City of Sherwood, Oregon

Resolution No. 90-473

A RESOLUTION ADOPTING THE CITY TRANSPORTATION PLAN UPDATE, AS PREPARED BY DAVID EVANS AND ASSOCIATES, AND DATED AUGUST 1990, DIRECTING THE FINDINGS OF THIS PLAN UPDATE TO BE INCORPORATED INTO THE SHERWOOD COMPREHENSIVE PLAN, AND ESTABLISHING AN EFFECTIVE DATE

WHEREAS, the City of Sherwood adopted a Transportation Network Plan in 1979, and elements of that Network Plan were incorporated into the 1981 Comprehensive Plan; and

WHEREAS, in the intervening years some of the assumptions of that Network Plan, specifically levels and patterns of City population growth, wetlands and floodplain alteration, and compatibility with County plans, have dramatically changed; and

WHEREAS, in order to adequately plan for the community in the 1990's, and to address the new factors that have emerged over the last decade, it is necessary to udpate the City's Transportation Network Plan; and

WHEREAS, accordingly the City commissioned the firm of David Evans and Associates to prepare a Transportation Plan Update, said update, dated August 1990, attached hereto as "Exhibit A".

NOW, THEREFORE, THE CITY RESOLVES AS FOLLOWS:

Section 1. Update Adopted. The 1990 Transportation Plan Update, attached hereto as "Exhibit A", is hereby ADOPTED and shall modify the 1979 Network Plan as applicable.

Section 2. Guidelines. The findings and standards of the 1990 Plan Update shall serve, in conjunction with those still valid findings of the 1979 Plan, as guidelines for planning transportation system capital improvements, and requiring street extensions and replacements as part of development.

Section 3. Periodic Review. The findings and standards of the 1990 Plan Update shall be incorporated into the Periodic Review of the Sherwood Comprehensive Plan, scheduled to be complete in March 1991.

Section 4. Effective Date. This Resolution shall become effective upon approval and adoption.

Duly passed by the City Council on Sept 26, 1990.

Attest:
Polly Blankenbaker,
City Recorder

Norma Jean Oyler, Mayor

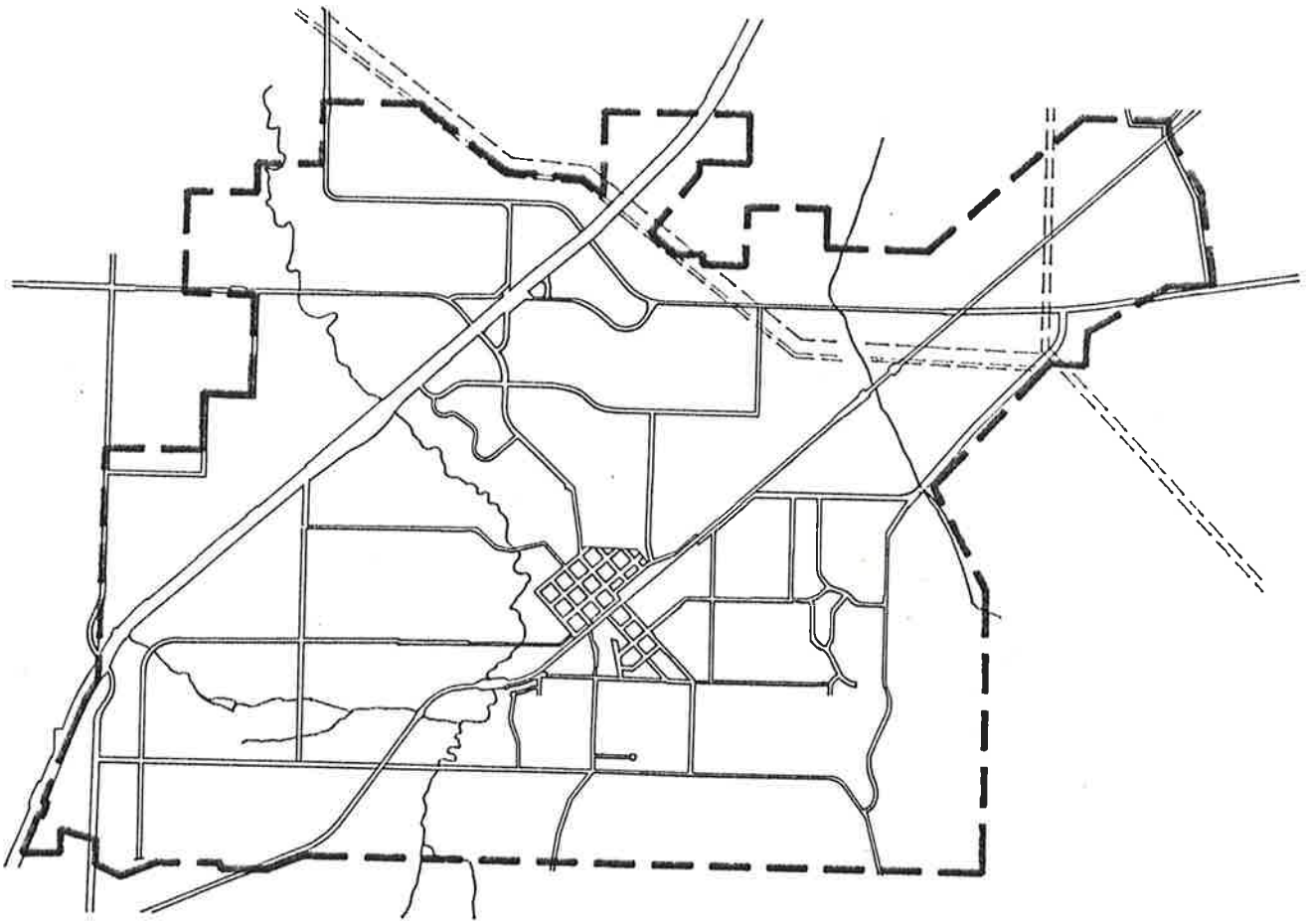
Resolution No. 90-473
September 26, 1990

Exhibit A
Resolution 90-473

City of Sherwood

TRANSPORTATION PLAN UPDATE

August 1990



DAVID EVANS AND ASSOCIATES, INC.
2828 S.W. CORBETT AVENUE
PORTLAND, OREGON 97201
(503) 223-6663

August 13, 1990

SHW018

Mr. Jim Rapp
City Manager
City of Sherwood
90 N.W. Park Street
Sherwood, OR 97140

RE: TRANSPORTATION PLAN UPDATE

Dear Jim:

David Evans and Associates, Inc. (DEA) is pleased to have prepared this TRANSPORTATION PLAN UPDATE for the City of Sherwood. This is an update to the 1979 Transportation Plan Element of the Sherwood Comprehensive Plan.

This update is warranted because of changes that have occurred in the City of Sherwood since 1979. There is a significant difference in the population projections made at that time and the actual growth that has occurred. Most significantly, the City's street system has changed over the last ten years and will change dramatically in the next two years with the construction of the Tualatin-Sherwood/Edy Road and Six Corners intersection projects. The potential for a "Western Bypass" expressway on the City's northern limits may also have a major influence on City transportation patterns, and population and business growth.

The physical characteristics of the City's existing major streets have been inventoried for right-of-way widths, street widths, sidewalk/bikepath types and widths, curb locations, and drainage system types.

This update includes recommendations for changes to the functional classification of many major existing and planned City streets. These recommendations also include the realignment, addition, and deletion of some of the previously planned City streets. These changes allow better use of the City's urban land, minimize the potential encroachments into sensitive creeks and wetlands, and reduce the cost of constructing needed major routes.

An update to the existing City Transportation Plan Map is a part of the TRANSPORTATION PLAN UPDATE. It illustrates the recommended functional classifications of the City's existing and planned streets.

DAVID EVANS AND ASSOCIATES, INC.
ENGINEERS, SURVEYORS, PLANNERS, LANDSCAPE ARCHITECTS, SCIENTISTS
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Revisions are also recommended to the City's street construction standards. These revisions will make the City of Sherwood's standards more consistent with Washington County's newer standards. At the same time, the City standards suggested will be easier to administer than the County's more complex system.

In summary, this TRANSPORTATION PLAN UPDATE will serve the City of Sherwood well until time warrants another periodic update.

Very truly yours,

DAVID EVANS AND ASSOCIATES, INC.

Anthony O. Righellis, P.E.
Vice President

AOR:cle

CITY OF SHERWOOD
TRANSPORTATION PLAN UPDATE

Table of Contents

PURPOSE AND SCOPE OF TRANSPORTATION PLAN UPDATE

This report is an update to the 1979 Transportation Plan Element of the Sherwood Comprehensive Plan. As with any planning document, periodic updates are necessary because of changing conditions.

This update is warranted because of changes that have occurred in the City of Sherwood since 1979. There is a significant difference in the population projections made at that time and the actual growth that has occurred. Most significantly, the City's street system has changed over the last ten years and will change dramatically in the next two years with the construction of the Tualatin-Sherwood/Edy Road and Six Corners intersection projects. The potential for a "Western Bypass" expressway on the City's northern limits may also have a major influence on City transportation patterns, and population and business growth.

This update addresses four basic areas of the current plan:

The Existing Street System

The physical characteristics of the City's existing major streets have been inventoried for right-of-way widths, street widths, sidewalk/bikepath types and widths, curb locations, and drainage system types.

Functional Classifications

Changes to the functional classification of many major existing and planned City streets have been addressed. These changes include the realignment, addition, and deletion of some of the planned City streets.

City Transportation Plan Map

The City Transportation Plan Map has been updated using computer-aided drafting. It illustrates the recommended functional classifications of the City's existing and proposed streets.

Street Construction Standards

Changes to the City's street construction standards are identified. These revisions will make the City of Sherwood's standards more consistent with Washington County's newer standards and with generally acceptable design criteria. The changes will also be easy to administer.

EXISTING STREET SYSTEM INVENTORY

The physical characteristics of the City's existing major streets have been inventoried for right-of-way widths, street widths, sidewalk/bikepath types and widths, curb locations, and drainage system types. This physical inventory was, in part, used to review the functional classification of existing streets and to arrive at any recommended changes.

This inventory will have important and practical applications in preparing street capital improvement priorities and plans. A comparison of planned standards to actual built features quickly reveals those City streets exhibiting the greatest differential between their classified use and their physical capacity to accommodate expected levels of traffic. All other factors being equal, including the City's ability to meet the cost of the improvements, those roadways planned for higher volumes of traffic, and exhibiting the greatest differential between their classification and their existing condition, should be prioritized.

This inventory is also useful for the City's processing of land development applications. The data can be referenced to quickly determine the general nature of the streets that front on or may be impacted by proposed developments. The inventory data table can also be reproduced and provided as a convenient hand-out to developers, engineers, planners and property owners.

The Street Inventory Data Tables are on the following pages.

TABLE 1 - STREET INVENTORY DATA TABLE

STREET NAMES	PLANNED ROW WIDTH (FT)	ACTUAL ROW WIDTH (FT)	PLANNED STREET WIDTH (FT)	ACTUAL STREET WIDTH (FT)	SIDEWALK	BIKE PATH	CURBS	STORM DRAINAGE TYPE
NORTH SHERWOOD (PACIFIC HIGHWAY TO 3RD STREET)	80′	80′-60′	54′	36′	8′-EAST 5′-WEST	NONE	BOTH SIDES	PIPE
12TH STREET	70′	50′	50′	36′	NONE	NONE	BOTH SIDES	PIPE
GLENEAGLE STREET	50′	50′	**	32′	NONE	NONE	BOTH SIDES	PIPE
N.W. 10TH STREET	50′	50′	**	32′	NONE	NONE	BOTH SIDES	PIPE
S.W. 1ST STREET (PARK TO MAIN)	50′	60′	**	24′	6′ BOTH SIDES	NONE	BOTH SIDES	PIPE
S.W. 1ST STREET (MAIN TO PINE)	50′	60′	**	42′	6′ BOTH SIDES	NONE	BOTH SIDES	PIPE
S.W. 1ST STREET (PINE TO ASH)	50′	60′	**	24′	NONE	NONE	BOTH SIDES	PIPE
S.W. 2ND STREET (PARK TO MAIN)	50′	60′	**	24′	NONE-EAST 4′-WEST	NONE	BOTH SIDES	PIPE

**LOCAL STREET - STREET WIDTH CAN VARY

TABLE 1 - STREET INVENTORY DATA TABLE (CONTINUED)

STREET NAMES	PLANNED ROW WIDTH (FT)	ACTUAL ROW WIDTH (FT)	PLANNED STREET WIDTH (FT)	ACTUAL STREET WIDTH (FT)	SIDEWALK	BIKE PATH	CURBS	STORM DRAINAGE TYPE
S.W. 2ND STREET (MAIN TO WASHINGTON)	50′	60′	**	24′	4′ BOTH SIDES	NONE	BOTH SIDES	PIPE
S.W. 2ND STREET (WASHINGTON TO PINE)	50′	60′	**	24′	4′-EAST	NONE	BOTH SIDES	PIPE
S.W. 2ND STREET (PINE TO OAK)	50′	60′	**	24′	4′-EAST	NONE	BOTH SIDES	PIPE
S.W. 3RD STREET (MAIN TO WASHINGTON)	50′	60′	**	24′	NONE	NONE	BOTH SIDES	PIPE
S.W. 3RD STREET (WASHINGTON TO PINE)	60′	60′	40′	24′	4′-EAST	NONE	BOTH SIDES	PIPE
N.W. PARK STREET (R.R. ST. TO 1ST)	50′	60′	**	24′	NONE	NONE	BOTH SIDES	PIPE
N.W. PARK STREET (2ND TO 1ST)	50′	60′	**	24′	4′-SOUTH	NONE	BOTH SIDES	PIPE
MAIN STREET (R.R. ST. TO 1ST)	50′	60′	**	42′	6′ BOTH SIDES	NONE	BOTH SIDES	PIPE
MAIN STREET (1ST TO 2ND)	50′	60′	**	24′	4′-NORTH 4′-SOUTH	NONE	BOTH SIDES	PIPE
MAIN STREET (2ND TO 3RD)	50′	60′	**	24′	NONE	NONE	BOTH SIDES	PIPE

**LOCAL STREET - STREET WIDTH CAN VARY

TABLE 1 - STREET INVENTORY DATA TABLE (CONTINUED)

STREET NAMES	PLANNED ROW WIDTH (FT)	ACTUAL ROW WIDTH (FT)	PLANNED STREET WIDTH (FT)	ACTUAL STREET WIDTH (FT)	SIDEWALK	BIKE PATH	CURBS	STORM DRAINAGE TYPE
N.W. PINE STREET (R.R. ST. TO 1ST)	60′	60′	40′	40′	4′-SOUTH	NONE	BOTH SIDES	PIPE
N.W. PINE STREET (1ST TO 3RD)	60′	60′	40′	42′	4′ BOTH SIDES	NONE	BOTH SIDES	PIPE
N.W. OAK STREET (OREGON ST. TO 2ND)	50′	60′	**	24′	NONE	NONE	BOTH SIDES	PIPE
N.W. OAK STREET (2ND TO 3RD)	50′	60′	**	12′	NONE	NONE	NONE	NONE
N.W. ASH STREET (OREGON ST. TO 2ND)	50′	60′	**	24′	NONE	NONE	BOTH SIDES	PIPE
N.W. WASHINGTON STREET (R.R. ST. TO 1ST)	60′	60′	40′	42′	8′ BOTH SIDES	NONE	BOTH SIDES	PIPE
N.W. WASHINGTON STREET (1ST TO 3RD)	60′	60′	40′	42′	4′ BOTH SIDES	NONE	BOTH SIDES	PIPE
N.W. WASHINGTON STREET (3RD TO LEE DR.)	60′	60′	40′	42′	NONE	NONE	BOTH SIDES	PIPE
MEINECKE ROAD	80′	40′	54′	22′	NONE	NONE	NONE	DITCH
W. LEE DRIVE	50′	50′	**	32′	4′ BOTH SIDES	NONE	BOTH SIDES	PIPE

**LOCAL STREET - STREET WIDTH CAN VARY

TABLE 1 - STREET INVENTORY DATA TABLE (CONTINUED)

STREET NAMES	PLANNED ROW WIDTH (FT)	ACTUAL ROW WIDTH (FT)	PLANNED STREET WIDTH (FT)	ACTUAL STREET WIDTH (FT)	SIDEWALK	BIKE PATH	CURBS	STORM DRAINAGE TYPE
N.W. MARSHALL	50′	50′	**	32′	4′ BOTH SIDES	NONE	BOTH SIDES	PIPE
W. VILLA ROAD	50′	20-40′	**	12′	NONE	NONE	NONE	NONE
S.W. R.R. STREET (PARK TO MAIN)	60′	50′	**	24′	4′-NORTH	NONE	NONE	PIPE
S.W. R.R ST. (MAIN TO PINE)	60′	50′	40′	46′	8′-NORTH	NONE	BOTH SIDES	PIPE
OREGON STREET (PINE TO R/R XING)	70′	40′	50′	20′-22′	NONE	NONE	NONE	DITCH
OREGON STREET (R/R XING TO SHERWOOD)	80′	40′	54′	20′-22′	NONE	NONE	NONE	DITCH
SOUTH SHERWOOD (R.R. ST. TO DIVISION)	80′	65′	54′	28′	NONE	NONE	BOTH SIDES	PIPE
SOUTH SHERWOOD (W. DIVISION TO SUNSET CT.)	80′	50′	54′	18′-20′	NONE	NONE	NONE	DITCH (EAST)
SOUTH SHERWOOD (SUNSET CT. TO SUNSET BLVD.)	80′	60′	54′	45′	8′-EAST 5′-WEST	NONE	BOTH SIDES	PIPE
WEST SUNSET BLVD.	80′	65′	54′	18′-22′	NONE	NONE	NONE	DITCH (SOUTH)

**LOCAL STREET - STREET WIDTH CAN VARY

TABLE 1 - STREET INVENTORY DATA TABLE (CONTINUED)

STREET NAMES	PLANNED ROW WIDTH (FT)	ACTUAL ROW WIDTH (FT)	PLANNED STREET WIDTH (FT)	ACTUAL STREET WIDTH (FT)	SIDEWALK	BIKE PATH	CURBS	STORM DRAINAGE TYPE
ST. CHARLES WAY	50′	40′	**	28′	NONE	NONE	BOTH SIDES	PIPE
COLUMBIA STREET	50′	60′	**	20′	NONE	NONE	NONE	NONE
DIVISION STREET (S. PINE TO S. SHERWOOD)	60′*	50′-40′-33′	40′*	22′-24′	NONE	NONE	NONE	DITCH
E. DIVISION STREET	50′	40′	**	16′-18′	NONE	NONE	NONE	DITCH
S.E. WASHINGTON (R.R. ST. TO WILLAMETTE)	50′	60′	**	40′	4′-EAST 4′-WEST	NONE	BOTH SIDES	PIPE
S.E. WASHINGTON (WILLAMETTE TO W. DIVISION)	50′	60′	**	28′	NONE	NONE	NONE	DITCH
S.W. PARK ROW	50′	60′	**	16′-18′	NONE	NONE	NONE	DITCH
S.W. TUALATIN STREET	50′	60′	**	22′	NONE	NONE	NONE	DITCH (SOUTH)
S. PINE STREET (E. DIVISION TO E. SUNSET)	60′	40′	40′	20′	NONE	NONE	NONE	DITCH (EAST)
E. SUNSET BLVD.	80′	40′-65′	54′	22′	NONE	NONE	NONE	DITCH

* FOR A PORTION OF THIS STREET ONLY
**LOCAL STREET - STREET WIDTH CAN VARY

TABLE 1 - STREET INVENTORY DATA TABLE (CONTINUED)

STREET NAMES	PLANNED ROW WIDTH (FT)	ACTUAL ROW WIDTH (FT)	PLANNED STREET WIDTH (FT)	ACTUAL STREET WIDTH (FT)	SIDEWALK	BIKE PATH	CURBS	STORM DRAINAGE TYPE
S.W. MURDOCK ROAD (SUNSET TO OREGON ST.)	80′	60′	54′	28′	NONE	NONE	NONE	DITCH
E. WILLAMETTE STREET (WASHINGTON TO LINCOLN)	60′	60′-40′	40′	28′	4′-NORTH	NONE	BOTH SIDES	PIPE
E. WILLAMETTE STREET (LINCOLN TO NORTON)	60′	40′	40′	32′	4′-NORTH	NONE	BOTH SIDES	PIPE
E. WILLAMETTE STREET (NORTON TO ROY)	60′	60′	40′	32′	4′ BOTH SIDES	NONE	BOTH SIDES	PIPE
E. WILLAMETTE STREET (ROY TO COCHRAN)	60′	60′	40′	32′	4′ BOTH SIDES	NONE	BOTH SIDES	PIPE
LINCOLN STREET (E. WILLAMETTE TO E. DIVISION)	50′	40′-44′-40′	**	24′	1 BLOCK (WEST SIDE ONLY)	NONE	NONE	DITCH (EAST) PIPE (WEST)
LINCOLN STREET (WILLAMETTE TO OREGON ST.)	50′	40′	**	20′	NONE	NONE	NONE	DITCH
E. NORTON STREET	50′	50′	**	32′	4′ BOTH SIDES	NONE	BOTH SIDES	PIPE

** LOCAL STREET - STREET WIDTH CAN VARY

TABLE 1 - STREET INVENTORY DATA TABLE (CONTINUED)

STREET NAMES	PLANNED ROW WIDTH (FT)	ACTUAL ROW WIDTH (FT)	PLANNED STREET WIDTH (FT)	ACTUAL STREET WIDTH (FT)	SIDEWALK	BIKE PATH	CURBS	STORM DRAINAGE TYPE
HALL STREET (WILLAMETTE TO MERRYMAN STREET)	60'	50'	40'	32'	4' BOTH SIDES	NONE	BOTH SIDES	PIPE
HALL STREET (MERRYMAN TO OREGON ST.)	60'	45'	40'	24'	NONE	NONE	NONE	PIPE
G & T DRIVE	50'	50'	**	32'	4'-NORTH	NONE	BOTH SIDES	PIPE
E. ROY STREET	50'	50'	**	28'-32'	4' BOTH SIDES	NONE	BOTH SIDES	PIPE
E. COCHRAN DRIVE	50'	50'	**	32'	4' BOTH SIDES	NONE	BOTH SIDES	PIPE
MIDDLETON ROAD	50'	60'	**	20'-22'	NONE	NONE	NONE	DITCH
EDY ROAD	90'	50'-70'	66'	20'	NONE	NONE	NONE	DITCH
ELWERT ROAD	***	60'	***	20'	NONE	NONE	NONE	DITCH
SCHOLLS-SHERWOOD ROAD	70'	60'	44'	20'	NONE	NONE	NONE	DITCH
CIPOLE ROAD	***	65'-40'	***	18'-20'	NONE	NONE	NONE	DITCH
ORLAND STREET	50'	40'	**	32'	3' BOTH SIDES	NONE	BOTH SIDES	PIPE

** LOCAL STREET - STREET WIDTH CAN VARY
*** COUNTY ROAD -- SEE COUNTY TRANSPORTATION PLAN

TABLE 1 - STREET INVENTORY DATA TABLE (CONTINUED)

STREET NAMES	PLANNED ROW WIDTH (FT)	ACTUAL ROW WIDTH (FT)	PLANNED STREET WIDTH (FT)	ACTUAL STREET WIDTH (FT)	SIDEWALK	BIKE PATH	CURBS	STORM DRAINAGE TYPE
TONQUIN ROAD	***	40′	***	22′	NONE	NONE	NONE	DITCH
TUALATIN-SHERWOOD	***	60′	***	24′	NONE	NONE	NONE	DITCH
LADD HILL ROAD	70′	40′	44′	18′-20′	NONE	NONE	NONE	DITCH

**LOCAL STREET - STREET WIDTH CAN VARY
*** COUNTY ROAD -- SEE COUNTY TRANSPORTATION PLAN

RECOMMENDED TRANSPORTATION PLAN AMENDMENTS

A. Functional Classifications

The streets in the City of Sherwood are classified by their function. This Transportation Plan Update recommends classifying the roads in Sherwood into three basic categories - arterials, collectors, and local streets. These functional classifications are not significantly different from the City's existing classifications. Classification for those roadways that cross the City urban growth boundary and continue into unincorporated County areas have been established to provide the closest physical and functional transition from City to County standards (except as otherwise noted).

Arterials

Arterials, such as N. Sherwood Boulevard or Tualatin-Sherwood Road, are the highest road classification. They are intended to carry through traffic at higher speeds. Access by intersecting streets and driveways is intended to be very limited.

Arterials can serve a wide range of traffic volumes. It is recommended that arterials be further subclassified as major and minor. Major Arterials are five-lane facilities that carry the highest traffic volumes. Tualatin-Sherwood Road, when rebuilt, is planned to be a full feature, urban arterial roadway. Minor Arterials are three-lane facilities. North Sherwood Boulevard is an example of an existing minor arterial within the City.

Portions of some Minor Arterials are shown on the Transportation Plan Map with recommended right-of-way widths that are in excess of the usual City standard. This is to accommodate future expansion needs as the City's population and traffic volumes increase. When warranted, these Minor Arterials are recommended to be upgraded in classification to Major Arterials. For this update, such arterials are identified and considered as Minor Arterials in all respects except for requirement of additional right-of-way width.

Collectors

Collectors, the next level of functional classification, focus the traffic in local areas for travel to and from those areas. Travel speeds on collectors are lower than on arterials, and access by intersecting streets and driveways is moderately restricted. East Willamette Street is classified as a collector, but is not built to full standard. In fact, there are no collector classified roadways in the City currently constructed to full standard.

Collectors can also serve a wide range of traffic volumes. It is recommended that collectors be further subclassified as major and minor. Major Collectors are three-lane facilities that carry sufficient traffic volumes to warrant a continuous left turn lane for vehicle deceleration and storage. Major collectors are typically required in commercial, industrial, and higher density residential neighborhoods, where higher traffic volumes and/or larger vehicles are typical. Minor Collectors are two-lane facilities with traffic volumes that do not warrant left turn lanes. Minor Collectors are generally confined to moderate to low density residential areas.

Local Streets

Local Streets, such as Roy Street, are designed to carry very little through traffic. Direct access onto local streets from private property is the norm and travel speeds are low as compared to the higher classification streets.

County Roads

Several roadways within the City will remain under County jurisdiction, even after they are reconstructed. Cipole Road, Elwert Road, and Tonquin Road are all split down centerline by jurisdictional boundaries (for example, the west side of Cipole is in Sherwood, the east side in Tualatin) and are most appropriate for continued County authority. Tualatin-Sherwood Road and the proposed Beef Bend Extension are designated as regional arterials on the County Transportation Plan and will also remain in County jurisdiction. These roadways will all be developed to County functional classifications standards.

B. Plan Map

The City Transportation Plan Map (Figure 1) shows the general location of all streets recommended for arterial and collector classification. These classified streets are comprised of existing and proposed routes.

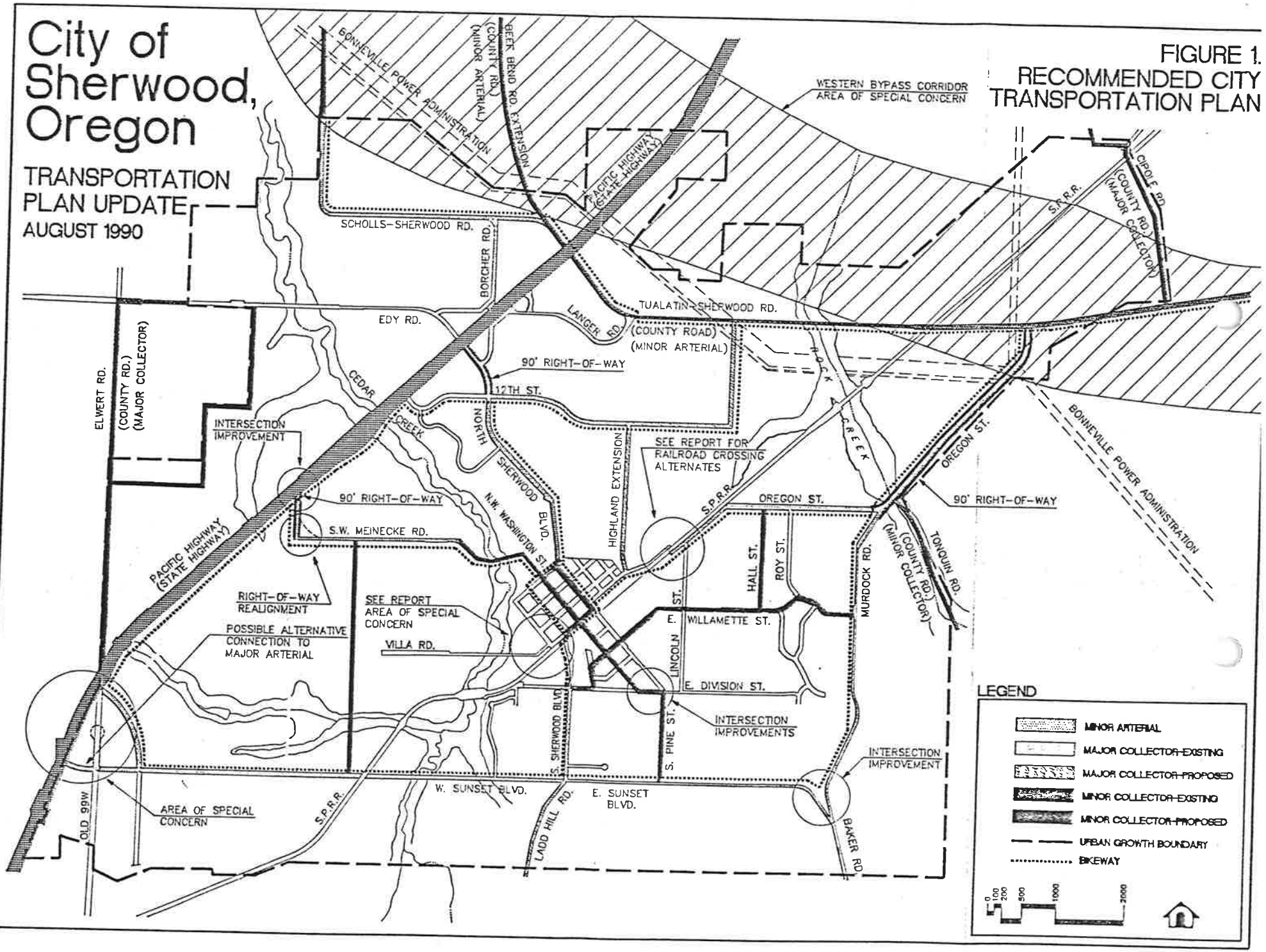
The proposed arterial and collector routes shown on the City Transportation Plan Map are schematic only. The schematic alignments indicate the desired connection points of the new routes and the general areas the new streets are to serve. Actual routes will vary depending on terrain, property ownerships, and development patterns.

City of Sherwood, Oregon

TRANSPORTATION PLAN UPDATE

AUGUST 1990

FIGURE 1. RECOMMENDED CITY TRANSPORTATION PLAN



Future local streets are not shown on the Transportation Plan Map. Local streets are land service oriented and will develop in a pattern based on the needs of future developments. Flexibility in location and pattern is important so that the land within the City can develop to its maximum potential. Even though flexibility is encouraged, certain design standards are necessary to encourage circulation on local streets. Most notably, the City should not encourage the use of cul-de-sacs or other permanent dead-end streets where reasonable future connections to other local streets and collectors can provide increased circulation capability.

Existing city streets classified as arterials and collectors are generally shown in their current locations. There is one major exception. The realignment of Six Corners and of Tualatin-Sherwood Road in the vicinity of Edy Road and Cipole Road is part of the scheduled rebuilding of that roadway and is shown as planned. Six Corners and the intersection of Tualatin-Sherwood and Edy Roads are part of the greater Tualatin-Sherwood/Edy Road project currently scheduled for 1990-91 construction by Washington County and the Oregon Department of Transportation (ODOT). Realignments are also necessary at four specific intersections: Murdock/Wilsonville Roads, Elwert Road/Pacific Highway, Meinecke Road/Pacific Highway, and Washington/Division/Pine streets. A partial right-of-way realignment is also contemplated for Meinecke Road. These realignments are desirable to improve the visibility and geometry of the intersections and should be undertaken as development occurs and traffic volumes increase on these streets.

There are fewer arterials and collectors recommended in the Transportation Plan Update than the City has currently adopted. The general locations also differ. The differences can be attributed to the Tualatin-Sherwood/Edy Road project improvements and environmental constraints that limit land development in specific areas of the City. The current plan identifies several proposed routes that are difficult and costly to construct. These routes traverse wide floodplains and sensitive wetland areas. In recent years, it has become increasingly difficult to obtain federal and state permits for encroachments into these areas, especially when viable alternatives to encroachments exist. The routes on this recommended City Transportation Map allows for better use of the City's urban land, minimize potential encroachments into sensitive creeks and wetlands, and reduce the cost of constructing needed major routes.

Specific major projects illustrated on the Plan Map include:

Western Bypass

The "Western Bypass" is intended as a limited access arterial highway directly linking Interstate 5 with Oregon Highway 26. The need for the Bypass was established through the Metropolitan Service District's "Southwest Corridor Study" and the general Bypass corridor has been incorporated into METRO's and Washington County's Transportation Plans. The corridor illustrated on the City's Transportation Plan is at the same level of detail as in the METRO and County plans. The City Transportation Plan should be further amended in a timely manner as detailed planning and engineering for the Bypass moves forward.

Further corridor studies, preliminary engineering, and right-of-way acquisition for the Bypass is currently scheduled to be undertaken by ODOT through 1993 and possibly beyond. Current plans call for the bypass to be phased, with the initial section being constructed between I-5 and Oregon Highway 99W. Intersections are expected at Tualatin-Sherwood Road (west of Cipole Road), and at Highway 99W. The City should amend its Transportation Plan and land use plans as the Bypass Corridor analysis is completed and the Bypass alignment is refined, so that the process of preserving right-of-way can begin as soon as possible. The final Bypass alignment could also dictate other changes to the City's Transportation Plan in the relatively near future.

Beef Bend Extension

The County Transportation Plan calls for the construction of a "Beef Bend Extension." The extension will provide direct north-south connections between several existing County roads that follow property section lines (Scholls-Sherwood, Elsner, and Beef Bend) and eventually connect to Scholls Ferry Road.

Tualatin-Sherwood/Edy Road

Washington County and ODOT have jointly scheduled the rebuilding of Tualatin-Sherwood and Edy Roads, and the Highway 99W at Six Corners intersection, in 1990-1991. These projects are far enough advanced that the planned alignments are shown as "existing" on the City's updated Transportation Plan Map.

Villa Road

Villa Road is identified on the Transportation Plan Map as an area of special concern. Villa Road is classified as a local street and will be the only access for a small area of land wedged between the high school, railroad tracks, and proposed Steeplechase golf

course. The area is primarily zoned for low and mid-density housing. The constraints imposed by the Cedar Creek ravine, Stella Olsen Park, and Sherwood Old Town further complicate redevelopment of Villa Road. Several problems present themselves with this route.

At present, Villa Road is a gravel street with right-of-way widths varying greatly between 20 to 40 feet. It is "at grade" through the Cedar Creek ravine resulting in extreme slopes. The existing right-of-way makes a 45° turn at the top of the ravine and intersects with Park Street in Old Town. The point of intersection is slightly offset from the intersection of Park Street and Railroad Street. Homes and outbuildings on Villa Road are quite close to, and in some cases may be on, the existing right-of-way. Necessary right-of-way widening will almost certainly create potentially severe conflicts with private residential properties and City parkland. Finally, Tri-Met is planning, at the City of Sherwood's request, a new transit stop and park-n-ride at the intersections of Villa Road, Railroad Street, and Park Street.

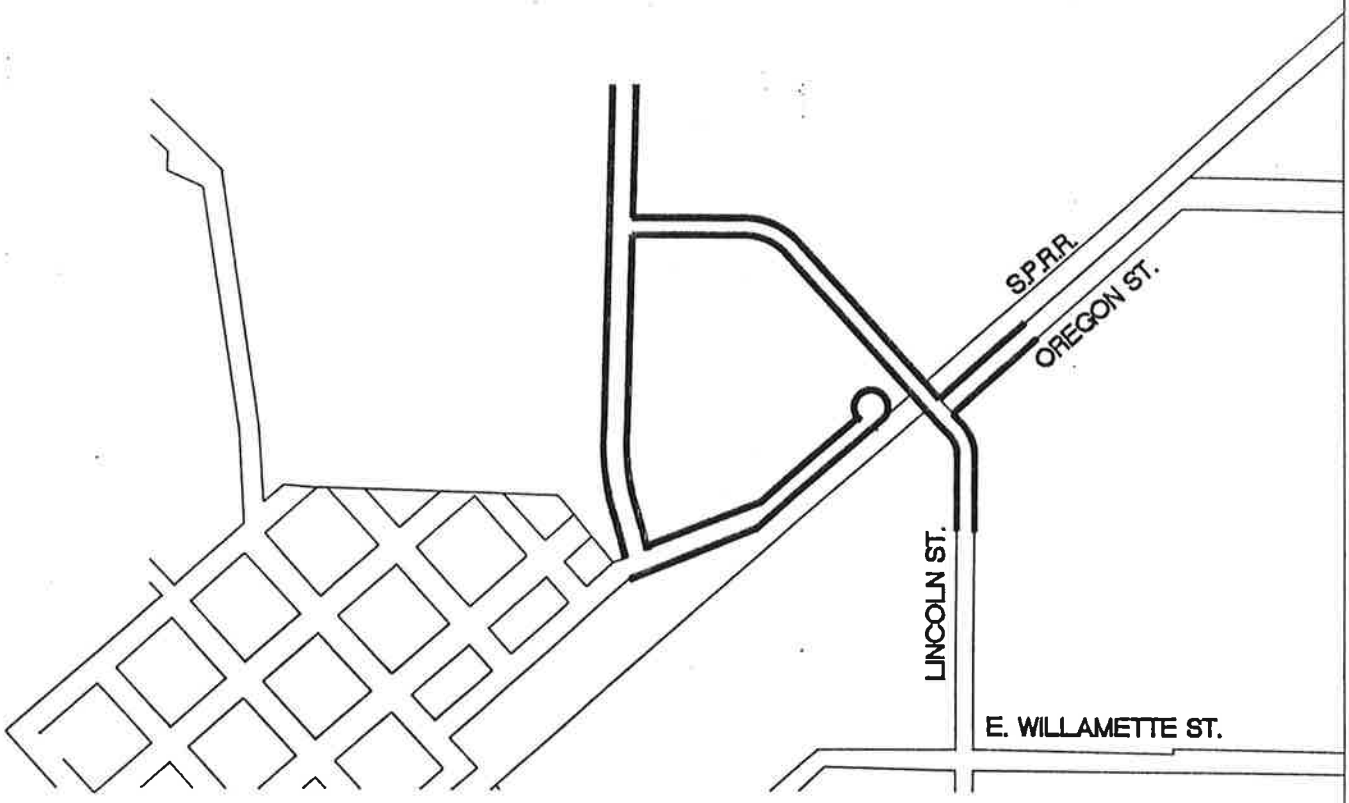
The foregoing factors will require special attention, and probably extra costs, in any reconstruction of Villa Road to a paved City standard.

Oregon Street

The Oregon Street railroad crossing is also identified for potential realignment. The updated City Transportation Plan Map shows the crossing as it currently exists. It functions adequately but difficulties arise when certain truck movements occur. Many alternatives are possible for improving this crossing. The two most likely alternatives are shown in Figure 2.

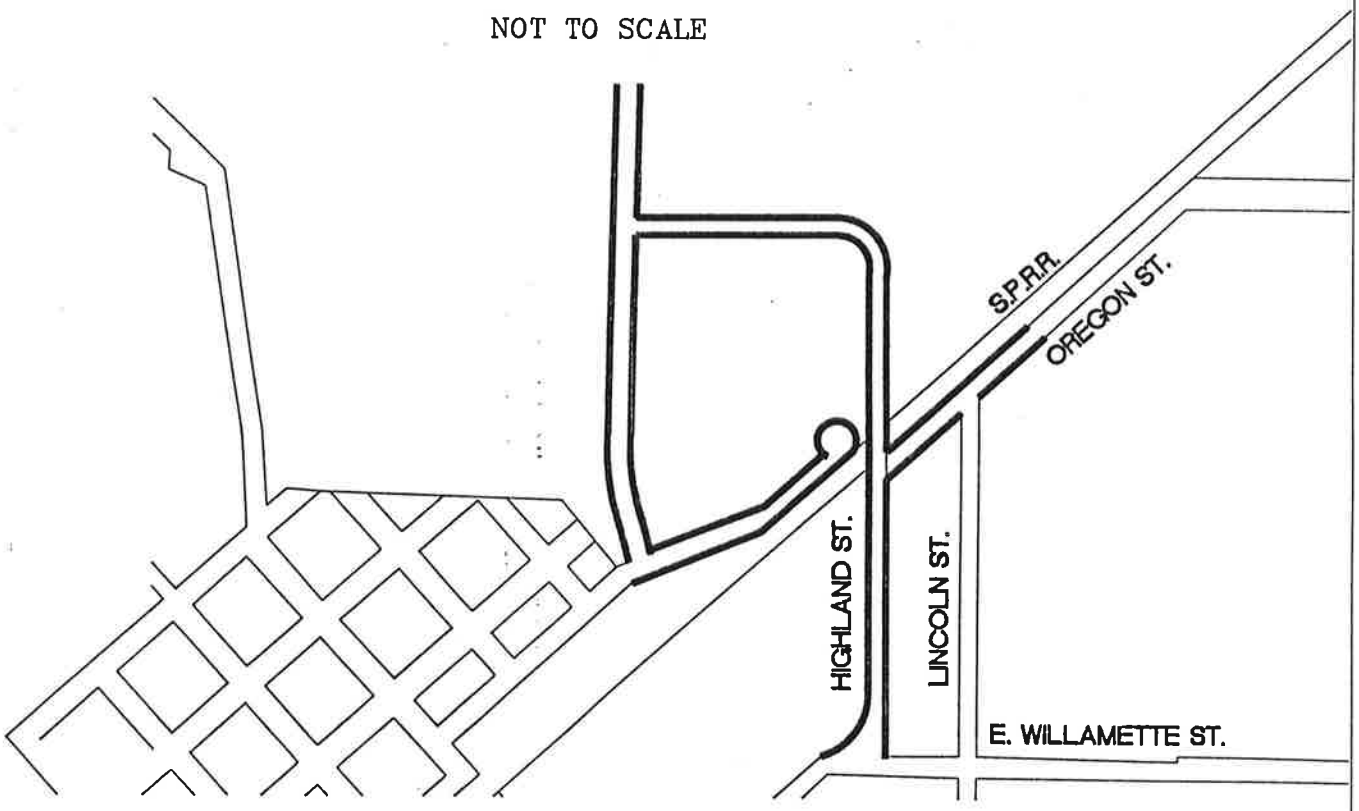
Both alternatives provide better function for cars and large trucks that access an adjacent business. Both alternatives also redirect traffic destined for downtown, eliminating the through road route along the north side of the railroad tracks. This redirection is necessary to create adequate turning distances for better traffic flow. Just as important, both alternatives retain the fire department's direct access to lands north of the railroad tracks. Permanently closing this crossing is not a viable alternative for this fire safety reason.

The Lincoln Street alternative has the advantages of creating a single route between Willamette and Oregon Streets. Oregon Street also intersects at a right angle in this alternative. This alternative does, however, utilize an existing residential street (Lincoln) with all the attendant impacts on existing housing.



LINCOLN STREET ALTERNATIVE

NOT TO SCALE



HIGHLAND STREET ALTERNATIVE

NOT TO SCALE

FIGURE 2, OREGON STREET RAILROAD CROSSING ALTERNATIVES

The Highland Street alternative has the advantage of creating a new route with much lesser impact on housing. Some of the required right-of-way (on both sides of the railroad) has been acquired. This alternative has the disadvantages of creating a close parallel route to Lincoln Street and results in an angled intersection with Oregon Street.

The present crossing should be considered a third alternative. Recent improvements have seen the crossing signalized and widened. Over time, with the planned improvements to Tualatin-Sherwood Road, and with the development of new collectors to the north of the railroad and improvement of existing collectors to the south, the volumes of traffic using this route should diminish.

Wilsonville Road/Sunset Blvd.

Wilsonville Road/Sunset Blvd. presently terminates at its west-end in a tee intersection with Old Highway 99W. Traffic bound for the present highway turns right and enters Pacific Highway 99W at the awkward Elwert Road intersection. Only the present low level of development and traffic volumes make this road configuration acceptable.

Once traffic volumes begin to approach levels commensurate with Wilsonville Road's minor arterial functional classification, the current road alignments will have to be modified. This may occur in the relatively near future if the proposed Steeplechase golf course moves forward. The alternative selected as part of the Steeplechase development approval process is to close Old 99W north of Wilsonville Road and extend Middleton Road due north to create a new intersection with Pacific Highway and Elwert Road. A longer range alternative is to extend the Wilsonville/Sunset due west to create a new intersection with Pacific Highway. Patterns of development in the southwestern part of the City will impact which solution is implemented.

Transit

Two transit improvements are important within the context of establishing a functional transportation system in Sherwood. The existing bus route through Sherwood has tentatively been scheduled by Tri-Met for rerouting by 1991. The buses would arrive in Old Town along Railroad Street, make a turnaround, and return down Railroad Street. Associated with this re-routing is a new bus shelter and park-n-ride in the vicinity of Villa Road, Railroad Street, and Park Street or along the Southern Pacific Railroad tracks between Washington and South Sherwood.

The second needed transit improvement is the establishment of a "feeder" route from Sherwood to the Tualatin park-n-ride at the Lake Grove exit on I-5. This will provide Sherwood residents with easy access to Tualatin and to Tri-Met express bus routes.

Bikeways

A system of bikeways is proposed to be included along selected collector and arterial roadways within the City, as illustrated on the Transportation Plan Map. Bikeways should typically be five feet wide and constructed on both sides of the street as part of the street section. Due to development constraints, such as older bikeway improvements or existing housing, this standard may have to be varied on a case-by-case basis.

Pacific Highway

Access to Pacific Highway by arterials and collectors is limited to those locations shown on the City Transportation Plan Map. Additional access points may be allowed by the Oregon Department of Transportation (ODOT) based on individual permit applications.

The City of Sherwood encourages close coordination with ODOT on the issue of access to Pacific Highway. It is the intent of the City to have an approved access/channelization plan presented to ODOT for their approval in 1990-91. This access/channelization plan will serve as the specific plan for land development intending access to Pacific Highway.

RECOMMENDED STREET CONSTRUCTION STANDARDS

Revisions to the City's street construction standards revisions are recommended in this Transportation Plan Update. The standards are the technical requirements that engineering designers and construction contractors are recommended to adhere to in the development of new streets. These revisions will make the City's standards more consistent with Washington County's newer standards. The revised standards are also in greater conformance with generally acceptable criteria used in the Portland Metropolitan region. The changes are intended to be easy for City staff to administer because they are definitive for each classification of street with few options.

It is recommended that Washington County's Uniform Road Improvement Design Standards, adopted by the County on July 22, 1986, be adopted in whole with the exception of the items shown in this section. The items specifically identified in this section are recommended to take precedence over the counterpart requirements in Washington County's standards.

Table 2 identifies the basic design criteria for each street classification. Figure 3 provides illustrative cross-sections for each classification.

Cul-de-sacs are recommended to have a maximum length of 600 feet, as measured from the curb of the intersecting street to the beginning of the circular turnaround. The City should establish a policy of not encouraging the use of cul-de-sacs where future connections to other streets are possible. This is to encourage local street circulation capability.

Another significant concern is the impact of building out existing streets in established neighborhood to the full classified standard. Particularly in older areas like Old Town and Washington Hill, such full build-outs could create traffic hazards by shortening driveways and sightlines or actually require the removal of existing structures. The City should recognize the need for and permit variances to road standards in such circumstances.

The pavement section of new streets should be designed by the engineering methods identified in Washington County's standards. For certain projects, the City can waive this requirement and require the use of the following pavement sections based on the functional classification of the street. The use of the standard pavement sections should be limited to projects where typical traffic loads and soil conditions are anticipated. Structurally, private streets will be constructed to the same standard as public local streets.

TABLE 3 -- STREET PAVEMENT SECTIONS

FUNCTIONAL CLASSIFICATION	STANDARD PAVEMENT SECTION
Major and Minor Arterials	By individual design only.*
Major and Minor Collectors	4" Asphaltic Concrete 3" 3/4"-0" Crushed Rock 12" 1-1/2"-0" Crushed Rock
Local Street **	3 1/2" Asphaltic Concrete 2" 3/4"-0" Crushed Rock 8" 1-1/2"-0" Crushed Rock

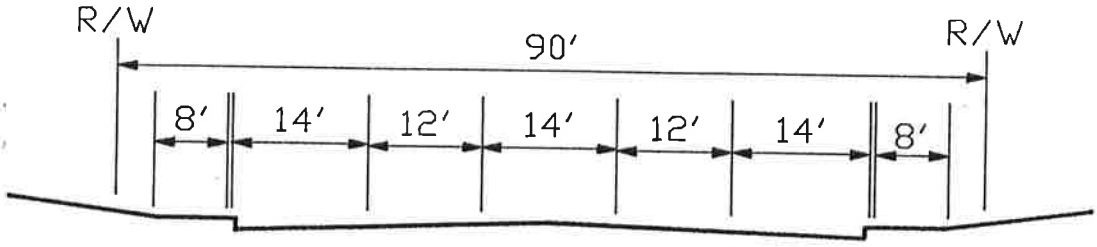
* Traffic volumes, variations on arterials, and the significance of these high capacity roads warrants individualized design.

** Local streets that have a high volume of truck traffic may require a thickened section. In such cases, an individualized design may be required by the City instead of using this standard pavement section.

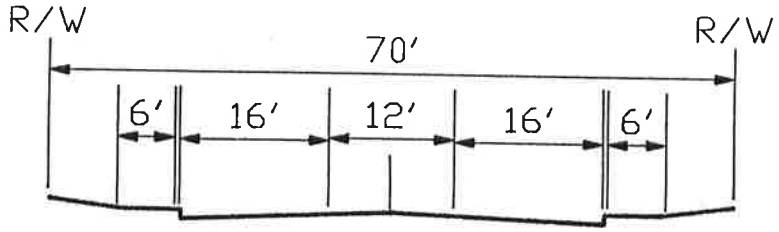
TABLE 2 STREET CONSTRUCTION STANDARDS TABLE

CLASSIFICATION	RIGHT-OF-WAY WIDTH (FT)	PAVED WIDTH (FT)	NO. LANES	CURB-SIDE TRAVEL LANE (FT)	CENTER LANE (FT)	INTERIOR TRAVEL LANE (FT)	PARKING	SIDE-WALK WIDTH (FT)	BIKE LANES (FT)	DESIGN SPEED (MPH)	HORIZ. RADIUS (MIN)	MAX GRADE (%)
MAJOR ARTERIAL	90	66	5	14	14	12	N	8	--	45	925	10
MINOR ARTERIAL (With Bikelanes)	80	54	3	16	12	--	N	6	5	35	500	10
MINOR ARTERIAL	70	44	3	16	12	--	N	6	--	35	500	10
MAJOR COLLECTOR (With Bikelanes)	70	50	3	14	12	--	N	5	5	30	250	10
MAJOR COLLECTOR	60	40	3	14	12	--	N	5	--	30	250	10
MINOR COLLECTOR (With Bikelanes)	60	40	2	20	--	--	Y*	5	5	25	175	10
MINOR COLLECTOR	60	40	2	20	--	--	Y	5	--	25	175	15
LOCAL STREET	50	36	2	18	--	--	Y	5	--	25	--	
LOCAL STREET	50	32	2	16	--	--	Y*	5	--	25	--	15
LOCAL STREET	50	28	2	14	--	--	N	5	--	25	--	15

*ONE SIDE ONLY



MAJOR ARTERIAL
(No Parking)



MINOR ARTERIAL
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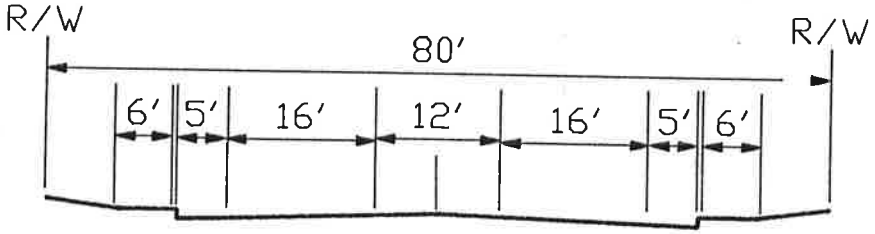
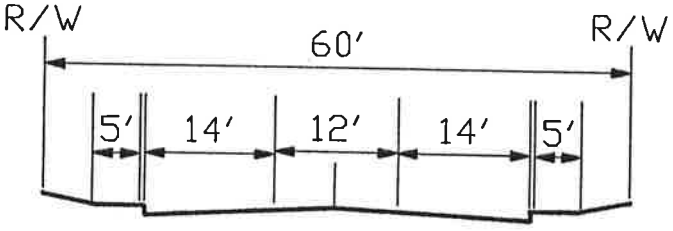


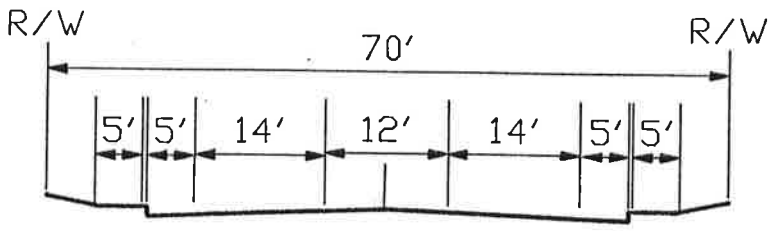
MINOR ARTERIAL WITH BIKELANE
(No Parking)



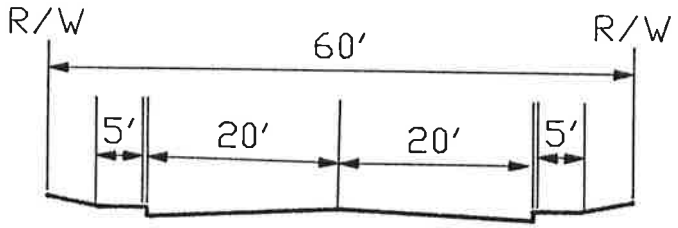
MAJOR COLLECTOR
(No Parking)

NOT TO SCALE

FIGURE 3, STANDARD STREET SECTIONS

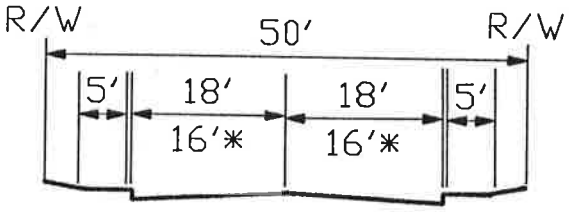


MAJOR COLLECTOR WITH BIKELANE
(No Parking)

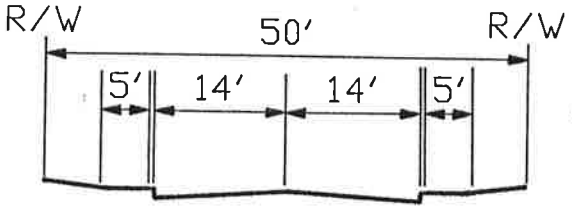


MINOR COLLECTOR
(Parking both sides)

MINOR COLLECTOR WITH BIKELANE
(Bikelane one side and parking one side.)



LOCAL STREET
(Parking)
* Parking one side only.



LOCAL STREET
(No Parking)

NOT TO SCALE

FIGURE 3 CONTINUED, STANDARD STREET SECTIONS

TABLE 3 -- STREET PAVEMENT SECTIONS

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