest that you inspect the small creek running through the Mentor Graphics campus in Wilsonville.

d. Springbrook Road Improvements.

As part of the "trade" of Jobs-for-Homes zoning change, I would like to see staff negotiating with the Specific Plan developers to pay for more of the cost of the Springbrook Road improvements.

Two new stop lights will be needed on Springbrook Road between 99W and Fernwood. The developers of the Specific Plan should explicitly pay their "fair share" of these costs. i.e., they should pay proportional to how much this development forces a need for those stop lights.

In lieu of an LID for improvements along Springbrook Road to Fernwood, the Specific Plan should, again, pay their "fair share" of these costs (proportional to how much additional traffic their project will be cause vs the original zoning).

Thank you for your attention to these matters,

Matson Haug

V-1-11

A brief review of these negative impacts, and some possible solutions, conclude this memo.

What are the negative impacts?

1. Lost "job opportunities" and lost "job growth potential" within Newberg.

The METRO population-push simply continues to increase day by day. More and more people in Yamhill County (not just Newberg) are commuting daily into the METRO area.

However, as the population increases, Newberg is becoming a prime employment site and is likely to attract a diversity of small-to-medium size business... PROVIDED WE STILL HAVE INDUSTRIAL LAND AVAILABLE.

If we are going to toss away such a strong potential for new jobs, in an area already suited for business development, we need a fair exchange with community improvements elsewhere to our livability.

2. Higher Residential Densities and Increased Traffic Congestion in the 99W/Springbrook area.

While this plan calls for an attractive mix of high, medium, and lower density housing, it would result in overall higher population densities in this area than the Comprehensive Plan currently calls for.

What solutions exist? Here are some suggestions:

- a. Retain more of the M1 zone for job growth.

Why couldn't a larger area of M1 land be retained? What alternative proposals were discussed by staff and the Specific Plan Task force? What analysis was done on to show how our future job growth needs are going to be satisfied?

- b. Add more Park space.

The currently-proposed park area does barely meet Comprehensive Plan standards. But the Comprehensive Plan also points out the severe shortfall in designated park space. As compensation for loss of (and in exchange for) future job growth, why aren't we being more assertive

From: Matson Haug <mhaug@analogy.com>
Date: Tue, 22 Jun 1999 19:17:35 -0700 (PDT)
To: nplan@ci.newberg.or.us
Subject: feedback on Springbrook Oaks Specific Plan

from: Matson Haug
Newberg Planning Commissioner
June 22, 1999

To: City Staff
cc: Newberg Planning Commission

re: Springbrook Oaks Specific Plan

At the last Planning Commission meeting, you asked for our input on any concerns we may still have with the Springbrook Oaks Specific Plan. The following is my feedback to that question.

The Springbrook Oaks Specific Plan has many admirable attributes, but it does call for a significant change in City zoning.

This change is primarily from "LAND DEDICATED TO LOCAL JOB GROWTH" to "LAND DESTINED FOR MEDIUM-TO-HIGH DENSITY RESIDENTIAL DEVELOPMENT".

I am very concerned that we are trading away a good portion of Newberg's future economic growth (just when we are about to receive it) for short term gains in residential development.

The staff's economic analysis of this project does not mention the Comprehensive Plan's vision for a self-sustaining community and for our stronger-than-ever need for an improved jobs-to-housing balance.

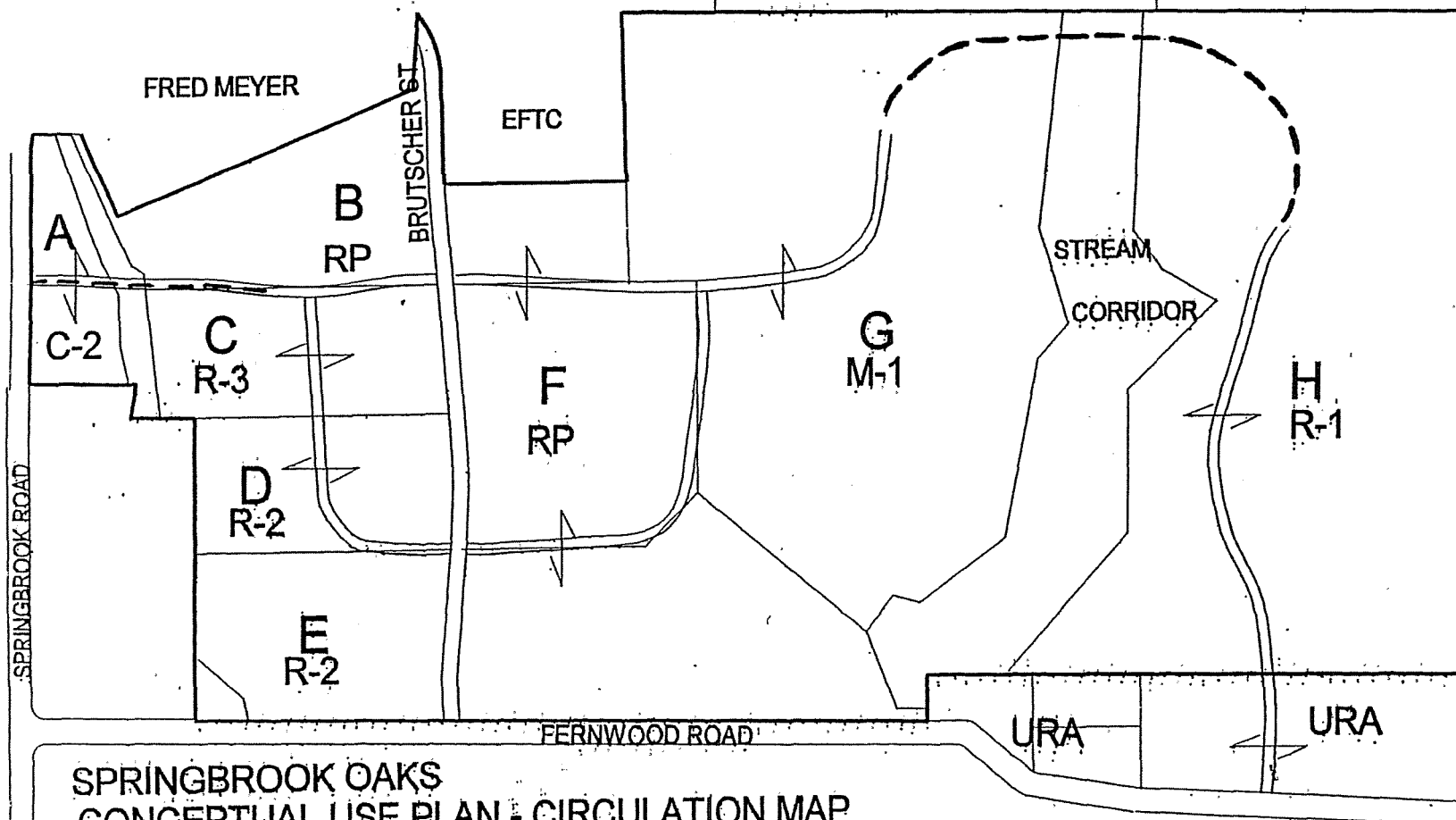
The staff's analysis also fails to mention that industrial development comes in leaps and bounds, with skips along the way. METRO growth is pushing very hard in our direction and we are positioned now for business growth opportunities as never before. I hope we do not lose those opportunities just when they are finally becoming available.

Hopefully, the City Staff and elected officials will recognize (and acknowledge) the longer-term livability impacts to Newberg that this Plan would bring and negotiate more appropriately with the developers to alleviate the negative impacts of this major zone change.

AREA	ZONE	STREAM		NET ACRES	NOTES
		GROSS ACRES	CORRIDOR ACRES		
A	C-2	6.8	1.2	5.6	THE BOUNDARY IS THE CENTER OF THE STREAM CORRIDOR
B	RP	15.3	0.7	14.6	
C	R-3	13.0	0.6	12.4	ROADS AREAS INCLUDED IN THE CONTAINING ZONE, EXCEPT BRUTSCHER
D	R-2	11.3		11.3	
E	R-2	14.1	0.7	13.4	
F	RP	50.8	0.5	50.3	
G	M-1	85.0	13	72.0	
H	R-1	87.0	12	75.0	
BRUTSCHER		4.1		4.1	
TOTALS		287.5	28.7	258.8	

ROAD ALIGNMENT SHOWN WITH — — SYMBOL ARE TO INDICATE POTENTIAL ROUTING ONLY. EXACT LOCATION WILL BE DETERMINED AT TIME OF DEVELOPMENT.

N
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SPRINGBROOK OAKS CONCEPTUAL USE PLAN - CIRCULATION MAP

SPECIFIC PLAN FILE CPA-14/Z-14-99

JUNE 10, 1999

SCALE 1" = 667 FT

Attachment B

requirements may be fulfilled through future school facilities.

This recommendation is based on the staff report, findings and testimony.

DATED this ____ day of _____, 1999.

AYES:

NAYS:

ABSTAIN:

ABSENT:

ATTEST:

Planning Commission Secretary

Planning Commission Chair

Exhibits to be forwarded to Council as part of adoption ordinance:

Exhibit A - Staff Report, May 13, 1999

Exhibit B - Springbrook Oaks Specific Plan - Staff Update, June 10, 1999

PLANNING COMMISSION RESOLUTION NO. 99-117

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF NEWBERG RECOMMENDING THAT THE CITY COUNCIL APPROVE FILE CPA-14/Z-14-99 (SPRINGBROOK OAKS SPECIFIC PLAN), A COMPREHENSIVE PLAN AMENDMENT AND REZONING FOR PROPERTY LOCATED SOUTH OF HIGHWAY 99W, EAST OF SPRINGBROOK ROAD, NORTH OF FERNWOOD ROAD, AND WEST OF THE UGB, YAMHILL COUNTY TAX LOTS 3216-2001 AND 3216-2010.

WHEREAS, On August 3, 1999, the City of Newberg City Council, by unanimous vote, initiated an application requesting a comprehensive plan amendment and zone change for property located at South of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the UGB. This action was taken at the request of the property owner.

WHEREAS, On April 15, 1999, the Newberg City Council appointed Springbrook Oaks Specific Plan Steering Committee voted unanimously to accept the Draft Springbrook Oaks Specific Plan and forward it to the Newberg Planning Commission for their consideration.

WHEREAS, On May 4, 1999 notice of this proposed comprehensive plan amendment/zone change was mailed to the owner of record as identified in Yamhill County Assessor's Office, and all adjoining property owners within a distance of 300 feet.

WHEREAS, Notice was published in the Graphic Newspaper on April 28, 1999, which is at least ten days prior to the public hearing before the Planning Commission on May 13, 1999; and on April 21, 1999 notice of the Planning Commission was posted on the site and at four public places to comply with Oregon Revised Statute requirements for comprehensive plan amendments.

WHEREAS, On May 13, 1999 a hearing was held by the Newberg Planning Commission. The hearing was continued to the next Newberg Planning Commission on June 10, 1999.

WHEREAS, On June 10, 1999 a hearing was held by the Newberg Planning Commission. The hearing was continued to the next Newberg Planning Commission on July 8, 1999.

WHEREAS, On July 8, 1999, the Newberg Planning Commission deliberated the Draft Springbrook Oaks Specific Plan, in consideration of public testimony and staff recommendations. The hearing was closed during this meeting.

NOW THEREFORE, BE IT RESOLVED by the Planning Commission of the City of Newberg that it recommends to the City Council approve the Springbrook Oaks Specific Plan draft dated April 15, 1999 with the following amendments:

1. Amend the seventh policy under Open Space and Parks (pages 17-18 of the plan) as follows:
 - A minimum of two neighborhood parks shall be established within Springbrook Oaks. One park will be located within the residential area west of Brutscher Street and one will be located within the residential area east of the eastern fork of Springbrook Creek. The parks shall be in a location that is convenient to the area residents. Total acreage of the parks shall be a minimum of five acres, with each park no less than one two acres in size. Some of the None of the park

Decision Point 5: Should the plan include more park space?

Discussion: It has been suggested that additional park space be added to mitigate community impacts of the plan.

Options

5.0 No changes from plan as amended by the Planning Commission June 10, 1999. This would provide:

- A minimum of two neighborhood parks of at least two acres each and totaling five acres.
- Preservation of the Oak Grove behind Fred Meyer
- 28.7 acres of preserved stream corridor
- A central park plaza
- Potential school with playground
- Potential golf course

5.1 Increase the number and/or area requirements for the neighborhood parks.

Staff recommendation: Adopt Option 5.0: no change.

Attachments

- A. Resolution 99-117 (exhibits included in May 10, 1999 packet)
- B. Revised Circulation Map
- C. Letter from Matson Haug, June 22, 1999
- D. "Audubon Cooperative Sanctuary System" bulletin
- E. "How to Save Trees During Construction" bulletin
- F. "Infill breeds resentment in those who like elbow room" article
- G. "Fairview Village" article
- H. "City faces fight over increase in water SDCs" article

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In considering this issue, the following points need to be emphasized:

1. Most of change would be from M-1 zoning to R-P (Residential Professional) zoning (66 new acres). The R-P is intended to provide job growth opportunities. It allows professional offices, laboratories, medical offices, and hospitals, and other such uses. The zoning does allow residential uses, but the plan limits that amount so that job growth opportunities are preserved.
2. The Comprehensive Plan's industrial land needs projections so far have grossly overestimated actual needs. The 1979 plan estimated the City would need 445 acres of vacant industrial land to meet the need to 2000. The actual amount of industrial land developed during this period was about 87 acres, or one-fifth the projected need.
3. The plan still provides considerable of M-1 zoning. 85 acres is enough land for seven more developments sites the size of EFTC. EFTC employs 300 people on its 12 acre site, and still it has a lot of room to grow. At this job/acre ratio, the site provides room for over 2,000 new industrial jobs.

Alternatives:

- 3.0 No change. This would result in 85 acres of M-1 zoned land.
- 3.1 Change part or all of Area F from RP to M-1.

Staff Recommendation: 3.0: No change

Decision Point 4: Should the plan do more to protect stream corridors and natural features?

Discussion: At the June 10, 1999 meeting, the commission discussed and rejected specific proposals to change the plan's stream corridor and tree protection provisions. A proposal to require environmental standards for the golf course was raised but not voted on.

Options:

- 4.0 No change. This would do the following:
 - Require a plan for the oak grove area behind Fred Meyer.
 - Require a licensed arborist to prepare a tree management plan in area H.
 - Require the development to comply with all stream corridor protection protections of the Development Code.
- 4.1 Add the following policy under the Open Space and Parks policies (page 17 of the plan):
 - The design, construction and maintenance of any proposed golf course within Springbrook Oaks shall follow the sustainable environmental standards established by Audubon International or a similar organization.
- 4.2 Require additional natural feature preservation (to be determined by the Planning Commission).

Staff recommendation: Adopt 4.0: no change.

- The Springbrook Oaks Specific Plan shall include a traffic impact analysis as a basis for transportation improvements with the area of influence of Springbrook Oaks.

• Development shall follow the recommendations provided within the *Transportation Impact Analysis for Springbrook Oaks*. The analysis shall be updated as changes in circumstances require.

2.2 Add the following under the subsection **Springbrook Road** of the **Transportation** section (Page 17 of the Specific Plan):

- A traffic signal shall be installed at the intersection of the east/west road and Springbrook Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document.
- A separate southbound left turn lane shall be constructed at the intersection of the east/west road and Springbrook Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document.
- Each development that occurs within Springbrook Oaks prior to the need for the necessary improvements (including signalization) of the intersection of the east/west road and Springbrook Road shall provide a bond towards the intersection improvements. The value of the bond will be a percentage of the cost of the intersection improvements. The percentage will be the ratio of the area of the property to be developed to the area of the entire Springbrook Oaks development.

2.3 Add the following policies could be placed under the subsection **Brutscher Road** of the **Transportation** section:

- A traffic signal shall be installed at the intersection of the east/west road and Brutscher Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document. An interconnected roadway system dispersing the traffic from this intersection may eliminate the need for this signal.

2.4 Amend the circulation plan map as shown in Attachment B. This shows the conceptual location of the roadway serving Area H to be within the boundaries of Springbrook Oaks. Previous versions showed this roadway on adjoining properties to the north. Plan policies still allow the roadway to be on the adjoining properties, but this would depend on neighboring property owners willingness to participate in the project.

Staff recommendation: Adopt changes 2.1, 2.2, 2.3, and 2.4.

Decision Point 3: Should the plan include more M-1 (Industrial) zoning?

Discussion: The current comprehensive plan for the project site includes 154 acres zoned M-1. The proposed specific plan includes 85 acres of M-1. The issue was raised whether or not this change would cause the community to lose job opportunities and job growth potential.

The issue of industrial land supply is discussed in detail in previous staff reports (May 13 report, pages 18-20; June 10 report, pages 1-4.)

5. Implement an aggressive water conservation program: The City has met with the top 12 water users in the City to coordinate conservation measures. The City continues an education program including posters, door hangers, flyers, and so forth. The Council has adopted a conservation/curtailment policy to deal with high demand periods.
6. Activate the Citizen's rate review committee: The rate review committee was activated. They met over several months and developed a recommendation on water rates and system development charges (SDCs). The Council adopted this recommendation, and the City is currently implementing the new charges. The Metro Area Homebuilders may challenge the SDCs in court.

Build-out of Springbrook Oaks will require the water supply provided through implementation of the strategic plan. Commissioners raised concerns that development of the property help pay for and occur concurrent with these improvements.

Options:

- 1.0 No change. This would
 - Adopt the Utility policy stating: "Development shall accommodate and address issues related to . . . water storage [and] fire flow." (Specific plan page 21).
 - Require the development to pay City adopted SDCs to contribute to the water system.
- 1.1 Add the following policy in the **Utilities** section (pages 21 and 22 of the plan):
 - Each development application shall show that its water requirements can be met adequately by municipal water supply and storage that are in place or will be at time of occupancy.

Staff Recommendation: Adopt Option 1.1.

Decision Point 2: Should the transportation elements of the plan be amended?

Discussion: The Springbrook Oaks steering committee completed its work prior to receiving the transportation impact analysis. While the analysis confirmed most of the assumptions of the plan, it did raise a few issues that need to be reflected with revised policies.

The commission raised the issue of transportation impacts from shift changes at Adeco and Ushio. Staff met with the traffic consultant, and he is planning on submitting a response to this issue. This response was not available at the time of this staff report.

In addition, staff has met with the traffic consultant to discuss other technical issues with the analysis. The consultant will provide responses to these issues, however these are not available as of the date of this staff report.

Options:

- 2.0 No changes. This would retain the transportation policies recommended by the steering committee.
- 2.1 Amend the 10th policy in the **Transportation: Motorized Vehicles** section of the specific plans policies (Page 15 of the Specific Plan).

interoffice

MEMORANDUM

to: Newberg Planning Commission
from: Newberg Planning Staff *BB*
re: July 8, 1999 Hearing - Springbrook Oaks Specific Plan
date: June 30, 1999

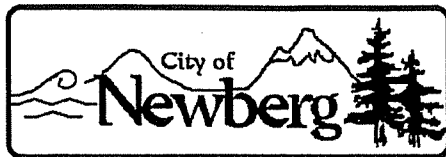
At your June 10, 1999 meeting, you approved one change to the specific plan policies section regarding parks. This change is reflected in Resolution 99-117, which is attached. At that meeting and in subsequent correspondence, some planning commissioners raised specific issues about the plan (see Attachments C through H).

At the July 8, 1999 meeting you will hold the third hearing on the plan. Staff recommends that the planning commission work through each of the issues raised and make a decision on that issue. At the conclusion of this hearing, staff recommends that the Commission adopt Resolution 99-117 with any amendments made during the meeting.

Decision Point 1: Should development of the property be contingent on additional City water supply being available?

Discussion: Municipal water supply is currently an issue for the City. To address this issue, the City Council has adopted a strategic plan (see Attachment C of the May 13 staff report). The following give a current status of the elements of this strategic plan:

1. Design and build a reservoir east of Newberg: The City has prepared a site analysis for various potential reservoir sites. The City has discussed the project with these property owners. CH2M Hill is doing a lifecycle cost analysis. Reservoir construction is included in the 1999-2000 capital improvement program budget. The planned 24-inch line in Fernwood Road, installed as part of the Springbrook Oaks development, is part of the supply line for this reservoir.
2. Request a permit to construct Well #7 and #8 in Marion County: The Oregon Senate is currently considering HB2865. This bill would redefine the standards for siting utilities in agricultural zones. If passed, the bill would greatly improve the feasibility of obtaining the permit. Phase 1 of Well #7 construction is included in the 1999-2000 capital improvement program budget.
3. Feasibility study and preliminary engineering for the development of a well field at Gearins Ferry: The preliminary engineering is included in the 1999-2000 capital improvement budget.
4. Water treatment plant expansion: Instrumentation and control improvements to the plant were completed earlier this year. Capacity improvements are scheduled in the 2000-2001 and 2001-2002 capital improvement programs.



PLANNING COMMISSION AGENDA

JULY 8, 1999

7 p.m. Regular Meeting

Newberg Public Safety Building

401 E. Third Street

I. ROLL CALL

II. OPEN MEETING

III. CONSENT CALENDAR(items are considered routine and are not discussed unless requested by the commissioners)

1. Approval of June 10, 1999 Planning Commission Meeting Minutes

IV. COMMUNICATIONS FROM THE FLOOR (5 minute maximum per person)

1. For items not listed on the agenda

V. QUASI-JUDICIAL PUBLIC HEARINGS (complete registration form to give testimony - 5 minute maximum per person, unless otherwise set by majority motion of the Planning Commission). No new public hearings after 10 p.m. except by majority vote of the Planning Commissioners.

CONTINUED FROM THE JUNE 10, 1999 MEETING

1. **APPLICANT:** Mike Gougler for Werth Joint Ventures
REQUEST: Adoption of the Springbrook Oaks Specific Plan. The plan would create areas for industrial, commercial, office, multiple dwelling, and single family dwelling uses. It includes plans for open space, utilities, transportation, and so forth. It would amend the Newberg Comprehensive Plan, Development Code, Comprehensive Plan map and Zoning map.
LOCATION: A tract of land generally located south of Highway 99W, east of Springbrook Road, north of Fernwood Road, and west of the Urban Growth Boundary
TAX LOT: 3216-2001 and 3216-2010
FILE NO.: CPA-14/Z-14-99
CRITERIA: NDC 10.20.030
RESOLUTION NO.: 99-117

VI. ITEMS FROM STAFF

1. Update on Council items
2. Other reports, letters, or correspondence
3. Next Planning Commission Meeting: July 22 or August 12, 1999?

VII. ITEMS FROM COMMISSIONERS

VIII. ADJOURN

FOR QUESTIONS PLEASE STOP BY, OR CALL 537-1240, COMMUNITY DEVELOPMENT - P.O. BOX 970 - 719 E. FIRST STREET

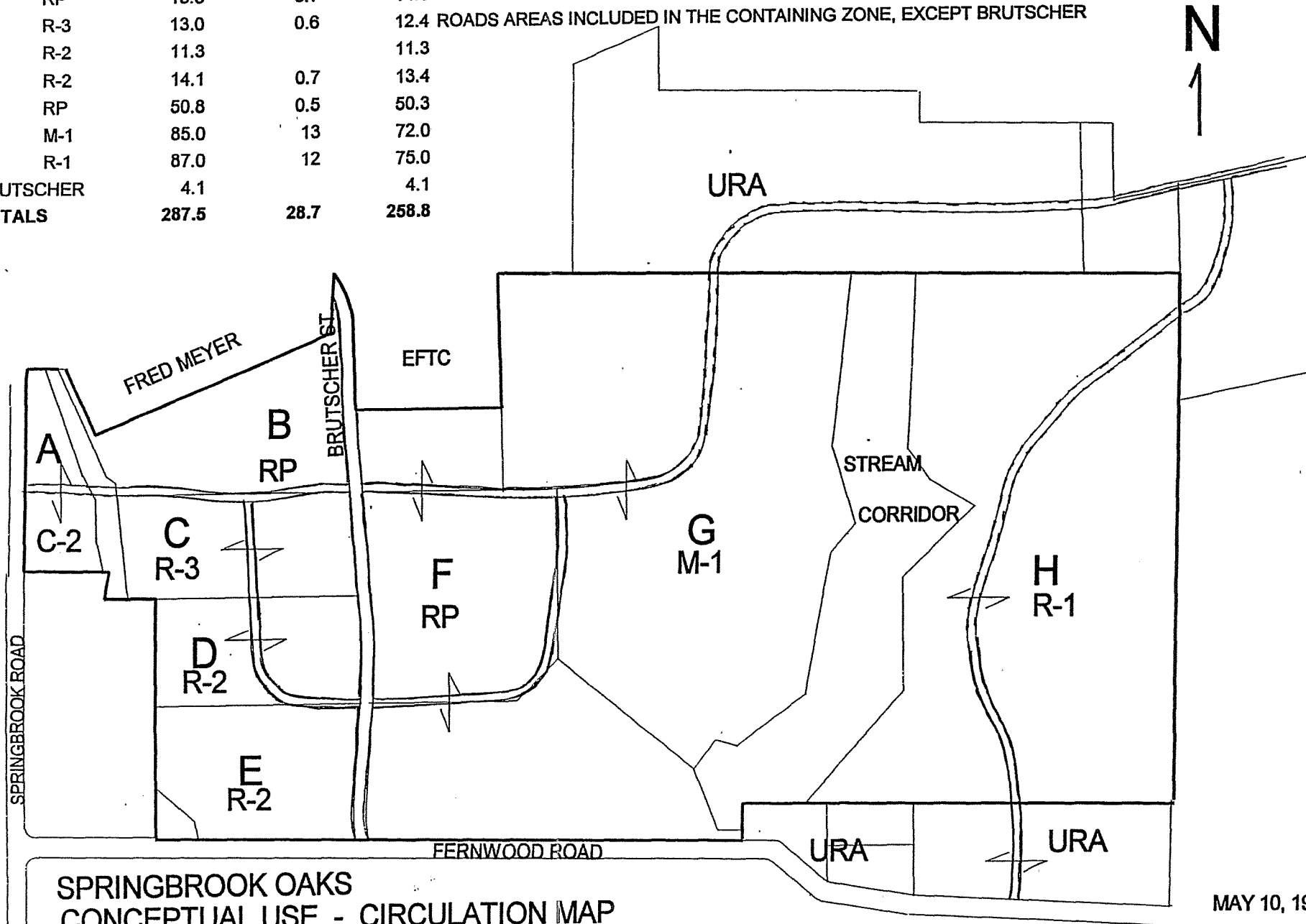
ACCOMMODATION OF PHYSICAL IMPAIRMENTS:

Please notify City Administration of any special physical or language accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements please contact Becky Manning at (503) 537-1261.

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Attachment A

AREA	ZONE	STREAM		NET	NOTES
		GROSS ACRES	CORRIDOR ACRES		
A	C-2	6.8	1.2	5.6	THE BOUNDARY IS THE CENTER OF THE STREAM CORRIDOR
B	RP	15.3	0.7	14.6	
C	R-3	13.0	0.6	12.4	ROADS AREAS INCLUDED IN THE CONTAINING ZONE, EXCEPT BRUTSCHER
D	R-2	11.3		11.3	
E	R-2	14.1	0.7	13.4	
F	RP	50.8	0.5	50.3	
G	M-1	85.0	13	72.0	
H	R-1	87.0	12	75.0	
BRUTSCHER		4.1		4.1	
TOTALS		287.5	28.7	258.8	



**SPRINGBROOK OAKS
CONCEPTUAL USE - CIRCULATION MAP**
SPECIFIC PLAN FILE CPA-14/Z-14-99

MAY 10, 1999

Future Residential Development
(page 3 of the staff report)

	<u>Proposed*</u>	<u>Max. Dwelling Units Per Acre</u>	<u>Total Max. Dwelling Units***</u>
R-1	75.0 acres	3.3**	248
R-2 ¹⁰	11.3 acres	8.8	99
R-2 ¹¹	13.4 acres	6.6**	88
R-3	12.4 acres	13.1**	<u>162</u>
		TOTAL	597

*Net acres, excluding stream corridor lands .Population estimates

** Less than allowed in the Newberg Development Code.

*** Rounded to the nearest whole number.

The proposed R-P zones are intended for a mix of office and residential development. These areas could potentially accommodate a maximum of 538 dwelling units.

POPULATION ESTIMATES

Staff estimates that there are 2.9 persons per household in Newberg, based upon 1990 census data¹². To estimate the approximate maximum population of the residential areas (R-1, R-2, R-3) of Springbrook Oaks, multiply the persons per household (2.9) times the total dwelling units (597), which equals 1732 persons.

Using the same formula for the R-P areas, a maximum of approximately 1560 persons could reside in these areas.

The State of Oregon has estimated the population of Newberg to be 17,356 as of December 31, 1998. The Newberg Comprehensive Plan projects a population figure of 27,000 for the city by the year 2010. This means that the city is projected to need housing to accommodate 9,644 more people from 1999 to 2010.

¹⁰Development Area D

¹¹Development Area E

¹²Population of Newberg in 1990 (13,086) divided by the total number of households (4543.)

**NEWBERG URBAN GROWTH BOUNDARY
RESIDENTIAL LAND SUPPLY AND DEMAND
May 1999**

Plan Category	Land Needed by Plan Category 1999-2010 ⁷ (acres)	Current			Proposed		
		Buildable Land Within UGB (acres)	Surplus at 2010 (acres)	Number of Years Land Supply ⁸	Buildable Land Within UGB (acres)	Surplus at 2010 (acres)	Number of Years Land Supply ⁹
LDR	416	496	80	14	501	85	14
MDR	217	302	85	17	322	105	18
HDR	27	22	(-5)	10	35	8	16
TOTAL	660	820	160	NA	853	193	NA

⁷The 1999-2010 land need is pro-rated based on figures in the Newberg Comprehensive showing the land need for 1996-2010.

⁸Estimated currently available vacant, buildable IND land needed by annual consumption rate

⁹Estimated vacant, buildable IND land with proposed Springbrook Oaks Specific Plan divided by annual consumption rate.

Industrial Lands

(page 19 of the staff report)

Staff estimates that the proposed specific plan will subtract 69 acres from the current industrial land inventory. Staff has estimated possible effects of this proposal using three different data sources.

Table 1 uses estimated industrial land needs from the current Comprehensive Plan. The remainder of the table are Planning Staff estimates of the current industrial lands inventory.

The Residential Needs Analysis (1997), prepared by Benkendorf Associates Corp., estimated that Newberg would need 337 acres of buildable industrial lands from 1997-2016. Using these estimates, the average annual consumption rate of industrial land would be about 17 acres per year.

The 1979 Comprehensive Plan estimated that approximately 260 acres of industrial land within the UGB were developed at that time. 1999 inventories show that approximately 347 acres of industrial land is developed. Using these two figures, it is calculated that approximately 87 acres of industrial land has been developed between 1979 and 1999. The average annual industrial land consumption rate is slightly over 4 acres per year.

Based on the preceding three analyses, the potential effects of subtracting 69 acres of industrial land from the lands inventory would be as follows⁶:

	Annual Consumption Rate	Current Industrial Land Supply	Supply with Specific Plan Adoption
Current Comprehensive Plan Estimates (2000-2010)	30 acres	14 years	12 years
Actual Use (1979-1999)	4 acres	107 years	90 years
1997 Residential Needs Analysis (1997-2016)	17 acres	25 years	21 years

⁶Based on Planning Staff estimate of current vacant, buildable industrial land of 427 acres. Also assume no redevelopment of industrial lands.

Impacts of Proposed Land Uses Upon Vacant, Buildable Land Inventory

Industrial Lands

(page 18 of the staff report)

Table 1

Industrial Land Analysis City of Newberg May 1999

Vacant and Buildable Acres of IND Land Needed by 2010 (1999-2010) ²	Current IND Land Within UGB		Surplus at 2010 (acres) ³	Estimated Annual Consumption Rate (acres) ⁴	Number of Years Land Supply ⁵
	Developed and Vacant Buildable Acres	Vacant Buildable Acres			
357	774	427	70	30	14

²Data Source: Current Newberg Comprehensive Plan

³Estimated currently available vacant, buildable IND land subtracted from IND land needs projected in current Comprehensive Plan

⁴Projected vacant, buildable IND land needed by 2010 divided by current number of years remaining in planning period (1999-2010).

⁵Estimated current vacant, buildable IND land divided by annual consumption rate.

number was in error. Based on the comprehensive plan projections, the consumption rate should have been listed as 30 acres per year (see page 3 of this memo). This projection is still higher than estimates using other data sources.

STAFF REPORT - UPDATES

At the last Planning Commission meeting, the applicant of the Springbrook Oaks Specific Plan submitted an updated map of the proposed land uses for the development (Attachment A). Staff is providing an update to the some of the land inventory information provided in the staff report, using the data provided in the new map as well as necessary calculation corrections. This update information does not change staff's conclusion in the original staff report regarding the effect of the proposed development upon land supplies within the city for the current planning period. Staff still feels that adequate industrial and residential land will be available if the specific plan is adopted.

Land Uses: Comprehensive Plan Versus Proposed (page 11 of the staff report).

	<u>Comp. Plan</u>	<u>Proposed*</u>	<u>Loss/Gain*</u>
M-1	154 acres	85 acres	69 acre loss
C-2	3 acres	7 acres	4 acre gain
R-P	0 acres	66 acres	66 acre gain
R-1	82 acres	87 acres	5 acre gain
R-2	45 acres	25 acres	20 acre loss
R-3	0 acres	13 acres	13 acre gain

* Rounded to the nearest whole acre.

interoffice

MEMORANDUM

to: Newberg Planning Commission

from: Planning Staff BB, DB

re: Springbrook Oaks Specific Plan - Update

date: June 2, 1999

At the May 13, 1999 Planning Commission meeting, the Commission posed some questions regarding the Springbrook Oaks Specific Plan. The intention of this memo is to address those questions as well as to update some of the information provided in the staff report.

FUTURE DEVELOPMENT ACCESS TO SPRINGBROOK ROAD

The issue concerning how much access will be allowed to Springbrook Road from the portion of Springbrook Oaks that is proposed for commercial development has been raised. Staff posed this question to Larry Anderson, City Engineer. As indicated on ATTACHMENT A, a collector road will intersect with Springbrook Road. The location of road access to future development in this area cannot be determined at this time. Any proposed development in this area would be required to produce a traffic impact analysis, which would include looking at issues of access. Mr. Anderson stated one of the bigger issues related to access points would be regarding storage capacity of turn lanes. In addition, the limited depth of this portion of the property (between Springbrook Road and the western fork of Springbrook Creek) may restrict or preclude access onto the future collector road, therefore requiring some type of access to Springbrook Road.

COMPREHENSIVE PLAN AND INDUSTRIAL LAND INVENTORY

The Planning Commission has requested more information regarding the high estimates of industrial land consumption in the comprehensive plan. The current comprehensive plan (1989) estimates a 5.1% annual growth rate in the development of industrial lands, a rate which staff feels was an unrealistically high projection. This figure was derived from the 1979 comprehensive plan¹. This optimistic growth rate was never realized in the 1980s, a decade of overall poor economic conditions in the Oregon. While the state and local economic conditions have improved in the 1990s, staff does not feel that such a high industrial growth rate can be realized in Newberg this coming decade.

The staff report projected the consumption rate for industrial land to be 64 acres per year (page 19 of the staff report), based on this 5.1% growth rate. Staff has re-examined the land inventory information provided in the staff report and found that

¹ See page 173 of Inventory of Natural and Cultural Resources, which was adopted as part of the 1979 Newberg Comprehensive Plan.

design of a structure doesn't allow for an entrance to directly face the road. The Committee agreed that "faced" should be struck.

The Committee discussed point D regarding the types of building materials to be allowed. It was agreed that staff and the developer should come back to the Committee with a rewording of this section at the next meeting.

The Committee accepted the remainder of the design standards.

IX. Public Comment - none

X. Next Meeting

The next meeting was set for April 15, 1999 at 3:30 p.m. at the Public Safety Building. A tour of the Springbrook Oaks property was also agreed upon. The tour will begin at 1:30 p.m. on the same day as the next meeting. Staff would send out a memo as a reminder and with details of the tour.

David Beam stated he would like to come back to the Committee at the next meeting with a draft copy of the complete specific plan. He asked the Committee if they would be potentially willing to accept the draft specific plan before seeing the result of the final traffic impact analysis (TIA) report. The committee agreed to consider this proposal under the following conditions:

- 1) When the TIA is done all the Steering Committee members, staff and the developer will receive a copy of the report for their review.
- 2) The Steering Committee would be reconvened to further work on the specific plan if: A) the level of service (LOS) of any of the roads are graded "D" or lower as a result of the development of Springbrook Oaks; B) any Committee member, staff, or the developer requests a reconvening of the Committee.

Don Clements also announced that he had available copies of a map showing the proposed golf course location.

X. Adjournment - 5:45 p.m.

Bob Andrews, Committee Chair

Date

**SPRINGBROOK OAKS SPECIFIC AREA PLAN
STEERING COMMITTEE MEETING SUMMARY (DRAFT)**

Thursday, April 15, 1999 3:30 p.m.

Newberg Public Library - Newberg, Oregon

I. Call to Order - Chairman Robert Andrews (3:40 p.m.)

II. Roll Call

Committee Members Present:

Jim Henderson, Frank Dittman, Don Clements, Bob Andrews, Debbie Sumner, Andrew Poole, Sam Farmer, Rob Molzahn, Michael Wallace (late).

Committee Members Absent:

Paul Frankenburger, Johann May, Bob Youngman, Mike Livingston

Others Present:

Economic Development Coordinator/Planner David Beam, City Planner Barton Brierley, Community Development Director Barton Brierley, City Engineer Larry Anderson, Community Owner Representative Mike Gougler, Dean Werth, Dennis Werth, Elmer Werth, Larry and Noreen Chamberlain

III. Review of March 18, 1999 Meeting Summary

Rob Molzahn move to accept the minutes as written. Motion was seconded by Sam Farmer. The committee unanimously approved the summary.

IV. Public Comment - none.

V. Newberg Fire Department

Chris Mayfield of the NFD attended the meeting til about 4:00 p.m. to help answer questions regarding fire and safety issues with the draft specific plan.

The issue of when would a second access off of Brutscher Street be required was brought up. Mr. Mayfield stated that it would all depend upon the type of development proposed. For example, 3 or 4 large industrial developments may be allowed to be developed without a second access requirement. Residential and school developments would need to be looked at closer. Two accesses off of Brutscher Street may be sufficient.

Mr. Mayfield expressed safety concerns regarding the potential of Springbrook Oaks development creating more traffic at the Corral Creek Road/Highway 99W intersection.

Don Clements stated the biggest danger at that intersection would be folks coming off Corral Creek Road and turning left towards Newberg. However, he doubted many folks would use that route over Fernwood Road or Brutscher Street.

Mr. Mayfield also asked about water pressure along Brutscher Street.

Larry Anderson stated that there should be not problem on the pressure issue. Until the new reservoir comes on line, the water supply issue will be judged on a case by case basis with each development.

VI. Springbrook Oaks Property Tour Review

Committee members took a tour of the Werth property from 1:30 to 3:00 p.m. earlier in the day. All the members agreed that it was worthwhile. Seeing the property in person gave everyone a better perspective, especially in regards to the stream corridors.

VII. Draft Specific Plan Review

David Beam reviewed proposed revised policies that have been developed. The revised policies were intended to address the issues of concern that were expressed by the Committee at the last meeting. Mr. Beam first explained the revisions to the policy that stated the density policies within the plan would supersede densities and density shifting references within the Newberg Development Code (NDC). The Committee agreed to the revision.

Mr. Beam the reviewed the transportation policies. He specifically pointed out that within the General Policies section, a policy stated that any proposed changes within the transportation section would be reviewed under a Type I process. This was put in due to the many unknown factors regarding transportation related issues at this present time. The Committee agreed to this addition.

Michael Wallace asked if Fred Meyer had provided any input to date.

Mike Gougler stated that he had spoken to Fred Meyer and that their biggest concern was conflicts with potential uses in Development Area B.

David Beam stated that Fred Meyer was receiving notice about the Steering Committee meetings.

Mike Wallace asked about the Hayes Street connection with Springbrook Road.

David Beam said that staff is working with PGE to see if an alignment through their property could be designed. This route would bring the Hayes Street crossing further away from the Springbrook Road/Highway 99W intersection.

Don Clements asked if Fernwood Road was major collector street because of the recommended spacing between those types of roads.

Larry Anderson stated that it also has to do with future traffic counts as well.

Larry Anderson asked if there was any trigger for a second access within Development Area H.

David Beam said no. He then suggested that the trigger could be the same as with Brutscher Street: a second access would be needed as traffic and/or safety concerns required it. The Committee agreed on this and asked staff to add this language.

David Beam stated the he learned today that a portion of the density policy language had not been changed in the corresponding NDC section. He stated that those changes would be made.

Bob Andrews asked if the word "faced" had been deleted in building orientation policy.

David Beam responded yes.

David Beam presented the revised Design Standard regarding types of building materials to be used.

Bob Andrews asked what "community" meant.

David Beam suggested that the phrase "Springbrook Oaks development" be substituted for "community". The Committee agreed with that change.

Mike Gougler mentioned that on page 29 of the draft plan, there is reference to painting of trim pieces. Mr. Gougler said that this should be regarding window trim only. The Committee agreed to this change.

David Beam stated the graphics related to circulation and the development areas (graphics III and VI) will be more definitive before the specific plan is done so that related policies will work (i.e. density shifting). Alignments of major roads and boundaries of

development area boundaries will more accurately defined as well as acreages of the development areas.

Bob Andrews asked staff how they would like the Committee to proceed.

David Beam stated he would like the Committee to accept the draft plan with the changes made today and with the conditions of acceptance set forth by the Committee at the last meeting associated with the future traffic study.

Don Clements responded that he felt acceptance at this time would be fine under those conditions, as long as the draft plan doesn't get so far ahead in the approval process as to negate the possibility of the Committee to revisit the Plan if need be.

Andrew Poole moved that the draft plan be accepted by the Committee with the day's changes and the mentioned contingencies. Sam Farmer seconded the motion.

Bob Andrews added one more change regarding controlling documents. He wanted the plan to say that if the specific plan conflicted with any section of the Newberg Development Code, then the specific plan would govern. The Committee agreed with that change.

Andrew Poole amended his motion to include that change.

The Steering Committee unanimously voted to accept the draft specific plan.

Mike Gougler thanked the staff. He stated that had worked city staffs from all over the Portland Metro area and that the Newberg Community Development was the best in his estimation. Mr. Gougler also thanked the committee members for their hard work and that their input made this specific plan truly great. He especially thanked Chairman Andrews for his efforts.

Chairman Andrews and Dean Werth also thanked the Committee and staff.

VIII. Public Comment

Thanks to all involved were offered by Larry Chamberlain, Dennis Werth, and Elmer Werth.

V. Adjournment - 5:45 p.m.

Bob Andrews, Committee Chair

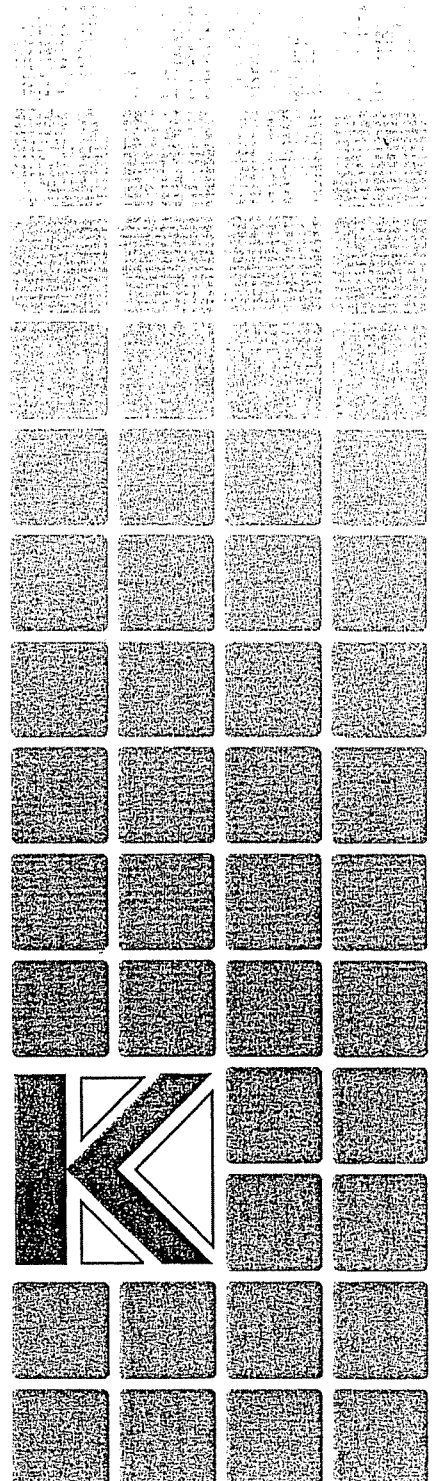
Date

Springbrook Oaks Mixed- Use Development

Newberg, Oregon

June 1999

KITTELSON & ASSOCIATES, INC.
Transportation Planning/Traffic Engineering



Transportation Impact Analysis

Springbrook Oaks Mixed-Use Development

Newberg, Oregon

Prepared for:
Springbrook Oaks
5241 Windsor Terrace
West Linn, Oregon 97008
656-0204

Prepared by:
Kittelson & Associates, Inc.
610 SW Alder, Suite 700
Portland, OR 97205
(503) 228-5230

Project: 3542

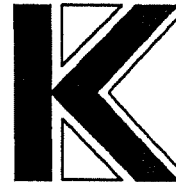


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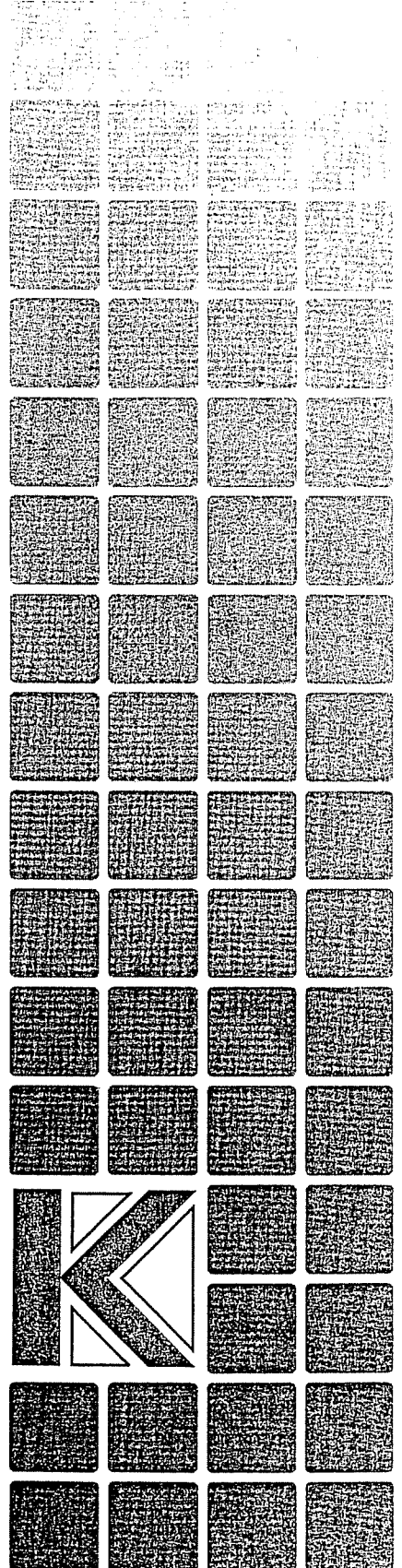
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Section 1

Executive Summary



Executive Summary

This report evaluates the transportation impacts associated with the proposed Springbrook Oaks Mixed-Use Development in Newberg, Oregon. Due to the nature and size of the development, the specific uses may vary as the project is implemented. In order to identify the worst-case impact, this study assumes a high density of development over the next thirteen years. In addition, the projected traffic conditions do not assume construction of the Newberg-Dundee By-Pass. Therefore, the required timing of the mitigations has been estimated and some of the mitigations may not be required if future traffic levels are not as high as anticipated in this report.

The results of the traffic impact analysis described in this report indicate that with the recommended improvements, the proposed development can be constructed while maintaining acceptable traffic operations on the surrounding transportation system. The study analyzed existing and future 2012 traffic conditions and resulted in the following conclusions:

CONCLUSIONS

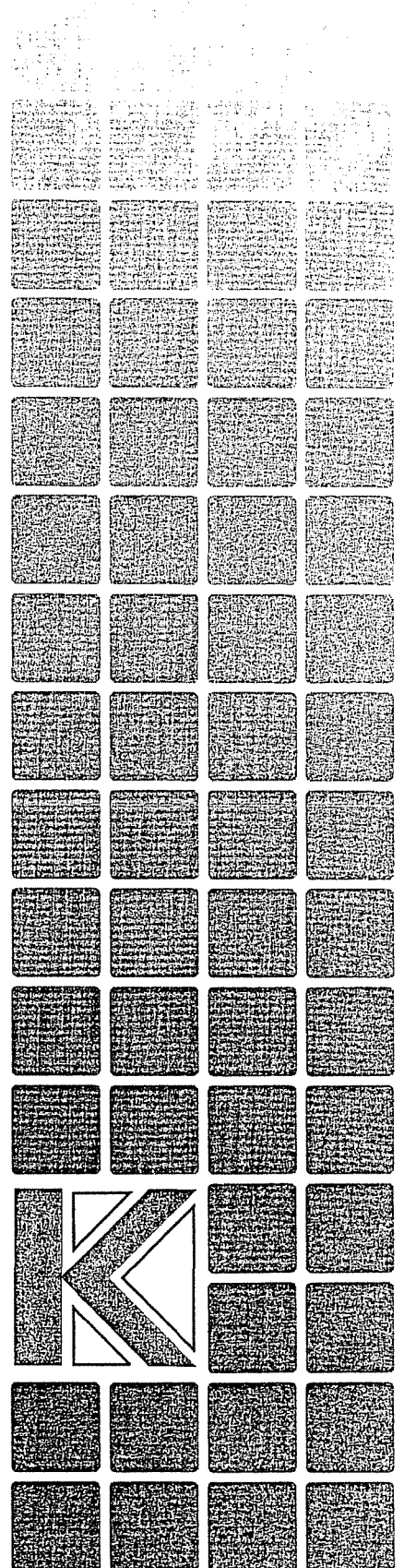
- The study intersections currently operate with acceptable levels of service under existing weekday a.m. and p.m. peak hour traffic conditions.
- Regardless of development of the site, 2012 background traffic conditions will require the construction of a separate northbound right-turn lane at the Springbrook Street/Highway 99W intersection to maintain acceptable traffic operations. The remaining intersections will continue to operate acceptably under 2012 background traffic conditions.
- Construction of dual northbound left-turn lanes at the Springbrook Street/Highway 99W intersection is recommended after development of approximately 40 percent of the site in order to maintain acceptable traffic operations. Construction of dual southbound left-turn lanes at this intersection is recommended after development of 60 percent of the site.
- Construction of a separate southbound left-turn lane is recommended at the future East-West Road/Springbrook Street intersection after development of approximately 10 percent of the site.
- The future East-West Road/Springbrook Street intersection will require a traffic signal after development of approximately 60-percent build-out of the site. Construction of more than one access on Springbrook Street may eliminate or postpone the need for this signal by distributing the traffic.
- If the majority of site traffic is directed through the future Brutscher Street/East-West Road intersection, then this intersection will require a traffic signal in the future. Alternatives to a traffic signal include construction of a roundabout or an internal grid network of streets to disperse traffic.
- The Corral Creek Road/Highway 99W, Brutscher Street/Highway 99W, Fernwood Road/Springbrook Street, and Brutscher Street/Fernwood Road intersections are expected to continue to operate acceptably with development of the site.
- A two-lane roadway will provide adequate capacity for the future East-West Road, but separate left-turn lanes should be provided at all major intersections.
- Intersecting the future East-West Road halfway between Highway 99W and Fernwood Road will provide the ideal spacing between major intersections. If this is not feasible, a

minimum of 365 feet of space is recommended between the future East-West Road and any other major intersections on Springbrook Street.

- The East-West Road should be constructed for future connection with Hancock Street and/or Hayes Street west of Springbrook Street to provide an alternative east-west route to Highway 99W. Although connecting the road with Hancock Street will extend the route further west and is expected to have slightly higher utilization, either roadway is constrained by Hess Creek to the west and will require motorists to use Highway 99W when traveling further west.
- The eastern alignment of the future East-West Road is not critical for utilization as long as connections to the parcels north and east of the site are provided.
- The potential golf course or 90 homes to be located on the east portion of the site are low trip generators and can be adequately served with primary access on Fernwood Road.
- Sidewalks and bicycle lanes internal to the site and between the site and the commercial properties to the north will provide for safe circulation of pedestrians and bicyclists and encourage non-automobile trips, potentially reducing automobile traffic.
- More than one access is recommended for emergency vehicles for all major areas of the site.

Section 2

Introduction



Introduction

PROJECT DESCRIPTION

The proposed development will be located south of Highway 99W and east of Springbrook Street in Newberg, Oregon. The site is approximately 288 acres and undeveloped. Springbrook Oaks will be a mix of residential, employment, and recreational uses as described below:

- Parcel 'A' : 70, 000 square foot commercial development
- Parcel 'B' : middle school
- Parcel 'C' : 200 unit apartment housing complex
- Parcel 'D' : 100 units of single family housing
- Parcel 'E' : 88 units of single family
- Parcel 'F' : hospital/medical facilities (10 acres) and office space (40 acres)
- Parcel 'G' : light industrial (light)
- Parcel 'H' : 90 units of single family housing

Development of the site will be phased with full build-out assumed to occur in 2012. Currently Brutscher Street terminates at the north edge of the site. Development of site will extend Brutscher Street south to connect with Fernwood Road. The proposed development will also include construction of an east-west collector from Springbrook Street to the northeast portion of the site. These two new roadways will serve as the primary access points for the development. The proposed site plan is shown in Figure 1.

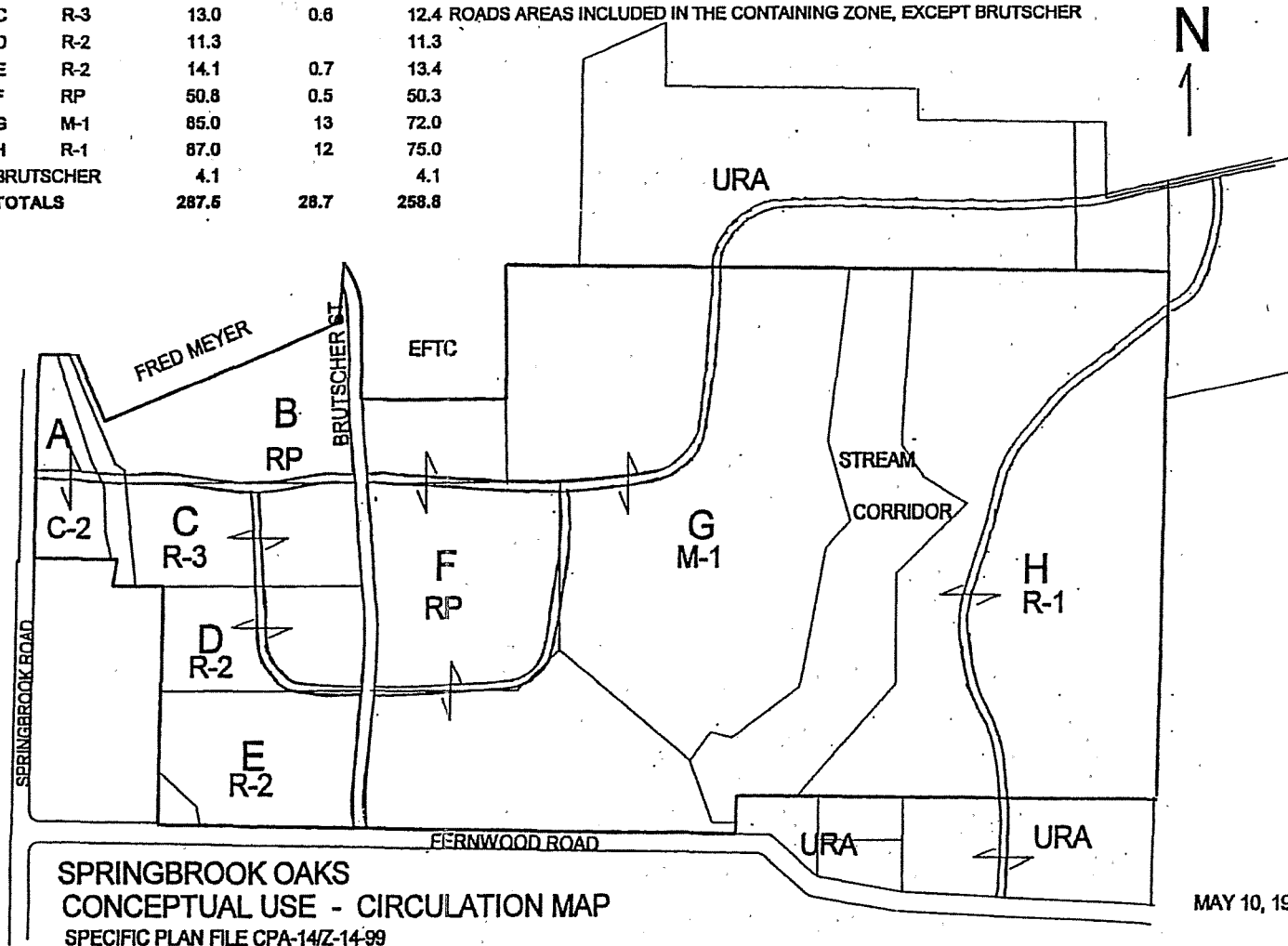
SCOPE OF THE REPORT

The scope of analysis for determining the impacts on the surrounding transportation system was developed with City of Newberg staff and the project steering committee. The study analyzed existing traffic conditions, 2012 background traffic conditions with development of current in-process developments and system-wide traffic growth, and 2012 total traffic conditions with full development of the site. Weekday a.m. and p.m. peak hour traffic operations were analyzed at the following intersections:

- Corral Creek Road/Highway 99W
- Brutscher Street/Highway 99W
- Springbrook Street/Highway 99W
- Future East-West Road/Springbrook Street
- Fernwood Road/Springbrook Street
- Brutscher Street/Fernwood Road
- Future East-West Road/Brutscher Street



AREA	ZONE	STREAM		NET	NOTES
		GROSS ACRES	CORRIDOR ACRES		
A	C-2	8.8	1.2	5.6	FOR ZONES WHICH ABUT A STREAM CORRIDOR, THE BOUNDARY IS THE CENTER OF THE STREAM CORRIDOR
B	RP	15.3	0.7	14.6	
C	R-3	13.0	0.6	12.4	ROADS AREAS INCLUDED IN THE CONTAINING ZONE, EXCEPT BRUTSCHER
D	R-2	11.3		11.3	
E	R-2	14.1	0.7	13.4	
F	RP	50.8	0.5	50.3	
G	M-1	85.0	13	72.0	
H	R-1	87.0	12	75.0	
BRUTSCHER		4.1		4.1	
TOTALS		287.6	28.7	258.8	



SPRINGBROOK OAKS
CONCEPTUAL USE - CIRCULATION MAP
SPECIFIC PLAN FILE CPA-14/Z-14-99

MAY 10, 1999

Site Plan

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT
NEWBERG, OREGON

June 1999

#3542

FIGURE

1



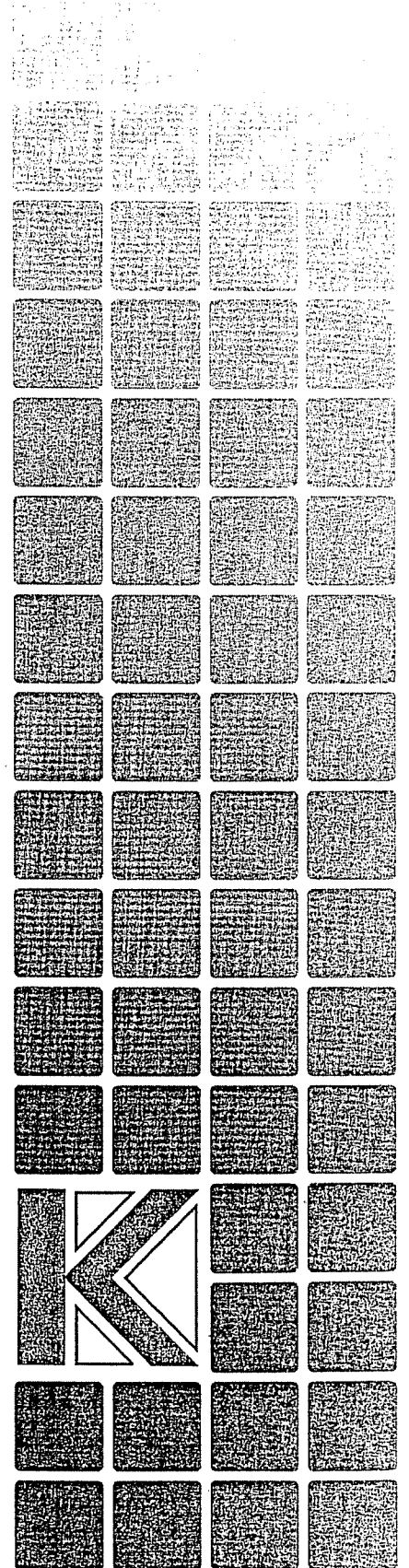
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Section 3

Existing Conditions



Existing Conditions

TRANSPORTATION FACILITIES

The physical characteristics of the existing transportation facilities in the site vicinity are summarized in Table 1. Figure 2 shows the existing transportation system, traffic controls, and lane configurations.

Table 1
Summary of Transportation Facilities

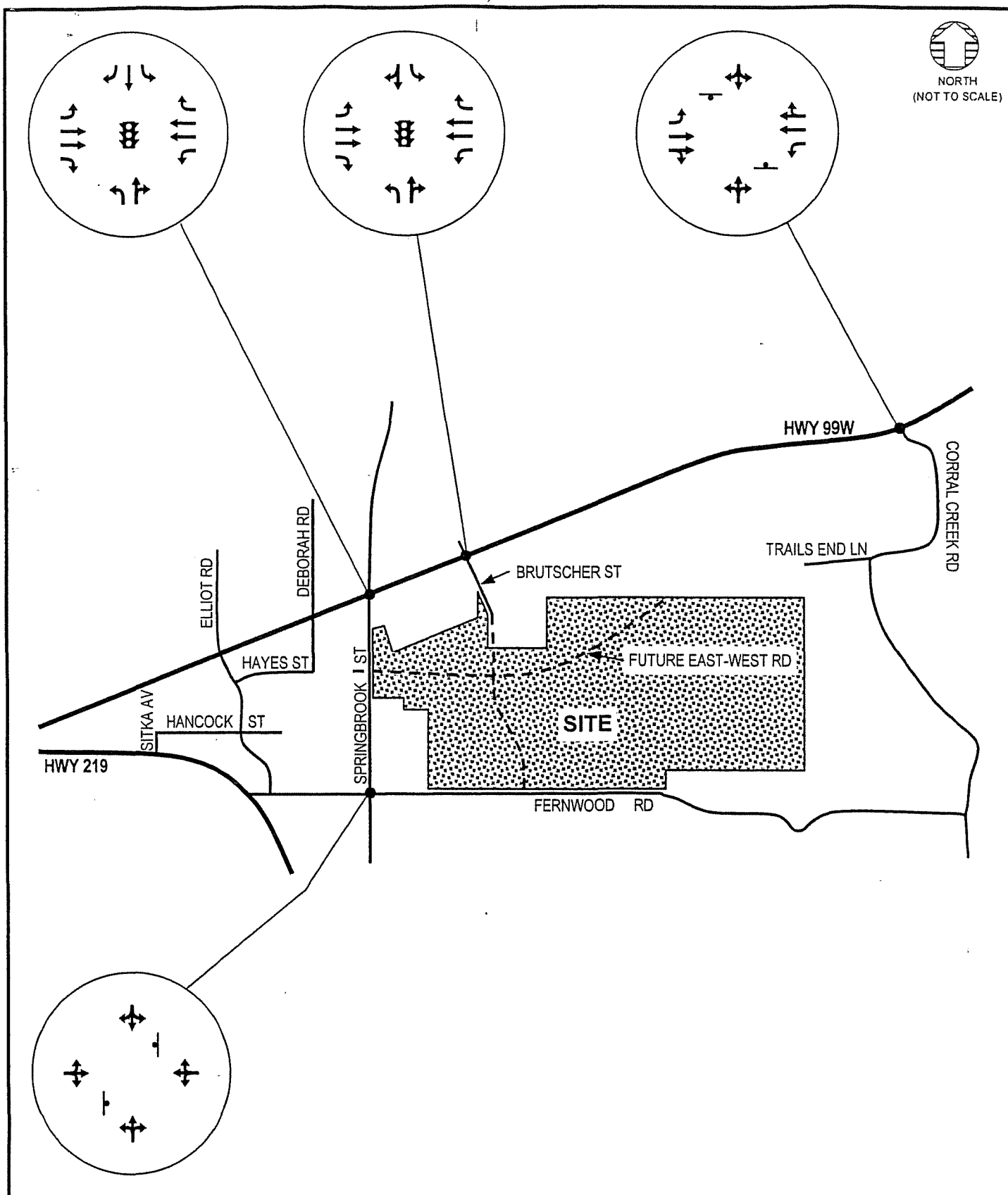
Street Name	Posted Speed (mph)	Sidewalks	Bike Lanes	On-Street Parking	Lanes
Highway 99W	40	No	No	No	5
Springbrook Street	25-40	No	No	No	2
Fernwood Road	Not Posted	No	No	No	2
Brutscher Street	Not Posted	No	No	No	3
Corral Creek Road	Not Posted	No	No	No	2
Trails End Lane	Not Posted	No	No	No	1

TRAFFIC VOLUMES AND PEAK HOUR OPERATIONS



In order to analyze worst-case traffic conditions, it is desired to analyze the time period when the combination of site-generated trips and traffic on the surrounding roadways is greatest. Because Highway 99W serves as a primary recreational route between Portland and the Oregon Coast it has high Saturday volumes. To determine the peak time periods, 24-hour tube counts were obtained from the Oregon Department of Transportation (ODOT) on Highway 99W. The time periods with the highest traffic volumes were added to site-generated trips expected to occur during the same time period to get the combined flow. Based on this analysis, the time periods with the greatest combined flow are the weekday a.m. peak hour and the weekday p.m. peak hour. Therefore, the weekday a.m. and p.m. peak hours are the critical time periods and were chosen for the analysis.

Weekday a.m. and p.m. peak hour traffic volumes were obtained from manual turning movement counts at the study intersection within the site vicinity. These observations revealed that the weekday morning peak hour typically occurs between 7:00-8:00 a.m. and the evening peak hour typically occurs between 4:45-5:45 p.m. The existing weekday a.m. and p.m. peak hour traffic volumes are shown in Figures 3 and 4. *Appendix A includes the traffic count data.*

All level-of-service (LOS) analyses described in this report were conducted in accordance with the procedures stated in the *1994 Highway Capacity Manual* (Transportation Research Board), with the exception of traffic operations at the Corral Creek Road/Highway 99W intersection. This is an unsignalized intersection with the Corral Creek Road approaches stop controlled. Because Highway 99W has a painted median in this area, motorists making left-turns from Corral Creek Road onto Highway 99W can make this maneuver in two movements by splitting the gaps in the eastbound and westbound traffic streams. This is referred to as two-stage gap acceptance and is modeled in the *1997 Highway Capacity Manual* (Transportation Research Board). In order to accurately reflect the traffic operations at the Corral Creek Road/Highway 99W intersection, the methodology presented in the 1997 Highway Capacity Manual was used for the analysis of this intersection. A description of LOS and the criteria by which they are determined is available upon request.



LEGEND

-  Traffic Signal
-  Stop Sign

Existing Lane Configurations & Traffic Control Devices

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT
NEWBERG, OREGON
June 1999

FIGURE

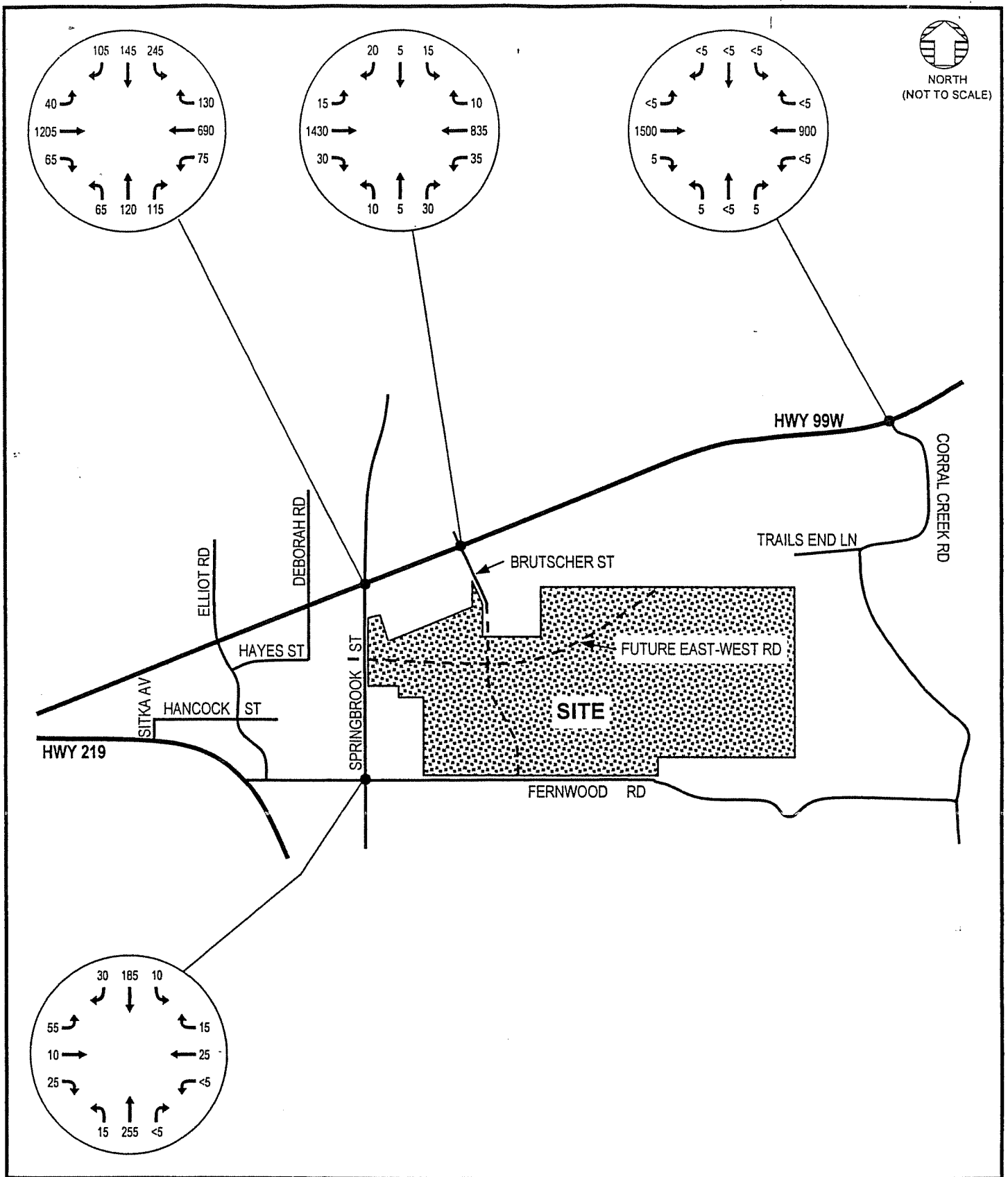
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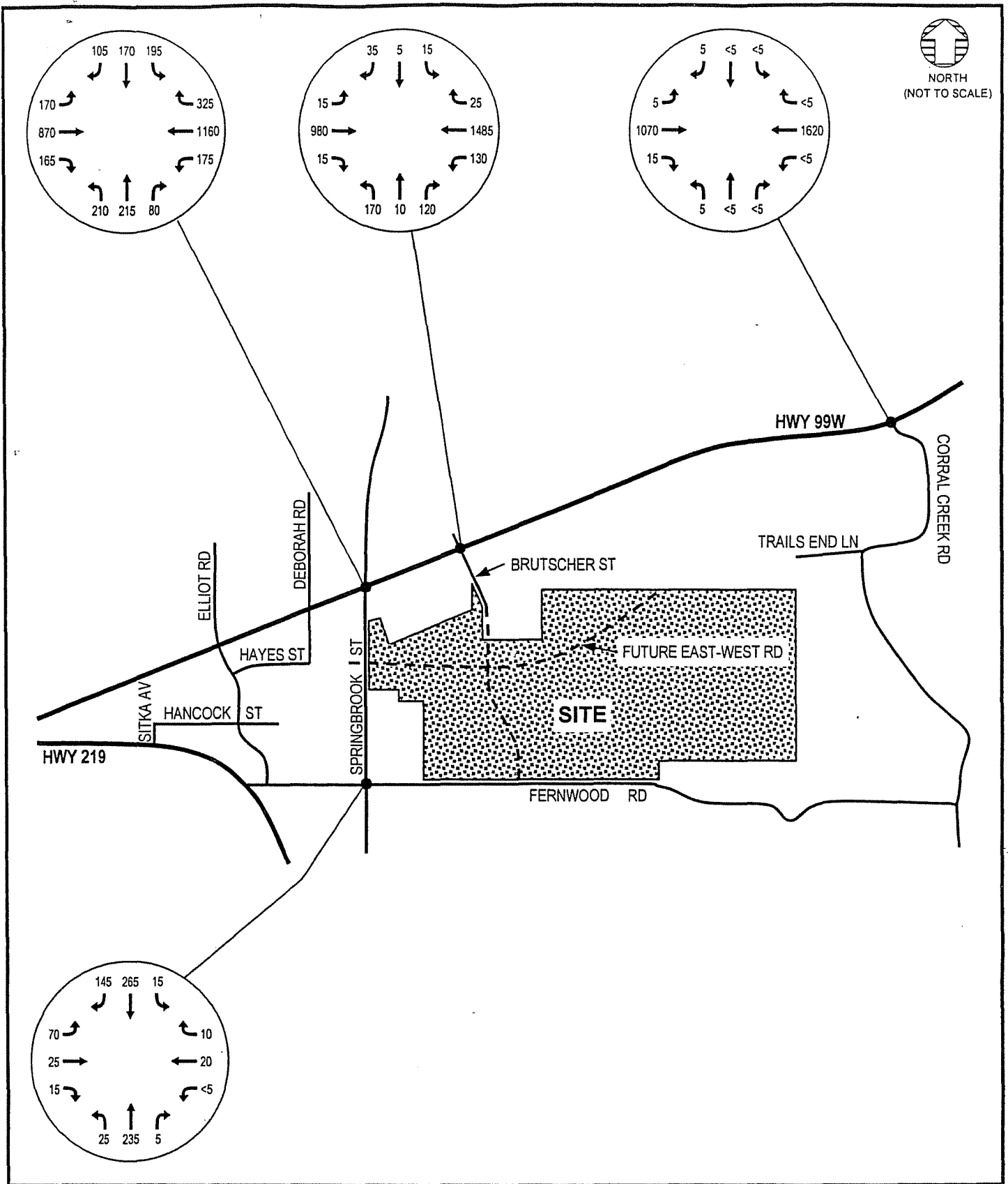
Existing Traffic Volumes Weekday AM Peak Hour

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT	FIGURE
NEWBERG, OREGON	3
June 1999	K

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Existing Traffic Volumes Weekday PM Peak Hour

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT
NEWBERG, OREGON
June 1999

FIGURE
4



As traffic volumes increase and intersections approach capacity, the flow of traffic becomes more constant with less variation in traffic flow, or peaking. To ensure that these analyses were based on a reasonable worst-case scenario, the peak 15-minute flow rate during the peak hours was used in the evaluation of intersection level-of-service analyses until an intersection reached capacity in 2012. At the point that an intersection reached capacity and required mitigation, a peak hour factor of 0.97 was used to represent a relatively constant traffic flow. For this reason, the analyses reflect conditions that are only likely to occur 15 minutes out of each average a.m. and p.m. peak hour with the future peaking characteristic becoming minimal.

The levels of service for the existing study area intersections are shown in Table 2 for the weekday a.m. and p.m. peak hours. Level-of-service "D" or better represents an acceptable operational level for signalized intersections and LOS "E" or better is acceptable for unsignalized intersections.

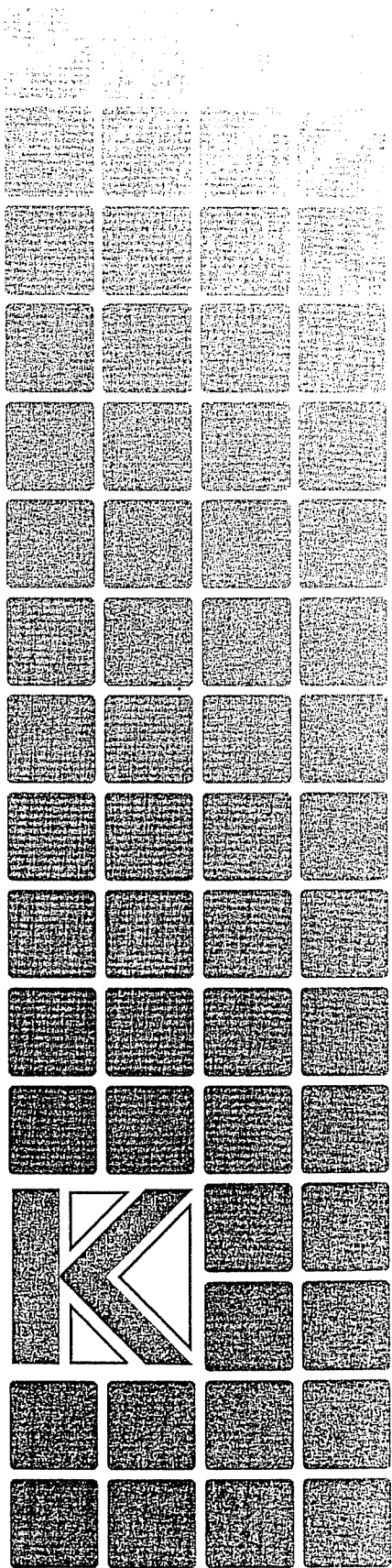
Table 2
Existing Levels of Service

Intersection	Unsignalized				Signalized/All-Way Stop		
	Critical Approach	Critical V/C	Movement Delay	LOS	V/C	Average Delay	LOS
Weekday A.M. Peak Hour							
Corral Creek/Highway 99W	NB	0.09	35.5	E			
Brutscher/Highway 99W					0.52	3.6	A
Springbrook/Highway 99W					0.78	22.8	C
Springbrook/Fernwood	EB	0.19	7.5	B			
Weekday P.M. Peak Hour							
Corral Creek/Highway 99W	NB	0.06	31.2	D			
Brutscher/Highway 99W					0.60	10.9	B
Springbrook/Highway 99W					0.86	29.2	D
Springbrook/Fernwood	EB	0.29	10.3	C			
Legend: V/C = Volume-to-Capacity Ratio Delay is in average seconds per vehicle NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, LT = Left, TH = Through, RT = Right							

As shown in Table 2, all of the study intersections currently operate with acceptable traffic operations.

Section 4

Traffic Impact Analysis



Traffic Impact Analysis

The impact of traffic generated by the proposed development was analyzed as follows:

- 2012 background peak hour traffic volumes were chosen as the basis for comparison. System-wide traffic volume increases and traffic generated by surrounding developments was applied to existing volumes to estimate near-term background traffic volumes.
- Predicted site-generate traffic was added to the background volumes to determine the total traffic operation levels at the study intersections with full build-out of the site.
- Left-turn lanes warrants were conducted at the future East-West Road/Springbrook Street and Brutscher Street/Fernwood Road intersections to identify the need for separate left-turn lanes.
- Characteristics associated with the future East-West Road alignment were analyzed to ensure maximum utilization and operations.
- A review of pedestrian and bicycle facilities was conducted for safe and efficient circulation of pedestrians and bicyclists.
- The need for emergency vehicle access to all major areas of the site was reviewed.

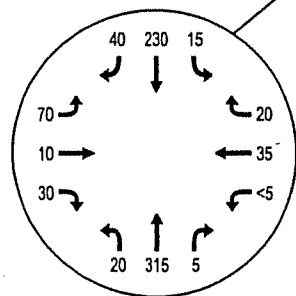
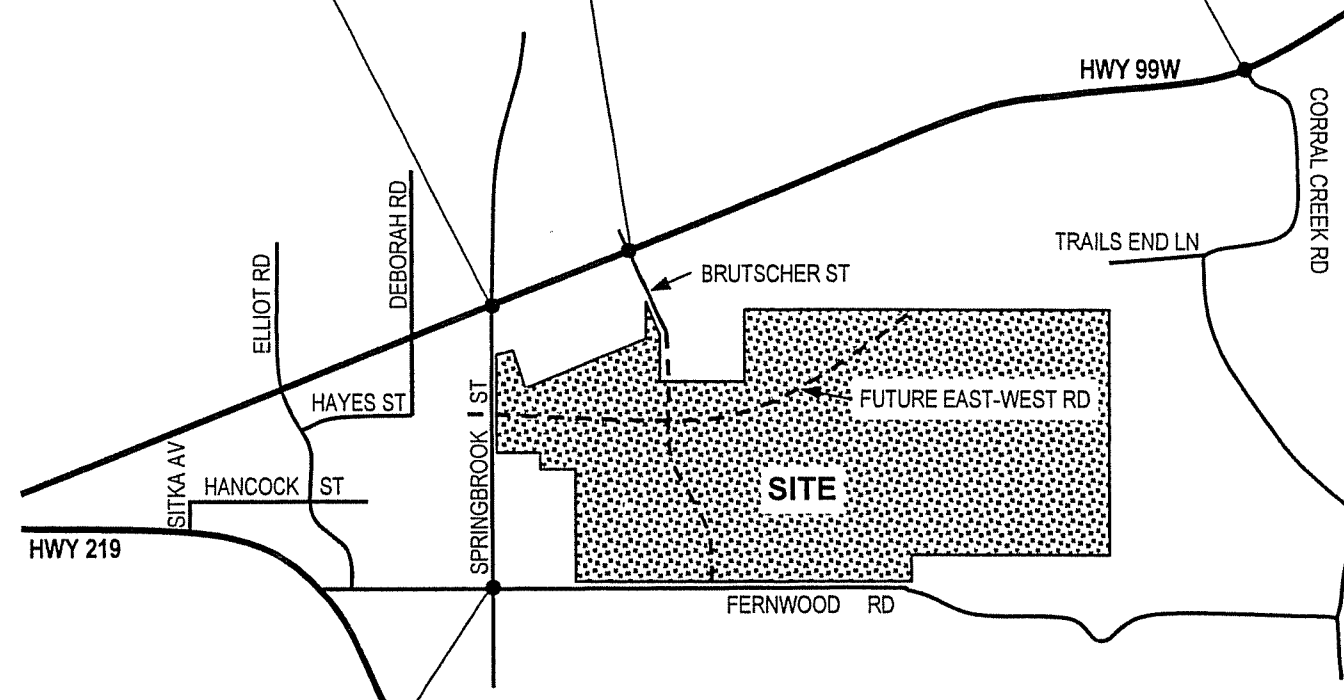
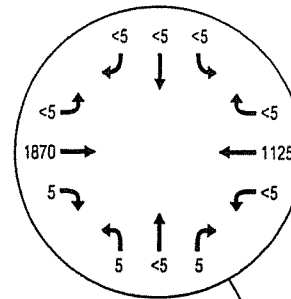
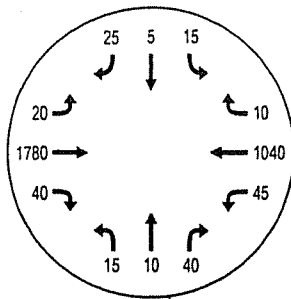
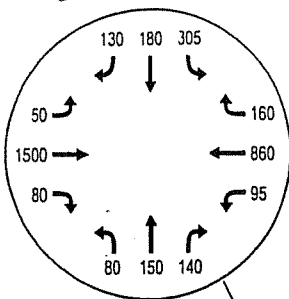
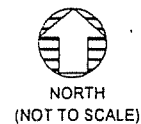
BACKGROUND OPERATIONS

Background Traffic Volumes

Background traffic conditions were used as the basis for comparison when determining the impact of the proposed development on the surrounding transportation system. A 1.7-percent annual growth rate, to account for system-wide traffic growth, and traffic resulting from future development of land near the site was applied to the existing traffic volumes to determine a realistic estimate of background traffic conditions. The 1.7-percent annual growth rate was based on the City of Newberg's transportation system model and reflects future increases in traffic volumes. The Valley Bank Building has been identified as the only in-process development in the area that is planned but not currently in operation. The Valley Bank Building is a 26,500 square-foot bank with office and retail components, and is located north of the site on the west side of Brutscher Street. The resulting background traffic volumes are shown in Figures 5 and 6.

Background Level-of-Service Analysis

Table 3 shows the background levels of service at the study area intersections.



2012 Background Traffic Volumes Weekday AM Peak Hour

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT
NEWBERG, OREGON
June 1999

FIGURE
5

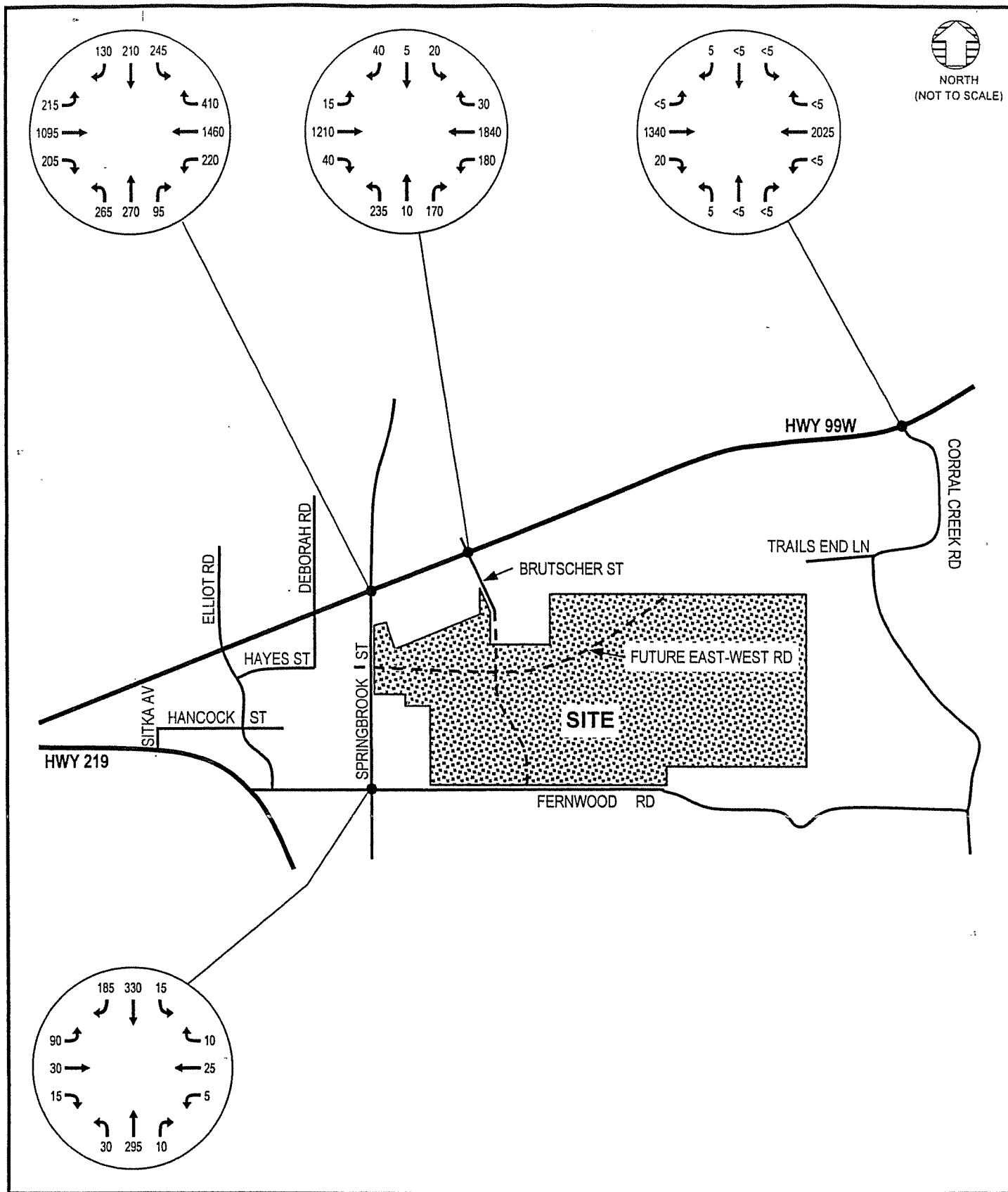
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2012 Background Traffic Volumes Weekday PM Peak Hour

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT
NEWBERG, OREGON
June 1999

FIGURE
6

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Table 3
2012 Background Levels of Service

Intersection	Unsignalized				Signalized/All-Way Stop		
	Critical Approach	Critical V/C	Movement Delay	LOS	V/C	Average Delay	LOS
Weekday A.M. Peak Hour							
Corral Creek/Highway 99W	NB	0.25	>45.0	F			
Brutscher/Highway 99W					0.65	4.5	A
Springbrook/Highway 99W w/ NB Right-turn Lane					0.98 0.87	34.2 24.2	D C
Springbrook/Fernwood	EB	0.28	10.1	C			
Weekday P.M. Peak Hour							
Corral Creek/Highway 99W	NB	0.11	>45.0	E			
Brutscher/Highway 99W					0.76	14.0	B
Springbrook/Highway 99W w/ NB Right-turn Lane					0.99 0.93	40.5 33.0	E D
Springbrook/Fernwood	EB	0.47	15.7	C			
Legend: V/C = Volume-to-Capacity Ratio Delay is in average seconds per vehicle NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, LT = Left, TH = Through, RT = Right							

All of the study intersections will continue to operate with acceptable levels of service under 2012 background traffic conditions with the exception of the Springbrook/Highway 99W and Corral Creek Road/Highway 99W intersections. The Springbrook Street/Highway 99W intersection will require construction of a separate northbound right-turn lane to continue to operate acceptably. Although northbound and southbound left-turning motorists may experience delays at the Corral Creek Road/Highway 99W intersection during peak time periods, the number of motorists making these movements are small (less than 10 vehicles per hour). In addition this movement operates within capacity and the remaining movements at the intersection experience less delay.

TOTAL TRAFFIC OPERATIONS

Trip Generation

Estimates of weekday a.m. and p.m. peak hour vehicle trip ends for the proposed development were derived from empirical observations at other similar developments. These observations are summarized in a standard reference manual, *Trip Generation*, 6th Edition (Institute of Transportation Engineers (ITE), 1997). The development scenario analyzed assumed high densities to estimate the worst-case impact of the site. The actual development of the site may include land uses that generate fewer trips.

Motorists traveling between different land uses within the same development are referred to as internal trips. A development of this size with a mix of different land uses is expected to have a significant number of internal trips. The estimate of internal trips was based on the methodology presented in the *Trip Generation Handbook* (ITE, 1998). The Fred Meyer development to the north was not included in the internalization calculations and may capture an additional number of trips, resulting in even fewer trips on the surrounding transportation system.

Motorists travelling on the transportation system that stop by a particular development on their way to a different destination are called pass-by trips. Pass-by trips are not considered new trips to the

system, but represent trips that are already occurring for some other reason. Thirty percent of the shopping center trips are assumed to be pass-by trips. This estimate is also based on the *Trip Generation Handbook*.

The estimated trip generation for the high-density scenario during the weekday a.m. and p.m. peak hours is shown in Table 4.

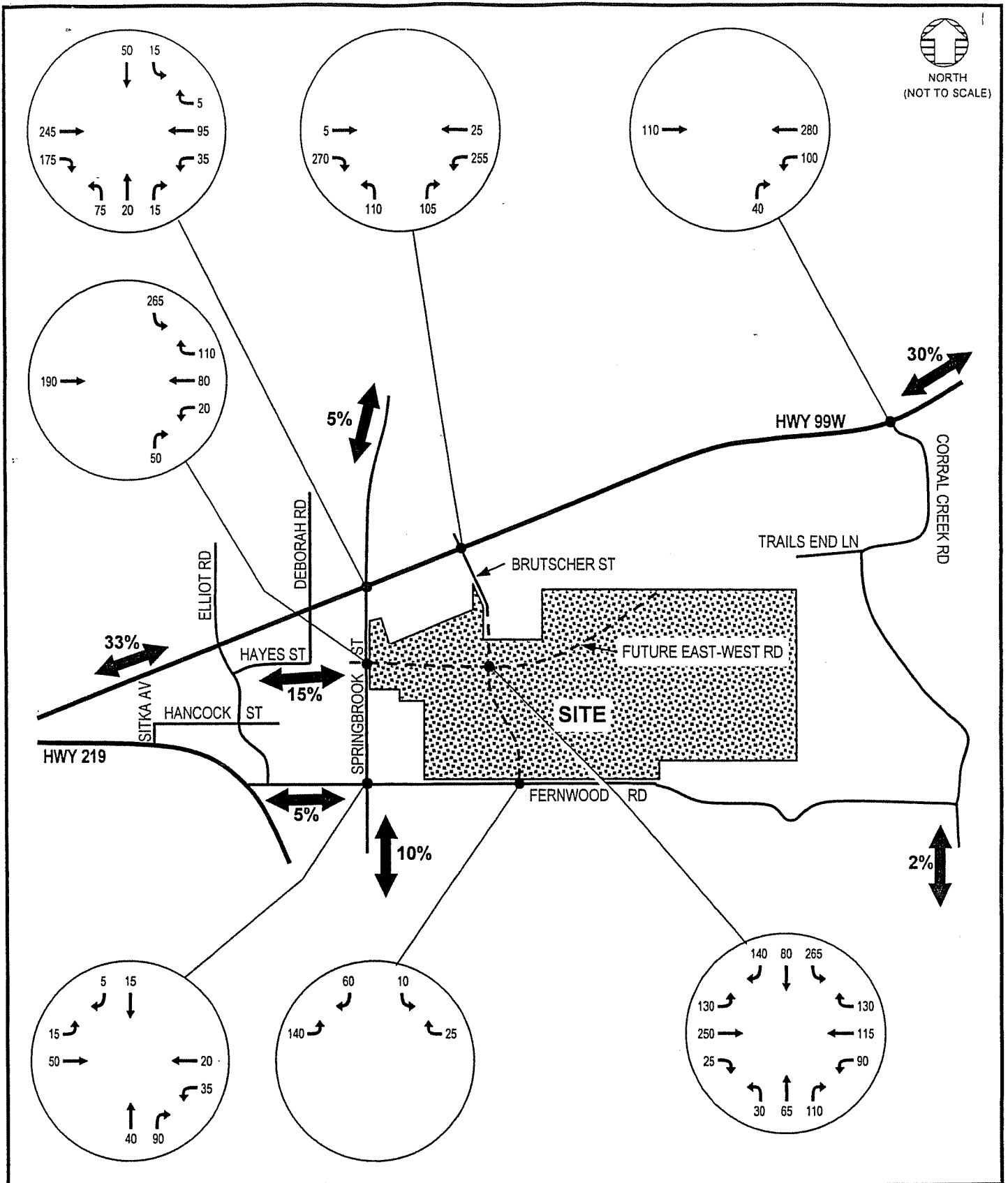
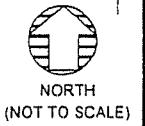
Table 4
Trip Generation

Land Use	ITE Code	Size	Daily Trips	A.M. Peak Hour			P.M. Peak Hour		
				In	Out	Total	In	Out	Total
Total Trips									
Parcel A - Shopping Center	820	70 ksf	5,420	80	50	130	240	255	495
Parcel B - School	521	300 stdnts	690	165	110	275	25	35	60
Parcel C - Apartments	220	200 units	1,335	15	90	105	85	40	125
Parcel D - Single Family	210	100 units	1,035	20	60	80	65	40	105
Parcel E - Single Family	210	.88 units	920	20	50	70	60	35	95
Parcel F - Hospital	610	100 beds	1,175	75	30	105	40	80	120
Parcel F - Medical Office Bldg	720	25 ksf	805	50	10	60	25	60	85
Parcel G - Light Industrial	110	941 ksf	6,925	900	125	1,025	140	1,045	1,185
Parcel H - Single Family	210	90 units	940	20	50	70	65	35	100
Total Trips			19,245	1,345	575	1,920	745	1,625	2,370
Internal Trips									
Parcel A - Shopping Center			830	10	10	20	30	40	70
Parcel B - School			70	15	10	25	5	5	10
Parcels C, D, E & H - Residential			655	10	5	15	40	20	60
Parcel F - Medical			250	5	5	10	5	20	25
Parcel G - Industrial			350	5	5	10	15	15	30
Total Internal Trips			2,155	45	35	80	95	100	195
Pass-by Trips									
Parcel A- Shopping Center (30%)			1,375	20	10	30	65	65	130
Total Pass-by Trips			1,375	20	10	30	65	65	130
Total Net New Trips			15,715	1,280	530	1,810	585	1,460	2,045

As shown in Table 4, on an average weekday the proposed development is expected to generate approximately 19,245 new trips daily with 1,920 of those occurring in the weekday a.m. peak hour and 2,370 occurring in the p.m. peak hour. Accounting for internal and pass-by trips results in 15,715 net new daily trips, 1,820 net new weekday a.m. peak hour trips, and 2,045 net new p.m. peak hour trips.

Trip Distribution

The distribution pattern of site-generated trips was determined based on a review of the existing turning movements at the study intersections, the surrounding land uses, and major transportation facilities in the area. The trip distribution pattern and site-generated trips during the weekday a.m. and p.m. peak hours is shown in Figures 7 and 8.



Trip Distribution Pattern & Total Site-Generated Trips Weekday AM Peak Hour

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT
NEWBERG, OREGON
June 1999

FIGURE

7

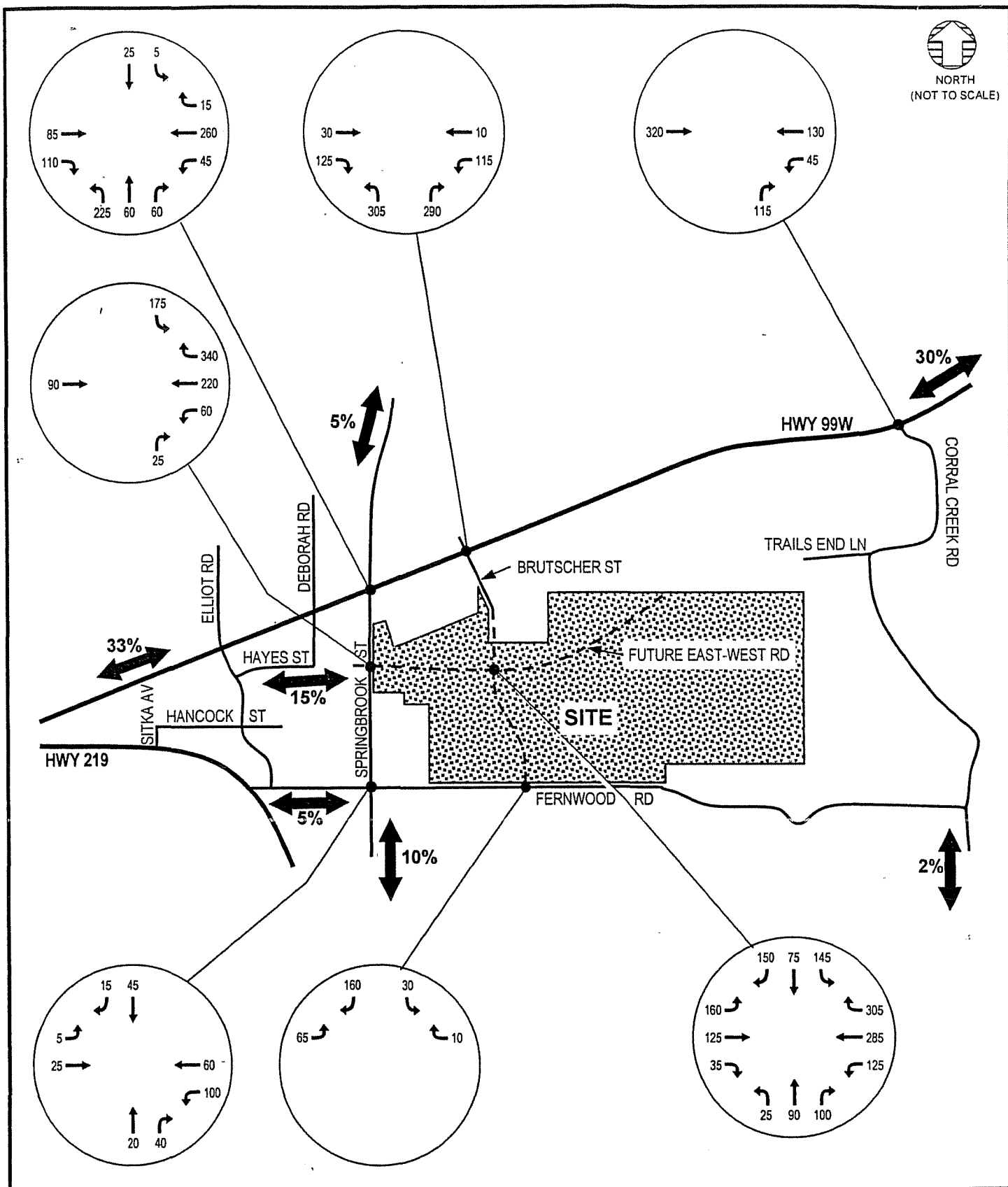


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Trip Distribution Pattern & Total Site-Generated Trips Weekday PM Peak Hour

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT
 NEWBERG, OREGON
 June 1999

FIGURE

8



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Total Traffic Level-of-Service Analysis

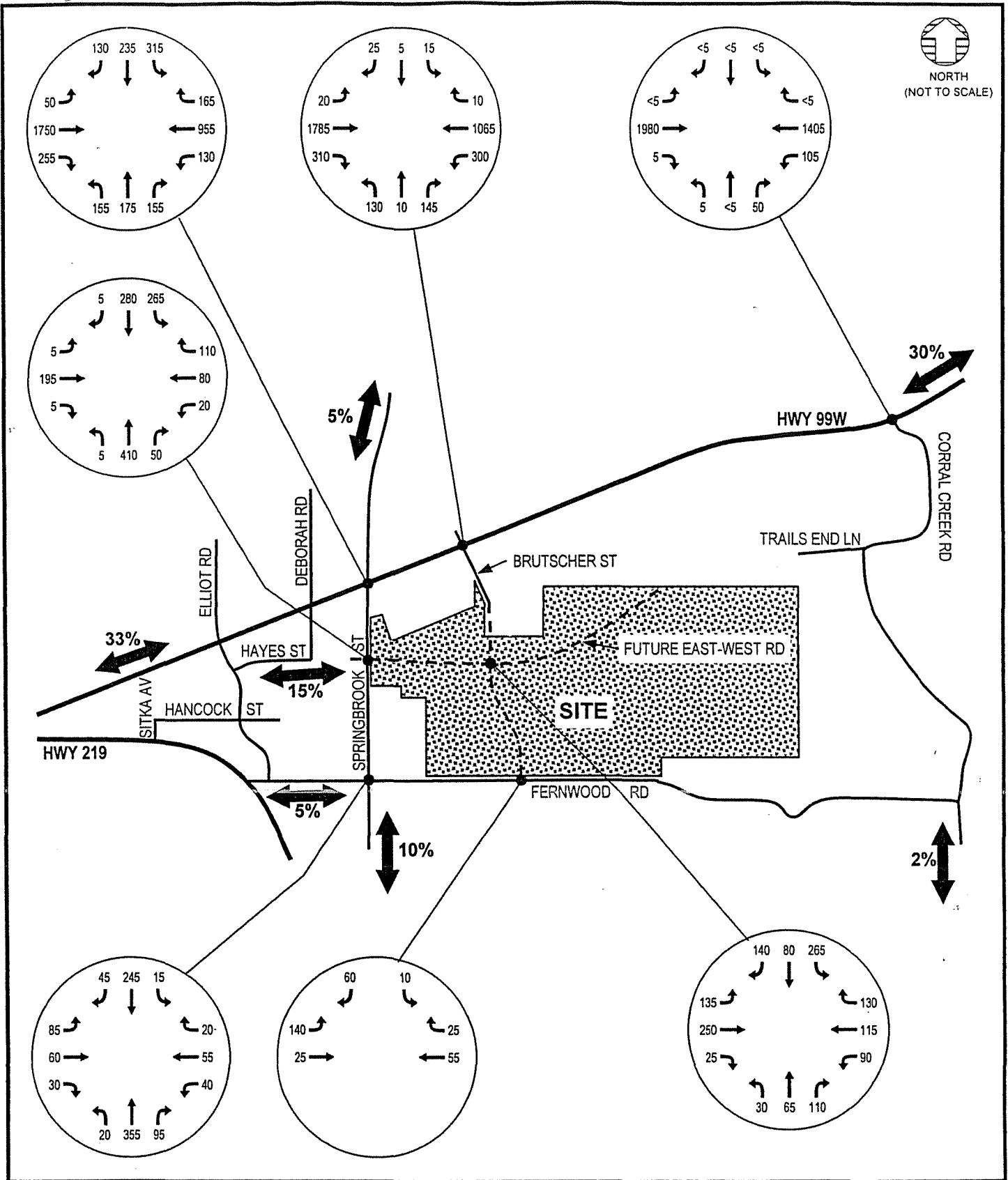
The site-generated trips shown in Figures 7 and 8 were added to the background traffic volumes shown in figures 5 and 6 to develop the 2012 total traffic volumes shown in Figures 9 and 10. The total traffic levels of service at the study intersections with full development of the site are shown in Table 5.

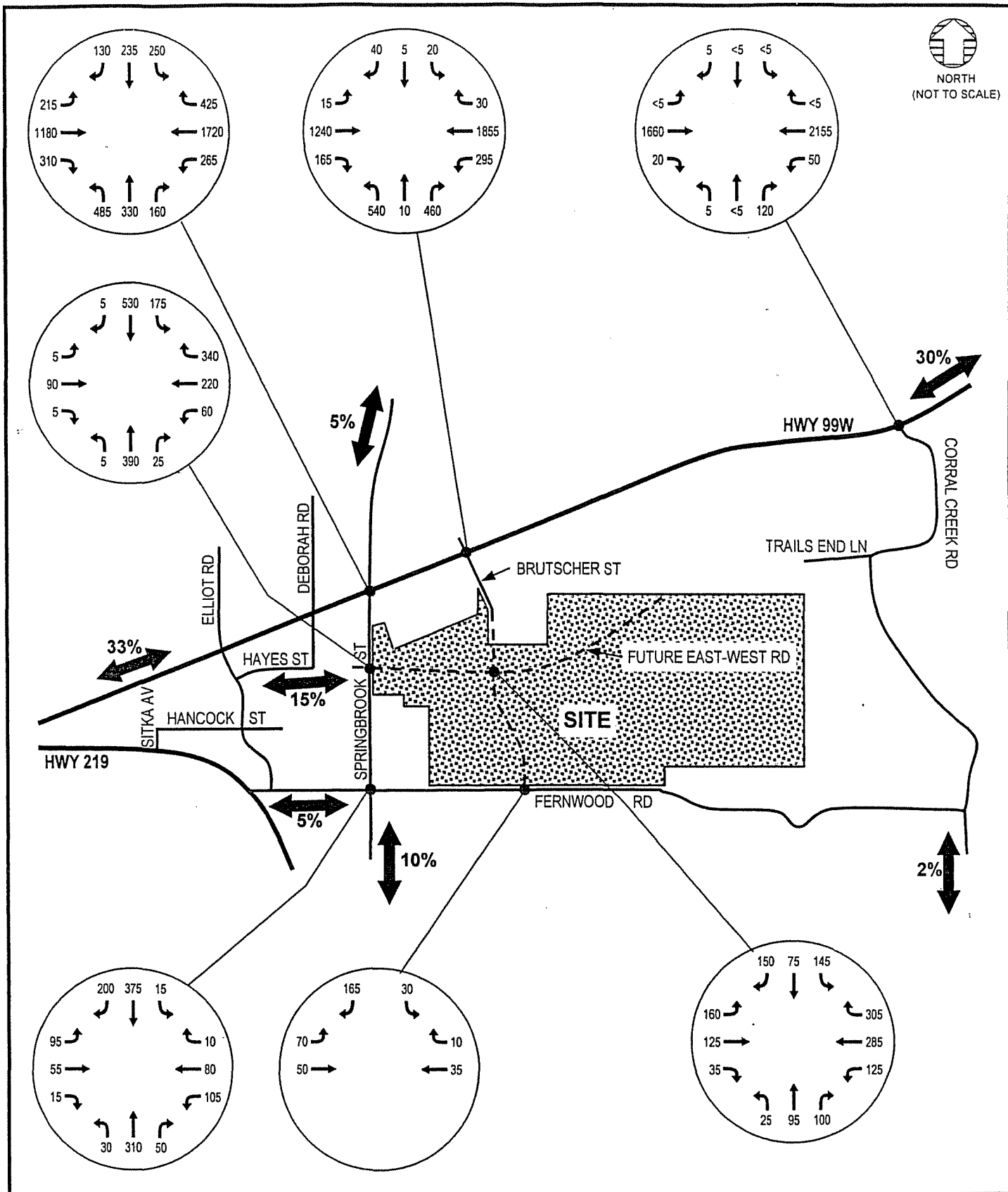
Table 5
2012 Total Traffic Levels of Service

Intersection	Unsignalized				Signalized/All-Way Stop		
	Critical Approach	Critical V/C	Movement Delay	LOS	V/C	Average Delay	LOS
Weekday A.M. Peak Hour							
Corral Creek/Highway 99W	NB	0.49	>45.0	F			
Brutscher/Highway 99W					0.90	17.5	C
Springbrook/Highway 99W w/ NB Right-turn Lane w/ Dual NB & SB Left-turn Lanes					1.06	49.2	E
					0.95	29.6	D
					0.85	22.7	C
Springbrook/East-West Road	EB	>1.00	>45.0	F	0.60	6.8	B
Springbrook/Fernwood	EB	0.57	14.3	C			
Brutscher/Fernwood	SB	0.07	3.4	A			
Brutscher/East-West Road					0.97	31.2	E
Weekday P.M. Peak Hour							
Corral Creek/Highway 99W	SB	0.11	>45.0	F			
Brutscher/Highway 99W					0.99	36.6	D
Springbrook/Highway 99W w/ NB Right-turn Lane w/ Dual NB & SB Left-turn Lanes					1.16	>60.0	F
					1.14	>60.0	F
					0.99	39.0	D
Springbrook/East-West Road	WB	>1.00	>45.0	F	0.80	12.4	B
Springbrook/Fernwood	EB	0.79	29.8	D			
Brutscher/Fernwood	SB	0.18	3.4	A			
Brutscher/East-West Road					>1.00	>45.0	F
Legend: V/C = Volume-to-Capacity Ratio Delay is in average seconds per vehicle NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, LT = Left, TH = Through, RT = Right							

As shown in Table 5, the Springbrook Street/Highway 99W intersection will require dual northbound and southbound left-turn lanes, in addition to the separate northbound right-turn lane required under background conditions, to maintain acceptable operations with full build-out of the site. Approximately 30 percent of the site can be constructed before the dual northbound left-turn lanes are required. The dual southbound left-turn lanes are not required until development of approximately 60 percent of the site.

The future East-West Roadway/Springbrook Street intersection will require a traffic signal after 60-percent build-out of the site to maintain acceptable traffic operations. The construction of a separate westbound right-turn lane is not required if the intersection is signalized, but could serve to postpone the need for the traffic signal with development of another 10 percent of the site. In addition, more than one site access on Springbrook Street may serve to postpone or eliminate the need for a traffic signal.





2012 Total Traffic Volumes Weekday PM Peak Hour

SPRINGBROOK OAKS MIXED-USE DEVELOPMENT
NEWBERG, OREGON

June 1999

FIGURE

10

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The intersection of the Brutscher Street extension and future East-West Road is modeled as one intersection in the center of the site. As shown in Table 5, this intersection will exceed capacity with full development of the site. If the majority of internal site traffic must circulate through the site on these two roadways, then construction of a traffic signal may be required in the future. Alternatives to constructing a traffic signal may include construction of a grid network street system and/or a roundabout. Providing a grid network of internal roadways will provide motorists alternative routes. This will reduce the concentration of trips at any one location reducing the need for a traffic signal. Also, roundabouts can provide greater capacity than stop-controlled intersections, potentially eliminating the need for a traffic signal. Development of the site with the Brutscher Street/East-West Road intersection in mind is recommended so that these roadways and this intersection match the desired character of the development.

Motorists making left-turn movements at the Corral Creek Road/Highway 99W intersection will continue to experience delays, but the number of motorists desiring to make left-turn movements is small, the approach remains within capacity, and the remaining movements at the intersection experience less delay. The remaining study intersections are expected to continue to operate acceptably.

The proposed development assumes high trip generation and no significant changes to the surrounding transportation system other than the Brutscher Street extension and future East-West Road. Because construction will occur over many years, significant changes to the surrounding transportation may occur in the future. Therefore, it is not recommended that the improvements in this report be constructed immediately, but that the site-generated trips and surrounding transportation system be monitored to determine when the improvements should be constructed, if necessary.

LEFT-TURN LANE REQUIREMENTS

Construction of separate left-turn lanes are often recommended to separate left-turning motorists from the through traffic stream to reduce the potential for rear-end collisions. Left-turn lane warrants were conducted at both the future East-West Road/Springbrook Street and Fernwood Road/Brutscher Street intersections.

After construction of ten percent of the site, a separate southbound left-turn lane is recommended at the East-West Road/Springbrook Street intersection. Development of the site will not create the need for a separate northbound left-turn lane, but other future developments may create the need at some point in the future. No separate left-turn lanes are recommended on Fernwood Road at Brutscher Street.

FUTURE EAST-WEST ROAD ALIGNMENT

The alignment of the East-West Road is important to ensure that the future roadway will integrate with the surrounding transportation system to minimize vehicular conflicts and maximize traffic operations. The size of the future roadway, location of the roadway's intersection at Springbrook Street, and eastern alignment were studied as part of this report.

Roadway Size

Adequate capacity can be provided by a two-lane roadway with separate left-turn lanes at the major intersections. Such design elements as street trees, planted medians, planter strips, and bike lanes should be considered so that the character of the roadway matches the surrounding development.

Intersection with Springbrook Street

Three main criteria are important when determining where the future East-West Road should intersect Springbrook Street. First, the intersection needs to be spaced an adequate distance from adjacent intersections to provide for efficient operation of traffic between the intersections. Second, the future East-West Road is intended to serve as an alternative east-west route to minimize congestion on Highway 99W. Therefore, the intersection of the East-West Road should intersect Springbrook Street in a location where it can be extended further west to provide the longest east-west alternative roadway. Third, the East-West Road should be placed an equal distance between Highway 99W and Fernwood Road if traffic signals are anticipated along this corridor in the future.

Separate left-turn lanes are recommended at the major intersections along Springbrook Street. A minimum storage of 100 feet for each left-turn pocket and a 165-foot transition is recommended. This results in a minimum of 365 feet that should be provided between major intersections on Springbrook Street.

The future East-West Road needs to connect with roadways extending west of Springbrook Street to provide an alternative east-west route to minimize traffic on Highway 99W. If feasible, the East-West Road should align with Hayes Street west of Springbrook Street. This proposed extension of Hayes Street would run across the northern portion of the PGE development on the west side of Springbrook Street and would provide one consistent route as far as Elliot Road.

Aligning the future East-West Road with Hancock Street would provide an alternative route that would extend as far west as Sitka Avenue, but the land separating the site from Springbrook Street is not part of the development and is currently occupied by single family homes.

Potentially the best alternative would be two equally spaced, east-west routes. Two east-west routes would provide increased access and reduce the congestion on one roadway. In addition, a second east-west route may reduce the need for a future traffic signal on Springbrook Street as described earlier in the report. But, constructing two east-west roadways may have significant engineering and environmental impacts.

If one east-west road is to be constructed, locating this roadway an equal distance between Fernwood Road and Highway 99W is recommended. This provides the maximum distance between major intersections on Springbrook Street. In addition, equal spacing results in better progression if traffic signals are required along this corridor in the future.

Although it is recommended that future connection of east-west routes connect with either Hayes Street or Hancock Street, the utilization of either route as an alternative east-west roadway is limited by Hess Creek. Motorists that would travel on the future roadway will still need to travel on Highway 99W to cross Hess Creek when going downtown or further west.

The above parameters are intended as guidelines in conjunction with the environmental and engineering constraints of the roadway to help develop the best overall route/routes to serve the community.

Eastern Alignment

In order to provide access to land east of Spring Brook, a bridge crossing over the brook and associated wetland must be constructed. The route of the eastern extension of the future East-West Roadway is not critical to its utilization as long as future connections to the land north and east of the site are provided. The golf course or 90 homes planned on the east side of the site are low trip generators and can be provided adequate access via Fernwood Road. Therefore, it is recommended

that this roadway be constructed where the least impact to the stream corridor will occur and that provisions for future connections to adjacent parcels be planned.

ACCESS AND CIRCULATION

Adequate pedestrian and bicycle facilities are recommended for safe access and circulation. In addition, a good pedestrian and bicycle network will encourage non-automobile trips within the area, reducing the amount of automobile traffic in the vicinity. Therefore, the site should be developed with sidewalks, bicycle lanes, and/or multi-purpose paths to provide facilities for pedestrians and bicyclists.

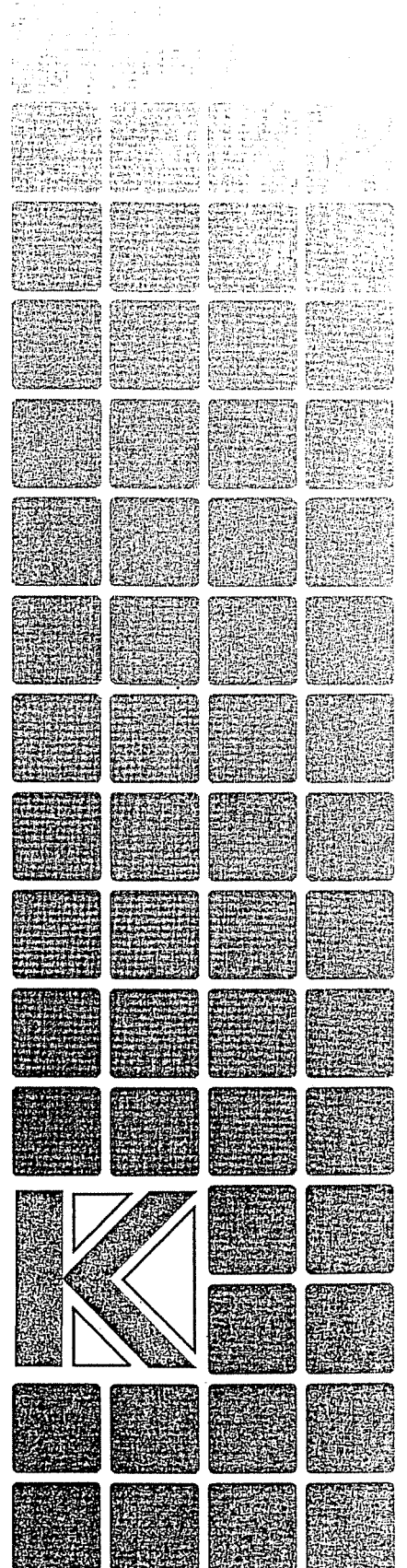
External to the site, the major pedestrian and bicycle generators are the commercial developments along Highway 99W. Therefore, bicycle and pedestrian facilities between the site and these developments are recommended.

EMERGENCY VEHICLE ACCESS

More than one access point to all major areas of development is recommended for emergency vehicles. If the primary access were to become blocked, emergency vehicles could access the development via a secondary route. Therefore, it is recommended that the site be developed with at least two points of access to all major uses. If the east parcel of the site is developed before the future East-West Road, access off of both Fernwood Road and Corral Creek Road can provide two connections.

Section 5

Conclusions



Conclusions

The results of the traffic impact analysis indicate that the site can be developed while maintaining acceptable operations on the surrounding transportation network. The site was assumed to be developed with high trip generating uses to result in a conservative analysis. Actual trip generation may be less as the site develops. In addition, the analysis assumes no other significant changes to the surrounding transportation system other than future East-West Road and extension of Brutscher Street. Therefore, the need for and timing of the recommended improvements may vary as the site develops and the surrounding transportation system changes. Specific conclusions and recommendations are listed below.

CONCLUSIONS

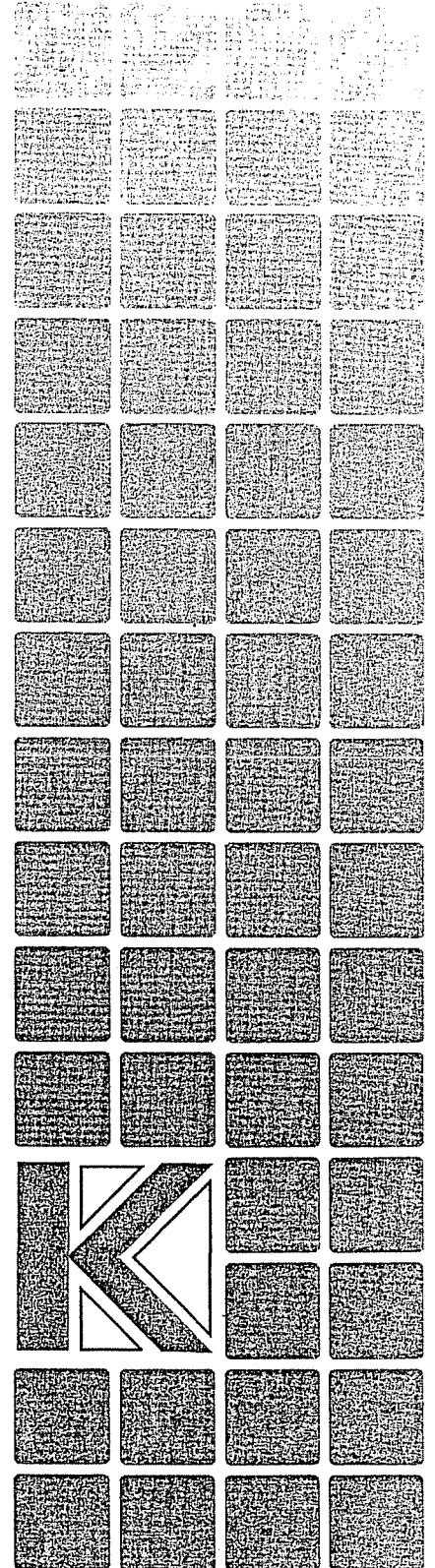
- The study intersections currently operate with acceptable levels of service under existing weekday a.m. and p.m. peak hour traffic conditions.
- Regardless of development of the site, 2012 background traffic conditions will require the construction of a separate northbound right-turn lane at the Springbrook Street/Highway 99W intersection to maintain acceptable traffic operations. The remaining intersections will continue to operate acceptably under 2012 background traffic conditions.
- Construction of dual northbound left-turn lanes at the Springbrook Street/Highway 99W intersection is recommended after development of approximately 40 percent of the site in order to maintain acceptable traffic operations. Construction of dual southbound left-turn lanes at this intersection is recommended after development of 60 percent of the site.
- Construction of a separate southbound left-turn lane is recommended at the future East-West Road/Springbrook Street intersection after development of approximately 10 percent of the site.
- The future East-West Road/Springbrook Street intersection will require a traffic signal after development of approximately 60-percent build-out of the site. Construction of more than one access on Springbrook Street may eliminate or postpone the need for this signal by distributing the traffic.
- If the majority of site traffic is directed through the future Brutscher Street/East-West Road intersection, then this intersection will require a traffic signal in the future. Alternatives to a traffic signal include construction of a roundabout or an internal grid network of streets to disperse traffic.
- The Corral Creek Road/Highway 99W, Brutscher Street/Highway 99W, Fernwood Road/Springbrook Street, and Brutscher Street/Fernwood Road intersections are expected to continue to operate acceptably with development of the site.
- A two-lane roadway will provide adequate capacity for the future East-West Road, but separate left-turn lanes should be provided at all major intersections.
- Intersecting the future East-West Road halfway between Highway 99W and Fernwood Road will provide the ideal spacing between major intersections. If this is not feasible, a minimum of 365 feet of space is recommended between the future East-West Road and any other major intersections on Springbrook Street.
- The East-West Road should be constructed for future connection with Hancock Street and/or Hayes Street west of Springbrook Street to provide an alternative east-west route to

Highway 99W. Although connecting the road with Hancock Street will extend the route further west and is expected to have slightly higher utilization, either roadway is constrained by Hess Creek to the west and will require motorists to use Highway 99W when traveling further west.

- The eastern alignment of the future East-West Road is not critical for utilization as long as connections to the parcels north and east of the site are provided.
- The potential golf course or 90 homes to be located on the east portion of the site are low trip generators and can be adequately served with primary access on Fernwood Road.
- Sidewalks and bicycle lanes internal to the site and between the site and the commercial properties to the north will provide for safe circulation of pedestrians and bicyclists and encourage non-automobile trips, potentially reducing automobile traffic.
- More than one access is recommended for emergency vehicles for all major areas of the site.

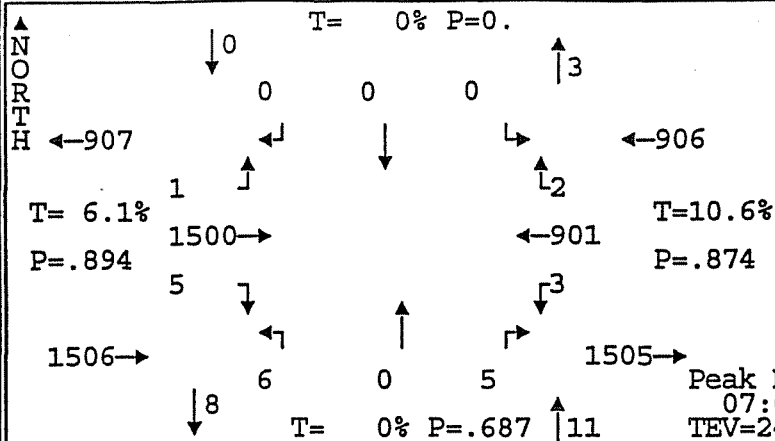
Appendix A

Traffic Count Data



INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CORRAL CREEK ROAD AT HIGHWAY 99W

19434



DATE OF COUNT: 04/27/99
 DAY OF WEEK: Tue
 TIME STARTED: 07:00
 TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

MMAH

Peak Hour
 07:00-08:00
 TEV=2423

Traffic Smithy
 (503) 641-6333

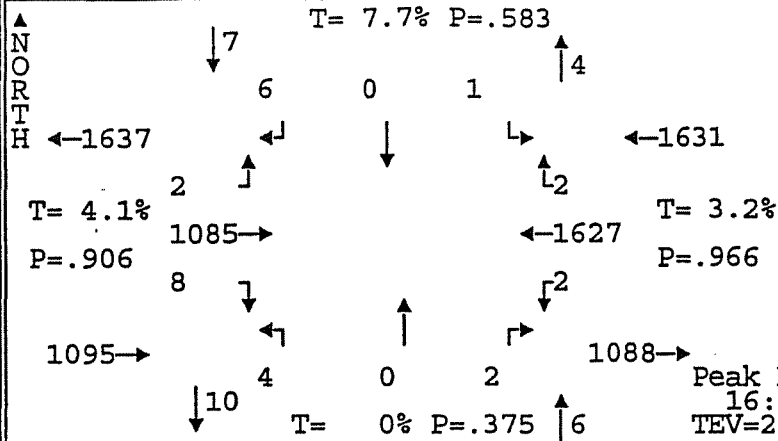
TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND				ALL
	↓	→	↑	←	↓	→	↑	←	↓	→	
07:00-07:05	0	148	0	0	0	0	0	0	2	0	199
07:05-07:10	0	121	0	0	0	0	0	0	1	0	180
07:10-07:15	0	149	0	0	0	0	0	0	1	0	224
07:15-07:20	0	146	0	0	0	0	1	0	0	1	222
07:20-07:25	0	126	0	0	0	0	1	0	0	0	193
07:25-07:30	0	119	0	0	0	0	1	0	0	0	216
07:30-07:35	2	146	0	0	0	0	0	0	0	0	233
07:35-07:40	1	124	0	0	0	0	0	0	1	1	204
07:40-07:45	2	116	0	0	0	0	0	0	0	0	200
07:45-07:50	0	137	0	0	0	0	1	0	0	0	211
07:50-07:55	0	78	1	0	0	0	1	0	0	0	169
07:55-08:00	0	90	0	0	0	0	1	0	0	1	172
08:00-08:05	0	110	0	0	0	0	2	0	0	0	179
08:05-08:10	0	52	1	0	0	0	0	0	0	0	120
08:10-08:15	0	110	0	0	0	0	0	0	2	0	157
08:15-08:20	0	140	0	0	0	0	0	0	0	0	206
08:20-08:25	0	100	0	0	0	0	0	0	0	0	148
08:25-08:30	0	95	1	0	0	0	0	0	1	0	153
08:30-08:35	1	84	2	0	0	0	1	0	1	0	154
08:35-08:40	0	112	0	0	0	0	0	0	1	0	171
08:40-08:45	1	86	0	1	0	0	0	0	0	0	158
08:45-08:50	0	96	0	0	0	0	0	0	0	0	161
08:50-08:55	0	93	0	0	0	0	0	0	1	0	150
08:55-09:00	0	54	0	0	0	0	1	0	0	0	117

Total Survey	7	2632	5	1	0	0	10	0	11	3	1625	3	4297
PHF	.25	.89	.25	.0	.0	.0	.5	.0	.31	.75	.87	.25	.927
% Trucks	0	6.1	0	100	0	0	0	0	0	33.3	10.5	33.3	7.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
07:00-08:00	5	1500	1	0	0	0	6	0	5	3	901	2	2423
07:15-08:15	5	1354	2	0	0	0	8	0	3	3	899	2	2276
07:30-08:30	5	1298	3	0	0	0	5	0	4	2	833	2	2152
07:45-08:45	2	1194	5	1	0	0	6	0	5	1	782	2	1998
08:00-09:00	2	1132	4	1	0	0	4	0	6	0	724	1	1874

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CORRAL CREEK ROAD AT HIGHWAY 99W

19403



DATE OF COUNT: 04/21/99
 DAY OF WEEK: Wed
 TIME STARTED: 16:00
 TIME ENDED: 18:00

#1 PM

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

JWDJ

Peak Hour
 16:40-17:40
 TEV=2739

Traffic Smithy
 (503) 641-6333

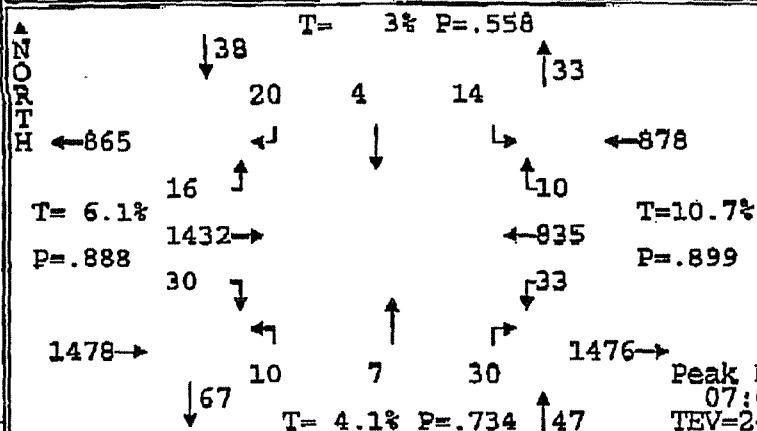
TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND				ALL
	↓	→	↑	←	↓	←	↑	→	↓	←	
16:00-16:05	0	80	0	0	0	1	0	0	0	1	212
16:05-16:10	1	96	0	0	0	0	0	0	0	0	218
16:10-16:15	0	133	0	2	0	0	0	0	0	0	241
16:15-16:20	1	94	0	1	0	0	1	0	0	0	237
16:20-16:25	0	106	0	0	0	1	1	0	0	0	239
16:25-16:30	1	81	0	0	0	1	0	0	0	1	195
16:30-16:35	1	66	0	0	0	0	0	0	0	0	182
16:35-16:40	2	91	0	0	0	0	0	0	0	2	203
16:40-16:45	0	86	0	1	0	0	0	0	0	0	228
16:45-16:50	1	103	0	0	0	0	0	0	0	0	237
16:50-16:55	0	70	0	1	0	0	0	0	0	0	209
16:55-17:00	0	77	0	2	0	0	0	0	0	0	216
17:00-17:05	1	92	0	0	0	0	0	0	0	0	220
17:05-17:10	1	105	0	1	0	0	0	0	0	0	256
17:10-17:15	1	87	0	0	0	1	1	0	0	0	236
17:15-17:20	1	107	0	0	0	0	0	0	0	0	229
17:20-17:25	1	79	0	0	0	0	0	1	1	1	210
17:25-17:30	0	98	0	0	0	0	1	0	0	0	242
17:30-17:35	0	98	0	0	0	0	0	1	0	0	231
17:35-17:40	2	83	2	1	0	0	2	0	1	1	225
17:40-17:45	7	69	1	0	0	0	2	0	0	0	213
17:45-17:50	1	99	0	0	0	0	0	0	0	0	220
17:50-17:55	1	64	2	0	0	1	0	0	0	0	182
17:55-18:00	2	62	0	0	0	0	0	0	0	0	189

Total Survey	25	2126	5	9	0	4	9	0	2	6	3082	2	5270
PHF	.67	.91	.25	.5	0	.25	.33	0	.25	.5	.96	.25	.949
% Trucks	0	4.2	0	11.1	0	0	0	0	0	33.3	3.1	0	3.6
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	7	1083	0	7	0	3	2	0	0	4	1509	2	2617
16:15-17:15	9	1058	0	6	0	3	3	0	0	3	1574	2	2658
16:30-17:30	9	1061	0	5	0	1	2	0	1	3	1584	2	2668
16:45-17:45	15	1068	3	5	0	1	6	0	2	2	1621	1	2724
17:00-18:00	18	1043	5	2	0	1	7	0	2	2	1573	0	2653

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT BRUTSCHER STREET AT HIGHWAY 99E

19370



DATE OF COUNT: 04/21/99
DAY OF WEEK: Wed
TIME STARTED: 07:00
TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
T=TRUCKS BY APPROACH
P=PHF BY APPROACH

WJAC

Peak Hour
07:00-08:00
TEV=2441

Traffic Smithy
(503) 641-6333

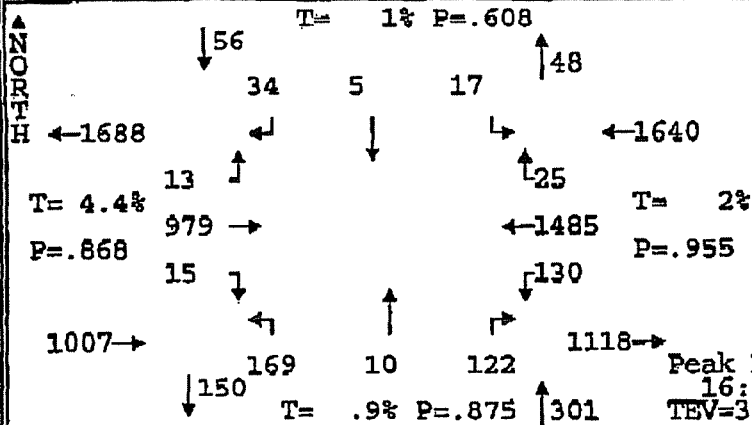
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	→	←	↑	→	↓	←	↑	
07:00-07:05	0	137	2	5	0	3	0	1	5	4	59	1	217
07:05-07:10	0	133	2	3	0	2	1	0	2	2	49	0	194
07:10-07:15	3	139	2	3	0	1	2	1	1	1	76	1	228
07:15-07:20	1	126	2	1	0	0	1	0	5	3	67	0	206
07:20-07:25	2	114	1	1	0	2	0	0	6	2	87	2	217
07:25-07:30	0	136	2	2	1	1	2	0	2	3	51	0	200
07:30-07:35	3	115	2	0	1	1	0	3	1	2	64	0	192
07:35-07:40	1	120	2	1	0	2	0	0	1	2	84	1	214
07:40-07:45	1	132	1	1	0	1	1	0	3	4	86	1	231
07:45-07:50	6	98	0	2	2	0	0	1	2	3	53	1	168
07:50-07:55	5	86	1	1	0	0	0	1	2	3	79	2	180
07:55-08:00	8	96	1	0	0	1	3	0	0	4	80	1	194
08:00-08:05	5	128	0	0	0	0	0	0	4	2	65	1	205
08:05-08:10	1	101	4	0	0	1	0	0	1	5	57	2	173
08:10-08:15	2	70	2	1	0	1	3	1	3	5	71	0	159
08:15-08:20	1	88	1	3	0	0	1	0	2	2	44	2	144
08:20-08:25	2	86	4	0	0	3	0	0	3	3	72	0	173
08:25-08:30	2	96	2	3	0	2	2	0	4	4	86	1	202
08:30-08:35	2	93	0	2	0	0	1	0	5	3	47	0	154
08:35-08:40	1	78	0	4	0	0	3	0	2	6	55	3	152
08:40-08:45	1	88	1	0	0	0	3	0	1	3	67	0	164
08:45-08:50	1	74	1	0	2	0	1	1	1	2	69	1	153
08:50-08:55	1	82	0	3	0	0	0	0	4	6	81	0	177
08:55-09:00	0	74	2	1	0	2	2	0	2	5	83	1	172

Total Survey	49	2490	33	37	6	23	26	9	63	80	1632	21	4469
PHF	.39	.88	.67	.45	.5	.58	.63	.58	.58	.82	.89	.63	.937
% Trucks	2	6.2	0	5.4	0	0	0	11.1	4.8	5	11.1	4.8	7.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	3	0	0	0	0	0	0	0	0	1	0	0

Hourly Totals													
07:00-08:00	30	1432	16	20	4	14	10	7	30	33	835	10	2441
07:15-08:15	35	1322	18	10	4	10	10	6	30	39	844	11	2339
07:30-08:30	37	1216	20	12	3	12	10	6	26	40	841	12	2235
07:45-08:45	36	1108	16	16	2	8	16	3	30	44	776	13	2068
08:00-09:00	19	1058	17	17	2	9	16	2	33	47	797	11	2028

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT BRUTSCHER STREET AT HIGHWAY 99W (NEWBERG)

19343



DATE OF COUNT: 04/20/99
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

#2 PM

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

WJAB

Peak Hour
16:45-17:45
TEV=3004

Traffic Smithy
(503) 641-6333

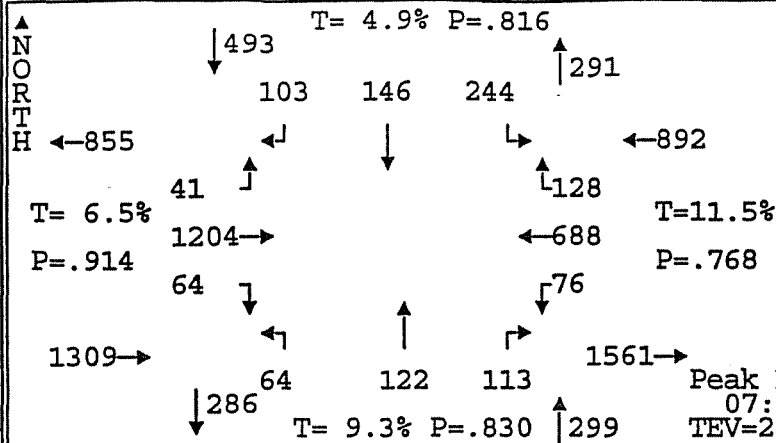
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	←	←	↑	→	↓	←	↑	
16:00-16:05	4	85	1	1	0	0	12	1	7	12	111	0	234
16:05-16:10	1	92	0	4	1	0	14	0	4	8	108	1	233
16:10-16:15	0	67	0	2	1	0	9	1	11	7	111	4	213
16:15-16:20	2	58	1	3	0	0	11	0	5	8	111	3	202
16:20-16:25	1	71	0	1	0	3	7	1	12	13	141	2	252
16:25-16:30	1	65	0	3	0	0	14	1	7	8	166	2	267
16:30-16:35	4	84	2	1	0	3	10	0	5	14	143	5	271
16:35-16:40	0	83	3	5	0	1	16	0	6	10	98	1	223
16:40-16:45	2	74	2	4	0	2	9	0	14	11	108	3	229
16:45-16:50	0	71	2	4	0	1	11	2	8	7	123	1	230
16:50-16:55	2	80	0	0	2	2	15	1	12	14	137	0	265
16:55-17:00	1	69	0	2	1	0	21	1	15	12	125	1	248
17:00-17:05	3	94	1	2	0	0	13	1	7	9	114	5	249
17:05-17:10	2	73	2	3	1	2	14	2	9	9	101	3	221
17:10-17:15	0	76	1	4	0	3	14	0	12	12	118	5	245
17:15-17:20	0	92	1	7	1	2	12	2	11	6	114	3	251
17:20-17:25	2	87	1	3	0	2	8	1	6	9	159	3	281
17:25-17:30	2	104	1	2	0	1	7	0	13	12	112	0	254
17:30-17:35	1	79	1	0	0	0	14	0	12	11	112	1	231
17:35-17:40	2	65	1	3	0	1	19	0	9	20	139	2	261
17:40-17:45	0	89	2	4	0	3	21	0	8	9	131	1	268
17:45-17:50	2	72	1	5	1	2	10	1	6	8	102	5	215
17:50-17:55	3	96	2	3	0	1	15	1	9	16	106	2	254
17:55-18:00	2	72	1	2	0	0	8	1	7	11	109	3	216

Total Survey	37	1898	26	68	8	29	304	17	215	256	2899	56	5813
PHF	.63	.86	.81	.61	.42	.61	.78	.63	.87	.76	.95	.48	.955
% Trucks	5.4	4.5	0	0	12.5	0	.3	0	1.9	.4	2.1	0	2.7
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	18	899	11	30	5	12	149	8	106	124	1482	23	2867
16:15-17:15	18	898	14	32	4	17	155	9	112	127	1485	31	2902
16:30-17:30	18	987	16	37	5	19	150	10	118	125	1452	30	2967
16:45-17:45	15	979	13	34	5	17	169	10	122	130	1485	25	3004
17:00-18:00	19	999	15	38	3	17	155	9	109	132	1417	33	2946

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SPRINGBROOK ROAD AT HIGHWAY 99W

19455



DATE OF COUNT: 04/28/99
 DAY OF WEEK: Wed
 TIME STARTED: 07:00
 TIME ENDED: 09:00

#3

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

DLNQ

Peak Hour
 07:00-08:00
 TEV=2993

Traffic Smithy
 (503) 641-6333

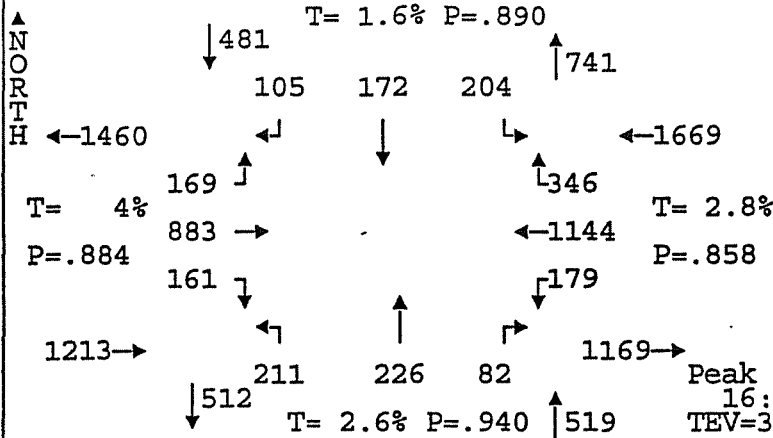
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	→	←	↑	→	↓	←	↑	
07:00-07:05	1	111	3	9	9	16	3	11	15	5	41	10	234
07:05-07:10	3	85	7	7	7	31	4	8	10	7	50	12	231
07:10-07:15	4	103	3	3	12	18	5	4	3	5	41	4	205
07:15-07:20	5	103	2	2	9	22	4	12	4	6	39	11	219
07:20-07:25	8	119	2	10	16	21	9	7	11	2	38	12	255
07:25-07:30	1	105	3	1	8	21	7	11	12	7	82	21	279
07:30-07:35	6	82	6	16	19	17	2	11	7	10	80	18	274
07:35-07:40	2	113	4	8	13	24	4	12	7	9	52	11	259
07:40-07:45	4	79	1	11	18	22	5	15	16	5	47	5	228
07:45-07:50	14	139	2	10	20	25	10	7	12	7	69	6	321
07:50-07:55	6	93	5	16	4	13	7	13	5	9	63	9	243
07:55-08:00	10	72	3	10	11	14	4	11	11	4	86	9	245
08:00-08:05	5	62	10	8	11	11	14	8	3	11	69	6	218
08:05-08:10	7	82	3	8	5	11	7	7	8	1	26	7	172
08:10-08:15	4	54	7	12	7	11	4	5	10	5	42	7	168
08:15-08:20	9	75	3	5	8	14	4	4	7	4	45	6	184
08:20-08:25	10	61	3	2	9	18	13	10	11	5	54	11	207
08:25-08:30	7	87	5	13	10	22	3	10	4	9	43	7	220
08:30-08:35	2	60	7	9	8	13	7	8	9	5	42	3	173
08:35-08:40	8	92	4	3	11	14	2	2	10	4	54	10	214
08:40-08:45	10	79	3	7	12	8	6	4	5	5	39	5	183
08:45-08:50	2	58	5	8	6	3	6	5	4	5	67	6	175
08:50-08:55	10	62	6	9	8	10	8	1	6	3	58	11	192
08:55-09:00	11	74	7	10	5	18	3	6	5	6	62	6	213

Total Survey	149	2050	104	197	246	397	141	192	195	139	1289	213	5312
PHF	.53	.91	.79	.7	.72	.86	.73	.8	.81	.73	.79	.63	.921
% Trucks	2.7	6.7	6.7	6.6	5.3	3.8	12.8	5.2	10.8	15.8	11.9	6.1	8.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	3	0	0	0	0	0	0	0	0

Hourly Totals													
07:00-08:00	64	1204	41	103	146	244	64	122	113	76	688	128	2993
07:15-08:15	72	1103	48	112	141	212	77	119	106	76	693	122	2881
07:30-08:30	84	999	52	119	135	202	77	113	101	79	676	102	2739
07:45-08:45	92	956	55	103	116	174	81	89	95	69	632	86	2548
08:00-09:00	85	846	63	94	100	153	77	70	82	63	601	85	2319

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SPRINGBROOK ROAD AT HIGHWAY 99W

19435



DATE OF COUNT: 04/27/99
 DAY OF WEEK: Tue
 TIME STARTED: 16:00
 TIME ENDED: 18:00

#3 PM

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

DLNN

Peak Hour
 16:50-17:50
 TEV=3882

Traffic Smithy
 (503) 641-6333

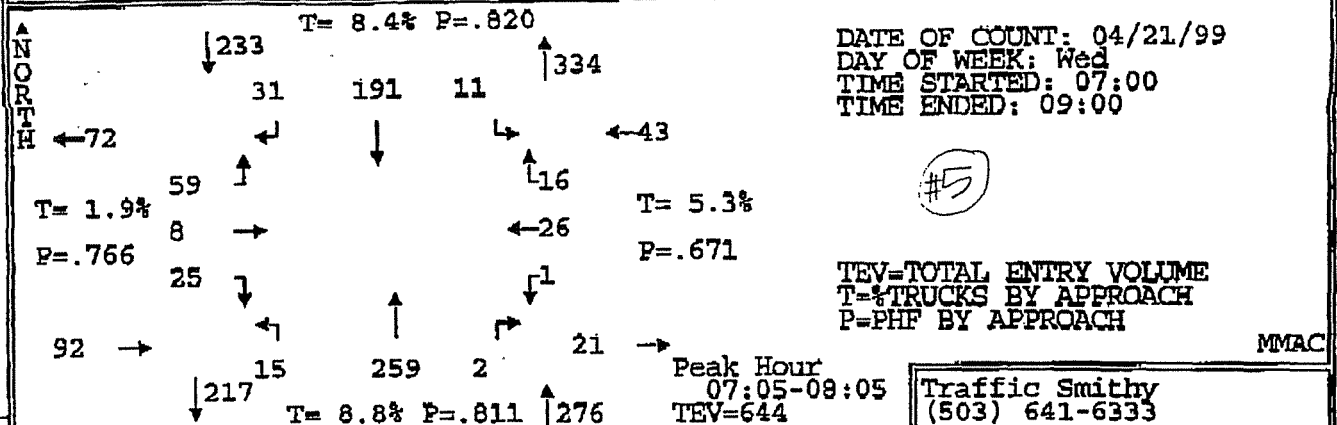
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	→	←	↑	→	↓	←	↑	
16:00-16:05	17	45	5	6	14	11	16	15	6	15	83	19	252
16:05-16:10	15	63	21	10	26	16	11	20	10	14	68	18	292
16:10-16:15	17	71	4	6	16	21	13	18	11	17	101	21	316
16:15-16:20	13	79	14	1	19	23	24	22	5	14	96	21	331
16:20-16:25	17	73	12	7	15	8	15	7	6	12	97	26	295
16:25-16:30	16	43	15	12	20	18	23	12	8	14	85	23	289
16:30-16:35	13	75	7	6	7	17	18	9	9	22	110	24	317
16:35-16:40	21	50	13	11	14	27	15	15	10	12	77	18	283
16:40-16:45	18	77	12	10	25	14	10	15	4	23	93	36	337
16:45-16:50	15	51	18	7	12	12	15	16	9	11	85	22	273
16:50-16:55	8	84	8	6	12	15	11	18	6	28	89	19	304
16:55-17:00	13	55	15	8	13	16	24	26	6	10	101	28	315
17:00-17:05	18	85	15	5	13	9	18	17	6	20	85	27	318
17:05-17:10	16	81	19	6	19	20	9	13	4	9	63	19	278
17:10-17:15	8	84	17	4	21	19	18	22	5	10	99	36	343
17:15-17:20	8	80	18	8	20	13	20	20	5	21	103	39	355
17:20-17:25	23	69	11	13	13	19	21	19	6	11	136	31	372
17:25-17:30	10	64	21	8	16	25	19	17	10	10	87	22	309
17:30-17:35	10	80	7	13	11	11	19	19	3	17	103	36	329
17:35-17:40	16	69	17	15	11	23	12	14	13	18	72	25	305
17:40-17:45	19	66	6	11	8	13	26	16	5	11	139	23	343
17:45-17:50	12	66	15	8	15	21	14	25	13	14	67	41	311
17:50-17:55	8	62	11	16	8	12	20	14	3	7	92	25	278
17:55-18:00	15	66	13	13	10	5	15	18	4	12	95	19	285

Total Survey	346	1638	314	210	358	388	406	407	167	352	2226	618	7430
PHF	.86	.88	.78	.67	.72	.86	.88	.93	.66	.77	.85	.82	.907
% Trucks	1.7	4.9	1.6	2.4	1.4	1.3	.7	1.7	.9	2.8	3.3	1	3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	4	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	183	766	144	90	193	198	195	193	90	192	1085	275	3604
16:15-17:15	176	837	165	83	190	198	200	192	78	185	1080	299	3683
16:30-17:30	171	855	174	92	185	206	198	207	80	187	1128	321	3804
16:45-17:45	164	868	172	104	169	195	212	217	78	176	1162	327	3844
17:00-18:00	163	872	170	120	165	190	211	214	77	160	1141	343	3826

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT FERNWOOD ROAD AT SPRINGBROOK STREET

19371



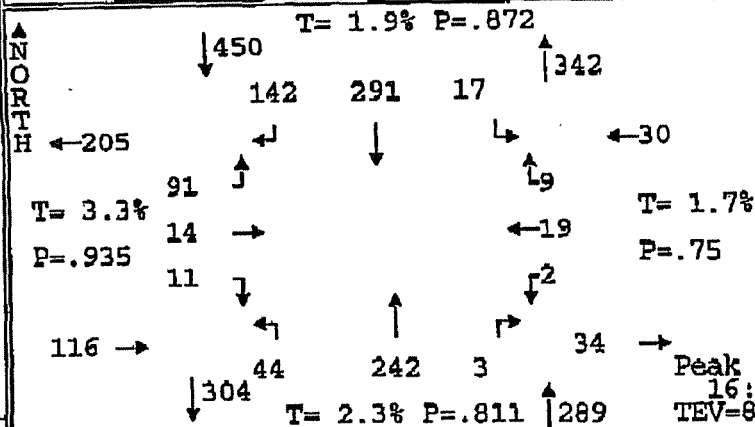
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	4	0	2	4	8	0	1	15	0	0	1	0	35
07:05-07:10	1	0	3	2	13	0	1	17	2	0	2	3	44
07:10-07:15	1	0	4	3	11	0	2	9	0	0	3	4	37
07:15-07:20	0	1	7	1	16	0	0	23	0	1	2	1	52
07:20-07:25	2	0	3	2	23	1	1	20	0	0	2	2	57
07:25-07:30	3	5	2	1	16	3	0	27	0	0	3	1	61
07:30-07:35	3	0	9	2	16	1	2	28	0	0	2	0	63
07:35-07:40	0	0	2	3	16	4	0	28	0	0	0	2	55
07:40-07:45	2	0	4	5	24	0	1	16	0	0	0	2	54
07:45-07:50	4	0	7	3	9	1	2	22	0	0	0	1	49
07:50-07:55	1	0	6	3	12	0	3	23	0	0	6	0	54
07:55-08:00	2	2	8	3	19	1	3	27	0	0	6	0	71
08:00-08:05	5	0	4	3	16	0	0	19	0	0	0	0	47
08:05-08:10	1	0	3	3	13	0	1	8	0	1	2	1	34
08:10-08:15	2	1	3	3	7	0	1	16	0	2	2	2	38
08:15-08:20	1	3	3	3	11	0	1	16	0	0	2	2	40
08:20-08:25	2	1	2	3	5	0	1	20	1	0	1	1	37
08:25-08:30	3	1	0	5	7	0	2	12	0	1	3	1	35
08:30-08:35	1	1	1	0	9	0	4	20	1	1	0	1	42
08:35-08:40	2	2	3	4	15	1	0	11	0	0	0	0	40
08:40-08:45	0	1	2	3	17	1	0	19	0	1	2	2	46
08:45-08:50	0	0	4	3	14	1	0	12	0	0	2	1	37
08:50-08:55	0	2	5	2	12	0	0	13	0	0	1	0	35
08:55-09:00	1	0	7	7	11	0	2	12	1	0	0	0	41

Total Survey	44	21	93	71	320	14	28	433	5	7	41	27	1104
PHF	.69	.33	.7	.7	.85	.34	.47	.78	.25	.25	.54	.5	.889
% Trucks	0	0	3.2	1.4	9.4	21.4	3.6	8.8	40	0	4.9	7.4	7.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	1	0	0	0	0	0
Hourly Totals													
07:00-08:00	24	8	57	32	183	11	16	255	2	1	27	16	632
07:15-08:15	26	9	57	32	187	11	14	257	0	4	26	12	635
07:30-08:30	26	8	50	39	155	7	17	235	1	4	23	12	577
07:45-08:45	26	13	41	36	140	4	18	213	2	6	23	11	533
08:00-09:00	20	13	36	39	137	3	12	178	3	6	14	11	472

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT

FERNWOOD ROAD AT SPRINGBROOK STREET (NEWBERG)

19344



DATE OF COUNT: 04/20/99
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

#5 PM

TEV = TOTAL ENTRY VOLUME
T = TRUCKS BY APPROACH
P = PHF BY APPROACH

MMAB

Traffic Smithy
(503) 641-6333

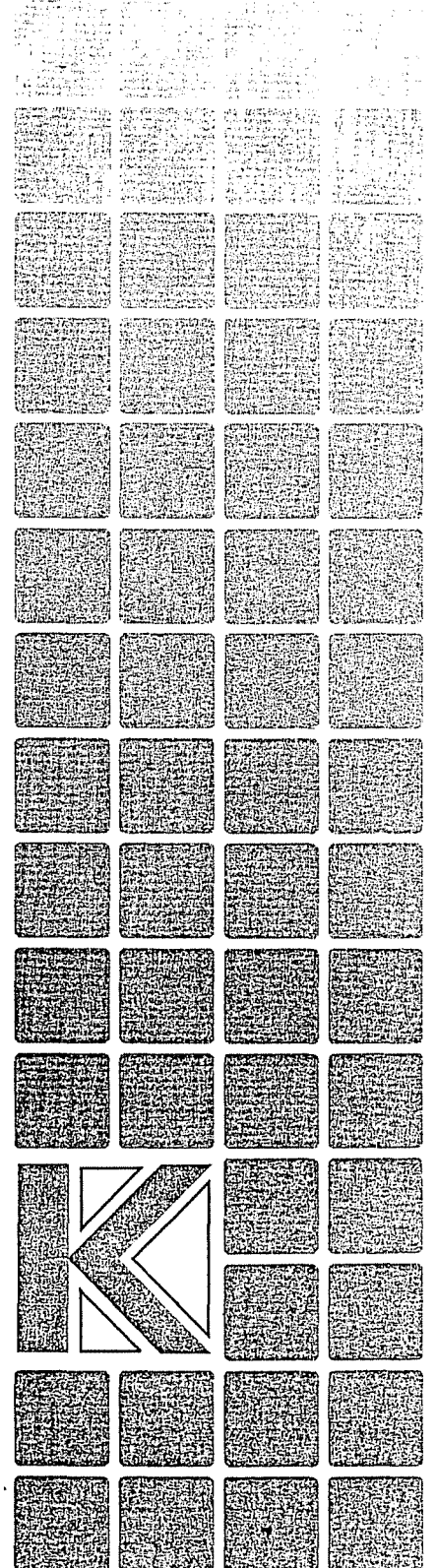
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↑	←	↑	→	↓	←	↑	
16:00-16:05	2	0	5	17	23	3	6	23	1	1	1	1	83
16:05-16:10	0	0	8	12	25	0	3	26	0	0	0	0	74
16:10-16:15	2	0	6	15	19	1	1	24	1	1	1	2	73
16:15-16:20	2	1	12	11	23	2	3	20	0	0	2	1	77
16:20-16:25	0	0	7	12	25	3	5	17	0	1	1	2	74
16:25-16:30	0	0	8	13	30	0	1	24	0	0	2	1	79
16:30-16:35	1	1	12	8	25	0	3	19	1	0	0	1	71
16:35-16:40	0	0	8	10	28	3	9	30	0	0	2	1	91
16:40-16:45	2	0	6	9	15	2	7	20	0	0	3	0	64
16:45-16:50	0	1	9	5	17	1	2	18	0	0	2	0	55
16:50-16:55	0	1	5	10	26	1	2	19	0	1	2	0	67
16:55-17:00	3	2	7	15	26	2	3	17	0	0	0	0	75
17:00-17:05	1	3	7	22	18	1	6	15	1	0	1	0	75
17:05-17:10	0	2	2	18	26	1	3	24	1	0	1	1	79
17:10-17:15	2	2	8	9	32	1	0	19	0	0	3	2	78
17:15-17:20	0	3	5	7	21	2	2	19	0	0	1	1	61
17:20-17:25	0	1	5	5	20	0	0	28	0	0	1	0	60
17:25-17:30	3	2	8	18	22	0	0	23	0	0	2	2	80
17:30-17:35	3	2	5	8	17	0	1	17	1	0	0	0	56
17:35-17:40	0	3	5	9	24	3	3	18	1	0	2	2	70
17:40-17:45	1	3	6	21	16	1	1	18	0	0	1	0	68
17:45-17:50	0	0	5	5	22	2	2	19	1	0	0	1	57
17:50-17:55	1	1	3	5	15	1	0	17	0	1	2	0	46
17:55-18:00	1	1	3	10	13	0	2	22	0	0	3	2	57

Total Survey	24	30	155	274	528	30	65	496	8	5	35	20	1670
PHF	.69	.5	.81	.65	.88	.71	.58	.83	.38	.5	.68	.56	.918
% Trucks	12.5	0	2.6	.4	2.8	0	1.5	2.4	0	0	2.9	0	2.2
Stopped Buses	0	0	0	0	0	0	0	1	0	0	0	0	
Peds	0	0	0	0	1	0	0	0	0	0	0	0	

Hourly Totals													
16:00-17:00	12	7	93	137	282	18	45	257	3	4	16	9	883
16:15-17:15	11	14	91	142	291	17	44	242	3	2	19	9	885
16:30-17:30	12	18	82	136	276	14	37	251	3	1	18	8	856
16:45-17:45	13	25	72	147	265	13	23	235	4	1	18	8	824
17:00-18:00	12	23	62	137	246	12	20	239	5	1	19	11	787

Appendix B

Level-of-Service Worksheets



- Existing Traffic Volumes - Weekday AM Peak Hour

- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 1

Average Delay (sec/veh): 35.5 Worst Case Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	1	0	1 1 0	1	0	1 1 0

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol:	6	1	5	1	1	1	1	1500	5	3	901	2
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	1	5	1	1	1	1	1500	5	3	901	2
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	1	5	1	1	1	1	1500	5	3	901	2
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	6	1	5	1	1	1	1	1616	5	3	971	2
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	6	1	5	1	1	1	1	1616	5	3	971	2

Critical Gap Module:

Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.2	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	2114	2601	811	1789	2602	487	973	xxxx	xxxxx	1622	xxxx	xxxxx
Potent Cap.:	30	25	327	52	25	532	704	xxxx	xxxxx	388	xxxx	xxxxx
Move Cap.:	28	25	327	49	25	532	704	xxxx	xxxxx	388	xxxx	xxxxx
Total Cap:	89	109	xxxxx	158	108	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx

Level Of Service Module:

Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	10.1	xxxx	xxxxx	14.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	B	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	131	xxxxx	xxxx	172	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	35.5	xxxxx	xxxxx	26.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	D	*	*	*	*	*	*	*
ApproachDel:		35.5			26.4		xxxxxxx			xxxxxxx		
ApproachLOS:		E			D		*			*		

- Existing Traffic Volumes - Weekday AM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Base Volume Alternative)

Intersection #2 2

Cycle (sec): 120 Critical Vol./Cap. (X): 0.518
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 3.6
Optimal Cycle: 36 Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	1	0	2	0	1	1

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol:	10	7	30	14	4	20	16	1432	30	33	835	10
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	7	30	14	4	20	16	1432	30	33	835	10
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	11	7	32	15	4	21	17	1528	32	35	891	11
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	11	7	32	15	4	21	17	1528	32	35	891	11
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Final Vol.:	11	7	32	15	4	21	17	1605	32	35	936	11

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.87	0.88	0.88	0.84	0.87	0.87	0.92	0.97	0.83	0.90	0.95	0.81
Lanes:	1.00	0.18	0.82	1.00	0.16	0.84	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1653	300	1372	1596	264	1389	1752	3689	1568	1719	3619	1538

Capacity Analysis Module:

Vol/Sat:	0.01	0.02	0.02	0.01	0.02	0.02	0.01	0.44	0.02	0.02	0.26	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.05	0.05	0.05	0.05	0.05	0.03	0.84	0.84	0.04	0.85	0.85
Volume/Cap:	0.15	0.52	0.52	0.21	0.34	0.34	0.30	0.52	0.02	0.52	0.30	0.01

Level Of Service Module:

Delay/Veh:	35.7	41.0	41.0	35.9	36.9	36.9	37.7	1.9	1.0	41.8	1.2	0.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.7	41.0	41.0	35.9	36.9	36.9	37.7	1.9	1.0	41.8	1.2	0.9
DesignQueue:	1	0	2	1	0	1	1	19	0	2	10	0

- Existing Traffic Volumes - Weekday AM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #3 3
*****
Cycle (sec):      120      Critical Vol./Cap. (X):      0.783
Loss Time (sec):  12 (Y+R = 4 sec) Average Delay (sec/veh):  22.8
Optimal Cycle:    77      Level Of Service:      C
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Protected      Protected      Protected      Protected
Rights:      Include      Include      Ignore      Ignore
Min. Green:    0  0  0      0  0  0      0  0  0      0  0  0
Lanes:      1  0  0  1  0      1  0  1  0  1      1  0  2  0  1      1  0  2  0  1
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      64  122  113      244  146  103      41  1204  64      76  688  128
Growth Adj:    1.00  1.00  1.00      1.00  1.00  1.00      1.00  1.00  0.00      1.00  1.00  0.00
Initial Bse:    64  122  113      244  146  103      41  1204  0      76  688  0
User Adj:      1.00  1.00  1.00      1.00  1.00  1.00      1.00  1.00  0.00      1.00  1.00  0.00
PHF Adj:      0.92  0.92  0.92      0.92  0.92  0.92      0.92  0.92  0.00      0.92  0.92  0.00
PHF Volume:    69  132  123      265  159  112      45  1307  0      83  747  0
Reduct Vol:    0  0  0      0  0  0      0  0  0      0  0  0
Reduced Vol:    69  132  123      265  159  112      45  1307  0      83  747  0
PCE Adj:      1.00  1.00  1.00      1.00  1.00  1.00      1.00  1.00  0.00      1.00  1.00  0.00
MLF Adj:      1.00  1.00  1.00      1.00  1.00  1.00      1.00  1.05  0.00      1.00  1.05  0.00
Final Vol.:    69  132  123      265  159  112      45  1373  0      83  784  0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900  1900  1900      1900  1900  1900      1900  1900  1900      1900  1900  1900
Adjustment:    0.94  0.92  0.92      0.95  1.00  0.85      0.94  0.99  1.00      0.92  0.97  1.00
Lanes:      1.00  0.52  0.48      1.00  1.00  1.00      1.00  2.00  1.00      1.00  2.00  1.00
Final Sat.:    1787  906  844      1805  1900  1615      1787  3762  1900      1752  3689  1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.04  0.15  0.15      0.15  0.08  0.07      0.03  0.36  0.00      0.05  0.21  0.00
Crit Moves:      ****      ****      ****      ****
Green/Cycle:   0.12  0.19  0.19      0.19  0.26  0.26      0.06  0.47  0.00      0.06  0.47  0.00
Volume/Cap:    0.33  0.78  0.78      0.78  0.33  0.27      0.45  0.78  0.00      0.78  0.45  0.00
-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:     31.7  38.1  38.1      37.7  23.6  23.2      37.7  19.1  0.0      56.0  13.9  0.0
User DelAdj:   1.00  1.00  1.00      1.00  1.00  1.00      1.00  1.00  1.00      1.00  1.00  1.00
AdjDel/Veh:    31.7  38.1  38.1      37.7  23.6  23.2      37.7  19.1  0.0      56.0  13.9  0.0
DesignQueue:   4  7  7      15  8  6      3  54  0      5  29  0
*****

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- Existing Traffic Volumes - Weekday AM Peak Hour

- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 5

Average Delay (sec/veh): 1.6 Worst Case Level Of Service: B

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

-----|-----|-----|-----|

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol: 16 255 2 11 183 32 57 8 24 1 27 16

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 16 255 2 11 183 32 57 8 24 1 27 16

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87

PHF Volume: 18 292 2 13 210 37 65 9 27 1 31 18

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol.: 18 292 2 13 210 37 65 9 27 1 31 18

-----|-----|-----|-----|

Adjusted Volume Module:

Grade: 0% 0% 0% 0%

% Cycle/Cars: 0.00 0.96 0.00 0.97 0.00 1.00 0.00 1.00

% Truck/Comb: 0.04 0.00 0.03 0.00 0.00 0.00 0.00 0.00

PCE Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx xxxxxx

Cycl/Car PCE: 0.50 1.00 0.50 1.00 0.50 1.00 0.50 1.00

Trck/Cmb PCE: 1.50 2.00 1.50 2.00 1.50 2.00 1.50 2.00

Adj Vol.: 19 292 2 13 210 37 65 9 27 1 31 18

-----|-----|-----|-----|

Critical Gap Module:

MoveUp Time: 2.1 xxxx xxxxxx 2.1 xxxx xxxxxx 3.4 3.3 2.6 3.4 3.3 2.6

Critical Gp: 5.0 xxxx xxxxxx 5.0 xxxx xxxxxx 6.5 6.0 5.5 6.5 6.0 5.5

-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: 246 xxxx xxxxxx 294 xxxx xxxxxx 577 553 228 570 570 293

Potent Cap.: 1308 xxxx xxxxxx 1241 xxxx xxxxxx 491 559 1061 495 548 983

Adj Cap: 1.00 xxxx xxxxxx 1.00 xxxx xxxxxx 0.92 0.97 1.00 0.94 0.97 1.00

Move Cap.: 1308 xxxx xxxxxx 1241 xxxx xxxxxx 450 543 1061 465 532 983

-----|-----|-----|-----|

Level Of Service Module:

Stopped Del: 2.8 xxxx xxxxxx 2.9 xxxx xxxxxx 9.4 6.7 3.5 7.8 7.2 3.7

LOS by Move: A * * A * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx 543 xxxxxx xxxx 636 xxxxxx

Shrd StpDel:xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx 7.5 xxxxxx xxxxxx 5.9 xxxxxx

Shared LOS: * * * * * B * * B *

ApproachDel: 0.2 0.1 7.5 5.9

- Existing Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelston & Associates, Inc."

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)

```

*****
Intersection #1 1
*****
Average Delay (sec/veh):      31.2      Worst Case Level Of Service:      D
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 1! 0 0      0 0 1! 0 0      1 0 1 1 0      1 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      6      1      2      1      1      5      3 1068      15      2 1621      1
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      6      1      2      1      1      5      3 1068      15      2 1621      1
Added Vol:      0      0      0      0      0      0      0      0      0      0      0
PasserByVol:      0      0      0      0      0      0      0      0      0      0      0
Initial Fut:      6      1      2      1      1      5      3 1068      15      2 1621      1
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:      6      1      2      1      1      5      3 1130      16      2 1715      1
Reduct Vol:      0      0      0      0      0      0      0      0      0      0      0
Final Vol.:      6      1      2      1      1      5      3 1130      16      2 1715      1
Critical Gap Module:
Critical Gp:      7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim:      3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 2007 2865 573 2292 2872 858 1716 xxxx xxxxx 1146 xxxx xxxxx
Potent Cap.: 36 17 468 22 17 304 374 xxxx xxxxx 617 xxxx xxxxx
Move Cap.: 33 17 468 20 17 304 374 xxxx xxxxx 617 xxxx xxxxx
Total Cap: 130 92 xxxxx 77 93 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 14.7 xxxx xxxxx 10.9 xxxx xxxxx
LOS by Move: * * * * * B * * B * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 147 xxxxx xxxx 174 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx 31.2 xxxxx xxxxx 26.6 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * D * * D * * * * *
ApproachDel: 31.2 26.6 xxxxxx xxxxxx
ApproachLOS: D D * *

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- Existing Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #2 2
*****
Cycle (sec):      120          Critical Vol./Cap. (X):      0.599
Loss Time (sec):   9 (Y+R = 4 sec) Average Delay (sec/veh):    10.9
Optimal Cycle:     42          Level Of Service:           B
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Permitted      Permitted      Protected      Protected
Rights:      Include      Include      Include      Include
Min. Green:    0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Lanes:      1 0 0 1 0      1 0 0 1 0      1 0 2 0 1      1 0 2 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      169 10 122 17 5 34 13 979 15 130 1485 25
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    169 10 122 17 5 34 13 979 15 130 1485 25
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:    177 10 128 18 5 36 14 1025 16 136 1555 26
Reduct Vol:    0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:   177 10 128 18 5 36 14 1025 16 136 1555 26
PCE Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.00 1.00 1.05 1.00
Final Vol.:    177 10 128 18 5 36 14 1076 16 136 1633 26
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:    0.83 0.86 0.86 0.49 0.87 0.87 0.93 0.98 0.83 0.94 0.99 0.84
Lanes:      1.00 0.07 0.93 1.00 0.12 0.88 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.:    1577 118 1516 931 202 1451 1770 3725 1583 1787 3762 1599
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.11 0.08 0.08 0.02 0.02 0.02 0.01 0.29 0.01 0.08 0.43 0.02
Crit Moves:    ****          ****          ****
Green/Cycle:  0.19 0.19 0.19 0.19 0.19 0.19 0.01 0.58 0.58 0.15 0.72 0.72
Volume/Cap:   0.60 0.45 0.45 0.10 0.13 0.13 0.60 0.49 0.02 0.49 0.60 0.02
-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:    31.2 28.7 28.7 26.1 26.3 26.3 60.1 9.6 6.8 31.2 5.5 3.0
User DelAdj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:   31.2 28.7 28.7 26.1 26.3 26.3 60.1 9.6 6.8 31.2 5.5 3.0
DesignQueue:  10 1 7 1 0 2 1 32 0 8 34 0
*****

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- Existing Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report
1994 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #3 3
*****
Cycle (sec):      120          Critical Vol./Cap. (X):      0.858
Loss Time (sec):  12 (Y+R = 4 sec) Average Delay (sec/veh):  29.2
Optimal Cycle:    100          Level Of Service:           D
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|
Control:      Protected      Protected      Protected      Protected
Rights:      Include      Include      Ignore      Ignore
Min. Green:    0 0 0 0      0 0 0 0      0 0 0 0      0 0 0 0
Lanes:        1 0 0 1 0      1 0 1 0 1      1 0 2 0 1      1 0 2 0 1
-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      212 217 78 195 169 104 172 868 164 176 1162 327
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
Initial Bse:    212 217 78 195 169 104 172 868 0 176 1162 0
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj:        0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.00 0.90 0.90 0.00
PHF Volume:     236 242 87 217 188 116 192 967 0 196 1294 0
Reduct Vol:     0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol:    236 242 87 217 188 116 192 967 0 196 1294 0
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.05 0.00 1.00 1.05 0.00
Final Vol.:     236 242 87 217 188 116 192 1015 0 196 1359 0
-----|-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:    0.94 0.95 0.95 0.95 1.00 0.85 0.93 0.98 1.00 0.94 0.99 1.00
Lanes:         1.00 0.74 0.26 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.:    1787 1328 478 1805 1900 1615 1770 3725 1900 1787 3762 1900
-----|-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.13 0.18 0.18 0.12 0.10 0.07 0.11 0.27 0.00 0.11 0.36 0.00
Crit Moves:    ****      ****      ****      ****
Green/Cycle:   0.20 0.21 0.21 0.14 0.15 0.15 0.13 0.39 0.00 0.16 0.42 0.00
Volume/Cap:    0.66 0.86 0.86 0.86 0.66 0.48 0.86 0.70 0.00 0.70 0.86 0.00
-----|-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:     31.4 41.4 41.4 49.2 34.7 31.2 51.4 20.8 0.0 36.0 23.9 0.0
User DelAdj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:    31.4 41.4 41.4 49.2 34.7 31.2 51.4 20.8 0.0 36.0 23.9 0.0
DesignQueue:   13 13 5 13 11 7 11 44 0 11 58 0
*****

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- Existing Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 5

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module:	>> Count	Date:	1 Sep 1997	<<
Base Vol:	23	235	4	13 265 147
Growth Adj:	1.00	1.00	1.00	1.00 1.00 1.00
Initial Bse:	23	235	4	13 265 147
User Adj:	1.00	1.00	1.00	1.00 1.00 1.00
PHF Adj:	0.89	0.89	0.89	0.89 0.89 0.89
PHF Volume:	26	265	5	15 298 166
Reduct Vol:	0	0	0	0 0 0
Final Vol.:	26	265	5	15 298 166

Adjusted Volume Module:	0%			0%			0%			0%		
% Cycle/Cars:	0.00	0.99		0.00	0.99		0.00	1.00		0.00	1.00	
% Truck/Comb:	0.01	0.00		0.01	0.00		0.00	0.00		0.00	0.00	
PCE Adj:	xxxx	1.00	1.00	xxxx	1.00	1.00	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Cycl/Car PCE:	0.50	1.00		0.50	1.00		0.50	1.00		0.50	1.00	
Trck/Cmb PCE:	1.50	2.00		1.50	2.00		1.50	2.00		1.50	2.00	
Adj Vol.:	26	265	5	15	298	166	81	28	15	1	20	9

Critical Gap Module:												
MoveUp Time:	2.1	xxxx	xxxxxx	2.1	xxxx	xxxxxx	3.4	3.3	2.6	3.4	3.3	2.6
Critical Gp:	5.0	xxxx	xxxxxx	5.0	xxxx	xxxxxx	6.5	6.0	5.5	6.5	6.0	5.5

Capacity Module:												
Cnflct Vol:	464	xxxx	xxxxxx	269	xxxx	xxxxxx	703	691	381	710	771	267
Potent Cap.:	1030	xxxx	xxxxxx	1276	xxxx	xxxxxx	415	473	888	411	430	1014
Adj Cap:	1.00	xxxx	xxxxxx	1.00	xxxx	xxxxxx	0.92	0.95	1.00	0.90	0.95	1.00
Move Cap.:	1030	xxxx	xxxxxx	1276	xxxx	xxxxxx	382	452	888	372	410	1014

Level Of Service Module:												
Stopped Del:	3.6	xxxx	xxxxxx	2.9	xxxx	xxxxxx	12.0	8.5	4.1	9.7	9.2	3.6
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	425	xxxxxx	xxxx	496	xxxxxx
Shrd StpDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	10.3	xxxxxx	xxxxxx	7.6	xxxxxx
Shared LOS:	*	*	*	*	*	*	C	*	*	B	*	*
ApproachDel:	0.3			0.1			10.3			7.6		

- 2012 Background Traffic Volumes - Weekday AM Peak Hour
- #3542

"Kittelton & Associates, Inc."

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)

```

*****
Intersection #1 1
*****
Average Delay (sec/veh):      60.8      Worst Case Level Of Service:      F
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 1! 0 0      0 0 1! 0 0      1 0 1 1 0      1 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      7      1      6      1      1      1      1 1870      6      4 1124      2
Growth Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:      7      1      6      1      1      1      1 1870      6      4 1124      2
Added Vol:      0      0      0      0      0      0      0      0      0      0      0
PasserByVol:      0      0      0      0      0      0      0      0      0      0      0
Initial Fut:      7      1      6      1      1      1      1 1870      6      4 1124      2
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:      0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume:      8      1      6      1      1      1      1 2015      6      4 1211      2
Reduct Vol:      0      0      0      0      0      0      0      0      0      0      0
Final Vol.:      8      1      6      1      1      1      1 2015      6      4 1211      2
Critical Gap Module:
Critical Gp:      7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.2 xxxx xxxxx
FollowUpTim:      3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 2635 3242 1011 2231 3245 607 1213 xxxx xxxxx 2022 xxxx xxxxx
Potent Cap.: 12 10 241 24 10 445 571 xxxx xxxxx 270 xxxx xxxxx
Move Cap.: 11 9 241 21 9 445 571 xxxx xxxxx 270 xxxx xxxxx
Total Cap: 51 70 xxxxx 108 68 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
-----|-----|-----|-----|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 11.3 xxxx xxxxx 18.5 xxxx xxxxx
LOS by Move: * * * * * B * * C * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 79 xxxxx xxxx 114 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx 60.8 xxxxx xxxxx 37.5 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx
Shared LOS: * F * * E * * * * *
ApproachDel: 60.8 37.5 xxxxxx xxxxxx
ApproachLOS: F E * *

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- 2012 Background Traffic Volumes - Weekday AM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Base Volume Alternative)

Intersection #2 2

Cycle (sec): 120 Critical Vol./Cap. (X): 0.650

Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 4.5

Optimal Cycle: 47 Level Of Service: A

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Permitted Permitted Protected Protected

Rights: Include Include Include Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 0 1 0 1 0 0 1 0 1 0 2 0 1 1 0 2 0 1

-----|-----|-----|-----|

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol: 17 9 41 17 5 25 20 1781 42 45 1038 12

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 17 9 41 17 5 25 20 1781 42 45 1038 12

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94 0.94

PHF Volume: 18 10 44 18 5 27 21 1901 45 48 1108 13

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 18 10 44 18 5 27 21 1901 45 48 1108 13

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.05 1.00 1.00 1.05 1.00

Final Vol.: 18 10 44 18 5 27 21 1996 45 48 1163 13

-----|-----|-----|-----|

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.85 0.88 0.88 0.73 0.87 0.87 0.92 0.97 0.83 0.90 0.95 0.81

Lanes: 1.00 0.19 0.81 1.00 0.16 0.84 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1615 310 1362 1387 258 1395 1752 3689 1568 1719 3619 1538

-----|-----|-----|-----|

Capacity Analysis Module:

Vol/Sat: 0.01 0.03 0.03 0.01 0.02 0.02 0.01 0.54 0.03 0.03 0.32 0.01

Crit Moves: **** **** ****

Green/Cycle: 0.05 0.05 0.05 0.05 0.05 0.05 0.03 0.83 0.83 0.04 0.84 0.84

Volume/Cap: 0.22 0.65 0.65 0.26 0.39 0.39 0.38 0.65 0.03 0.65 0.38 0.01

-----|-----|-----|-----|

Level Of Service Module:

Delay/Veh: 35.6 47.0 47.0 35.9 37.3 37.3 38.9 2.7 1.1 48.4 1.4 1.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 35.6 47.0 47.0 35.9 37.3 37.3 38.9 2.7 1.1 48.4 1.4 1.0

DesignQueue: 1 1 3 1 0 2 1 26 1 3 13 0

- 2012 Background Traffic Volumes - Weekday AM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Base Volume Alternative)

Intersection #3 3

Cycle (sec): 120 Critical Vol./Cap. (X): 0.976

Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 34.2

Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	1	0	2	0	1	1

Volume Module:	>> Count	Date:	1 Sep 1997	<<
Base Vol:	80 152 141	304 182 128	51 1502 80	95 860 159
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
Initial Bse:	80 152 141	304 182 128	51 1502 0	95 860 0
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
PHF Adj:	0.92 0.92 0.92	0.92 0.92 0.92	0.92 0.92 0.00	0.92 0.92 0.00
PHF Volume:	87 165 153	330 198 139	55 1631 0	103 934 0
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	87 165 153	330 198 139	55 1631 0	103 934 0
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.00 0.00	1.00 1.00 0.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00	1.00 1.05 0.00	1.00 1.05 0.00
Final Vol.:	87 165 153	330 198 139	55 1712 0	103 980 0

Saturation Flow Module:
Sat/Lane:
Adjustment:
Lanes:
Final Sat.:

Capacity Analysis Module:
Vol/Sat:
Crit Moves:
Green/Cycle:
Volume/Cap:

Level Of Service Module:
Delay/Veh:
User DelAdj:
AdjDel/Veh:
DesignQueue:

- 2012 Background Traffic Volumes - Weekday AM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 5

Average Delay (sec/veh): 2.1 Worst Case Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol:	20	317	3	14	228	40	71	10	30	2	34	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	317	3	14	228	40	71	10	30	2	34	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	23	363	3	16	261	46	81	11	34	2	39	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	23	363	3	16	261	46	81	11	34	2	39	23

Adjusted Volume Module:

Grade:	0%			0%			0%			0%		
% Cycle/Cars:	0.00	0.96		0.00	0.97		0.00	1.00		0.00	1.00	
% Truck/Comb:	0.04	0.00		0.03	0.00		0.00	0.00		0.00	0.00	
PCE Adj:	xxxx	1.00	1.00	xxxx	1.00	1.00	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Cycl/Car PCE:	0.50	1.00		0.50	1.00		0.50	1.00		0.50	1.00	
Trck/Comb PCE:	1.50	2.00		1.50	2.00		1.50	2.00		1.50	2.00	
Adj Vol.:	23	363	3	16	261	46	81	11	34	2	39	23

Critical Gap Module:

MoveUp Time:	2.1	xxxx	xxxxxx	2.1	xxxx	xxxxxx	3.4	3.3	2.6	3.4	3.3	2.6
Critical Gp:	5.0	xxxx	xxxxxx	5.0	xxxx	xxxxxx	6.5	6.0	5.5	6.5	6.0	5.5

Capacity Module:

Cnflct Vol:	307	xxxx	xxxxxx	367	xxxx	xxxxxx	719	690	284	711	711	365
Potent Cap.:	1224	xxxx	xxxxxx	1147	xxxx	xxxxxx	406	474	994	410	462	905
Adj Cap:	1.00	xxxx	xxxxxx	1.00	xxxx	xxxxxx	0.88	0.96	1.00	0.92	0.96	1.00
Move Cap.:	1224	xxxx	xxxxxx	1147	xxxx	xxxxxx	358	455	994	376	443	905

Level Of Service Module:

Stopped Del:	3.0	xxxx	xxxxxx	3.2	xxxx	xxxxxx	13.0	8.1	3.8	9.6	8.9	4.1
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	443	xxxxxx	xxxx	538	xxxxxx
Shrd StpDel:	xxxxx	xxxx	xxxxxx	xxxxx	xxxx	xxxxxx	xxxxx	10.1	xxxxxx	xxxxxx	7.2	xxxxxx
Shared LOS:	*	*	*	*	*	*	C	*	*	B	*	*
ApproachDel:	0.2			0.2			10.1			7.2		

- 2012 Background Traffic Volumes - Weekday AM Peak Hour

- #3542

"Kittelson & Associates, Inc."

Level of Service Computation Report

1994 HCM Operations Method (Future Volume Alternative)

Intersection #3 3

Cycle (sec): 120 Critical Vol./Cap. (X): 0.871
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.2
 Optimal Cycle: 106 Level Of Service: C

Approach: North Bound South Bound East Bound West Bound
 Movement: L - T - R L - T - R L - T - R L - T - R
 Control: Protected Protected Protected Protected
 Rights: Ovl Include Ignore Ignore
 Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
 Lanes: 1 0 1 0 1 1 0 1 0 1 1 0 2 0 1 1 0 2 0 1

Volume Module: >> Count Date: 1 Sep 1997 <<
 Base Vol: 80 152 141 304 182 128 51 1502 80 95 860 159
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
 Initial Bse: 80 152 141 304 182 128 51 1502 0 95 860 0
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 80 152 141 304 182 128 51 1502 0 95 860 0
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
 PHF Adj: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.00 0.92 0.92 0.00
 PHF Volume: 87 165 153 330 198 139 55 1631 0 103 934 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 87 165 153 330 198 139 55 1631 0 103 934 0
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.05 0.00 1.00 1.05 0.00
 Final Vol.: 87 165 153 330 198 139 55 1712 0 103 980 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.94 0.99 0.84 0.95 1.00 0.85 0.94 0.99 1.00 0.92 0.97 1.00
 Lanes: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
 Final Sat.: 1787 1881 1599 1805 1900 1615 1787 3762 1900 1752 3689 1900

Capacity Analysis Module:
 Vol/Sat: 0.05 0.09 0.10 0.18 0.10 0.09 0.03 0.46 0.00 0.06 0.27 0.00
 Crit Moves: **** **** ****
 Green/Cycle: 0.10 0.10 0.17 0.21 0.21 0.21 0.06 0.52 0.00 0.07 0.53 0.00
 Volume/Cap: 0.49 0.87 0.57 0.87 0.49 0.41 0.50 0.87 0.00 0.87 0.50 0.00

Level Of Service Module:
 Delay/Veh: 34.9 56.9 31.8 43.1 27.7 26.8 38.3 19.5 0.0 67.1 11.9 0.0
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 34.9 56.9 31.8 43.1 27.7 26.8 38.3 19.5 0.0 67.1 11.9 0.0
 DesignQueue: 5 10 9 18 11 7 3 62 0 6 33 0

- 2012 Background Traffic Volumes - Weekday PM Peak Hour
 - #3542
 "Kittelson & Associates, Inc."

Level Of Service Computation Report
 1997 HCM Unsignalized Method (Future Volume Alternative)

```

*****
Intersection #1 1
*****
Average Delay (sec/veh):      48.3      Worst Case Level Of Service:      E
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 1! 0 0      0 0 1! 0 0      1 0 1 1 0      1 0 1 1 0
-----|-----|-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      7 1 2      1 1 6      4 1340 19      2 2026 1
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 7 1 2      1 1 6      4 1340 19      2 2026 1
Added Vol: 0 0 0      0 0 0      0 0 0      0 0 0
PasserByVol: 0 0 0      0 0 0      0 0 0      0 0 0
Initial Fut: 7 1 2      1 1 6      4 1340 19      2 2026 1
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume: 7 1 2      1 1 6      4 1418 20      2 2144 1
Reduct Vol: 0 0 0      0 0 0      0 0 0      0 0 0
Final Vol.: 7 1 2      1 1 6      4 1418 20      2 2144 1
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxx 4.1 xxxx xxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxx 2.2 xxxx xxxxx
-----|-----|-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 2513 3586 719 2867 3595 1072 2145 xxxx xxxxx 1438 xxxx xxxxx
Potent Cap.: 15 6 375 8 6 219 255 xxxx xxxxx 478 xxxx xxxxx
Move Cap.: 12 6 375 6 5 219 255 xxxx xxxxx 478 xxxx xxxxx
Total Cap: 84 56 xxxxx 42 57 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
-----|-----|-----|-----|-----|-----|
Level Of Service Module:
Stopped Del:xxxxx xxxx xxxxx xxxxx xxxx xxxxx 19.3 xxxx xxxxx 12.6 xxxx xxxxx
LOS by Move: * * * * * C * * B * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 94 xxxxx xxxx 116 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx
Shrd StpDel:xxxxx 48.3 xxxxx xxxxx 38.3 xxxxx xxxxx xxxx xxxxx xxxxx
Shared LOS: * E * * E * * * *
ApproachDel: 48.3 38.3 xxxxxx xxxxxx
ApproachLOS: E E * *
  
```

- 2012 Background Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report
1994 HCM Operations Method (Base Volume Alternative)

```

*****
Intersection #2 2
*****
Cycle (sec):          120          Critical Vol./Cap. (X):          0.764
Loss Time (sec):      9 (Y+R = 4 sec) Average Delay (sec/veh):      14.0
Optimal Cycle:        63          Level Of Service:          B
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Permitted      Permitted      Protected      Protected
Rights:      Include      Include      Include      Include
Min. Green:      0      0      0      0      0      0      0      0      0      0
Lanes:      1      0      0      1      0      1      0      0      1      0      1      0      2      0      1
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      234      12      170      21      6      42      16      1211      40      178      1841      31
Growth Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
Initial Bse:      234      12      170      21      6      42      16      1211      40      178      1841      31
User Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
PHF Adj:      0.95      0.95      0.95      0.95      0.95      0.95      0.95      0.95      0.95      0.95      0.95      0.95
PHF Volume:      245      13      178      22      6      44      17      1268      42      186      1928      32
Reduct Vol:      0      0      0      0      0      0      0      0      0      0      0      0
Reduced Vol:      245      13      178      22      6      44      17      1268      42      186      1928      32
PCE Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
MLF Adj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.05      1.00      1.00      1.05      1.00
Final Vol.:      245      13      178      22      6      44      17      1331      42      186      2024      32
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900      1900      1900      1900      1900      1900      1900      1900      1900      1900      1900      1900
Adjustment:      0.81      0.86      0.86      0.38      0.87      0.87      0.93      0.98      0.83      0.94      0.99      0.84
Lanes:      1.00      0.07      0.93      1.00      0.12      0.88      1.00      2.00      1.00      1.00      2.00      1.00
Final Sat.:      1539      111      1523      722      198      1455      1770      3725      1583      1787      3762      1599
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.16      0.12      0.12      0.03      0.03      0.03      0.01      0.36      0.03      0.10      0.54      0.02
Crit Moves:      ****      ****      ****
Green/Cycle:      0.21      0.21      0.21      0.21      0.21      0.21      0.01      0.55      0.55      0.16      0.70      0.70
Volume/Cap:      0.76      0.56      0.56      0.15      0.15      0.15      0.76      0.64      0.05      0.64      0.76      0.03
-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:      36.0      29.1      29.1      25.1      25.1      25.1      92.9      12.4      7.9      33.8      8.3      3.5
User DelAdj:      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00      1.00
AdjDel/Veh:      36.0      29.1      29.1      25.1      25.1      25.1      92.9      12.4      7.9      33.8      8.3      3.5
DesignQueue:      13      1      10      1      0      2      1      44      1      11      46      1
*****

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- 2012 Background Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Base Volume Alternative)

Intersection #3 3

Cycle (sec): 120 Critical Vol./Cap. (X): 0.993

Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 40.5

Optimal Cycle: 180 Level Of Service: E

Approach:	North Bound					South Bound					East Bound					West Bound				
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Protected					Protected					Protected					Protected				
Rights:	Include					Include					Ignore					Ignore				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	0	1	0	1	1	0	2	0	1	1	0	2	0	1

Volume Module: >> Count Date: 1 Sep 1997 <<	North Bound					South Bound					East Bound					West Bound				
Base Vol:	264	270	97	244	210	129	214	1093	204	219	1461	409								
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
Initial Bse:	264	270	97	244	210	129	214	1093	0	219	1461	0								
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.00	0.97	0.97	0.00								
PHF Volume:	272	278	100	252	216	133	221	1127	0	226	1506	0								
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0								
Reduced Vol:	272	278	100	252	216	133	221	1127	0	226	1506	0								
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00								
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.00	1.00	1.05	0.00								
Final Vol.:	272	278	100	252	216	133	221	1183	0	226	1581	0								

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.95	0.95	0.95	1.00	0.85	0.93	0.98	1.00	0.94	0.99	1.00
Lanes:	1.00	0.74	0.26	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1787	1328	478	1805	1900	1615	1770	3725	1900	1787	3762	1900

Capacity Analysis Module:

Vol/Sat:	0.15	0.21	0.21	0.14	0.11	0.08	0.12	0.32	0.00	0.13	0.42	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.20	0.21	0.21	0.14	0.15	0.15	0.13	0.39	0.00	0.16	0.42	0.00
Volume/Cap:	0.76	0.99	0.99	0.99	0.76	0.55	0.99	0.81	0.00	0.81	0.99	0.00

Level Of Service Module:

Delay/Veh:	35.3	64.3	64.3	74.9	39.1	32.5	78.4	23.4	0.0	42.6	38.2	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	35.3	64.3	64.3	74.9	39.1	32.5	78.4	23.4	0.0	42.6	38.2	0.0
DesignQueue:	15	15	6	15	13	8	13	52	0	13	68	0

- 2012 Background Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 5

Average Delay (sec/veh): 2.6 Worst Case Level Of Service: C

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Uncontrolled Uncontrolled Stop Sign Stop Sign

Rights: Include Include Include Include

Lanes: 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0 0 0 1! 0 0

-----|-----|-----|-----|-----|-----|-----|-----|

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol: 29 293 8 16 330 184 90 32 16 4 23 10

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 29 293 8 16 330 184 90 32 16 4 23 10

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89

PHF Volume: 33 330 9 18 372 207 101 36 18 5 26 11

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol.: 33 330 9 18 372 207 101 36 18 5 26 11

-----|-----|-----|-----|-----|-----|-----|-----|

Adjusted Volume Module:

Grade: 0% 0% 0% 0%

% Cycle/Cars: 0.00 0.99 0.00 0.99 0.00 1.00 0.00 1.00

% Truck/Comb: 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.00

PCE Adj: xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx xxxxxx xxxx xxxx xxxxxx

Cycl/Car PCE: 0.50 1.00 0.50 1.00 0.50 1.00 0.50 1.00

Trck/Cmb PCE: 1.50 2.00 1.50 2.00 1.50 2.00 1.50 2.00

Adj Vol.: 33 330 9 18 372 207 101 36 18 5 26 11

-----|-----|-----|-----|-----|-----|-----|-----|

Critical Gap Module:

MoveUp Time: 2.1 xxxx xxxxxx 2.1 xxxx xxxxxx 3.4 3.3 2.6 3.4 3.3 2.6

Critical Gp: 5.0 xxxx xxxxxx 5.0 xxxx xxxxxx 6.5 6.0 5.5 6.5 6.0 5.5

-----|-----|-----|-----|-----|-----|-----|-----|

Capacity Module:

Cnflct Vol: 579 xxxx xxxxxx 339 xxxx xxxxxx 879 865 475 887 964 334

Potent Cap.: 908 xxxx xxxxxx 1182 xxxx xxxxxx 328 384 795 324 340 937

Adj Cap: 1.00 xxxx xxxxxx 1.00 xxxx xxxxxx 0.88 0.93 1.00 0.86 0.93 1.00

Move Cap.: 908 xxxx xxxxxx 1182 xxxx xxxxxx 288 358 795 278 317 937

-----|-----|-----|-----|-----|-----|-----|-----|

Level Of Service Module:

Stopped Del: 4.1 xxxx xxxxxx 3.1 xxxx xxxxxx 19.2 11.2 4.6 13.2 12.3 3.9

LOS by Move: A * * A * * * * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx 327 xxxxxx xxxx 379 xxxxxx

Shrd StpDel:xxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx xxxxxx 15.7 xxxxxx xxxxxx 10.2 xxxxxx

Shared LOS: * * * * * * * C * * C *

ApproachDel: 0.4 0.1 15.7 10.2

- 2012 Background Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Future Volume Alternative)

```

*****
Intersection #3 3
*****
Cycle (sec):      120          Critical Vol./Cap. (X):      0.925
Loss Time (sec):  12 (Y+R = 4 sec) Average Delay (sec/veh):  33.0
Optimal Cycle:    136          Level Of Service:           D
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:       Protected      Protected      Protected      Protected
Rights:        Ovl           Include       Ignore         Ignore
Min. Green:    0   0   0       0   0   0       0   0   0       0   0   0
Lanes:         1  0  1  0  1   1  0  1  0  1   1  0  2  0  1   1  0  2  0  1
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      264  270   97   244  210  129   214 1093   204   219 1461   409
Growth Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
Initial Bse:    264  270   97   244  210  129   214 1093   0   219 1461   0
Added Vol:      0   0   0       0   0   0       0   0   0       0   0   0
PasserByVol:    0   0   0       0   0   0       0   0   0       0   0   0
Initial Fut:    264  270   97   244  210  129   214 1093   0   219 1461   0
User Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
PHF Adj:        0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.00  0.97 0.97  0.00
PHF Volume:     272  278  100   252  216  133   221 1127   0   226 1506   0
Reduct Vol:     0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:    272  278  100   252  216  133   221 1127   0   226 1506   0
PCE Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  0.00
MLF Adj:        1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.05  0.00  1.00 1.05  0.00
Final Vol.:     272  278  100   252  216  133   221 1183   0   226 1581   0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:    0.94 0.99  0.84  0.95 1.00  0.85  0.93 0.98  1.00  0.94 0.99  1.00
Lanes:         1.00 1.00  1.00  1.00 1.00  1.00  1.00 2.00  1.00  1.00 2.00  1.00
Final Sat.:    1787 1881  1599  1805 1900  1615  1770 3725  1900  1787 3762  1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.15 0.15  0.06  0.14 0.11  0.08  0.12 0.32  0.00  0.13 0.42  0.00
Crit Moves:          ****          ****          ****
Green/Cycle:    0.18 0.16  0.33  0.15 0.13  0.13  0.14 0.42  0.00  0.17 0.45  0.00
Volume/Cap:     0.86 0.92  0.19  0.92 0.86  0.62  0.92 0.75  0.00  0.75 0.92  0.00
-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:     44.7 55.7  18.7  57.6 49.3  35.5  60.5 20.5   0.0  37.7 26.5   0.0
User DelAdj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:    44.7 55.7  18.7  57.6 49.3  35.5  60.5 20.5   0.0  37.7 26.5   0.0
DesignQueue:   15   16    5   15   13    8   13   50    0   13   65    0
*****

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- 2012 Total Traffic Volumes - Weekday AM Peak Hour
- #3542

"Kittelston & Associates, Inc."

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)

```

*****
Intersection #1 1
*****
Average Delay (sec/veh):      57.8      Worst Case Level Of Service:      F
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Stop Sign      Stop Sign      Uncontrolled      Uncontrolled
Rights:      Include      Include      Include      Include
Lanes:      0 0 1! 0 0      0 0 1! 0 0      1 0 1 1 0      1 0 1 1 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      7 1 49      1 1 1      1 1981      6 106 1405      2
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 7 1 49      1 1 1      1 1981      6 106 1405      2
Added Vol: 0 0 0      0 0 0      0 0 0      0 0 0 0
PasserByVol: 0 0 0      0 0 0      0 0 0      0 0 0 0
Initial Fut: 7 1 49      1 1 1      1 1981      6 106 1405      2
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93
PHF Volume: 8 1 53      1 1 1      1 2135      6 114 1514      2
Reduct Vol: 0 0 0      0 0 0      0 0 0      0 0 0 0
Final Vol.: 8 1 53      1 1 1      1 2135      6 114 1514      2
Critical Gap Module:
Critical Gp: 7.5 6.5 6.9 7.5 6.5 6.9 4.1 xxxx xxxxxx 4.2 xxxx xxxxxx
FollowUpTim: 3.5 4.0 3.3 3.5 4.0 3.3 2.2 xxxx xxxxxx 2.2 xxxx xxxxxx
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol: 3126 3885 1071 2814 3887 758 1516 xxxx xxxxxx 2141 xxxx xxxxxx
Potent Cap.: 5 4 220 9 4 354 437 xxxx xxxxxx 242 xxxx xxxxxx
Move Cap.: 2 2 220 2 2 354 437 xxxx xxxxxx 242 xxxx xxxxxx
Total Cap: 35 38 xxxxxx 26 -37 xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
-----|-----|-----|-----|
Level Of Service Module:
Stopped Del:xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx 13.3 xxxx xxxxxx 32.5 xxxx xxxxxx
LOS by Move: * * * * * B * * D * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxx 127 xxxxxx xxxx 217 xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx
Shrd StpDel:xxxxxx 57.8 xxxxxx xxxxxx 21.9 xxxxxx xxxxxx xxxx xxxxxx xxxxxx xxxx xxxxxx
Shared LOS: * F * * C * * * * *
ApproachDel: 57.8 21.9 xxxxxxxx xxxxxxxx
ApproachLOS: F C * *

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- 2012 Total Traffic Volumes - Weekday AM Peak Hour

- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Base Volume Alternative)

Intersection #2 2

Cycle (sec): 120 Critical Vol./Cap. (X): 0.899
 Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 17.5
 Optimal Cycle: 110 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	1	0	2	0	1	1

Volume Module: >> Count Date: 1 Sep 1997 <<	North Bound			South Bound			East Bound			West Bound		
Base Vol:	129	9	147	17	5	25	20	1786	311	301	1063	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	129	9	147	17	5	25	20	1786	311	301	1063	12
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	138	10	157	18	5	27	21	1906	332	321	1134	13
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	138	10	157	18	5	27	21	1906	332	321	1134	13
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Final Vol.:	138	10	157	18	5	27	21	2001	332	321	1191	13

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.85	0.86	0.86	0.29	0.87	0.87	0.92	0.97	0.83	0.90	0.95	0.81
Lanes:	1.00	0.06	0.94	1.00	0.16	0.84	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1615	98	1536	551	258	1395	1752	3689	1568	1719	3619	1538

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.09	0.10	0.10	0.03	0.02	0.02	0.01	0.54	0.21	0.19	0.33	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.11	0.11	0.11	0.11	0.11	0.03	0.60	0.60	0.21	0.78	0.78
Volume/Cap:	0.75	0.90	0.90	0.29	0.17	0.17	0.42	0.90	0.35	0.90	0.42	0.01

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
Delay/Veh:	43.9	61.1	61.1	32.2	31.1	31.1	40.3	17.2	7.8	47.2	2.8	1.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	43.9	61.1	61.1	32.2	31.1	31.1	40.3	17.2	7.8	47.2	2.8	1.8
DesignQueue:	8	1	9	1	0	2	1	61	9	18	19	0

- 2012 Total Traffic Volumes - Weekday AM Peak Hour
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"Kittelson & Associates, Inc."

Level Of Service Computation Report
1994 HCM Operations Method (Base Volume Alternative)

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*****
Intersection #3 3
*****
Cycle (sec):      120          Critical Vol./Cap. (X):      1.060
Loss Time (sec):  12 (Y+R = 4 sec) Average Delay (sec/veh):  49.2
Optimal Cycle:    180          Level Of Service:           E
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L  -  T  -  R      L  -  T  -  R      L  -  T  -  R      L  -  T  -  R
-----|-----|-----|-----|
Control:       Protected        Protected        Protected        Protected
Rights:        Include          Include          Ignore           Ignore
Min. Green:    0    0    0      0    0    0      0    0    0      0    0    0
Lanes:         1  0  0  1  0      1  0  1  0  1      1  0  2  0  1      1  0  2  0  1
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      154  173  156  317  233  128  51 1748  256  130  956  165
Growth Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
Initial Bse:    154  173  156  317  233  128  51 1748  0  130  956  0
User Adj:      1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
PHF Adj:       0.97  0.97  0.97  0.97  0.97  0.97  0.97  0.97  0.00  0.97  0.97  0.00
PHF Volume:    159  178  161  327  240  132  53 1802  0  134  986  0
Reduct Vol:    0    0    0      0    0    0      0    0    0      0    0    0
Reduced Vol:   159  178  161  327  240  132  53 1802  0  134  986  0
PCE Adj:       1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  0.00  1.00  1.00  0.00
MLF Adj:       1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.05  0.00  1.00  1.05  0.00
Final Vol.:    159  178  161  327  240  132  53 1892  0  134  1035  0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:    0.94 0.92 0.92 0.95 1.00 0.85 0.94 0.99 1.00 0.92 0.97 1.00
Lanes:         1.00 0.53 0.47 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.:    1787 919 831 1805 1900 1615 1787 3762 1900 1752 3689 1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.09 0.19 0.19 0.18 0.13 0.08 0.03 0.50 0.00 0.08 0.28 0.00
Crit Moves:    ****          ****          ****          ****
Green/Cycle:   0.15 0.18 0.18 0.17 0.21 0.21 0.05 0.47 0.00 0.07 0.49 0.00
Volume/Cap:    0.61 1.06 1.06 1.06 0.61 0.39 0.57 1.06 0.00 1.06 0.57 0.00
-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:     33.9 89.7 89.7 91.0 29.8 26.9 41.5 54.4 0.0 119.9 14.1 0.0
User DelAdj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:    33.9 89.7 89.7 91.0 29.8 26.9 41.5 54.4 0.0 119.9 14.1 0.0
DesignQueue:   9   10   9   19  13   7   3   76   0   8   38   0
*****

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- 2012 Total Traffic Volumes - Weekday AM Peak Hour
 - #3542
 "Kittelton & Associates, Inc."

Level Of Service Computation Report
 1994 HCM Unsignalized Method (Base Volume Alternative)

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*****
Intersection #4 4
*****
Average Delay (sec/veh): OVERFLOW          Worst Case Level Of Service:  F
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:       Uncontrolled     Uncontrolled     Stop Sign       Stop Sign
Rights:        Include         Include         Include         Include
Lanes:         0 0 1! 0 0      0 0 1! 0 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      5 408 51 263 281 5 5 193 5 21 81 111
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    5 408 51 263 281 -5 5 193 5 21 81 111
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87 0.87
PHF Volume:     6 469 59 302 323 6 6 222 6 24 93 128
Reduct Vol:     0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.:     6 469 59 302 323 6 6 222 6 24 93 128
-----|-----|-----|-----|
Adjusted Volume Module:
Grade:         0%              0%              0%              0%
% Cycle/Cars:  0.00 0.96      0.00 0.97      0.00 0.97      0.00 0.97
% Truck/Comb:  0.04 0.00      0.03 0.00      0.03 0.00      0.03 0.00
PCE Adj:       xxxx 1.00 1.00  xxxx 1.00 1.00  xxxx xxxx xxxxxx  xxxx xxxx xxxxxx
Cycl/Car PCE:  0.50 1.00      0.50 1.00      0.50 1.00      0.50 1.00
Trck/Cmb PCE:  1.50 2.00      1.50 2.00      1.50 2.00      1.50 2.00
Adj Vol.:      6 469 59 307 323 6 6 225 6 25 94 130
-----|-----|-----|-----|
Critical Gap Module:
MoveUp Time:   2.1 xxxx xxxxxx  2.1 xxxx xxxxxx  3.4 3.3 2.6  3.4 3.3 2.6
Critical Gp:   5.0 xxxx xxxxxx  5.0 xxxx xxxxxx  6.5 6.0 5.5  6.5 6.0 5.5
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:    329 xxxx xxxxxx  528 xxxx xxxxxx  1243 1161 326 1246 1135 498
Potent Cap.:   1195 xxxx xxxxxx  961 xxxx xxxxxx  202 268 947 201 277 774
Adj Cap:       1.00 xxxx xxxxxx  1.00 xxxx xxxxxx  0.33 0.60 1.00 0.00 0.60 1.00
Move Cap.:     1195 xxxx xxxxxx  961 xxxx xxxxxx  66 161 947 0 166 774
-----|-----|-----|-----|
Level Of Service Module:
Stopped Del:   3.0 xxxx xxxxxx  5.5 xxxx xxxxxx  59.5 779 3.8 xxxxxx 48.5 5.6
LOS by Move:   A * * B * * * * * * * *
Movement:      LT - LTR - RT  LT - LTR - RT  LT - LTR - RT  LT - LTR - RT
Shared Cap.:   xxxx xxxx xxxxxx  xxxx xxxx xxxxxx  xxxx 158 xxxxxx  xxxx xxxx xxxxxx
Shrd StpDel:   xxxx xxxx xxxxxx  xxxx xxxx xxxxxx  xxxx 742 xxxxxx  xxxx xxxx xxxxxx
Shared LOS:    * * * * * * * F * * *
ApproachDel:   0.0 2.6 742.2 xxxxxx
  
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- 2012 Total Traffic Volumes - Weekday AM Peak Hour

- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #5 5

Average Delay (sec/veh): 3.7 Worst Case Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol:	20	356	93	14	244	45	84	61	30	39	55	20
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	20	356	93	14	244	45	84	61	30	39	55	20
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	23	408	107	16	279	52	96	70	34	45	63	23
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	23	408	107	16	279	52	96	70	34	45	63	23

Adjusted Volume Module:

Grade:	0%			0%			0%			0%		
% Cycle/Cars:	0.00	0.96		0.00	0.97		0.00	1.00		0.00	1.00	
% Truck/Comb:	0.04	0.00		0.03	0.00		0.00	0.00		0.00	0.00	
PCE Adj:	xxxx	1.00	1.00	xxxx	1.00	1.00	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
Cycl/Car PCE:	0.50	1.00		0.50	1.00		0.50	1.00		0.50	1.00	
Trck/Cmb PCE:	1.50	2.00		1.50	2.00		1.50	2.00		1.50	2.00	
Adj Vol.:	23	408	107	16	279	52	96	70	34	45	63	23

Critical Gap Module:

MoveUp Time:	2.1	xxxx	xxxxxx	2.1	xxxx	xxxxxx	3.4	3.3	2.6	3.4	3.3	2.6
Critical Gp:	5.0	xxxx	xxxxxx	5.0	xxxx	xxxxxx	6.5	6.0	5.5	6.5	6.0	5.5

Capacity Module:

Cnflct Vol:	331	xxxx	xxxxxx	514	xxxx	xxxxxx	848	859	305	857	831	461
Potent Cap.:	1192	xxxx	xxxxxx	975	xxxx	xxxxxx	342	387	970	338	400	809
Adj Cap:	1.00	xxxx	xxxxxx	1.00	xxxx	xxxxxx	0.82	0.95	1.00	0.79	0.95	1.00
Move Cap.:	1192	xxxx	xxxxxx	975	xxxx	xxxxxx	279	368	970	268	380	809

Level Of Service Module:

Stopped Del:	3.1	xxxx	xxxxxx	3.8	xxxx	xxxxxx	19.6	12.1	3.8	16.1	11.3	4.6
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	352	xxxxxx	xxxx	362	xxxxxx
Shrd StpDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	xxxxxx	14.3	xxxxxx	xxxxxx	11.8	xxxxxx
Shared LOS:	*	*	*	*	*	*	*	C	*	*	C	*
ApproachDel:	0.1			0.2			14.3			11.8		

- 2012 Total Traffic Volumes - Weekday AM Peak Hour

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"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 6

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: A

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	0	0	0	1	0	0	0	0	0	1

Volume Module: >> Count Date: 1 Sep 1997 <<												
Base Vol:	0	0	0	11	0	59	142	26	0	0	55	26
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	11	0	59	142	26	0	0	55	26
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	0	0	0	13	0	68	163	30	0	0	63	30
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	0	0	0	13	0	68	163	30	0	0	63	30

Adjusted Volume Module:

Grade:	0%			0%			0%			0%		
% Cycle/Cars:	0.00	0.97		0.00	0.97		0.00	1.00		0.00	1.00	
% Truck/Comb:	0.03	0.00		0.03	0.00		0.00	0.00		0.00	0.00	
PCE Adj:	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	1.00	1.00	xxxx	1.00	1.00
Cycl/Car PCE:	0.50	1.00		0.50	1.00		0.50	1.00		0.50	1.00	
Trck/Cmb PCE:	1.50	2.00		1.50	2.00		1.50	2.00		1.50	2.00	
Adj Vol.:	0	0	0	13	0	69	163	30	0	0	63	30

Critical Gap Module:

MoveUp Time:xxxxx	xxxx	xxxxxx	3.4	xxxx	2.6	2.1	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Critical Gp:xxxxx	xxxx	xxxxxx	6.5	xxxx	5.5	5.0	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	xxxxxx	271	xxxx	78	93	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Potent Cap.:	xxxx	xxxx	xxxxxx	737	xxxx	1264	1548	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Adj Cap:	xxxx	xxxx	xxxxxx	0.89	xxxx	1.00	1.00	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Move Cap.:	xxxx	xxxx	xxxxxx	658	xxxx	1264	1548	xxxx	xxxxxx	xxxx	xxxx	xxxxxx

Level Of Service Module:

Stopped Del:xxxxx	xxxx	xxxxxx	5.6	xxxx	3.0	2.6	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	
Movement:	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT	LT	- LTR	- RT
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	1104	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Shrd StpDel:xxxxx	xxxx	xxxxxx	xxxxxx	3.4	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	xxxxxx	
Shared LOS:	*	*	*	*	A	*	*	*	*	*	*	
ApproachDel:	0.0			3.4			2.2			0.0		

- 2012 Total Traffic Volumes - Weekday AM Peak Hour

- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 7

 Cycle (sec): 1 Critical Vol./Cap. (X): 0.974
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 31.2
 Optimal Cycle: 0 Level Of Service: E

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: >> Count Date: 1 Sep 1997 <<	North Bound			South Bound			East Bound			West Bound		
Base Vol:	31	66	111	267	81	141	133	249	23	88	114	132
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	31	66	111	267	81	141	133	249	23	88	114	132
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
PHF Volume:	36	76	128	307	93	162	153	286	26	101	131	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	76	128	307	93	162	153	286	26	101	131	152
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	36	76	128	307	93	162	153	286	26	101	131	152

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	350	350	350	577	577	577	525	525	525	423	423	423
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.15	0.32	0.53	0.55	0.16	0.29	0.33	0.61	0.06	0.26	0.34	0.40
Final Sat.:	53	111	187	315	95	166	173	323	29	111	144	167

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.69	0.69	0.69	0.97	0.97	0.97	0.89	0.89	0.89	0.91	0.91	0.91
Crit Moves:	****			****			****			****		
ApproachV/S:	0.69			0.97			0.89			0.91		

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
Delay/Veh:	13.5	13.5	13.5	40.5	40.5	40.5	29.0	29.0	29.0	31.5	31.5	31.5
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.5	13.5	13.5	40.5	40.5	40.5	29.0	29.0	29.0	31.5	31.5	31.5
LOS by Move:	C	C	C	E	E	E	D	D	D	E	E	E
ApproachDel:	13.5			40.5			29.0			31.5		
LOS by Appr:	C			E			D			E		

- 2012 Total Traffic Volumes - Weekday AM Peak Hour
- #3542

"Kittelston & Associates, Inc."

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

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*****
Intersection #3 3
*****
Cycle (sec):      120          Critical Vol./Cap. (X):      0.950
Loss Time (sec):  12 (Y+R = 4 sec) Average Delay (sec/veh):  29.6
Optimal Cycle:    157          Level Of Service:           D
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:       Protected      Protected      Protected      Protected
Rights:        Ovl           Include       Ignore        Ignore
Min. Green:    0   0   0       0   0   0       0   0   0       0   0   0
Lanes:         1   0   1   0   1   1   0   1   0   1   1   0   2   0   1   1
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      154 173 156 317 233 128 51 1748 256 130 956 165
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
Initial Bse:    154 173 156 317 233 128 51 1748 0 130 956 0
Added Vol:      0   0   0       0   0   0       0   0   0       0   0   0
PasserByVol:    0   0   0       0   0   0       0   0   0       0   0   0
Initial Fut:    154 173 156 317 233 128 51 1748 0 130 956 0
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj:        0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.00 0.97 0.97 0.00
PHF Volume:     159 178 161 327 240 132 53 1802 0 134 986 0
Reduct Vol:     0   0   0       0   0   0       0   0   0       0   0   0
Reduced Vol:    159 178 161 327 240 132 53 1802 0 134 986 0
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.05 0.00 1.00 1.05 0.00
Final Vol.:     159 178 161 327 240 132 53 1892 0 134 1035 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:    0.94 0.99 0.84 0.95 1.00 0.85 0.94 0.99 1.00 0.92 0.97 1.00
Lanes:         1.00 1.00 1.00 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.:    1787 1881 1599 1805 1900 1615 1787 3762 1900 1752 3689 1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:       0.09 0.09 0.10 0.18 0.13 0.08 0.03 0.50 0.00 0.08 0.28 0.00
Crit Moves:    ****          ****          ****          ****
Green/Cycle:   0.12 0.10 0.18 0.19 0.17 0.17 0.06 0.53 0.00 0.08 0.55 0.00
Volume/Cap:    0.74 0.95 0.56 0.95 0.74 0.48 0.51 0.95 0.00 0.95 0.51 0.00
-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:     41.6 72.1 30.8 57.0 36.6 30.1 38.7 25.2 0.0 79.6 11.0 0.0
User DelAdj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:    41.6 72.1 30.8 57.0 36.6 30.1 38.7 25.2 0.0 79.6 11.0 0.0
DesignQueue:   10 11 9 18 14 7 3 68 0 8 33 0
*****

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- 2012 Total Traffic Volumes - Weekday AM Peak Hour

- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Future Volume Alternative)

Intersection #3 3

Cycle (sec): 120 Critical Vol./Cap. (X): 0.853

Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.7

Optimal Cycle: 98 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R

Control: Protected Protected Protected Protected

Rights: Ovl Include Ignore Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 2 0 1 0 1 2 0 1 0 1 1 0 2 0 1

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol: 154 173 156 317 233 128 51 1748 256 130 956 165

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

Initial Bse: 154 173 156 317 233 128 51 1748 0 130 956 0

Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0

PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0

Initial Fut: 154 173 156 317 233 128 51 1748 0 130 956 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.00 0.97 0.97 0.00

PHF Volume: 159 178 161 327 240 132 53 1802 0 134 986 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 159 178 161 327 240 132 53 1802 0 134 986 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.03 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00 1.00 1.05 0.00

Final Vol.: 164 178 161 337 240 132 53 1892 0 134 1035 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.94 0.99 0.84 0.95 1.00 0.85 0.94 0.99 1.00 0.92 0.97 1.00

Lanes: 2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 3574 1881 1599 3610 1900 1615 1787 3762 1900 1752 3689 1900

Capacity Analysis Module:

Vol/Sat: 0.05 0.09 0.10 0.09 0.13 0.08 0.03 0.50 0.00 0.08 0.28 0.00

Crit Moves: ****

Green/Cycle: 0.06 0.11 0.20 0.11 0.16 0.16 0.06 0.59 0.00 0.09 0.61 0.00

Volume/Cap: 0.78 0.85 0.50 0.85 0.78 0.51 0.46 0.85 0.00 0.85 0.46 0.00

Level Of Service Module:

Delay/Veh: 47.5 52.4 28.6 45.2 39.5 31.0 36.9 15.6 0.0 57.7 8.1 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 47.5 52.4 28.6 45.2 39.5 31.0 36.9 15.6 0.0 57.7 8.1 0.0

DesignQueue: 10 11 9 20 14 8 3 60 0 8 29 0

- 2012 Total Traffic Volumes - Weekday AM Peak Hour

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"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Future Volume Alternative)

Intersection #4 4

 Cycle (sec): 60 Critical Vol./Cap. (X): 0.598
 Loss Time (sec): 6 (Y+R = 4 sec) Average Delay (sec/veh): 6.8
 Optimal Cycle: 31 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1! 0 0	1	0	0 1 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: >> Count Date: 1 Sep 1997 <<
 Base Vol: 5 408 51 263 281 5 5 193 5 21 81 111
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 5 408 51 263 281 5 5 193 5 21 81 111
 Added Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 PasserByVol: 0 0 0 0 0 0 0 0 0 0 0 0
 Initial Fut: 5 408 51 263 281 5 5 193 5 21 81 111
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
 PHF Volume: 5 421 53 271 290 5 5 199 5 22 84 114
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 5 421 53 271 290 5 5 199 5 22 84 114
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 5 421 53 271 290 5 5 199 5 22 84 114

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.86 0.86 0.86 0.37 0.97 0.97 0.87 0.87 0.87 0.77 0.77 0.77
 Lanes: 0.01 0.88 0.11 1.00 0.98 0.02 0.02 0.96 0.02 0.10 0.38 0.52
 Final Sat.: 17 1429 180 701 1813 31 39 1565 39 145 555 754

Capacity Analysis Module:
 Vol/Sat: 0.29 0.29 0.29 0.39 0.16 0.16 0.13 0.13 0.13 0.15 0.15 0.15
 Crit Moves: *****
 Green/Cycle: 0.65 0.65 0.65 0.65 0.65 0.65 0.25 0.25 0.25 0.25 0.25 0.25
 Volume/Cap: 0.46 0.46 0.46 0.60 0.25 0.25 0.50 0.50 0.50 0.60 0.60 0.60

Level Of Service Module:
 Delay/Veh: 3.7 3.7 3.7 5.5 2.9 2.9 13.2 13.2 13.2 14.7 14.7 14.7
 User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 3.7 3.7 3.7 5.5 2.9 2.9 13.2 13.2 13.2 14.7 14.7 14.7
 DesignQueue: 0 5 1 3 4 0 0 5 0 1 2 3

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour
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"Kittelson & Associates, Inc."

Level Of Service Computation Report
1997 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 1

Average Delay (sec/veh): 59.1 Worst Case Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	1	0	1 1 0	1	0	1 1 0

Volume Module:	>> Count	Date:	1 Sep 1997	<<								
Base Vol:	7	1	119	1	1	6	4	1661	19	49	2155	1
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	7	1	119	1	1	6	4	1661	19	49	2155	1
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	7	1	119	1	1	6	4	1661	19	49	2155	1
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	7	1	126	1	1	6	4	1758	20	52	2280	1
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	7	1	126	1	1	6	4	1758	20	52	2280	1
Critical Gap Module:												
Critical Gp:	7.5	6.5	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:												
Cnflct Vol:	3021	4161	889	3272	4171	1141	2281	xxxx	xxxxx	1778	xxxx	xxxxx
Potent Cap.:	6	2	290	4	2	198	226	xxxx	xxxxx	354	xxxx	xxxxx
Move Cap.:	3	2	290	1	2	198	226	xxxx	xxxxx	354	xxxx	xxxxx
Total Cap:	51	35	xxxxx	22	31	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx

Level Of Service Module:												
Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	21.3	xxxx	xxxxx	16.9	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	C	*	*	C	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	220	xxxxx	xxxx	75	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd StpDel:	xxxxx	43.9	xxxxx	xxxxx	59.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	E	*	*	F	*	*	*	*	*	*	*
ApproachDel:		43.9			59.1		xxxxxx			xxxxxx		
ApproachLOS:		E			F		*			*		

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour
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"Kittelson & Associates, Inc."

Level Of Service Computation Report
1994 HCM Operations Method (Base Volume Alternative)

Intersection #2 2

Cycle (sec): 120 Critical Vol./Cap. (X): 0.993
Loss Time (sec): 9 (Y+R = 4 sec) Average Delay (sec/veh): 36.6
Optimal Cycle: 180 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	0	1	0	2	0	1	1

Volume Module: >> Count Date: 1 Sep 1997 <<	North Bound			South Bound			East Bound			West Bound		
Base Vol:	541	12	462	21	6	42	16	1240	163	295	1853	31
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	541	12	462	21	6	42	16	1240	163	295	1853	31
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	566	13	484	22	6	44	17	1298	171	309	1940	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	566	13	484	22	6	44	17	1298	171	309	1940	32
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	1.00	1.00	1.05	1.00
Final Vol.:	566	13	484	22	6	44	17	1363	171	309	2037	32

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.85	0.85	0.09	0.87	0.87	0.93	0.98	0.83	0.94	0.99	0.84
Lanes:	1.00	0.03	0.97	1.00	0.12	0.88	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1539	42	1573	171	198	1455	1770	3725	1583	1787	3762	1599

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.37	0.31	0.31	0.13	0.03	0.03	0.01	0.37	0.11	0.17	0.54	0.02
Crit Moves:	****			****			****			****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.01	0.38	0.38	0.18	0.55	0.55
Volume/Cap:	0.99	0.83	0.83	0.35	0.08	0.08	0.99	0.97	0.29	0.97	0.99	0.04

Level Of Service Module:	North Bound			South Bound			East Bound			West Bound		
Delay/Veh:	51.7	28.9	28.9	19.0	15.9	15.9	201.7	36.8	17.0	63.3	31.4	8.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	51.7	28.9	28.9	19.0	15.9	15.9	201.7	36.8	17.0	63.3	31.4	8.2
DesignQueue:	26	1	22	1	0	2	1	63	7	18	72	1

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour

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"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Operations Method (Base Volume Alternative)

Intersection #3 3

Cycle (sec): 120 Critical Vol./Cap. (X): 1.160

Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 89.7

Optimal Cycle: 180 Level Of Service: F

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Protected Protected Protected Protected

Rights: Include Include Ignore Ignore

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 1 0 0 1 0 1 0 1 0 2 0 1

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol: 487 329 158 250 234 129 214 1178 312 264 1720 424

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

Initial Bse: 487 329 158 250 234 129 214 1178 0 264 1720 0

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

PHF Adj: 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.00 0.97 0.97 0.00

PHF Volume: 502 339 163 258 241 133 221 1214 0 272 1773 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 502 339 163 258 241 133 221 1214 0 272 1773 0

PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.05 0.00 1.00 1.05 0.00

Final Vol.: 502 339 163 258 241 133 221 1275 0 272 1862 0

Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 0.94 0.94 0.94 0.95 1.00 0.85 0.93 0.98 1.00 0.94 0.99 1.00

Lanes: 1.00 0.68 0.32 1.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00

Final Sat.: 1787 1207 580 1805 1900 1615 1770 3725 1900 1787 3762 1900

Capacity Analysis Module:

Vol/Sat: 0.28 0.28 0.28 0.14 0.13 0.08 0.12 0.34 0.00 0.15 0.49 0.00

Crit Moves: ****

Green/Cycle: 0.25 0.24 0.24 0.12 0.11 0.11 0.11 0.37 0.00 0.16 0.43 0.00

Volume/Cap: 1.12 1.16 1.16 1.16 1.12 0.72 1.16 0.93 0.00 0.93 1.16 0.00

Level Of Service Module:

Delay/Veh: 103.4 127 127.3 147.9 126 42.0 153.2 31.2 0.0 55.8 104 0.0

User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

AdjDel/Veh: 103.4 127 127.3 147.9 126 42.0 153.2 31.2 0.0 55.8 104 0.0

DesignQueue: 27 18 9 16 15 8 14 59 0 16 82 0

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour
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"Kittelson & Associates, Inc."

Level Of Service Computation Report
1994 HCM Unsignalized Method (Base Volume Alternative)

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*****
Intersection #4 4
*****
Average Delay (sec/veh): OVERFLOW          Worst Case Level Of Service:  F
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:       Uncontrolled     Uncontrolled     Stop Sign       Stop Sign
Rights:        Include         Include         Include         Include
Lanes:         0 0 1! 0 0      0 0 1! 0 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      5 392 23      176 529 5      5 89 5      59 221 342
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:    5 392 23      176 529 5      5 89 5      59 221 342
User Adj:      1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:       0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89
PHF Volume:    6 440 26      198 594 6      6 100 6      66 248 384
Reduct Vol:    0 0 0      0 0 0      0 0 0      0 0 0
Final Vol.:    6 440 26      198 594 6      6 100 6      66 248 384
-----|-----|-----|-----|
Adjusted Volume Module:
Grade:         0%              0%              0%              0%
% Cycle/Cars:  0.00 0.99      0.00 0.99      0.00 0.99      0.00 0.99
% Truck/Comb:  0.01 0.00      0.01 0.00      0.01 0.00      0.01 0.00
PCE Adj:       xxxx 1.00 1.00 xxxx 1.00 1.00 xxxx xxxx xxxxxx xxxx xxxx xxxxxx
Cycl/Car PCE:  0.50 1.00      0.50 1.00      0.50 1.00      0.50 1.00
Trck/Cmb PCE:  1.50 2.00      1.50 2.00      1.50 2.00      1.50 2.00
Adj Vol.:      6 440 26      199 594 6      6 101 6      67 250 386
-----|-----|-----|-----|
Critical Gap Module:
MoveUp Time:   2.1 xxxx xxxxxx 2.1 xxxx xxxxxx 3.4 3.3 2.6 3.4 3.3 2.6
Critical Gp:   5.0 xxxx xxxxxx 5.0 xxxx xxxxxx 6.5 6.0 5.5 6.5 6.0 5.5
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:    600 xxxx xxxxxx 466 xxxx xxxxxx 1570 1267 597 1307 1257 453
Potent Cap.:   888 xxxx xxxxxx 1028 xxxx xxxxxx 130 236 690 185 239 816
Adj Cap:       1.00 xxxx xxxxxx 1.00 xxxx xxxxxx 0.00 0.70 1.00 0.40 0.70 1.00
Move Cap.:     888 xxxx xxxxxx 1028 xxxx xxxxxx 0 164 690 74 166 816
-----|-----|-----|-----|
Level Of Service Module:
Stopped Del:   4.1 xxxx xxxxxx 4.3 xxxx xxxxxx xxxxxx 54.7 5.3 246.9 974 8.3
LOS by Move:   A * * * A * * * * * * * * * *
Movement:      LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.:   xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx 244 xxxxxx
Shrd StpDel:   xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx xxxx xxxxxx xxxx 374 xxxxxx
Shared LOS:    * * * * * * * * * * * * * * F *
ApproachDel:   0.0          1.1          xxxxxx          374.2

```

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report
1994 HCM Unsignalized Method (Base Volume Alternative)

```

*****
Intersection #5 5
*****
Average Delay (sec/veh):      8.0      Worst Case Level Of Service:      D
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Uncontrolled      Uncontrolled      Stop Sign      Stop Sign
Rights:      Include      Include      Include      Include
Lanes:      0 0 1! 0 0      0 0 1! 0 0      0 0 1! 0 0      0 0 1! 0 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      29 310 49      16 374 199      95 56 16      106 82 10
Growth Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
Initial Bse:      29 310 49      16 374 199      95 56 16      106 82 10
User Adj:      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00      1.00 1.00 1.00
PHF Adj:      0.89 0.89 0.89      0.89 0.89 0.89      0.89 0.89 0.89      0.89 0.89 0.89
PHF Volume:      33 349 55      18 421 224      107 63 18      119 92 11
Reduct Vol:      0 0 0      0 0 0      0 0 0      0 0 0
Final Vol.:      33 349 55      18 421 224      107 63 18      119 92 11
-----|-----|-----|-----|
Adjusted Volume Module:
Grade:      0%      0%      0%      0%
% Cycle/Cars:      0.00 0.99      0.00 0.99      0.00 1.00      0.00 1.00
% Truck/Comb:      0.01 0.00      0.01 0.00      0.00 0.00      0.00 0.00
PCE Adj:      xxxx 1.00 1.00      xxxx 1.00 1.00      xxxx xxxx xxxxxx      xxxx xxxx xxxxxx
Cycl/Car PCE:      0.50 1.00      0.50 1.00      0.50 1.00      0.50 1.00
Trck/Cmb PCE:      1.50 2.00      1.50 2.00      1.50 2.00      1.50 2.00
Adj Vol.:      33 349 55      18 421 224      107 63 18      119 92 11
-----|-----|-----|-----|
Critical Gap Module:
MoveUp Time:      2.1 xxxx xxxxxx      2.1 xxxx xxxxxx      3.4 3.3 2.6      3.4 3.3 2.6
Critical Gp:      5.0 xxxx xxxxxx      5.0 xxxx xxxxxx      6.5 6.0 5.5      6.5 6.0 5.5
-----|-----|-----|-----|
Capacity Module:
Cnflct Vol:      645 xxxx xxxxxx      404 xxxx xxxxxx      1012 988 533      1001 1073 377
Potent Cap.:      845 xxxx xxxxxx      1100 xxxx xxxxxx      275 331 743      279 298 892
Adj Cap:      1.00 xxxx xxxxxx      1.00 xxxx xxxxxx      0.69 0.92 1.00      0.77 0.92 1.00
Move Cap.:      845 xxxx xxxxxx      1100 xxxx xxxxxx      190 305 743      216 276 892
-----|-----|-----|-----|
Level Of Service Module:
Stopped Del:      4.4 xxxx xxxxxx      3.3 xxxx xxxxxx      42.8 14.9 5.0      36.8 19.6 4.1
LOS by Move:      A * *      A * *      * * *      * * *
Movement:      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT      LT - LTR - RT
Shared Cap.:      xxxx xxxx xxxxxx      xxxx xxxx xxxxxx      xxxx 237 xxxxxx      xxxx 248 xxxxxx
Shrd StpDel:xxxxx xxxx xxxxxx      xxxxx xxxx xxxxxx      xxxxx 29.8 xxxxxx      xxxxx 28.0 xxxxxx
Shared LOS:      * * *      * * *      * D *      * D *
ApproachDel:      0.3      0.1      29.8      28.0

```

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM Unsignalized Method (Base Volume Alternative)

Intersection #6 6

Average Delay (sec/veh): 2.3 Worst Case Level Of Service: A

Approach: North Bound South Bound East Bound West Bound

Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Uncontrolled Uncontrolled

Rights: Include Include Include Include

Lanes: 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 0

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol: 0 0 0 29 0 165 68 52 0 0 34 12

Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

Initial Bse: 0 0 0 29 0 165 68 52 0 0 34 12

User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00

PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89

PHF Volume: 0 0 0 33 0 185 76 58 0 0 38 13

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Final Vol.: 0 0 0 33 0 185 76 58 0 0 38 13

Adjusted Volume Module:

Grade: 0% 0% 0% 0%

% Cycle/Cars: 0.00 0.99 0.00 0.99 0.00 1.00 0.00 1.00

% Truck/Comb: 0.01 0.00 0.01 0.00 0.00 0.00 0.00 0.00

PCE Adj: xxxx xxxx xxxx xxxx xxxx 1.00 1.00 xxxx 1.00 1.00

Cycl/Car PCE: 0.50 1.00 0.50 1.00 0.50 1.00 0.50 1.00

Trck/Cmb PCE: 1.50 2.00 1.50 2.00 1.50 2.00 1.50 2.00

Adj Vol.: 0 0 0 33 0 186 76 58 0 0 38 13

Critical Gap Module:

MoveUp Time:xxxxx xxxx xxxxx 3.4 xxxx 2.6 2.1 xxxx xxxxx xxxxx xxxx xxxxx

Critical Gp:xxxxx xxxx xxxxx 6.5 xxxx 5.5 5.0 xxxx xxxxx xxxxx xxxx xxxxx

Capacity Module:

Cnflct Vol: xxxx xxxx xxxxx 180 xxxx 45 52 xxxx xxxxx xxxx xxxx xxxxx

Potent Cap.: xxxx xxxx xxxxx 833 xxxx 1314 1620 xxxx xxxxx xxxx xxxx xxxxx

Adj Cap: xxxx xxxx xxxxx 0.95 xxxx 1.00 1.00 xxxx xxxxx xxxx xxxx xxxxx

Move Cap.: xxxx xxxx xxxxx 792 xxxx 1314 1620 xxxx xxxxx xxxx xxxx xxxxx

Level Of Service Module:

Stopped Del:xxxxx xxxx xxxxx 4.7 xxxx 3.2 2.3 xxxx xxxxx xxxxx xxxx xxxxx

LOS by Move: * * * * * A * * * * *

Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT

Shared Cap.: xxxx xxxx xxxxx xxxx 1196 xxxxx xxxx xxxx xxxxx xxxx xxxx xxxxx

Shrd StpDel:xxxxx xxxx xxxxx xxxxx 3.4 xxxxx xxxxx xxxx xxxxx xxxxx xxxx xxxxx

Shared LOS: * * * * * A * * * * *

ApproachDel: 0.0 3.4 1.3 0.0

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour

- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report

1994 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #7 7

 Cycle (sec): 1 Critical Vol./Cap. (X): 1.364
 Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 87.1
 Optimal Cycle: 0 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0

Volume Module: >> Count Date: 1 Sep 1997 <<
 Base Vol: 26 95 99 146 77 152 159 126 35 126 283 304
 Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Initial Bse: 26 95 99 146 77 152 159 126 35 126 283 304
 User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 PHF Adj: 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89 0.89
 PHF Volume: 29 107 111 164 87 171 179 142 39 142 318 342
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 29 107 111 164 87 171 179 142 39 142 318 342
 PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Final Vol.: 29 107 111 164 87 171 179 142 39 142 318 342

Saturation Flow Module:
 Sat/Lane: 376 376 376 495 495 495 675 675 675 588 588 588
 Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 Lanes: 0.12 0.43 0.45 0.39 0.21 0.40 0.50 0.39 0.11 0.18 0.40 0.42
 Final Sat.: 44 163 169 192 102 201 336 266 73 104 233 251

Capacity Analysis Module:
 Vol/Sat: 0.66 0.66 0.66 0.85 0.85 0.85 0.53 0.53 0.53 1.36 1.36 1.36
 Crit Moves: *****
 ApproachV/S: 0.66 0.85 0.53 1.36

Level Of Service Module:
 Delay/Veh: 12.1 12.1 12.1 25.5 25.5 25.5 7.6 7.6 7.6 178.2 178 178.2
 Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
 AdjDel/Veh: 12.1 12.1 12.1 25.5 25.5 25.5 7.6 7.6 7.6 178.2 178 178.2
 LOS by Move: C C D D B B F F F
 ApproachDel: 12.1 25.5 7.6 178.2
 LOS by Appr: C D B F

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelton & Associates, Inc."

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

Intersection #3 3

Cycle (sec): 120 Critical Vol./Cap. (X): 1.142
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 74.0
Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ovl			Include			Ignore			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	2	0	1	1

Volume Module: >> Count Date: 1 Sep 1997 <<

Base Vol:	487	329	158	250	234	129	214	1178	312	264	1720	424
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
Initial Bse:	487	329	158	250	234	129	214	1178	0	264	1720	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	487	329	158	250	234	129	214	1178	0	264	1720	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.00	0.97	0.97	0.00
PHF Volume:	502	339	163	258	241	133	221	1214	0	272	1773	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	502	339	163	258	241	133	221	1214	0	272	1773	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.05	0.00	1.00	1.05	0.00
Final Vol.:	502	339	163	258	241	133	221	1275	0	272	1862	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.94	0.99	0.84	0.95	1.00	0.85	0.93	0.98	1.00	0.94	0.99	1.00
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1787	1881	1599	1805	1900	1615	1770	3725	1900	1787	3762	1900

Capacity Analysis Module:

Vol/Sat:	0.28	0.18	0.10	0.14	0.13	0.08	0.12	0.34	0.00	0.15	0.49	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.25	0.20	0.37	0.16	0.11	0.11	0.11	0.38	0.00	0.17	0.43	0.00
Volume/Cap:	1.14	0.90	0.28	0.90	1.14	0.74	1.14	0.91	0.00	0.91	1.14	0.00

Level Of Service Module:

Delay/Veh:	117.2	47.8	17.4	53.2	140	43.5	142.8	29.6	0.0	53.1	93.8	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	117.2	47.8	17.4	53.2	140	43.5	142.8	29.6	0.0	53.1	93.8	0.0
DesignQueue:	27	19	7	15	15	8	14	58	0	16	81	0

0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

```

*****
Intersection #3 3
*****
Cycle (sec):      120          Critical Vol./Cap. (X):      0.990
Loss Time (sec):  12 (Y+R = 4 sec) Average Delay (sec/veh):  39.0
Optimal Cycle:    180          Level Of Service:           D
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:       Protected      Protected      Protected      Protected
Rights:        Ovl           Include       Ignore        Ignore
Min. Green:    0 0 0         0 0 0         0 0 0         0 0 0
Lanes:         2 0 1 0 1      2 0 1 0 1      1 0 2 0 1      1 0 2 0 1
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      487 329 158 250 234 129 214 1178 312 264 1720 424
Growth Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
Initial Bse:    487 329 158 250 234 129 214 1178 0 264 1720 0
Added Vol:      0 0 0         0 0 0         0 0 0         0 0 0
PasserByVol:    0 0 0         0 0 0         0 0 0         0 0 0
Initial Fut:    487 329 158 250 234 129 214 1178 0 264 1720 0
User Adj:       1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
PHF Adj:        0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.00 0.97 0.97 0.00
PHF Volume:     502 339 163 258 241 133 221 1214 0 272 1773 0
Reduct Vol:     0 0 0         0 0 0         0 0 0         0 0 0
Reduced Vol:    502 339 163 258 241 133 221 1214 0 272 1773 0
PCE Adj:        1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 0.00
MLF Adj:        1.03 1.00 1.00 1.03 1.00 1.00 1.00 1.05 0.00 1.00 1.05 0.00
Final Vol.:     517 339 163 265 241 133 221 1275 0 272 1862 0
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:       1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:     0.94 0.99 0.84 0.95 1.00 0.85 0.93 0.98 1.00 0.94 0.99 1.00
Lanes:          2.00 1.00 1.00 2.00 1.00 1.00 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.:     3574 1881 1599 3610 1900 1615 1770 3725 1900 1787 3762 1900
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:        0.14 0.18 0.10 0.07 0.13 0.08 0.12 0.34 0.00 0.15 0.49 0.00
Crit Moves:     ****          ****          ****          ****
Green/Cycle:    0.15 0.19 0.39 0.08 0.13 0.13 0.13 0.43 0.00 0.19 0.50 0.00
Volume/Cap:     0.99 0.93 0.26 0.93 0.99 0.64 0.99 0.79 0.00 0.79 0.99 0.00
-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:      61.0 51.3 16.2 59.8 75.4 36.7 77.4 20.9 0.0 37.8 33.2 0.0
User DelAdj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:     61.0 51.3 16.2 59.8 75.4 36.7 77.4 20.9 0.0 37.8 33.2 0.0
DesignQueue:    31 19 7 17 14 8 13 53 0 15 71 0
*****

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0 - 2012 Total Traffic Volumes - Weekday PM Peak Hour
- #3542

"Kittelson & Associates, Inc."

Level Of Service Computation Report
1994 HCM Operations Method (Future Volume Alternative)

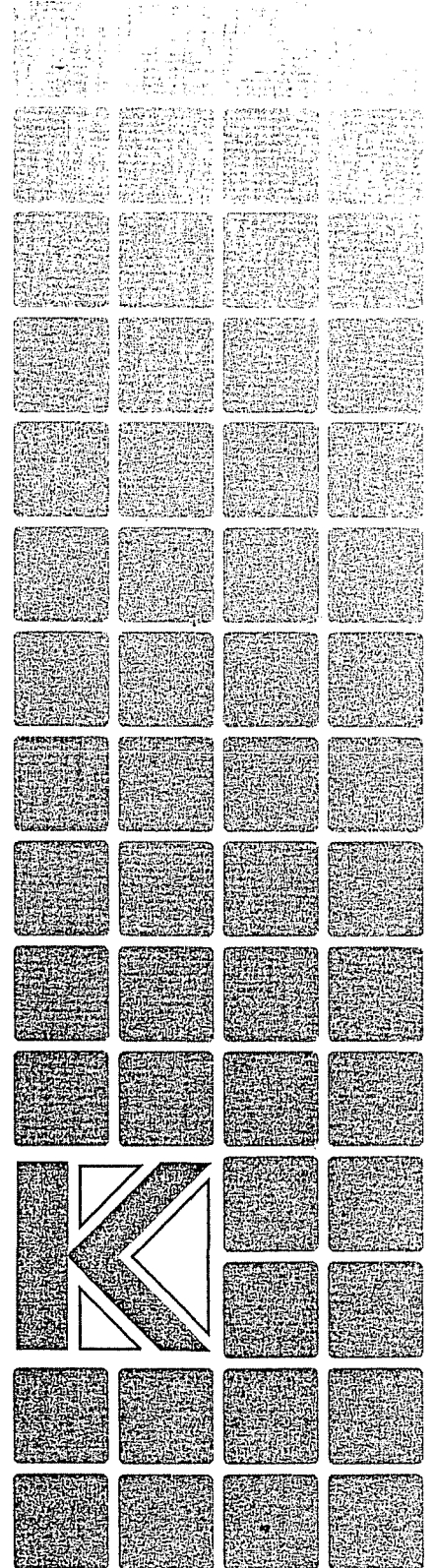
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*****
Intersection #4 4
*****
Cycle (sec):          60          Critical Vol./Cap. (X):          0.796
Loss Time (sec):      6 (Y+R = 4 sec) Average Delay (sec/veh):      12.4
Optimal Cycle:        51          Level Of Service:              B
*****
Approach:      North Bound      South Bound      East Bound      West Bound
Movement:      L - T - R      L - T - R      L - T - R      L - T - R
-----|-----|-----|-----|
Control:      Permitted      Permitted      Permitted      Permitted
Rights:      Include      Include      Include      Include
Min. Green:    0  0  0      0  0  0      0  0  0      0  0  0
Lanes:        0  0  1! 0 0      1  0  0  1  0      0  0  1! 0 0      0  0  1! 0 0
-----|-----|-----|-----|
Volume Module: >> Count Date: 1 Sep 1997 <<
Base Vol:      5  392  23      176  529      5      5  89      5  59  221  342
Growth Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    5  392  23      176  529      5      5  89      5  59  221  342
Added Vol:      0  0  0      0  0  0      0  0  0      0  0  0  0
PasserByVol:    0  0  0      0  0  0      0  0  0      0  0  0  0
Initial Fut:    5  392  23      176  529      5      5  89      5  59  221  342
User Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:      0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97 0.97 0.97  0.97
PHF Volume:     5  404  24      181  545      5      5  92      5  61  228  353
Reduct Vol:     0  0  0      0  0  0      0  0  0      0  0  0  0
Reduced Vol:    5  404  24      181  545      5      5  92      5  61  228  353
PCE Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00 1.00 1.00  1.00
Final Vol.:     5  404  24      181  545      5      5  92      5  61  228  353
-----|-----|-----|-----|
Saturation Flow Module:
Sat/Lane:      1900 1900  1900  1900 1900  1900  1900 1900  1900 1900 1900  1900
Adjustment:    0.86 0.86  0.86  0.65 0.99  0.99  0.81 0.81  0.81 0.80 0.80  0.80
Lanes:         0.01 0.93  0.06  1.00 0.99  0.01  0.05 0.90  0.05 0.09 0.36  0.55
Final Sat.:    19 1531  91  1242 1864  17      76 1389  76  144  538  833
-----|-----|-----|-----|
Capacity Analysis Module:
Vol/Sat:      0.26 0.26  0.26  0.15 0.29  0.29  0.07 0.07  0.07 0.42 0.42  0.42
Crit Moves:          ****          ****
Green/Cycle:  0.37 0.37  0.37  0.37 0.37  0.37  0.53 0.53  0.53 0.53 0.53  0.53
Volume/Cap:   0.72 0.72  0.72  0.40 0.80  0.80  0.12 0.12  0.12 0.80 0.80  0.80
-----|-----|-----|-----|
Level Of Service Module:
Delay/Veh:     13.4 13.4  13.4   9.4 15.5  15.5   4.5 4.5  4.5 11.2 11.2  11.2
User DelAdj:   1.00 1.00  1.00   1.00 1.00  1.00   1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:    13.4 13.4  13.4   9.4 15.5  15.5   4.5 4.5  4.5 11.2 11.2  11.2
DesignQueue:   0  9  1  4  12  0  0  1  0  1  4  6
*****

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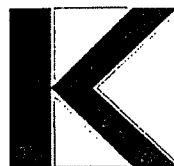
Appendix C

Left-Turn Lane Worksheets



LEFT-TURN LANE WARRANT ANALYSIS

Project Name: Springbrook Oaks
Project Number: 3542
Analyst: CSS
Date: 06-Jun-99
Filename: H:\PROFILE\3542\QPRO\4-10%.W



KITTELSON & ASSOCIATES, INC.
 610 SW Alder, Suite 700
 Portland, Oregon 97205
 (503) 228-5230
 Fax: (503) 273-8169

Intersection: Springbrook/E-W Road
Conditions (yr, alt., etc.): 2012 PM
Storage Length/Vehicle: 25 feet

INPUTS & WARRANTS:	NB	SB
Advancing Volume	399	552
Opposing Volume	534	394
Left-Turn Volume	5	18
%Left Turns (L)	1.3%	3.3%
Speed (mph)	40	40
Storage Probability	0.00000800	0.00000800
Warrant Utilization (3-veh)	0.0200	0.0200
4-vehicle	0.0532	0.0532
5-vehicle	0.0956	0.0956
6-vehicle	0.1414	0.1414
7-vehicle	0.1870	0.1870
8-vehicle	0.2306	0.2306
9-vehicle	0.2714	0.2714
10-vehicle	0.3092	0.3092
11-vehicle	0.3441	0.3441
12-vehicle	0.3761	0.3761

CALCULATIONS:	NB	SB
Critical Gap (Gc)	5.0	5.0
Exit Time (Te)	1.9	1.9
Wait Time (Tw)	2.41	1.66
Manuever Time (T1)	3.0	3.0
Usable Gaps	168	148
Blocked Time/hr	1206.8	905.2
Mean Headway (Ta)	9.02	6.52
Mean Arrival Rate	3.5	14.2
Mean Service Rate	797.7	898.3

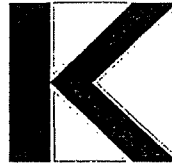
RESULTS:

Utilization Factor	0.0044	0.0159
LT Lane Warranted?	NO	NO
Storage Length (ft)		

Source: M.D. Harmelink, "Volume Warrants for Left-Turn Storage at Unsignalized Grade Intersections", Highway Research Record 211.

LEFT-TURN LANE WARRANT ANALYSIS

Project Name: Springbrook Oaks
Project Number: 3542
Analyst: CSS
Date: 06-Jun-99
Filename: H:\PROFILE\3542\QPROV4-20%.W



KITTELSON & ASSOCIATES, INC.
 610 SW Alder, Suite 700
 Portland, Oregon 97205
 (503) 228-5230
 Fax: (503) 273-8169

Intersection: Springbrook/E-W Road
Conditions (yr, alt., etc.): 2012 PM
Storage Length/Vehicle: 25 feet

INPUTS & WARRANTS:	NB	SB
Advancing Volume	401	570
Opposing Volume	534	396
Left-Turn Volume	5	36
%Left Turns (L)	1.2%	6.3%
Speed (mph)	40	40
Storage Probability	0.00000800	0.00000800
Warrant Utilization (3-veh)	0.0200	0.0200
4-vehicle	0.0532	0.0532
5-vehicle	0.0956	0.0956
6-vehicle	0.1414	0.1414
7-vehicle	0.1870	0.1870
8-vehicle	0.2306	0.2306
9-vehicle	0.2714	0.2714
10-vehicle	0.3092	0.3092
11-vehicle	0.3441	0.3441
12-vehicle	0.3761	0.3761

CALCULATIONS:	NB	SB
Critical Gap (Gc)	5.0	5.0
Exit Time (Te)	1.9	1.9
Wait Time (Tw)	2.41	1.67
Manuever Time (T1)	3.0	3.0
Usable Gaps	168	149
Blocked Time/hr	1206.8	909.8
Mean Headway (Ta)	8.98	6.32
Mean Arrival Rate	3.6	28.6
Mean Service Rate	797.7	896.7

RESULTS:

Utilization Factor	0.0045	0.0319
LT Lane Warranted?	NO	YES
Storage Length (ft)		75

Source: M.D. Harmelink, "Volume Warrants for Left-Turn Storage at Unsignalized Grade Intersections", Highway Research Record 211.

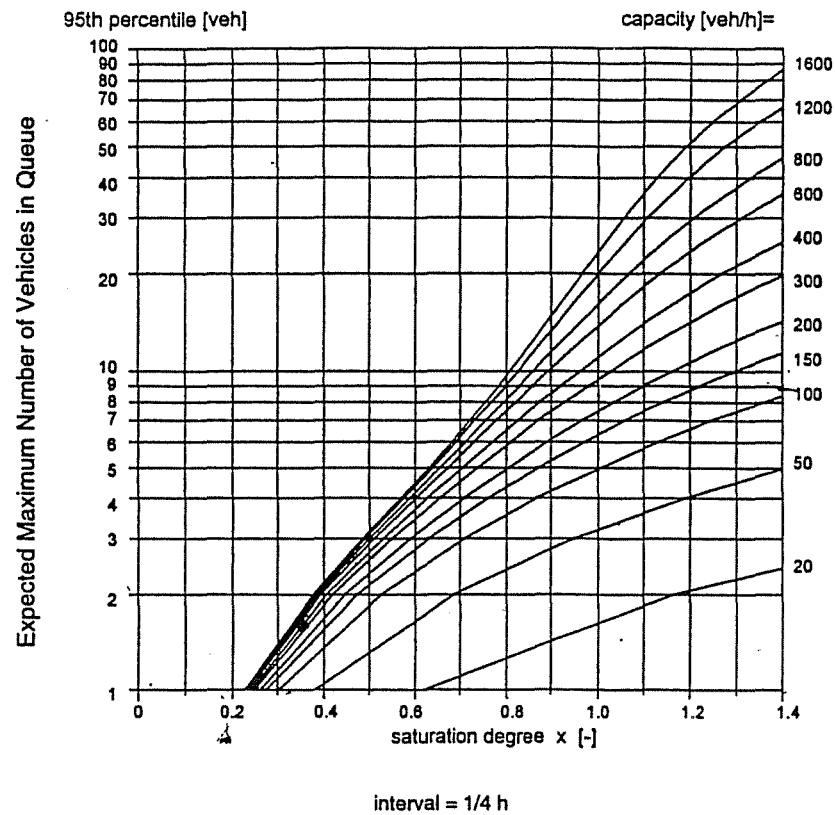


Figure 10-8. 95th-percentile queue length estimation at unsignalized intersections.

2012 TOTAL WEEKDAY AM

CAPACITY = 961

$V/C = 307/961 = 0.32$

2 VEHs = 50'

2012 TOTAL WEEKDAY PM

CAPACITY = 1028

$V/C = 199/1028 = .19$

1 VEH = 25'

Attachment F**KITTELSON & ASSOCIATES, INC.****TRANSPORTATION PLANNING/TRAFFIC ENGINEERING**

810 SW ALDER, SUITE 700 • PORTLAND, OR 97206 • (503) 228-5230 • FAX (503) 273-8169

June 30, 1999

Project #: 3542

David Beam
City of Newberg
115 S. Howard Street
Newberg, Oregon 97132

RE: Springbrook Oaks Mixed Use Development

Dear David:


This letter is in response to the Newberg Planning Commission's concern regarding peak traffic volumes on Springbrook Road. Listed below is the item identified by the Planning Commission (in bold italics) followed by Kittelson & Associates' response (in standard text).

- ***The traffic volumes on Springbrook Road were not studied during the peak usage times, which Mr. Parrish believes to be when employees of A-dec and Ushio go to and from their work sites. Mr. Parrish believes that existing and future background traffic plus the traffic generated by the development of Springbrook Oaks will create a usage situation along Springbrook Road, especially at the intersection with Fernwood Road.***

The time period when traffic volumes are highest most often occurs during the weekday a.m. peak hours (7:00-9:00 a.m.) or weekday p.m. peak hours (4:00-6:00 p.m.). Twenty four traffic surveys on Highway 99W and Springbrook Road indicate that the time period with the highest traffic volumes occurs during the weekday p.m. peak hour. The weekday p.m. peak hour is also when the proposed development is expected to generate its highest traffic volumes. Therefore, the time period with the highest roadway and site traffic will occur during the weekday p.m. peak hours. The *Springbrook Oaks Mixed-Use Development* Transportation Impact Analysis analyzed both the weekday a.m. and p.m. peak hours and therefore analyzed the peak time period when traffic volumes will be greatest. *Copies of the tube count data are attached.*

We trust this letter adequately addresses the concerns regarding peak time periods within the study area. If you have any questions, please do not hesitate to call us at 228-5230.

Sincerely,
KITTELSON & ASSOCIATES, INC.


Christopher Stanley
Project Manager

Attachment: 24-Hour Traffic Volume Data

FROM : TRAFFIC SMITHY

PHONE NO. : 5036438866

Jul. 01 1999 01:42PM P2

Sheet1

SPRINGBROOK ROAD			
JUST NORTH OF FERNWOOD			
Start	wed. 6/30		
DIRECTION:		NB	SB
		Count	
10:00	11:00	228	251
11:00	12:00	260	261
12:00	13:00	308	320
13:00	14:00	276	293
14:00	15:00	276	324
15:00	16:00	292	389
16:00	17:00	356	427
17:00	18:00	380	391
18:00	19:00	300	345
19:00	20:00	212	224
20:00	21:00	138	198
21:00	22:00	102	143
22:00	23:00	67	104
23:00	0:00	32	45
0:00	1:00	15	25
1:00	2:00	11	22
2:00	3:00	8	10
3:00	4:00	6	8
4:00	5:00	12	10
5:00	6:00	110	58
6:00	7:00	212	133
7:00	8:00	198	211
8:00	9:00	148	181
9:00	10:00	143	216
10:00	11:00		73
11:00	12:00		
12:00	13:00		
13:00	14:00		

TRANSPORTATION DEVELOPMENT BRANCH - RESEARCH SECTION

MONTHLY TRAFFIC DATA

JUNE, 1998

STATION NUMBER: 3600400 (Combined)										STATION NAME: HENBERG										COUNTY NAME : YAMHILL																																	
HIGHWAY NUMBER: IW										MILE POINT : 21.65										DATA DATE : JUNE, 1998																																	
Average Daily: 33,847										Average Weekday: 33,975 (Monday thru Thursday)																																											
Maximum Hour : 3,057										Day: FRI										Date: 26																																	
Maximum Day : 38,685										Day: FRI										Date: 12																																	
																				Hour: 17																																	
07	28,035	01	33,287	02	33,075	03	33,428	04	34,196	05	37,772	06	32,822	14	28,742	08	33,089	09	33,809	10	33,489	11	34,693	12	38,685	13	33,325	21	31,246	15	34,135	16	34,221	17	34,682	18	35,014	19	37,952	20	33,359												
28	30,079	22	33,684	23	34,061	24	33,969	25	36,474	26	38,083	27	33,500			29	33,602	30	34,516																																		
Avg. 29,526					Avg. 33,559					Avg. 33,896					Avg. 33,972					Avg. 34,594					Avg. 38,123					Avg. 33,252																							
01 MON	151	112	151	360	1130	2104	2388	1874	1656	1666	1735	1808	1799	1982	2490	2659	2635	2016	1367	1058	986	401	336	240	33287	01	02 TUE	153	126	143	314	1090	2154	2340	1887	1622	1585	1626	1771	1705	1969	2313	2711	2611	2842	1407	1151	1014	470	416	253	33875	02
03 WED	152	121	157	354	1053	2197	2362	1870	1610	1676	1676	1713	1810	2075	2373	2585	2758	2135	1388	1046	986	689	399	265	33428	03	04 THU	148	138	142	360	1060	2074	2380	1865	1645	1676	1636	1772	1875	2054	2525	2728	2788	2267	1453	1171	1008	711	432	308	34196	04
05 FRI	173	132	143	343	1057	2015	2345	1871	1700	1919	1839	2093	2012	2297	2722	2925	2839	2549	1809	1375	1358	1071	692	497	37772	05	06 SAT	170	122	130	373	1073	2123	2310	1854	1679	1679	1714	1804	2044	2319	2519	2651	2016	1373	1058	986	401	336	240	33287	06	
07 SUN	141	118	143	354	1053	2197	2362	1870	1610	1676	1676	1713	1810	2075	2373	2585	2758	2135	1388	1046	986	689	399	265	33428	07	08 MON	135	119	128	308	1117	2094	2328	1770	1665	1632	1695	1783	1817	2038	2406	2601	2641	2145	1271	1070	1008	663	368	247	33089	08
09 TUE	163	130	155	341	1095	2110	2390	1879	1698	1698	1752	1889	1869	2059	2420	2617	2708	2122	1471	1179	941	620	376	257	33809	09	10 WED	125	137	160	345	1061	2037	2374	1831	1628	1748	1729	1794	1972	2061	2334	2714	2742	2085	1387	1089	1052	641	369	254	33609	10
11 THU	170	135	162	329	1067	2065	2299	1926	1675	1782	1793	1887	1915	2096	2621	2732	2635	2237	1447	1279	1036	786	408	271	34693	11	12 FRI	157	147	147	372	1056	1981	2215	1802	1756	1980	1972	2181	2134	2400	2975	2942	3049	2509	1813	1599	1638	1026	796	508	38685	12
13 SAT	170	135	162	329	1067	2065	2299	1926	1675	1782	1793	1887	1915	2096	2621	2732	2635	2237	1447	1279	1036	786	408	271	34693	13	14 SUN	141	118	143	354	1053	2197	2362	1870	1610	1676	1676	1713	1810	2075	2373	2585	2758	2135	1388	1046	986	689	399	265	33428	14
15 MON	138	113	157	308	1053	2119	2193	1776	1761	1864	1862	1949	2052	2117	2516	2658	2802	2181	1386	1036	928	622	381	221	34135	15	16 TUE	162	135	144	329	1023	2109	2226	1862	1824	1866	1838	1883	1858	2104	2446	2637	2788	2085	1313	1203	1017	699	452	266	34221	16
17 WED	143	156	162	334	1080	2128	2246	1774	1782	1806	1801	1943	1964	2056	2503	2744	2728	2234	1572	1216	1078	765	395	272	34882	17	18 THU	165	152	168	337	1107	2098	2162	1832	1754	1817	1943	1980	2083	1087	2544	2788	2808	2231	1443	1245	991	759	388	272	35014	18
19 FRI	190	156	162	355	1029	1950	2107	1823	1894	1964	1991	2113	2239	2255	2726	2810	2768	2494	1843	1660	1295	1044	746	438	37952	19	20 SAT	170	135	168	333	1063	2089	2247	1732	1729	1771	1844	1953	1982	2087	2576	2762	2632	2222	1467	1166	971	715	395	281	34474	20
21 SUN	141	118	143	354	1053	2197	2362	1870	1610	1676	1676	1713	1810	2075	2373	2585	2758	2135	1388	1046	986	689	399	265	33428	21	22 MON	153	136	158	350	1180	2116	2170	1734	1616	1738	1808	1833	1896	2120	2411	2610	2726	2057	1421	1137	996	745	380	159	33684	22
23 TUE	150	140	166	321	1095	2088	2318	1762	1676	1669	1712	1830	1921	2046	2377	2804	2839	2094	1431	1189	1061	711	405	158	34061	23	24 WED	160	144	165	348	1103	2092	2225	1711	1684	1739	1792	1840	1989	2054	2440	2665	2689	2183	1405	1177	1019	724	391	287	33969	24
25 THU	182	145	168	333	1063	2089	2247	1732	1729	1771	1844	1953	1982	2087	2576	2762	2632	2222	1467	1166	971	715	395	281	34474	25	26 FRI	172	148	159	345	1068	1885	2048	1741	1752	1885	2028	2200	2129	2348	2826	2889	5057	2653	1931	1453	1235	997	691	401	36883	26
27 SAT	170	135	168	333	1063	2089	2247	1732	1729	1771	1844	1953	1982	2087	2576	2762	2632	2222	1467	1166	971	715	395	281	34474	27	28 SUN	141	118	143	354	1053	2197	2362	1870	1610	1676	1676	1713	1810	2075	2373	2585	2758	2135	1388	1046	986	689	399	265	33428	28
29 MON	150	142	157	319	1070	2095	2125	1673	1725	1827	1864	1865	1835	2059	2471	2604	2608	2459	1493	1133	994	672	434	252	33602	29	30 TUE	158	140	143	325	1163	2104	2166	1728	1754	1757	1862	1819	1885	2021	2467	2644	2779	2247	1540	1211	1021	701	414	264	34316	30

04/15/98 10:07 25039864249

TRANS DATA

Jul 1 1999 16:52 P.04 002

KITTELSON & ASSOCIATES Fax:5032738169

Df: 7-8-99

Re: matson Haug

No.: Response to Staff Report

CPA-14/2-14-99

From: Matson Haug
Newberg Planning Commissioner
July 7, 1999

To: fellow Planning Commissioners

Attachment G

Question: Does the Springbrook Oaks Specific Plan satisfy Newberg's economic goals?

The staff's "economic goal" findings for the Springbrook Oaks Specific Plan argues for essentially re-establishing the Comprehensive Plan's commercial and industrial land use needs. This argument is based upon our recent past history as a solid projector of our future requirements.

Accepting this argument now, in the context of this application, undermines the community's right to a clear, open, and focused deliberation on what our actual needs are and on what is best for Newberg.

The only proper process for a significant change such as this, where all the analysis can be brought forth and all of the community can be involved, is during the up-coming Comprehensive Plan periodic review.

Duane Cole himself, in a memo to me on January 29th of this year (with copies to the Mayor, the Commission Chair, and his staff) states:

"Is the concept of a jobs/housing balance for a suburban City a reasonable concept to pursue based on the dynamic nature of the City's economy since it is part of the greater metropolitan area? Will the recruitment do anything to solve commuting and traffic congestion? These are challenges we face and should consider. Do we have more industrial land than we need? It is a question. I suggested last night that possibly we may, but only the future and the good deliberation of the PC and CC will tell what is in the best interest of the City. It is a discussion we have to yet to properly put forth since it includes a discussion of values - do we really want a lot of industry and what type of industry."

I would also like to point out that the staff's "needs analysis" is based upon our recent past history as a solid projector of our future requirements and this is quite debatable. A solid argument can be made that the METRO growth is just now starting to offer Newberg the economic independence that is called for in the Comprehensive Plan.

In conclusion, I would like to reference below portions of the Comprehensive Plan which strongly support the argument that we make no major zone changes which could potentially impact our economic health until after due Public notice and deliberation focused explicitly on this topic:

D. PERIODIC REVIEW OF 1991

Page 3. Please note that this review concentrated on areas deemed especially important, especially industrial development. This directly contradicts statements made in

the staff findings, which suggest that the 1991 projections were simple analysis-free continuations of the 1979 numbers.

H. ECONOMY

POLICIES:

2. Industrial Areas Policy

d. and f. Page 14. If the future needs are now in doubt, we need a fair and separate discussion on what those needs are. In the meanwhile, the Comprehensive plan states that the land needs to be reserved "prior to demand". And, if we make these zone changes, what organized pattern of future industrial development will occur? An analysis of this industrial expansion is missing.

IV. PLAN DESCRIPTION

D. LAND USE NEEDS

Page 39. The Comprehensive Plan calls directly for "economic independence", not for satisfaction of the housing needs of the greater metropolitan area.

Thanks you for consideration of these findings,

Matson Haug
Newberg Planning Commissioner

Newberg Planning Committee

Date: 7-8-99

Re: Matson Haug

No.: Comp Plan Goals

From: Matson Haug
Newberg Planning Commissioner
7-8-99

To: NEWBERG PLANNING COMMISSIONERS

Re: an additional comment on staff's findings regarding
the Comprehensive Plan's "economic goals".

The City Staff has presented the economic growth argument as a
question of...

Do we have enough land for the foreseeable future?

Their position, and the proponent's position, is that at the historic
business growth rate, we have enough commercial/industrial land for
(say) 90 years.

But this is NOT even a question that needs to be answered by us!

The APPROPRIATE QUESTION (and the goal that the Comprehensive Plan
requires we work towards) is...

Do we have enough land for a sufficient number of jobs to create
economic independence?

Working towards an appropriate jobs/housing balance is REQUIRED by
the Comprehensive Plan. The Comprehensive Plan also directs that we
try to create incentives to reach a self-sufficient jobs/housing
balance.

Thank you for considering this point,

Matson Haug
Newberg Planning Commissioner

Attachment H

MEMORANDUM

TO: File

RE: Industrial Land Competition for Newberg Property

DATE: 7/6/99

Attachment I

Portland Metroplex has following sites available:

1. Fujitsu Campus 137 acres Light Industrial
 2. Rivergate Park 2800 acres Heavy and Light Industrial
(Min lot size - 2 ac.)
 3. Westmark Center 200 acres Light Industrial
(Min lot size - 2 ac.)
 4. Southshore (Gresham) 214 acres Medium Industrial
- Total acres: 3,351

SEDCOR (Salem) has the following available in North Central region:

20 Industrial lots, totaling 572.5 acres. Included in this total is 156 acres for Springbrook Oaks.

Recent Employment related news articles:

2/26/99 Oregonian

"30,200 jobs created by Oregon business in 1998. 25,570 (85%) in urban areas along Interstate-5."

"Counties mimicked the state as a whole, with service and retail related jobs providing most of the growth. The laggards were manufacturing businesses and those reliant on exports to Asia."

3/12/1999 Oregonian

"Persistent Oregon consumers helped push up jobs in service and retail business in February, offsetting trimmed manufacturing payrolls....."

"Jobs in durable goods manufacturing and wholesale trade have been on a slow decline since peaking in mid-1998, while employment in business services and retailing has been rising."

1/28/1999 Oregonian

"The Portland Planning Commission has approved a framework for creating the estimated \$180 million Cascade Station/Portland International Center, a major employment area of office, industrial, and hotel uses connected by light rail between the east city and the airport."

TOP 100 FASTEST GROWING BUSINESSES

rank	Company Name	1998 Revenue	1998 employees	type business	zone
92	The Recovery Tarps	\$672,564.00	14	Truck Parts	Industrial
40	R&D Plastics	\$1,852,869.00	20	Plastics	Industrial
63	Co-Operators	\$1,876,020.00	15	Distribution	Industrial
59	Crimson trace Corp.	\$2,401,162.00	16	Laser Tech.	Industrial
10	Poly Concepts	\$3,996,230.00	41	Manufact. Chem Eqpt	Industrial
1	Clarity Visual Systems Inc.	\$8,641,237.00	44	TV Screens	Industrial
28	Demarini Sports	\$14,444,293.00	47	Eqpt. Manufacture	Industrial
90	RS Medical	<u>\$20,224,434.00</u>	<u>186</u>	<u>Med. Systems</u>	<u>Industrial</u>
		\$54,108,809.00	383		
36	Media Systems - Macforce	\$519,534.00	8	Software	office/commercial
33	On-Site Accounting	\$601,000.00	11	Accounting	office/commercial
84	Surgical Speciality - animals	\$689,396.00	15	Med. Systems	office/commercial
18	Copernicus Software	\$761,453.00	9	Software	office/commercial
44	Audio Video Environ.	\$989,512.00	6	Audio Visual	office/commercial
13	Accounting Connections	\$1,055,022.00	5	Staffing Service	office/commercial
86	Majestic Eagle agency	\$1,101,575.00	18	Insurance	office/commercial
72	Marketing & Tech. Serv.	\$1,136,509.00	4	Audio Visual	office/commercial
89	Performance Consulting	\$1,202,000.00	12	Consulting - Mgt.	office/commercial
38	OakTree.com	\$1,252,399.00	20	Software	office/commercial
31	WellMed Inc.	\$1,352,015.00	32	Med. Systems	office/commercial
66	Ornelas Enterprises	\$1,453,212.00	17	Lending	office/commercial
20	Sight & Sound Software	\$1,525,852.00	16	Software	office/commercial
21	Ace Communications	\$1,562,815.00	25	Staffing Service	office/commercial
2	Health Notes Inc.	\$1,700,000.00	14	publishing	office/commercial
24	Go Fish Corp.	\$1,910,456.00	3	Retail/Wholesale	office/commercial
73	New Interactive	\$1,955,643.00	35	Software	office/commercial
12	Easy Street Online	\$1,975,788.00	17	Software	office/commercial
34	IMG Inc.	\$2,031,385.00	19	Software	office/commercial
81	West Coast Plant Co.	\$2,254,200.00	38	Service - Janitorial	office/commercial
42	CyberSight LLC	\$2,567,292.00	40	Marketing	office/commercial
49	Pro-Landscape	\$2,642,824.00	26	General Contractor	office/commercial
96	Northwest EMC	\$2,669,343.00	25	Testing Lab	office/commercial
26	Metropolitan Group	\$2,702,864.00	28	Public Relations	office/commercial
80	Sorenson Asso.	\$2,975,668.00	30	Marketing	office/commercial
85	Boly/Welch Temp. Serv.	\$3,000,000.00	26	Staffing Service	office/commercial
79	DivirsiForm	\$3,211,451.00	19	Forms	office/commercial
19	Transport Logic	\$3,246,034.00	28	Software	office/commercial
53	HR Northwest	\$3,441,646.00	32	Staffing Service	office/commercial
74	American Telecom	\$3,460,949.00	39	Telecommunications	office/commercial
99	Universal Algorithms Inc.	\$3,862,700.00	36	Software	office/commercial
32	Client Server Group Inc.	\$3,891,074.00	24	Software	office/commercial
64	Triad Tech. Group	\$4,007,725.00	49	Staffing Service	office/commercial
60	Fulfillment Contractors	\$4,163,585.00	52	Marketing	office/commercial
29	White Horse Studios	\$4,198,730.00	48	Software	office/commercial
41	Revision Labs	\$4,593,686.00	53	Software	office/commercial
65	ATSI Group	\$5,074,711.00	66	Software	office/commercial
9	GWI Software	\$5,163,570.00	45	Software	office/commercial
51	SRC Software	\$5,164,548.00	32	Software	office/commercial
98	Kittelson & Asso.	\$5,423,000.00	50	Engineers	office/commercial
71	Pizzicato	\$5,560,259.00	125	Food - Retail	office/commercial
62	WRG Design Inc.	\$6,100,000.00	12	Engineers	office/commercial
22	Meridian Technology Gp	\$6,113,795.00	72	Software	office/commercial
93	New Horizons Learning	\$6,403,095.00	78	Software	office/commercial
39	Babcock & Jenkins Direct	\$6,451,555.00	24	Marketing	office/commercial
55	Holman Building Maint.	\$6,552,198.00	283	Service - Janitorial	office/commercial

16 Cascade Software consulting	\$6,665,000.00
4 TMGI	506,000.00
14 Webtrends Corp.	\$8,008,000.00
88 Western Litho	\$8,108,233.00
76 STEP Tech. Inc.	\$8,127,899.00
3 Oregon Chai, Inc.	\$9,119,880.00
50 Whitford/Scott	\$10,393,741.00
48 Jana's Classics	\$10,467,288.00
17 1-800-Support	\$10,500,000.00
56 Employment Trends	\$10,565,310.00
47 Papa Murphy's	\$11,684,112.00
83 Creative Media Dev.	\$12,094,009.00
27 Everest Consultants	\$12,289,390.00
5 Integra Telecom	\$12,500,000.00
58 Color Technology	\$12,578,356.00
97 Joseph Hughes Const.	\$13,500,000.00
69 Harris Soup Co.	\$13,537,939.00
54 American Show Mgt.	\$15,118,577.00
45 Extensis Corp.	\$15,555,000.00
7 Symatrix Tech.	\$16,000,000.00
68 Medical Logic Inc.	\$16,150,000.00
87 Vernier Software	\$16,504,963.00
67 ABC Technologies	\$17,730,251.00
8 Reconex	\$18,310,000.00
94 Otak Inc.	\$18,727,191.00
6 Robertson & Olson Const.	\$19,919,916.00
75 Grady Britton Advertising	\$20,900,000.00
78 GemStone Systems	\$21,543,000.00
52 Comp View	\$21,868,086.00
11 Professional Data Exchange	\$29,239,687.00
37 Card Capture Services	\$40,313,000.00
35 Opus Creative Group	\$41,064,588.00
77 Telemark Inc.	\$46,481,814.00
43 Lease Crutcher Lewis Gp	\$48,868,151.00
91 Denkor Dental Mgt.	\$56,213,156.00
70 NW Medical Teams	\$61,422,699.00
57 West Hills Development	\$78,227,123.00
30 Renaissance Holdings	\$79,700,000.00
	<u>\$1,017,174,427.00</u>

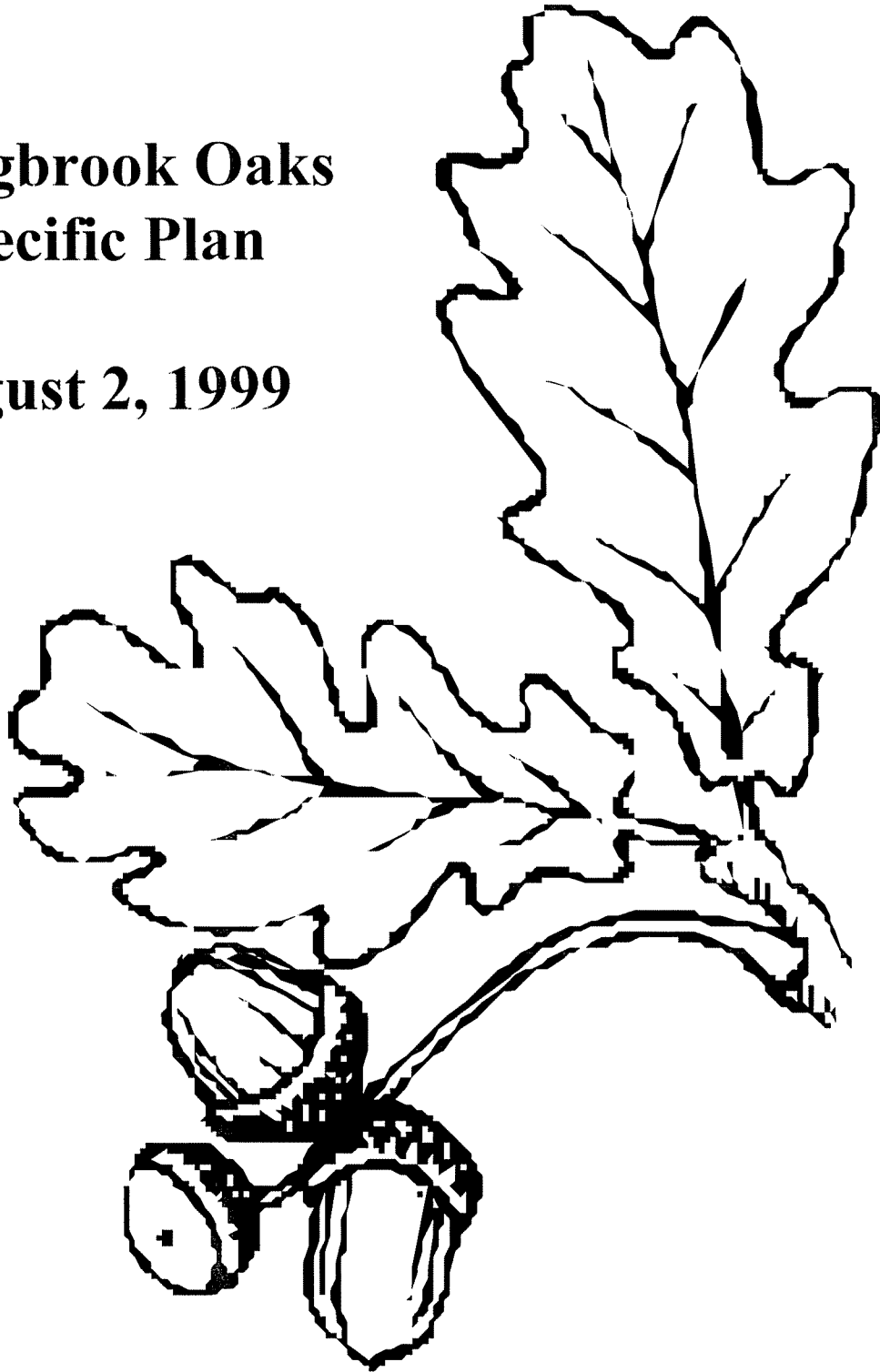
46 Advanced Data Products	\$605,188.00
61 Classic Antique	\$2,621,640.00
25 Majestic Mortgage	\$5,310,722.00
100 Fabric Depot	\$9,191,713.00
95 Dennis Seven Dees	\$9,373,201.00
15 Uniglobe Travel	\$10,100,227.00
23 Marsee Baking	\$12,656,000.00
82 Camera World	<u>\$82,915,000.00</u>
	<u>\$132,773,691.00</u>

75 Software	office/commercial
55 Printing	office/commercial
78 Software	office/commercial
71 Printing	office/commercial
77 Software	office/commercial
16 Retail/Wholesale	office/commercial
7 General Contractor	office/commercial
80 Food - Retail	office/commercial
473 Software	office/commercial
35 Staffing Service	office/commercial
76 Food - Retail	office/commercial
106 Audio Visual	office/commercial
130 Software	office/commercial
102 Telecommunications	office/commercial
118 Audio Visual	office/commercial
60 General Contractor	office/commercial
150 Food - Retail	office/commercial
91 Seminars	office/commercial
95 Software	office/commercial
40 Software	office/commercial
155 Software	office/commercial
37 Software	office/commercial
129 Software	office/commercial
179 Telecommunications	office/commercial
210 Engineers	office/commercial
57 General Contractor	office/commercial
39 Advertising	office/commercial
148 Software	office/commercial
25 Audio Visual	office/commercial
282 Software	office/commercial
110 Software	office/commercial
50 Software	office/commercial
2500 Telemarketing	office/commercial
100 General Contractor	office/commercial
924 Dental Serv.	office/commercial
35 Not for profit	office/commercial
60 General Contractor	office/commercial
499 Lending	office/commercial
9140	

3 Retail/Wholesale	Retail
12 Retail/Wholesale	Retail
78 Lending	Retail
124 Retail/Wholesale	Retail
189 Landscape	Retail
20 Travel	Retail
377 Retail/Wholesale	Retail
85 Retail/Wholesale	Retail
888	

Springbrook Oaks Specific Plan

August 2, 1999



**City of Newberg
P.O. Box 970
Newberg, OR 97132
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THE SPRINGBROOK OAKS SPECIFIC PLAN

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THE SPRINGBROOK OAKS SPECIFIC PLAN

SUMMARY

The Springbrook Oaks Specific Plan is intended to provide a coordinated framework for development of one of the largest undeveloped areas in Newberg. Springbrook Oaks will be a mixed use development, containing multi-family and single family residential, office, and industrial uses. The Specific Plan establishes a framework plan for land use, streets, and utilities for the approximately 284-acre parcel located southeast of the Springbrook Road / Highway 99W intersection.

Land uses for the property will be mixed. A range of housing opportunities will be provided. Residential facilities may include apartments, single family attached housing, duplexes, and single family detached homes. Light industrial and office development will provide a convenient work location for community residents as well as support the economy of the greater Newberg area. The plan also takes into consideration the significant natural features of the property. It protects the stream corridors, preserves an existing oak grove for open space, and ensures the integrity of a wooded area in the eastern portion of the project area through low-density residential development. The plan accommodates the recreational needs of the community through the designation of neighborhood parks within residential areas. Infrastructure needs for water, sewer, storm drainage and energy have been addressed. The plan also provides for the circulation requirements of a variety of transportation modes. The transportation plan will serve the intra-connectivity needs of the Springbrook Oaks development as well as ensure a quality addition to the overall transportation network of the City.

A set of development policies have been established to ensure the proper implementation of the Specific Plan. These policies can be found in Appendix A.

The needs of the property owner, the developer, neighbors, and the community have been incorporated into this Plan. The draft plan was developed by a broad-based steering committee of 14 members appointed by City Council in Autumn 1998. The steering committee built consensus for the plan by balancing community needs with development realities and the wishes of the property owner. The draft plan was reviewed and modified by the Newberg Planning Commission and the Newberg City Council. The Springbrook Oaks Specific Plan was adopted by the City of Newberg on August 2, 1999.

In summary, the Springbrook Oaks Specific Plan includes:

- Residential developments of various densities and housing types;
- Significant natural resources protection;
- Recreational opportunities;
- Economic development and employment opportunities; and
- Adequate infrastructure.

PLAN PURPOSE AND OBJECTIVES

The primary purpose of the Springbrook Oaks Specific Plan is to establish a vision for the project area that helps meet the current and future needs of the local community. Proper implementation of the development guidelines within this plan will ensure the creation of an attractive, balanced, coordinated, high quality development that will be a positive addition to the City of Newberg.

The specific plan development process was initiated by the Newberg City Council at the land owner's request. The intent of the property owner and the City of Newberg was to prepare a specific plan that would establish specific development guidelines which would support the goals and objectives of Newberg's Comprehensive Plan.

The Specific Plan was developed under several important principals:

- Land use and zoning district locations should respond to existing surrounding uses.
- Land uses should be mixed to encourage a balanced development.
- A variety of residential densities and housing types should be developed to provide greater housing opportunities.
- Densities should be laid out so as to allow a low impact transition between use zones, ranging from most dense in the north to least dense in the south.
- Brutscher Street should be used as a buffer between zoning districts.
- The site should contain a connected street pattern that is integrated into the Newberg Transportation Plan.
- Secondary collector streets should be used as an alternative to Highway 99W.
- A strong pedestrian circulation system should be developed to provide connectivity and to reduce vehicular traffic.
- Sensitive stream corridors should be protected as much as is practical.
- Wooded areas of the property should be retained as much as is practical.
- Recreational opportunities should be provided in residential areas through neighborhood parks.
- Implementation policies should provide developers with some flexibility to respond to future design and market forces.

THE SITE AND ITS CONTEXT

Location and Size

The Springbrook Oaks Specific Plan site is approximately 284 acres in size. It is located southeast of the Springbrook Road / Highway 99W intersection, and is within the city limits. The site adjoins unincorporated County land. Some of these adjoining County lands are located within the City of Newberg's Urban Growth Boundary and identified Urban Reserve lands (see Graphic I).

Natural Features

The site is located along the western edge of the Chehalem Mountains, within the upper Springbrook drainage (see Graphic II). The western two-thirds of the site slopes to the south, with slopes varying from 1% to 7%. Most of this area is a broad, gently sloping terrace bounded by the western fork of Springbrook Creek and eastern fork of Springbrook Creek, with an average slope of 2%. The eastern third of the site is moderately sloping hills. Outside of the stream corridor, the slopes vary from 3% to 20%.

Two stream corridors cross the site. The stream corridor for the western fork of Springbrook Creek averages approximately 120' in width. The stream corridor for the eastern fork of Springbrook Creek averages approximately 400' in width. Both streams generally run in a southerly direction. To the east of the eastern fork of Springbrook Creek is a wooded area containing mixed brush and hardwood and softwood trees. South of the Fred Meyer store, there is a small grove of mature oaks. This grove, encompassing approximately 2.5 acres, is located on a flat piece of ground.

Current Uses

The Springbrook Oaks area is currently a mixture of farmland and forest uses. Surrounding uses to the north and west of the property include commercial development: retail (including Fred Meyer), auto sales, banks, restaurants, auto service, a movie theater, and an animal hospital. Additional commercial uses are present along the Highway 99W strip.

Rural residential development borders the property to the east and south. The majority of these properties are located within unincorporated Yamhill County. Light industry, a manufactured home park and medium density residential uses are located to the west and southwest across Springbrook Road. The remaining county land adjoining the site to the north, east, and south is zoned for agricultural and forest uses.

Comprehensive Plan - Land Uses

Prior to this plan, the land within Springbrook Oaks area was designated for Industrial, Low Density Residential, and Medium Density Residential uses by the Newberg Comprehensive Plan. The Newberg Zoning Map shows land uses of Light Industrial, Medium Density Residential and Low Density Residential. The Springbrook Oaks Specific Plan amends the Comprehensive Plan text and map for the project area.

While the designated uses shown on the comprehensive plan and zoning maps were not intended to be

ties to specific locations within the property, the map does establish the approximate percentages of the designations. The approximate land use percentages described in the Newberg Comprehensive Plan are as follows:

Industrial	52%
Commercial	8%
Medium Density Residential	14%
Single Family Residential	26%

It should be noted that these figures included property to the north of the project area that was in possession of the property owners at the time of the Comprehensive Plan's adoption. These northern properties have since been sold by the land owner and have been developed for commercial and light industrial uses. Business developments include the Fred Meyer complex, US Bank, Davis Lock and Safe, Wendy's, Taco Bell, Jiffy Lube, West Coast Bank, and EFTC.

Circulation

Vehicular Circulation

The Springbrook Oaks property is currently accessible by three (3) existing roads: Brutscher Street, Springbrook Road, and Fernwood Road. North of the site, both Brutscher Street and Springbrook Road have signalized intersections with Highway 99W, a major arterial (see Graphic III).

Springbrook Road is classified as a major arterial south of Hancock, and as a major collector north of Hancock. This street is not currently improved to its classification, and currently contains two lanes with no curbs and an asphalt sidewalk on the west side separated by a planting strip.

Brutscher Street is classified as minor collector. The street currently extends 900 feet south from its intersection with Highway 99W, where it dead ends at the Springbrook Oaks' northern boundary line.

Fernwood Road is classified as a major collector, but is not improved to its classification. This two lane road currently has no curbs, sidewalks or bike lanes.

Public Transportation

Bus service is available along Springbrook Road and Highway 99W. Local service is provided by the Chehalem Valley Senior Citizen Council (CVS). Inter-city connections are provided by the Yamhill Community Action Agency (YCAP). This transit system connects Newberg to areas between McMinnville and the Tri-Metropolitan Transit District (Tri-Met).

Pedestrian Circulation

Sidewalks currently exist along the south side of Highway 99W. Brutscher Street has sidewalks on the east side and on the west side from Highway 99W to Fred Meyer.

Bicycle Circulation

Bicycle lanes are on Springbrook Road and Brutscher Street.

Transportation System Plan (TSP)

The TSP calls for improvements to Fernwood Road as a major collector. Springbrook Road is identified as a major collector north of Hancock Street and a minor arterial south of Hancock Street. The TSP also shows Brutscher Street being extended south to Fernwood Road as a minor collector street. All of these roads will ultimately be 46 feet in width curb to curb. Finally, a future limited access highway is identified to be located within the study area. Typical cross sections of these streets are shown in Graphic IV.

Development of Springbrook Oaks will have an impact upon transportation facilities beyond those within its immediate vicinity. Improvements to these facilities as specified in the TSP will need to be made as development occurs in Springbrook Oaks.

Utilities (see Graphic V)

Sewer

- Springbrook Road is served by a 15 inch line.
- Highway 99W is served by an 8 inch line in the Fred Meyer access drive. This line terminates at Brutscher.
- Fernwood Road does not have sewer service east of Springbrook.

System improvements for Fernwood Road have been designed and are expected to go out to bid in Spring 1999. The improvements will include a 10 inch gravity line, a 6 inch force main, a 12 inch force main, and a new pump station.

Water

- Springbrook Road contains a 12 inch water main.
- Highway 99W contains a 10 inch water main.
- Fernwood Road lacks water service east of Springbrook.

System improvements scheduled for the area include a new 4 million gallon reservoir east of the property with a 24 inch main along Fernwood Road and a 16 inch main from Highway 99W at Fernwood Road.

Electricity

A new substation has been installed along Springbrook Road. The substation has the capacity to serve all the intended uses of the property. High voltage power is available from Highway 99W and Springbrook Road for industrial uses.

Gas

- Springbrook Road and 99W west of Newall Road are served by 8 inch high pressure lines.
- A 2 inch line runs from Springbrook around the south side of the Fred Meyer store at the edge of the paved area, terminating at Brutscher.
- Fernwood Road lacks gas service east of Springbrook.

Site Drainage

The site drains generally to the two stream corridors, with the tributary area split roughly 50/50 between the two. The western and eastern forks of Springbrook Creek are the natural drainage channels contained in the stream corridors. Drainage tiles run in the existing agricultural field into the eastern fork of Springbrook Creek in the northeast corner of the site and through the culvert under Fernwood Road.

The western fork of Springbrook Creek crosses under Fernwood Road in a 36 inch round culvert. The eastern fork of Springbrook Creek crosses under Fernwood Road in a 70 inch round culvert. Both culverts are considered undersized by 1999 Newberg Storm Water Master Plan Update. The plan states that these culverts will be upgraded as improvements are made along Fernwood Road. The plan also identifies detention requirements for the Springbrook Oaks property.

FUTURE LAND USE PLAN

The Springbrook Oaks Specific Plan provides a framework for development beyond the Comprehensive Plan designations. Without the Specific Plan, the Springbrook Oaks site would probably be developed in a less coordinated, piecemeal manner. With the Specific Plan, a quality development will be created that will be a positive addition to the Newberg community.

A mix of land uses are planned that will ensure the creation of a well-balanced development. Included within the plan is a range of housing densities that makes use of the site's location, surrounding uses and natural features. Office and light industrial uses are planned for the central portion of the site. This location will provide good access to Highway 99W via Brutscher Street and utilize Brutscher Street as a buffer to the residential areas west of this road. This location will also allow the eastern stream corridor to act as a natural buffer to the residential area planned for the eastern portion of the site.

The eastern portion of the site, which is adjacent to unincorporated Yamhill County, will be used for the low density, single family housing, taking advantage of the stream corridor to buffer the housing from the commercial and industrial uses. This type of development will also lessen the impact upon the wooded nature of this portion of the site and the adjacent stream corridor. The plan anticipates the development of higher density residential uses west of Brutscher Street, such as detached homes, attached homes, townhouses, apartments, and senior housing. Density will vary in this area, with higher density expected to the north and then decreasing to the south.

Commercial development has been planned for the land east of Springbrook Road and west of the western fork of Springbrook Creek. This land use designation is contiguous to commercial activities along Highway 99W. Businesses developed at this location will be easily accessible for Springbrook Oaks residents and the greater Newberg community from Springbrook Road and the east/west collector road designated to be built within the Specific Plan.

Implementation of design policies within this plan will bring about a more attractive, livable community. Design policies address such issues as staggered setbacks, non-repetitive home designs, varied building types, aesthetically attractive exterior building materials, and pedestrian-friendly building orientation.

Infrastructure needs for water, sewer, and transportation have been defined. Adequate utilities for water and sewer will be provided for the Springbrook Oaks development while making provisions to service adjacent properties within the Urban Growth Boundary and Urban Reserve areas. Routes and standards for both motorized and non-motorized modes of transportation have been designed to provide good circulation within the development as well to the greater Newberg community.

The plan provides recreational opportunities through the establishment of neighborhood parks in residential areas and a central plaza. The plan has also been configured to allow later development of a golf course that is tentatively planned for the area. If developed, the golf course is anticipated to be located on both sides of the stream corridor of the eastern fork of Springbrook Creek.

Environmentally sensitive areas will be protected. Buffer zones for stream corridors have been established. A grove of oak trees behind Fred Meyer will be preserved as open space. Residential development within the forested area in the eastern portion of the site will be guided by a tree

management plan and a geotechnical report. Storm water mitigation measures have been identified.

The Springbrook Oaks Specific Plan provides some flexibility in how actual development occurs. Tools exist for minor density transfers and boundary changes through minor review processes. This will allow developers to better respond to design and market forces while still protecting the integrity of the plan.

The establishment of schools are permitted, if necessary, within appropriate zones. This will provide for the educational needs for the residents of Springbrook Oaks as well as those of surrounding areas. Site location policies for schools have been established to ensure that these educational facilities will be safe, convenient, and pedestrian-friendly.

Eight (8) development areas have been established within Springbrook Oaks (see Graphic VI). A brief description of these development areas is as follows:

- | | |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Areas A | This area is zoned Community Commercial (C-2). The purpose of this land use is to create, preserve, and enhance areas with a wide range of retail sales and service establishments. The land use will serve both long and short term needs in compact locations typically appropriate to commercial clusters near intersections of major thoroughfares. Examples of permitted uses include banks, book stores, service stations, dry cleaners, gift shops, restaurants, and grocery stores. |
| Areas B and F | These areas are zoned Residential-Professional (R-P). The purpose of this land use designation is to create a desirable mixing of residential land uses with professional offices in possible close proximity to adjacent low density residential areas. Examples of permitted uses include group care facilities, medical labs, clinics, professional offices, and single-family dwellings. |
| Area C | These areas are zoned High Density Residential (R-3). The purpose of this land use designation is to provide for multi-family dwellings of different types and styles. Examples of permitted uses include apartments, townhouses, condominiums, and cluster developments. |
| Areas D and E | These areas are zoned Medium Density Residential (R-2). The purpose of this land use designation is to provide a wide range of housing types and styles. Examples of permitted uses include single-family dwellings on small lots, attached and detached single family, duplex or multi-family housing, cluster developments and townhouses. |
| Area G | This area is zoned Limited Industrial (M-1). The purpose of this land use designation is to create, preserve and enhance areas containing manufacturing and related establishments with limited external impact, and with an open and attractive setting. Examples of permitted uses include manufacturing and assembly of electronic equipment, storage facilities, wholesale businesses, and professional offices. |

Area H This area is zoned Low Density Residential (R-1). The purpose of this land use designation is to provide for low density, urban single family residential and planned unit development uses. This area is expected to be developed primarily as single family residential.

A series of policies have been established to guide development of Springbrook Oaks. These development policies can be found in Appendix A of this document. Appendix B describes the codification of this plan in the Newberg Development Code, Section 10.44.318. Appendix C establishes building design and development standards for proposed attached residential dwelling unit developments within Development Areas B through F. Such development proposals meeting these standards will be reviewed under a Type I process.

Springbrook Oaks Specific Plan

Development Policies

General Policies

- Homeowner associations shall be formed to maintain a high quality of life for the community's residents. Responsibilities of the associations may include the long-term ownership, financing, and maintenance of community areas such as landscaped areas, storm water detention areas, open space, and pedestrian paths. The associations may also establish an architectural/site plan review committee to ensure that the Building Design and Development Standards established within these policies are adhered to. Decisions of the architectural/site plan review committee shall be subject to an appeal process to the City of Newberg.
- Changes to the adopted specific plan shall follow the procedure described in the Newberg Development Code, Section 10.44.312, unless otherwise specified in this policy document.
- Development permit approval process for subdivisions shall follow the Type II application procedure described in the Newberg Development Code, Section 10.10.060.
- Proposed developments for attached residential dwelling units within Development Areas B through F (Graphic VI) that meet the standards established in APPENDIX D of this specific plan shall be reviewed under a Type I process.
- Proposed boundary modifications for Development Areas B through E that increase any individual area no more than five percent (5%) of its original total acreage will be reviewed under a Type I process. Proposed boundary modifications that change the total acreage of any of the aforementioned Development Areas more than five percent (5%) will be reviewed under a Type III process.
- Proposed boundary modifications for Development Areas F through G that increases any individual area no more than ten percent (10 %) of its original total acreage will be reviewed under a Type I process. Proposed boundary modifications that change the total acreage of any of the aforementioned Development Areas more than ten percent (10 %) will be reviewed under a Type III process.
- Proposed boundary changes for Development Areas A and H will be reviewed under a Type III process.
- A proposed shifting of alignment of any road from what is described in the circulation/transportation plan of the Springbrook Oaks Specific Plan will follow the procedure

described in the Newberg Development Code, Section 10.44.312.

- Proposed changes to the policies listed in the **Transportation** section will be review under a Type I process.
- Development activity not covered in this policy document shall be governed by the Newberg Development Code. In the case of a conflict between the Springbrook Oaks Specific Plan and the Newberg Development Code, the Springbrook Oaks Specific Plan shall govern.

Transportation

Bicycle and Pedestrians

- Pedestrian and bicycle paths/sidewalks (on or off-street) shall be provided:
 1. Over the east and west forks of Springbrook Creek (subject to approval by applicable local, state, and federal agencies);
 2. Along Brutscher Road to Fernwood Road;
 3. To Fred Meyer (subject to Fred Meyer approval);
 4. As interconnections between developments within the Springbrook Oaks area; and
 5. To local parks and schools.

Motorized Vehicles

- An interconnected street system shall be provided between residential areas.
- Local streets shall have two separate access points, except for cul-de-sacs. At a minimum, street access plans shall meet Newberg Fire Department Fire Safety Design Standards. All street access plans must be approved by the Newberg Fire Department.
- Access to and from the residential area east of the eastern fork of Springbrook Creek (Development Area H) shall be provided as follows: (1) to Fernwood Road, and (2) across the eastern fork of Springbrook Creek at the northern vicinity of the development (subject to approval by applicable local, state, and federal agencies). This crossing may be inside or outside of the boundaries of Springbrook Oaks. Regardless of which access develops first, the second access to and from Development Area H shall be provided as traffic and/or public safety needs warrant it.
- Access to Fernwood Road from the residential area east of the eastern fork of Springbrook Creek should be granted only when the Urban Reserve Area between the development and Fernwood Road has been brought into Newberg's Urban Growth Boundary.

- Access shall be provided for the future development of the property north of the Springbrook Oaks area located within the Urban Reserve Area.
- A minor collector road shall be built as an east/west connection between Springbrook Road and Brutscher Street, crossing the western fork of Springbrook Creek (subject to approval by applicable local, state, and federal agencies).
- Brutscher Street shall be built as a minor collector road.
- Brutscher Street shall be of a curvilinear or similar design to discourage excessive speeds.
- Fernwood Road shall be improved to major collector road standards.
- Development shall follow the recommendations provided within the Transportation Impact Analysis for Springbrook Oaks. The analysis shall be updated as changes in circumstances require.
- A traffic light shall be installed at Springbrook Road and Fernwood Road at the time recommended by the traffic impact analysis report for Springbrook Oaks.
- All streets shall be built to City public street standards.
- All street access points shall be spaced to City public street standards.
- Public roads shall meet Newberg Fire Department Fire Safety Design Standards.
- The Newberg Transportation System Plan includes a limited access highway through the Springbrook Oaks property. Property owners and developers should be made aware that this project area is included within the Newberg Transportation System Plan.
- Continuous address numbering shall be used for all streets.
- Street trees shall be installed and maintained to at least the minimum city standards.
- No private streets shall be allowed in Springbrook Oaks.

Fernwood Road

Fernwood Road shall be improved to City of Newberg Major Collector standards from Springbrook Road to the access road to development Area H as development proceeds. The improvements shall provide, at a minimum, a three-quarter street improvement along the Springbrook Oaks frontage, and safe pedestrian and bicycle access to Springbrook Road. An engineer shall design the stream crossings on Fernwood Road. This design shall balance needs for vehicle, pedestrian, and bicyclist safety, stream corridor protection, and economic efficiency. The

crossings shall meet all local, state, and federal requirements.

These Fernwood Road improvements shall be made as vehicle, bicycle, and pedestrian volumes, and safety warrant. In no case shall the improvements be made later than the following schedule:

- 1) From Springbrook Road to Brutscher Street: when Brutscher Street connects to Fernwood Road and twenty-five percent (25%) of Areas B through E, F and G, or both have been developed.
- 2) From Brutscher Street to the eastern fork of Springbrook Creek: When sixty percent (60%) of the development Areas F through G have been developed.
- 3) From the eastern fork of Springbrook Creek to the access road in Development Area H: When residential development occurs in Area H.

The developer of Springbrook Oaks is generally obligated for the costs of improving Fernwood Road along the frontage of the property, including an equitable share of the stream crossings. The developer may need to install improvements beyond this basic obligation to provide safe access for the development. In these cases the City should assist the developer in recovering costs beyond this basic obligation through methods that may include system development charges, advanced financing agreements, or a local improvement district (LID).

Each development that occurs prior to the Fernwood Road improvements shall provide a bond towards the required street improvements. The value of the bond will be a percentage of the cost of the road improvement. The percentage will be the ratio of the area of the property to be developed to the area of the entire Springbrook Oaks development.

Improvements to Fernwood Road will be performed in a contiguous, sequential manner, from Springbrook Road to the access road serving Development Area H.

Brutscher Street

Brutscher Street and associated utilities will be extended to accommodate development as it occurs.

In addition to the Brutscher Street/Highway 99W access, a second access from Development Areas B through G to Fernwood Road or Springbrook Road shall be provided as traffic and/or public safety needs warrant it. In no case shall the second access be provided later than when:

- 1) Twenty-five percent (25%) of the land included within Development Areas B through E have been developed; or
- 2) Twenty-five percent (25%) of the land included within Development Areas F through G have been developed; or

- 3) Twenty-five percent (25%) of the land included within Development Areas B through G have been developed.

Brutscher Street shall be completed to Fernwood Road under the following conditions:

- 1) Sixty- percent (60%) of the land included within Development Areas B through E have been developed; or
 - 2) Sixty- percent (60%) of the land included within Development Areas F through G have been developed; or
 - 3) Sixty- percent (60%) of the land included within Development Areas B through G have been developed.
- A traffic signal shall be installed at the intersection of the east/west road and Brutscher Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document. An interconnected roadway system dispersing the traffic from this intersection may eliminate the need for this signal.

Springbrook Road

- Street improvements for Springbrook Road shall be constructed prior to or at the time of development of the lands within Development Area A.
- A traffic signal shall be installed at the intersection of the east/west road and Springbrook Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document.
- A separate southbound left turn lane shall be constructed at the intersection of the east/west road and Springbrook Road at or before the period recommended by the *Transportation Impact Analysis for Springbrook Oaks* document.
- Each development that occurs within Springbrook Oaks prior to the need for the necessary improvements (including signalization) of the intersection of the east/west road and Springbrook Road shall provide a bond or other alternative finance mechanism towards the intersection improvements. The value of the bond will be a percentage of the cost of the intersection improvements. The percentage will be the ratio of the impacts of the development to the traffic at the intersection. Adjacent developments outside the Springbrook Oaks Specific Plan area will also be required to participate in the signalization using the same formula.

Open Space and Parks

- Where possible, open space shall be conveyed to the Chehalis Parks and Recreation District.

- Proposed development of stream corridor sub-districts shall be subject to the review and approval process provided within the Newberg Development Code, Sections 10.44.115 through 10.44.240.
- A plan shall be developed for the oak grove area behind Fred Meyer that adequately addresses the unique issues it presents, especially concerns regarding public safety.
- A central plaza park shall be located near the center of the Springbrook Oaks to provide a focal point for community activities and a common identity for the community.
- Major pedestrian pathways should be located along public streets rather than along stream corridors.
- The plan allows for development of a golf course next to the stream corridor of the eastern fork of Springbrook Creek.
- A minimum of two neighborhood parks shall be established within Springbrook Oaks. One park will be located within the residential area west of Brutscher Street and one will be located within the residential area east of the eastern fork of Springbrook Creek. The parks shall be in a location that is convenient to the area residents. Total acreage of the parks shall be a minimum of five acres, with each park no less than two acres in size. None of the park requirements may be fulfilled through future school facilities.

Building Design and Development Standards

Residential

- Setback standards shall be as set forth in the Newberg Development Code, Section 10.44.317(D). The referenced (g) subsection shall read as follows for purposes of the Springbrook Oaks Specific Plan:

Building Orientation. All development shall be oriented to a local or collector street when possible. Orientation shall be achieved by the provision of an entry door fronting upon the street with a direct sidewalk connection from the door to the public sidewalk.

- Multiple, non-repetitive home designs (detached dwelling units) shall be used in the development. No two identical designs shall be located closer than every three residences on any street frontage.
- A mixture of different building types shall be encouraged within the residential areas (e.g. single family residential, duplex, attached single family residential, multiple family).
- Porches shall be encouraged in the design of residential units.
- A visual and sound buffer shall be installed between the Fred Meyer property and Springbrook Oaks. The buffer will be specifically designed to mitigate conflicts between the adjacent uses.

- Prior to development of the residential lands east of the eastern fork of Springbrook Creek, the developer shall produce a geotechnical report.
- Prior approval of any proposed development within Development Area H, a tree management plan must be approved through a Type II process. The tree management plan should provide a program that will ensure the creation of an appropriate urban level tree canopy for the development. The plan will describe; (1) what types and size of existing trees should remain and their location; (2) what types and size of existing trees should be removed and their location; (3) what types and size of trees should be planted and their location; and (4) who will install and/or maintain the trees and how they will be maintained. The tree management plan shall specify methods for amending the plan.

Industrial

- Prior to the development of any industrial zoned land within Springbrook Oaks, the developer will establish codes, covenants and restrictions (CCRs) that will ensure high quality development. The CCRs will be subject to approval by the City of Newberg. The document will, at minimum, address the following issues:
 - Street frontage building design;
 - Parking lot location;
 - Exterior building materials; and
 - Street design and development standards.

Schools

- Schools shall be allowed within Development Areas B through E or Area H.
- School sites shall meet the intent of the City's Comprehensive Plan concerning the siting of schools.
- Schools should be sited with the main entrance onto a local or minor collector street.
- School sites shall be located, to the extent reasonably possible, at the center of that portion of the residential development most likely to house children of the appropriate ages considering the type of development intended and related socioeconomic factors.
- School sites shall be located so as to minimize student foot traffic along and/or across major collector and arterial streets.
- Park and recreation facilities should be linked closely with schools.

Density

- The following development standards shall be applied to Springbrook Oaks (please refer to Graphic VI for map of development areas A through H). These standards shall supersede any density or density transfer standards established in the Newberg Development Code.

Area	Zone	Minimum Lot Size (square feet)	Minimum Lot Area Per Dwelling Unit (square feet)	Maximum Density (dwelling units per acre)
A	C-2	5,000	NA	NA
B	R-P	1,500*	1,500*	21.8* ¹
C	R-3	2,500*	2,500*	13.1*
D	R-2	3,750*	3,750	8.8
E	R-2	5,000	5,000*	6.6*
F	R-P	1,500*	1,500*	21.8* ²
G	M-1	20,000	NA	NA
H	R-1	5,000*	10,000* ³	3.3*

* Different than the standards established in the Newberg Development Code.

- A density shift of up to twenty percent (20%) is permitted between any two lots or portions of lots of equal acreage within the same or different residential areas (Areas B, C, D and E). The shift may be up to twenty percent (20%) of total units permitted within the lower density zone regardless of which direction the shifting is occurring. Any such shift shall be approved through a Type I process. An agreement must be drafted and signed by parties involved. An example is as follows:

Present maximum density
permitted by zone:

A 5 acre lot in Area B = 109 units
A 5 acre lot in Area C = 65.5 units
(20% = 13.1 units)

¹ Up to one-hundred percent (100%) of the land zoned R-P within Area B may be developed for residential use.

² Up to twenty percent (20%) of the land zoned R-P within Area F may be developed for residential use.

³ Average lot area per dwelling in any one subdivision.

Proposed 20% shift:

Lot in Area B = 122 units*

Lot in Area C = 52 units*

OR

Lot in Area B = 95 units*

Lot in Area C = 78 units*

- Increases in density of residential Areas B, C, D and E may be permitted in consideration for land designated for public purposes such as schools, neighborhood parks, plazas, etc.. For any given acreage designated for the aforementioned purposes, the density of an equal amount of acreage may be increased twenty percent (20%) in another area of Springbrook Oaks which has the same zone type as that where the public area is located. The density shift may also be directed to a different zone, in a similar manner to the above. For example:

Present maximum density of public land:

A 5 acre lot in Area D zoned R-2 = 44 units
(20% = 8.8 units)

Proposed 20% density shift to another
5 acres in Area D zoned R-2

44 units + 8.8 units = 52 units*.

OR

Proposed 20% density shift to another
5 acres in Area B zoned R-3

109 units + 8.8 units = 117 units*.

- Any area of land whose allowed density has increased due to a density shift may include a corresponding decrease in the area's minimum lot size and minimum lot area per dwelling unit.
- No lot within any given zone may increase density due to a density shift more than once.
- Larger size lots shall be encouraged within Area H where natural features present greater development challenges.

Utilities

- Development shall accommodate and address issues related to:
 - water storage
 - irrigation
 - storm water
 - fire flow

*Rounded down to a whole unit number.

- Each development application shall show that its water requirements can be met adequately by municipal water supply and storage that are in place or will be at time of occupancy.
- All waste water infrastructure shall be connect to the Fernwood Road pump station. No other public pump stations shall be allowed.
- Public water systems ultimately shall be of a loop design.
- Storm water access points to the stream corridor shall be designed to minimize erosion.
- Smaller, multiple retention ponds shall be preferred over the creation of large retention facilities.
- The development shall have a plan for storm water collection and detention to mitigate storm water runoff.

Springbrook Oaks Specific Plan

**Newberg Development Code
Section 10.44.318**

10.44.318 The Springbrook Oaks Specific Plan.

- (1) Report Adopted. The Springbrook Oaks Specific Plan dated August 2, 1999 is hereby adopted by reference. The development standards listed in this section are intended to implement the policies of the Springbrook Oaks Specific Plan. Development of Springbrook Oaks shall follow the standards of this code section as well as the policies of the plan. If a conflict exists between the Springbrook Oaks Specific Plan Policies and the Newberg Development Code, the Springbrook Oaks Specific Plan shall govern.
- (2) Permitted Uses and Conditional Uses. Eight (8) development areas have been established with corresponding zones within the Springbrook Oaks Specific Plan (see Figure 20). The permitted and conditional uses allowed under the "SP" subdistrict shall be the same as those uses permitted in the base zoning districts. Exceptions to this standard include the following:
 - (A) A golf course shall be permitted within the M-1 area, adjacent to the stream corridor; and
 - (B) Densities and lot sizes shall be in accordance to the standards established in Section 10.44.318 (8) (A) of this code.
- (3) Street and Pedestrian Pathway Standards. Street and pedestrian pathway development standards are established in the Newberg Development Code under Sections 10.60.112 through 10.60.137 and Section 10.80.
- (4) Residential Design. Multiple, non-repetitive home designs (detached dwelling units) shall be used in the development. No two identical designs shall be located closer than every three residences on any street frontage.
- (5) Setbacks. Figures 1 and 2 of the Springbrook Oaks Specific Plan identify special setback standards that apply to the property.

Residential

- (A) Development Areas A through F Setbacks - Figure 1. Minimum and maximum front setbacks for structures shall be met in Development Areas A through F of the Springbrook Oaks Specific Plan. Residential structures shall be no closer nor further from the front property line than as follows:

	Minimum	Maximum
Porch	10'	25'
Dwelling	15'	25' (without porch)
Garage or Carport	20'	None

The front of a garage may not be closer to the property line than the front of the house unless each front on different streets.

- (B) Development Area H Setback - Figure 2. Special minimum front setbacks for residential structures shall be met in Development Area H of the Springbrook Oaks Specific Plan. No maximum setback is required. Front setbacks are as follow:

	Minimum	Maximum
Porch	10'	None
Dwelling	15'	None
Garage or Carport	20'	None

- (C) Interior Setbacks. Interior yard setbacks shall be the same as the base zone. An exception to this standard is made for single family attached housing, where no interior setback is required for the "zero" lot line.

- (D) Staggered front setbacks of at least two (2) feet shall be established for attached homes. No two attached dwelling units with the same setback shall be located closer than every two residences on any street frontage.

Professional and Industrial Setbacks

- (E) Except as set forth in subsection (D) above, setbacks for professional and industrial developments within Development Areas A, F, and G shall be set by the base zone or as otherwise required in this Code.

- (7) Street Trees. Street trees shall be provided adjacent to all public rights-of-way abutting or within a subdivision or partition. Street trees shall be installed in accordance with the provisions of the Newberg Development Code, Section 10.50.160 (2) (D). Trees shall be selected from the street tree species list authorized by City Council. Preference should be

given towards the selection of oak species to maintain the character of the development's namesake: Springbrook Oaks.

(8) Residential Density. Residential density is governed by the "SP" overlay subdistrict.

(A) The following development standards shall be applied to Springbrook Oaks (please refer to Graphic VI for map of development areas A through H). *See NDC Figure 20*. These standards shall supersede any density or density transfer standards established in the Newberg Development Code.

Area	Zone	Minimum Lot Size (square feet)	Minimum Lot Area Per Dwelling Unit (square feet)	Maximum Density (dwelling units per acre)
A	C-2	5,000	NA	NA
B	R-P	1,500*	1,500*	21.8* ⁴
C	R-3	2,500*	2,500*	13.1*
D	R-2	3,750*	3,750	8.8
E	R-2	5,000	5,000*	6.6*
F	R-P	1,500*	1,500*	21.8* ⁵
G	M-1	20,000	NA	NA
H	R-1	5,000*	10,000* ⁶	3.3*

* Different than the standards established elsewhere in the Newberg Development Code.

(B) A density shift of up to twenty percent (20%) is permitted between any two lots or portions of lots of equal acreage within the same or different residential areas (Areas B, C, D and E). The shift may be up to twenty percent (20%) of total units permitted within the lower density zone regardless of which direction the shifting is occurring. Any such shift shall be approved through a Type I process. An agreement must be drafted and signed by all parties involved.

⁴ Up to one-hundred percent (100%) of the land zoned R-P within Area B may be developed for residential use

⁵ Up to twenty percent (20%) of the land zoned R-P within Area F may be developed for residential use.

⁶ Average lot area per dwelling in any one subdivision.

An example of density shifting is as follows:

Present maximum density permitted by zone	A 5 acre lot in Area B = 109 units
	A 5 acre lot in Area C = 65.5 units
	(20% = 13.1 units)

Proposed 20% shift:	Lot in Area B = 122* units
	Lot in Area C = 52* units

OR

Lot in Area B = 95* units
Lot in Area C = 78* units

- (C) Increases in density of residential Areas B, C, D and E may be permitted in consideration for land designated for public purposes such as schools, neighborhood parks, plazas, etc. (excluding stream corridors). For any given acreage designated for the aforementioned purposes, the density of an equal amount of acreage may be increased twenty percent (20%) in another area of Springbrook Oaks which has the same zone type as that of where the public area is located. The density shift may also be directed to a different zone, in a similar manner to the above. For example:

Present maximum density of public land:	A 5 acre lot in Area D
	zoned R-2 = 44 units
	(20% = 8.8 units)

Proposed 20% density shift to another 5 acres in Area D zoned R-2	44 units + 8.8 units = 52 units*.
----------------------------------------------------------------------	-----------------------------------

OR

Proposed 20% density shift to another 5 acres in Area B zoned R-3	109 units + 8.8 units = 117 units*.
----------------------------------------------------------------------	-------------------------------------

- (D) Any area of land whose allowed density has increased due to a density shift may include a corresponding decrease in the area's minimum lot size and minimum lot area per dwelling unit.
- (E) No lot within any given zone may increase density due to a density shift more than once.

*Rounded down to a whole unit number.

- (F) Maximum lot coverage is described in the Newberg Development Code, Section 10.50.147.
- (9) Commercial and Industrial Standards. In addition to site review standards, all commercial and industrial development will conform to the Code, Covenant, and Restrictions (CCRs) approved for the Springbrook Oaks development. A Certificate of Compliance with these CCRs shall be submitted with a design review application for any commercial or industrial development.
- (10) Sign Standards. Signs must comply with the Newberg Development Code, Sections 10.50.180 through 10.50.191.
- (11) Tree Management Plan. Any proposed development within Development Area H must follow the approved tree management plan for Development Area H. The plan shall be developed by a third-party licensed arborist.
- (12) Permitting Process. Any proposed development shall follow the permit approval process described in the Newberg Development Code, Section 10.08 through 10.10. Exceptions to this standard are as follows:
- (A) Proposed subdivisions will be reviewed under the Type II process, and;
- (B) Any proposed development within Development Areas A through F that meet the Building Design and Development Standards in Appendix C (see Springbrook Oaks Specific Plan) will be reviewed under the Type I process. The applicant shall provide written documentation showing that each development standard has been met.
- (13) Plan Amendments. Proposed amendments and adjustments to the specific plan will follow the procedure described in the Newberg Development Code, Section 10.44.312. Exceptions to this amendment and adjustment procedure are as follows:
- (A) Proposed boundary modifications for Development Areas B through E (Figure 20) that increases any individual area no more than five percent (5%) of its original total acreage will be reviewed under a Type I process. Proposed boundary modifications that change the total acreage of any of the aforementioned Development Areas more than five percent (5%) will be reviewed under a Type III process.
- (B) Proposed boundary modifications for Development Areas F through G that increases any individual area no more than ten percent (10 %) of its original total acreage will be reviewed under a Type I process. Proposed boundary modifications that change the total acreage of any of the aforementioned Development Areas more than ten percent (10 %) will be reviewed under a Type III process.

- (C) Proposed boundary changes for Areas A and H will be reviewed under a Type III process.

Springbrook Oaks Specific Plan

Building Design and Development Standards Attached Residential Dwelling Units in Development Areas B through F

The following standards have been established for attached residential dwelling units within Development Areas B through F of Springbrook Oaks. The purpose of these standards are:

- To protect the character and the social and economic stability of Springbrook Oaks.
- To ensure the orderly and beneficial development of each component of Springbrook Oaks.
- To expedite the design review process for proposed development.

Proposed developments for attached residential dwelling units within Development Areas B through F of Springbrook Oaks will be examined for compliance to these standards under a Type I process. Any such development not in compliance with these standards will be reviewed under the appropriate process specified within the Newberg Development Code.

Design Standards

- A. Primary individual unit entries shall be oriented towards a road. Entries shall be covered and architecturally differentiated from other building elements, in order to clearly express their location and function (see Figure 3).
- B. Buildings shall be articulated in such a manner that no more than 25' of horizontal, flat building facade will be permitted. In the case of rowhouse or townhouse units, no more than two units may be paired together in the same facade or without a minimum of 2'-0" difference between adjacent facades (see Figures 4 and 5).
- C. When possible, garages and carports should not be adjacent to primary streets or roads. They should be located internally within each development or complex where their designated dwelling units are located. Attached garages shall not extend beyond any primary entry facade.
- D. All buildings shall utilize materials that meet or exceed current industry standards (American Institute of Architects or American Society of Testing Materials) for a medium to high level range of quality. The proposed building materials will be recommended by a licensed architect and will be compatible with the Springbrook Oaks development.

The following are some examples of unacceptable building products:

1. T1-11 siding panels.
2. Three tab composition roofing.
3. Single-ply vinyl siding

In addition, all exterior walls shall utilize a "double-wall" system. This incorporates the use of an air infiltration barrier and secondary water resistive membrane, exterior sheathing beneath, and a covering with an acceptable siding product. Buildings will meet all applicable building codes and current construction requirements.

- E. Each dwelling unit shall incorporate individual areas of exterior space no less than 50 square feet per unit. Each space shall have a minimum dimension of 5', in any direction. This can be achieved through the use of porches, decks, patios, balconies etc. or designated yards other than those adjacent to primary streets or roads.
- F. On buildings with sloped roofs, no slope shall be less than a 4:12 pitch. These roofs shall utilize eaves, rakes, and overhangs of no less than 12".
- G. The minimum landscape percentage or "pervious" surface area shall not be less than 30% of the overall site area.
- H. No building shall be greater than 35', or three stories, in overall height. This shall include garages in rowhouse or townhouse type buildings.
- I. Where trash enclosures are required; they are to be located internally within the complex or development. They shall not be adjacent to any primary road or street. They shall be enclosed on all sides by walls, gates or fences and provided with a secondary buffer of landscape screening on at least three sides. Access to the enclosure shall be limited to one side only (see Figure 6).
- J. Each complex or development shall provide an internal pedestrian circulation system. Each system shall be interconnected with adjacent circulation systems to form a master pedestrian circulation system. All internal systems shall be appropriately illuminated to meet current City standards.
- K. All parking ratios shall meet current City standards.
- L. All buildings shall be colored in earth tones of medium range value. No building or buildings shall be brightly colored or colored in such a manner as to emphasize its overall mass. Subtle contrasts between adjacent buildings and individual building elements (i.e. trims, facades etc.) shall be provided.
- M. Exterior trim will be provided around all windows and at building corners. Window trim pieces shall be painted a contrasting color to the building body.

- N. All primary collector streets and neighborhood secondary streets, shall comply with Figures 7, 8, and 9.
- O. All setbacks shall comply with Figures 10 and 11.

Springbrook Oaks Specific Plan

Project Participants

Steering Committee Members:

Robert Andrews, City Traffic Safety Committee Member (Chair)
Deborah Sumner, Former City Councilor (Vice Chair)
Don Clements, Chehalem Park and Recreation District
Frank Dittman, Neighboring Property Owner
Sam Farmer, George Fox University
Rob Molzahn, Cornerstone Group Realtors
Andrew Poole, Citizen
Paul Frankenburger, Newberg School District
Michael Wallace, Citizen
Jim Henderson, EFTC
Mike Livingstone, Portland General Electric
Johann May, Citizen
Bob Youngman, Citizen

City of Newberg Staff:

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Mike Soderquist, Community Development Department Director
Barton Brierley, City Planner
Larry Anderson, City Engineer
David Beam, Economic Development Coordinator, Planner

Property Owner:

Dean Werth, Property Owners Representative
Mike Gougler, Development Representative

Consultants:

Ankrom Moisan Architects (Concept Plan and sketches)
Kittelson and Associates, Inc. (Traffic Analysis)

Springbrook Oaks Specific Plan

Graphics and Figures

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