

Ordinance No. 4252

CHANGE LOG

Comprehensive Plan Volume IV *Transportation System Plan Update (September 2001)*

See *Comprehensive Plan Chapter Six - Transportation Element* for the updated text and project improvement figures and tables that reflect changes made through the date of the final ordinance.

1. Beaverton Creek alignment refined in the downtown to follow existing pedestrian ways. Requested THPRD and Metro consider the updated alignment. Both agencies stated their plan alignments are conceptual and do not need to be refined in their plans.
2. Appendix F Functional Classification Matrix was updated to acknowledge State highway designations.
3. The Federal Functional Classification Map of Beaverton was added to Appendix N to acknowledge federal system classifications for funding and emergency preparedness purposes.
4. Correct arrow #116 on Local Connectivity Map Page 1 to point north, then west. The June 2001 draft of the 2020 *TSP Update* is correct based on public comment that the connection should avoid cut through to Cambray. However, due to an oversight, the final September draft did not include this change.
5. Intersection drawings added to Appendix N.
6. Correct Figure 1-2A to show proposed bikeway alignment in Murray/Scholls area that extends from Teal south is on the collector street.
7. Delete octagon at Beaverton High School—map layer error.
8. Add RTP “boulevard design” Hall/Watson project to pedestrian plan table as follows:
Hall/Watson Boulevard Design from Allen Blvd to Cedar Hills Blvd for RTP consistency \$510,000 (RTP #3041 2000-2005).
9. Master Bike Plan incorrectly shows Hocken bike lanes extending south of Millikan Way. Correct the map.
10. Project tables, descriptions, and costs updated to 2001.
11. Delete the references to PGE heliport in southwest Beaverton. It no longer exists.
12. Reclassify Otter Lane/Citation Drive/136th Place from a Neighborhood Route to a Local street due to past City action and recent development.
13. Remove Neighborhood Route classification of 2nd Street from Erickson to Main to reflect recent City action.
14. Updated Goals, Policies, and Actions to reflect all changes to date.
15. Esplanade removed from maps per City action.

16. Functional Classification of Stillwell between Sorrento and 125th extension revised to a Local to reflect final design. Stillwell will not connect on the west, only on the east. 170th realignment corrected to intersect with existing 170th to the south. 103rd changed to a solid line to reflect it as “existing” north of Canyon Rd.
17. Final refinement revisions per DKS email memo 1/4/02:
 - a. Cornell/158th: Modified intersection improvement #9 to include overlap phasing with the added eastbound right turn lane
 - b. Merlo/170th: Modified intersection improvement #4 to include restriping of the westbound leg to include a 2nd westbound left turn lane (the 5-lane widening of Merlo includes the right of way for this lane so there are no additional costs).
 - c. Scholls Ferry/Allen: The intersection improvement #57 cost increased to \$1,500,000 to add curve correction to the east of the intersection that would be a more complete and reasonable solution.
 - d. Hall/Watson couplet downtown near Farmington Road: there is marginal need for improvement for three through lanes. Cost estimate is \$1.5 million for each intersection improvement (#39 and #40). Note added to preserve right-of-way for construction beyond 2020.
 - e. Intersection improvement 43b deleted due to project level analysis conclusions. This solidifies the need for the 125th extension. Updated 2020 Mitigated calculations are included in Appendix J.
 - f. Corrected map error omission of 160th Neighborhood Route that extends from 160th tying into Sumac Street west to Timberland Drive.
 - g. Corrected map error in Murray/Scholls area on Functional Classification and Pedestrian Master Plan maps of an additional dashed connection from internal circulation roadway to Barrows Road.
 - h. 91st Avenue/Canyon and 103rd Extension analysis notation: Originally the 103rd extension was included mainly as a connectivity and bike system improvement. Analysis subsequent to the September 29, 2001 draft TSP Update of 91st at Canyon Road found capacity deficiencies. The 103rd extension may also be a way to reduce/manage congestion on 91st.
 - i. Right-of-way map Western Avenue analysis notation: In looking closely at the volumes and cross section, the 5-lane designation may not be ultimately needed and may be hard to achieve with the planned bike lanes and existing built out development. In the TSP mitigated scenario, it looks like a 3-lane section with bike lanes would be feasible though this would be pushing the limits of a 3-lane section. However, this would only work with all of the parallel route improvements, including capacity improvements on Hwy 217.
19. Changed maps to delete three neighborhood route connections north of Nora/Kemmer area. Connections outside of the TSP study area to the west of 175th also deleted to reflect County feasibility analysis. Connections are infeasible due to environmental constraints, greenspaces park, and existing development.
20. Acknowledge name change from Henry Street to Millikan Way.
21. Revise Street Improvement table to reorganize Regional Center projects for ease of reference and to reflect name change.
22. Correct Figure 3-6 map symbol to show that the TV Hwy/Murray Blvd. intersection is at capacity.

23. Revise Pedestrian and Bicycle Master Plans to add a Fanno Creek multi-use path segment south of the northern trail intersection with Hall Boulevard, to the intersection of Creekside and Hall Boulevard, south to the Fanno Farmhouse and then west on the existing trail. This modification was based on the multi-year study of the Fanno Creek Path by Metro and participating public and private agencies including the City of Beaverton.
24. Murray/Scholls Town Center circulation network: Revised figures and tables to acknowledge the following changes analyzed through a 2002 traffic and wetlands analysis:
 - a. Revise the northern-most collector transit street to a bicycle/pedestrian connection. A letter from TriMet concludes the transit streets proposed in the Murray/Scholls Town Center Plan are not needed, as sufficient transit access exists. The traffic impact analysis for the site concludes surrounding street circulation, performance, and connectivity is acceptable in the future without the street. Retain the southern-most street that runs from the future extension of Teal Blvd (from Scholls Ferry Road south to Barrows Road at Horizon Blvd.) east to the Murray Blvd. extension (from Scholls Ferry Road south to Barrows Road at Walnut Street) in order to provide multimodal connectivity to City standards.
 - b. Revise the functional classification of the remaining southern-most street that runs from the future extension of Teal Blvd (from Scholls Ferry Road south to Barrows Road at Horizon Blvd.) east to the Murray Blvd. extension (from Scholls Ferry Road south to Barrows Road at Walnut Street) from Collector to Neighborhood Route.
 - c. Clarify the description and figures containing the Murray Blvd. extension improvement project (from Scholls Ferry Road south to Barrows Road at Walnut Street) to show the need for a two/three-lane street instead of a four-lane street. The Murray Blvd. extension would perform acceptably in the future with two/three lanes and turn lanes at intersections including a right turn lane southbound at Barrows Road.
 - d. With new development, consider realigning Barrows Road to the north side of Summer Creek and deleting the east/west circulation street. The Barrows Road realignment could fulfill its function and perform acceptably.
25. Corrections of typographical and minor grammatical errors.

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LIST OF ACRONYMS / ABBREVIATIONS

- CBD – Central Business District
- D/C – Demand to Capacity Ratio
- DEIS – Draft Environmental Impact Study
- DEQ – Department of Environmental Quality
- ECO – Employee Commute Options
- FHWA – Federal Highway Administration
- HCM – Highway Capacity Manual
- ITS – Intelligent Transportation System
- LID – Local Improvement Districts
- LOS – Level of Service
- LRT – Light Rail Transit
- MSTIP – Major Streets Transportation Improvement Projects
- NAC – Neighborhood Action Committee
- ODOT – Oregon Department of Transportation
- OHP – Oregon Highway Plan
- RLIS – Regional Land Information System
- ROW – Right of Way
- RTP – Regional Transportation Plan
- SDC – System Development Charges
- SOV – Single Occupancy Vehicle
- SPIS – Safety Priority Indexing System
- SPWF – Special Public Works Fund
- TAC – Technical Advisory Committee
- TAZ – Transportation Analysis Zone
- TDM – Travel Demand Management
- TGM – Transportation and Growth Management
- TIF – Traffic Impact Fee
- TPR – Transportation Planning Rule
- TSM – Transportation System Management
- TSP – Transportation System Plan
- V/C – Volume to Capacity Ratio
- VPD – Vehicles Per Day
- WACO – Washington County



Chapter 1

Summary

INTRODUCTION

The City of Beaverton has recently completed a thorough review of its transportation system with the 2015 Transportation System Plan. This plan was aimed at fulfilling *Transportation Planning Rule* (TPR) requirements for comprehensive transportation planning in cities in Oregon. The 2015 TSP addressed current problem areas and looked into the future (2015) to identify needs created by growth. Since the adoption of the 2015 TSP, Metro has completed the Regional Transportation Plan (August 2000) based upon 2020 future needs. The State Transportation Planning Rule calls for local agencies to adopt their TSP within 12 months of the completion of a Regional Transportation Plan. To meet this requirement, this Transportation System Plan Update has been prepared. Its aim is to fulfill state mandates for comprehensive planning in Beaverton, to update and address current problem areas, to update and address future needs created by the estimated growth from 2015 to 2020, and bring the Beaverton TSP in alignment with the Regional Transportation Plan.

The TSP provides specific information regarding transportation needs to guide future transportation investment in the City and determine how land use and transportation decisions can be brought together beneficially for the City. This plan addresses issues outlined in the recently adopted Metro's *Regional Transportation Plan* (RTP), ODOT's Oregon Highway Plan (OHP), and considers issues being studied in the Washington County TSP, which is currently under study.

Plan Process

The Beaverton Transportation System Plan Update process included the following elements:

- Inventory/Data Collection to a year 2000 baseline
- Evaluate Existing Conditions and Future Travel Needs Through Forecasting
- Update Needs by Mode and Consider Alternatives
- Refine Improvement Lists to Mitigate Deficiencies by Mode For 2020 Conditions
- Update Planning and Cost Estimates of Improvements
- Draft TSP

The transportation system was broken into five basic modes (or mode groups):

- Pedestrians
- Bicycles
- Transit
- Motor Vehicles
- Other Modes (Including Rail, Air, Water, Pipeline, etc.)

As with the adopted 2015 TSP, the TSP Update's planning objective was to optimize each of these modes of transportation within Beaverton with the 2020 forecasted travel demand. The following sections summarize the findings of the Transportation System Plan studies. Many of the findings from the 2015 TSP are consistent with the RTP and assessment of the 2020 needs. The motor vehicle mode was the only mode requiring extensive additional consideration and analysis to address 2020 needs. Therefore, this TSP Update does not include detailed chapters on each of the travel modes as written in the previous TSP (those chapters adequately address those modal strategies and needs). Specific chapters of this report address TSP Goals and Policies (Chapter 2), Existing Conditions (Chapter 3), and Future Needs and Alternatives (Chapter 4).

Several City of Beaverton Traffic Commission meetings and TSP Technical Advisory Committee (TAC) meetings were held over the course of the study. The Traffic Commission addressed goals and policies related to transportation in Beaverton, transportation needs by mode (motor vehicles, bicycle, pedestrian, transit, other modes, etc.), strategies for choosing alternatives, and review of transportation alternatives. The TAC topics included review of land use information, travel demand forecasting issues, goals and policies, and coordination with adjacent jurisdictions.

GOAL AND POLICIES

Background

The City of Beaverton Draft TSP Update Goals and Policies consist of seven transportation goals with related policies organized under each goal. The Goals and Policies are not prioritized, and reflect the City of Beaverton's citywide transportation goals (Comprehensive Plan page xv). The goals are brief guiding statements that describe a desired result. The policies describe the actions needed to move the community toward a goal. Input and comments received from the Beaverton Traffic Commission, the Beaverton TSP Update Technical Advisory Committee, and Beaverton staff have been incorporated to update and refine the 2015 TSP. The intent of the update was to simplify statements and reflect recent policy information adopted by Metro and ODOT.

The policies are provided in this summary with background information and further explanation in Chapter 2.

- 6.2.1. Goal: Transportation facilities designed and constructed in a manner to enhance Beaverton's livability and meet federal, state, regional, and local requirements.**
- 6.2.2. Goal: A balanced transportation system.**
- 6.2.3. Goal: A safe transportation system.**
- 6.2.4. Goal: An efficient transportation system that reduces the percentage of trips by single occupant vehicles, reduces the number and length of trips, limits congestion, and improves air quality.**
- 6.2.5. Goal: Transportation facilities that serve and are accessible to all members of the community.**
- 6.2.6. Goal: Transportation facilities that provide efficient movement of goods.**
- 6.2.7. Goal: Implement the transportation plan by working cooperatively with federal, State, regional, and local governments, the private sector, and residents. Create a stable, flexible financial system.**

TSM/TDM

Transportation System Management

Transportation System Management (TSM) focuses on low cost strategies to enhance operational performance of the transportation system by seeking solutions to immediate transportation problems, finding ways to better manage transportation, maximizing urban mobility, and treating all modes of travel as a coordinated system. These types of measures include such things as signal improvements, ramp metering, traffic calming, access management, intelligent transportation solutions (ITS) and programs that enhance and smooth transit operations. Typically, the most significant measures that can provide tangible benefits to the traveling public are traffic signal coordination and systems.

TSM measures focus primarily on region wide improvements, however there are a number of TSM measures that could be used in a smaller scale environment such as the Beaverton area. The following TSM measures list summarizes strategies that could be appropriate for the Beaverton 2020 TSP study area.

- Traffic monitoring and surveillance
- Signal coordination and optimization
- Signal priority
- Information availability
- Incident management

TSM Summary

All of the previously mentioned measures of TSM can work together in a transportation environment to help reduce congestion and decrease travel times for travelers. Table 1-1 summarizes the RTP projects that support Beaverton TSM. Beyond the RTP designated TSM projects, the City of Beaverton should coordinate with Tri-Met, ODOT, and Washington County in providing signal priority at signalized intersections along rapid or frequent bus routes (TV Highway and Cedar Hills/Hall corridor – approximately 50 intersections) to increase transit efficiently, reduce transit travel times, and promote non-SOV person trips. Signal priority should be activated for transit vehicles that are operating behind schedule. The implementation of additional strategies should be on a case-by-case basis and evaluated as to the effectiveness.

Table 1-1: RTP Projects supporting TSM

(1998 Dollars)

RTP Project Number	Description	Estimated Cost	Projected Implementation
3016	Washington County: Acquire hardware for new traffic operations center and conduct needs analysis	\$1,000,000	2000-2005
3061	TV Highway: Interconnect signals from 209 th Avenue to ORE 217	\$1,500,000	2006-2010
3063	Murray Boulevard: Signal coordination from TV Highway to Allen	\$50,000	2000-2005
6012	Western Avenue: Implement TSM improvements between Allen and Canyon Road and extend Western Avenue north to Canyon Road near Walker	\$2,500,000	2011-2020
6025	Scholls Ferry Road: Implement appropriate TSM strategies, from ORE 217 to 125 th Avenue, such as signal interconnects, signal re-timing and channelization to improve traffic flows	\$500,000	2000-2005

Source: *Regional Transportation Plan*, Metro, August 2000.

Transportation Demand Management

Transportation Demand Management (TDM) is the general term used to describe any action that removes single occupant vehicle trips from the roadway network during peak travel demand periods. As growth in the Beaverton area occurs, the number of vehicle trips and travel demand in the area will also increase. The ability to change a user's travel behavior and provide alternative mode choices will help accommodate this growth.

Generally, TDM focuses on reducing vehicle miles traveled and promoting alternative modes of travel for large employers of an area. This is due in part to the Employee Commute Options (ECO) rules that were passed by the Oregon Legislature in 1993 to help protect the health of Portland area residents from air pollution and to ensure that the area complied with the Federal Clean Air Act.¹ Research has shown that a comprehensive set of complementary policies implemented over a large geographic area can have an effect on the number of vehicle miles traveled to/from that area.² However, the same research indicates that in order for TDM measures to be effective, they should go beyond the low-cost, uncontroversial measures commonly used such as carpooling, transportation coordinators/associations, priority parking spaces, etc. The more effective TDM measures include elements related to parking and

¹ Oregon Administrative Rules, Chapter 340, Division 30.

² *The Potential for Land Use Demand Management Policies to Reduce Automobile Trips*, ODOT, by ECO Northwest, June 1992.

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congestion pricing, improved services for alternative modes of travel, and other market-based measures.

With many regional trips destined to, or traveling through, the Beaverton area, region wide TDM measures should help to reduce congestion. Metro has established non-SOV (Single Occupancy Vehicle) mode share targets by 2040 for regional centers (similar to Gateway). These targets may also serve as performance measures for areas that have been designated as “Areas of Special Concern” (Beaverton Regional Center is classified by Metro as this type of area).³ The 2040 non-SOV model target for regional centers, town centers, light rail transit (LRT) communities, main streets, and corridors is 45-55%.⁴

Several TDM strategies were developed in the 2015 TSP that are aimed at achieving the Metro 2040 non-SOV targets. The ranking of the strategies follows from most important to least important:

- Encourage linkage of housing, retail, and employment centers
- Provide incentives to take transit and use other modes (i.e., free transit pass)
- Flexible working hours
- Schedule deliveries outside of peak hours
- Coordinate shift changes/staggered work hours
- Telecommuting
- Participate in Westside Transportation Alliance
- Provide information regarding commute options to larger employers
- Work with property owners to install bicycle racks and bicycle amenities

The 2015 TSP recommended TDM plan, along with multi-modal improvements, should help the City of Beaverton achieve the Metro 2040 non-SOV targets and comply with state, regional, and county policy. The recommended action plan for the City of Beaverton remains as the following:

- Encourage development that effectively mixes land uses to reduce vehicle trip generation. These plans may include development of linkages (particularly non-auto) that support greater use of alternative modes. Land use density should be higher at transit stations (half mile radius) than elsewhere in the community.
- Develop consistent conditions for land use approval that require all future employment related land use developments to agree to reduce peak hour trip making, through individual or collective TDM efforts. For example, measures which are appropriate for site planning such as close-in parking for carpools, bicycle parking, shower facilities, and convenient transit stops should be considered in the

³ Based on the 2000 Metro Regional Transportation Plan, Ordinance No. 00-869A (August 10, 2000), page 1-32.

⁴ Based on the 2000 Metro Regional Transportation Plan, Ordinance No. 00-869A (August 10, 2000), page 1-62.

design review process.

- Support continued efforts by Washington County, ODOT, DEQ, Tri-Met, and the Westside Transportation Alliance to develop productive TDM measures that reduce VMT and peak hour trips, including investigating transit pass programs with city employers and implementing a fareless area in the downtown regional center (there are currently 46 employers in Beaverton with transit pass programs, two of which are in the regional center). This may require City funding of TDM management to get maximum benefit or results (possibly \$25,000 to \$75,000 per year).
- As a capital oriented element, coordinate with ODOT and Tri-Met on the development of park-and-ride transit station or freeway interchange locations in Beaverton (these are locations proven to be successful in attracting carpool/transit use). The Transit Master Plan, Figure 4-9, shows current park-and-ride locations. Expansion of these sites should focus on transit station or freeway interchange locations. Interchange reconstruction projects should be required to identify potential sites for park-and-ride (even small sites of 50 spaces). Over the next 20 years, a reasonable budget for park-and-ride expansion might be about \$100,000 per year (about 50 spaces a year, assuming pre-existing ROW).
- Continued implementation of motor vehicle and bicycle minimum and maximum parking ratios for new development (per Development Code 60.20).
- Implementation of downtown connectivity plan as well as local street connectivity improvements identified in Appendix E.
- Implementation of bicycle, pedestrian, motor vehicle and transit system action plan.

Pedestrian

The existing pedestrian system network map was updated from the previous TSP to reflect recent improvements and the expanded TSP Study Area. In most cases sidewalk improvements are aimed at closing gaps in the existing sidewalk network to provide connectivity rather than capacity. In other words, it is much more important that a continuous sidewalk be available than it be of a certain type or size.

The 2000 Regional Transportation System Plan (RTP) includes designations for pedestrian districts and transit/mixed use corridors (see Figure 1-1). The RTP defines pedestrian districts as areas of high or potentially high pedestrian activity where regional policy places priority on creating a safe, direct, and attractive pedestrian environment. In general, these are areas planned for compact, mixed-use development served by transit and correspond to the following 2040 design type designations within the City of Beaverton: regional centers, town centers, and light rail communities. The corresponding areas within the City of Beaverton include the Murray/Scholls Town Center, the Washington Square Regional Center, downtown Beaverton, and the LRT communities. Areas such as these areas are characterized by buildings oriented to the street and by boulevard street design features such as wider sidewalks with buffering from traffic, marked street crossing at intersections, pedestrian-scale lighting, benches, bus shelters, and street trees. Transit/mixed-use corridors are defined as priority areas for pedestrian travel that are served by good quality transit service and that will generate substantial pedestrian traffic near neighborhood-oriented retail development, schools, parks, and bus stops. These corridors should include such design features as wide sidewalks with buffering from traffic, pedestrian scale-lighting, benches, bus shelters, and street trees. The 2040 design type designation for transit/mixed-use corridors is “Corridors”. The corresponding corridor areas within the City of Beaverton include TV Highway-Canyon Road, BH Highway-Farmington Road, Murray Boulevard, Cedar Hills Boulevard, Hall Boulevard, and Walker Road. As shown in Figure 1-1, the Pedestrian Facilities Master Plan identifies improvements to provide a connected pedestrian network to and within the RTP designated pedestrian districts and transit/mixed use corridors. The City of Beaverton Development Code regulations should require new development in the pedestrian districts and transit/mixed use corridors to comply with the RTP descriptions listed above.

The most important existing pedestrian need in Beaverton is a well-connected pedestrian system within a half-mile grid and connectivity to light rail transit (LRT) stations and key centers in Beaverton (parks, schools, retail, etc.). Needs include safe, direct and convenient access to transit and crossings of large arterial streets which act as barriers to pedestrian movement, marked crossings at major transit stops, as well as an inventory of local street sidewalk locations in order to complete a detailed sidewalk connectivity plan. A well connected pedestrian system in the pedestrian districts and transit/mixed use corridors will insure direct and logical pedestrian crossing at transit stops. The City of Beaverton should coordinate with Washington County, Tri-Met, Metro, and ODOT to ensure that major transit stops will be located at sites with a signalized

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and/or marked pedestrian crossing. In the future, pedestrian needs will be similar in the City, but there will be additional activity centers that will need to be considered and interconnected. The ranking of pedestrian strategies has not changed from the previous TSP and is listed from most important to least important:

- Connect key pedestrian corridors to schools, parks, recreational uses and activity centers (public facilities, commercial areas, etc.)
- Fill in gaps in the network where some sidewalks exist
- Pedestrian corridors to transit stations and stops
- Signalized pedestrian crossings
- Pedestrian corridors that connect neighborhoods
- Improve streets having sidewalks on one side to two sides
- As development occurs, construction of sidewalks by developers
- Pedestrian corridors that commuters might use
- Reconstruct all existing substandard sidewalks to the City of Beaverton Standards

The Pedestrian Master Plan (Figure 1-1) is an overall plan and summarizes the desired framework plan to meet local and regional policy. The more specific, shorter-term Action Plan was updated to include completed improvements and the expanded study area, as well as projects from the Regional Transportation System Plan (RTP) that were not in the previous TSP Pedestrian Action Plan. The Action Plan (Table 1-2) consists of projects that the City or responsible agency could give priority to when funding becomes available. As development occurs, streets are rebuilt, and other opportunities (such as grant programs) arise, projects on the Master Plan should be pursued as well. In addition, all development projects should include an inventory of local street sidewalk conditions in order to populate the City database of sidewalk locations. Table 1-3 lists pedestrian system improvement projects that have committed funds.

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Table 1-2: Pedestrian Action Plan

(2001 Dollars)

Project	From	To	Approximate Cost (\$1000's dollars)
<i>Priority: Connect key pedestrian corridors to schools, parks, recreational uses and activity centers</i>			
155 th Avenue	Davis Road	Nora-Beard Road	410
US 26/Bethany Trail Crossing	US 26	US 26	100
Study US 26 Trail Crossings	143 rd Avenue	Canyon Road	80
Study and Improve unsignalized trail crossing of roadways	City jurisdiction		10,000
Link Fanno Creek Path over ORE 217 at Denney	ORE 217	ORE 217	100
Study Fanno Creek Path	Rock Creek	Fanno Creek Greenway	80
<i>Priority: Fill in gaps in pedestrian network</i>			
TV Highway/Canyon Road (gaps on one-side)	Murray Blvd	170 th Avenue	470
TV Highway/Canyon Road (Boulevard Design)	ORE 217	Murray Blvd	8,000
Canyon Road/TV Highway (sidewalks and crossings)	91 st Avenue	ORE 217	1,465
Canyon Road	US 26	110 th Avenue	6,750
Cedar Hills Boulevard	Butner Road	US 26 WB off ramp	124
Murray Boulevard (gaps on one side)	Jenkins Road	Millikan Way	100
Murray Boulevard (gaps)	Farmington	TV Highway	112
Denney Road	Nimbus Avenue	Scholls Ferry Road	241
Allen Boulevard (gaps)	Western Avenue	Scholls Ferry Road	69
Western Avenue	5 th Street	800 feet south of 5 th	55
Division Street	149 th Avenue	170 th Avenue	365
Davies Road (east side)	Scholls Ferry Road	Hiteon Drive	76
Scholls Ferry Road (gaps)	Barrows Road (west end)	Beaverton-Hillsdale Highway	1,893
Scholls Ferry Road	BH Highway	Raleighwood Way	151
SW Park Way (gaps)	Walker Road	ORE 217	213

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Project	From	To	Approximate Cost (\$1000's dollars)
Cornell Road (gaps)	158 th Avenue	US 26 WB off ramp	101
Barnes Road	Tuefel Lane	Viewmont Drive	118
Garden Home Road	77 th Avenue	76 th Avenue	43
Multnomah Boulevard	Garden Home Road	Wash. County line	198
92 nd Avenue	Allen Boulevard	Garden Home Road	302
Garden Home Road (gaps one-side)	92 nd Avenue	77 th Avenue	242
Hall Boulevard	Cascade Avenue	ORE 217 SB ramp	23
Hall Boulevard (gaps one-side)	ORE 217 SB ramp	Approximately 470 ft. west of ramp	34
Barnes Road (gaps one-side)	117 th Avenue	Stark Street	104
Barnes Road	Stark Street	Approximately 100 ft. west of Stark St.	14
Cornell Road (gaps one side)	Approximately 500 ft west of Science Park Dr.	Approximately 500 ft east of 153 rd Ave.	101
110 th Avenue (gap-one side)	Beaverton-Hillsdale Hwy	Canyon Road	34
Priority: Pedestrian corridors to transit stations and stops			
160 th Avenue	TV Highway	Davis Road	358
117 th Avenue (gaps-one side)	Light Rail Transit Line	Center Street	34
Downtown Beaverton Connectivity collector roadways	Hocken Avenue/ TV Highway	110 th Avenue/ Cabot Street	1,033
Pedestrian Access to MAX	LRT Stations		1,148
Priority: Construct sidewalks with roadway improvement projects*			
125 th Avenue	Hall Boulevard	Brockman Road	193
Hall Boulevard	Cedar Hills	Hocken/Terman	Part of road improv.
Farmington Road	172 nd Avenue	185 th Avenue	218
Nimbus Avenue	Denney Road	Cirrus Drive	138
Walker Road	ORE 217	Canyon Road	209
Walker Road (gaps)	173 rd Avenue	Mayfield Avenue	441
Davies Road	Scholls Ferry Road	Barrows Road	61
Murray Boulevard	Scholls Ferry Road	Barrows Road	110

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Project	From	To	Approximate Cost (\$1000's dollars)
170 th Avenue	Alexander Street	Baseline/Jenkins	366
173 rd Avenue	Cornell Road	Bronson Road	55
Hart Road (gaps)	Hall Boulevard	Murray Boulevard	49
Cornell Road (one-side)	158 th Avenue	185 th Avenue	165
Oak Street/Davis Road/Allen (gaps)	160 th Avenue	170 th Avenue	244
Allen Boulevard (gaps)	Alice Lane	Western Avenue	112
Nora-Beard Road	175 th Avenue	155 th Avenue	281
Weir Road	175 th Avenue	160 th Avenue	248
175 th Avenue-Rigert Road	170 th Avenue	Scholls Ferry Road	755
Jenkins Road	153 rd Avenue	Murray Boulevard	112
Hart Road/Bany Road (gaps)	170 th Avenue	185 th Avenue	214
SW Beaverton collector roadway	Scholls Ferry Road	175 th Avenue	346
Johnson Street Extension	170 th Avenue	209 th Avenue	Part of road improv.
Barnes Road Improvements	Highway 217	119 th Avenue	Part of road improv.
Barnes Road Improvements	Saltzman Road	119 th Avenue	Part of road improv.
Cornell Road Improvements	US 26	143 rd Avenue	Part of road improv.
Cornell Road Improvements	143 rd Avenue	Saltzman Road	Part of road improv.
Cornell Road Boulevard Improvements	Barnes Road	Trail Street	2,295
Murray Boulevard Improvement	Science Park Drive	Cornell Road	Part of road improv.
Oleson Road	Fanno Creek	Hall	Part of road improv.
ORE 217 Overcrossing roadway	Scholls Ferry Road	Nimbus	Part of road improv.
Murray/Scholls Ferry Town Center – extensions and new roadways			Part of road improv.
103 rd Avenue	Walker Road	Western Boulevard	Part of road improv.
SW Beaverton circulation roadway	High Hill Lane	Nora-Beard Road	275
Priority: Pedestrian corridors that connect neighborhoods			
SW Butner Road (one side)	Murray Boulevard	Park Way	296
SW Downing Road (gaps on south side)	Murray Boulevard	Meadow Drive	41
Meadow Drive (one side)	Downing Road	Walker Road	38
Laurelwood Avenue/87 th Avenue	Canyon Road	Scholls Ferry Road	434

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Project	From	To	Approximate Cost (\$1000's dollars)
Jamieson Road	Pinehurst Drive/Cypress	Scholls Ferry Road	206
Cypress Street	Jamieson Road	Elm Avenue	79
Sexton Mountain Drive (gaps)	Maverick Terrace	Nora-Beard Road	296
91 st Avenue	Canyon Road	BH Highway	1,970
96 th Avenue (one side)	Canyon Road	Beaverton-Hillsdale Highway	90
Pedestrian Action Plan Projects Total Cost:			\$ 45,078

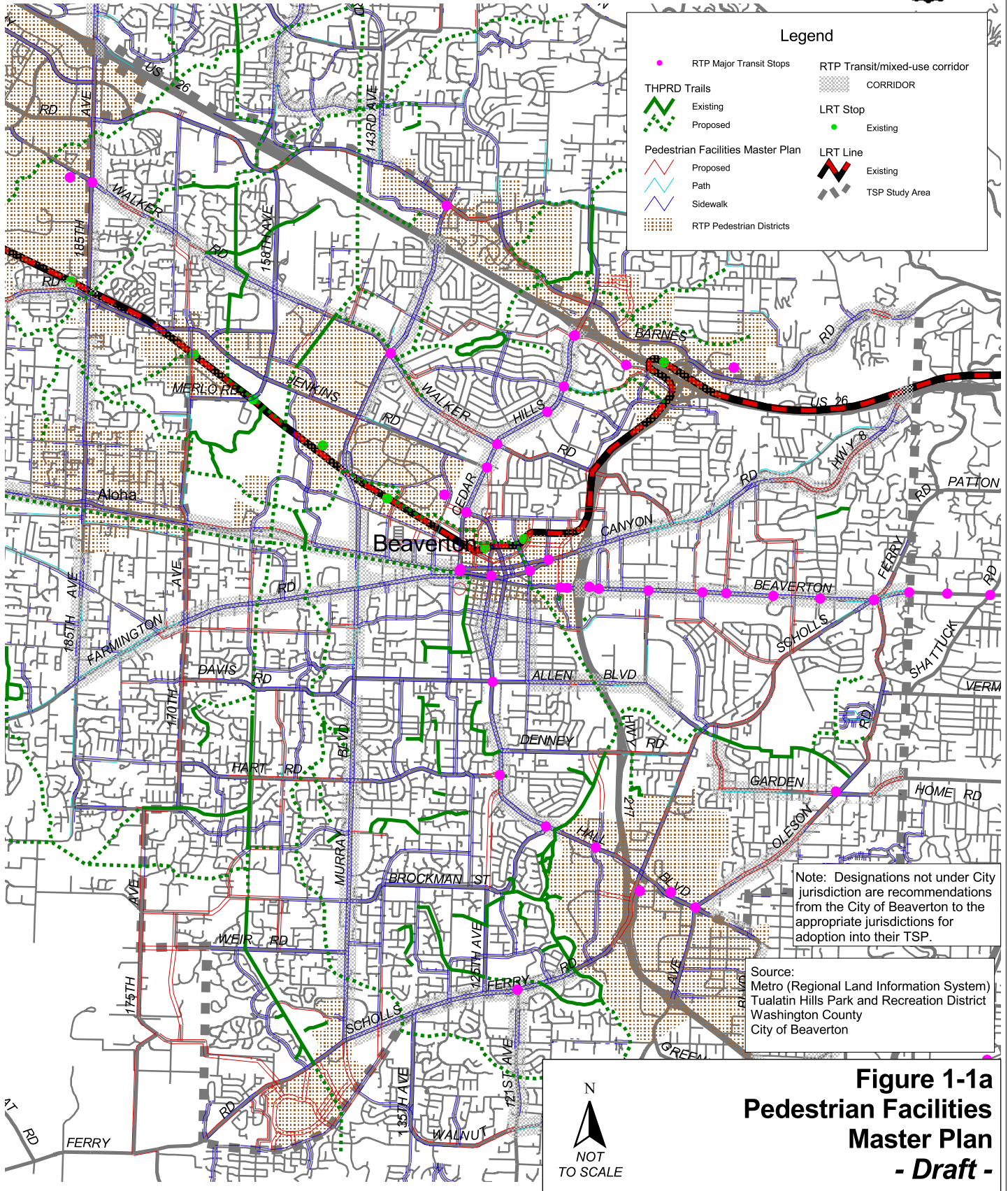
*Sidewalks to be built with roadway improvement projects are dependent on the ROW and alignment of the road improvement and would not be built without the road improvement

Table 1-3: Pedestrian Action Plan – Projects with Committed Funds

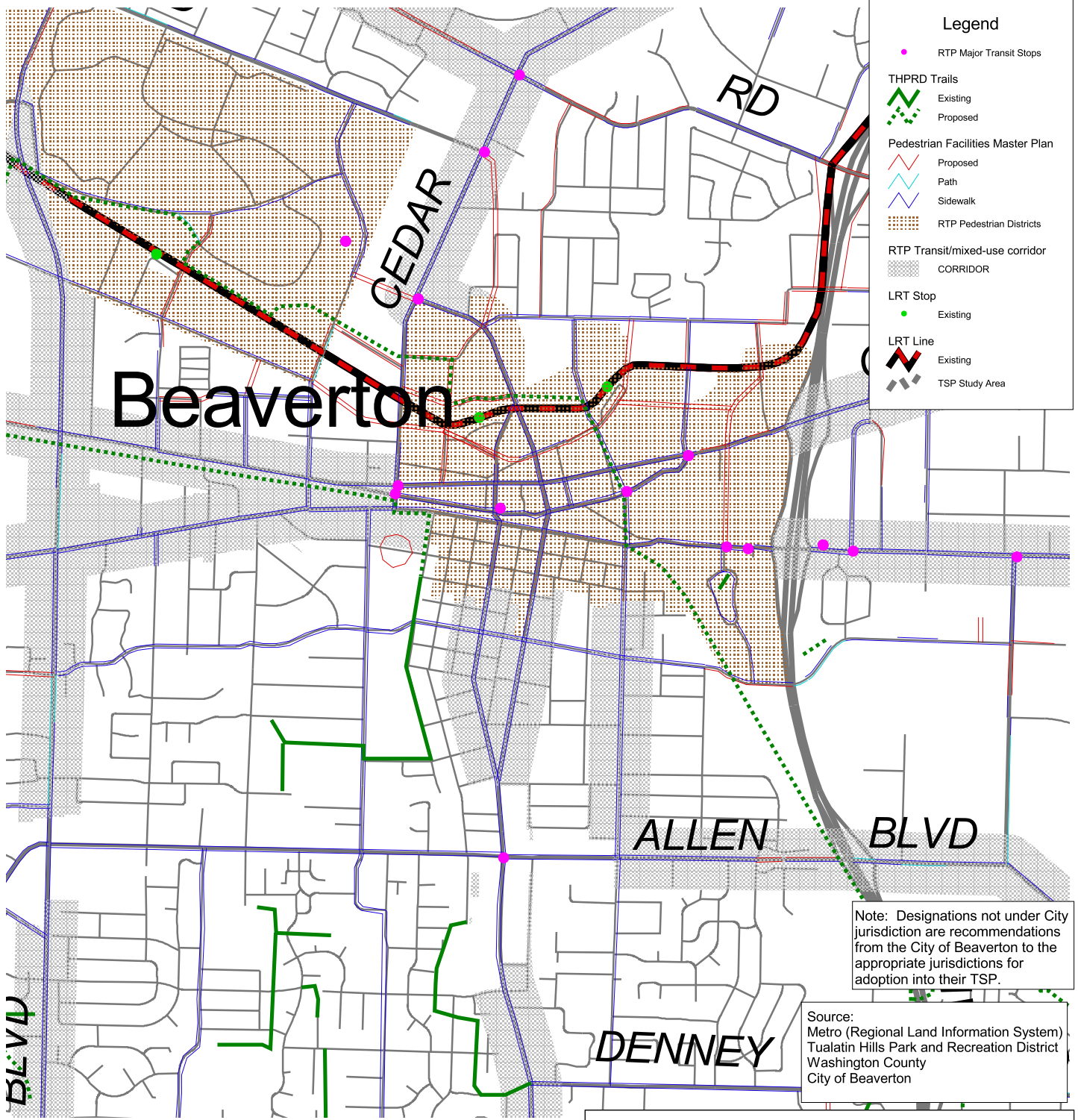
(2001 Dollars)

Project	From	To	Approximate Cost (\$1000's dollars)
<i>Priority: Connect key pedestrian corridors to schools, parks, recreational uses and activity centers</i>			
170 th Avenue	Rigert Road	Alexander Street	515
170 th /173 rd Avenue	Baseline/Jenkins	Walker Road	220
Millikan Way	Hocken Avenue	Cedar Hills Blvd	57
Hart Road/Bany Road (gaps)	Murray Boulevard	170 th Avenue	236
Pedestrian Improvement Project Committed Funds Total Cost:			\$ 1,028

City of Beaverton
Transportation System Plan



City of Beaverton
Transportation System Plan



Legend

- RTP Major Transit Stops
- THPRD Trails
 - Existing
 - Proposed
- Pedestrian Facilities Master Plan
 - Proposed Path
 - Sidewalk
- RTP Pedestrian Districts
- RTP Transit/mixed-use corridor
- CORRIDOR
- LRT Stop
 - Existing
- LRT Line
 - Existing
- TSP Study Area

Note: Designations not under City jurisdiction are recommendations from the City of Beaverton to the appropriate jurisdictions for adoption into their TSP.

Source:
Metro (Regional Land Information System)
Tualatin Hills Park and Recreation District
Washington County
City of Beaverton



Figure 1-1b
Pedestrian Facilities
Master Plan
- Draft -

Bicycle

The Bicycle Master Plan has been updated from the previous TSP to include completed improvement projects and the expanded TSP Study Area (See Figure 1-2). Bikeway improvements are aimed at closing the gaps in the bicycle network along arterial and collector roadways. The ranking of the bicycle strategies has not changed from the previous TSP and is listed from most important to least important:

- Connect Key bicycle corridors to schools, parks, recreational uses and activity centers (public facilities, commercial areas, etc.)
- Fill in gaps in the network where some segments of bikeway exist
- Bicycle corridors that connect neighborhoods
- Construct bike lanes with roadway improvement projects
- Bicycle corridors that commuters might use
- Bicycle corridors providing mobility to and within commercial areas

The 2000 Metro RTP includes a bicycle functional classification system with the following designations (shown on Figure 1-2):

- **Regional Access Bikeway:** Function focuses on accessibility to and within the central city, regional centers, and larger town centers. Travel time is an important factor as these bikeways generally have high volumes.
- **Regional Corridor Bikeway:** Functions as longer routes that provide point-to-point connection between the central city, regional centers, and larger town centers. Generally higher automobile speeds and volumes than community connector bikeways.
- **Community Connector Bikeway:** Connect smaller town centers, main streets, station areas, industrial areas, and other regional attractions.
- **Multi-use paths with bicycle transportation function:** Likely to be used for commuting to work or school, accessing transit, or travelling to a store, library, or other local destination. Bicycle/pedestrian sidewalks on bridges are included in this classification. Design includes physical separation from motor vehicle traffic by open space or barrier.

The Bicycle Master Plan builds from state policy from the Transportation Planning Rule that all arterial and collector roads have bike lanes. The Action Plan is consistent with plans developed by Metro, Washington County, and the State, including providing bikeways consistent with each of the Metro RTP designated bikeways. Additional linkages with lanes or accommodations are outlined to make a complete network. The Bicycle Action Plan (Table 1-4) consists of projects that the City should actively try to fund in the next ten years. With the action plan, a substantial bicycle network would be in place and would allow attention to move toward infill Master Plan

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projects. The bicycle plan will require incremental implementation. As development occurs, streets are rebuilt and other project funding opportunities (such as grant programs) arise, projects on the Master Plan should be integrated into project development. Many of the projects would be elements of multi-modal street improvement projects (e.g. Murray Boulevard extension). The City, through its Capital Improvement Program, joint funding with other agencies (County, Metro, State) and development approval would implement these projects. Table 1-5 lists bicycle system improvement projects with funds already committed.

Table 1-4: Bicycle Action Plan

(2001 Dollars)

Project	From	To	Approximate Cost (\$1000's of dollars)
<i>Priority: Connect key bicycle corridors to schools, parks, recreational uses and activity centers</i>			
Greenway Road	Hall Boulevard	125 th Avenue	266
155 th Avenue/Weir Road	Davis Road	Murray Boulevard	1,190
Millikan Way	Murray Boulevard	TV Highway	521
160 th Avenue	TV Highway	Davis Road	503
Canyon Road	142 nd Avenue	91 st Avenue	1,310
<i>Priority: Fill in gaps in bicycle network</i>			
Hall Boulevard bike lanes	Greenway	ORE 217	357
Hall Boulevard bike lanes	Beaverton-Hillsdale Hwy	Cedar Hills Blvd	78
Hall Boulevard Extension	Cedar Hills	Hocken/Terman	Part of road improv.
Watson Avenue bike lanes	Beaverton-Hillsdale Hwy	Hall Boulevard	68
Cedar Hills Boulevard bike lanes	Farmington Road	Walker Road	506
6 th Street bike lanes	Murray Boulevard	Menlo Drive	241
Murray Boulevard bike lanes (west side of Murray Boulevard)	Farmington Road	approximately 200 ft south of TV Highway	48
Denney Road bike lanes	Hall Boulevard	Scholls Ferry Road	684
Allen Boulevard bike lanes	approximately 200 ft east of Western Avenue	Scholls Ferry Road	221
Western Avenue bike lanes	Beaverton-Hillsdale Hwy	Allen Boulevard	337
Beaverton-Hillsdale Hwy bike lanes	ORE 217	91 st Avenue	520
Beaverton-Hillsdale Hwy bike lanes	91 st Avenue	Wash. County Bound.	1,023
Scholls Ferry Road	77 th Avenue	BH Highway	251

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Project	From	To	Approximate Cost (\$1000's of dollars)
Oleson Road	BH Highway	Terri Court	453
92 nd Avenue	Allen Boulevard	Garden Home Road	377
Garden Home Road	92 nd Avenue	Oleson Road	641
Scholls Ferry Road	Hall Boulevard	Cascade Avenue	328
Scholls Ferry Road	BH Highway	Wash. County Bound.	431
Taylor's Ferry Road	Oleson Road	Washington Drive	137
Davies Road	Scholls Ferry Road	Barrows Road	187
Barrows Road	Scholls Ferry Road (east)	Scholls Ferry Road (west)	1,180
Scholls Ferry Road	Murray Boulevard	175 th Avenue	896
<i>Priority: Construct bike lanes with roadway improvement projects*</i>			
125 th Avenue bike lanes	Hall Boulevard	Brockman Road	302
Farmington Road Bikeway	Hocken Avenue	Highway 217	3,213
Walker Road bike lanes	ORE 217	Canyon Road	327
Walker Road bike lanes	Cedar Hills Boulevard	Lynnfield Lane	150
Walker Road bike lanes	178 th Avenue	185 th Avenue	309
Millikan Way bike lanes	Hocken Avenue	Cedar Hills Blvd	91
170 th Avenue bike lanes	Alexander Street	Baseline/Jenkins	573
173 rd Avenue bike lanes	Walker Road	Cornell Road	371
Hart Road/Bany Road bike lanes	167 th Avenue	170 th Avenue	69
Cornell Road bike lanes	158 th Avenue	185 th Avenue	516
Murray Boulevard bike lanes	Scholls Ferry Road	Barrows	172
Allen Boulevard bike lanes	ORE 217	Murray Boulevard	293
Allen Boulevard bike lanes	ORE 217	approximately 200 ft west of Western Ave	108
Nora-Beard Road bike lanes	175 th Avenue	155 th Avenue	499
Weir Road	175 th Avenue	155 th Avenue	448
Barnes Road Improvements	Saltzman Road	119 th Avenue	Part of road improv
Cornell Road Improvements	143 rd Avenue	Saltzman Road	Part of road improv
Canyon Road	US 26	110 th Avenue	6,750

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Project	From	To	Approximate Cost (\$1000's of dollars)
103 rd Avenue Connection	Walker Road	Western Avenue	Part of Road improv.
175 th Avenue-Rigert Road bike lanes	170 th Avenue	ORE 210	1,180
Bicycle Action Plan Projects Total Cost:			\$ 28,125

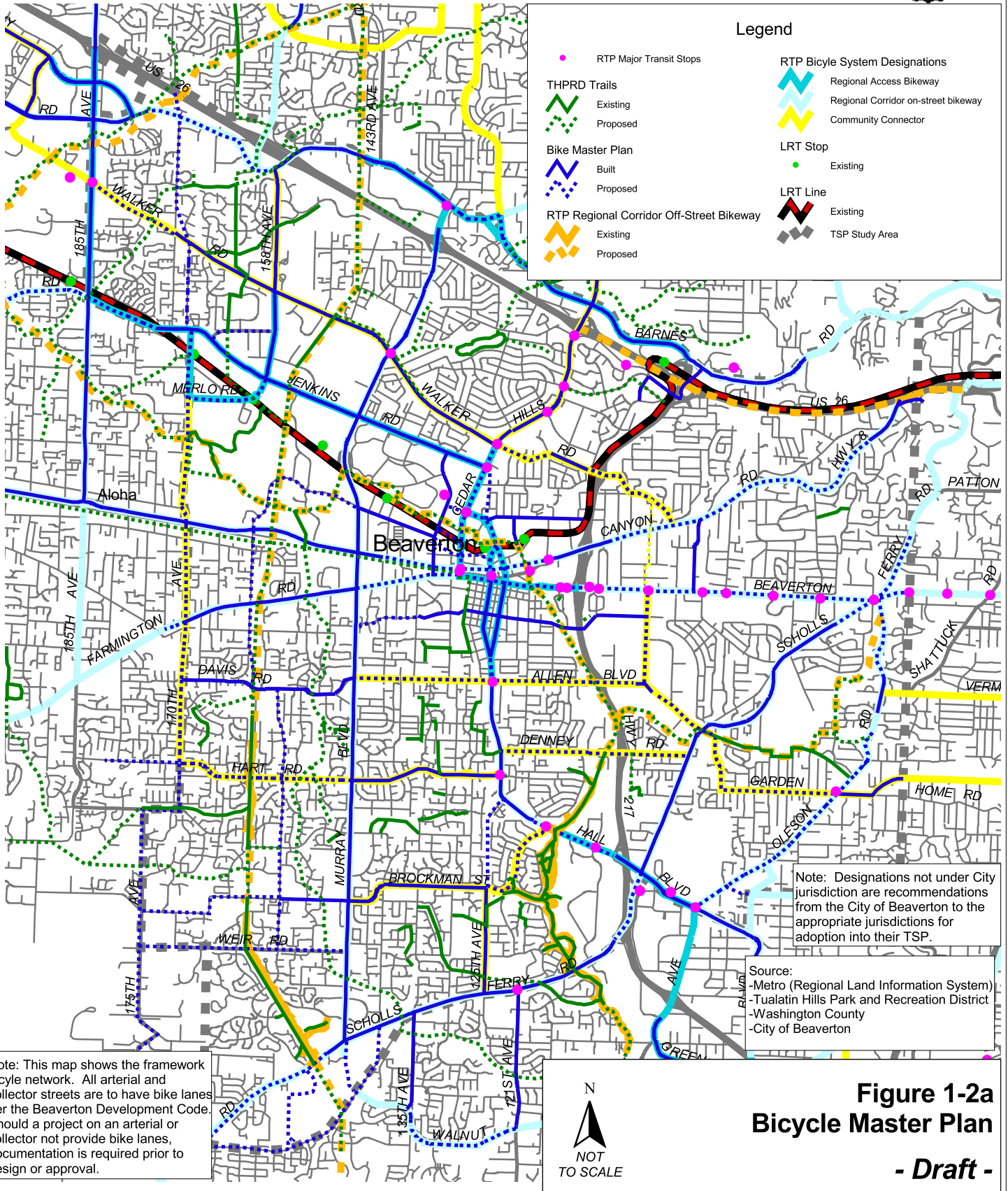
*Bike lanes to be built with roadway improvement projects are dependent on the ROW and alignment of the road improvement and would not be built without the road improvement

Table 1-5: Bicycle Action Plan – Committed Funding Projects

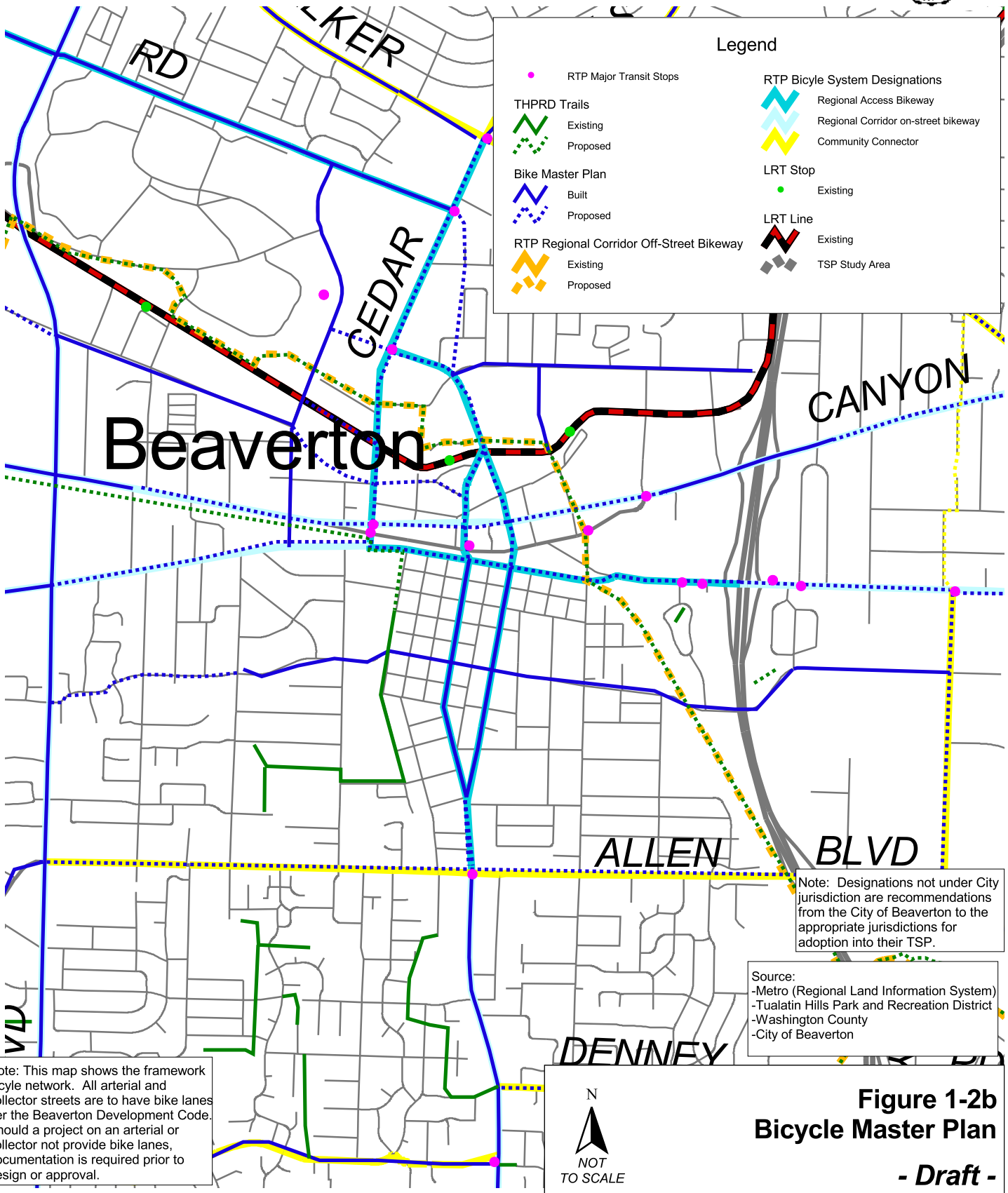
(2001 Dollars)

Project	From	To	Approximate Cost (\$1000's of dollars)
<i>Priority: Connect key bicycle corridors to schools, parks, recreational uses and activity centers</i>			
Millikan Way bike lanes	Hocken Avenue	Cedar Hills Blvd	91
170 th Avenue bike lanes	Rigert Road	Alexander Street	804
170 th /173 rd Avenue bike lanes	Baseline Road	Walker Road	344
Hall Boulevard bike lanes	12 th Street	900 ft south of Allen	154
Hart Road bike lanes	Murray Blvd	167 th Avenue	499
Barnes Road Improvements	Saltzman Road	119 th Avenue	Part of road improv.
Cornell Road Improvements	Murray Blvd	Saltzman Road	Part of Road improv.
Bicycle Action Plan Projects Total Cost (Committed Funding Projects):			\$ 1,892

City of Beaverton
Transportation System Plan



City of Beaverton
Transportation System Plan



Legend

- RTP Major Transit Stops
- THPRD Trails
 - Existing
 - Proposed
- Bike Master Plan
 - Built
 - Proposed
- RTP Regional Corridor Off-Street Bikeway
 - Existing
 - Proposed
- RTP Bicycle System Designations
 - Regional Access Bikeway
 - Regional Corridor on-street bikeway
 - Community Connector
- LRT Stop
 - Existing
- LRT Line
 - Existing
- TSP Study Area

Note: This map shows the framework bicycle network. All arterial and collector streets are to have bike lanes per the Beaverton Development Code. Should a project on an arterial or collector not provide bike lanes, documentation is required prior to design or approval.

Note: Designations not under City jurisdiction are recommendations from the City of Beaverton to the appropriate jurisdictions for adoption into their TSP.

Source:
 -Metro (Regional Land Information System)
 -Tualatin Hills Park and Recreation District
 -Washington County
 -City of Beaverton



Figure 1-2b
Bicycle Master Plan
 - Draft -

Transit

Currently, there are twenty-three transit routes serving Beaverton (see Figure 4-9). The transit service has been significantly changed from the last TSP due to the opening of the Westside MAX. The existing transit system coverage area includes approximately 85 percent of the modeled transit supportive zones within the Beaverton TSP study area⁵. The future 2020 land use would increase the transit supportive area and reduce the percentage of coverage to approximately 80 percent (see Figure 4-10) without an increase in service coverage. Tri-Met has addressed some of the future transit needs in Beaverton with the planned 10-year improvements listed in Table 4-13. The City of Beaverton should coordinate with Tri-Met to focus possible future transit coverage on those transit supportive areas not covered by the existing system. Transit amenities were also identified in the Tri-Met Ten-Year Service Improvements⁶ as a high community priority needing attention in 1-5 years. Transit amenities can make transit ridership increase by making transit an attractive travel alternative. The City of Beaverton should coordinate with Tri-Met and Washington County to provide transit shelters at transit stops designated as major transit stops or with daily boardings above 35 persons (costs for transit amenities are included in the TDM Support costs listed in Table 1-12). The City of Beaverton should coordinate the provision of sidewalks along major transit streets with Tri-Met. The City of Beaverton should coordinate the provision of transit pass programs and fareless areas with city employers and the Westside Transportation Alliance TMA.

Due to heavily congested arterial corridors, the City will need to coordinate with Tri-Met on the development of corridor level transit services that can help relieve congestion and forestall more expensive capital infrastructure. High quality regional transit service on corridors such as Scholls Ferry Road, Murray Boulevard, Hall Boulevard, TV Highway, Walker Road, and Allen Boulevard can link many high employment, regional center, and town center areas (consistent with the RTP). Metro's RTP includes transit route designations along corridors defined as follows⁷:

- **Rapid Bus.** Regional rapid bus service emulates LRT service in speed, frequency and comfort, serving major transit routes with limited stops. This service runs at least every 15 minutes during the weekday and weekend mid-day base periods.
- **Frequent Bus.** Frequent Bus service provides slightly slower, but more frequent, local bus service than rapid bus along selected transit corridors. This service runs at least every 10 minutes and includes transit preferential treatments such as reserved bus lanes and signal preemption.
- **Regional Bus.** Regional bus service is provided on most major urban streets. This type of

⁵ Coverage is determined as the area within 0.25 miles of a bus stop or 0.50 miles of a LRT stop

⁶ Transit Choices For Livability Handbook, Tri-Met, 2000.

⁷ Based on the 2000 Regional Transportation Plan, Metro, August 12, 2000.

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bus service operates with maximum frequencies of 15 minutes with conventional stop spacing along the route.

The City of Beaverton should coordinate with Tri-Met, ODOT, and Washington County to provide signal priority for transit routes along the RTP designated frequent bus lines (TV Highway/Farmington and Cedar Hills/Hall – approximately 50 signals at approximately \$7000 each – included in the ITS/TSM costs in Table 1-12). Signal priority along the frequent transit routes would improve transit service speed and reliability along these congested corridors with high multi-modal trip potential.

Table 1-6: Tri-Met Ten-Year Service Improvements

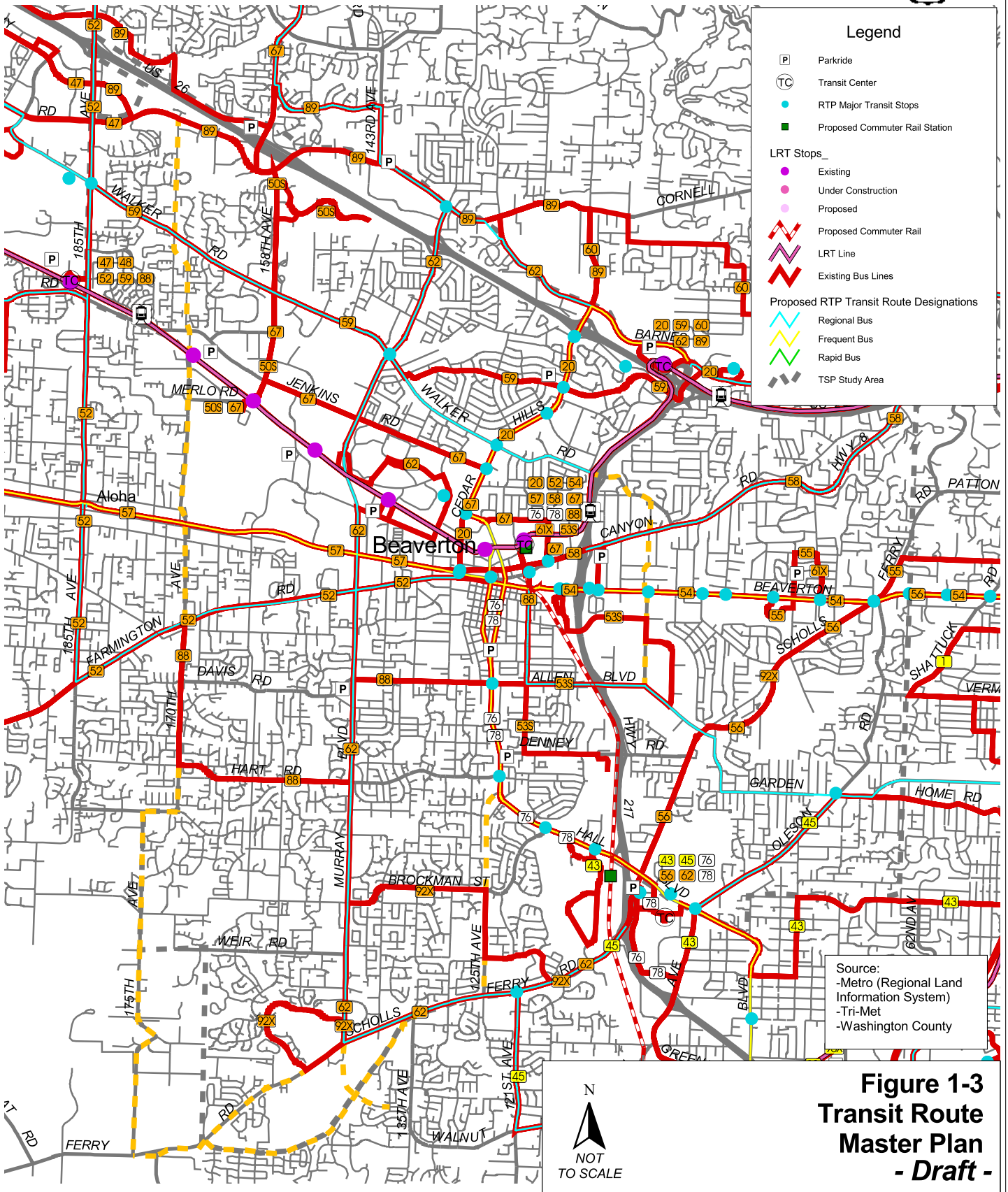
Route Description	Frequency** (minutes)	Rough Annual Cost	Projected Implementation
Beaverton-Washington Sq.-Tigard-Tualatin: Rapid bus or commuter rail connections between these communities, including extension to Wilsonville	30	\$800,000	3-5 years
Nimbus Businesses: Local service between Nimbus employers and destinations in the Washington Sq. area	30	\$385,000	1-3 years
Cornell Oaks Businesses: Shuttle between employers along 158 th and in the Cornell Oaks area to MAX, as part of Westside Max start-up	30	\$150,000	1-3 years
Existing Tri-Met Lines: Improve frequency and span of service on lines serving Farmington Road, 158 th , 185 th , 198 th , Jenkins, Hart, and Denney		\$2,000,000	1-3 years

Source: Transit Choices for Livability Handbook, Tri-Met, 2000.

** Frequency is defined at the time spacing between bus arrivals.

In addition to the Tri-Met 10-year service improvements listed in Table 4-13, the Washington County Commuter Rail project connecting Wilsoville to Beaverton is listed in the RTP as a committed project. The timeline for this project is 2000-2005, with an estimated cost of \$71,500,000.

City of Beaverton
Transportation System Plan



Motor Vehicles

Based upon the evaluation of intersection level of service, 32 of the study intersections would operate at or worse than D/C ratio 1.0 or Level of Service (LOS) E in the 2020 evening peak hour with no improvements beyond the RTP Priority System or 2015 Beaverton TSP improvements. Intersection operation for the existing and base 2020 scenarios are shown in Appendix D. The impact of future growth would be severe without significant investment in transportation improvements. Corridors would become unmanageably congested, resulting in travel speeds below 5 MPH over long stretches of road. Poor performance on arterials and collectors would result in substantial impacts (added through traffic) to other collectors and neighborhood routes. The greatest problem areas can be grouped into the following areas:

- **Lack of east-west capacity.** Three of the key east-west routes (TV Highway, Walker, Cornell and Farmington) all experience significant congestion problems if improvements are not made.
- **Lack of connectivity.** Areas near ORE 217 between Walker and Hall are the best examples, where all north-south movements must use local streets or divert to neighboring arterials.
- **Lack of intersection turning capacity.** Many intersections experience congested conditions, not the need for through capacity, but the need for additional right or left turning capacity.

To address these deficiencies, a series of alternatives and strategies were considered. The recommended mitigation measures for the street system is listed in Table 1-10. These are improvements that go beyond the RTP Priority System or the 2015 Beaverton TSP identified improvements (listed in Tables 1-7 to 1-9). Figures 1-4 through 1-7 show the RTP Priority System motor vehicle improvements, the 2015 TSP motor vehicle improvements, and the 2020 TSP additional motor vehicle improvements. The major road improvements identified for the 2020 Beaverton TSP Update (Bethany, Cornell, Walker, and Murray/TV Highway) are mainly refinements of the RTP recommendations and include some of the RTP Preferred Scenario improvement projects. The detailed intersection improvements go beyond the level of analysis presented in the RTP and are recommended in this TSP based on the detailed intersection counts, forecasts, and LOS calculations.

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Table 1-7
Beaverton Motor Vehicle System Improvements included in the RTP Priority System*
 (1998 Dollars)

RTP #	Location	Improvement	Jurisdiction	Time-Line	Cost
1184	BH Highway/Scholls Ferry Road	Redesign the intersection to improve safety for all modes of travel.	ODOT/WACO	2006-2010	\$13,000,000
6013	Hall: Scholls Ferry to Locust	Widen to 5 lanes. Includes sidewalk and bike lanes	ODOT	2006-2010	\$4,700,000
6017	Taylor's Ferry: Washington to Oleson	Construct a 3 lanes extension with sidewalks and bike lanes	WACO	2011-2020	\$1,900,000
6025	Scholls Ferry: 217 to 125th	Implement system management strategies	WACO	2000-2005	\$500,000
6052	Highway 217 Overcrossing: Nimbus to Mall Area	Construct a 2 lane crossing including sidewalks and bike lanes	Tigard	2011-2020	\$25,000,000
6119	Murray/Scholls Town Center	Construct 2 lane Teal Road collector extension to Town Center Loop and Barrows, transit collectors from Murray to Town Center Loop, and new neighborhood route connections	WACO/Beaverton	2011-2020	\$11,000,000
6121	Murray: Scholls Ferry to Barrows	Construct a 4 lane extension to Walnut at Barrows including sidewalks and bike lanes	Beaverton/Tigard/WACO	2000-2005	\$7,120,000
6122	Davies Road: Scholls Ferry to Barrows	Construct a 3 lane extension to Barrows including sidewalks and bike lanes	Beaverton	2006-2010	\$1,500,000
3000	ORE 217	Add capacity based on recommendations from the ORE 217 corridor study	ODOT	2011-2020	\$70,000,000
3001	ORE 217: TV Hwy to US 26	Widen the northbound to 3 lanes with ramp improvements	ODOT	2006-2010	\$21,000,000
3002	ORE 217 and US 26	Reconfigure the interchange with braided ramps	ODOT	2006-2010	\$50,000,000
3006	US 26: Camelot Court to Sylvan	Add 3 rd through lane and collector distributor system	ODOT	2000-2005	\$22,000,000
3007	US 26: ORE 217 to Camelot Court	Widen eastbound to 3 lanes	ODOT	2006-2010	\$12,000,000
3009	US 26: Murray to 185th	Widen freeway to 6 lanes with possible HOV lane	ODOT	2011-2020	\$26,000,000
3019	Beaverton Connectivity	Complete several downtown street connections	Beaverton	2000-2005	\$13,200,000
3020	Beaverton Connectivity	Complete several downtown street connections	Beaverton	2006-2010	\$13,300,000
3022	Jenkins: Murray to 158th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$1,870,000
3023	ORE 217: Allen to Walker	Interchange improvements	ODOT/WACO/Beaverton	2000-2005	\$3,600,000
3025	TV Hwy: Cedar Hills to 10th	Add capacity based on recommendation from refinement planning	ODOT/WACO	2011-2020	\$33,200,000
3031	Allen: ORE 217 to Murray	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$8,500,000
3032	Cedar Hills: Farmington to Walker	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2006-2010	\$3,700,000
3033	125 th : Brockman to Hall	Construct a 2 lane extension with turn lanes including sidewalks and bike lanes	Beaverton	2000-2005	\$9,800,000
3034	Hall: Cedar Hills to Hocken	Construct a 3 lane extension with sidewalks and bike lanes	Beaverton	2000-2005	\$4,600,000
3036	158 th /Merlo: 170 th to Walker	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$4,000,000
3038	Center: Hall to 113th	Widen to 3 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$3,200,000

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3060	TV Hwy: 117 th to Hillsboro	Implement access management strategies	ODOT/WACO	2006-2010	\$15,000,000
3061	TV Hwy: 209 th to ORE 217	Interconnect Traffic Signals	ODOT/WACO	2006-2010	\$1,500,000
3063	Murray: TV Hwy to Allen	Interconnect Traffic Signals	WACO	2000-2005	\$50,000
3069	Scholls Ferry: Hamilton to Garden Home	Widen to 3 lanes including sidewalks and bike lanes	WACO	2011-2020	\$8,000,000
3076	Allen: ORE 217 to Western	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$1,000,000
3084	170 th : Alexander to Merlo	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$8,000,000
3085	170 th : Rigert to Blanton to Alexander	Widen to 3 lanes from Rigert to Blanton and 5 lanes from Blanton to Alexander including sidewalks and bike lanes	WACO	2000-2005	\$26,700,000
3086	158 th : Walker to Jenkins	Widen to 5 lanes including bike lanes	WACO	2011-2020	\$450,000
3087	Millikan: TV Hwy to 141 st	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$4,000,000
3088	Millikan: 141 st to Hocken	Widen to 3 lanes including sidewalks and bike lanes	WACO	2011-2020	\$3,400,000
3121	TV Hwy: Cedar Hills to Minter Bridge	Refinement Planning to identify phased strategy to implement a limited-access facility	ODOT	2000-2005	N/A
3141	170 th /173 rd : Baseline to Walker	Widen the street to 3 lanes including sidewalks and bike lanes	WACO	2006-2010	\$5,500,000
3143	Walker: Cedar Hills to 158th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$20,000,000
3144	Walker: 158 th to Amberglen	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$10,000,000
3148	Walker: Cedar Hills to ORE 217	Widen to 3 lanes including sidewalks and bike lanes	WACO	2006-2010	\$8,000,000
3175	Barnes: ORE 217 to 119th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$6,200,000
3177	Cedar Hills/Barnes	Reconstruct intersection and approaches to add travel lanes, turn lanes, and traffic signal upgrades	WACO	2000-2005	\$1,800,000
3181	Cornell: US 26 to 143rd	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$3,000,000
3183	Cornell: 143 rd to Saltzman	Widen to 3 lanes including sidewalks and bike lanes	WACO	2000-2005	\$4,600,000
3185	Barnes: Saltzman to 119th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2000-2005	\$5,300,000
3186	Murray: Science Park to Cornell	Widen to 5 lanes including sidewalks and bike lanes	WACO	2000-2005	\$3,100,000
3191	Cornell	Modify intersections at Saltzman, Barnes, Murray, and Trail	WACO	2011-2020	\$500,000
3204	Cornell: Bethany to 179th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$4,000,000
3205	173rd/174th	Construct a new 2 lane undercrossing of US 26 from Cornell to Bronson including sidewalks and bike lanes	WACO	2011-2020	\$14,800,000
3214	Farmington: 172 nd to 185th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$10,000,000
			TOTAL		\$529,590,000

*This project list is based on the August 10th 2000, 2000 Regional Transportation Plan, and includes projects in the Financially Constrained and Priority Motor Vehicle System

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**Table 1-8
Beaverton 2015 TSP Motor Vehicle Improvements not identified in the RTP Priority Scenario**

(1997 Dollars)

Location	Description	Jurisdiction	Cost
Hocken at TV and Farmington	Widen Hocken to accommodate 2 additional lanes between TV and Farmington to allow turn lanes, Widen TV from 141 st to Hocken to allow 3 through lanes and additional turn lanes	ODOT/Beaverton	\$6,100,000
ORE 217: Walker/Cabot/Canyon Ramps	Braid ramps between Canyon and Walker/Cabot split diamond	ODOT	\$20,800,000
Bany/Hart: 170 th to 160th	Improve to 2-3 lanes including sidewalks and bike lanes	WACO	\$1,000,000
170 th : Merlo to Baseline	Widen to 3 lanes including sidewalks and bike lanes	WACO	\$2,100,000
170 th : Division to Blanton	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$2,500,000
Hyland Extension: Carr to Hart	Extend Roadway	Beaverton	\$115,000
ORE 217: Denney/Allen	Collector/Distributor connection	ODOT	\$8,600,000
Cedar Hills: Walker to US 26	Complete 5 lane roadway with access control including sidewalks and bike lanes	WACO	\$2,100,000
Walker Road: Murray to ORE 217	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$26,500,000
Jenkins: Murray to Cedar Hills	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$3,800,000
Scholls Ferry: Hall to 125th	Widen to 7 lanes including sidewalks and bike lanes	WACO/ODOT	\$15,760,000
Scholls Ferry: Teal to 175th	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$4,000,000
Beard/Nora: Murray to 170th	Improve to 2-3 lanes including sidewalks and bike lanes	WACO	\$6,600,000
Weir: Murray to 175th	Improve to 3 lanes including sidewalks and bike lanes	Beaverton	\$3,700,000
Hall north of Center	Extend new 5 lane roadway north of Center to connect with Jenkins at Cedar Hills including sidewalks and bike lanes	Beaverton	\$11,000,000
Center: Cedar Hills to Hocken via Westgate	Extend public roadway with 3 lanes including sidewalks and bike lanes from Center to Westgate and from Westgate to Hocken	Beaverton	\$1,500,000
141 st : Tek to Farmington	Realign and extend 2/3 lane roadway including sidewalks and bike lanes	Beaverton	\$2,800,000
Nimbus: Hall to Denney	Extend 2/3 lane roadway including sidewalks and bike lanes	Beaverton	\$8,300,000
Local Streets	Add local and collector connectivity	Beaverton	\$41,900,000
Traffic Signals	Addition of 50 traffic signals per plan	Beaverton/ WACO/ODOT	\$12,500,000
Intersection Improvements	Listed in Table 4-16	Beaverton/ WACO/ODOT	\$64,025,000
		TOTAL	\$245,700,000

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**Table 1-9
Committed/Completed Beaverton 2015 TSP Motor Vehicle Improvements**

(1997 Dollars)

Location	Description	Jurisdiction	Cost
Farmington: Murray to 172nd	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$15,200,000
Oak: 160 th to 170th	Widen roadway including sidewalks and bike lanes	WACO	\$1,600,000
US 26: ORE 217 to Murray	Widen to 6 lanes and add braided ramps	ODOT	\$13,000,000
Jenkins: Cedar Hills to Murray	Widen to 3 lanes including sidewalks and bike lanes	WACO	\$3,100,000
170 th : Rigert to Alexander	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$8,000,000
Millikan: Hocken to Cedar Hills	Construct new 3 lane extension with sidewalks and bike lanes	Beaverton	\$4,300,000
Hart: Murray to 165 th	Widen to 3 lanes including sidewalks and bike lanes	Beaverton	\$7,100,000
Lombard: Broadway to Farmington	Realign and add turn lanes including sidewalks	Beaverton	\$1,600,000
Hall Boulevard at Scholls Ferry	Provide southbound right turn lane	ODOT	\$250,000
Hall: 12 th St to 500 feet south of Allen	Retrofit to include bike lanes; intersection turn lanes at Allen	Beaverton	\$1,438,000
Farmington: Murray to Hocken	Widen to 5 lanes including turn lanes, sidewalks, and bike lanes	Beaverton	\$9,300,000
		TOTAL	\$64,888,000

**Table 1-10
Beaverton 2020 TSP Preferred Additional Motor Vehicle Improvement Plan**

Note: Location #'s listed as "b" indicate that the improvement is in addition to an intersection improvement at that location from the 2015 TSP, intersections that were not included in the 2015 TSP improvement plan are numbered starting with 101 (2001 Dollars)

Location #	Location	Description	Cost
	Bethany Boulevard: Cornell to Bronson	Widen street to 5 lanes including sidewalks and bike lanes (this includes the widening of the US 26 overcrossing and intersection improvements).	\$3,424,000
	Cornell: 143 rd to Dale	Widen street to 5 lanes including sidewalks and bike lanes.	\$5,197,500
	Cornell: Dale to Saltzman	Future capacity improvement based on additional study and coordination with Washington County	\$8,620,000
	Walker: Cedar Hills to ORE 217	Widen street to 5 lanes including sidewalks and bike lane.	\$8,970,000
	Murray: TV Hwy to Farmington	Construct an 4 lane overpass (Murray over TV Highway and Farmington), including sidewalks, bike lanes, and interchange connections	\$28,517,500
	103 rd : Western to Walker	Improve existing roadway and construct new connections and intersection alignments to provide connectivity from Walker to Western. This project includes sidewalks and bike lanes and should be built as development occurs.	\$5,500,000
	120 th Avenue: Henry to Canyon Road	Construct a 2 lane collector road, including sidewalks and bike lanes	\$3,900,000
	Fairfield: Cedar Hills to Hocken	Construct a 2 lane roadway, including sidewalks and bike lanes	\$5,500,000
	Rose Biggi: Canyon to Broadway	Construct a 2 lane collector road, including sidewalks and bike lanes	\$1,200,000
101	Bethany/US 26 WB	add 2nd WB RT Lane, NB LT Lane	N/A
102	Bethany/Cornell	overlap SB RT	N/A
103	Cornell/173rd	add WB RT lane, 2nd NB LT lane, NB RT lane, SB RT lane	\$2,200,000
6b	170th/Farmington	add EB RT lane, WB RT lane (signal modification)	\$750,000
11b	158th/Jenkins	overlap NB RT	\$125,000
104	Cornell/US 26 WB	add 2nd WB LT lane (structure work)	\$1,000,000
105	Murray/Cornell	overlap NB RT, add 2nd NB LT lane (Cornell 5 lanes)	\$1,000,000
106	Murray/US 26 WB	add 2nd WB RT Lane	\$500,000
17b	Murray/Walker	increase cycle length by 20 seconds (to 120)	\$125,000
19b	Murray/TV Highway	2 new signals, 2 RT Lanes, 2 Double LT Lanes	N/A
20b	Murray/Farmington	2 new signals, 2 RT Lanes, 2 Double LT Lanes	N/A

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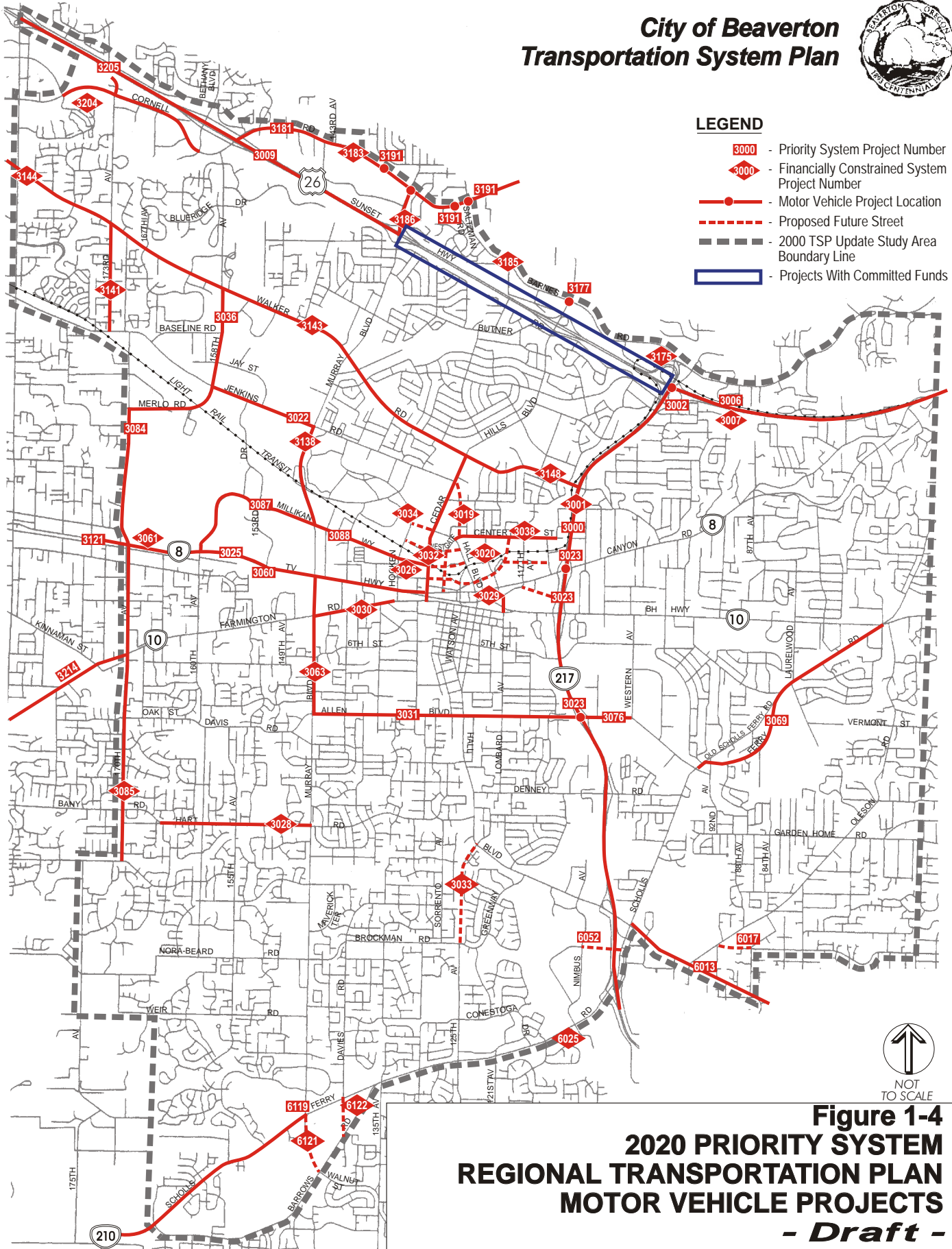
Location #	Location	Description	Cost
22b	Murray/Allen	add 2nd WB LT lane, 2nd WB RT lane, overlap WB RT lane (signal modification)	\$1,250,000
107	Cedar Hills/Barnes	add 2nd NB lane and SB LT lane	\$1,000,000
108	Cornell/Saltzman	add 2nd NB lane and SB LT lane (Cornell to 5 lanes)	\$2,000,000
109	Canyon/Lombard	add EB RT lane	\$500,000
65b	Denney/ORE 217 SB	add EB RT lane (structure work)	\$1,100,000
110	BH Highway/Laurelwood	add SB LT lane (signal modification and ROW)	\$2,000,000
111	Scholls Ferry/Laurelwood	install traffic signal, align with Nicol, ROW, 2 LT lane modifications	\$1,750,000
112	Hall/ORE 217 SB/Cascade	add SB RT lane	\$250,000
43b	Hall/Greenway	add EB RT lane	\$500,000
42b	Hall/Denney	add 2nd WB LT lane	\$500,000
36b	Farmington/Cedar Hills	add 2nd EB LT lane, ROW	\$1,250,000
32b	Cedar Hills/Jenkins	Jenkins to 5 lanes, overlap WB RT	\$125,000
31b	Cedar Hills/Walker	add 40 seconds cycle length to 140	\$125,000
113	Murray/Brockman	add WB RT lane, SB RT lane, add 20 seconds cycle to 120 seconds, ROW	\$100,000
47b	Scholls Ferry/125th	overlap SB RT	\$125,000
50b	Scholls Ferry/ORE 217 NB on ramp	add 2nd NB LT lane and a 2nd WB LT lane	\$1,000,000
TOTAL			\$90,104,000

**City of Beaverton
Transportation System Plan**



LEGEND

- 3000 - Priority System Project Number
- 3000 - Financially Constrained System Project Number
- - Motor Vehicle Project Location
- - - - - - Proposed Future Street
- 2000 TSP Update Study Area Boundary Line
- Projects With Committed Funds



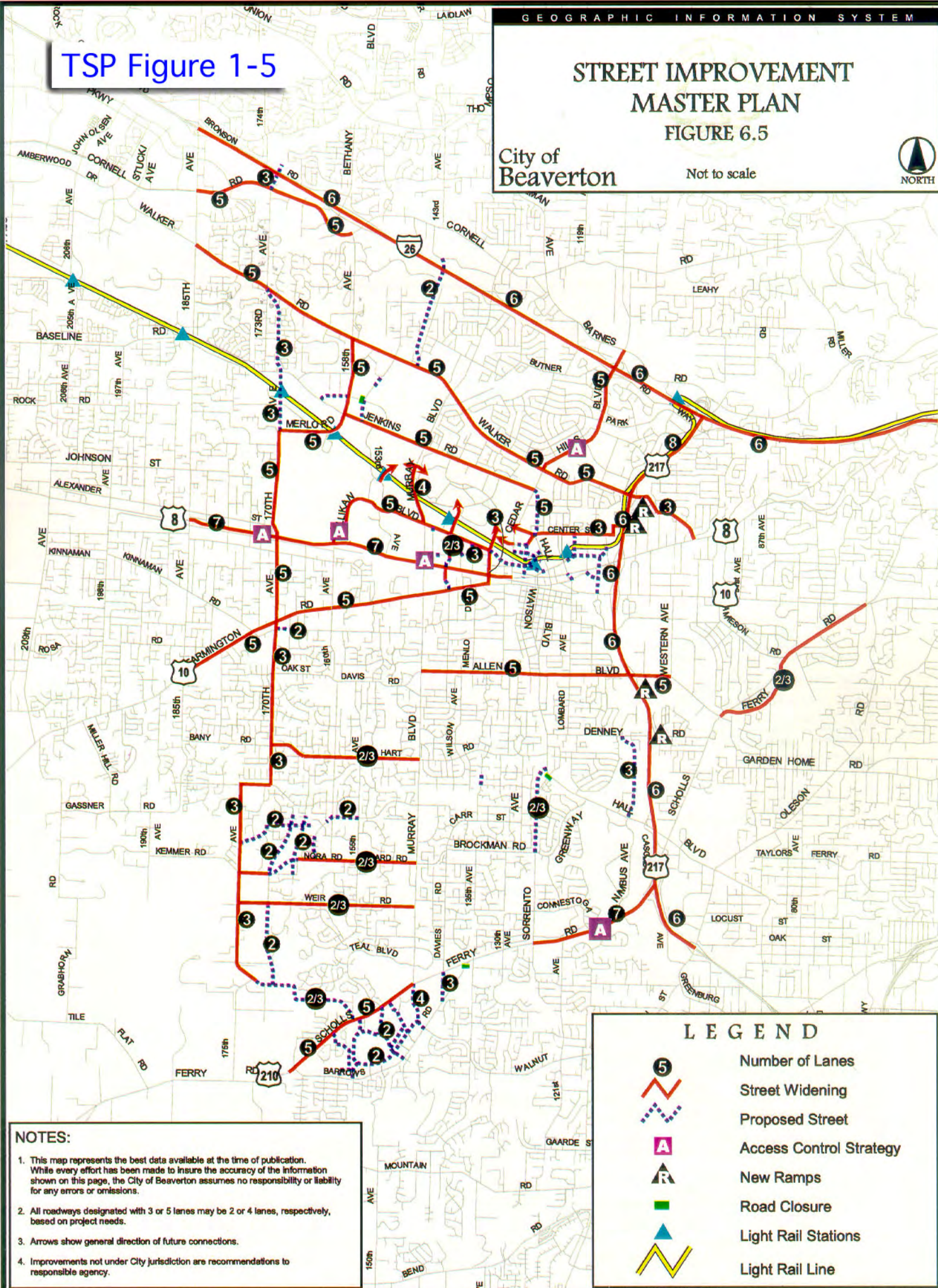
**Figure 1-4
2020 PRIORITY SYSTEM
REGIONAL TRANSPORTATION PLAN
MOTOR VEHICLE PROJECTS
- Draft -**

TSP Figure 1-5

STREET IMPROVEMENT MASTER PLAN FIGURE 6.5

City of
Beaverton

Not to scale



- NOTES:**
1. This map represents the best data available at the time of publication. While every effort has been made to insure the accuracy of the information shown on this page, the City of Beaverton assumes no responsibility or liability for any errors or omissions.
 2. All roadways designated with 3 or 5 lanes may be 2 or 4 lanes, respectively, based on project needs.
 3. Arrows show general direction of future connections.
 4. Improvements not under City jurisdiction are recommendations to responsible agency.

LEGEND

-  Number of Lanes
-  Street Widening
-  Proposed Street
-  Access Control Strategy
-  New Ramps
-  Road Closure
-  Light Rail Stations
- Light Rail Line

INTERSECTION IMPROVEMENT LOCATIONS

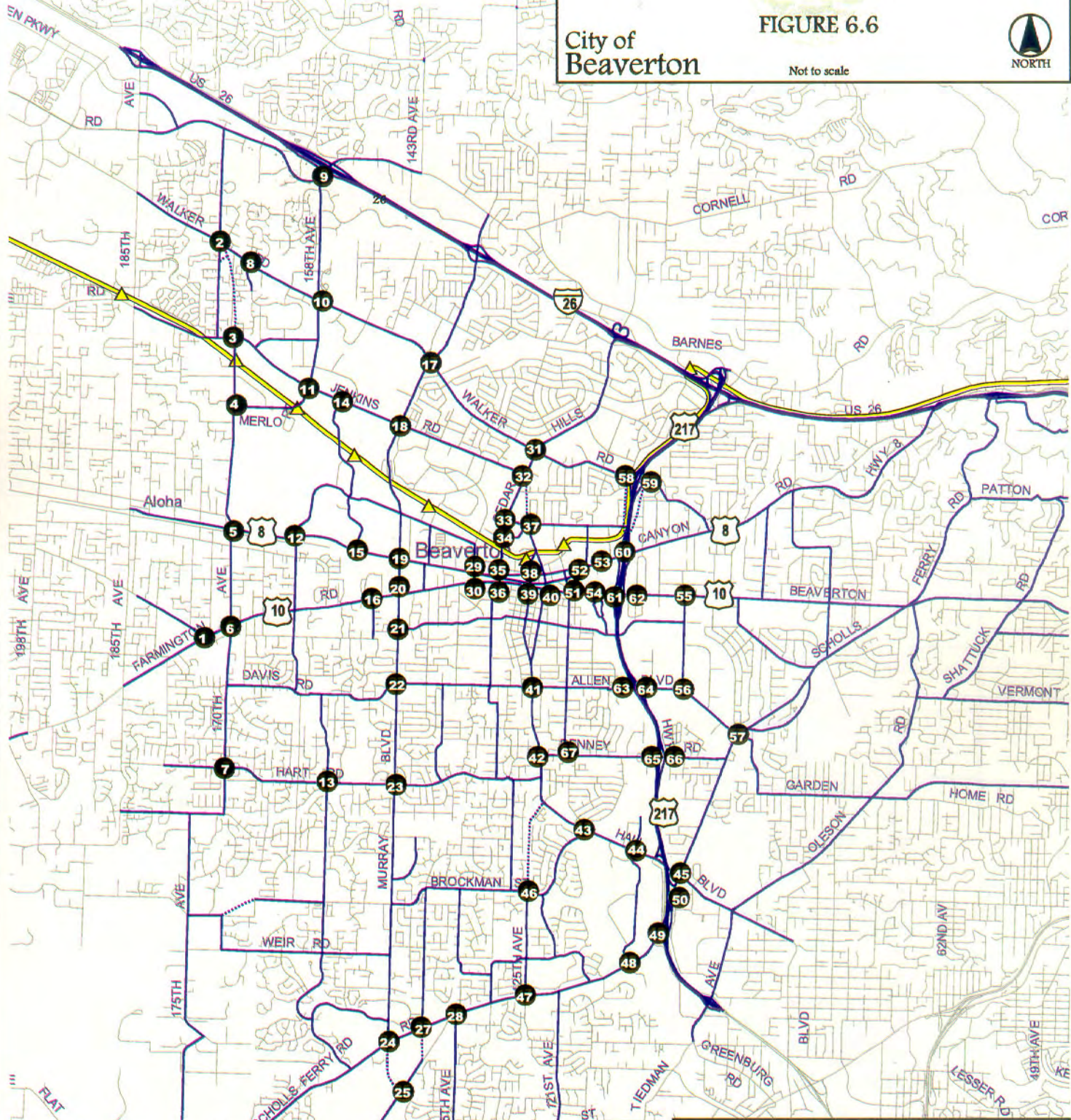
FIGURE 6.6

City of Beaverton

Not to scale








TSP Figure 1 - 6



NOTES:

1. This map represents the best data available at the time of publication. While every effort has been made to insure that accuracy of the information shown on this page, the City of Beaverton assumes no responsibility or liability for any errors or omissions.
2. Improvements outside the City Limits are recommendations to the responsible agency.

LEGEND

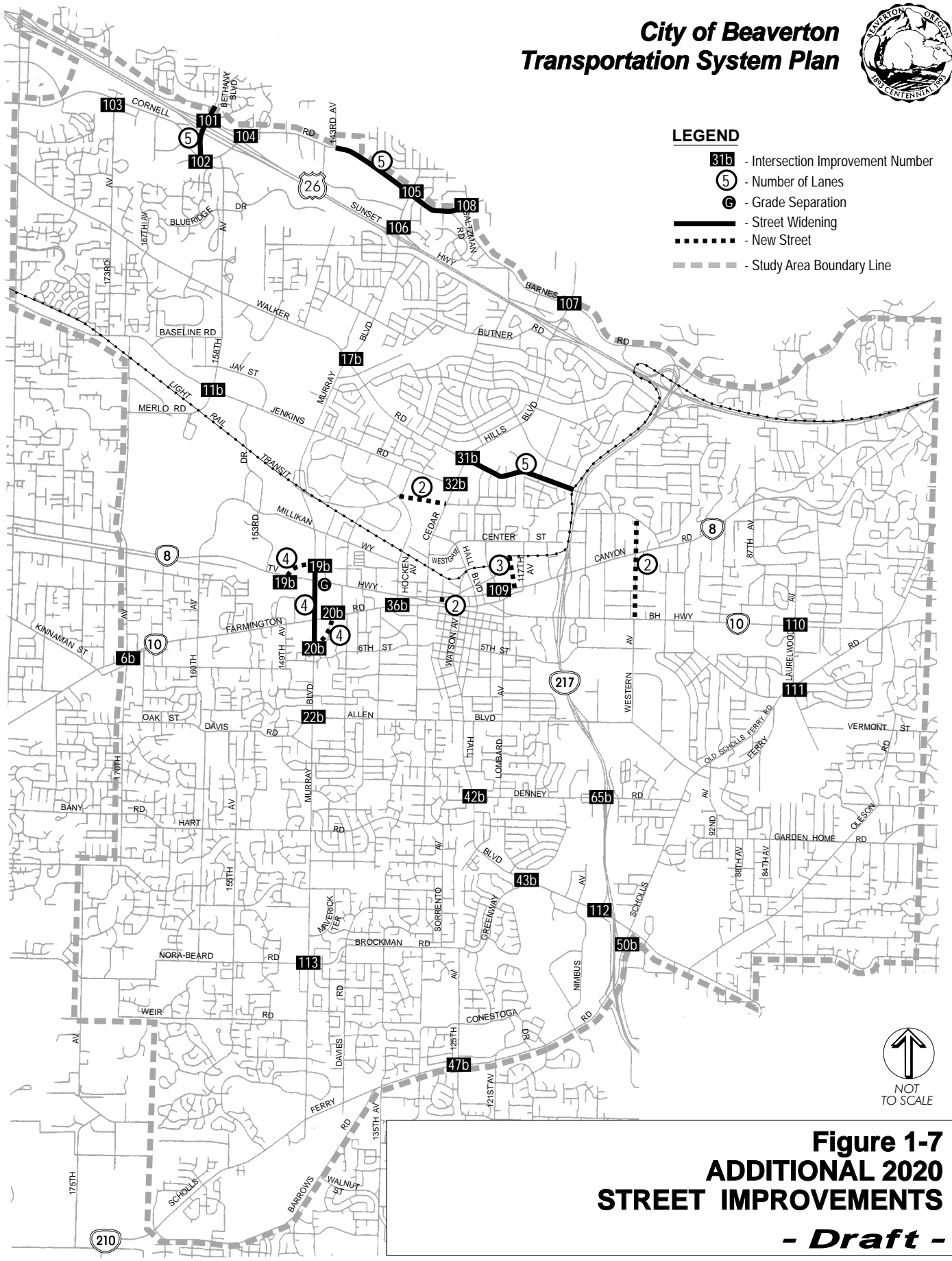
-  Intersection Improvement Number
-  Proposed Streets
-  Existing Streets
-  Light Rail Stations
-  Light Rail Line

**City of Beaverton
Transportation System Plan**



LEGEND

- 31b** - Intersection Improvement Number
- 5** - Number of Lanes
- G** - Grade Separation
- - Street Widening
- - - -** - New Street
- - - - -** - Study Area Boundary Line



**Figure 1-7
ADDITIONAL 2020
STREET IMPROVEMENTS
- Draft -**

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Functional Classification

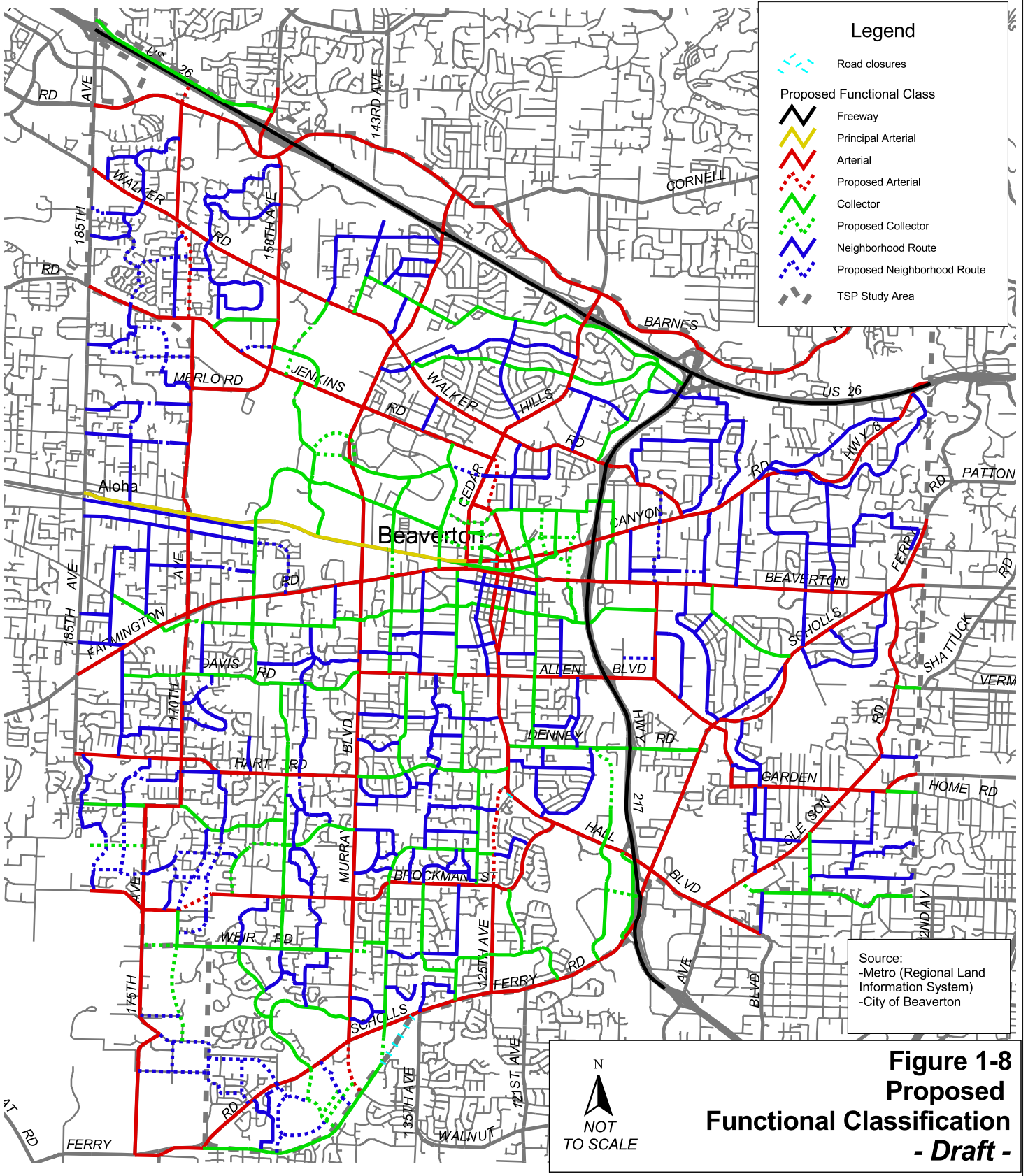
The current functional classification of streets in Beaverton was updated to reflect the expanded TSP study area, on-going regional planning, the functional needs of Beaverton, and consistency with the Regional Transportation Plan. Classifications of principal arterial, arterial, collector, neighborhood route and local have been developed based on connectivity (defined in the 2015 TSP), which is the best indicator of function. Figure 1-8 summarizes the functional classification recommendations. Appendix F summarizes the various jurisdictional functional classifications of major roadways with the TSP study area in a matrix format. This comparison matrix provides a comparison of the adopted City of Beaverton arterial designations to the Washington County and Metro major/minor arterial designations.

The functional classification map includes changes to Jay Street (to keep it open as a collector), changes to Hart Road and Davis Road (to switch the arterial/collector classifications), and changes to TV Highway (changed to a Principal Arterial to be consistent with the RTP). The discussion and recommendations for these changes are included in Chapter 4.

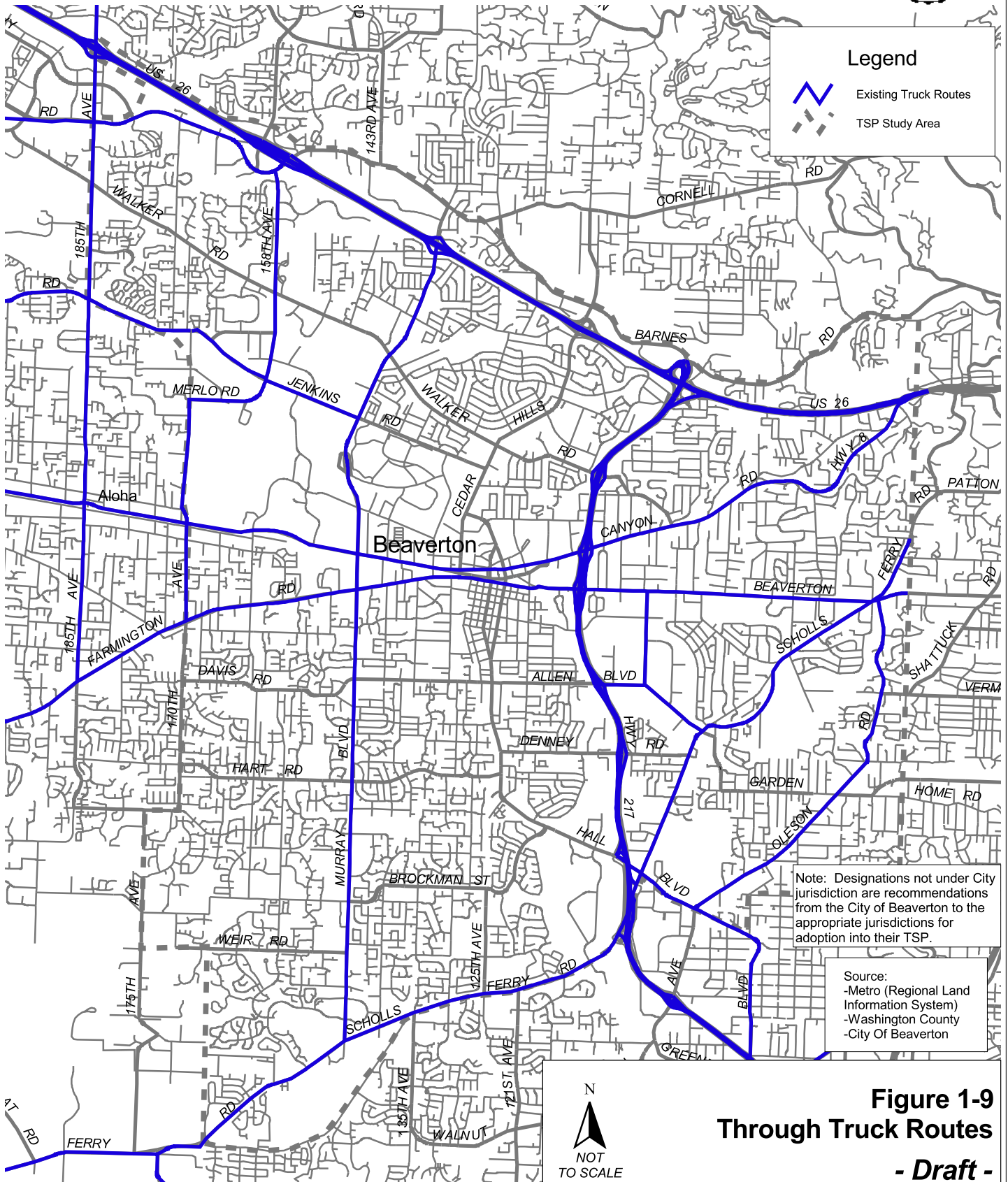
Trucks

Efficient truck movement plays a vital role in the economical movement of raw materials and finished products. The establishment of through truck routes provides for this efficient movement while at the same time maintaining neighborhood livability, public safety, and minimizing maintenance costs of the roadway system. The through truck route map from the previous TSP was updated to include the expanded study area (See Figure 1-9) utilizing information from the currently adopted Washington County Transportation Plan (1988) and the recent RTP (2000). The objective of this route designation is to allow these routes to focus on design criteria that is “truck friendly”; i.e. 12-foot travel lanes, longer access spacing, 35-foot (or larger) curb returns, and pavement design that accommodates a larger share of trucks. The designated through truck routes in the TSP Study area include and exceed the coverage included in the RTP designations.

**City of Beaverton
Transportation System Plan**



**City of Beaverton
Transportation System Plan**



Funding

The 2015 Beaverton TSP identified and discussed the funding sources and opportunities for the City of Beaverton. There are several potential funding sources for transportation improvements. These are sources that have been used in the past by agencies in Oregon. In most cases, these funding sources are sufficient to fund transportation improvements for local communities. Due to the complexity of today's transportation projects, it is necessary to seek several avenues for funding projects. Unique or hybrid funding of projects generally will include these funding sources, combined in a new package. Table 1-11 summarizes several funding options available for transportation improvements. Examples of funding sources which generally do not provide funding for roadways include: Property Tax General Funds, Car Rental Tax, Transient Lodging Tax, Business Income Tax, Business License Tax and Communication Services Tax.

Within the Portland region, local funding for major transportation projects is typically brought to a vote of the public for approval. Specific projects are outlined for use of public funds, such as the Major Streets Transportation Improvement Program (MSTIP) in Washington County or the Westside Light Rail Project. Because of the need to gain public approval for transportation funding, it is important to develop a consensus in the community that supports needed transportation improvements. That is the value of the Transportation System Plan.

Costs

Order of magnitude cost estimates were developed for the projects identified in the auto, bicycle and pedestrian elements. Cost estimates from the RTP or MSTIP projects in Beaverton were used in this study. Other projects were estimated using general unit costs for transportation improvements. Many of the project costs were developed by Washington County, Metro or ODOT for projects in the RTP. Where the TSP identified the comparable needs, these project costs were utilized. Table 1-12 summarizes the total costs outlined in the TSP. Current transportation revenue for the City of Beaverton can be summarized as noted in Table 1-13. Presuming a constant funding level for 20 years, this would potentially fund less than \$300,000,000 of transportation projects (maintenance, operation, and construction). There is a substantial gap between the TSP outlined funding needs and the current sources of funding (\$1,028 million = 1,292-264). The 2015 TSP outlines several methods for increasing transportation funding or seeking alternative solutions to better balance transportation costs and revenue. These methods are also recommended in this 2020 TSP Update.

**Table 1-11
Potential Transportation Revenue Sources**

Type	Description
System Development Charges (SDC)	SDCs or Traffic Impact Fees have been used in Oregon and throughout the United States. The cornerstone to development of SDC's involves two principals: 1) there must be a reasonable connection between growth generated by development and the facilities constructed to serve that growth (generally determined by level of service or connectivity); and 2) there must be a general system-wide connection between the fees collected from the development and the benefits development receives. Charges are typically developed based on a measurement of the demand that new development places on the street system and the capital costs required to meet that demand. Washington County has a traffic impact fee (TIF) which was voter approved. SDCs do not require a vote of the public.
Gas Tax	The State, cities and counties provide their basic roadway funding through a tax placed on gasoline. State gas tax is approved legislatively while local gas taxes are approved by voters. State funds are dedicated to roadway construction and maintenance, with one percent allocated to pedestrian and bicycle needs. This tax does not fall under the Measure 5 limits, because it is a pay-as-you-go user tax.
Other Motor Vehicle Fees	The state collects truck weight mile taxes, vehicle registration fees, and license fees. These funds are pooled together with the gas tax in distributing state motor vehicle fees to local agencies. Annual motor vehicle fee allocations to Washington County amount to about \$100 million (including gas tax).
Street Utility Fees	Certain cities have used street utility fees for maintenance. The fees are typically collected monthly with water or sewer bills. These funds are not for capacity improvements, but for supporting local roadway maintenance based upon land use type and trip generation. This frees other revenue sources for capacity needs. Utility fees can be vulnerable to Measure 5 limitations, unless they include provisions for property owners to reduce or eliminate charges based on actual use.
Exactions	Frontage improvements are common examples of exaction costs passed onto developers. These have been used to build much of Beaverton's local street system. Developers of sites adjacent to unimproved roadway frontage are responsible to provide those roadway improvements. Developers of sites adjacent to improvements identified as SDC projects can be credited the value of their frontage work, which is included in the SDC project-list cost estimate.
Local Improvement Districts (LID)	LIDs provide a means for funding specific improvements that benefit a specific group of property owners. LIDs require owner/voter approval and a specific project definition. Assessments are placed against benefiting properties to pay for improvements. LIDs can be matched against other funds where a project has system wide benefit, beyond benefiting the adjacent properties. Fees are paid through property tax bills.
Special Assessments	A variety of special assessments are available in Oregon to defray costs of sidewalks, curbs, gutters, street lighting, parking and CBD or commercial zone transportation improvements. These assessments would likely fall within the Measure 5 limitations. In Washington County, other examples of transportation assessments include MSTIP (Major Streets Transportation Improvement Program) and the local maintenance property tax levy. Both of these are property tax assessments, which have been imposed through votes of the public. A regional example would be the Westside LRT where the local share of funding was voter approved as an addition to property tax.
Driveway Fees	Gresham collects a Public Street Charge and a Driveway Approach Permit Fee. These fees are project specific and vary year to year based upon development permits. These funds are used for city maintenance and operation.
Employment Taxes	Tri-Met collects a tax for transit operations in the Portland region through payroll and self employment taxes. Approximately \$120 million are collected annually in the Portland region for transit.
Oregon Special Public Works Fund	The Special Public Works Fund (SPWF) Program was created by the legislature in 1985 as an economic development element of the Oregon Lottery. The program provides grants and loan assistance to eligible municipalities. There has been limited use of these funds on urban arterials. This is commonly used on state highways (a recent example being Immediate Opportunity Funds used for the US 26/Shute interchange associated with Nike)

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Table 1-12
Costs for Beaverton Transportation Action Plans over 20 years
 2001 Dollars

Transportation Element	Approximate Cost
Street Improvement Projects: Currently Funded	\$73,032,000
Unfunded	\$962,235,000
Signal Coordination/ITS/TSM Systems	\$6,415,000
Road Maintenance (assumes 4% per year growth)	\$100,000,000
Bicycle Master Plan	\$28,125,000
Pedestrian Action Plan	\$45,078,000
Transit Service Improvements	\$144,830,000
Pedestrian/School Safety Program (\$10,000/yr)	\$200,000
Sidewalk Grant Program (\$50,000/yr)	\$1,000,000
Park-and-ride Expansion (1,000 spaces)	\$2,000,000
Neighborhood Traffic Management (\$75,000/yr)	\$1,500,000
TSP Support Documents (i.e. Design standard update, TSP updates, ...)	\$500,000
TDM Support (\$50,000/yr)	\$1,000,000
TWENTY YEAR TOTAL in 2001 Dollars	\$1,292,883,000

Table 1-13
Estimation of Available Transportation Funding From Existing Sources
 1997 Dollars (approximate)

Source	Approximate Annual Revenue
State Motor Vehicle Fees to City	\$3,000,000
County Gas Tax to City	\$250,000
TIF to City	\$1,200,000
Miscellaneous	\$250,000
MSTIP to City (approximate)	\$2,500,000
State/Federal Fees use in City (approximate, assumes 35% of allocation used for capital)	\$6,000,000
Annual TOTAL	\$13,200,000
20 YEARS OF CURRENT FUNDING	\$264,000,000



Chapter 2

Goals and Policies

These goals and policies have been developed to guide the City's twenty-year vision of transportation system needs. This chapter summarizes the updated goals and policies as revised by the City of Beaverton and includes comments to date from the public and technical advisory committee. The goal and policy numbering system from the Comprehensive Plan is maintained in this chapter for continuity.

There are seven transportation goals with related policies organized under each goal. The goals and policies are not prioritized, and reflect the City of Beaverton's citywide goals (Comprehensive Plan page xv).

The goals are brief guiding statements that describe a desired result. The policies describe the actions needed to move the community toward the goal. Below many of the policies, italic text provides details of the implementing actions and clarifies the intent of the policy. The transportation goals and policies are implemented by these actions, by the improvement projects included in the master plans and action plans for each transportation mode, and by the Development Code.

Construction standards for improvements are found in the Development Code and Engineering Design Manual and Standard Drawings.

6.2.1. Goal: Transportation facilities designed and constructed in a manner to enhance Beaverton's livability and meet federal, state, regional, and local requirements.

Policies:

- a) Maintain the livability of Beaverton through proper location and design of transportation facilities.

Actions: Design streets and highways to respect the characteristics of the surrounding land uses, natural features, and other community amenities. Recognizing that the magnitude and scale of capital facilities also affect aesthetics and environmental quality, the City will continue to require design plans and impact analyses as specified in the Development Code.

- b) Consider noise attenuation in the design, redesign, and reconstruction of arterial streets immediately adjacent to residential development.
- c) Locate and design recreational and multi-use paths to balance the needs of human use and enjoyment with resource preservation in areas identified on the Natural Resource Inventory Plan Map for their Significant Natural Resource values.

Actions: Locate multi-use paths to have the lowest level of impact on a stream or sensitive riparian vegetation. Multi-use paths through significant natural resource areas will be designed for day use only and will have no provisions for nighttime illumination. If a natural resource is so delicate that any degree of human intrusion will irreparably destroy it, preservation of the resource will take precedence over the proposed path. Filling gaps in the multi-use path system is encouraged.

- d) Protect neighborhoods from excessive through traffic and travel speeds while providing reasonable access to and from residential areas. Build streets to minimize speeding.

Actions: Maintain street design standards and criteria for neighborhood traffic management for use in new development and existing neighborhoods. Complete construction of the 125th Avenue extension and the Murray Boulevard connection from Scholls Ferry Road to Barrows Road at Walnut Street prior to completing the Davies Road connection from Scholls Ferry Road to Barrows Road.

- e) New commercial and industrial development shall identify traffic plans for residential streets where increased cut-through traffic may occur due to the proposed development.

6.2.2. **Goal:** A balanced transportation system.

Policies:

- a) Implement Beaverton's public street standards that recognize the multi-purpose nature of the street right-of-way for utility, pedestrian, bicycle, transit, truck, and auto use, and recognize these streets as important to community identity as well as providing a needed

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service.

- b) Develop and provide a safe, complete, attractive, efficient, and accessible system of pedestrian ways and bicycle ways, including bike lanes, shared roadways, multi-use paths, and sidewalks according to the pedestrian and bicycle system maps and the Development Code and Engineering Design Manual and Standard Drawings requirements.

Actions: Continue to coordinate with Washington County, Metro, Beaverton area schools, Oregon Department of Transportation, and the Tualatin Hills Park and Recreation District. Sidewalks will remain the responsibility of fronting property owners. Maintain the opportunity for resident groups to fund multi-use path improvements through the local improvement district process.

- c) Provide connectivity to each area of the City for convenient multi-modal access. Ensure pedestrian, bicycle, transit, and vehicle access to schools, parks, employment and recreational areas, and destinations in station areas, regional and town centers by identifying and developing improvements that address connectivity needs.
- d) Develop neighborhood and local connections to provide adequate circulation into and out of neighborhoods.
- e) The permanent closure of an existing road in a developed neighborhood is not recommended and will be considered by the City only under the following circumstances: as a measure of last resort, when the quality of life in the neighborhood is being severely threatened by excessive traffic volumes or the presence of a traffic safety hazard; or as part of a plan reviewed through the City's land use and/or site development process(es), including capital improvement projects.

Actions: Maintain existing neighborhood connectivity by avoiding closures of existing streets except when the closure is part of a larger plan for improvements to the neighborhood. Jay Street is recommended to remain open between 158th Avenue and Burlington Drive.

- f) Design arterial and collector streets to accommodate pads for public transit and to provide convenient access to transit stops.

Actions: Continue to work with Tri-Met to improve transit service, pedestrian facilities leading to bus stop waiting areas, and to make the waiting areas themselves safe, comfortable, and attractive. Continue to work with Tri-Met, Oregon Department of Transportation, and Washington County toward developing and implementing a transit shelter program based on Tri-Met placement criteria, to place marked crossings at major transit stops, and to provide signal priority.

6.2.3. **Goal:** A safe transportation system.

Policies:

- a) Improve traffic safety through a comprehensive program of engineering, education, and enforcement.
- b) Design streets to serve anticipated function and intended uses as determined by the Comprehensive Plan.

***Action:** Maintain a functional classification system that meets the City's needs and respects needs of other agencies including, but not limited to, Washington County, Oregon Department of Transportation, Tri-Met, and Metro.*

- c) Enhance safety by prioritizing and mitigating high collision locations within the City.

***Actions:** Work with Washington County to periodically review traffic collision/Safety Priority Index System information in an effort to systematically identify, prioritize, and remedy safety problems. The City should continue to expand its collision record evaluation program working cooperatively with Washington County and Oregon Department of Transportation.*

- d) Designate safe routes from residential areas to schools.

***Actions:** The City should continue to work with Beaverton area schools and the community in developing safe transit, pedestrian, and bicycle routes to schools. Improvement projects near schools shall consider school access and safety during project development.*

- e) Construct multi-use paths only where they can be developed with satisfactory design components that address safety, security, maintainability, and acceptable uses.

***Actions:** Although multi-use paths should be separate and distant from major streets for most of their length, they should converge at traffic-controlled intersections to provide for safe crossing. Study trail crossing treatments for appropriate use at locations where out-of-direction travel by path users to an intersection is significant. When multi-use paths follow rear lot lines, use design treatments to minimize the impacts to private property.*

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- f) Provide satisfactory levels of maintenance to the transportation system in order to preserve user safety, facility aesthetics, and the integrity of the system as a whole.
- g) Maintain access management standards for streets consistent with City, County, and State requirements to reduce conflicts between vehicles and trucks, and between vehicles, bicycles, and pedestrians.

Action: Preserve the functional integrity of the motor vehicle system by limiting access per City standards.

- h) Ensure that adequate access for emergency services vehicles is provided throughout the City.

Actions: Work cooperatively with Tualatin Valley Fire and Rescue and other Washington County emergency service providers to designate Primary and Secondary Emergency Response Routes. Work with these agencies to establish acceptable traffic calming strategies for these routes. Recognize the route designations and associated acceptable traffic calming strategies in the City's Traffic Calming Program.

- i) Meet federal and State safety compliance standards for operation, construction, and maintenance of the rail system.
- j) Provide safe routing of hazardous materials consistent with federal guidelines, and provide for public involvement in the process.

Action: Work with federal agencies, the Public Utility Commission, the Oregon Department of Environmental Quality, public safety providers, and Oregon Department of Transportation to assure consistent routes, laws, and regulations for the transport of hazardous materials.

6.2.4. **Goal:** An efficient transportation system that reduces the percentage of trips by single occupant vehicles, reduces the number and length of trips, limits congestion, and improves air quality.

Policies:

- a) Support and implement trip reduction strategies developed regionally, including employment, tourist, and recreational trip reduction programs.

Actions: Encourage implementation of travel demand management programs. Work to

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shift traffic to off-peak travel hours. Coordinate trip reduction strategies with Washington County, Metro, Westside Transportation Alliance, Oregon Department of Transportation, Tri-Met, neighboring cities, and the Oregon Department of Environmental Quality. Seek to raise p.m. peak average vehicle occupancy (AVO) to 1.3 AVO or more in the evening peak and/or move 50 percent or more of the standard evening peak trip generation outside the peak hour. Educate business groups, employees, and residents about trip reduction strategies. Work with business groups, residents, and employees to develop and implement travel demand management programs. Support and implement strategies that achieve progress toward attaining Metro's 2040 Regional Non-Single Occupant Vehicle Modal Targets. 2040 Non-SOV Modal Targets are as follows:

Beaverton Regional Center: 45-55%;

Murray/Scholls Town Center: 45-55%;

Beaverton Main Streets, Station Communities, and Corridors: 45-55%;

Beaverton Industrial Areas, Intermodal Facilities, Employment Areas, Inner and Outer Neighborhoods: 40-45%

(Targets apply to trips to, within, and out of each 2040 Design Type. The targets reflect conditions appropriate for the year 2040 and are needed to comply with Oregon Transportation Planning Rule objectives to reduce reliance on single-occupancy vehicles.)

Continue to implement the following action plan to work toward achieving these targets:

- i) Encourage development that effectively mixes land uses to reduce vehicle trip generation.*
- ii) Develop consistent conditions for land use approval that require future employment related land use developments to agree to reduce peak hour trip making through transportation demand management strategies.*
- iii) Support efforts by Washington County, Oregon Department of Transportation, Department of Environmental Quality, Tri-Met, and the Westside Transportation Alliance to develop productive demand management measures that reduce vehicle miles traveled and peak hour trips.*
- iv) Coordinate with Oregon Department of Transportation and Tri-Met on development of park and rides at transit stations or freeway interchange locations. Interchange reconstruction projects should be required to identify potential park and ride sites.*
- v) Build on existing Regional Center average transit pass discount percentage to achieve a 25 percent discount by 2020.*
- vi) Work with Washington County, Westside Transportation Alliance, and Tri-Met to develop and implement a downtown fareless transit area, a regional center transportation management agency, and reduced transit fare programs based on increased demand and funding availability.*
- vii) Implement the bicycle, transit, pedestrian, and motor vehicle master improvement*

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plans to implement a convenient multimodal transportation system that encourages increased bicycle, pedestrian, and transit use.

- b) Limit the provision of parking to meet regional and State standards.

***Actions:** Work to reduce parking per capita per Metro and State requirements, while minimizing impacts to neighborhoods. Implement the motor vehicle and bicycle parking ratios in new development. Develop and implement a Regional Center parking plan and a residential parking permit program as demand increases. Continue to implement shared parking and timed parking through new development and existing programs. Work toward implementing other parking-based transportation demand management strategies such as metered and structured parking to help achieve Metro's 2040 Non-SOV mode split targets.*

- c) Maintain levels of service consistent with Metro's Regional Transportation Plan and the Oregon Transportation Plan. Reduce traffic congestion and enhance traffic flow through such system management measures as intersection improvements, intelligent transportation systems, incident management, signal priority, optimization, and synchronization, and other similar measures.

***Action:** Adopt level of service standards that are consistent with regional and State standards.*

- d) Plan land uses to increase opportunities for multi-purpose trips (trip chaining).

***Actions:** Encourage residents to reduce cold starts, miles traveled, and air quality degradation by combining several trips into one. Encourage mixed use where allowed to reduce vehicle trips and promote trip chaining.*

- e) Require land use approval of proposals for new or improved transportation facilities. The approval process shall consider the project's identified impacts.

- f) Support mixed-use development where zoning allows.

- g) Work with Tri-Met to encourage the implementation of transit improvements concurrent with roadway improvements, improve access and frequency of service, and increase ridership potential and service area. Encourage development of regional high capacity transit, including light rail transit and commuter rail.

***Action:** Support commuter rail and its associated supportive transit services.*

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6.2.5. **Goal:** Transportation facilities that serve and are accessible to all members of the community.

Policies:

- a) Construct transportation facilities to meet the requirements of the Americans with Disabilities Act.

Action: Identify, assess, and remove barriers to mobility.

- b) Support Tri-Met, other transit service providers, and employers and social service agencies' efforts that respond to the transit and transportation needs of the elderly, economically disadvantaged, and disabled.

6.2.6. **Goal:** Transportation facilities that provide efficient movement of goods.

Policies:

- a) Designated arterial routes and freeway access are essential for efficient movement of goods. Design these facilities and adjacent land uses to reflect the needs of goods movement.
- b) Consider existing railroad and air transportation facilities to be City resources and reflect the needs of these facilities in land use decisions.

6.2.7. **Goal:** Implement the transportation plan by working cooperatively with federal, State, regional, and local governments, the private sector, and residents. Create a stable, flexible financial system.

Policies:

- a) Coordinate transportation projects, policy issues, and development actions with all affected governmental units in the area. Key agencies for coordination include Washington County, Oregon Department of Transportation, Tri-Met, Metro, and Tualatin Hills Park and Recreation District, as well as the adjacent cities of Tigard, Hillsboro, and Portland.
- b) Participate in regional transportation, growth management, and air quality improvement policies. Work with agencies to assure adequate funding of transportation facilities to support these policies.

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- c) Monitor and update the Transportation Element of the Comprehensive Plan so that issues and opportunities are addressed in a timely manner. Maintain a current capital improvement program that establishes the City's construction and improvement priorities, and allocates the appropriate level of funding.
- d) Use the System Development Charge and Traffic Impact Fee as elements of an overall funding program to pay for adding capacity to the collector and arterial street system, and making safety improvements related to development impacts.

Action: Base the roadway system taxes and fees on the total expected cost of making extra capacity and safety improvements over a twenty-year period, allocated back to development on a pro rata formula taking into account the relative expected future traffic impact of the development in question.

- e) Establish rights-of-way at the time of site development and, where appropriate, officially secure them by dedication of property.
- f) Working in partnership with Metro, Oregon Department of Transportation, and other jurisdictions and agencies, develop a long-range financial strategy to make needed improvements to the transportation system and support operational and maintenance requirements.

Actions: The financial strategy should consider the appropriate share of motor vehicle fees, impact fees, property tax levies, and development contributions to balance needs, costs, and revenue. View the process of improving the transportation system as that of a partnership between the public (through fees and taxes) and private sectors (through exactions and conditions of development approval), each of which has appropriate roles in the financing of these improvements to meet present and projected needs.

- g) Provide adequate funding for maintenance of the capital investment in transportation facilities.

Action: Develop a long-term financing program that provides a stable source of funds to ensure cost-effective maintenance of transportation facilities and efficient effective use of public funds.



Chapter 3

Existing Conditions

Existing transportation conditions were evaluated as part of the City of Beaverton Transportation System Plan 2000 update. This chapter summarizes existing traffic and transportation operation in the City. It considers vehicle traffic, as well as transit, pedestrian, bicycle, truck and other modes. In the summer of 2000, an inventory of traffic conditions in Beaverton was undertaken to establish a base year for updating the existing conditions of the 2015 City of Beaverton Transportation System Plan. Much of this data provides a benchmark (basis of comparison) for future assessment of transportation performance in Beaverton relative to desired policies.

The study area for the 2000 Transportation System Plan Update was expanded to respond to planning area agreements and potential future annexations. The updated study area is shown in Figure 3-1. Ninety-six intersections within the study area were selected for evaluation. Traffic data was gathered at these locations and analyzed in order to evaluate area traffic conditions including volumes and levels of service. The data and a map noting the locations of the intersections are included in the Appendix. The following sections briefly describe the updated functional classification, existing traffic volumes, and levels of service in the Beaverton transportation system.

Functional Classification

Roadways have two functions; to provide mobility and to provide access. From a design perspective, these functions can be incompatible since high or continuous speeds are desirable for mobility, while low speeds are more desirable for land access. Arterials emphasize a high level of mobility for through movement; local facilities emphasize the land access function; and collectors offer a balance of both functions.

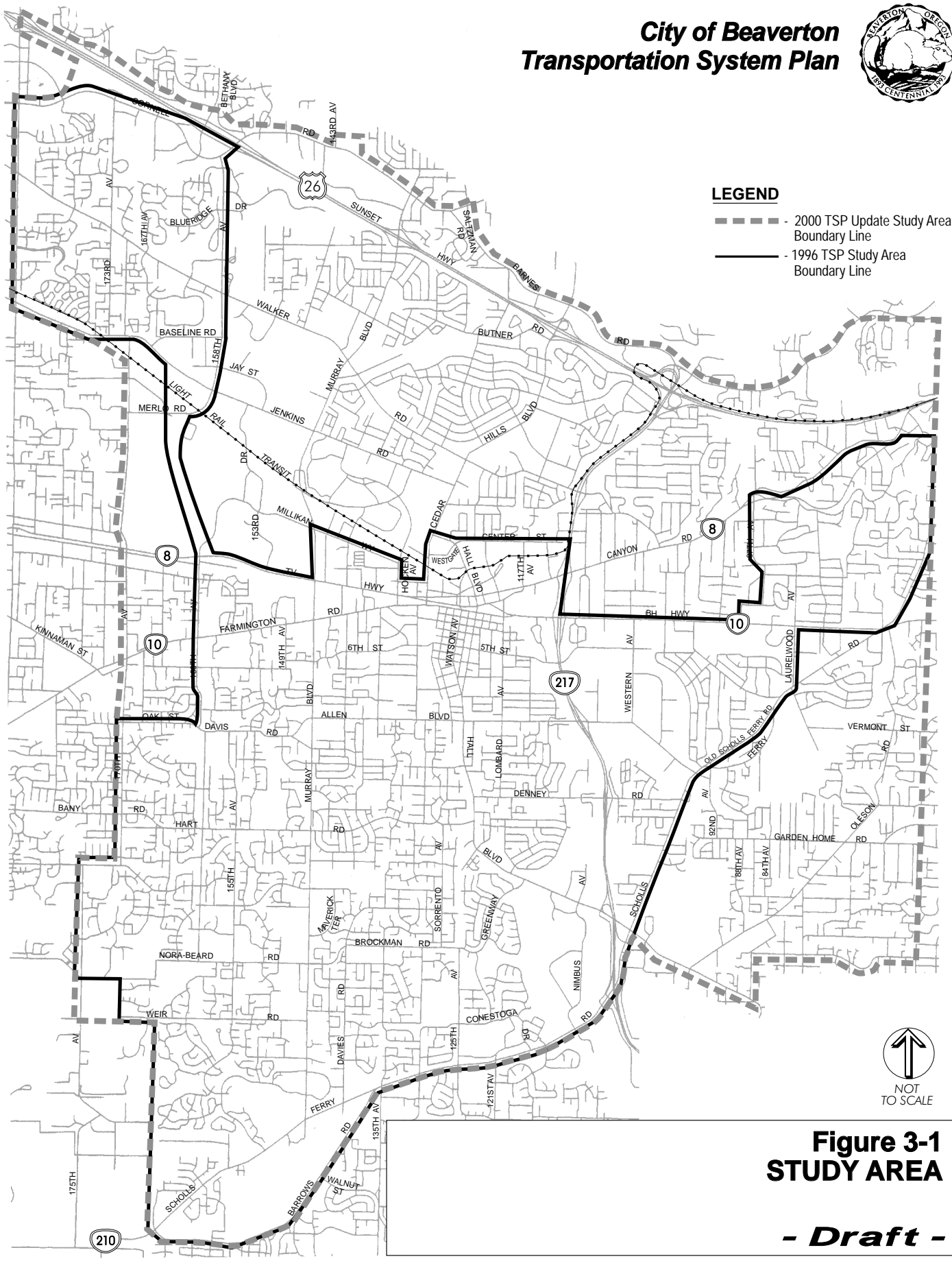
Function can be best defined by connectivity. Without connectivity, neither mobility nor access can be served. Roadways that provide the greatest reach of connectivity are the highest level facilities.

**City of Beaverton
Transportation System Plan**



LEGEND

- - - - - 2000 TSP Update Study Area Boundary Line
- 1996 TSP Study Area Boundary Line



**Figure 3-1
STUDY AREA**
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The existing Beaverton functional classification was adopted from the previous TSP as part of the Comprehensive Plan. The functional classification of streets in Beaverton is represented by Figure 3-2. Any street not designated as either an arterial, collector or neighborhood route is considered a local street. A jurisdictional comparison of functional classification for streets in Beaverton is provided in the appendix.

Arterial streets serve to interconnect and support the principal arterial highway system. These streets link major commercial, residential, industrial and institutional areas. Arterial streets are typically spaced about one mile apart to assure accessibility and reduce the incidence of traffic using collectors or local streets in lieu of a well placed arterial street. Many of these routes connect to cities surrounding Beaverton.

Collector streets provide both access and circulation within residential and commercial/industrial areas. Collectors differ from arterials in that they provide more of a citywide circulation function, do not require as extensive control of access and penetrate residential neighborhoods, distributing trips from the neighborhood and local street system.

Neighborhood routes are usually long relative to local streets and provide connectivity to collectors or arterials. Because neighborhood routes have greater connectivity, they generally have more traffic than local streets and are used by residents in the area to get out of the neighborhood, but do not serve citywide/large area circulation. Traffic from cul-de-sacs and other local streets may drain onto neighborhood routes to gain access to collectors or arterials.

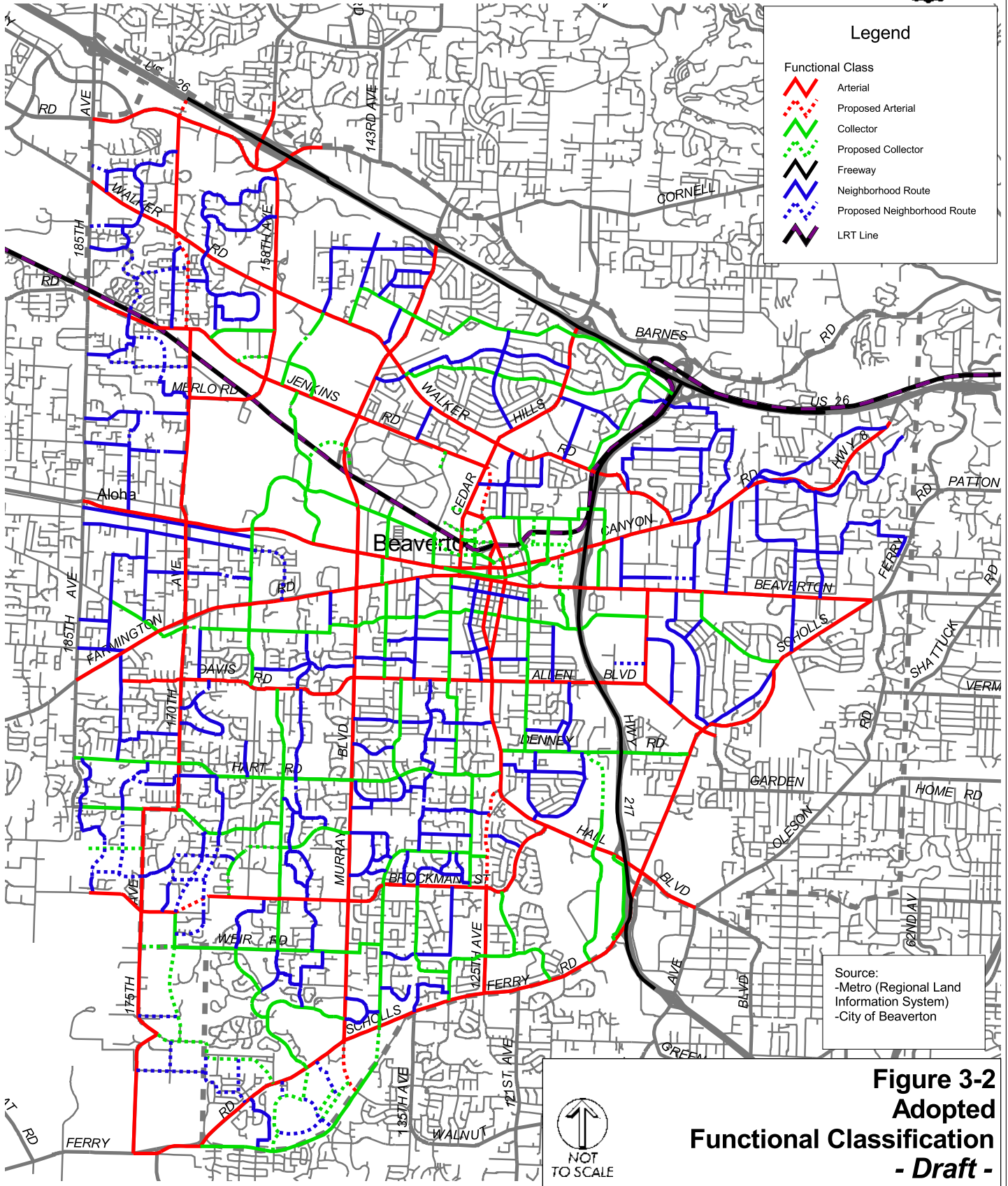
Local Streets have the sole function of providing access to immediate adjacent land. Service to “through traffic movement” on local streets is deliberately discouraged by design.

Traffic Volume

A complete inventory of peak hour traffic conditions was performed in the fall of 2000 as part of the Beaverton Transportation System Plan 2020 update. The traffic turn movement counts conducted as part of this inventory provide the basis for analyzing existing problem areas as well as establishing a base condition for future monitoring. Turn movement counts were conducted at 96 intersections during the evening (4-6 PM) peak period to determine existing operating conditions. These intersections were chosen in coordination with the City of Beaverton staff in order to update the existing conditions, incorporate the new revised study area, and address areas of noted concern.

Figure 3-3 shows the updated two-way existing traffic volumes in the Beaverton area. Overall, the two-way traffic volumes in the study area have increased from 1996 to 2000 with increases ranging from 5 to 50 percent. However, some of the two-way peak hour traffic volumes have

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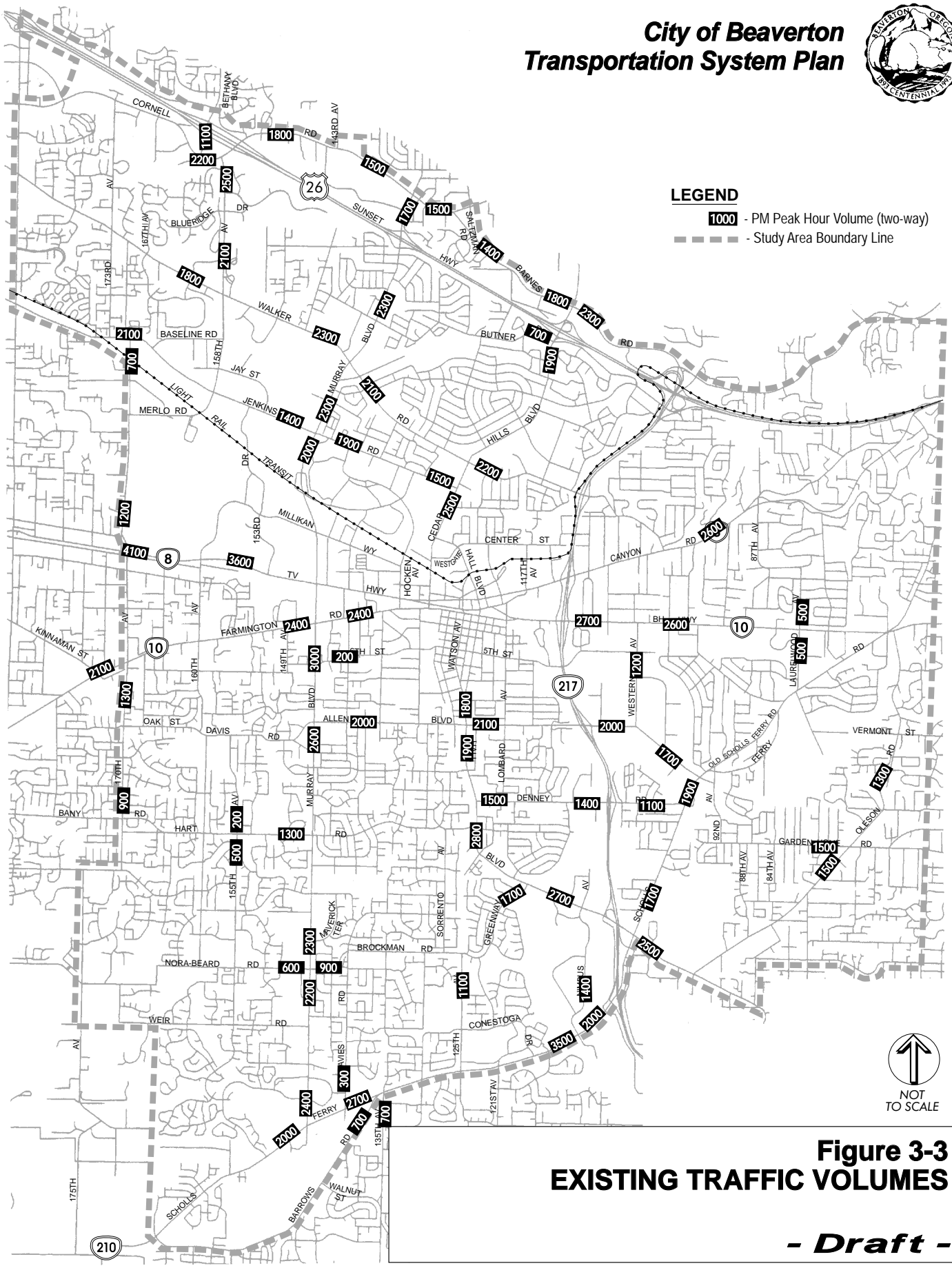
**City of Beaverton
Transportation System Plan**



LEGEND

1000 - PM Peak Hour Volume (two-way)

--- - Study Area Boundary Line



**Figure 3-3
EXISTING TRAFFIC VOLUMES**

- Draft -

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actually decreased over the four-year period. These reductions can be explained by the construction and improvement of nearby roadways, as well as changes in local traffic patterns due to construction. Minor fluctuations in traffic volumes can be attributed to normal day-to-day variations in traffic flow that can be evident with different traffic counts.

The existing two-way traffic volumes along Scholls Ferry Road have increased substantially. Volumes to the west of Murray Boulevard have increased by approximately 50 percent. This significant increase in traffic volume is likely due to the large amounts of residential development on the west-end of Scholls Ferry Road. Traffic volumes on Scholls Ferry Road near Nimbus Avenue have remained fairly constant at approximately 3,500 vehicles per hour over the four-year period.

Traffic volumes on Murray Boulevard between US 26 and Scholls Ferry Road have not changed significantly since the previous study period. The current turn movement counts have not changed by more than 5 percent. Normal daily traffic volume fluctuation accounts for the slight decreases in two-way volume that are shown in Figure 3-2. The traffic volumes have held steady on Murray Boulevard due to the capacity limits of the roadway that will not allow for a substantial increase in volume.

The traffic volumes on Jenkins Road near Murray Boulevard decreased by approximately 20 percent with the current 2000 traffic counts. This decrease likely occurred because the counts were taken during construction in the area of the intersection, which decreased through traffic volume.

Traffic volumes on 158th Avenue and Walker Road have increased by approximately 15 percent since the previous turn-movement counts were conducted. This growth can be attributed to growth around the Nike Campus as well as the commercial area near IBM. Additionally, the traffic volumes have increased substantially in these areas because the two roadways were able to handle a higher volume and still operate at or under capacity. This allowed volumes to expand relative to other nearby crowded roadways.

The two-way traffic volumes on TV Highway/Canyon Road had significant changes from 1996 to 2000 conditions. To the east of ORE 217, the two-way traffic volumes actually decreased by approximately 10 percent. This is probably due to the construction at US 26 that reduced through volumes and encouraged motorists to find alternative routes. To the west of the Beaverton City Center, the traffic volumes have increased by approximately 5 percent.

Traffic volumes on Farmington Road/Beaverton-Hillsdale Highway had changes similar to the TV Highway/Canyon Road corridor. To the east of ORE 217, the volumes were slightly reduced. To the west of the Cedar Hills Boulevard, the two-way volumes increased by 10 to 20 percent. This large increase occurred because the roadway was able to handle significantly higher volumes while still operating at or near capacity.

TRAVEL TIME RUNS

Travel time is a key measure of transportation service and accessibility in a city. It provides a common reference for comparison between modes and a historical reference in future years. Travel time runs were conducted on several key routes in Beaverton. These travel time runs measured the length of time it took to travel from one end of Beaverton to the other on each key route during the PM peak period (4:00 PM to 6:00 PM) during the week. Seven key routes were surveyed:

- Murray Boulevard from Cornell Road to Scholls Ferry Road
- Scholls Ferry Road from Beaverton Hillsdale Highway to Beef Bend Road
- Walker Road from 106th Avenue to Stucki Road
- Beaverton Hillsdale Highway/Farmington Road from Scholls Ferry Road to 209th Avenue
- Cedar Hills Boulevard-Hall Boulevard from Barnes to Oleson
- Canyon Road from 91st to 185th
- Denney Road-Hart Road from Scholls Ferry to 185th

The time period observed was the weekday evening peak period. The results of these travel time runs are shown in Table 3-1 and Figure 3-4. In general, it is possible to get across town in Beaverton (either north/south or east/west) in approximately 15 to 20 minutes. This translates to average speeds of about 20 to 25 miles per hour, including delays at traffic signals and stop signs. Travel time along urban arterials can also be used as a measure of level of service.¹ Compared to capacity analysis, the average travel speed can help identify congested areas. Murray Boulevard, Cedar Hills Boulevard-Hall Boulevard, Canyon Road-TV Highway, and Denney Road-Hart Road were surveyed in both 1996 and 2000. On the average, average travel speeds on these corridors have decreased by 2-5 mph over the 4-year period. These deteriorations correspond to increases in traffic on cross streets as well as the corridors themselves.

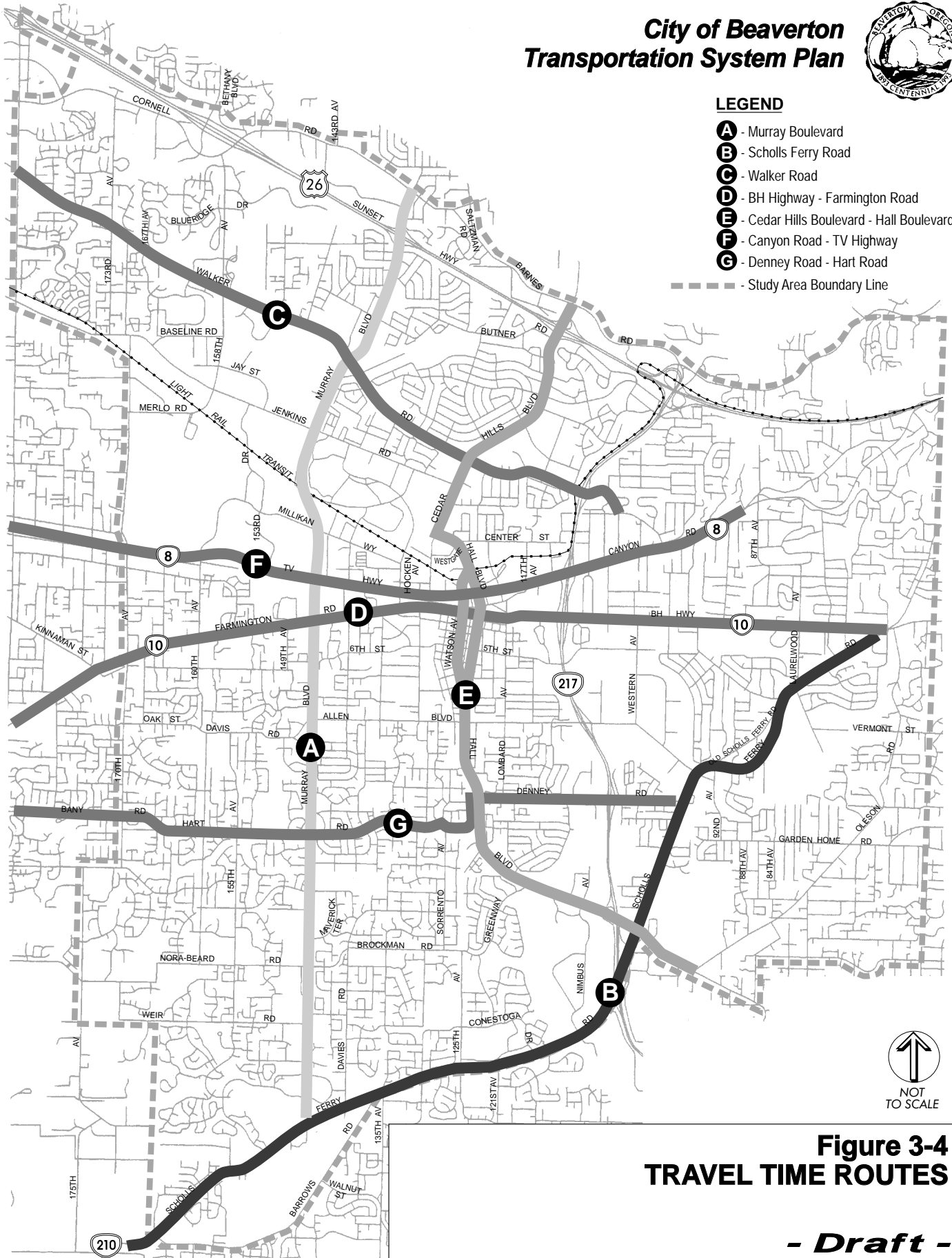
¹ 1998 *Highway Capacity Manual*, Special Report 209, Transportation Research Board, Washington D.C., 1998, Chapter 11.

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LEGEND

- A** - Murray Boulevard
- B** - Scholls Ferry Road
- C** - Walker Road
- D** - BH Highway - Farmington Road
- E** - Cedar Hills Boulevard - Hall Boulevard
- F** - Canyon Road - TV Highway
- G** - Denney Road - Hart Road
- - Study Area Boundary Line



**Figure 3-4
TRAVEL TIME ROUTES**

- Draft -

**Table 3-1
Travel Time Surveys**

Route	Direction	Distance (miles)	Time (minutes)	Average Speed (mph)
Murray Boulevard	Southbound	6.2	19	20
(from Cornell to Scholls Ferry)	Northbound	6.2	16	23
Scholls Ferry Road	Westbound	7.1	18	24
(from BH Hwy to Beef Bend)	Eastbound	7.1	19	22
Walker Road	Westbound	5.4	15	22
(from 106 th to Stucki)	Eastbound	5.4	16	20
Beaverton Hillsdale Highway – Farmington Road	Westbound	7.3	20	22
(from Scholls Ferry to 209 th)	Eastbound	7.3	22	20
Cedar Hills Boulevard – Hall Boulevard	Southbound	5.7	28	12
(from Barnes to Oleson)	Northbound	5.7	18	19
Canyon Road – TV Highway	Westbound	4.8	15	20
(from 91 st to 185 th)	Eastbound	4.8	15	19
Denney Road – Hart Road	Westbound	4.7	14	21
(from Scholls Ferry to 185 th)	Eastbound	4.7	12	24
Arterial level of service D (for a class II arterial)*	-			>17 MPH

*Class II indicates an arterial that has free flow speeds in the 35-45 mph range

Traffic Control

The existing traffic signals in the Beaverton Transportation System Plan study area were updated with information provided by the City of Beaverton. The current existing traffic signals are shown in Figure 3-5. There were several removals, conversions, and additions of traffic signals from the 1996 conditions to the 2000 existing conditions. The flashing signal on Allen between Wilson and Menlo was removed. The pedestrian signal at 155th Avenue/Sexton Mountain was converted to an all-way flasher. A new signal was constructed at Watson Avenue/3rd Street.

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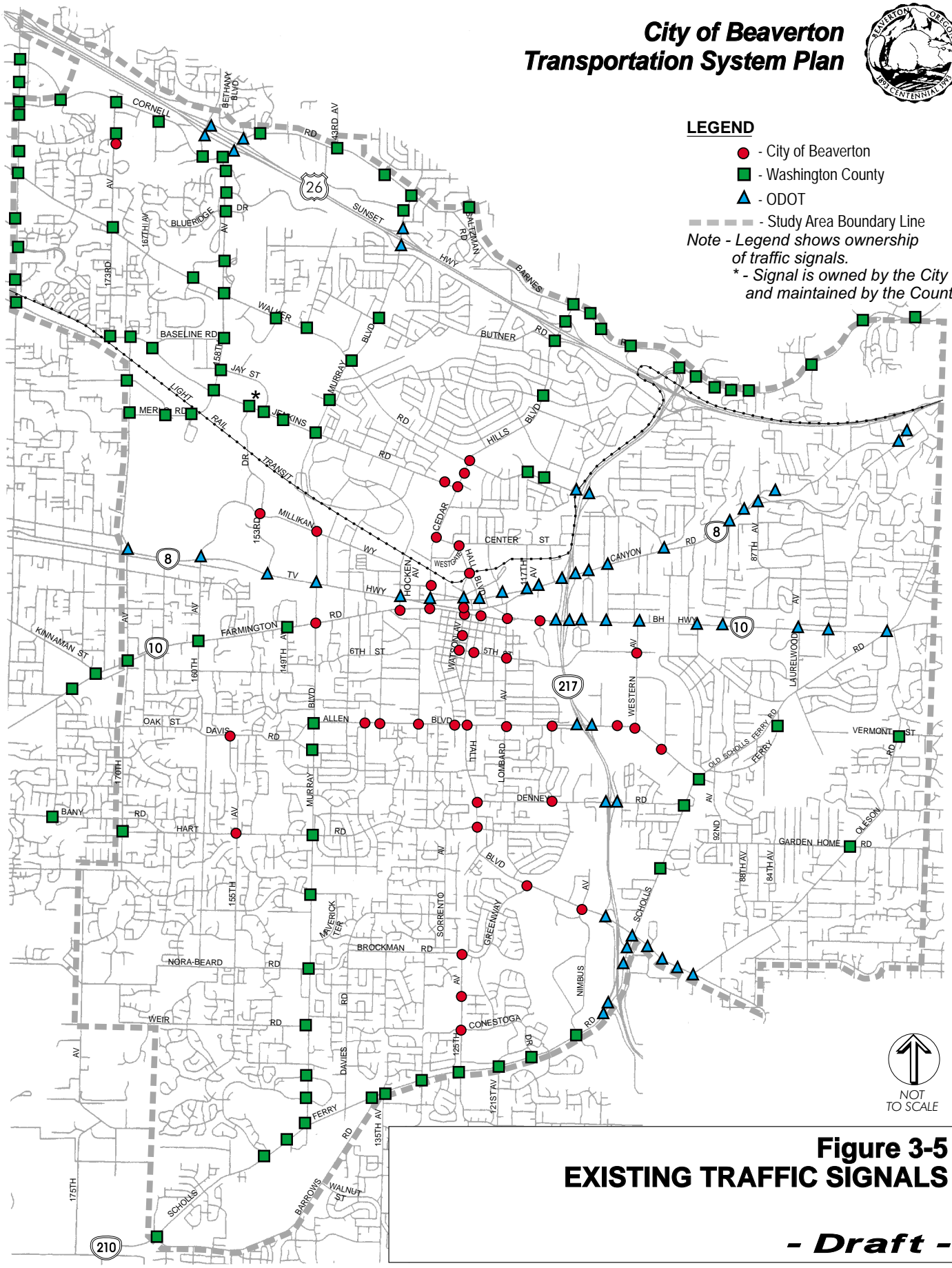
LEGEND

- - City of Beaverton
- - Washington County
- ▲ - ODOT

--- - Study Area Boundary Line

Note - Legend shows ownership of traffic signals.

* - Signal is owned by the City and maintained by the County



**Figure 3-5
EXISTING TRAFFIC SIGNALS**

- Draft -

Traffic Levels of Service

Level of Service (LOS) is used as a measure of effectiveness for intersection operation. It is similar to a “report card” rating based upon average vehicle delay. Level of Service A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. Level of Service D and E are progressively worse peak hour operating conditions. Level of Service F represents conditions where average vehicle delay exceeds 80 seconds per vehicle entering a signalized intersection and demand has exceeded capacity. This condition is typically evident in long queues and delays. Level of service D or better is generally the accepted standard for signalized intersections in urban conditions. Unsignalized intersections provide levels of service for major and minor street turning movements. For this reason, LOS E and even LOS F can occur for a specific turning movement; however, the majority of traffic may not be delayed (in cases where major street traffic is not required to stop). LOS E or F conditions at unsignalized intersections generally provide a basis to study intersections further to determine availability of acceptable gaps, safety and traffic signal warrants. A summary of the descriptions for level of service for signalized and unsignalized intersections is provided in the Level of Service Descriptions in the Beaverton Transportation System Plan technical appendix.

Intersection turn movement counts were conducted during the evening peak periods to determine the existing 2000 LOS based on the *2000 Highway Capacity Manual* methodology for signalized and unsignalized intersections² (see Appendix L for descriptions). Traffic counts and level of service calculation sheets can be found in the appendix.

The following sections describe existing conditions along several key corridors in Beaverton. Tables 3-2 to 3-6 provide a summary of the updated PM peak hour levels of service for the study intersections in Beaverton. Most intersections operate at LOS D or better, with some exceptions.

Scholls Ferry Road

Fourteen signalized intersections were analyzed along the Scholls Ferry corridor. Three of the intersections operate at a LOS of B, and six operate at a LOS of C. The remaining five intersections operate at a LOS of D or E. The unsignalized intersections of Scholls Ferry/Davies Road and Scholls Ferry/Laurelwood operate at a LOS of F for the minor street left turns. The current intersection operations indicate an increase in delay from the 1996 conditions. The 1996 existing conditions showed that one intersection operated at a LOS of B, four operated at a LOS of C, five operated at a LOS of D, and none operated at a LOS of E or F. Table 3-2 shows the existing conditions along the Scholls Ferry corridor.

² *2000 Highway Capacity Manual*, Transportation Research Board, 2000.

Table 3-2
Existing PM Peak Hour Intersection Level of Service
Study Intersections Along Scholls Ferry Road

Intersection	Level of Service	Average Delay	Volume / Capacity
Murray/Scholls Ferry	C	32.0	0.70
Scholls Ferry/121 st	D	40.4	0.96
Scholls Ferry/125 th	D	41.6	0.92
Scholls Ferry/135 th	B	18.4	0.70
Scholls Ferry/Allen	E	64.5	0.98
Scholls Ferry/Barrows	B	17.3	0.69
Scholls Ferry/Cascade	C	23.8	0.76
Scholls Ferry/Conestoga	B	10.3	0.72
Scholls Ferry/Davies	C/F		
Scholls Ferry/Denney	C	24.6	0.75
Scholls Ferry/Hall	E	65.9	0.99
Scholls Ferry/Nimbus	D	53.6	0.99
Scholls Ferry/Laurelwood	B/F		
Scholls Ferry/ORE 217 northbound off ramp	C	22.2	0.71
Scholls Ferry/ORE 217 northbound on ramp	C	30.3	0.78
Scholls Ferry/ORE 217 southbound ramp	C	31.6	0.76

TV Highway/Canyon Road

Thirteen intersections were analyzed along the TV Highway/Canyon Road corridor. The only intersections with an existing operation of LOS E were 170th/TV Highway and Murray/TV Highway. The other intersections operated at a LOS of D or better, with two at a LOS of B and seven at a LOS of C. The 1996 conditions showed similar results, with two intersections operating at a LOS of B, six operating at a LOS of C, four operating at a LOS of D, and one operating at a LOS of E. Table 3-3 shows the existing conditions along the TV Highway/Canyon Road corridor.

Table 3-3
Existing PM Peak Hour Intersection Level of Service
Study Intersections Along TV Highway/Canyon Road

Intersection	Level of Service	Average Delay	Volume / Capacity
170 th /TV Hwy	E	63.1	1.00
160 th /TV Hwy	D	49.6	0.97
Canyon/114 th	A/C		
Canyon/117 th	C	22.9	0.66
Canyon/87 th	B	18.7	0.68
Canyon/Cedar Hills	C	34.1	0.85
Canyon/Hall	C	22.9	0.80

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Intersection	Level of Service	Average Delay	Volume / Capacity
Canyon/Watson	B	16.8	0.68
Canyon/Lombard	C	21.2	0.66
Canyon/Hocken	D	38.3	0.90
Canyon/ORE 217 northbound ramp	C	24.9	0.66
Canyon/ORE 217 southbound ramp	C	24.3	0.67
TV Hwy/Murray	E	65.1	1.00

Farmington Road/Beaverton Hillsdale Highway

Twelve intersections were analyzed along the Farmington Road/Beaverton-Hillsdale Highway corridor. The only intersection with an existing operation of LOS E or F was Murray/Farmington. The other intersections operated at a LOS of C. The 1996 conditions showed similar levels of delay, with three intersections operating at a LOS of B, seven operating at a LOS of C, three operating at a LOS of D, and one operating at a LOS of E. Table 3-4 shows the existing conditions along the Farmington Road/Beaverton-Hillsdale Highway Corridor.

Table 3-4
Existing PM Peak Hour Intersection Level of Service
Study Intersections Along Farmington Road/Beaverton-Hillsdale Highway

Intersection	Level of Service	Average Delay	Volume / Capacity
170 th /Farmington	C	26.1	0.60
BH Hwy/Griffith	C	31.0	0.81
BH Hwy/Laurelwood	C	26.2	0.80
BH Hwy/Western	C	33.7	0.87
Farmington/Cedar Hills	C	27.2	0.90
Farmington/Hall	C	25.4	0.85
Farmington/Hocken	C	22.6	0.84
Farmington/Lombard	C	30.7	0.78
Farmington/ORE 217 northbound ramp	C	34.9	0.94
Farmington/ORE 217 southbound ramp	C	25.6	0.73
Farmington/Watson	C	24.2	0.77
Murray/Farmington	F	89.4	1.00

The other study intersections had operations ranging from a LOS of B to a LOS of F. Five intersections operate at a LOS of B, twenty-three operate at a LOS of C, twelve operate at a LOS of D, and the remaining intersections operate at a LOS of E or F. Comparatively, the 1996 conditions showed that of the remaining study intersections, one operated at a LOS of A, nine operated at a LOS of B, fifteen operated at a LOS of C, thirteen operated at a LOS of D, two operated at a LOS of E, and six operated at a LOS of F. Table 3-5 shows the existing conditions at the remaining study intersections.

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**Table 3-5
Existing PM Peak Hour Intersections Level of Service
Study Intersections**

Intersection	Level of Service	Average Delay	Volume / Capacity
158 th /Blueridge	C	26.3	0.71
158 th /Cornell	C	27.1	0.78
158 th /Jay	C	26.4	0.60
158 th /Jenkins	D	38.2	0.86
158 th /Walker	E	61.3	1.00
170 th /Baseline	C	21.2	0.58
170 th /Oak	A/F		
170 th /Merlo	C	22.4	0.63
170 th /Hart/Bany	F	77.3	1.17
173 rd /Walker	E	63.4	0.98
Allen/ORE 217 northbound ramp	C	25.5	0.81
Allen/ORE 217 southbound ramp	C	34.2	0.88
Allen/Western	C	28.7	0.73
Cedar Hills/Barnes	E	68.8	1.00
Cedar Hills/Butner	C	34.7	0.83
Cedar Hills/Hall	C	30.9	0.74
Cedar Hills/Jenkins	D	40.0	0.88
Cedar Hills/US 26 eastbound ramps	C/F		
Cedar Hills/US 26 westbound ramps	B	12.8	0.63
Cedar Hills/Walker	E	58.2	1.00
Cornell/143rd	C	25.5	0.80
Cornell/173 rd	D	43.5	0.93
Cornell/Barnes/Saltzman	E	57.3	0.94
Cornell/Bethany	C	30.4	0.76
Denney/ORE 217 northbound ramp	B/F		
Denney/ORE 217 southbound ramp	A/F		
Garden Home/84 th	A/D		
Garden Home/88 th	A/C		
Greenway/125 th	B	17.5	0.52
Hall/Allen	D	44.4	0.91
Hall/Cascade/ORE 217 southbound ramp	D	51.3	0.96
Hall/Center	C	23.8	0.48
Hall/Denney	C	32.4	0.85
Hall/Greenway	E	61.9	1.00
Hall/Nimbus	C	34.3	0.84
Hart/155 th	B	18.2	0.77
Murray/6 th	C/F		
Murray/Allen	D	51.0	0.95

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Intersection	Level of Service	Average Delay	Volume / Capacity
Murray/Brockman/Beard	C	31.4	0.74
Murray/Cornell	E	62.3	0.98
Murray/Hart	D	37.2	0.86
Murray/Jenkins	D	44.5	0.89
Murray/US 26 eastbound ramps	B	15.2	0.55
Murray/US 26 westbound ramps	C	28.1	0.79
Murray/Walker	D	54.2	0.98
Oleson/Garden Home	D	42.8	0.95
Oleson/Vermont	C	25.1	0.76
US 26 eastbound ramp/Bethany	C	22.2	0.66
US 26 eastbound ramp/Cornell	B	17.1	0.66
US 26 westbound ramp/Bethany	D	44.1	0.95
US 26 westbound ramp/Cornell	C	28.4	0.78
Walker/ORE 217 northbound ramp	C	21.1	0.68
Walker/ORE 217 southbound ramp	B	19.4	0.84

Figure 3-6 provides a summary of intersections operating at or near capacity based on level of service calculations. The majority of the study intersections are currently operating at acceptable capacity levels. Table 3-6 provides a list of the intersections operating at capacity under existing conditions, including an indication of how the capacity problem was addressed in the 2015 TSP.

Table 3-6
Intersections Operating at Capacity under Existing Conditions

Intersection	Capacity Issue Improvement Plan
Scholls Ferry/Hall	Addressed in 2015 TSP (add turn lane)
Scholls Ferry/Davies	Addressed in 2015 TSP (Davies improvement)
Scholls Ferry/Allen	Not addressed as a problem in 2015 TSP (acceptable capacity in 2015)
Denney/217 NB ramps	Addressed in 2015 TSP (signalize)
Denney/217 SB ramps	Addressed in 2015 TSP (signalize)
Bany-Hart/170 th	Addressed in 2015 TSP (170 th improvements)
Oak/170 th	Not studied in 2015 TSP (to be addressed in update)
TV Hwy/170 th	Addressed in 2015 TSP (TV Hwy and 170 th improvements)
Murray/6 th	Not addressed in 2015 TSP (construction of a traffic signal planned for summer of 2001)
Farmington/Murray	Addressed in 2015 TSP (Farmington improvement)
Walker/158 th	Addressed in 2015 TSP (add turn lanes)
Walker/Cedar Hills	Addressed in 2015 TSP (add turn lanes)
Murray/TV Highway	Addressed in 2015 TSP (add turn lanes)
Murray/Walker	Addressed in 2015 TSP (Walker improvement)
Cedar Hills/Barnes	Not studied in 2015 (to be addressed in update)
Cornell/Barnes	Not studied in 2015 (to be addressed in update)

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Intersection	Capacity Issue Improvement Plan
Hall/Greenway	Addressed in 2015 TSP (125 th Extension, turn lane)
173 rd /Walker	Addressed in 2015 TSP (Walker and 173 rd Improvements, turn lanes)
Murray/Cornell	Not studied in 2015 (to be addressed in update)

**City of Beaverton
Transportation System Plan**



LEGEND

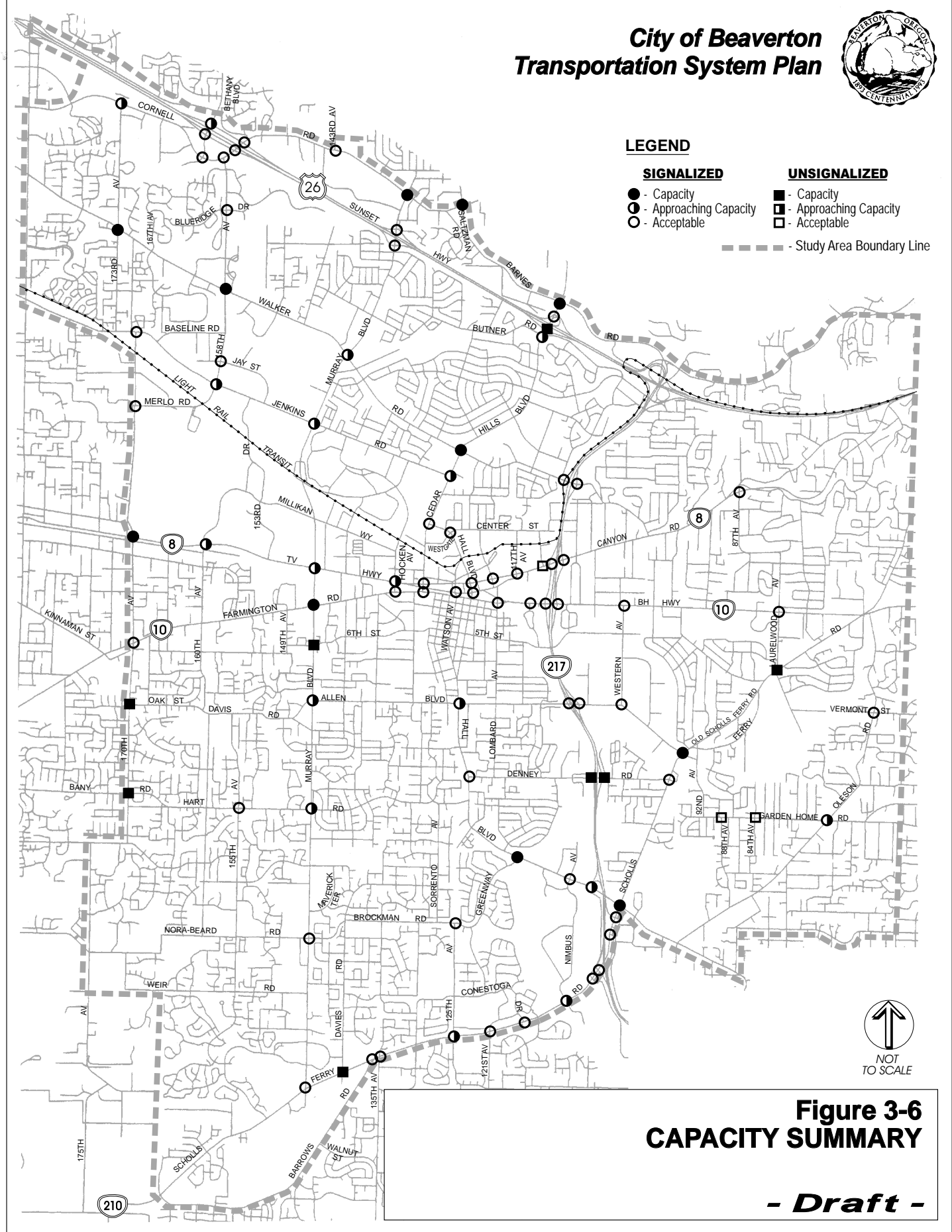
SIGNALIZED

- - Capacity
- ◐ - Approaching Capacity
- - Acceptable

UNSIGNALIZED

- - Capacity
- ◑ - Approaching Capacity
- ◒ - Acceptable

--- Study Area Boundary Line



**Figure 3-6
CAPACITY SUMMARY**

- Draft -

Collisions

Collision data was obtained from Washington County and used to update the high collision intersection list from the 2015 Beaverton Transportation System Plan. The 2015 list contained several of the same intersections as the current list. Intersections that dropped off of the list were likely locations of improvement. Intersections that have been added to the list could have an increase in collision numbers due to an increase in volume and congestion, which can create more conflicts and aggressive driving behavior, or are intersections that are included in this study as part of the new study area. Table 3-7 shows the updated SPIS (Safety Priority Index System, which is a composite number derived from such factors as the number of collisions, type of collisions, injury types, and traffic volume) ranking list (which only includes state and county intersections)³. Figure 3-7 shows the location of the intersections on the study area map. The safety at these intersections should be addressed in this TSP update. Collision data for intersections of two City of Beaverton streets was also collected and analyzed by city staff (using the Washington County methodology). The city street/city street intersection rankings are located in appendix M. Not one of the city street city street intersections calculated would rank 10th or higher in the SPIS rankings shown in Table 3-7.

Table 3-7
SPIS Ranking of Ten Highest Beaverton TSP Study Area Intersections

Ranking	Street	Cross Street	Number of Collisions (1997-1999)
1*	Baseline Road	185 th Avenue	100
2	Murray Boulevard	TV Highway	133
4	Hall Boulevard	Scholls Ferry Road	85
5	Millikan Way/160 th	TV Hwy	37
6	BH Highway	Scholls Ferry Road	47
8	Farmington Road	170 th Avenue	31
9	Nimbus Avenue	Scholls Ferry Road	50
10	TV Hwy (Canyon Rd)	110 th Avenue	29
12	Garden Home Road	Oleson Avenue	40
13	Farmington Road	Murray Boulevard	74

*Note that the intersection of Baseline/185th Avenue ranked higher than the intersection of Murray/TV Highway due in part to a larger number of fatal/major injury collisions (4 compared to 0).

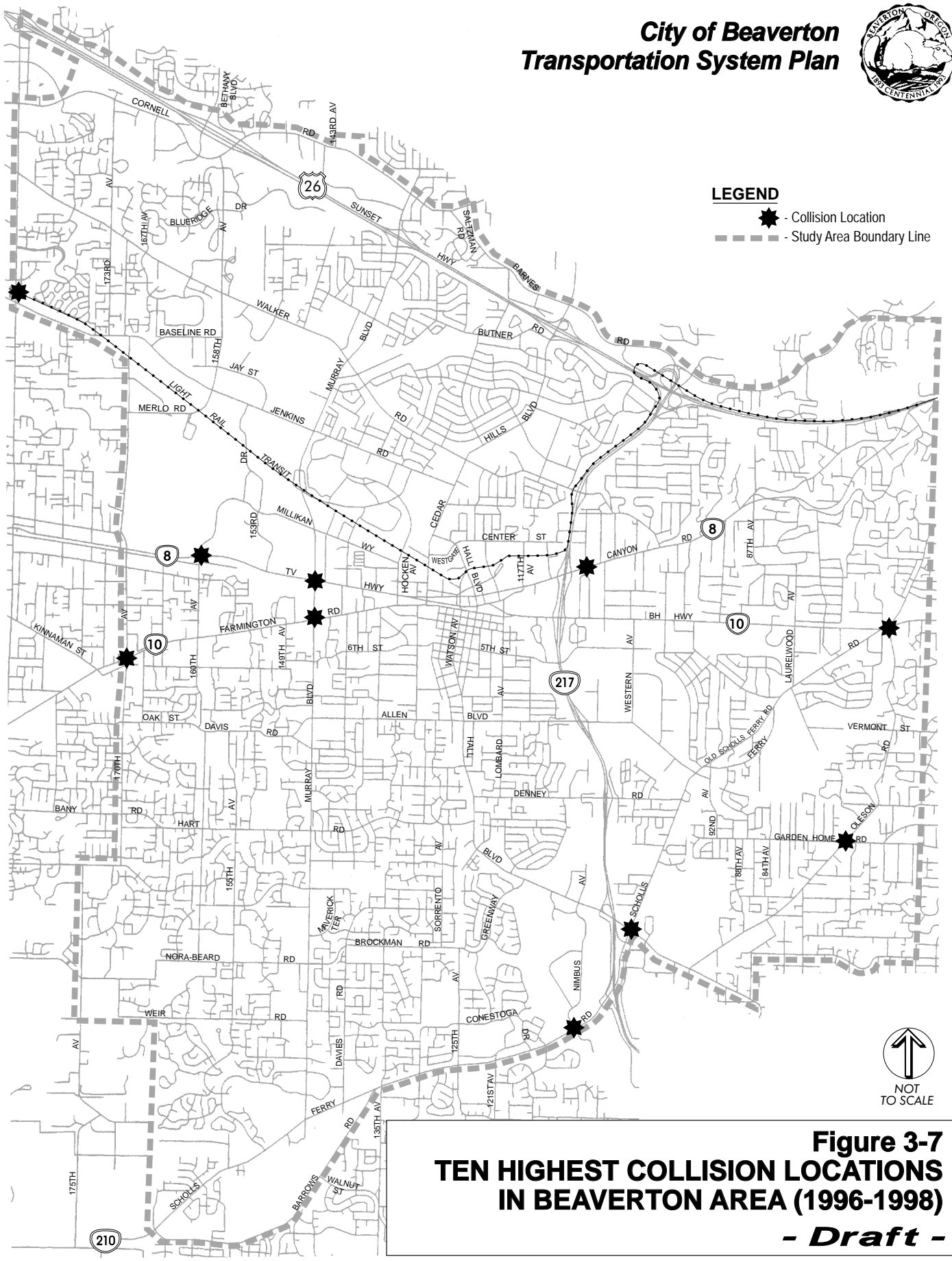
³ Note that calculations are based only on officially reported collisions.

**City of Beaverton
Transportation System Plan**



LEGEND

- ★ - Collision Location
- - - - - Study Area Boundary Line



**Figure 3-7
TEN HIGHEST COLLISION LOCATIONS
IN BEAVERTON AREA (1996-1998)
- Draft -**

Transit

Transit service is provided to Beaverton by the Tri-County Metropolitan District of Oregon (Tri-Met). There have been significant changes to the transit system since the 2015 Beaverton Transportation System Plan Study, mainly because of the West-Side Light Rail Project. Figure 3-8 shows current Tri-Met bus routes. Weekday bus boarding information was received from Tri-Met and reflects the current 2000 census. Table 3-8 shows that ridership has changed significantly for the routes serving Beaverton since the 2015 TSP. Many of the routes have gained ridership, while some have decreased due to the light rail. Table 3-9 shows the average headway and rider boarding frequency for Tri-Met routes serving Beaverton. All of the existing routes exceed the Tri-Met minimum boardings per revenue hour performance standard of 10 boarding per revenue hour. All of the transit routes operate at headways of 30 minutes or better during both the AM and PM peak hours, with the exception of route 54 (Beaverton-Hillsdale) which operates with a headway of 60 minutes during the PM peak hour. Headways of 30 minutes or better correspond to a LOS of D or better as defined in *the 2000 Highway Capacity Manual* methodology⁴. Headways of 60 minutes are defined as the LOS of E/F threshold.

Figure 3-9 shows the transit coverage of transit supportive land use in the Beaverton area. The 2000 *Highway Capacity Manual* defines transit supportive areas as having either a household density of 3 HH/acre or an employment density of 4 EMP/acre⁵. The 1994 Metro Travel Demand Model Land Use was used to define existing conditions. The transit coverage area (transit buffer) is defined as 0.25 miles from a bus stop, 0.25 miles from a transit shuttle service area, and 0.50 miles from a LRT station. The existing transit coverage is fairly good in Beaverton, with approximately 85% of the transit supportive zones (8,450 of 9,980 acres) covered within the transit buffer. However, there are small pockets that do not have walking access to transit and therefore do not meet the 2015 Beaverton TSP goal of providing coverage within one-quarter mile to all of Beaverton.

⁴ 2000 *Highway Capacity Manual*, Transportation Research Board, 2000, Chapter 27.

⁵ *Ibid.*

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**Table 3-8
Average Weekday Boarding Rides System-wide for Tri-Met Routes serving Beaverton**

Route	93-94	94-95	95-96	1999	2000
MAX				58,712	
Nimbus Shuttle					
20 East/West Burnside	4,736	6,121	6,385	6,307	6,310
43 Taylors Ferry Road				942	789
45 Garden Home				1,327	1,274
47 Baseline-Evergreen				524	528
48 Cornell				454	573
50S Cornell Oaks				80	120
52 Farmington-185 th	1,582	1,781	1,911	2,886	3,058
53S Arctic-Allen				221	166
54 Beaverton-Hillsdale	2,203	2,395	2,421	2,512	2,712
55 Hamilton				434	385
56 Scholls Ferry Road	1,908	2,174	2,256	2,088	2,197
57 Forest Grove	7,389	8,615	8,525	5,634	6,496
58 Canyon Road				2,217	2,100
59 Cedar Hills	1,709	1,716	1,664	330	374
60 Leahy road	141	117	115	54	46
61X Marquam Hill-Beaverton				236	283
62 Murray Boulevard	675	786	791	1,987	2,280
67 Beaverton-Cedar Hill	1,143	1,324	1,062	712	886
76 Tigard-Tualatin	404	610	697	2,318	2,448
78 Beaverton-Lake Oswego	2,131	2,823	3,190	2,239	2,190
88 Hart-198 th				1,176	1,350
89 Tanasbourne				698	724
91X TV HWY Express	786	890	975	n/a	n/a
92X South Beaverton Express	n/a	608	691	552	569
94X Walker Road Express	n/a	441	n/a	n/a	n/a

Note: census data from routes that did not yet exist or were discontinued is shown as n/a (not available), unavailable data is denoted by a gray cell

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**Table 3-9
Existing Weekday System-Wide Frequency (minutes) and Average System-Wide Boarding Rates for Tri-Met Routes Serving the Beaverton Area**

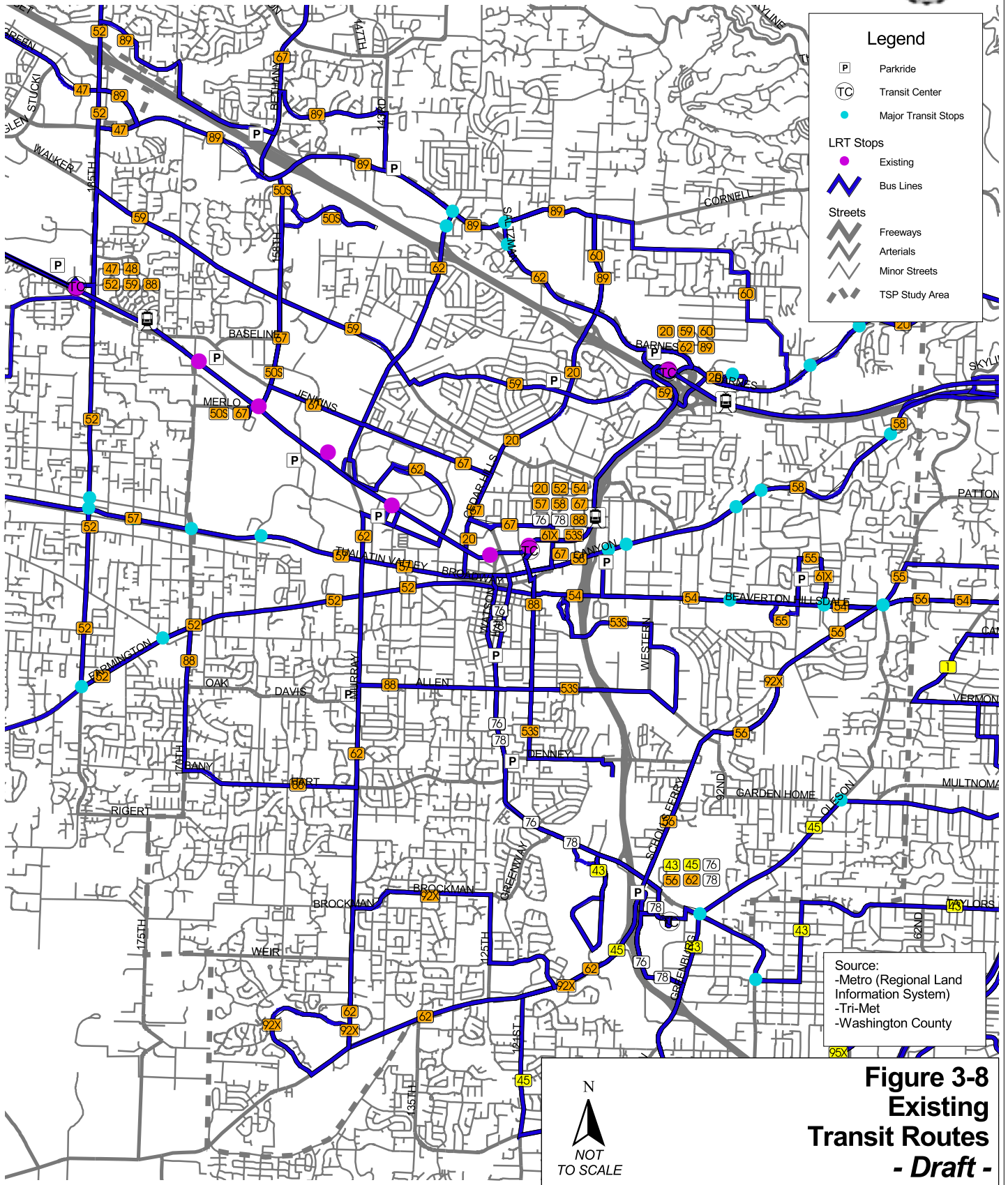
Route	7 am-8:30 am	8:30am-4 pm	4 pm-6 pm	6 pm – 9:30 pm	9:30pm-Mid	Boarding Rides/Revenue Hour
MAX	7	10	7	15	15/30	n/a
Nimbus Shuttle	n/a	n/a	n/a	n/a	n/a	n/a
20 East/West Burnside*	15	15	15	15	30	49.8
43 Taylors Ferry Road	30	60	30	-	-	30.5
45 Garden Home	20	60	25	60	-	32.4
47 Baseline-Evergreen	30	60	30	-	-	
48 Cornell	30	30	30	60	-	
50S Cornell Oaks	30	-	30	-	-	17.2
52 Farmington-185 th *	15	15	15	30	60	41.5
53S Arctic-Allen*	30	-	30	-	-	20.7
54 Beaverton-Hillsdale	20	30	60	60	60	48.3
55 Hamilton	30	-	25	-	-	21.3
56 Scholls Ferry Road	15	30	15	60	60	43.0
57 Forest Grove	15	15	15	30	30	37.1
58 Canyon Road	15	30	15	30	-	27.2
59 Cedar Hills	30	30	30	60	-	28.2
60 Leahy road	30	-	30	-	-	28.0
61X Marquam Hill-Beaverton	30	-	30	-	-	29.7
62 Murray Boulevard	15	30	15	30	-	36.4
67 Beaverton-Cedar Hill	30	30	30	60	-	32.4
76 Tigard-Tualatin	25	30	30	60	-	34.2
78 Beaverton-Lake Oswego	20	30	20	60	60	36.1
88 Hart-198 th	30	30	30	60	-	38.2
89 Tanasbourne*	30	30	30	60	-	22.4
92X South Beaverton Express	15	-	15	-	-	32.1

Source: Transit Choices for Livability Handbook, Tri-Met, Tables 1 and 2.

*Less frequent service provided to portion or end of route

Figure 3-10 shows the existing transit shelters and bus stops in the Beaverton TSP Study Area. Tri-Met's most recent passenger census was used to determine boarding at each bus stop⁶. Bus stops with boardings of at least 35 passengers per day meet Tri-Met's criteria for consideration of bus shelter locations.

⁶ Spring 2000 Passenger Census, Tri-Met, 2000.



City of Beaverton
Transportation System Plan

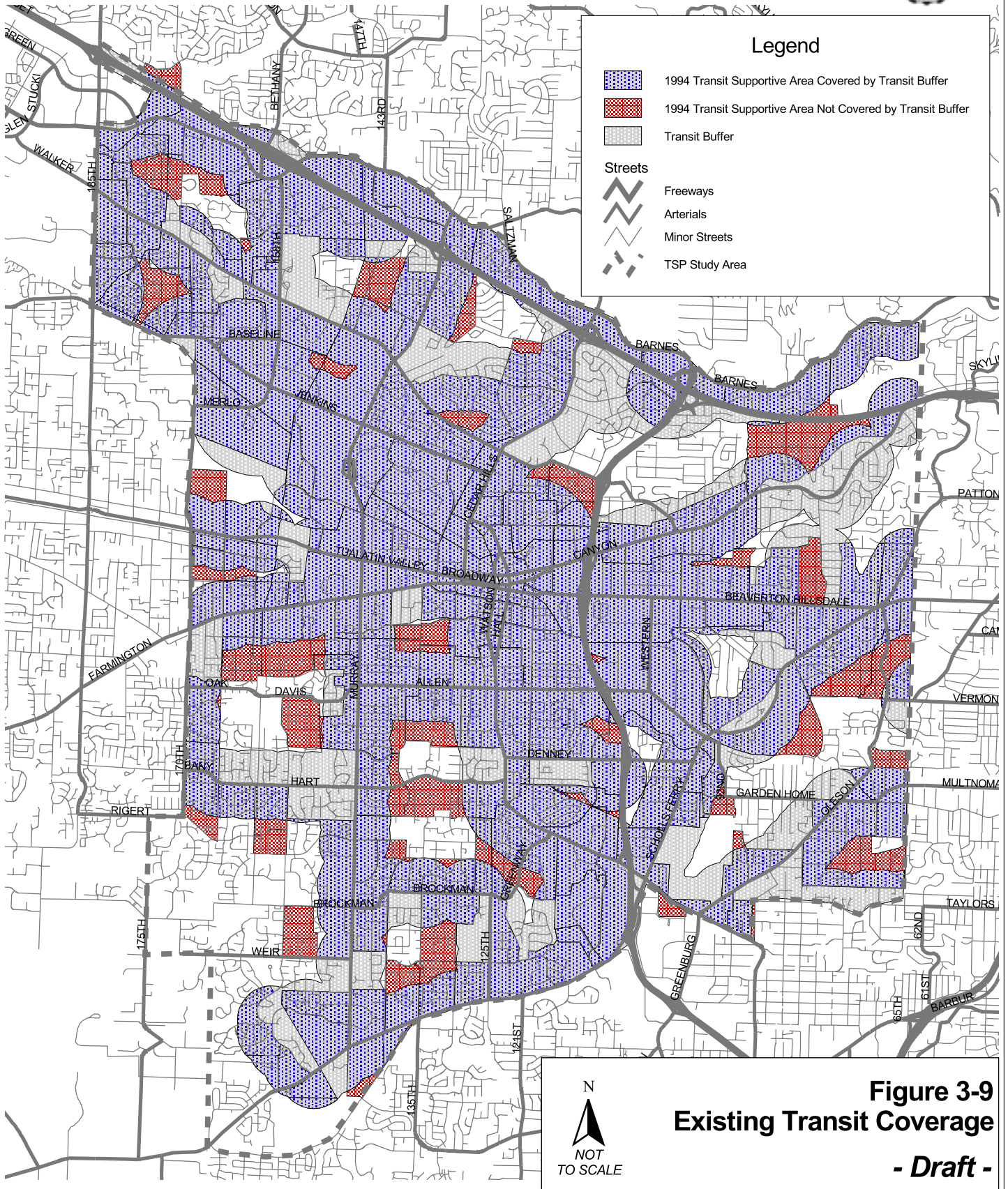
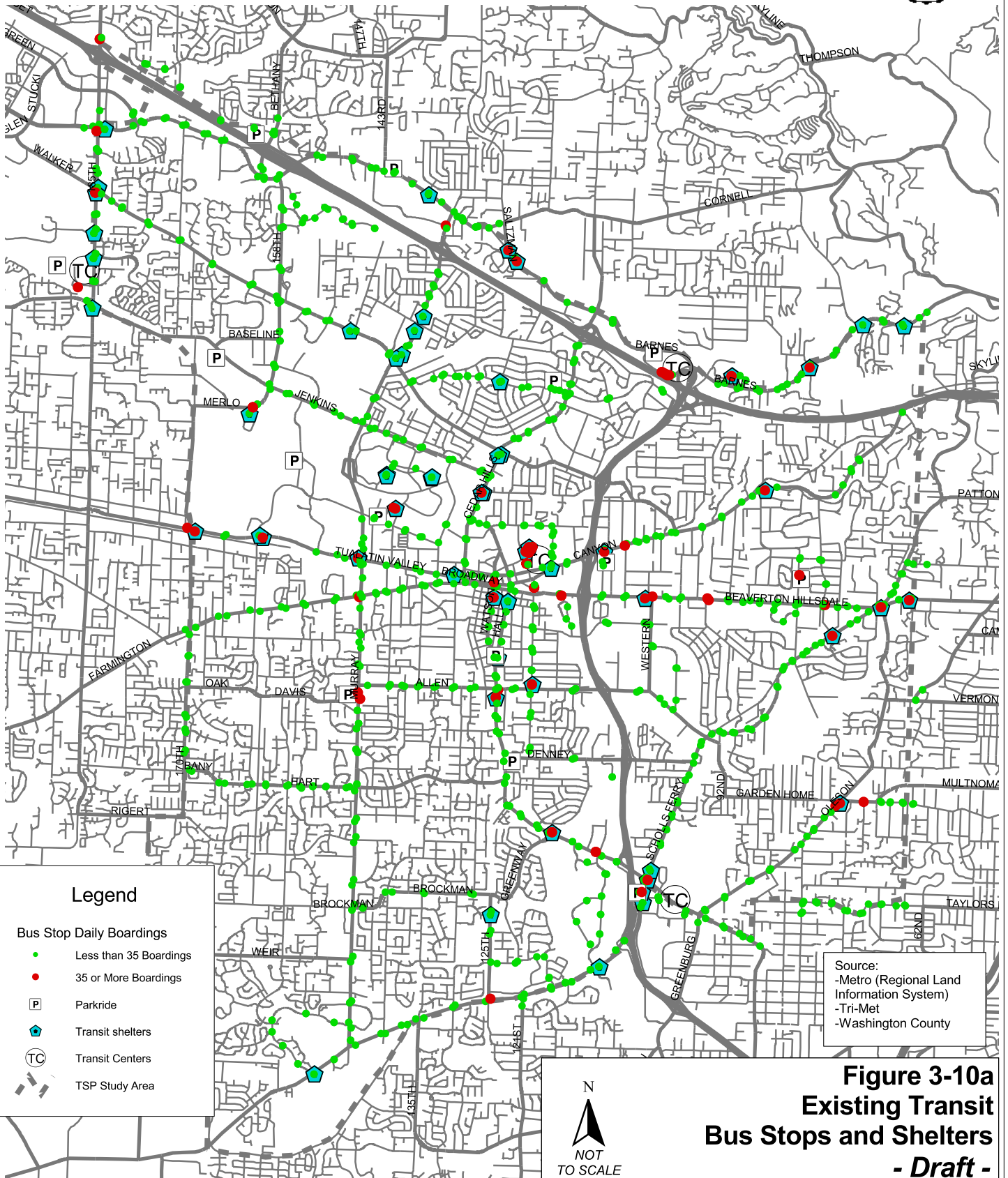
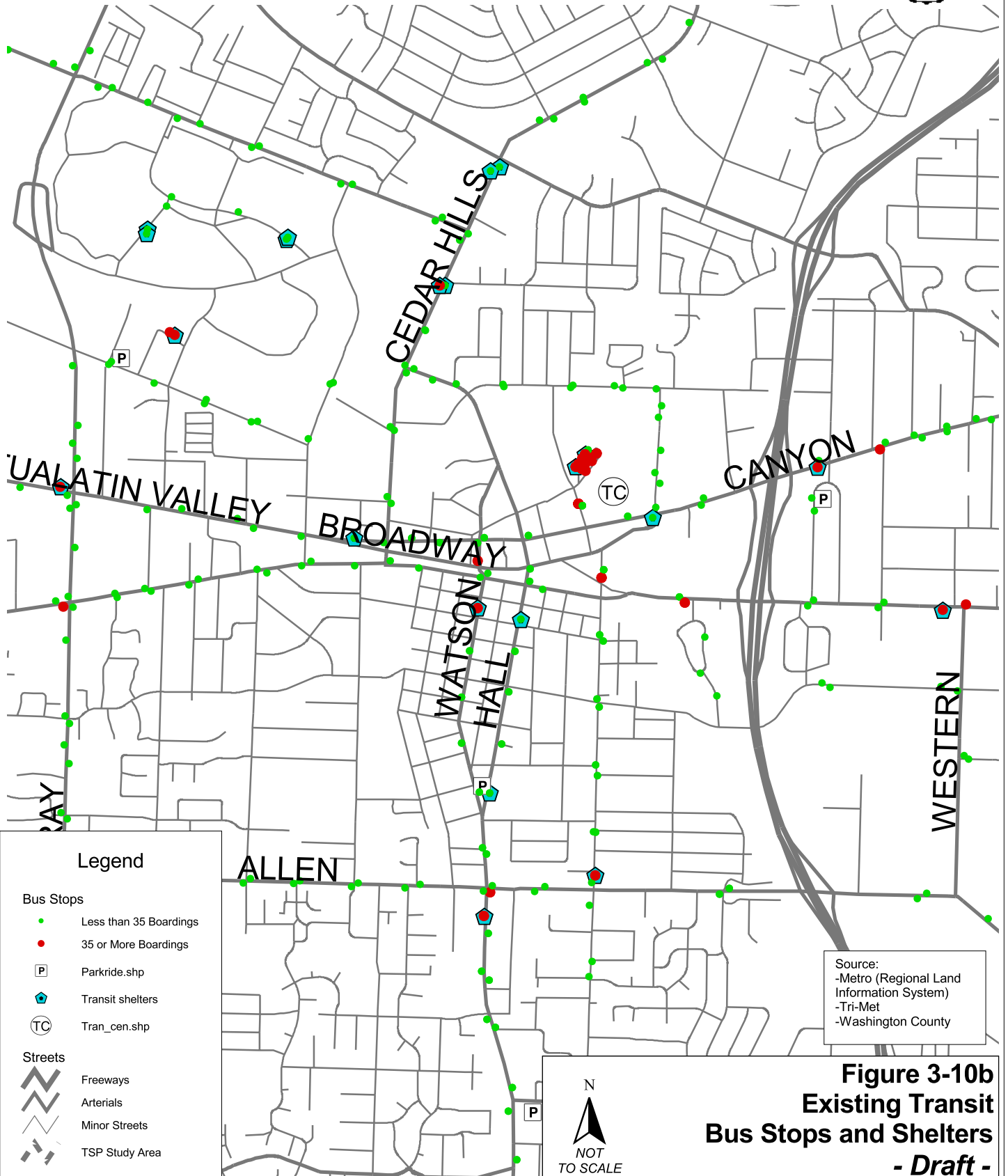


Figure 3-9
Existing Transit Coverage
- Draft -



Source:
-Metro (Regional Land Information System)
-Tri-Met
-Washington County

Figure 3-10a
Existing Transit
Bus Stops and Shelters
- Draft -



Source:
-Metro (Regional Land Information System)
-Tri-Met
-Washington County



Figure 3-10b
Existing Transit
Bus Stops and Shelters
- Draft -

Bicycle

Bicycle counts were conducted during the evening peak period (4:00 to 6:00 PM) at the study intersections in Beaverton and are shown in Figure 3-11. The updated existing bike lanes, designated bikeways and off-street bike pathways are shown in Figure 3-12. The designated bikeway facilities may or may not have future bike lanes.

There is limited connectivity for bicyclists traveling to activity centers in Beaverton. However, there are two primary north/south routes (Murray Boulevard and Hall Boulevard between Washington Square and Farmington Road) and three primary east/west routes (Scholls Ferry Road, Brockman Road and 5th Street) in Beaverton. Bike lane gaps on Cedar Hills Boulevard, TV Highway, and Farmington Road should be addressed to provide connectivity for bicyclists on the arterials in the City of Beaverton.

Bicycles are permitted on all roadways in the City except for the ORE 217 freeway. Bicycle use in Beaverton is generally for recreational, school and commuting purposes. The City includes lands owned and maintained by the Tualatin Hills Park and Recreation District that provide several off-street bike paths in Beaverton for bicyclists and pedestrians. The Tualatin Hills Park and Recreation District has completed a master plan that includes many proposed trails in Beaverton.

Pedestrians

Figure 3-14 shows the updated existing sidewalks on arterial and collector streets in Beaverton. A majority of arterial and collector streets in Beaverton have sidewalks on at least one side of the street. There are some locations where sidewalks are not connected; however, connectivity and pedestrian linkages are relatively good. In addition, besides the facilities that are shown on this map, many residential streets also have sidewalks.

Pedestrian counts were updated with the current intersection PM peak turn movement counts. The updated pedestrian movement counts are shown in Figure 3-13. The current counts were broken down into the peak hour count for pedestrians, while the 2015 TSP used the peak period (4-6 PM) for pedestrian volumes. Therefore, the current volumes reflect a smaller time interval than the 2015 TSP data. The major change to pedestrian volume in the downtown Beaverton area is related to the new light rail station, which is a large pedestrian generator. The most significant pedestrian movements occur in the Beaverton downtown area on TV Highway, Cedar Hills Boulevard, Farmington Road and Hall Boulevard.

Sidewalks at least five feet wide are required in all new development. Existing roadways that do not have sidewalks are being retrofitted where terrain and right-of-way make it economically

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feasible to do so. All newly constructed sidewalks include wheelchair ramps at intersections to permit easy ingress/egress for wheelchairs. In addition to paved sidewalks, pedestrian paths are included in many of the City's parks, open spaces and greenways, including the Tualatin Hills Park and Recreation District pathways. The most important needs are to fill in the gaps on the arterial system such as on TV Highway and Farmington Road. However, the City of Beaverton should work to continue increasing the sidewalk coverage on all arterials, collectors, and residential streets in the Beaverton area.

Trucks

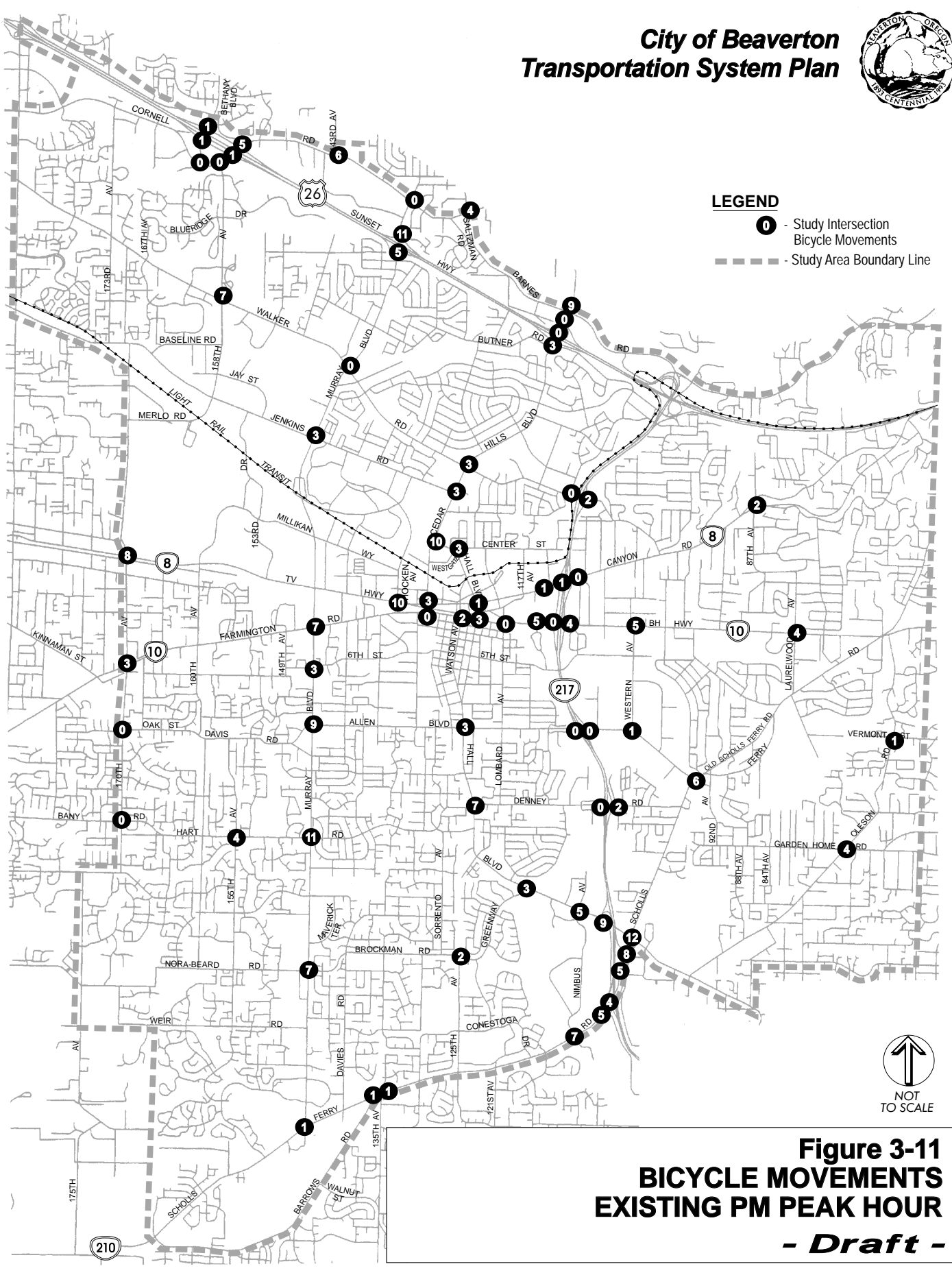
The truck percentages (heavy vehicles) as a portion of through traffic at the study intersections were updated with the current turn movement counts. The current truck percentages, which range from 0 to 4 percent, are shown on Figure 3-15. Overall, the truck percentages have not changed significantly from the 1996 data. Existing through truck routes are shown in Figure 3-16.

**City of Beaverton
Transportation System Plan**



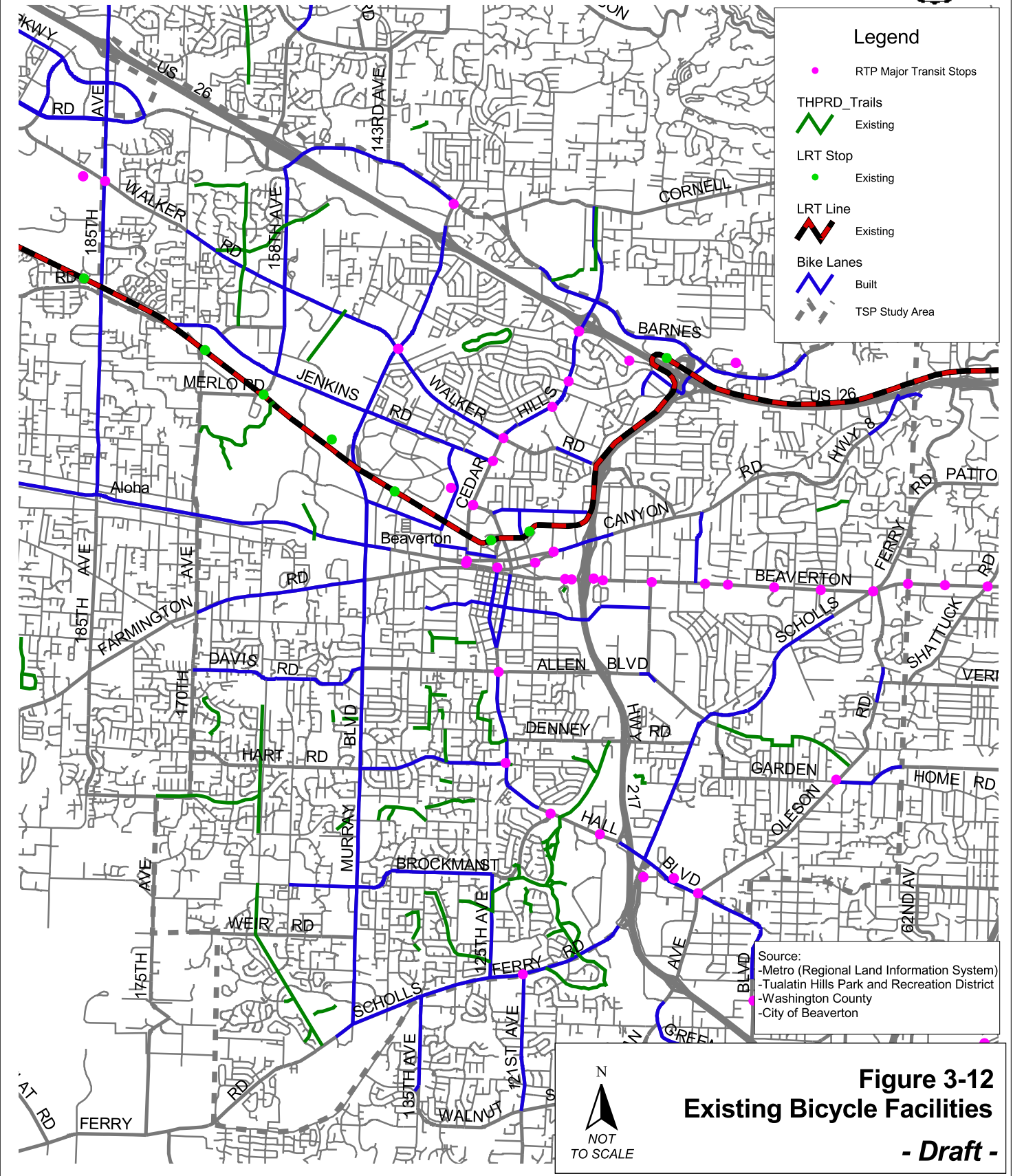
LEGEND

- 0** - Study Intersection
Bicycle Movements
- - Study Area Boundary Line



**Figure 3-11
BICYCLE MOVEMENTS
EXISTING PM PEAK HOUR
- Draft -**

City of Beaverton
Transportation System Plan



Legend

- RTP Major Transit Stops
- THPRD_Trails Existing
- LRT Stop Existing
- LRT Line Existing
- Bike Lanes Built
- TSP Study Area

Source:
 -Metro (Regional Land Information System)
 -Tualatin Hills Park and Recreation District
 -Washington County
 -City of Beaverton




Figure 3-12
Existing Bicycle Facilities
 - Draft -

**City of Beaverton
Transportation System Plan**



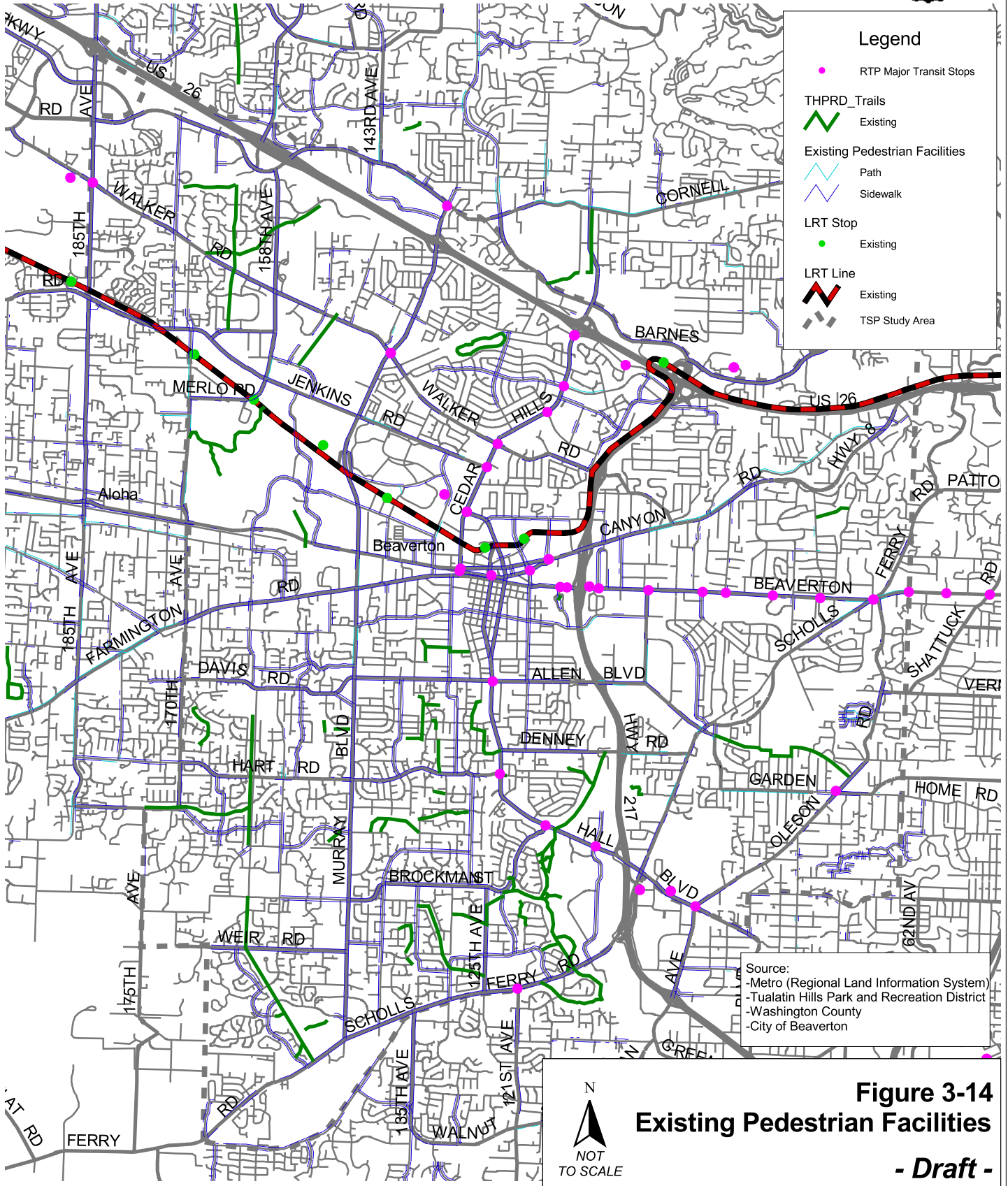
LEGEND

-  - Study Intersection Pedestrian Movements
-  - Study Area Boundary Line



**Figure 3-13
PEDESTRIAN MOVEMENTS
EXISTING PM PEAK HOUR
- Draft -**

City of Beaverton
Transportation System Plan

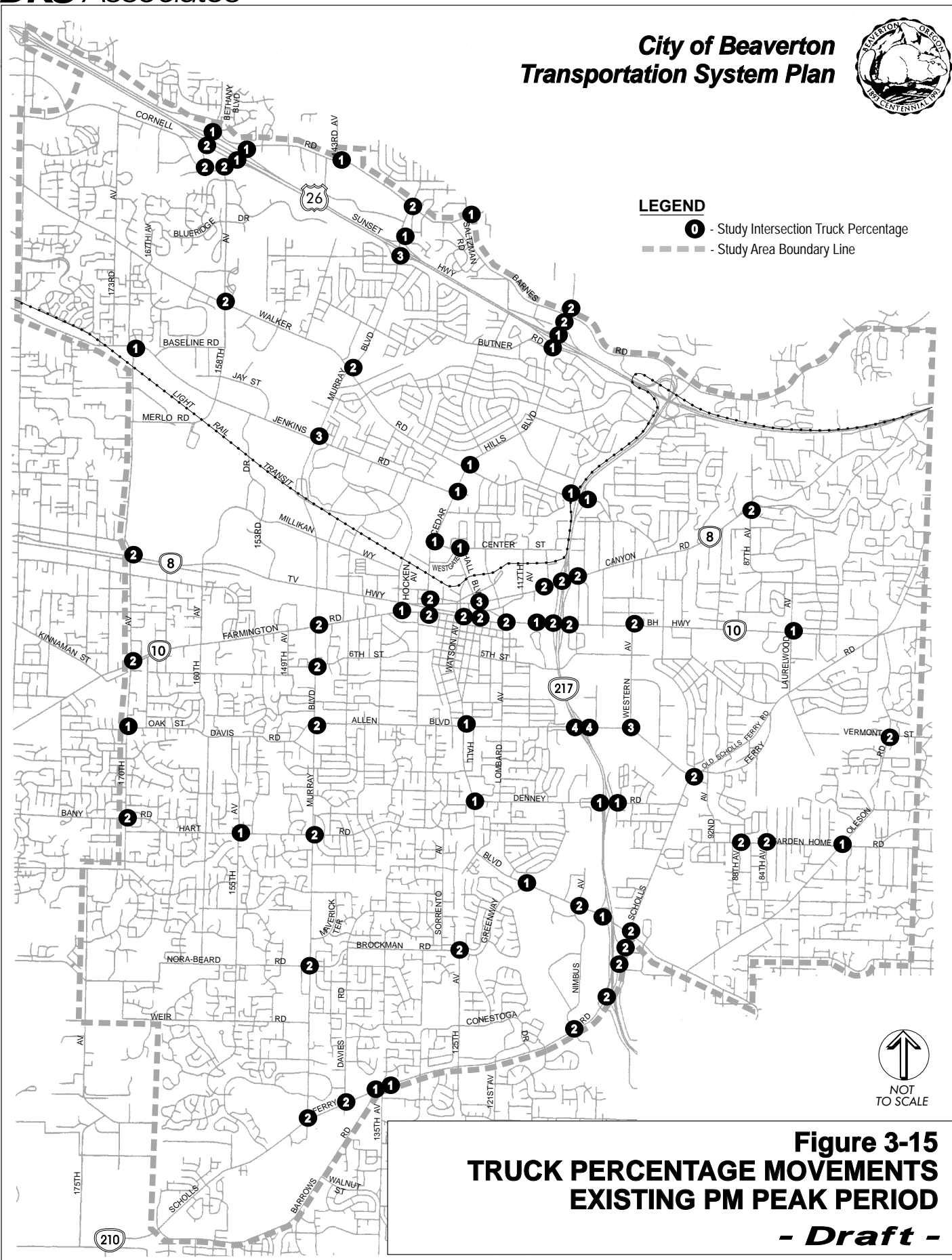


City of Beaverton Transportation System Plan



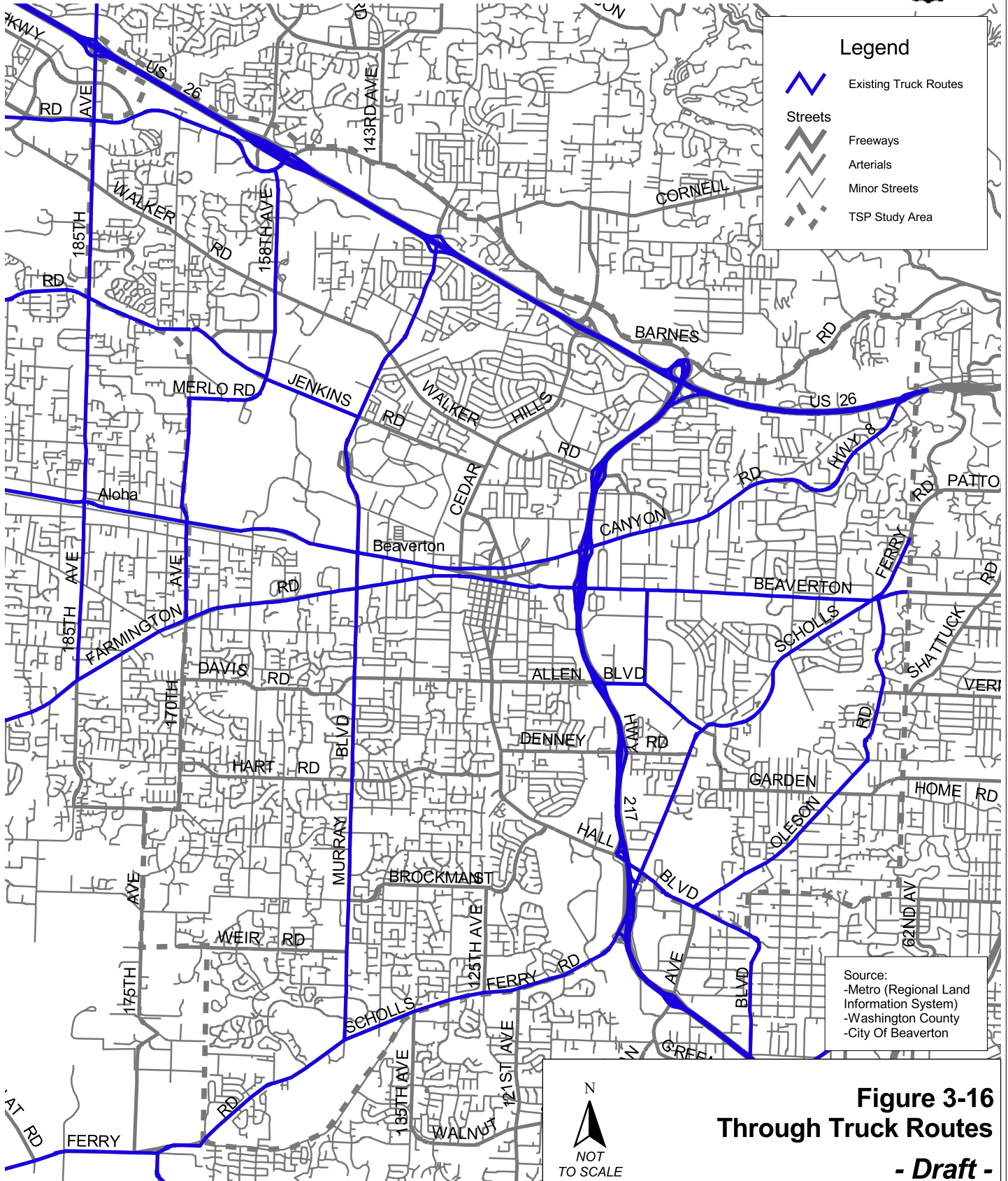
LEGEND

- ① - Study Intersection Truck Percentage
- - Study Area Boundary Line



**Figure 3-15
TRUCK PERCENTAGE MOVEMENTS
EXISTING PM PEAK PERIOD
- Draft -**

City of Beaverton
Transportation System Plan





Chapter 4

Future Needs/Improvement Plans

FUTURE DEMAND AND LAND USE

The Beaverton Transportation System Plan Update addresses existing system needs and additional facilities that are required to serve future growth. Metro's urban area transportation forecast model was used to determine future traffic volumes in Beaverton. This forecast model translates assumed land uses into person travel, selects modes, and assigns motor vehicles to the roadway network. These traffic volume projections form the basis for identifying potential roadway deficiencies and for evaluating alternative circulation improvements. This section describes the forecasting process including key assumptions and the land use scenario developed from the existing Comprehensive Plan designations and allowed densities.

Projected Land Uses

Land use is a key factor in developing a functional transportation system. The amount of land that is planned to be developed, the type of land uses, and how the land uses are mixed together have a direct relationship to expected demands on the transportation system. Understanding the amount and type of land use is critical to taking actions to maintain or enhance transportation system operation.

Projected land uses were developed for areas within the urban growth boundary and reflect the Comprehensive Plan and Metro's land use assumptions for the year 2020. Complete land use data sets were developed for the following conditions.

- Existing 1994 Conditions (based travel forecast for the region)
- Year 2020 Conditions

The base year travel model is updated periodically and for this study effort, the available base model provided by Metro was for 1994. Land uses were inventoried throughout Beaverton by

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Metro. This land use database includes the number of dwelling units, the number of retail employees, and the number of other employees. Table 4-1 summarizes the land uses for existing conditions and the future scenario within the Beaverton TSP Update study area. Since development of the 2015 Beaverton TSP, more detailed analysis tools were developed that allow refined calculations of the land use data. Therefore, Table 4-1 summarizes data only the for specific land use within the 2020 Beaverton TSP study area (unlike the previous TSP where the land use summaries included data for areas on the fringe of Beaverton in addition to that within Beaverton). However, while these summaries only outline land use in Beaverton for the purposes of this study, the travel demand forecasts that have been evaluated reflect the regional land use growth throughout the Portland metropolitan area (the four county area). A detailed summary of the uses for each Transportation Analysis Zone (TAZ) within the Beaverton study area is provided in the Appendix.

**Table 4-1
Beaverton Land Use Summary**

Land Use	1994	2020	Increase	Percent Increase
Households (HH)	46,861	68,997	22,136	47%
Retail Employees (RET)	14,585	26,514	11,929	82%
Other Employees (OTH)	61,822	102,835	41,013	66%

Note: The 2015 TSP land use numbers reflected an area beyond the 2020 TSP Study Area. In general, annual growth rates from 2015 to 2020 are similar to the 1994 to 2015 annual growth rates.

At the existing level of land development, the transportation system generally operates without significant deficiencies in the study area. As land uses are changed in proportion to each other (i.e. there is a significant increase in retail employment relative to household growth), there will be a shift in the overall operation of the transportation system. Retail land uses generate higher amounts of trips per acre of land than households do and other land uses. The location and design of retail land uses in a community can greatly affect transportation system operation. Additionally, if a community is homogeneous in land use character (i.e. all employment or residential), the transportation system must support significant trips coming to or from the community rather than within the community. Typically, there should be a mix of residential, commercial, and employment type land uses so that some residents may work and shop locally, reducing the need for residents to travel long distances.

Table 4-1 indicates that significant growth is expected in Beaverton in the coming decades. The transportation system in Beaverton should be monitored to make sure that land uses in the plan are balanced with transportation system capacity. This TSP balances needs with the forecasted 2020 land uses.

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For transportation forecasting, the land use data is stratified into geographical areas called transportation analysis zones (TAZs), which represent the sources of vehicle trip generation. There are 107 Metro TAZs within the Beaverton TSP Update study area. These 107 TAZs were subdivided, as part of this plan, into 391 TAZs to more specifically represent land use in Beaverton. The disaggregated model zone boundaries are shown in Figure 4-1.

Metro Area Transportation Model

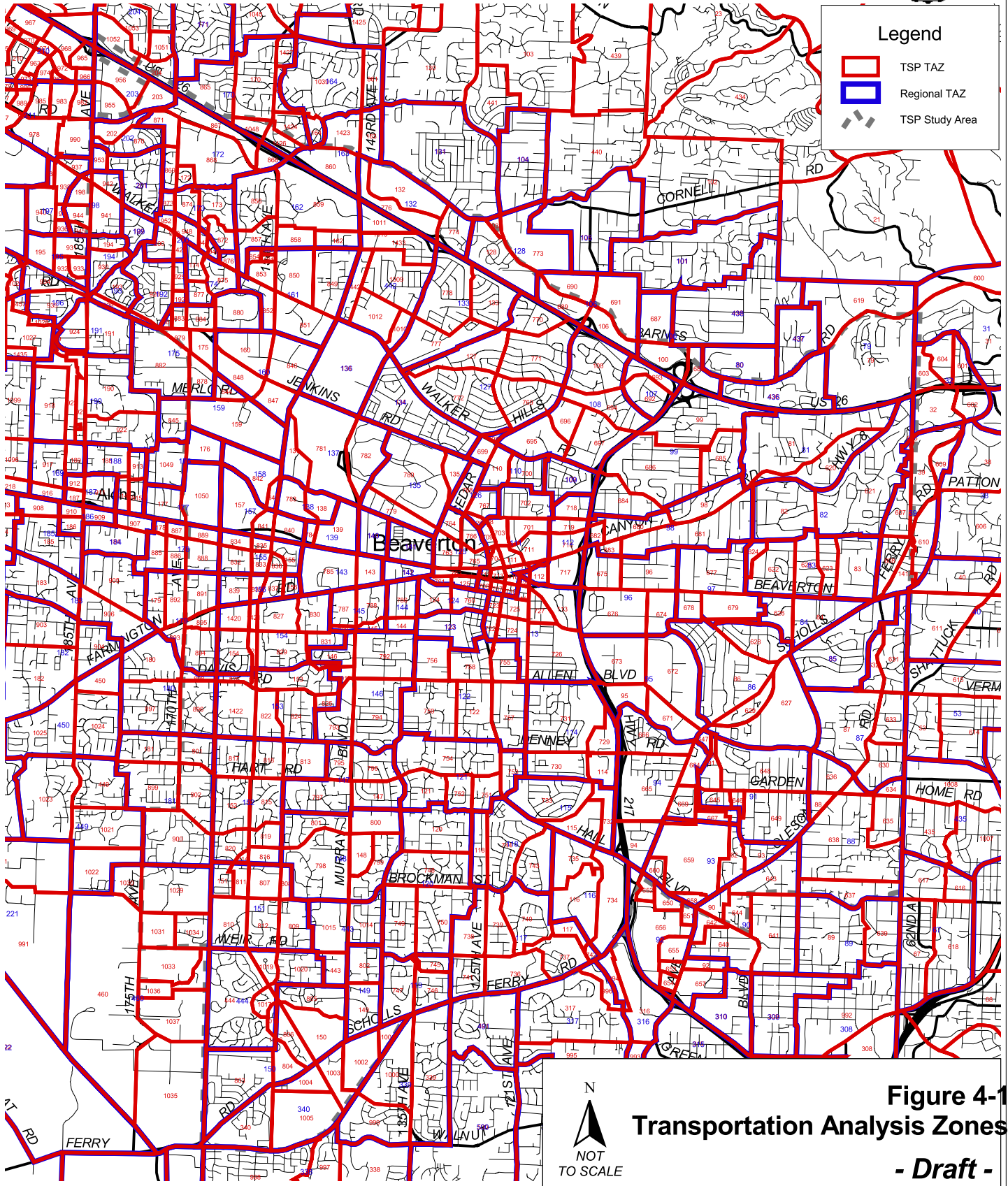
A determination of future traffic system needs in Beaverton requires the ability to accurately forecast travel demand resulting from estimates of future population and employment for the City. The objective of the transportation planning process is to provide the information necessary for making decisions on when and where improvements should be made to the transportation system to meet travel demand as developed in an urban area travel demand model as part of the Regional Transportation Plan update process. Metro uses EMME/2, a computer based program for transportation planning, to process the large amounts of data for the Portland Metropolitan area. For the Beaverton TSP, the eastern Washington County area was evaluated at a level of detail consistent with Washington County travel forecast efforts for the 2020 travel through a traversal process and substantially more detail added into the Beaverton area.

Traffic forecasting can be divided into several distinct but integrated components that represent the logical sequence of travel behavior (Figure 4-2). These components and their general order in the traffic forecasting process are as follows:

- Trip Generation
- Trip Distribution
- Mode Choice
- Traffic Assignment

The initial roadway network used in the traffic model was the existing streets and roadways. Future 2020 land use scenarios were tested and roadway improvements were added to mitigate the impacts of motor vehicle traffic growth, using the RTP Priority System and the 2015 Beaverton TSP improvements as a starting basis. Improvements in each of these plans (the RTP and TSP) were validated in the study process. Figures 1-4 and 1-5 show the needed RTP and 2015 Beaverton TSP improvements, respectively. Table 1-7 lists the RTP Priority System and the 2015 Beaverton TSP motor vehicle improvements. Forecasts of PM peak period traffic flows were produced for every major roadway segment within Beaverton. Traffic volumes were projected on all arterials and most collector streets. Some local streets were included in the model, but many are represented by centroid connectors in the model process.

City of Beaverton
Transportation System Plan

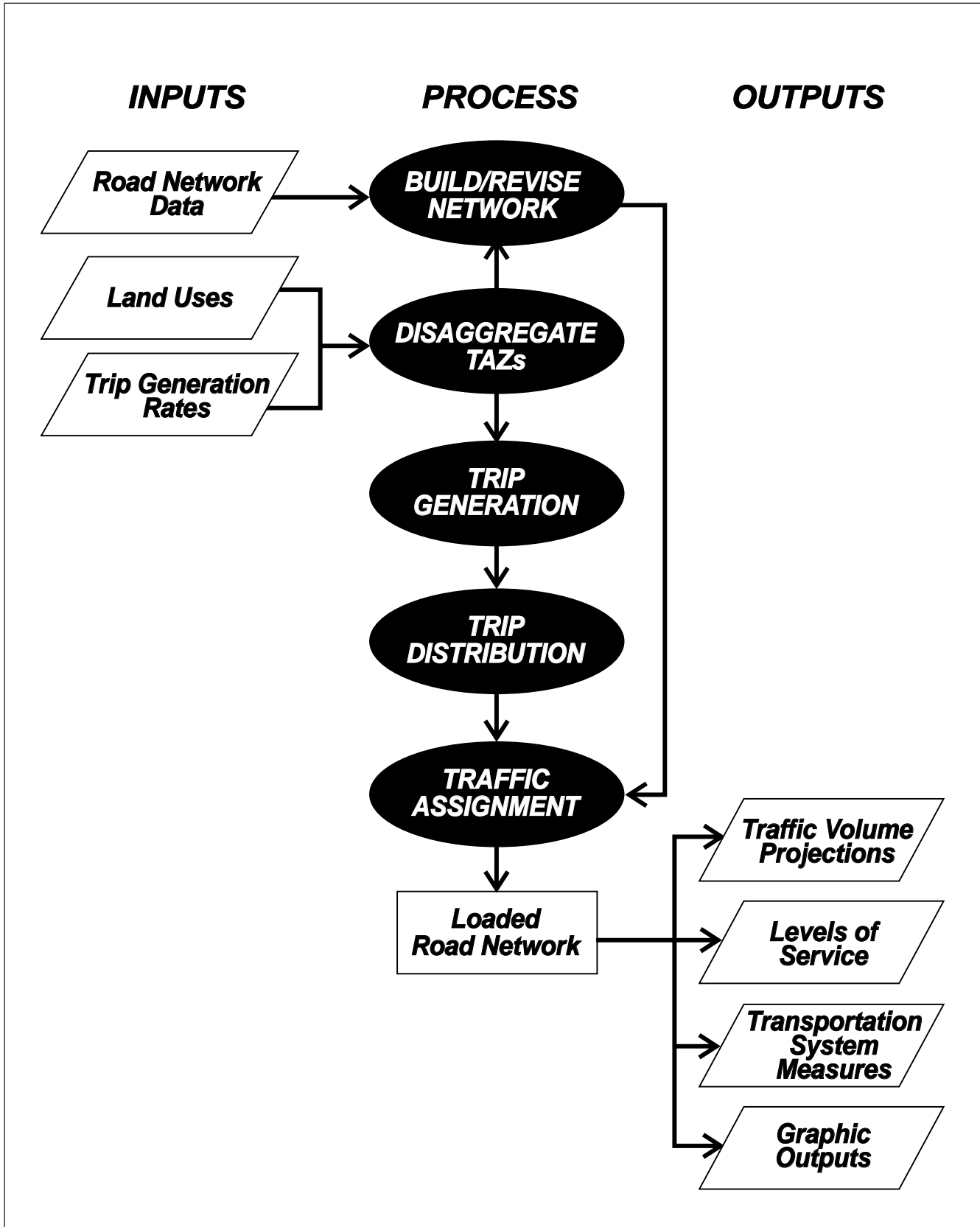


Legend

- TSP TAZ
- Regional TAZ
- TSP Study Area

N
NOT TO SCALE

Figure 4-1
Transportation Analysis Zones
- Draft -



**Figure 4-2
MODEL PROCESS**

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Trip Generation

The trip generation process translates land use quantities (number of dwelling units, retail, and other employment) into vehicle trip ends (number of vehicles entering or leaving a TAZ or sub-TAZ) using trip generation rates established during the model verification process. The Metro trip generation process is elaborate, entailing detailed trip characteristics for various types of housing, retail employment, non-retail employment, and special activities. Typically, most traffic impact studies rely on the Institute of Transportation Engineers (ITE) research for analysis¹. The model process is tailored to variations in travel characteristics and activities in the region. For reference, Table 4-2 provides a summary of the approximate average evening peak hour trip rates used in the Metro model. These are averaged over a broad area and thus, are different than driveway counts represented by ITE. This data provides a reference for the trip generation process used in the model.

Table 4-2
Approximate Average PM Peak Period Trip Rates Used in Metro Model

Unit	Average Trip Rate/Unit		
	In	Out	Total
Household (HH)	0.43	0.19	0.62
Retail Employee (RET)	0.78	0.69	1.47
Other Employee (OTH)	0.07	0.29	0.36

Source: DKS/Metro

Table 4-3 illustrates the estimated growth in vehicle trips generated within the Beaverton area (the area shown in Figure 4-1) during the PM peak period (2-hr peak) between 1994 and 2020. It indicates that vehicle trips in Beaverton would grow by approximately 50 percent between 1994 and 2020 if the land develops according to Metro's 2020 land use assumptions. Assuming a 26-year horizon to the 2020 scenario, this represents annualized growth rate of about 1.5 percent per year.

Table 4-3
Existing and Future Projected Vehicle Trip Generation
PM Peak 2-Hour Period Vehicle Trips

	1994 Trips	2020 Trips
Beaverton TSP study area	148,700	219,400

¹ *Trip Generation Manual*, 6th Edition, Institute of Transportation Engineers, 1997.

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Trip Distribution

This step estimates how many trips travel from one zone in the model to any other zone. Distribution is based on the number of trip ends generated in each zone pair, and on factors that relate the likelihood of travel between any two zones to the travel time between zones. In projecting long-range future traffic volumes, it is important to consider potential changes in regional travel patterns. Although the locations and amounts of traffic generation in Beaverton are essentially a function of future land use in the city, the distribution of trips is influenced by regional growth, particularly in neighboring areas such as Portland and Hillsboro as well as unincorporated areas to the north, south, and west of Beaverton. External trips (trips that have either an origin and not a destination in Beaverton or have a destination but not an origin in Beaverton) and through trips (trips that pass through Beaverton and have neither an origin nor a destination there) were projected using trip distribution patterns based upon census data and traffic counts performed at gateways into the Metro area Urban Growth Boundary (UGB) calibration.

Mode Choice

This is the step where it is determined how many trips will be by various modes (single-occupant vehicle, transit, carpool, pedestrian, bicycle, etc.). The 1994 mode splits are incorporated into the base model and adjustments to that mode split may be made for the future scenario, depending on any expected changes in transit or carpool use. These considerations are built into the forecasts used for 2020.

Based upon analysis of the forecasted mode choice in 2020, an analysis was performed to determine the level of non-single occupant vehicle (SOV) mode share in Beaverton. The travel model provides estimates of the various modes of travel that can be generally assessed at the transportation analysis zone level. Figures 4-5 to 4-7 summarize the level of non-SOV mode share estimated for 2020 using the regional travel demand forecast model in comparison to the modal targets established in the RTP through Table 1-3 of the RTP. Generally the areas served by light rail transit and frequent bus service have the highest levels of non-SOV mode use. Table 4-8 summarizes the non-SOV mode share performance in 2020 for the two-hour PM peak in comparison to the 2040 RTP targets. Overall, the 2040 modal targets for the regional center/town center areas is nearly met in 2020 and is within the lower end of the target range for other land use designations.

Traffic Assignment

In this process, trips from one zone to another are assigned to specific travel routes in the network, and resulting trip volumes are accumulated on links of the network until all trips are assigned.

Network travel times are updated to reflect the congestion effects of the traffic assigned through an equilibrium process. Congested travel times are estimated using what are called “volume-delay functions” in EMME/2. There are different forms of volume/delay functions, all of which

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attempt to simulate the impact of congestion on travel times (greater delay) as traffic volume increases. The volume-delay functions take into account the specific characteristics of each roadway link, such as capacity, speed and facility type. This allows the model to reflect conditions somewhat similar to driver behavior.

Model Verification

The base 1994 modeled traffic volumes were compared against actual traffic volume counts across screenlines, on key arterials, and at key intersections. Most arterial traffic volumes meet screenline tolerances for forecast adequacy. Based on this performance, the model was used for future forecasting and assessment of circulation change.

Model Application to Beaverton

Intersection turn movements were extracted from the model at key intersections for both the base year 1994 and forecast year 2020 scenarios. These intersection turn movements were not used directly, but a portion of the increment of the year 2020 turn movements over the 1994 turn movements was applied (added) to existing (actual 2000) turn movement counts in Beaverton. A post processing technique is utilized to refine model travel forecasts to the volume forecasts utilized for 2020 intersection analysis. The turn movement volumes used for future year intersection analysis can be found in the technical appendix for the TSP.

Forecasted Future Capacity Deficiencies

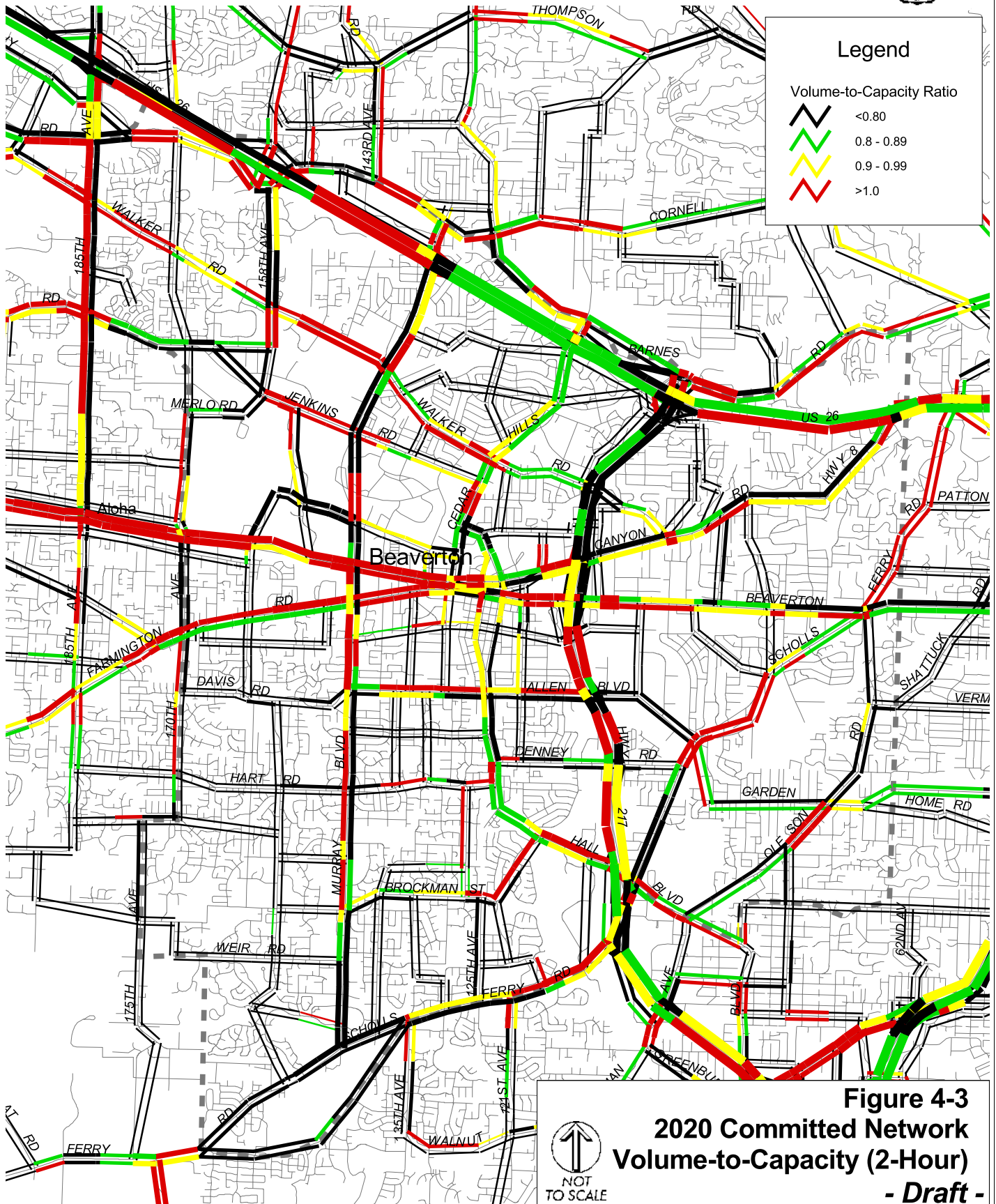
The base case analysis for the forecasted 2020 growth was based on the RTP Committed Funding scenario. This scenario only includes transportation system improvements that are expected to be constructed/implemented with the current funding levels. Figure 4-3 shows the forecasted demand/capacity on roadways with the Beaverton 2020 TSP Study Area for the committed scenario. As shown in the figure, the committed scenario transportation system does not have adequate roadway capacity to serve the expected future travel needs. Demand/Capacity (D/C) ratios exceed 1.0 system wide. Table 4-4 lists the forecasted D/C ratios on major roadways in the TSP study area that would exceed standards. To meet performance standards and serve future growth, the future transportation system needs significant multi-modal improvements and strategies to manage the forecasted travel demand.

Table 4-4: Forecasted 2020 D/C ratios (Committed Scenario) 2-Hour

Roadway Section	Forecasted D/C ratio
US 26 from ORE 217 to Canyon Road	1.06
US 26 from Murray Boulevard to Cornell Road	1.10
Bethany Boulevard from US 26 to West Union	1.21
Cornell Road from 143 rd Avenue to Saltzman Road	1.14
Walker Road from ORE 217 to Cedar Hills Boulevard*	1.02
Walker Road from Cedar Hills Boulevard to 158 th Avenue	1.28
Walker Road from 170 th Avenue to 185 th Avenue	1.14
Jenkins Road from Murray Boulevard to 158 th Avenue	1.96
TV Highway from Watson Boulevard to 170 th Avenue	1.36
Farmington Road from Cedar Hills Boulevard to 170 th Avenue	1.24
Allen Boulevard from ORE 217 to Murray Boulevard	1.34
Greenway from Hall Boulevard to 125 th Avenue	1.21
Scholls Ferry Road from Laurelwood Avenue to Denney Road	1.16
Scholls Ferry Road from ORE 217 to 125 th Avenue	1.34
170 th Avenue from Bany Road to Merlo Road	1.38
Murray Boulevard from Jenkins Road to Brockman Street	1.40
Cedar Hills Boulevard from Walker Road to Hall Boulevard	1.18
ORE 217 from BH Highway to Scholls Ferry Road	1.14

*Based on Priority Scenario with Walker west of Cedar Hills as 5 lanes

City of Beaverton
Transportation System Plan



ALTERNATIVE/OPTIONS FOR ADDRESSING FUTURE DEFICIENCIES

The transportation system needs in Beaverton were determined for existing and future conditions. The extent and nature of the multi-modal improvements for Beaverton are significant. The impact of future growth would be severe without significant investment in transportation improvements. This section outlines the type of improvements that would be necessary as part of a long-range master plan. Phasing of implementation will be necessary since all of the improvements cannot be done at once. This will require prioritization of projects and periodic updating to reflect current needs. Most importantly, it should be understood that the improvements outlined in the following sections are a guide to managing growth in Beaverton as it occurs over the next 20 years.

Transportation System Management (TSM) / Transportation Demand Management (TDM)

Transportation System Management

Transportation System Management (TSM) focuses on low cost strategies to enhance operational performance of the transportation system by seeking solutions to immediate transportation problems, finding ways to better manage transportation, maximizing urban mobility, and treating all modes of travel as a coordinated system. These types of measures include such things as signal improvements, ramp metering, traffic calming, access management, intelligent transportation solutions (ITS) and programs that enhance and smooth transit operations. Typically, the most significant measures that can provide tangible benefits to the traveling public are traffic signal coordination and systems.

TSM measures focus primarily on region wide improvements, however there are a number of TSM measures that could be used in a smaller scale environment such as the Beaverton area. The following TSM measures list summarizes strategies that could be appropriate for the Beaverton 2020 TSP study area.

- Traffic monitoring and Surveillance
- Signal coordination and optimization
- Signal priority
- Information availability
- Incident management

Traffic Monitoring and Surveillance

Traditionally, the solution to most congestion problems was to build more roadways or widen the existing facilities. Most recently, it has been realized that urban congestion cannot be managed

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by simply building roadway capacity. Better management of the existing transportation network is necessary to help reduce congestion. This also means coordinating among various agencies in the area to create a seamless transportation network.

As a monitoring program, the City of Beaverton and Washington County routinely collect traffic volume data in the Beaverton area. This data is then used as a tool to compare historical growth and determine which transportation corridors in the area are being utilized. This information is useful from a growth perspective, however it is difficult to use this data to help enhance the existing transportation environment on a day-by-day basis.

The use of closed circuit television cameras (CCTV) and vehicle detection systems could be used to help survey the transportation network during peak hours of congestion. Adjustments to signal timing can be made from the central control room to help improve traffic flow and decrease delay. Benefits of traffic monitoring and surveillance include reduced congestion, reduced delay, reduced travel time, faster and more accurate identification of locations of incidents, development of specific signal timing plans based on historic trends and reductions in pollutants and wasted fuel.

Signal Coordination and Optimization

Traffic monitoring and surveillance can only produce a certain amount of enhanced service along a corridor. As future growth occurs, congestion is due to increase. Traffic signal systems that were adequate in the past dealing with AM and PM peak hours will need to adapt to the changing environment and deal with additional time periods of congestion.

The state-of-the-art traffic signal systems, using a central computer to communicate and coordinate timing plans, have proven to produce substantial benefits in reducing congestion and travel time while increasing travel speeds. In the Portland area, examples of this benefit has been seen on such corridors as 82nd Avenue, 122nd Avenue, Martin Luther King Jr. Boulevard and SW Naito Parkway where improved signal timing reduced travel times anywhere from 10% to 25% during peak periods.²

The addition of signal optimization helps to maximize the total cycle length of a signal to provide optimal timing patterns for both the main arterial and the side street traffic. This optimization can help to skip side street cycles if there are no vehicles present and help to increase the “green time” of a signal for a major movement. Optimization can provide additional reliability and efficiency for the transportation network.

² City of Portland, *Intelligent Transportation System Implementation Plan*, June 1997.

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Signal Priority

The provision of signal priority works for both transit vehicles and emergency vehicles. Both operate on the same principles, which are improving the reliability and speed the vehicles. Clearly they serve two different purposes, but the idea benefits mobility for both.

Signal priority is achieved by establishing a communication between the approaching vehicle with the signal. Once the communication between the two is made, the approaching vehicle will direct the traffic signal to lengthen the green time for the light (assuming it is safe to do so) and allow for a “priority” through the intersection. This priority is done only when it will not cause significant impact at the intersection.

Studies indicate that with signal priority transit travel times have decreased from 15% to 18 %, while service reliability has increased 12% to 23% for on-time performance.³ These improvements can help cost effectiveness for transit operations.

Signal priority can also include “smart recovery” at intersections that currently operate in conjunction with LRT. Once an LRT vehicle has passed through the intersection, the signal phasing would “recover” to the same point it was at before the LRT vehicle passed through. This could reduce the potential for delays at intersections due to LRT.

Information Availability

An uninformed public can make inefficient transportation choices that could place a strain on the limited available capacity of a transportation network. This could create more congestion in an area that is already highly congested. By providing travelers with real-time information, the ability to make a more informed and efficient transportation decision is available.

The variety of information services available today include hand-held devices such as pagers, cell phones and personal data assistants (PDAs), as well as transit kiosks, personalized email reports, radio, tv and the internet. All of these devices are aimed at providing the traveler the best available information for making transportation choices.

There is another type of information availability to help travelers along the roadway. These are message signs that help inform a traveler of delays and/or help the traveler make an informed decision on a travel route. The first type of sign is a variable message sign (VMS). A VMS is a stationary sign that can display various messages. The second type of sign is a changeable message sign (CMS). This type of sign is mobile and can be placed at any location along a corridor to display information.

Currently, there are cameras located on US 26 and ORE 217 that show the conditions on the

³ *Intelligent transportation system initiatives in Clark County: VAST Program*, January 2001.

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freeways. These cameras are Internet accessible and help monitor traffic conditions and inform users of traffic conditions.

Incident Management

Typically incident response is focused on freeways. However, there is also a clear need for incident response on arterials. The time to respond to incidents in an urban area can dramatically affect the level of congestion on a corridor.

Incident management includes detection, verification, response, site management, traffic management, clearance time and recovery. Each of these steps takes time, during which the transportation operations along the corridor decrease. Research indicates that effective incident management has the potential to reduce response times by 40% and decrease fatalities by 10% in urban areas.⁴ In addition, incident management has the potential to reduce delay to users and reduce emissions from vehicles.

TSM Summary

All of the previously mentioned measures of TSM can work together in a transportation environment to help reduce congestion and decrease travel times for travelers. Table 4-5 summarizes the RTP projects that support Beaverton TSM. Beyond the RTP designated TSM projects, the City of Beaverton should coordinate with Tri-Met, ODOT, and Washington County in providing signal priority at signalized intersections along rapid or frequent bus routes (TV Highway and Cedar Hills/Hall corridor – approximately 50 intersections) to increase transit efficiently, reduce transit travel times, and promote non-SOV person trips. Signal priority should be activated for transit vehicles that are operating behind schedule. The implementation of additional strategies should be on a case-by-case basis and evaluated as to the effectiveness.

⁴ *Intelligent Transportation System Initiatives in Clark County: VAST Program*, January 2001.

Table 4-5: RTP Projects supporting TSM

RTP Project Number	Description	Estimated Cost	Projected Implementation
3016	Washington County: Acquire hardware for new traffic operations center and conduct needs analysis	\$1,000,000	2000-2005
3061	TV Highway: Interconnect signals from 209 th Avenue to ORE 217	\$1,500,000	2006-2010
3063	Murray Boulevard: Signal coordination from TV Highway to Allen	\$50,000	2000-2005
6012	Western Avenue: Implement TSM improvements between Allen and Canyon Road and extend Western Avenue north to Canyon Road new Walker	\$2,500,000	2011-2020
6025	Scholls Ferry Road: Implement appropriate TSM strategies, from ORE 217 to 125 th Avenue, such as signal interconnects, signal re-timing and channelization to improve traffic flows	\$500,000	2000-2005

Source: *Regional Transportation Plan*, Metro, August 2000.

Transportation Demand Management

Transportation Demand Management (TDM) is the general term used to describe any action that removes single occupant vehicle trips from the roadway network during peak travel demand periods. As growth in the Beaverton area occurs, the number of vehicle trips and travel demand in the area will also increase. The ability to change a users travel behavior and provide alternative mode choices will help accommodate this growth.

Generally, TDM focuses on reducing vehicle miles traveled and promoting alternative modes of travel for large employers of an area. This is due in part to the Employee Commute Options (ECO) rules that were passed by the Oregon Legislature in 1993 to help protect the health of Portland area residents from air pollution and to ensure that the area complied with the Federal Clean Air Act.⁵

Research has shown that a comprehensive set of complementary policies implemented over a large geographic area can have an effect on the number of vehicle miles traveled to/from that area.⁶

⁵ Oregon Administrative Rules, Chapter 340, Division 30.

⁶ *The Potential for Land Use Demand Management Policies to Reduce Automobile Trips*, ODOT, by ECO Northwest, June 1992.

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However, the same research indicates that in order for TDM measures to be effective, they should go beyond the low-cost, uncontroversial measures commonly used such as carpooling, transportation coordinators/associations, priority parking spaces, etc.

The more effective TDM measures include elements related to parking and congestion pricing, improved services for alternative modes of travel, and other market-based measures.

However, TDM includes a wide variety of actions that are specifically tailored to the individual needs of an area. Table 4-6 provides a list of several strategies outlined in the ECO program that could be applicable to the Beaverton area.

**Table 4-6
Transportation Demand Management Strategies**

Strategy	Description	Potential Trip Reduction
Telecommuting	Employees perform regular work duties at home or at a work center closer to home, rather than commuting from home to work. This can be full time or on selected workdays. This can require computer equipment to be most effective.	82-91% (Full Time) 14-36% (1-2 day/wk)
Compressed Work Week	Schedule where employees work their regular scheduled number of hours in fewer days per week.	7-9% (9day/80hr) 16-18% (4day/40hr) 32-36% (3day/36hr)
Transit Pass Subsidy	For employees who take transit to work on a regular basis, the employer pays for all or part of the cost of a monthly transit pass.	19-32% (full subsidy, high transit service) 2-3% (half subsidy, medium transit service)
Cash Out Employee Parking	An employer that has been subsidizing parking (free parking) discontinues the subsidy and charges all employees for parking. An amount equivalent to the previous subsidy is then provided to each employee, who then can decide which mode of travel to use.	8-20% (high transit service available) 5-9% (medium transit services available) 2-4% (low transit services available)
Reduced Parking Cost for HOVs	Parking costs charged to employees are reduced for high occupancy vehicles (HOV) such as carpools and vanpools.	1-3%
Alternative Mode Subsidy	For employees that commute to work by modes other than driving alone, the employer provides a monetary bonus to the employee.	21-34% (full subsidy of cost, high alternative modes) 2-4% (half subsidy of cost, medium alternative modes)
Bicycle Program	Provides support services to those employees that bicycle	0-10%

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Strategy	Description	Potential Trip Reduction
	to work. Examples include: safe/secure bicycle storage, shower facilities and subsidy of commute bicycle purchase.	
On-site Rideshare Matching for HOVs	Employees who are interested in carpooling or vanpooling provide information to a transportation coordinator regarding their work hours, availability of a vehicle and place of residence. The coordinator then matches employees who can reasonably rideshare together.	1-2%
Provide Vanpools	Employees that live near each other are organized into a vanpool for their trip to work. The employer may subsidize the cost of operation and maintaining the van.	15-25% (company provided van with fee) 30-40% (company subsidized van)
Gift/Awards for Alternative Mode Use	Employees are offered the opportunity to receive a gift or an award for using modes other than driving alone.	0-3%
Walking Program	Provide support services for those who walk to work. This could include buying walking shoes or providing lockers and showers.	0-3%
Company Cars for Business Travel	Employees are allowed to use company cars for business-related travel during the day	0-1%
Guaranteed Ride Home Program	A company owned or leased vehicle or taxi fare is provided in the case of an emergency for employees that use alternative modes.	1-3%
Time off with Pay for Alternative Mode Use	Employees are offered time off with pay as an incentive to use alternative modes.	1-2%

Source: *Guidance for Estimating Trip Reductions from Commute Options*, Oregon Department of Environmental Quality, August 1996.

Redevelopment in the Beaverton area will also allow for TDM friendly development. Setting TDM goals and policies for new development will be necessary to help implement TDM measures in the future.

With many regional trips destined to, or traveling through, the Beaverton area, region wide TDM measures should help to reduce congestion. Metro has established non-SOV (Single Occupancy Vehicle) mode share targets by 2040 for regional centers (similar to Gateway). These targets may also serve as performance measures for areas that have been designated as “Areas of Special

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Concern” (Beaverton Regional Center is classified by Metro as this type of area).⁷ The 2040 non-SOV model target for regional centers, town centers, LRT communities, main streets, and corridors is 45-55%.⁸

The Metro 2020 Regional Demand Model provides an analysis tool for monitoring non-SOV trip percentages between the various RTP funding scenarios. The forecasted non-SOV trip percentages take into account all RTP improvement projects (including transit, pedestrian, and bicycle system improvements), as well as the TAZ performance factors listed in Table 4-7 (see Appendix G for specific transit route frequency improvements). Parking factors are based on a ratio of parking costs in comparison to a South/North Draft Environmental Impact Study (DEIS) parking survey (for example, in the RTP Priority System a person parking in the Beaverton Regional Center would pay 30% more than a person parking in the Washinton Square Regional Center). Transit Pass factors represent the amount of full transit fare that a transit rider is expected to pay (considering ECO rule and discount downtown fares). Fareless areas assume that fareless transit areas will be developed in the identified 2040 concept areas.

Table 4-7: TDM Assumptions for 2040 Land Use Designations in Beaverton

(P) 2020 Preferred System

(S) 2020 Strategic/Priority System

(FC) 2020 Existing Resources System (roughly equivalent to the committed system)

2040 Grouping	Group Characteristics	Parking Factors			Transit Pass Factor			Fareless Areas		
		P	S	FC	P	S	FC	P	S	FC
Regional Centers - Tier 1 Beaverton	Planned high employment and housing density, with highest level of access by all modes. LRT exists and current land uses approach planned mix and densities.	1.60	1.20	0.80	70%	75%	80%	X	X	X
Regional Centers - Tier 2 Washington Square	Planned high employment and housing density, with highest level of access by all modes; planned LRT. Current land uses do not reflect planned mix and densities.	1.22	0.92	0.60	85%	90%	95%	X	X	
Station Communities Tier 1 Westside Corridor	High housing density mixed with commercial services; highest level of access for transit, bike and walk; existing LRT.	1.60	1.20	0.80	70%	75%	80%			
Town Centers - Tier 2 West Portland Raleigh Hills Hillsdale Sunset	Moderate housing and employment density planned, with high level of access by all modes. Currently has some mix of uses, moderately connected street system and some transit. Existing topography or physical barriers may limit bike and	0.72	0.54	0.36	90%	95%	100%			

⁷ Based on the 2000 Metro Regional Transportation Plan, Ordinance No. 00-869A (August 10, 2000), page 1-32.

⁸ Based on the 2000 Metro Regional Transportation Plan, Ordinance No. 00-869A (August 10, 2000), page 1-62.

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2040 Grouping	Group Characteristics	Parking Factors			Transit Pass Factor			Fareless Areas		
	pedestrian travel.									
Town Centers - Tier 3 Farmington Cedar Mill Tannasbourne	Moderate housing and employment density planned, with high level of access by all modes. Currently has modest mix of uses, poorly connected street system and poor transit. Existing topography or physical barriers may limit bike and pedestrian travel.	0.55	0.41	0.28	100%	100%	100%			
Town Centers - Tier 4 Bethany Murrayhill	Moderate housing and employment density planned, with high level of access by all modes. Currently undeveloped or developing urban uses, with skeletal street system and poor transit. Existing topography or physical barriers may limit bike and pedestrian travel.	0.36	0.27	0.18	100%	100%	100%			
Mainstreets - Tier 2 Remaining Region	Moderate housing and employment density planned, with high level of access by all modes. Currently has some mix of uses, moderate connectivity and some transit.	0.72	0.54	0.36	100%	100%	100%			
Corridors Full Region	Moderate housing and employment density planned, with high level of access by all modes. Currently has modest mix of uses, moderate connectivity and some transit.	None	None	None	100%	100%	100%			
Inner Neighborhoods Full Region	Low density housing planned, with moderate level of access by all modes. Currently has moderate connectivity and some transit.	None	None	None	100%	100%	100%			
Outer Neighborhoods - Tier 1 Current Urban Areas	Low density housing planned, with moderate level of access by all modes. Currently has poorly connected street system and little transit.	None	None	None	100%	100%	100%			
Employment Areas Full Region	Low density employment planned, with moderate level of access by all modes. Currently has poorly connected street system and limited transit.	None	None	None	100%	100%	100%			
Industrial Areas - Tier 2 Beaverton Sunset	Low density employment planned, with high level of access by rail and truck freight, and moderate access by other modes. Currently has developing street system and poor transit.	None	None	None	100%	100%	100%			

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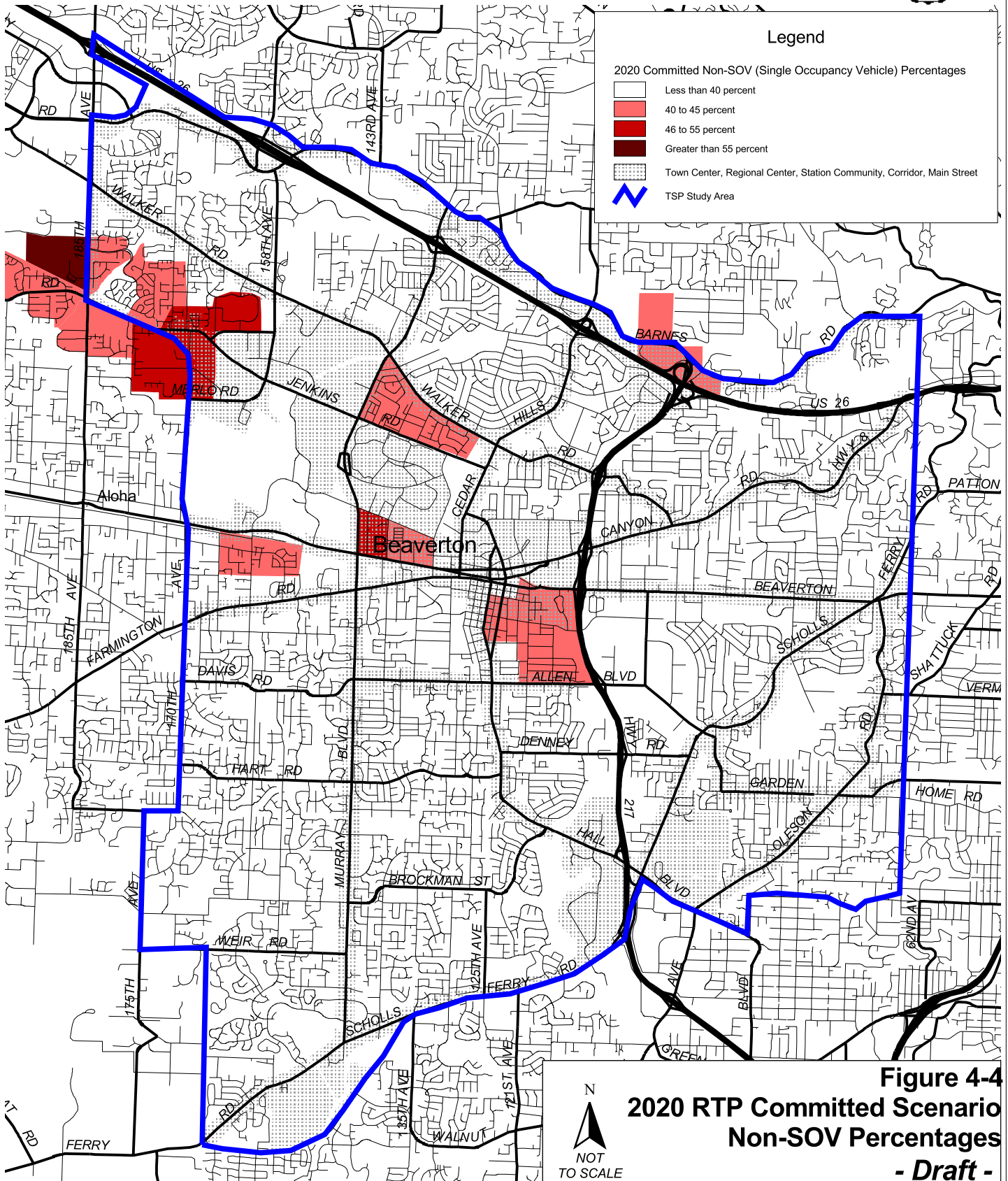
The RTP (in RTP Table 1-3) outlines non-SOV (Single Occupancy Vehicle) targets for the year 2040 for the Portland region. Analysis of the Metro 2020 forecast model indicates non-SOV trip percentages for the Beaverton Area (summarized in Table 4-8). The 2020 Priority system forecasted rates indicate that the significant investment in transportation improvements will, in general, achieve a three percent reduction in SOV trips in the Beaverton area, compared to the committed funding scenario. Figures 4-4 to 4-6 show the non-SOV trip percentages by Metro TAZ for the committed, priority, and priority minus committed scenarios.

**Table 4-8:
Forecasted non-SOV shares in the Beaverton TSP Study Area**

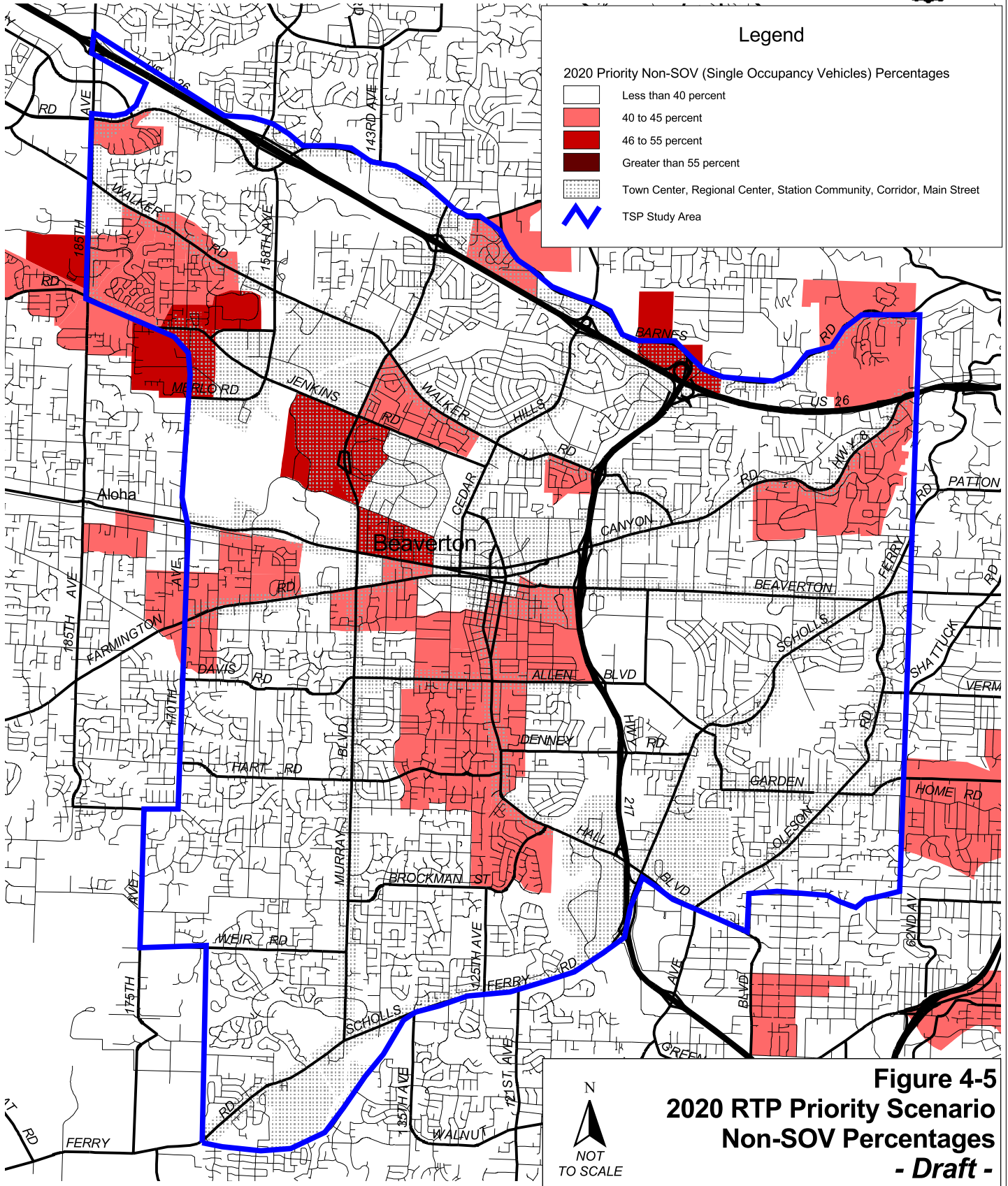
Area	2020 RTP Committed System Model Rate	2020 RTP Priority System Model Rate	2040 Metro Goal
Overall TSP Study Area	33%	36%	N/A
2040 Design Type: <ul style="list-style-type: none"> ▪ Regional Centers ▪ Town Centers ▪ LRT Communities ▪ Main Streets ▪ Corridors 	34%	37%	45-55%
2040 Design Type: <ul style="list-style-type: none"> ▪ Industrial areas ▪ Intermodal facilities ▪ Employment areas ▪ Inner neighborhoods ▪ Outer neighborhoods 	32%	35%	40-45%

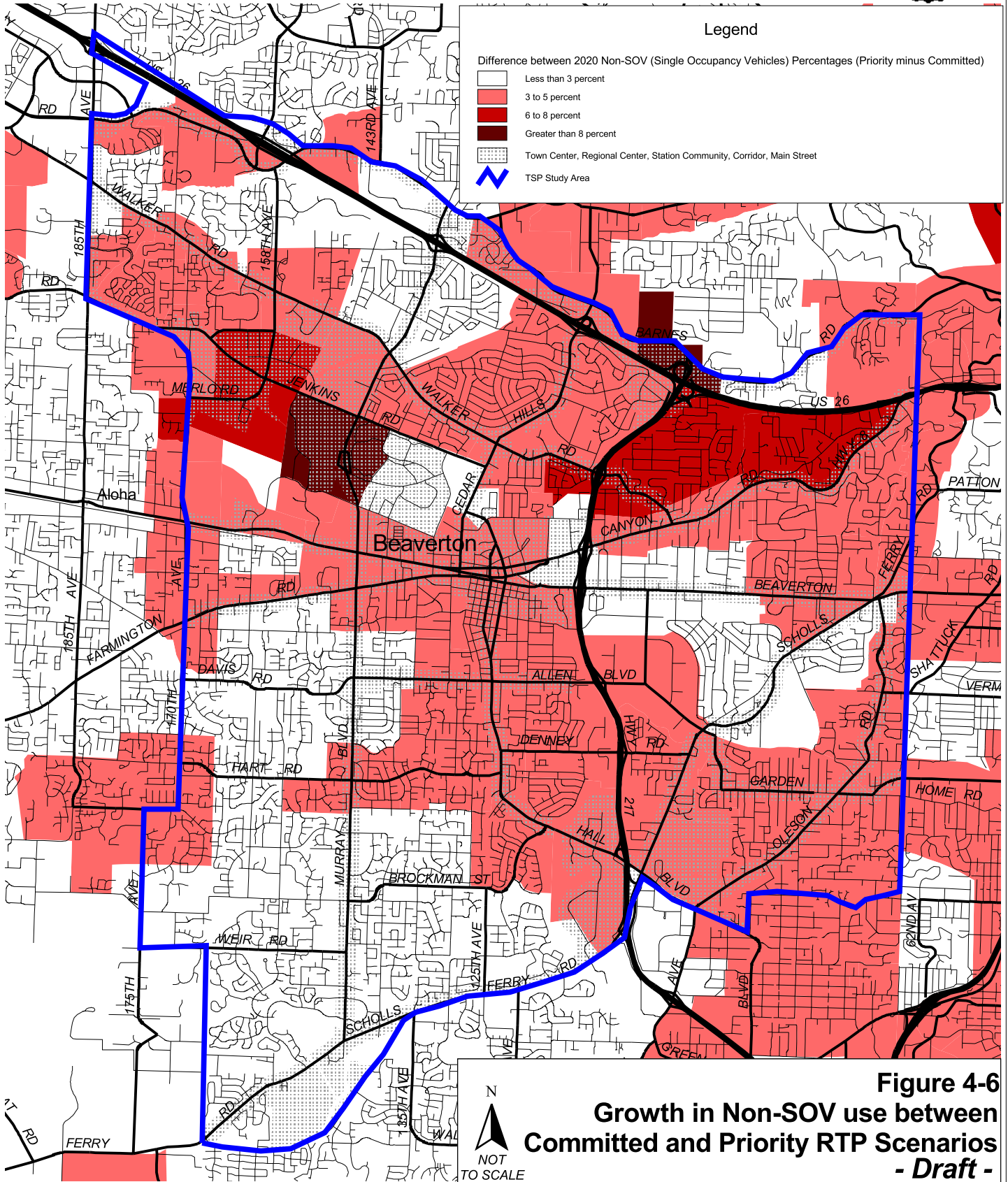
Source: 2020 Metro Regional Travel Demand Model
2000 Metro Regional Transportation Plan

City of Beaverton Transportation System Plan



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The forecasted non-SOV percentages can only be achieved with significant improvements to the transportation system and implementation of trip reduction strategies. The City of Beaverton should coordinate with Washington County, the Westside Transportation Alliance, and Tri-Met to implement strategies to ensure TDM assumptions in the RTP are implemented, including development of a downtown fareless transit area and reduced transit fare program and implementation of the downtown connectivity plan and regional center parking plan. The City of Beaverton, Washington County, and Tri-Met should coordinate to implement the pedestrian, bicycle, and transit system improvements, which offer alternative modes of travel. The following City of Beaverton goals and policies, which have been revised in the TSP Update process, pertain specifically to making progress toward achieving non-SOV modal targets:

- 6.2.4. **Goal:** An efficient transportation system that reduces the percentage of trips by single occupant vehicles, reduces the number and length of trips, limits congestion, and improves air quality.

Policies:

- a) Support and implement trip reduction strategies developed regionally, including employment, tourist, and recreational trip reduction programs.

***Actions:** Encourage implementation of travel demand management programs. Work to shift traffic to off-peak travel hours. Coordinate trip reduction strategies with Washington County, Metro, Westside Transportation Alliance, Oregon Department of Transportation, Tri-Met, neighboring cities, and the Oregon Department of Environmental Quality. Seek to raise PM peak average vehicle occupancy (AVO) to 1.3 AVO or more in the evening peak and/or move 50 percent or more of the standard evening peak trip generation outside the peak hour. Educate business groups, employees, and residents about trip reduction strategies. Work with business groups, residents, and employees to develop and implement travel demand management programs. Support and implement strategies that achieve progress toward attaining Metro's 2040 Regional Non-Single Occupant Vehicle Modal Targets. 2040 Non-SOV Modal Targets are as follows:*

Beaverton Regional Center: 45-55%;

Murray/Scholls Town Center: 45-55%;

Beaverton Main Streets, Station Communities, and Corridors: 45-55%

Beaverton Industrial Areas, Intermodal Facilities, Employment Areas, Inner and Outer Neighborhoods: 40-45%

(Targets apply to trips to, within, and out of each 2040 Design Type. The targets reflect conditions appropriate for the year 2040 and are needed to comply with Oregon Transportation Planning Rule objectives to reduce reliance on single-occupancy vehicles.)

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Continue to implement the following action plan to work toward achieving these targets:

- i) Encourage development that effectively mixes land uses to reduce vehicle trip generation.*
 - ii) Develop consistent conditions for land use approval that require future employment related land use developments to agree to reduce peak hour trip making through transportation demand management strategies.*
 - iii) Support efforts by Washington County, Oregon Department of Transportation, Department of Environmental Quality, Tri-Met, and the Westside Transportation Alliance to develop productive demand management measures that reduce vehicle miles traveled and peak hour trips.*
 - iv) Coordinate with Oregon Department of Transportation and Tri-Met on the development of park and rides at transit stations or freeway interchange locations. Interchange reconstruction projects should be required to identify potential park and ride sites.*
 - v) Build on existing Regional Center average transit pass discount percentage to achieve a 25 percent discount by 2020.*
 - vi) Work with Washington County, Westside Transportation Alliance, and Tri-Met to develop and implement a downtown fareless transit area, a regional center transportation management agency, and reduced transit fare programs, based on increased demand and funding availability.*
 - vii) Implement the bicycle, transit, pedestrian, and motor vehicle master improvement plans to implement a convenient multimodal transportation system.*
- b) Limit the provision of parking to meet regional and State standards.

Actions: *Work to reduce parking per capita per Metro and State requirements, while minimizing impacts to neighborhoods. Implement the motor vehicle and bicycle parking ratios in new development. Develop and implement a Regional Center parking plan and a residential parking permit program as demand increases. Continue to implement shared parking and timed parking through new development and existing programs. Work toward implementing other parking-based transportation demand management strategies such as metered and structured parking to help achieve Metro's 2040 Non-SOV mode split targets.*

- c) Maintain levels of service consistent with Metro's Regional Transportation Plan and the Oregon Transportation Plan. Reduce traffic congestion and enhance traffic flow through such measures as intersection improvements, intelligent transportation systems, signal synchronization, and other similar measures.

Action: *Adopt level of service standards that are consistent with regional and State standards.*

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- d) Plan land uses to increase opportunities for multi-purpose trips (trip chaining).

Actions: Encourage residents to reduce cold starts, miles traveled, and air quality degradation by combining several trips into one. Encourage mixed use where allowed to reduce vehicle trips and promote trip chaining.

- e) Require land use approval of proposals for new or improved transportation facilities. The approval process shall identify and consider the project's identified impacts.

- f) Support mixed-use development where zoning allows.

- g) Work with Tri-Met to encourage the development of transit improvements, improve access and frequency of service, and increase ridership potential and service area. Encourage development of regional high capacity transit, including light rail transit and commuter rail.

Action: Support commuter rail and its associated supportive transit services.

Several TDM strategies were developed in the 2015 TSP that are aimed at achieving the Metro 2040 non-SOV targets. The ranking of the strategies follows from most important to least important:

- Encourage linkage of housing, retail, and employment centers
- Provide incentives to take transit and use other modes (i.e., free transit pass)
- Flexible working hours
- Schedule deliveries outside of peak hours
- Coordinate shift changes/staggered work hours
- Telecommuting
- Participate in Westside Transportation Alliance
- Provide information regarding commute options to larger employers
- Work with property owners to install bicycle racks and bicycle amenities

The 2015 TSP recommended TDM plan, along with multi-modal improvements, should help the City of Beaverton achieve the Metro 2040 non-SOV targets and comply with state, regional, and county policy. The recommended action plan for the City of Beaverton remains as the following:

- Encourage development that effectively mixes land uses to reduce vehicle trip generation. These plans may include development of linkages (particularly non-auto) that support greater use of alternative modes. Land use density should be higher at transit stations (half mile radius) than elsewhere in the community.
- Develop consistent conditions for land use approval that require all future employment related land use developments to agree to reduce peak hour trip

making, through individual or collective TDM efforts. For example, measures which are appropriate for site planning such as close-in parking for carpools, bicycle parking, shower facilities, and convenient transit stops should be considered in the design review process.

- Support continued efforts by Washington County, ODOT, DEQ, Tri-Met, and the Westside Transportation Alliance to develop productive TDM measures that reduce VMT and peak hour trips, including investigating transit pass programs with city employers and implementing a fareless area in the downtown regional center (there are currently 46 employers in Beaverton with transit pass programs, two of which are in the regional center). This may require City funding of TDM management to get maximum benefit or results (possibly \$25,000 to \$75,000 per year).
- As a capital oriented element, coordinate with ODOT and Tri-Met on the development of park-and-ride transit station or freeway interchange locations in Beaverton (these are locations proven to be successful in attracting carpool/transit use). The Transit Master Plan, Figure 4-9, shows current park-and-ride locations. Expansion of these sites should focus on transit station or freeway interchange locations. Interchange reconstruction projects should be required to identify potential sites for park-and-ride (even small sites of 50 spaces). Over the next 20 years, a reasonable budget for park-and-ride expansion might be about \$100,000 per year (about 50 spaces a year, assuming pre-existing ROW).
- Continued implementation of motor vehicle and bicycle minimum and maximum parking ratios for new development (per Development Code 60.20).
- Implementation of downtown connectivity plan as well as local street connectivity improvements identified in Appendix E.
- Implementation of bicycle, pedestrian, motor vehicle and transit system action plan.

Pedestrians

The existing pedestrian system network map was updated from the previous TSP to reflect recent improvements and the expanded TSP Study Area. In most cases sidewalk improvements are aimed at closing gaps in the existing sidewalk network to provide connectivity rather than capacity. In other words, it is much more important that a continuous sidewalk be available than it be of a certain type or size.

The 2000 Regional Transportation System Plan (RTP) includes designations for pedestrian districts and transit/mixed use corridors (see Figure 4-7). The RTP defines pedestrian districts as areas of high or potentially high pedestrian activity where regional policy places priority on creating a safe, direct, and attractive pedestrian environment. In general, these are areas planned for compact, mixed-use development served by transit and correspond to the following 2040 design type designations within the City of Beaverton: regional centers, town centers, and light rail communities. The corresponding areas within the City of Beaverton include the Murray/Scholls Town Center, the Washington Square Regional Center, downtown Beaverton, and the LRT communities. Areas such as these areas are characterized by buildings oriented to the street and by boulevard street design features such as wider sidewalks with buffering from traffic, marked street crossing at intersections, pedestrian-scale lighting, benches, bus shelters, and street trees. Transit/mixed-use corridors are defined as priority areas for pedestrian travel that are served by good quality transit service and that will generate substantial pedestrian traffic near neighborhood-oriented retail development, schools, parks, and bus stops. These corridors should include such design features as wide sidewalks with buffering from traffic, pedestrian scale-lighting, benches, bus shelters, and street trees. The 2040 design type designation for transit/mixed-use corridors is “Corridors”. The corresponding corridor areas within the City of Beaverton include TV Highway-Canyon Road, BH Highway-Farmington Road, Murray Boulevard, Cedar Hills Boulevard, Hall Boulevard, and Walker Road. As shown in Figure 1-1, the Pedestrian Facilities Master Plan identifies improvements to provide a connected pedestrian network to and within the RTP designated pedestrian districts and transit/mixed use corridors. The City of Beaverton Development Code regulations should require new development in the pedestrian districts and transit/mixed use corridors to comply with the RTP descriptions listed above.

The most important existing pedestrian need in Beaverton is a well-connected pedestrian system within a half-mile grid and connectivity to light rail transit (LRT) stations and key centers in Beaverton (parks, schools, retail, etc.). Needs include safe, direct and convenient access to transit and crossings of large arterial streets which act as barriers to pedestrian movement, marked crossings at major transit stops, as well as an inventory of local street sidewalk locations in order to complete a detailed sidewalk connectivity plan. A well connected pedestrian system in the pedestrian districts and transit/mixed use corridors will insure direct and logical pedestrian crossing at transit stops. The City of Beaverton should coordinate with Washington County, Tri-Met, Metro, and ODOT to ensure that major transit stops will be located at sites with a signalized

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and/or marked pedestrian crossing. In the future, pedestrian needs will be similar in the City, but there will be additional activity centers that will need to be considered and interconnected. The ranking of pedestrian strategies has not changed from the previous TSP and is listed from most important to least important:

- Connect key pedestrian corridors to schools, parks, recreational uses and activity centers (public facilities, commercial areas, etc.)
- Fill in gaps in the network where some sidewalks exist
- Pedestrian corridors to transit stations and stops
- Signalized pedestrian crossings
- Pedestrian corridors that connect neighborhoods
- Improve streets having sidewalks on one side to two sides
- As development occurs, construction of sidewalks by developers
- Pedestrian corridors that commuters might use
- Reconstruct all existing substandard sidewalks to the City of Beaverton Standards

The Pedestrian Master Plan (Figure 4-7) is an overall plan and summarizes the desired framework plan to meet local and regional policy. The more specific, shorter-term Action Plan was updated to include completed improvements and the expanded study area, as well as projects from the Regional Transportation System Plan (RTP) that were not in the previous TSP Pedestrian Action Plan. The Action Plan (Table 4-9) consists of projects that the City or responsible agency could give priority to when funding becomes available. As development occurs, streets are rebuilt, and other opportunities (such as grant programs) arise, projects on the Master Plan should be pursued as well. In addition, all development projects should include an inventory of local street sidewalk conditions in order to populate the City database of sidewalk locations. Table 4-10 lists pedestrian system improvement projects that have committed funds.

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Table 4-9: Pedestrian Action Plan

Project	From	To	Approximate Cost (\$1000's dollars)
<i>Priority: Connect key pedestrian corridors to schools, parks, recreational uses and activity centers</i>			
155 th Avenue	Davis Road	Nora-Beard Road	410
US 26/Bethany Trail Crossing	US 26	US 26	100
Study US 26 Trail Crossings	143 rd Avenue	Canyon Road	80
Study and Improve unsignalized trail crossing of roadways	City jurisdiction		10,000
Link Fanno Creek Path over ORE 217 at Denney	ORE 217	ORE 217	100
Study Fanno Creek Path	Rock Creek	Fanno Creek Greenway	80
<i>Priority: Fill in gaps in pedestrian network</i>			
TV Highway/Canyon Road (gaps on one-side)	Murray Blvd	170 th Avenue	470
TV Highway/Canyon Road (Boulevard Design)	ORE 217	Murray Blvd	8,000
Canyon Road/TV Highway (sidewalks and crossings)	91 st Avenue	ORE 217	1,465
Canyon Road	US 26	110 th Avenue	6,750
Cedar Hills Boulevard	Butner Road	US 26 WB off ramp	124
Murray Boulevard (gaps on one side)	Jenkins Road	Millikan Way	100
Murray Boulevard (gaps)	Farmington	TV Highway	112
Denney Road	Nimbus Avenue	Scholls Ferry Road	241
Allen Boulevard (gaps)	Western Avenue	Scholls Ferry Road	69
Western Avenue	5 th Street	800 feet south of 5 th	55
Division Street	149 th Avenue	170 th Avenue	365
Davies Road (east side)	Scholls Ferry Road	Hiteon Drive	76
Scholls Ferry Road (gaps)	Barrows Road (west end)	Beaverton-Hillsdale Highway	1,893
Scholls Ferry Road	BH Highway	Raleighwood Way	151
SW Park Way (gaps)	Walker Road	ORE 217	213
Cornell Road (gaps)	158 th Avenue	US 26 WB off ramp	101

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Project	From	To	Approximate Cost (\$1000's dollars)
Barnes Road	Tuefel Lane	Viewmont Drive	118
Garden Home Road	77 th Avenue	76 th Avenue	43
Multnomah Boulevard	Garden Home Road	Wash. County line	198
92 nd Avenue	Allen Boulevard	Garden Home Road	302
Garden Home Road (gaps one-side)	92 nd Avenue	77 th Avenue	242
Hall Boulevard	Cascade Avenue	ORE 217 SB ramp	23
Hall Boulevard (gaps one-side)	ORE 217 SB ramp	Approximately 470 ft. west of ramp	34
Barnes Road (gaps one-side)	117 th Avenue	Stark Street	104
Barnes Road	Stark Street	Approximately 100 ft. west of Stark St.	14
Cornell Road (gaps one side)	Approximately 500 ft west of Science Park Dr.	Approximately 500 ft east of 153 rd Ave.	101
110 th Avenue (gap-one side)	Beaverton-Hillsdale Hwy	Canyon Road	34
Priority: Pedestrian corridors to transit stations and stops			
160 th Avenue	TV Highway	Davis Road	358
117 th Avenue (gaps-one side)	Light Rail Transit Line	Center Street	34
Downtown Beaverton Connectivity collector roadways	Hocken Avenue/ TV Highway	110 th Avenue/ Cabot Street	1,033
Pedestrian Access to MAX	LRT Stations		1,148
Priority: Construct sidewalks with roadway improvement projects*			
125 th Avenue	Hall Boulevard	Brockman Road	193
Hall Boulevard	Cedar Hills	Hocken/Terman	Part of road improv.
Farmington Road	172 nd Avenue	185 th Avenue	218
Nimbus Avenue	Denney Road	Cirrus Drive	138
Walker Road	ORE 217	Canyon Road	209
Walker Road (gaps)	173 rd Avenue	Mayfield Avenue	441
Davies Road	Scholls Ferry Road	Barrows Road	61
Murray Boulevard	Scholls Ferry Road	Barrows Road	110
170 th Avenue	Alexander Street	Baseline/Jenkins	366

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Project	From	To	Approximate Cost (\$1000's dollars)
173 rd Avenue	Cornell Road	Bronson Road	55
Hart Road (gaps)	Hall Boulevard	Murray Boulevard	49
Cornell Road (one-side)	158 th Avenue	185 th Avenue	165
Oak Street/Davis Road/Allen (gaps)	160 th Avenue	170 th Avenue	244
Allen Boulevard (gaps)	Alice Lane	Western Avenue	112
Nora-Beard Road	175 th Avenue	155 th Avenue	281
Weir Road	175 th Avenue	160 th Avenue	248
175 th Avenue-Rigert Road	170 th Avenue	Scholls Ferry Road	755
Jenkins Road	153 rd Avenue	Murray Boulevard	112
Hart Road/Bany Road (gaps)	170 th Avenue	185 th Avenue	214
SW Beaverton collector roadway	Scholls Ferry Road	175 th Avenue	346
Johnson Street Extension	170 th Avenue	209 th Avenue	Part of road improv.
Barnes Road Improvements	Highway 217	119 th Avenue	Part of road improv.
Barnes Road Improvements	Saltzman Road	119 th Avenue	Part of road improv.
Cornell Road Improvements	US 26	143 rd Avenue	Part of road improv.
Cornell Road Improvements	143 rd Avenue	Saltzman Road	Part of road improv.
Cornell Road Boulevard Improvements	Barnes Road	Trail Street	2,295
Murray Boulevard Improvement	Science Park Drive	Cornell Road	Part of road improv.
Oleson Road	Fanno Creek	Hall	Part of road improv.
ORE 217 Overcrossing roadway	Scholls Ferry Road	Nimbus	Part of road improv.
Murray/Scholls Ferry Town Center – extensions and new roadways			Part of road improv.
103 rd Avenue	Walker Road	Western Boulevard	Part of road improv.
SW Beaverton circulation roadway	High Hill Lane	Nora-Beard Road	275
Priority: Pedestrian corridors that connect neighborhoods			
SW Butner Road (one side)	Murray Boulevard	Park Way	296
SW Downing Road (gaps on south side)	Murray Boulevard	Meadow Drive	41
Meadow Drive (one side)	Downing Road	Walker Road	38
Laurelwood Avenue/87 th Avenue	Canyon Road	Scholls Ferry Road	434
Jamieson Road	Pinehurst Drive/Cypress	Scholls Ferry Road	206

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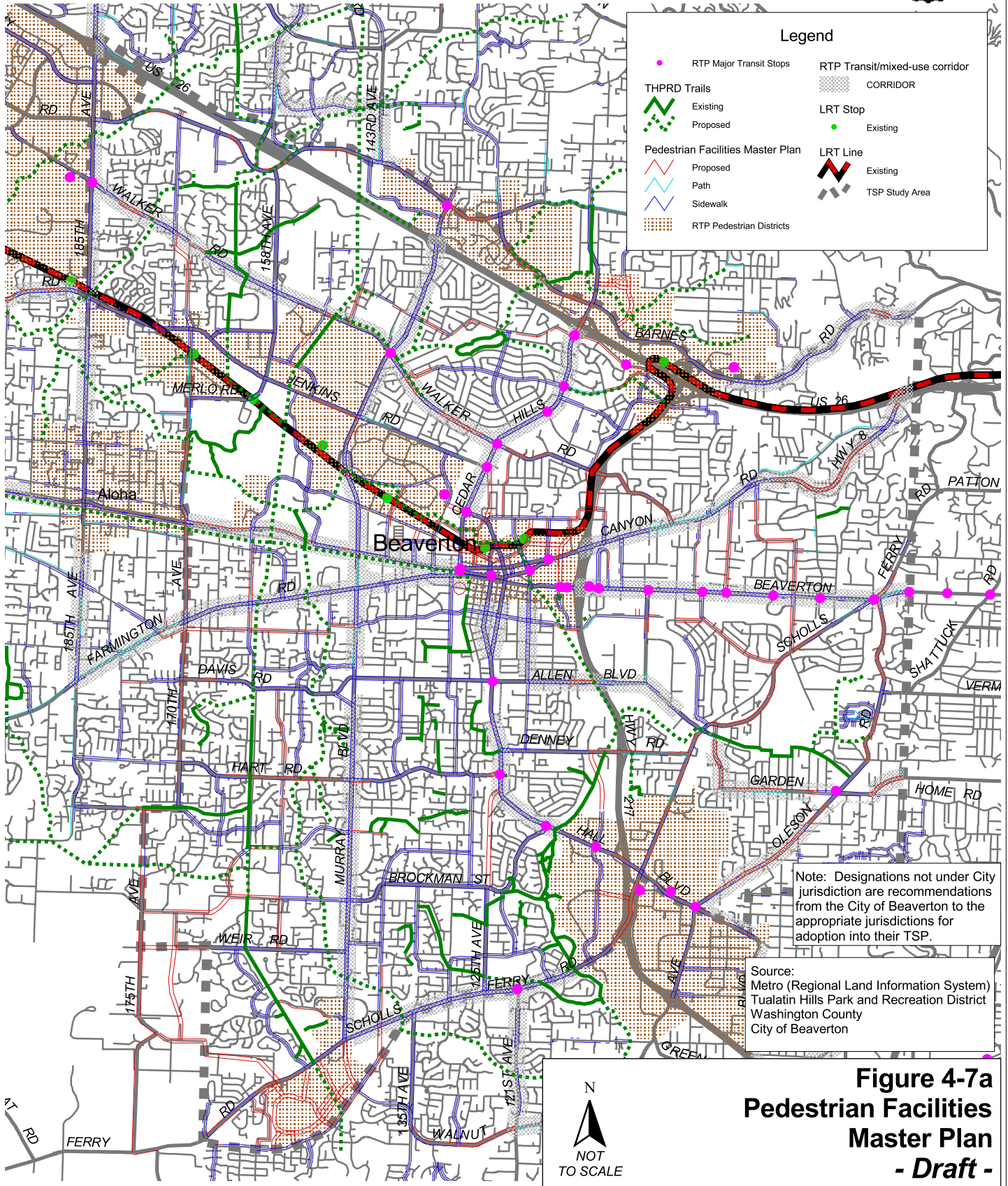
Project	From	To	Approximate Cost (\$1000's dollars)
Cypress Street	Jamieson Road	Elm Avenue	79
Sexton Mountain Drive (gaps)	Maverick Terrace	Nora-Beard Road	296
91 st Avenue	Canyon Road	BH Highway	1,970
96 th Avenue (one side)	Canyon Road	Beaverton-Hillsdale Highway	90
Pedestrian Action Plan Projects Total Cost:			\$ 45,078

*Sidewalks to be built with roadway improvement projects are dependent on the ROW and alignment of the road improvement and would not be built without the road improvement

Table 4-10: Pedestrian Action Plan – Projects with Committed Funds

Project	From	To	Approximate Cost (\$1000's dollars)
<i>Priority: Connect key pedestrian corridors to schools, parks, recreational uses and activity centers</i>			
170 th Avenue	Rigert Road	Alexander Street	515
170 th /173 rd Avenue	Baseline/Jenkins	Walker Road	220
Millikan Way	Hocken Avenue	Cedar Hills Blvd	57
Hart Road/Bany Road (gaps)	Murray Boulevard	170 th Avenue	236
Pedestrian Improvement Project Committed Funds Total Cost:			\$ 1,028

City of Beaverton
Transportation System Plan



Legend

- RTP Major Transit Stops
- RTP Transit/mixed-use corridor
- THPRD Trails
 - Existing
 - Proposed
- Corridor
- LRT Stop
 - Existing
- LRT Line
 - Existing
- TSP Study Area
- Pedestrian Facilities Master Plan
 - Proposed Path
 - Proposed Sidewalk
- RTP Pedestrian Districts

Note: Designations not under City jurisdiction are recommendations from the City of Beaverton to the appropriate jurisdictions for adoption into their TSP.

Source:
Metro (Regional Land Information System)
Tualatin Hills Park and Recreation District
Washington County
City of Beaverton

**Figure 4-7a
Pedestrian Facilities
Master Plan
- Draft -**

City of Beaverton
Transportation System Plan

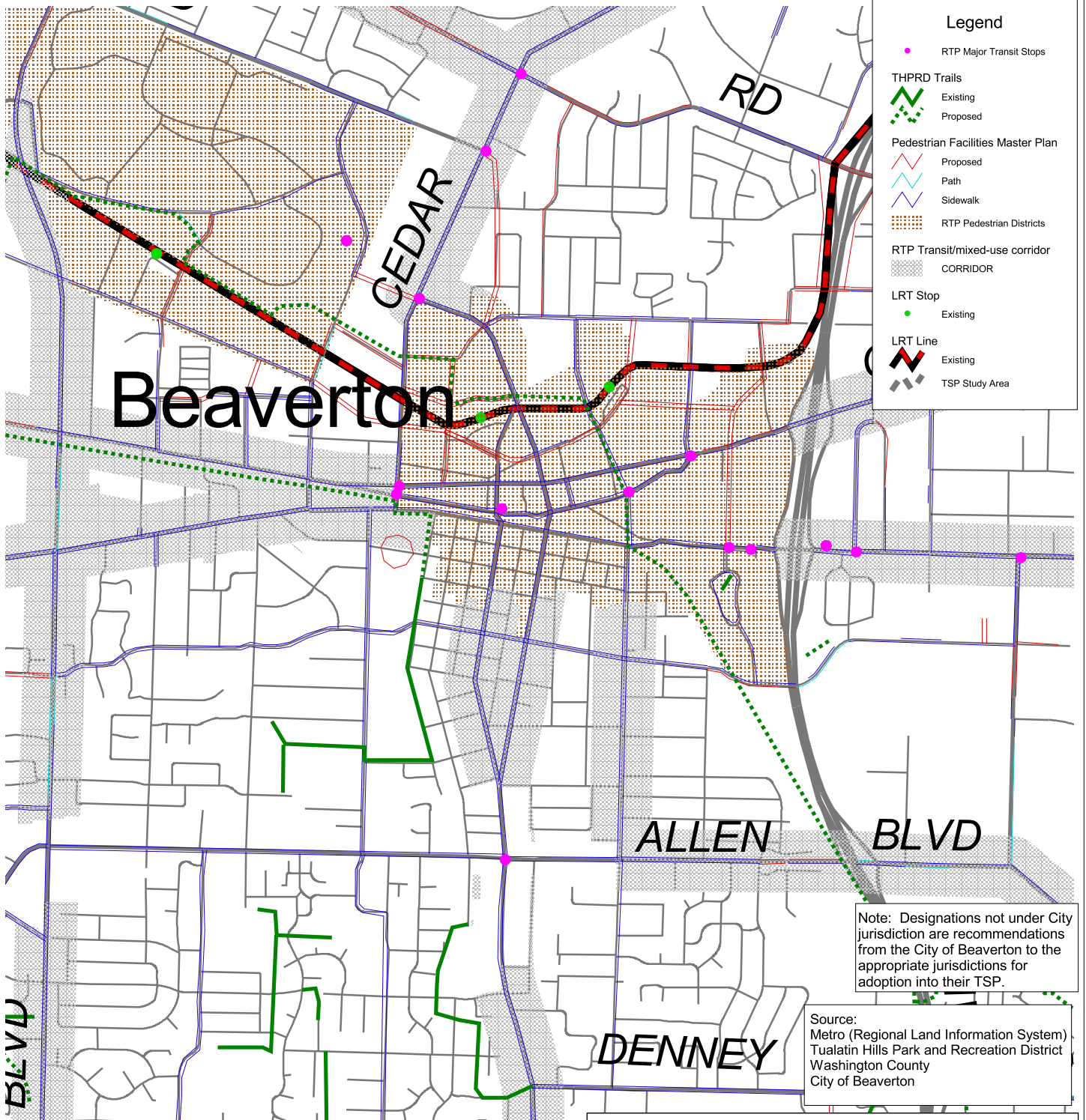


Figure 4-7b
Pedestrian Facilities
Master Plan
- Draft -

Bicycles

The Bicycle Master Plan has been updated from the previous TSP to include completed improvement projects and the expanded TSP Study Area (See Figure 4-8). Bikeway improvements are aimed at closing the gaps in the bicycle network along arterial and collector roadways. The ranking of the bicycle strategies has not changed from the previous TSP and is listed from most important to least important:

- Connect Key bicycle corridors to schools, parks, recreational uses and activity centers (public facilities, commercial areas, etc.)
- Fill in gaps in the network where some segments of bikeway exist
- Bicycle corridors that connect neighborhoods
- Construct bike lanes with roadway improvement projects
- Bicycle corridors that commuters might use
- Bicycle corridors providing mobility to and within commercial areas

The 2000 Metro RTP includes a bicycle functional classification system with the following designations (shown on Figure 4-8):

- **Regional Access Bikeway:** Function focuses on accessibility to and within the central city, regional centers, and larger town centers. Travel time is an important factor as these bikeways generally have high volumes.
- **Regional Corridor Bikeway:** Functions as longer routes that provide point-to-point connection between the central city, regional centers, and larger town centers. Generally higher automobile speeds and volumes than community connector bikeways.
- **Community Connector Bikeway:** Connect smaller town centers, main streets, station areas, industrial areas, and other regional attractions.
- **Multi-use paths with bicycle transportation function:** Likely to be used for commuting to work or school, accessing transit, or travelling to a store, library, or other local destination. Bicycle/pedestrian sidewalks on bridges are included in this classification. Design includes physical separation from motor vehicle traffic by open space or barrier.

The Bicycle Master Plan builds from state policy from the Transportation Planning Rule and from City of Beaverton policy that all arterial and collector roads have bikeways. The Action Plan is consistent with plans developed by Metro, Washington County, and the State, including providing bikeways consistent with each of the Metro RTP designated bikeways. Additional linkages with lanes or accommodations are outlined to make a complete network. The Bicycle Action Plan (Table 4-11) consists of projects that the City should actively try to fund in the next

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ten years. With the action plan, a substantial bicycle network would be in place and would allow attention to move toward infill Master Plan projects. The bicycle plan will require incremental implementation. As development occurs, streets are rebuilt and other project funding opportunities (such as grant programs) arise, projects on the Master Plan should be integrated into project development. Many of the projects would be elements of multi-modal street improvement projects (e.g. Murray Boulevard extension). The City, through its Capital Improvement Program, joint funding with other agencies (County, Metro, State) and development approval would implement these projects. Table 4-12 lists bicycle system improvement projects with funds already committed.

Table 4-11: Bicycle Action Plan

Project	From	To	Approximate Cost (\$1000's of dollars)
<i>Priority: Connect key bicycle corridors to schools, parks, recreational uses and activity centers</i>			
Greenway Road	Hall Boulevard	125 th Avenue	266
155 th Avenue/Weir Road	Davis Road	Murray Boulevard	1,190
Millikan Way	Murray Boulevard	TV Highway	521
160 th Avenue	TV Highway	Davis Road	503
Canyon Road	142 nd Avenue	91 st Avenue	1,310
<i>Priority: Fill in gaps in bicycle network</i>			
Hall Boulevard bike lanes	Greenway	ORE 217	357
Hall Boulevard bike lanes	Beaverton-Hillsdale Hwy	Cedar Hills Blvd	78
Hall Boulevard Extension	Cedar Hills	Hocken/Terman	Part of road improv.
Watson Avenue bike lanes	Beaverton-Hillsdale Hwy	Hall Boulevard	68
Cedar Hills Boulevard bike lanes	Farmington Road	Walker Road	506
6 th Street bike lanes	Murray Boulevard	Menlo Drive	241
Murray Boulevard bike lanes (west side of Murray Boulevard)	Farmington Road	approximately 200 ft south of TV Highway	48
Denney Road bike lanes	Hall Boulevard	Scholls Ferry Road	684
Allen Boulevard bike lanes	approximately 200 ft east of Western Avenue	Scholls Ferry Road	221
Western Avenue bike lanes	Beaverton-Hillsdale Hwy	Allen Boulevard	337
Beaverton-Hillsdale Hwy bike lanes	ORE 217	91 st Avenue	520
Beaverton-Hillsdale Hwy bike lanes	91 st Avenue	Wash. County Bound.	1,023

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Project	From	To	Approximate Cost (\$1000's of dollars)
Scholls Ferry Road	77 th Avenue	BH Highway	251
Oleson Road	BH Highway	Terri Court	453
92 nd Avenue	Allen Boulevard	Garden Home Road	377
Garden Home Road	92 nd Avenue	Oleson Road	641
Scholls Ferry Road	Hall Boulevard	Cascade Avenue	328
Scholls Ferry Road	BH Highway	Wash. County Bound.	431
Taylors Ferry Road	Oleson Road	Washington Drive	137
Davies Road	Scholls Ferry Road	Barrows Road	187
Barrows Road	Scholls Ferry Road (east)	Scholls Ferry Road (west)	1,180
Scholls Ferry Road	Murray Boulevard	175 th Avenue	896
<i>Priority: Construct bike lanes with roadway improvement projects*</i>			
125 th Avenue bike lanes	Hall Boulevard	Brockman Road	302
Farmington Road Bikeway	Hocken Avenue	Highway 217	3,213
Walker Road bike lanes	ORE 217	Canyon Road	327
Walker Road bike lanes	Cedar Hills Boulevard	Lynnfield Lane	150
Walker Road bike lanes	178 th Avenue	185 th Avenue	309
Millikan Way bike lanes	Hocken Avenue	Cedar Hills Blvd	91
170 th Avenue bike lanes	Alexander Street	Baseline/Jenkins	573
173 rd Avenue bike lanes	Walker Road	Cornell Road	371
Hart Road/Bany Road bike lanes	167 th Avenue	170 th Avenue	69
Cornell Road bike lanes	158 th Avenue	185 th Avenue	516
Murray Boulevard bike lanes	Scholls Ferry Road	Barrows	172
Allen Boulevard bike lanes	ORE 217	Murray Boulevard	293
Allen Boulevard bike lanes	ORE 217	approximately 200 ft west of Western Ave	108
Nora-Beard Road bike lanes	175 th Avenue	155 th Avenue	499
Weir Road	175 th Avenue	155 th Avenue	448
Barnes Road Improvements	Saltzman Road	119 th Avenue	Part of road improv
Cornell Road Improvements	143 rd Avenue	Saltzman Road	Part of road improv

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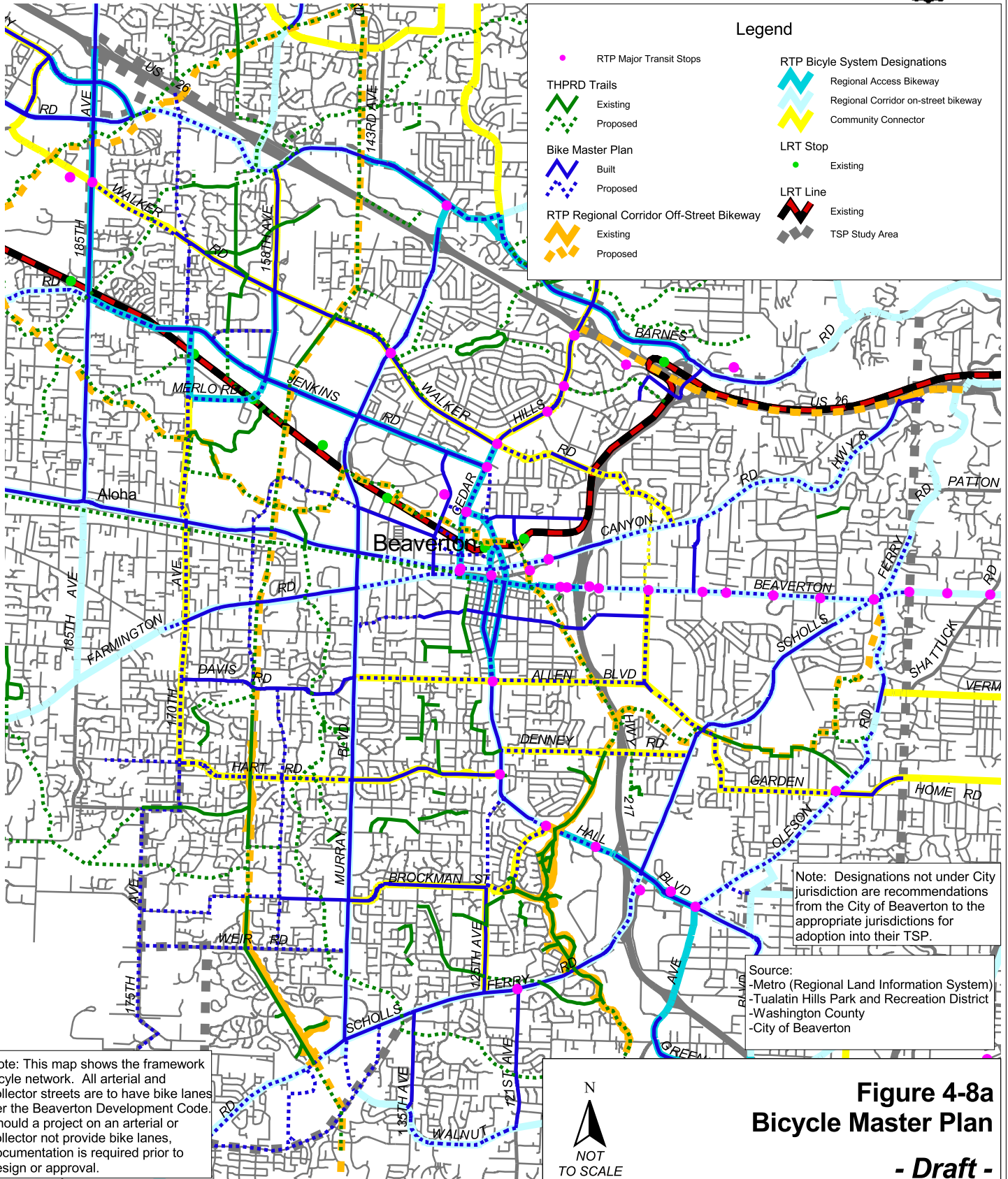
Project	From	To	Approximate Cost (\$1000's of dollars)
Canyon Road	US 26	110 th Avenue	6,750
103 rd Avenue Connection	Walker Road	Western Avenue	Part of Road improv.
175 th Avenue-Rigert Road bike lanes	170 th Avenue	ORE 210	1,180
Bicycle Action Plan Projects Total Cost:			\$ 28,125

*Bike lanes to be built with roadway improvement projects are dependent on the ROW and alignment of the road improvement and would not be built without the road improvement

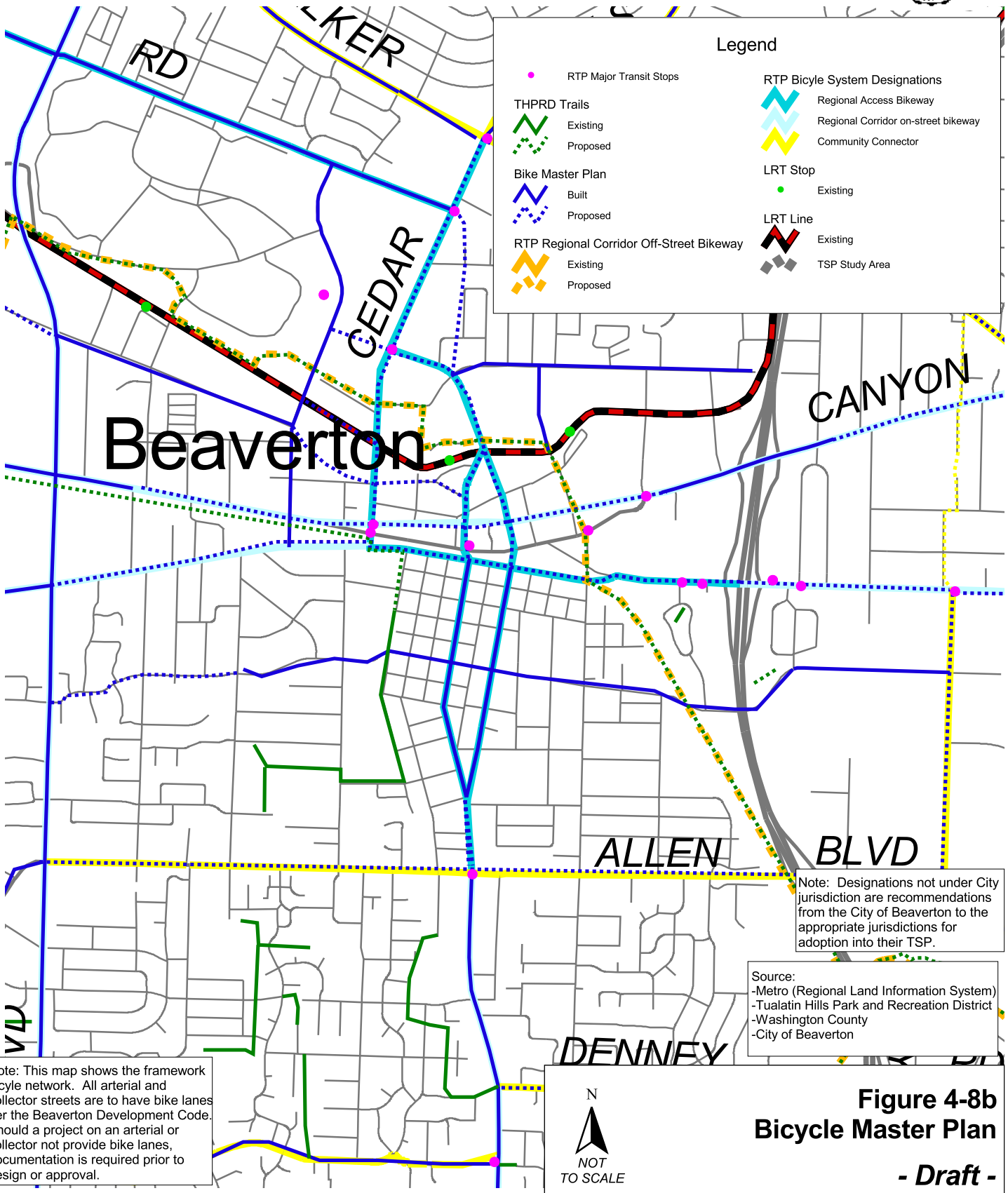
Table 4-12: Bicycle Action Plan – Committed Funding Projects

Project	From	To	Approximate Cost (\$1000's of dollars)
<i>Priority: Connect key bicycle corridors to schools, parks, recreational uses and activity centers</i>			
Millikan Way bike lanes	Hocken Avenue	Cedar Hills Blvd	91
170 th Avenue bike lanes	Rigert Road	Alexander Street	804
170 th /173 rd Avenue bike lanes	Baseline Road	Walker Road	344
Hall Boulevard bike lanes	12 th Street	900 ft south of Allen	154
Hart Road bike lanes	Murray Blvd	167 th Avenue	499
Barnes Road Improvements	Saltzman Road	119 th Avenue	Part of road improv.
Cornell Road Improvements	Murray Blvd	Saltzman Road	Part of Road improv.
Bicycle Action Plan Projects Total Cost (Committed Funding Projects):			\$ 1,892

City of Beaverton
Transportation System Plan



City of Beaverton
Transportation System Plan



Legend

- RTP Major Transit Stops
- THPRD Trails
 - Existing
 - Proposed
- Bike Master Plan
 - Built
 - Proposed
- RTP Regional Corridor Off-Street Bikeway
 - Existing
 - Proposed
- RTP Bicycle System Designations
 - Regional Access Bikeway
 - Regional Corridor on-street bikeway
 - Community Connector
- LRT Stop
 - Existing
- LRT Line
 - Existing
- TSP Study Area

Note: Designations not under City jurisdiction are recommendations from the City of Beaverton to the appropriate jurisdictions for adoption into their TSP.

Source:
 -Metro (Regional Land Information System)
 -Tualatin Hills Park and Recreation District
 -Washington County
 -City of Beaverton

Note: This map shows the framework bicycle network. All arterial and collector streets are to have bike lanes per the Beaverton Development Code. Should a project on an arterial or collector not provide bike lanes, documentation is required prior to design or approval.



Figure 4-8b
Bicycle Master Plan
 - Draft -

Transit

Currently, there are twenty-three transit routes serving Beaverton (see Figure 4-9). The transit service has been significantly changed from the last TSP due to the opening of the Westside MAX. The existing transit system coverage area includes approximately 85 percent of the modeled transit supportive zones within the Beaverton TSP study area⁹. The future 2020 land use would increase the transit supportive area and reduce the percentage of coverage to approximately 80 percent (see Figure 4-10) without an increase in service coverage. Tri-Met has addressed some of the future transit needs in Beaverton with the planned 10-year improvements listed in Table 4-13. The City of Beaverton should coordinate with Tri-Met to focus possible future transit coverage on those transit supportive areas not covered by the existing system. Transit amenities were also identified in the Tri-Met Ten-Year Service Improvements¹⁰ as a high community priority needing attention in 1-5 years. Transit amenities can make transit ridership increase by making transit an attractive travel alternative. The City of Beaverton should coordinate with Tri-Met and Washington County to provide transit shelters at transit stops designated as major transit stops or with daily boardings above 35 persons. The City of Beaverton should coordinate the provision of sidewalks along major transit streets with Tri-Met. The City of Beaverton should coordinate the provision of transit pass programs and fareless areas with city employers and the Westside Transportation Alliance TMA.

Due to heavily congested arterial corridors, the City will need to coordinate with Tri-Met on the development of corridor level transit services that can help relieve congestion and forestall more expensive capital infrastructure. High quality regional transit service on corridors such as Scholls Ferry Road, Murray Boulevard, Hall Boulevard, TV Highway, Walker Road, and Allen Boulevard can link many high employment, regional center, and town center areas (consistent with the RTP). Metro's RTP includes transit route designations along corridors defined as follows¹¹:

- **Rapid Bus.** Regional rapid bus service emulates LRT service in speed, frequency and comfort, serving major transit routes with limited stops. This service runs at least every 15 minutes during the weekday and weekend mid-day base periods.
- **Frequent Bus.** Frequent Bus service provides slightly slower, but more frequent, local bus service than rapid bus along selected transit corridors. This service runs at least every 10 minutes and includes transit preferential treatments such as reserved bus lanes and signal preemption.
- **Regional Bus.** Regional bus service is provided on most major urban streets. This type of bus service operates with maximum frequencies of 15 minutes with

⁹ Coverage is determined as the area within 0.25 miles of a bus stop or 0.50 miles of a LRT stop

¹⁰ Transit Choices For Livability Handbook, Tri-Met, 2000.

¹¹ Based on the *2000 Regional Transportation Plan*, Metro, August 12, 2000.

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conventional stop spacing along the route.

The City of Beaverton should coordinate with Tri-Met, ODOT, and Washington County to provide signal priority for transit routes along the RTP designated frequent bus lines (TV Highway/Farmington and Cedar Hills/Hall – approximately 50 signals at approximately \$7000 each). Signal priority along the frequent transit routes would improve transit service speed and reliability along these congested corridors with high multi-modal trip potential.

Table 4-13: Tri-Met Ten-Year Service Improvements

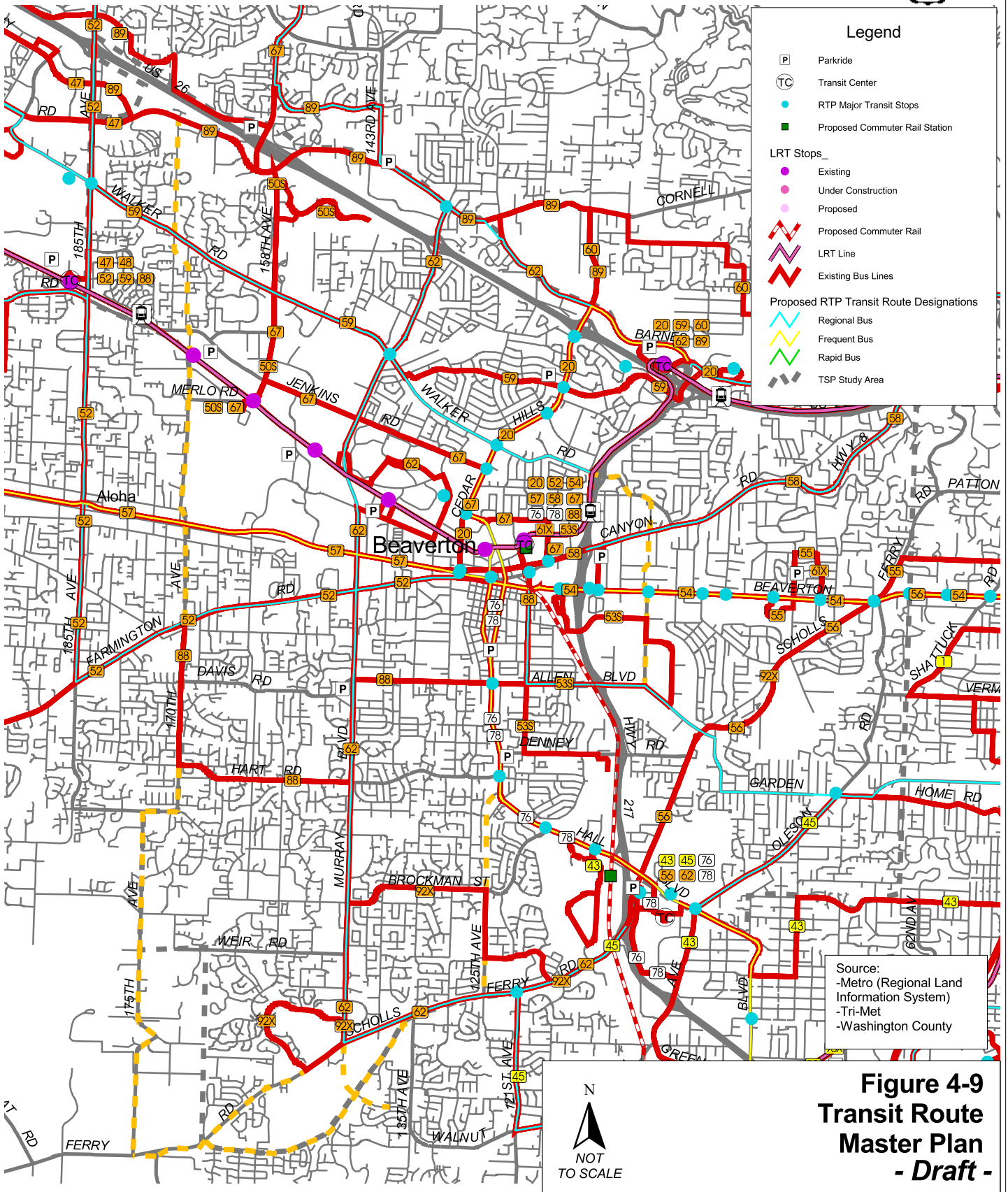
Route Description	Frequency** (minutes)	Rough Annual Cost	Projected Implementation
Beaverton-Washington Sq.-Tigard-Tualatin: Rapid bus or commuter rail connections between these communities, including extension to Wilsonville	30	\$800,000	3-5 years
Nimbus Businesses: Local service between Nimbus employers and destinations in the Washington Sq. area	30	\$385,000	1-3 years
Cornell Oaks Businesses: Shuttle between employers along 158 th and in the Cornell Oaks area to MAX, as part of Westside Max start-up	30	\$150,000	1-3 years
Existing Tri-Met Lines: Improve frequency and span of service on lines serving Farmington Road, 158 th , 185 th , 198 th , Jenkins, Hart, and Denney		\$2,000,000	1-3 years

Source: Transit Choices for Livability Handbook, Tri-Met, 2000.

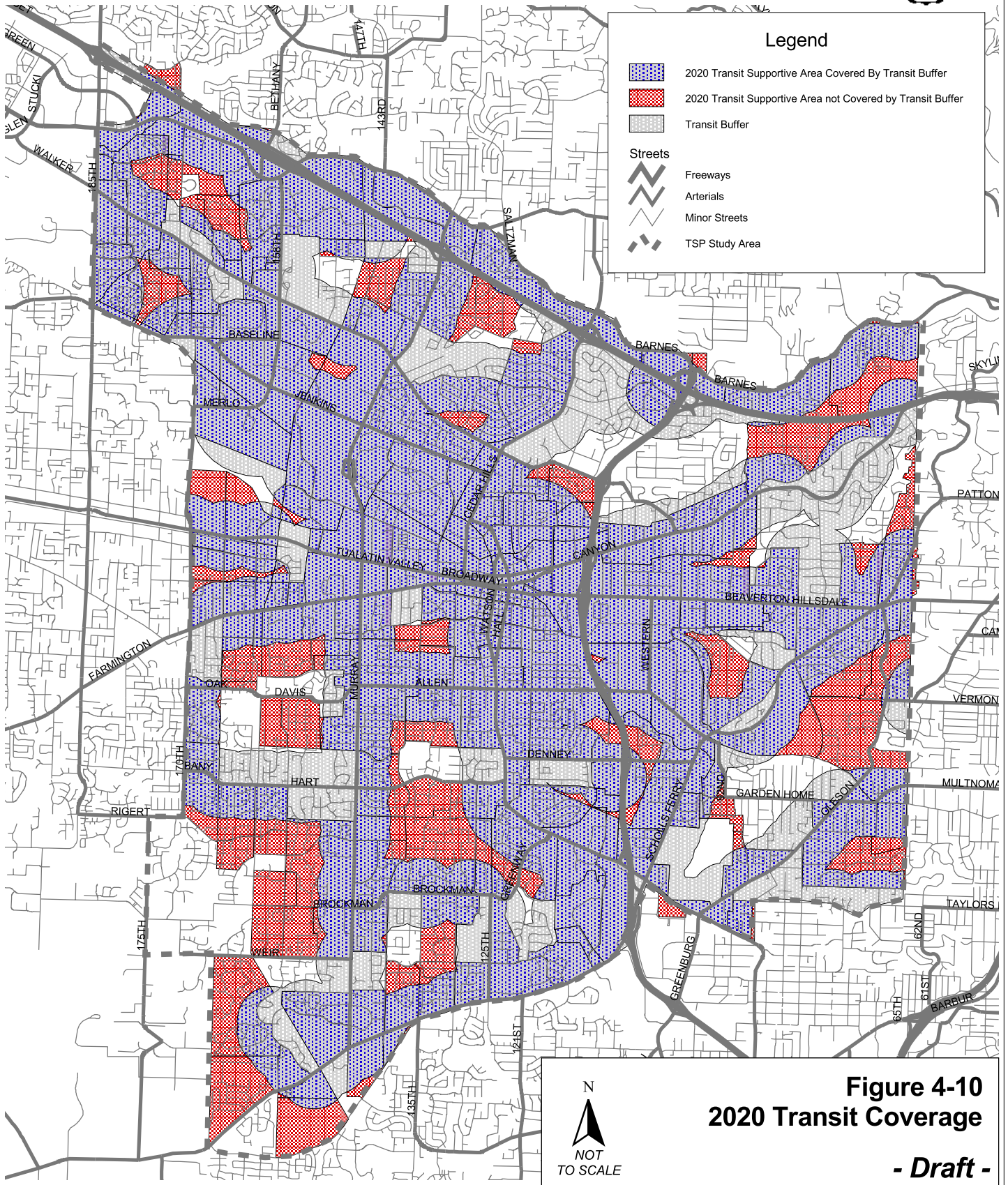
** Frequency is defined at the time spacing between bus arrivals.

In addition to the Tri-Met 10-year service improvements listed in Table 4-13, the Washington County Commuter Rail project connecting Wilsonville to Beaverton is listed in the RTP as a committed project. The timeline for this project is 2000-2005, with an estimated cost of \$71,500,000.

City of Beaverton
Transportation System Plan



**City of Beaverton
Transportation System Plan**



Motor Vehicles

Functional Classification

The current functional classification of streets in Beaverton was updated to reflect the expanded TSP study area, on-going regional planning, the functional needs of Beaverton, and consistency with the Regional Transportation Plan. Classifications of principal arterial, arterial, collector, neighborhood route and local have been developed based on connectivity (defined in the 2015 TSP), which is the best indicator of function. Figure 4-11 summarizes the functional classification recommendations. Appendix F summarizes the various jurisdictional functional classifications of major roadways with the TSP study area in a matrix format. This comparison matrix provides a comparison of the adopted City of Beaverton arterial designations to the Washington County and Metro major/minor arterial designations. These comparisons should be used to require that streets designated in the RTP be designed with a modal orientation that reflects the function of the street and the character of surrounding land uses as defined in Chapter 1 of the RTP (see Appendix L)¹².

Based on input from the TAC (Technical Advisory Committee), City Staff, and the Traffic Commission, additional functional class alternatives were considered on Jay Street, Oak Street/Davis Road, and Hart Road/Bany Road west of Murray.

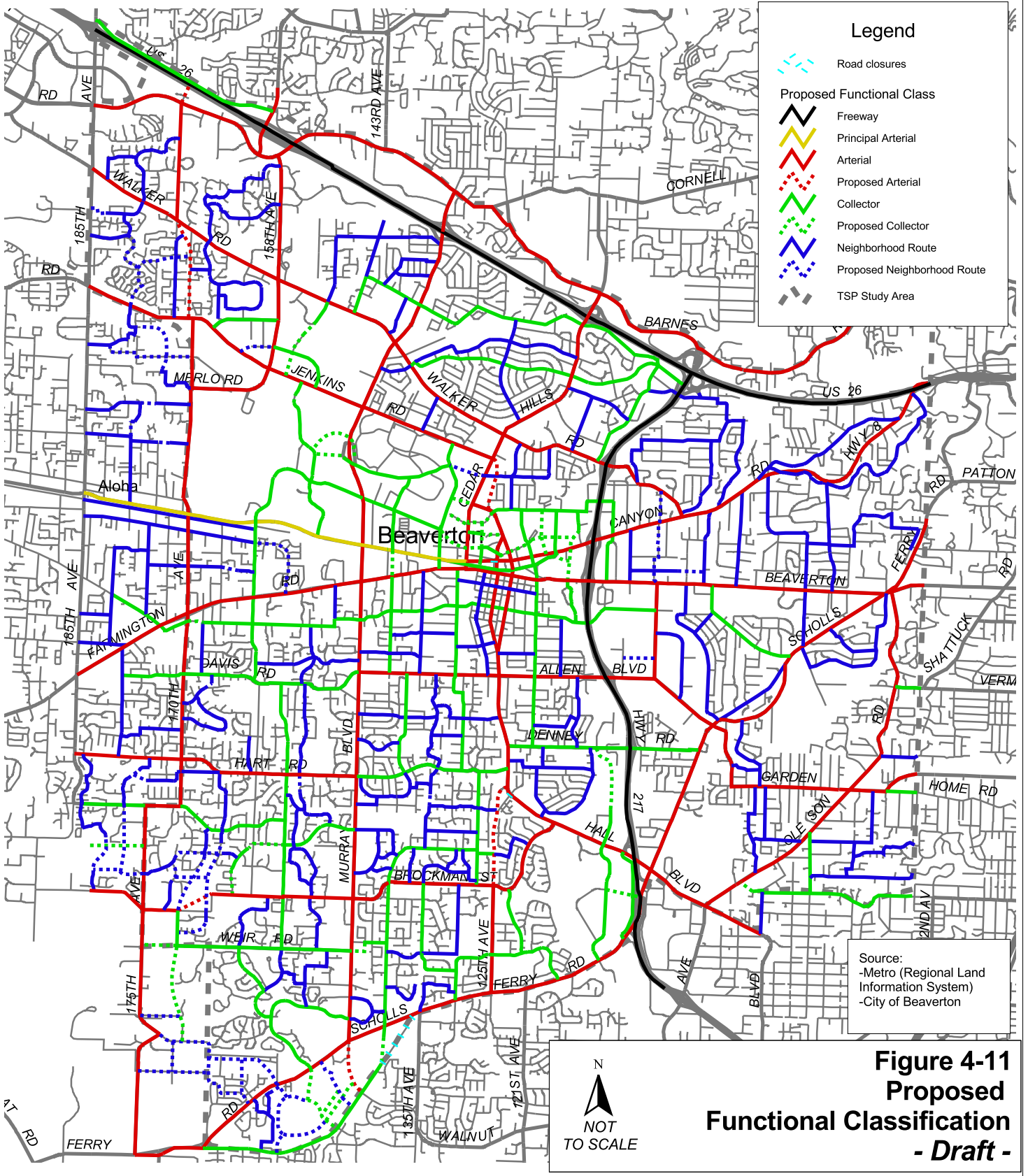
Jay Street (from Jenkins to 158th) was approved for road closure at 158th based on Washington County ordinance on the development of the IBM site. Currently, the road has not been closed as the development action has not proceeded. The Beaverton Traffic Commission recommends that the Jay Street functional classification remain as a collector roadway as it serves as an important congestion relief to the 158th/Jenkins intersection. The Traffic Commission also recommends that if the road were to be closed, the planned improvements on Jenkins, 158th, and Walker should be constructed to insure adequate capacity in the area. Based on the recommendation of the Traffic Commission, the Beaverton Functional Classification Map shall show Jay Street as a collector so that if a new development application is brought to the County or City, the issues of the road closure can be revisited¹³.

The functional classification of Oak Street/Davis Road as an arterial and Hart Road/Bany Road as a collector was also discussed by the TAC and the Traffic Commission. The issues discussed were related to how the roadways currently serve traffic in the Beaverton area. Oak/Davis connects to Allen Boulevard to the east and 170th Avenue to the west. Bany/Hart connects to Murray Boulevard at the east and 185th Avenue to the west. The TAC and the Traffic

¹² Based on the 2000 *Regional Transportation Plan*, Metro, August 2000.

¹³ Based on Beaverton Traffic Commission Meeting, May 17, 2001.

City of Beaverton
Transportation System Plan



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Commission both see Hart/Bany connecting to Murray and 185th as the main through route. The access management of the roads was also discussed in relation to an arterial designation having larger access spacing requirements than a collector designation. Oak Street/Davis Road currently has significant residential frontage/access, while Hart Road/Bany Road typically has residential lots backing to the roadway. The Traffic Commission recommended that the functional classification of Oak Street/Davis Road be switched to collector and the classification of Hart Road/Bany Road be switched to arterial based on the function of the road to through traffic and the access characteristics of the roadways¹⁴.

Access Management

Access management is important, particularly on high volume roadways, for maintaining traffic flow and mobility. Where local and neighborhood streets function to provide access, collector and arterial streets serve greater traffic volume. Numerous driveways, or street intersections, increase the number of conflicts and potential collisions and decrease mobility and traffic flow. Beaverton, as with every other city, needs a balance of streets that provide access with streets that serve mobility. The 2015 TSP included the following access management recommendations:

- Incorporate a policy statement regarding prohibition of new single family residential access on arterials and collectors. A design exception process should be outlined that requires mitigation of safety and NTM impacts. This addresses a long standing problem in Beaverton where property owners consume substantial staff time on issues of residential fronting impacts.
- Set standards for access spacing (working with Washington County and ODOT) for arterials (600 foot minimum, 1,000 foot maximum) and collectors (200 foot minimum, 400 foot maximum).
- Specific access management plans be developed for TV Highway and Cedar Hills Boulevard (north of Walker) to maximize the capacity of the existing facilities and protect their functional integrity.

The access management recommendations in the 2015 TSP do not identify specific needs at the freeway interchanges in the study area (along US 26 and ORE 217). Based on the *1999 Oregon Highway Plan* (OHP), access points should not be allowed within 1320 feet of freeway interchanges. Interchanges within the Beaverton 2020 TSP study area exist with numerous access points within 1320 of the interchange. These access points are locations of potential conflict with vehicle queued from the freeway on ramps, especially with queues formed from ramp meters. The following recommendation addresses the need to reclaim vehicular access control near the freeway interchanges to meet ODOT spacing standards:

¹⁴ City of Beaverton Traffic Commission Meeting, May 17, 2001.

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- As property redevelops, an evaluation of compliance with relevant access management policies is made for areas proximate to freeway interchange
- If an existing access point is found non-compliant and it is the sole vehicular access for the property, a temporary access permit is issued that allows the property owners to continue access until such a time that alternative means can be made available
- In addition, the applicant will agree to potential cross-easements for circulation between adjoining properties
- When adjoining property re-develops that has compliant alternatives for vehicular access, the temporary permit of the first property owner is terminated and the non-compliant access is closed.

In addition, the proposed functional classification, shown in Figure 4-11, includes a designation of principal arterial for TV Highway west of Cedar Hills. This new designation requires additional code for access spacing and should be coordinated with Washington County and ODOT. The recommended for minimum access spacing on a principal arterial is 1000 feet.

Local Street Connectivity

The 2020 Beaverton TSP Study Area reaches beyond the 2015 TSP Study Area. The 2015 TSP identified potential local street connections for both multi-modal and non-auto connections. The local connectivity map has been updated to include areas not part of the 2015 TSP. Locations of connections within the City have been updated to reflect completed projects and locations where connections were determined unfeasible by City Staff. Connections from Washington County Ordinance 552 were included in the unincorporated areas. Additional multi-modal and non-auto connections were identified both within the City and the unincorporated areas. Detailed connectivity maps, broken into neighborhoods, are shown in Appendix E.

Motor Vehicle Needs

Appendix D provides a detailed analysis of the motor vehicle alternatives analysis. The following summary includes the methodology and resulting improvement projects for the Beaverton 2020 TSP Motor Vehicle Plan. Additional discussion, tables, and figures can be found in Appendix D.

Approach

Existing conditions were identified in Chapter 3. The future 2020 conditions were forecast as noted in Chapter 4. This 2020 forecast includes the Commuter Rail and the highest level of transit service given regional funding constraints¹⁵. It assumes that Transportation Demand Management (TDM) will occur and that significant shifts to transit will occur. While numerous

¹⁵ This system assumes the commuter rail and all the feeder bus system that supports it. Other westside bus service is provided also.

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analysis scenarios were developed, the base 2020 conditions assumed a street network that included the RTP Priority System improvements and the improvements identified in the 2015 Beaverton TSP. This was done because the prior TSP and RTP both confirmed that this level of motor vehicle transportation investment would be necessary to minimally address the future 2020 needs of the Beaverton area. RTP Priority System motor vehicle projects within the Beaverton TSP Study area are listed in Table 4-14. Beaverton 2015 TSP improvements are listed in Tables 4-15 and 4-16. Table 4-17 lists the 2015 TSP projects that have been constructed or have received committed funding for design/construction since the 2015 TSP was adopted. Performance was evaluated using a three-tiered assessment of capacity and operations.

- Demand to capacity (D/C) ratios¹⁶ were evaluated on roadway segments and conditions where the demand to capacity ratio exceeded 1.0 were studied for potential improvements (based on a 1-hour and 2-hour D/C ratio). Areas within a 2040 design type of Regional Center, Town Center, Main Street, or Station Communities were studied if the 1-hour D/C ratio exceeded 1.1 or the second hour exceeded 1.0.
- Intersection level data were developed for about 95 intersections in Beaverton (based upon staff input, for primarily arterial and collector intersections). While this is a broad sampling of intersections, it does not represent every intersection in the City. Therefore, there may be other locations that may require some mitigation. Alternative improvements were considered where D/C ratios exceeded 1.0 or Level of Service (LOS) was at F or worse. Mitigated levels of service were generally brought to the D/C ratio 1.0 or LOS of E/F range for the 20-year planning assessment.
- New roadway alignments were considered if connectivity was needed to reduce traffic volumes on congested roadways. The goal of new road alignments was to achieve a roadway that would carry a daily volume of at least 5,000 to 10,000 vehicles per day or would significantly reduce the volume on other congested roadway facilities. Additionally, new road connections/alignments were considered if they would reduce neighborhood traffic volumes by 2,000 to 4,000 vehicles per day.

¹⁶ Demand to capacity ratio is similar to volume to capacity (V/C) ratio. The difference is that in the future demand is being estimated and therefore the term demand is utilized. For existing conditions, volume refers to the actual traffic on the roadway. While a demand to capacity ratio can exceed 1.0, a volume to capacity ratio would never exceed 1.0.

**Table 4-14
Beaverton Motor Vehicle System Improvements included in the RTP Priority System***

RTP #	Location	Improvement	Jurisdiction	Time-Line	Cost
1184	BH Highway/Scholls Ferry Road	Redesign the intersection to improve safety for all modes of travel.	ODOT/WACO	2006-2010	\$13,000,000
6013	Hall: Scholls Ferry to Locust	Widen to 5 lanes. Includes sidewalk and bike lanes	ODOT	2006-2010	\$4,700,000
6017	Taylor's Ferry: Washington to Oleson	Construct a 3 lanes extension with sidewalks and bike lanes	WACO	2011-2020	\$1,900,000
6025	Scholls Ferry: 217 to 125th	Implement system management strategies	WACO	2000-2005	\$500,000
6052	Highway 217 Overcrossing: Nimbus to Mall Area	Construct a 2 lane crossing including sidewalks and bike lanes	Tigard	2011-2020	\$25,000,000
6119	Murray/Scholls Town Center	Construct 2 lane Teal Road collector extension to Town Center Loop and Barrows, transit collectors from Murray to Town Center Loop, and new neighborhood route connections	WACO/Beaverton	2011-2020	\$11,000,000
6121	Murray: Scholls Ferry to Barrows	Construct a 4 lane extension to Walnut at Barrows including sidewalks and bike lanes	Beaverton/Tigard/WACO	2000-2005	\$7,120,000
6122	Davies Road: Scholls Ferry to Barrows	Construct a 3 lane extension to Barrows including sidewalks and bike lanes	Beaverton	2006-2010	\$1,500,000
3000	ORE 217	Add capacity based on recommendations from the ORE 217 corridor study	ODOT	2011-2020	\$70,000,000
3001	ORE 217: TV Hwy to US 26	Widen the northbound to 3 lanes with ramp improvements	ODOT	2006-2010	\$21,000,000
3002	ORE 217 and US 26	Reconfigure the interchange with braided ramps	ODOT	2006-2010	\$50,000,000
3006	US 26: Camelot Court to Sylvan	Add 3 rd through lane and collector distributor system	ODOT	2000-2005	\$22,000,000
3007	US 26: ORE 217 to Camelot Court	Widen eastbound to 3 lanes	ODOT	2006-2010	\$12,000,000
3009	US 26: Murray to 185th	Widen freeway to 6 lanes with possible HOV lane	ODOT	2011-2020	\$26,000,000
3019	Beaverton Connectivity	Complete several downtown street connections	Beaverton	2000-2005	\$13,200,000
3020	Beaverton Connectivity	Complete several downtown street connections	Beaverton	2006-2010	\$13,300,000
3022	Jenkins: Murray to 158th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$1,870,000
3023	ORE 217: Allen to Walker	Interchange improvements	ODOT/WACO/Beaverton	2000-2005	\$3,600,000
3025	TV Hwy: Cedar Hills to 10th	Add capacity based on recommendation from refinement planning	ODOT/WACO	2011-2020	\$33,200,000
3031	Allen: ORE 217 to Murray	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$8,500,000
3032	Cedar Hills: Farmington to Walker	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2006-2010	\$3,700,000
3033	125 th : Brockman to Hall	Construct a 2 lane extension with turn lanes including sidewalks and bike lanes	Beaverton	2000-2005	\$9,800,000
3034	Hall: Cedar Hills to Hocken	Construct a 3 lane extension with sidewalks and bike lanes	Beaverton	2000-2005	\$4,600,000
3036	158 th /Merlo: 170 th to Walker	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$4,000,000
3038	Center: Hall to 113th	Widen to 3 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$3,200,000
3060	TV Hwy: 117 th to Hillsboro	Implement access management strategies	ODOT/WACO	2006-	\$15,000,000

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RTP #	Location	Improvement	Jurisdiction	Time-Line	Cost
			O	2010	
3061	TV Hwy: 209 th to ORE 217	Interconnect Traffic Signals	ODOT/WACO	2006-2010	\$1,500,000
3063	Murray: TV Hwy to Allen	Interconnect Traffic Signals	WACO	2000-2005	\$50,000
3069	Scholls Ferry: Hamilton to Garden Home	Widen to 3 lanes including sidewalks and bike lanes	WACO	2011-2020	\$8,000,000
3076	Allen: ORE 217 to Western	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$1,000,000
3084	170 th : Alexander to Merlo	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$8,000,000
3085	170 th : Rigert to Blanton to Alexander	Widen to 3 lanes from Rigert to Blanton and 5 lanes from Blanton to Alexander including sidewalks and bike lanes	WACO	2000-2005	\$26,700,000
3086	158 th : Walker to Jenkins	Widen to 5 lanes including bike lanes	WACO	2011-2020	\$450,000
3087	Millikan: TV Hwy to 141 st	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$4,000,000
3088	Millikan: 141 st to Hocken	Widen to 3 lanes including sidewalks and bike lanes	WACO	2011-2020	\$3,400,000
3121	TV Hwy: Cedar Hills to Minter Bridge	Refinement Planning to identify phased strategy to implement a limited-access facility	ODOT	2000-2005	N/A
3141	170 th /173 rd : Baseline to Walker	Widen the street to 3 lanes including sidewalks and bike lanes	WACO	2006-2010	\$5,500,000
3143	Walker: Cedar Hills to 158th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$20,000,000
3144	Walker: 158 th to Amberglen	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$10,000,000
3148	Walker: Cedar Hills to ORE 217	Widen to 3 lanes including sidewalks and bike lanes	WACO	2006-2010	\$8,000,000
3175	Barnes: ORE 217 to 119th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$6,200,000
3177	Cedar Hills/Barnes	Reconstruct intersection and approaches to add travel lanes, turn lanes, and traffic signal upgrades	WACO	2000-2005	\$1,800,000
3181	Cornell: US 26 to 143rd	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$3,000,000
3183	Cornell: 143 rd to Saltzman	Widen to 3 lanes including sidewalks and bike lanes	WACO	2000-2005	\$4,600,000
3185	Barnes: Saltzman to 119th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2000-2005	\$5,300,000
3186	Murray: Science Park to Cornell	Widen to 5 lanes including sidewalks and bike lanes	WACO	2000-2005	\$3,100,000
3191	Cornell	Modify intersections at Saltzman, Barnes, Murray, and Trail	WACO	2011-2020	\$500,000
3204	Cornell: Bethany to 179th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$4,000,000
3205	173rd/174th	Construct a new 2 lane undercrossing of US 26 from Cornell to Bronson including sidewalks and bike lanes	WACO	2011-2020	\$14,800,000
3214	Farmington: 172 nd to 185th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$10,000,000
			TOTAL		\$529,590,000

*This project list is based on the August 10th, 2000, *2000 Regional Transportation Plan*, and includes projects in the Financially Constrained and Priority Motor Vehicle System

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**Table 4-15
Beaverton 2015 TSP Motor Vehicle Improvements not identified in the RTP Priority Scenario**

Location	Description	Jurisdiction	Cost
Hocken at TV and Farmington	Widen Hocken to accommodate 2 additional lanes between TV and Farmington to allow turn lanes, Widen TV from 141 st to Hocken to allow 3 through lanes and additional turn lanes	ODOT/Beaverton	\$6,100,000
ORE 217: Walker/Cabot/Canyon Ramps	Braid ramps between Canyon and Walker/Cabot split diamond	ODOT	\$20,800,000
Bany/Hart: 170 th to 160th	Improve to 2-3 lanes including sidewalks and bike lanes	WACO	\$1,000,000
170 th : Merlo to Baseline	Widen to 3 lanes including sidewalks and bike lanes	WACO	\$2,100,000
170 th : Division to Blanton	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$2,500,000
Hyland Extension: Carr to Hart	Extend Roadway	Beaverton	\$115,000
ORE 217: Denney/Allen	Collector/Distributor connection	ODOT	\$8,600,000
Cedar Hills: Walker to US 26	Complete 5 lane roadway with access control including sidewalks and bike lanes	WACO	\$2,100,000
143 rd /Meadow: Science Park - Walker	Construct a new 2 lane road connections including a grade separation of US 26 including sidewalks and bike lanes	WACO	\$16,000,000
Walker Road: Murray to ORE 217	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$26,500,000
Jenkins: Murray to Cedar Hills	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$3,800,000
Scholls Ferry: Hall to 125th	Widen to 7 lanes including sidewalks and bike lanes	WACO/ODOT	\$15,760,000
Scholls Ferry: Teal to 175th	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$4,000,000
Beard/Nora: Murray to 170th	Improve to 2-3 lanes including sidewalks and bike lanes	WACO	\$6,600,000
Weir: Murray to 175th	Improve to 3 lanes including sidewalks and bike lanes	Beaverton	\$3,700,000
Hall north of Center	Extend new 5 lane roadway north of Center to connect with Jenkins at Cedar Hills including sidewalks and bike lanes	Beaverton	\$11,000,000
Center: Cedar Hills to Hocken via Westgate	Extend public roadway with 3 lanes including sidewalks and bike lanes from Center to Westgate and from Westgate to Hocken	Beaverton	\$1,500,000
141 st : Tek to Farmington	Realign and extend 2/3 lane roadway including sidewalks and bike lanes	Beaverton	\$2,800,000
Nimbus: Hall to Denney	Extend 2/3 lane roadway including sidewalks and bike lanes	Beaverton	\$8,300,000
Local Streets	Add local and collector connectivity	Beaverton	\$41,900,000
Traffic Signals	Addition of 50 traffic signals per plan	Beaverton/ WACO/ODOT	\$12,500,000
Intersection Improvements	Listed in Table 4-16	Beaverton/ WACO/ODOT	\$60,325,000
		TOTAL	\$258,000,000

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**Table 4-16
2015 TSP Intersection Improvements**

#	Location	Improvement	Cost
1	Kinnaman/Farmington	Widen Farmington to 5 lanes; add WB left turn lane; add NB/SB left turn lane; signal phasing modifications to NB/SB permitted/protected phasing	\$1,250,000
2	Walker/173 rd	Widen Walker Road to 5 lanes; add EB/WB right turn lanes; NB/SB double left turn lanes	\$2,000,000
3	Baseline/170 th	SB double left turn lanes; signal phasing modification of NB/SB to protected phasing; add WB right turn lane	\$1,250,000
4	Merlo/170 th	Signal phase change to permitted/protected for NB/SB approaches and to protected phasing for EB/WB approaches; add NB right turn lane; add NB, SB, and EB left turn lanes	\$1,500,000
5	TV Highway/170 th	Widen TV Highway to 7 lanes (3 through lanes each way); widen 170 th to 5 lanes; add SB right turn lane; WB double left turn lanes	\$1,000,000
6	Farmington/170 th	Widen Farmington to 5 lanes; add NB left turn lane; add NB through lane and restripe SB for additional through lane (widen 170 th to 5 lanes)	Cost included in roadway project
7	Hart-Bany/170 th	Install traffic signal; add NB and SB left turn lanes	\$1,250,000
8	Walker/167 th	Install traffic signal; add NB and SB left turn lanes	\$250,000
9	Cornell/158 th	Add EB right turn lane	\$500,000
10	Walker/158 th	NB/SB double left turn lanes; add EB right turn lane; NB right turn lane; WB through lane (2 through lanes in each direction); signal phasing change to EB/WB permitted/protected phasing	\$2,250,000
11	Jenkins/158 th	Add NB right turn lane; add SB through lane and restripe SB approach; WB double left turn lanes; WB through lane (5 lanes on Jenkins)	\$1,000,000
12	TV Highway/Millikan	Widen TV to 7 lanes; add SB and NB lane across intersection	\$1,625,000
13	Hart/155 th	Add WB left turn lane	\$500,000
14	Jenkins/153 rd	Widen Jenkins to 5 lanes (2 through lanes each way)	Cost included in roadway project
15	TV Highway/153 rd	Widen TV Highway to 7 lanes (3 through lanes each way)	Cost included in roadway project
16	Farmington/149 th	Widen Farmington to 5 lanes	Cost included in roadway project
17	Walker/Murray	Add double left turn lanes on all approaches; add right turn lanes on all approaches	\$4,000,000
18	Murray/Jenkins	Add NB and SB right turn lanes; NB and SB double left turn lanes; widen Jenkins to 5 lanes	\$2,000,000
19	TV Highway/Murray	Double left turn lanes on all approaches; add NB/SB through lane (3 through lanes each way) DCP; install median at TV/Railroad tracks/Farmington to restrict driveways to right in, right out	\$1,500,000
20	Murray/Farmington	Double left turn lanes on all approaches; SB, EB, and WB right turn lanes	\$2,500,000
21	Murray/6 th	Install traffic signal; add EB and WB left turn lanes	\$250,000
22	Murray/Allen	Widen Allen to 5 lanes to Murray (drop additional WB through lane after Murray); add SB right turn lane	\$600,000
23	Murray/Hart	Signal phase change to permitted/protected phasing for all approaches	\$125,000
24	Murray/Scholls Ferry	Restripe NB, SB, and EB approaches; signal phase change to protected phasing on all approaches	\$125,000
25	Murray/Barrows/Walnut	Install traffic signal; add EB left turn lane; restripe NB approach; construct SB approach left turn lane	\$750,000
26	Scholls Ferry/Barrows (west)	Install traffic signal; restripe SB approach for separate left turn and right turn lanes	\$250,000
27	Scholls Ferry/Davies	Install traffic signal; restripe WB approach; add NB right turn lane; add NB left turn lane	\$250,000
28	Scholls Ferry/Barrows (east)	Close Barrows at Scholls Ferry	\$150,000
29	TV Highway/Hocken	Add EB right turn lane; restripe SB approach; widen Hocken to 2 SB through lanes	\$3,100,000
30	Farmington/Hocken	Add WB right turn lanes; SB double left turn lanes (Hocken carries 2 SB lanes from TV Highway)	\$3,000,000

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#	Location	Improvement	Cost
31	Cedar Hills/Walker	Double left turn lanes on all approaches; add EB right turn lane	\$2,500,000
32	Cedar Hills/Jenkins	SB and EB double left turn lanes; add SB right turn lane; widen Jenkins to 5 lanes; WB right turn channel; signal modifications to EB/WB protected phasing	\$1,750,000
33	Cedar Hills/Hall	Add NB right turn lane	\$500,000
34	Cedar Hills/Westgate	Add NB left turn lane	\$1,300,000
35	Canyon/Cedar Hills	Widen Canyon to 7 lanes on west leg; add NB left turn lane; add SB left turn lane; add SB right turn lane; add EB/WB left turn lane	\$5,000,000
36	Farmington/Cedar Hills	SB double left turn lanes (construct SB right turn lane and restripe SB lanes as side-by-side left turn lanes)	\$1,000,000
37	Hall/Westgate-Center	Realign intersection; signal modification to EB/WB protected/permitted phasing	\$250,000
38	Canyon/Watson	Restripe SB approach (add a SB receiving lane)	\$700,000
39	Farmington/Watson	Add SB through lane	\$500,000
40	Farmington/Hall	Restripe NB approach (add NB receiving lane)	\$500,000
41	Hall/Allen	Add EB and WB right turn lanes; NB and SB double left turn lanes	\$1,700,000
42	Hall/Denney	NB/SB signal phasing change to permitted/protected	\$150,000
43	Hall/Greenway	Signal phase change to permitted/protected phasing for EB and WB approaches, overlap NB right turn	\$125,000
44	Hall/Nimbus	Signal phase change to protected/permitted phasing for NB and SB approaches	\$125,000
45	Scholls Ferry/Hall	Add double left turn lanes on all approaches; add right turn lane on all approaches	\$3,000,000
46	Brockman/125 th	Signal phase change to protected/permitted phasing for all approaches; add WB left turn lane; restripe NB and EB approaches; construct SB left turn lane, right turn lane, and through lane	Cost included in roadway project
47	Scholls Ferry/125 th	Widen Scholls Ferry Road to 7 lanes (3 through lanes each way); add SB right turn lane	\$500,000
48	Scholls Ferry/Nimbus	Widen Scholls Ferry to 7 lanes (3 through lanes in each direction); add NB left turn lane; SB double left turn lanes	\$1,000,000
49	Scholls Ferry/ORE 217 SB ramps	Channel EB right turn onto ramp and modify signal to allow free movement of EB right turns	\$500,000
50	Scholls Ferry/Ore 217 NB on-ramp	Channel SB right turn onto ramp and modify signal to allow free movement of SB right turns; add WB through lane onto ramp	\$500,000
51	Farmington/Lombard	Add NB right turn lane	\$500,000
52	Canyon/Broadway	Add WB right turn lane; signal modification to NB/SB protected phasing	\$200,000
53	Canyon/Fred Meyer	Add SB left turn lane; signal modification to NB/SB split phasing	\$125,000
54	BH Highway/Griffith	Signal phasing modification to NB/SB protected/permitted phasing	\$150,000
55	BH Highway/Western	Add EB right turn lane; add WB double left turn lanes; add NB through lane	\$1,500,000
56	Allen/Western	Add EB left turn lane; EB/WB signal phasing change to permitted/protected phasing	\$125,000
57	Allen/Scholls Ferry	Widen Allen to 5 lanes; restripe WB approach; signal phase change for all approaches to permitted/protected phasing	\$125,000
58	Walker/ORE 217 SB	Bridge deck widening; EB double right turn lanes (add right turn lane); WB through lane	\$750,000
59	Walker/ORE 217 NB	Add NB double left turn lanes	\$250,000
60	Canyon/ORE 217 SB	Add SB left turn lane and restripe SB lanes	\$500,000
61	BH Highway/ORE 217 SB	Add SB left turn lane	\$500,000
62	BH Highway/ORE 217 NB	NB double left turn lanes	\$600,000
63	Allen/ORE 217 SB	Add SB right turn lane (double right lanes); EB right turn lane (channel onto ramp; signal modification to allow EB right turn to go with SB left)	\$2,000,000
64	Allen/ORE 217 NB	Add WB right turn lane; signal modifications to NB/SB split phasing	\$500,000
65	Denney/ORE 217 SB	Install traffic signal	\$250,000
66	Denney/ORE 217 NB	Install traffic signal	\$250,000
67	Denney/Lombard	Install traffic signal and EB and WB left turn lanes	\$1,125,000
			\$64,025,000

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**Table 4-17
Committed/Completed Beaverton 2015 TSP Motor Vehicle Improvements**

Location	Description	Jurisdiction	Cost
Farmington: Murray to 172nd	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$15,200,000
Oak: 160 th to 170 th	Widen roadway including sidewalks and bike lanes	WACO	\$1,600,000
US 26: ORE 217 to Murray	Widen to 6 lanes and add braided ramps	ODOT	\$13,000,000
Jenkins: Cedar Hills to Murray	Widen to 3 lanes including sidewalks and bike lanes	WACO	\$3,100,000
170 th : Rigert to Alexander	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$8,000,000
Millikan: Hocken to Cedar Hills	Construct new 3 lane extension with sidewalks and bike lanes	Beaverton	\$4,300,000
Hart: Murray to 165 th	Widen to 3 lanes including sidewalks and bike lanes	Beaverton	\$7,100,000
Lombard: Broadway to Farmington	Realign and add turn lanes including sidewalks	Beaverton	\$1,600,000
Hall Boulevard at Scholls Ferry	Provide southbound right turn lane	ODOT	\$250,000
Hall: 12 th St to 500 feet south of Allen	Retrofit to include bike lanes; intersection turn lanes at Allen	Beaverton	\$1,438,000
Farmington: Murray to Hocken	Widen to 5 lanes including turn lanes, sidewalks, and bike lanes	Beaverton	\$9,300,000
		TOTAL	\$64,888,000

Assessment of Need

Based upon the evaluation of intersection level of service, 32 of the study intersections would operate at or worse than a D/C ratio 1.0 or a Level of Service (LOS) of E in the 2020 evening peak hour with no improvements beyond the RTP Priority System or 2015 Beaverton TSP improvements. Intersection operation for the existing and base 2020 scenarios are shown in Appendix D. The impact of future growth would be severe without significant investment in transportation improvements. Corridors would become unmanageably congested, resulting in travel speeds below 5 MPH over long stretches of road. Poor performance on arterials and collectors would result in substantial impacts (added through traffic) to other collectors and neighborhood routes. The greatest problem areas can be grouped into the following areas:

- **Lack of east-west capacity.** Three of the key east-west routes (TV Highway, Walker, Cornell and Farmington) all experience significant congestion problems if improvements are not made.
- **Lack of connectivity.** Areas near ORE 217 between Walker and Hall are the best examples, where all north-south movements must use local streets or divert to neighboring arterials.
- **Lack of intersection turning capacity.** Many intersections experience congested conditions, not the need for through capacity, but the need for additional right or left turning capacity.

Recommended Improvement Plan

To address these deficiencies, a series of alternatives and strategies were considered. The range of strategies includes:

- **Do nothing.** This would result in severe impacts to circulation in Beaverton with delays that would not be tolerable. Extreme land use controls would be required to protect livability.
- **Assume that alternative modes can serve excess demand.** The TSP analysis

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assumed that these would be developed to their optimal levels to achieve mode-split targets. The order of magnitude of trips to be served by 2020 goes well beyond the capacity of the alternative mode system by themselves, even at their optimal levels. The estimated growth in PM peak period trips far exceeds the capacity of the alternative modes by themselves to support this demand.

- **Build all the road capacity necessary to achieve level of service D conditions at the intersections.** This strategy would result in nearly doubling the cost of the improvements identified in this plan. For example, many five lane cross sections would need to become seven lanes, substantial freeway widening beyond those currently foreseen and very large intersection configurations.
- **Pragmatically add capacity to all modes, developing a balanced system. Outline the long-term configuration of streets to allow development to best accommodate needs. Allow LOS E or D/C ratios of 1.0 at intersections and maintain system performance measures at a 2-hour D/C ratio of 1.0.** This is the strategy that was pursued. It involves significant system improvements, but attempts to balance performance between modes by not only adding additional capacity, but by also providing additional connectivity to serve and promote multi-modal trips.

The mitigation measures for the street system are listed in Table 4-18. These are improvements that go beyond the RTP Priority System or the 2015 Beaverton TSP identified improvements. The major road improvements (Bethany, Cornell, Walker, and Murray/TV Highway) are mainly refinements of the RTP recommendations and include some of the RTP Preferred Scenario improvement projects. The detailed intersection improvements go beyond the level of analysis presented in the RTP and are recommended in this TSP based on the detailed intersection counts, forecasts, and LOS calculations.

Table 4-18
Beaverton 2020 TSP Preferred Additional Motor Vehicle Improvement Plan

Note: Location #'s listed as “_b” indicate that the improvement is in addition to an intersection improvement at that location from the 2015 TSP, intersections that were not included in the 2015 TSP improvement plan are numbered starting with 101

Location #	Location	Description	Cost
	Bethany Boulevard: Cornell to Bronson	Widen street to 5 lanes including sidewalks and bike lanes (this includes the widening of the US 26 overcrossing and intersection improvements).	\$3,424,000
	Cornell: 143 rd to Dale	Widen street to 5 lanes including sidewalks and bike lanes.	\$5,197,500
	Cornell: Dale to Saltzman	Future capacity improvement based on additional study and coordination with Washington County	\$8,620,000
	Walker: Cedar Hills to ORE 217	Widen street to 5 lanes including sidewalks and bike lane.	\$8,970,000
	Murray: TV Hwy to Farmington	Construct an 4 lane overpass (Murray over TV Highway and Farmington), including sidewalks, bike lanes, and interchange connections	\$28,517,500
	103 rd : Western to Walker	Improve existing roadway and construct new connections and intersection alignments to provide connectivity from Walker to Western. This project includes sidewalks and bike lanes and should be built as development occurs.	\$5,500,000
	120 th Avenue: Henry to Canyon Road	Construct a 2 lane collector road, including sidewalks and bike lanes	\$3,900,000

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Location #	Location	Description	Cost
	Fairfield: Cedar Hills to Hocken	Construct a 2 lane roadway, including sidewalks and bike lanes	\$5,500,000
	Rose Biggi: Canyon to Broadway	Construct a 2 lane collector road, including sidewalks and bike lanes	\$1,200,000
101	Bethany/US 26 WB	add 2nd WB RT Lane, NB LT Lane	N/A
102	Bethany/Cornell	overlap SB RT	N/A
103	Cornell/173rd	add WB RT lane, 2nd NB LT lane, NB RT lane, SB RT lane	\$2,200,000
6b	170th/Farmington	add EB RT lane, WB RT lane (signal modification)	\$750,000
11b	158th/Jenkins	overlap NB RT	\$125,000
104	Cornell/US 26 WB	add 2nd WB LT lane (structure work)	\$1,000,000
105	Murray/Cornell	overlap NB RT, add 2nd NB LT lane (Cornell 5 lanes)	\$1,000,000
106	Murray/US 26 WB	add 2nd WB RT Lane	\$500,000
17b	Murray/Walker	increase cycle length by 20 seconds (to 120)	\$125,000
19b	Murray/TV Highway	2 new signals, 2 RT Lanes, 2 Double LT Lanes	N/A
20b	Murray/Farmington	2 new signals, 2 RT Lanes, 2 Double LT Lanes	N/A
22b	Murray/Allen	add 2nd WB LT lane, 2nd WB RT lane, overlap WB RT lane (signal modification)	\$1,250,000
107	Cedar Hills/Barnes	add 2nd NB lane and SB LT lane	\$1,000,000
108	Cornell/Saltzman	add 2nd NB lane and SB LT lane (Cornell to 5 lanes)	\$2,000,000
109	Canyon/Lombard	add EB RT lane	\$500,000
65b	Denney/ORE 217 SB	add EB RT lane (structure work)	\$1,100,000
110	BH Highway/Laurelwood	add SB LT lane (signal modification and ROW)	\$2,000,000
111	Scholls Ferry/Laurelwood	install traffic signal, align with Nicol, ROW, 2 LT lane modifications	\$1,750,000
112	Hall/ORE 217 SB/Cascade	add SB RT lane	\$250,000
43b	Hall/Greenway	add EB RT lane	\$500,000
42b	Hall/Denney	add 2nd WB LT lane	\$500,000
36b	Farmington/Cedar Hills	add 2nd EB LT lane, ROW	\$1,250,000
32b	Cedar Hills/Jenkins	Jenkins to 5 lanes, overlap WB RT	\$125,000
31b	Cedar Hills/Walker	add 40 seconds cycle length to 140	\$125,000
113	Murray/Brockman	add WB RT lane, SB RT lane, add 20 seconds cycle to 120 seconds, ROW	\$100,000
47b	Scholls Ferry/125th	overlap SB RT	\$125,000
50b	Scholls Ferry/ORE 217 NB on ramp	add 2nd NB LT lane and a 2nd WB LT lane	\$1,000,000
		TOTAL	\$90,104,000

Results

The result of these improvements is significant. While a D/C ratio of nearly 1.0 and LOS E still exist for the most part, the 2020 traffic conditions can be mitigated to the point that mobility can be preserved in Beaverton and congestion is manageable. Tables summarizing LOS are located in Appendix D and detailed calculations are in Appendices H through J.

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Trucks

Efficient truck movement plays a vital role in the economical movement of raw materials and finished products. The establishment of through truck routes provides for this efficient movement while at the same time maintaining neighborhood livability, public safety, and minimizing maintenance costs of the roadway system. The through truck route map from the previous TSP was updated to include the expanded study area (See Figure 4-12) utilizing information from the currently adopted Washington County Transportation Plan (1988) and the recent RTP (2000). The objective of this route designation is to allow these routes to focus on design criteria that is “truck friendly”; i.e. 12-foot travel lanes, longer access spacing, 35-foot (or larger) curb returns, and pavement design that accommodates a larger share of trucks. The designated through truck routes in the TSP Study area include and exceed the coverage included in the RTP designations.

Safety

The existing collision data used for analysis in the Beaverton 2020 TSP was updated from the 2015 TSP with the most recent Washington County SPIS list. Table 4-19 lists the 10 highest ranked intersections from the Washington County SPIS in the study area (shown in Figure 3-7). Each of these top ten intersections is listed for capacity improvements. As the capacity improvements are made, safety enhancements can be incorporated into the design. In the short term, specific action plans should be prepared to address whether beneficial improvements at these locations can be made without affecting future plans.

The 2015 Beaverton TSP identified additional safety issues and strategies that are recommended as part of this 2020 TSP. The strategies are as follows:

- **Road Widening:** Improve safety on roadways by going from two lanes to three lanes and from four lanes to five lanes.
- **Sight Distance Obstructions:** All land use developments should be conditioned to maintain adequate sight distance where access to city streets is required.
- **School Safety:** Education and planning to ensure safety beyond pedestrian improvements (\$10,000 per year)

Table 4-19
SPIS Ranking of Ten Highest Beaverton TSP Study Area Intersections

Ranking	Street	Cross Street	Number of Collisions (1997-1999)
1*	Baseline Road	185 th Avenue	100
2	Murray Boulevard	TV Highway	133
4	Hall Boulevard	Scholls Ferry Road	85
5	Millikan Way/160 th	TV Hwy	37
6	BH Highway	Scholls Ferry Road	47
8	Farmington Road	170 th Avenue	31
9	Nimbus Avenue	Scholls Ferry Road	50
10	TV Hwy (Canyon Rd)	110 th Avenue	29
12	Garden Home Road	Oleson Avenue	40
13	Farmington Road	Murray Boulevard	74

*Note that the intersection of Baseline/185th Avenue ranked higher than the intersection of Murray/TV Highway due in part to a larger number of fatal/major injury collisions (4 compared to 0).

Maintenance

The transportation maintenance system recommended in the 2015 TSP remains the recommended system in the 2020 TSP. The following strategies are the result of evaluation and ranking by the City of Beaverton Traffic Commission involved in the 2015 TSP:

- Maintain roadways using a balanced approach which develops a pavement management system and budget to address needs over a ten year period (65% of points)
- Maintain roadways using a need based approach which addresses current and future needs as they arise (35% of points)

Based on input from the City of Beaverton, the adopted maintenance budget for the fiscal year 2000-2001 was approximately \$3.12 million (the 2015 TSP maintenance budget was based on the 1997-1998 budget of \$1.74 million)¹⁷. The 2000-2001 budget reflects areas annexed into the City and contingency costs that were not in the 1997-1998 budget.

¹⁷ Based on data received from Steve Baker, City of Beaverton, June 15, 2001.

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Parking

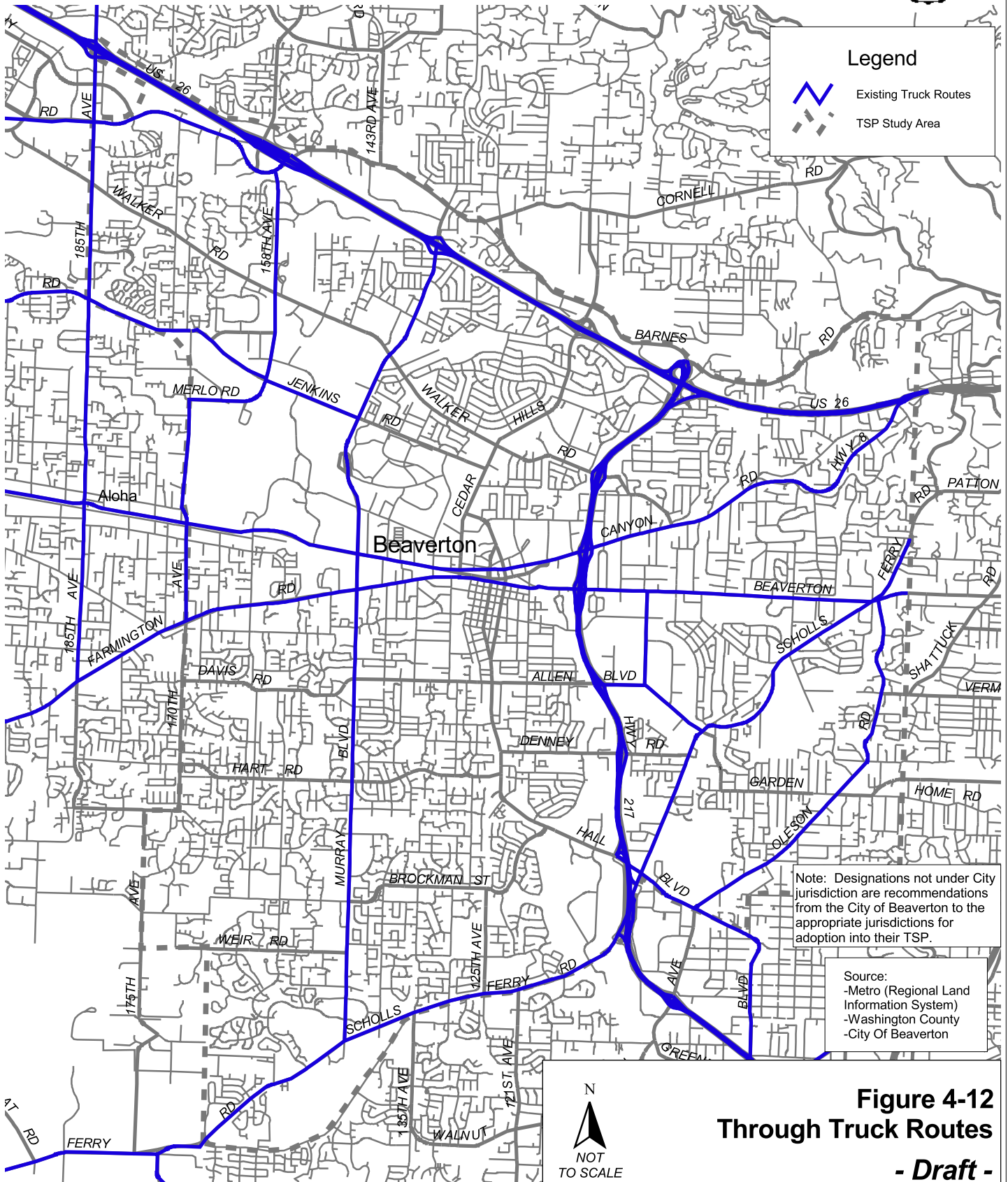
The City of Beaverton Development Code has been updated since the adoption of the 2015 TSP to include parking requirements (*City of Beaverton Development Code, 60.20*). This code includes both motor vehicle and bicycle maximum and required parking ratios for new development. In addition, the City of Beaverton has conducted a regional center parking study (*Beaverton Regional Center Parking and Street Design Study*), as recommended in the 2015 TSP. The implementation of these parking requirements is part of the City's action plan to meet the non-SOV modal targets.

Strategies for managing future parking needs in Beaverton were evaluated and ranked in the 2015 TSP. The strategies, ranked from most important to least important, are as follows:

- Shared Parking
- Parking Pricing
- Lower parking ratios for land uses within ¼ mile of LRT stations
- Parking needs should be reviewed by individual developments at the site plan review stage. Parking ratios should be compared to demand, as identified by ITE or DEQ¹⁸
- Maximum Parking Ratios

¹⁸ *Parking Demand*, 2nd Edition, Institute of Transportation Engineers, 1987; and *Peak Parking Space Demand Study*, Oregon Department of Environmental Quality, by JHK & Associates, June 1995.

**City of Beaverton
Transportation System Plan**



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Other Modes

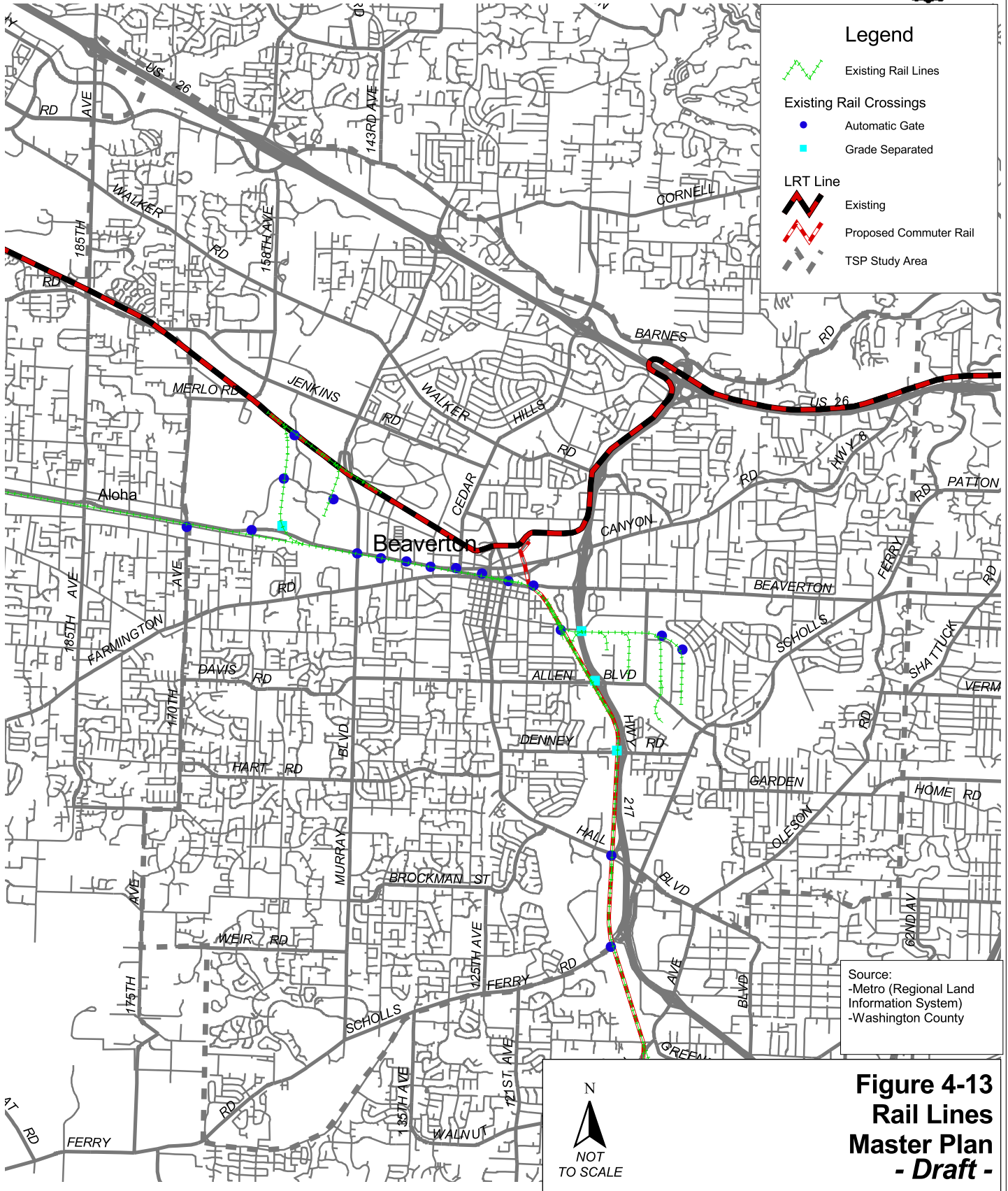
There are four other modes of transportation included in the TSP: rail, pipeline, air, and water. All low-density rail lines within the TSP study area are operated by Portland & Western (P&W), a sister company of Willamette & Pacific (W&P) Railroad and a subsidiary of Genesee & Wyoming Incorporated. Trains operate in the Beaverton area seven days per week at various times throughout the day. The current train frequency and plans for growth in cars per train are not anticipated to change from the 2015 to the 2020 planning horizon. All other rail in the Beaverton TSP Study Area is for transit use (LRT and Commuter Rail, see Figure 4-13).

Figure 4-14 shows the existing pipeline plan for the Beaverton TSP Study Area. There are some natural gas pipelines in Beaverton, but no plans were identified for expansion. There is also a petroleum gas line (gasoline and diesel) that runs from the Port of Portland to Eugene through Beaverton, but no plans were identified for expansion¹⁹. Future expansion plans of the Kinder Morgan pipeline could change with market demand.

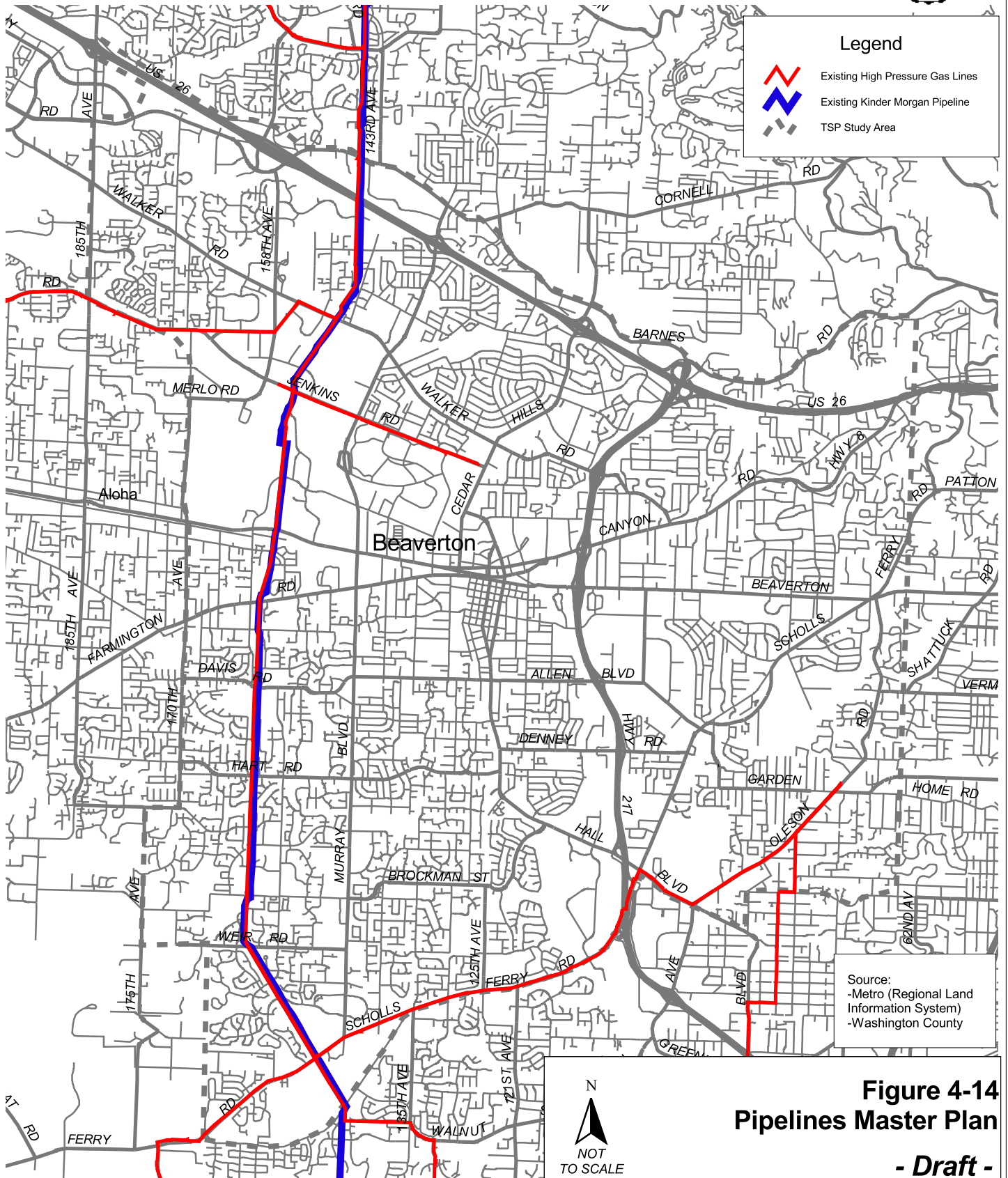
There are currently no airports within the Beaverton TSP Study area (see Figure 4-15). There are two private heliports (PGE and Turel) located in the southwest corner of Beaverton. There are also no navigable waterways in Beaverton.

¹⁹ Based on conversation with Don Quinn, Manager of Pipeline Engineering, Kinder Morgan, February 1, 2001.

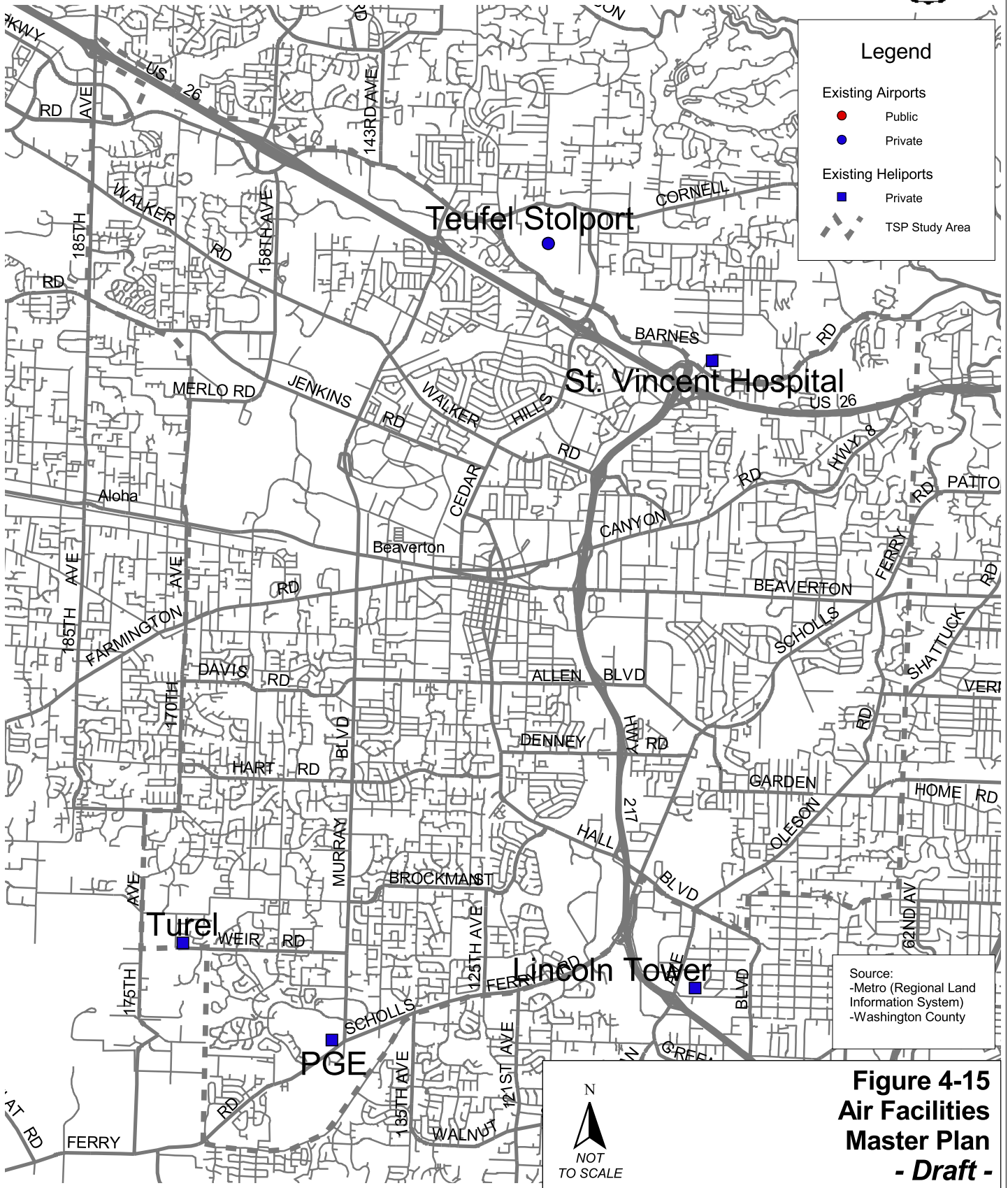
City of Beaverton
Transportation System Plan



City of Beaverton
Transportation System Plan



**City of Beaverton
Transportation System Plan**



A- Issues Report

Issues Report

Previous Work

There have been several previous studies in recent years that have related to transportation issues in Beaverton. These studies provide background into transportation needs and opportunities in the area, and will become important resources for conducting the current study. An annotated bibliography of a few key studies is provided below:

2000 Regional Transportation Plan, Metro, August 10, 2000 (Ordinance No. 00-869A and Resolution No. 00-2968B).

The Regional Transportation Plan (RTP) is a 20-year blueprint to ensure our ability to get from here to there as the Portland region grows. The RTP establishes transportation policies for all forms of travel - motor vehicle, transit, pedestrian, bicycle and freight - and lays out the priority projects for roads and freight movement as well as bicycling, walking and transit. The plan is based on forecasts of growth in population, households, and jobs as well as future travel patterns and analysis of travel conditions. It considers estimates of federal, state and local funding which will be available for transportation improvements. The plan also comes with cost estimates and funding strategies to meet these costs. The plan was first adopted by the Metro Council in 1983, and is updated periodically to reflect changing conditions and new planning priorities. Local transportation plans are required by state law to be consistent with the RTP.

The following table summarizes the key ways the Beaverton TSP must comply with the RTP:

<i>Issue</i>	<i>Existing TSP Complies</i>	<i>Update Needs to Address</i>
Local TSP Development (identify needs for 20 year planning period)	✓ Chapters 5-9	✓
System Level Planning (By Mode)	✓ Chapters 5-9	✓
Project Level Planning (By Mode)	✓ Chapters 5-9	✓
Transportation Systems Analysis for Local Plan Amendments (Consider options outlined in RTP 6.4.4 (1-7) before additions of capacity)	✓ Chapters 8, 10	✓

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Design Standards for Street Connectivity (local street plan and standards)	✓ Chapter 8	✓
Alternative Mode Analysis	✓ Chapters 5-7, 9	✓
Motor Vehicle Congestion Analysis	✓ Chapter 8	✓
Identify Future RTP Refinements	✓ Chapter 9	✓
Transit Service Planning	✓ Chapter 7	✓
Project Development (considering alternatives such as TSM and Street Design concepts)	✓ Chapters 5-10	✓
Refinement Planning		(not included in this scope)
Specific Corridor Refinements (the only one in Beaverton Area is Sunset Highway)		✓ (acknowledge concern)
Specific Corridor Studies (three affect Beaverton directly—I-5 South, Highway 217 and Tualatin Valley Highway)		✓ (Acknowledge concern)
Area of Special Concern (Beaverton Regional Center)		✓

The RTP projects that shall be included in this TSP update are in the attached table.

The RTP designation of the Beaverton Regional Center as an Area of special Concern requires that the Beaverton TSP must adopt 1 of 2 approaches to address the RTP expectation that the motor vehicle level of service policies set forth will be exceeded. The first approach requires local TSPs that choose the alternative performance measure option to adopt the following performance measures and provide an analysis that demonstrates progress towards meeting these measures in the local TSP:

- a. Non-Single Occupant Vehicle (SOV) modal targets
- b. Parking ratios consistent with Title 2 of the Urban Growth Management Functional Plan (UGMFP)
- c. A street connectivity plan for the Area of Special Concern that meets the connectivity requirements set forth in the RTP
- d. A plan for mixed-use development

The second option requires local TSPs to adopt an Area of Special Concern action plan that:

- a. Anticipates the growth and subsequent impacts of motor vehicle traffic on multi-modal travel in these areas
- b. Establishes an action plan for mitigating the growth and subsequent impact of motor vehicle traffic
- c. Establishes performance standards for monitoring and implementing the action plan

The action plan shall consider land-use strategies, as well as transportation solutions for managing the effects of continued traffic growth.

Oregon Highway 217 Corridor Study

This study was conducted as a preliminary analysis to provide a point of reference for operational issues in order to frame improvement elements associated with the widening of ORE 217. It was only a first step in better understanding the nature and character of improvements needed along the corridor. The following were some of the key findings of the study:

- Braided ramps are necessary to provide safe access to ORE 217 with future traffic volumes for all alternatives due to the short, inadequate interchange spacing
- Preliminary estimated cost for alternatives considered are between \$290 and \$490 million (year 2000 dollars)
- Frequency of access points on ORE 217 and short trips are less than optimal for premium service lane alternatives
 - Ramp meter bypass and/or exclusive drop-in ramps serving regional centers should be evaluated with premium service alternatives
 - “System-wide” connections of premium service alternatives with I-5 at the south and US 26 at the north will significantly improve time savings
- Environmental impacts to water quality and parkland resources, while significant, can be mitigated for alternatives within 150 feet or less right-of-way requirement
- The maximum footprint for any future improvement to ORE 217 can likely NOT exceed a total of six lanes plus auxiliary lanes
- Construction phasing of any alternative to insure minimum levels of service on ORE 217 is absolutely critical
- Given the limitations of the corridor, once a design alternative has been selected, a “building block” phased implementation and funding program should be implemented
- Evaluate paint/pylon and concrete barrier alternatives for enforcement of premium service lanes
- Evaluate operational effectiveness of sub-standard shoulder width

The TSP Update will consider the following design and functional considerations in developing any transportation solutions for this corridor (as outlined in the RTP):

- Expand highway to include a new lane in each direction from I-5 to US 26
- Address the competing needs of serving localized trips to the Washington Square and Beaverton regional centers and longer trips on Highway 217
- Consider express, HOV and peak period pricing when adding new capacity

- Design capacity improvements to maintain some mobility for regional trips during peak travel periods
- Design capacity improvements to preserve freight mobility during off-peak hours
- Retain auxiliary lanes where they currently exist
- Improve parallel routes to accommodate a greater share of the local trips using this corridor
- Improve light rail service with substantially improved headways (time between trains)
- Coordinate with planned commuter rail service from Wilsonville to Beaverton regional center

US 26: Portland to Cannon Beach Study

The US 26 Corridor Plan is a guiding document for ODOT, including OTC adopted objectives and management directions. The corridor plan includes a series of objectives, strategies, and projects to enhance the ability to serve commuter, recreational, and freight travel. Consistent with OTP objectives to promote a balanced multi-modal transportation system, the corridor plan promotes TDM and TSM strategies as the first course in addressing future needs.

The corridor plan also addresses cost-efficiency by combining projects into multi-modal projects where possible. To the greatest extent possible, projects identified that improve transportation balance in the corridor are to be pursued through maintenance, operations, management, and service projects that minimize capital expense.

The corridor plan identifies that beyond TSM, TDM, and multi-modal system improvements, capacity will need to be added to US 26 to handle the forecasted future growth. The plan states that the urban portion of the corridor should increase the capacity of US 26 through the following programmed highway widening improvements:

- a. Construct the proposed addition of a third eastbound lane with noise walls on US 26 between ORE 217 and the Camelot Interchange, remove Wilshire on-ramps, and close local accesses
- b. Construct the proposed widening of US 26 to six lanes from ORE 217 to Murray Boulevard with a braided ramp west bound from ORE 217
- c. Construct the proposed highway project from the Camelot Interchange to the Sylvan interchange that includes reconstruction of the highway mainline, replacing the Canyon Road crossing and adding a third lane

The corridor plan also identifies the following projects to accommodate the additional capacity needed within the corridor's urban portion:

- a. Investigate development of dedicated HOV/HOT lanes on US 26 within the corridor's urban portion to accommodate a portion of increased auto and transit trips
- b. Investigate widening of US 26 to six lanes from Murray Boulevard to the Metro UGB (Shute Road)
- c. Construction of an eastbound on-ramp to US 26 at Cornelius Pass Road, eliminating left-turns across Cornelius Pass Road

Other capacity improvement strategies identified in the plan include:

- Use parallel routes to US 26, such as Evergreen Boulevard, Cornell Road, and West Union Road, to decrease reliance on US 26 for local trips, based upon their limits of capacity, function, policy, and operational roles.
- Investigate the feasibility of congestion pricing
- Mile-based and/or emission based registration fees withing the Metro UGB
- Implement congestion reduction strategies based on the following priorities:
 1. Demand reduction, such as TDM measures like carpooling or telecommuting
 2. System Management, such as optimizing programs or improvements to local street systems to reduce the demand for US 26 improvements
 3. Access management
 4. Improvements and new facilities to accommodate additional capacity

The Beaverton TSP update will include the identified US 26 capacity improvement plans. The TSP will also use the identified congestion reduction strategies to utilize all modes of travel and reduce peak trips.

Sunset Highway Interchange/Corridor Study

The Sunset Highway Interchange Study was conducted in 1998 to identify existing deficiencies, determine future needs, develop alternatives, evaluate alternatives and select a preferred alternative for each of four interchanges along the Sunset Highway. The study included interchanges at Cornelius Pass Road, Shute/Helvetia, Jackson School Road and Glencoe Road. It was also determined that additional freeway mainline capacity would be needed east of Cornelius Pass Road.

In addition, the RTP has indicated that a corridor refinement study will be conducted (in conjunction with local jurisdictions) for the Sunset Highway. Improvements are needed in this corridor to preserve access to and from the central city and the Sunset Corridor employment area, and provide access to the Hillsboro regional center. The following design elements should be considered as improvements implemented in this corridor:

- Maintain off-peak freight mobility
- Phase in capacity improvements from the Sylvan interchange to 185th Avenue, expanding to a total of three general purpose lanes in each direction
- Improve light rail service, with substantially increased headways
- Construct major interchange improvements at Sylvan, Cedar Hills Boulevard and Cornelius Pass Road
- Identify and construct additional overcrossings in the vicinity of interchanges to improve connectivity and travel options for local traffic, thus improving interchange function
- Consider express, peak period pricing or HOV lanes when adding highway capacity, especially west of Highway 217

Metro Tualatin Valley Highway Access Management Strategy

Metro has indicated in the RTP that a corridor study will be conducted (in conjunction with local jurisdictions) for Tualatin Valley Highway (TV Highway) to address existing deficiencies and serve increased travel demand between the Beaverton and Hillsboro regional centers. The following design considerations should be addressed as part of a corridor study.

- Manage access as part of a congestion management strategy.
- Implement TSM and other interim intersection improvements at various locations between Cedar Hills Boulevard and Brookwood Avenue
- The relative trade-offs of a variety of capacity and transit improvements, include:
 1. Improvements on parallel routes such as Farmington, Alexander, Baseline and Walker roads as an alternative to expanding TV Highway
 2. Seven-lane arterial improvements from Cedar Hills Boulevard or Murray Boulevard to Brookwood Avenue or Baseline Road in Hillsboro
 3. A limited access, divided facility from Cedar Hills Boulevard or Murray Boulevard to Brookwood Avenue, with three lanes in each direction and grade separation at major intersections
 4. Transit service that complements both the function of Tualatin Valley Highway and the existing light rail service in the corridor
- Evaluate the impacts of the principal arterial designation, and subsequent operation effects on travel within the Beaverton regional center

The update to the Beaverton TSP will acknowledge that this corridor is a problem, but specific improvements will be an outcome of a specific corridor study, not the TSP.

Washington Square Regional Center Plan

A task force was used to develop this Regional Center Plan. The task force recommended a series of projects to improve access to the Regional Center by transit, bicycle, pedestrians and motorized vehicles into and throughout the district. The following improvements were identified:

- Development of a “transit access and Action Plan” in concert with Tri-Met
- Improvements to the regional roadway system—some key improvements identified were:
 - A bridge over Highway 217 connecting Nimbus Drive to the Mall area
 - Extending Nimbus Drive to Greenburg Road
 - A bridge over Highway 217 connecting Locust to Nimbus
 - A collector system at Oak-Lincoln-Locust
 - Widening Hall Boulevard to three lanes between Oleson Road and the southern study area boundary (while acquiring right-of-way for a five lane section)
 - Interchange capacity improvements at Highway 217
- Bike paths—ensuring easy, safe access to employment, housing and retail development as well as surrounding greenspace.
- Commuter Rail between Wilsonville and Beaverton
- People Mover that will travel throughout the district, linking jobs, housing, retail and services

A grant has been obtained to develop an implementation plan, however, there are still issues concerning funding, environmental and neighborhoods. A transportation management area (TMA) in the area may be an option. The Beaverton TSP Update will need to coordinate with ongoing efforts of this plan and will need to specifically address connections to

Nimbus north of Scholls Ferry Road, improvements to ORE 217 interchanges and commuter rail in Beaverton.

Raleigh Hills Town Center Plan

This planning effort attempted to update (amend) the Raleigh Hills-Garden Home Community Plan. Several maps were developed, including a Transportation Circulation Designations Map, a Street Corridor, Arterial Access and Pedestrian System Designations Map, and a Functional Classification System Map. The key outcome of this study is a proposed reconfiguration of the Beaverton-Hillsdale Highway/Scholls Ferry Road/Oleson Road intersection. No other concepts were approved as a part of this project. The circulation elements can be incorporated in the TSP maps for functional classification in this update.

Cedar Mill Town Center Plan Update (Washington County Ordinance No. 536)

This ordinance updates (amends) the Cedar Hills-Cedar Mill Community Plan and the Bethany Community Plan. The ordinance includes several maps, including a Land Use District Map, a Transportation Circulation Designations Map, a Street Corridor, Area of Special Concern, Arterial Access and Pedestrian System Designations Map, a Functional Classification System Map, and several descriptions of areas of special concern (as identified on the maps). The elements of these maps will be incorporated in the TSP update.

Murray/Scholls Town Center Plan

A Town Center Master Plan was developed for the Murray/Scholls Town Center Area for a 20-year horizon. As part of the Master Plan, transportation analysis was conducted to determine improvements likely to become necessary with the development of the Town Center in the next 20 years. Improvements were grouped into three phases (Phase I: 0-5 years out, Phase II: 5-10 years out and Phase III: 10-20 years out). The total anticipated cost for all three phases of improvements was about \$13.5 million. Many of these projects will occur with adjacent development. Elements from the Town Center Plan were already included in the adopted TSP including the roadway network, bicycle and pedestrian circulation elements and local street connections.

Beaverton Regional Center Parking and Street Design Study

This study, which has not yet been reviewed by the City, addresses parking supply and demand in the Beaverton Regional Center area (downtown Beaverton) as well as street design and connectivity in the same area. It was concluded that there are currently about 13,000 available parking spaces in the study area and that an additional 15,000-30,000 parking spaces will become necessary in downtown Beaverton in the next 20 years. The study also concludes that increasing development density will necessitate parking structures as opposed to the surface and on-street parking that is used today.

Two local street connections were proposed in conjunction with the study. The first would extend Rose Biggi Avenue south from Canyon Road to Broadway Street and the second would extend Henry Street south (as 120th Avenue—Henry Street veers 90 degrees west as Henry Street) to Canyon Road. In addition, the existing Short Street is proposed to be vacated. These will be studied for access standards and capacity needs to determine if they should be incorporated in the TSP update local street maps.

Transportation Planning Rule, Oregon Administrative Rules (OAR) 660-12.

The adoption of the Transportation Planning Rule (TPR) in May 1991, (updated in November 1998) mandates comprehensive transportation planning for cities in Oregon. The TPR defines the specific requirements for a transportation system plan. The areas of analysis addressed in the TPR for a transportation system plan include the following:

- Roadway capacity and level of service
- Transit capacity and capacity utilization
- Bicycle and pedestrian system capacity
- Adjustment of turning movement volumes produced by travel demand forecasting models
- Estimation of future transportation needs (person travel), reflecting:
 - population and employment forecasts consistent with comprehensive plans
 - measures to reduce reliance on the automobile
 - increased residential, commercial and retail development densities
 - location of neighborhood shopping centers near residential areas
 - better balance between jobs and housing within sub-areas
 - maximum parking limits for office and institutional developments
 - appropriate levels of transportation facilities to serve land uses identified in transportation plans
 - increases in average automobile occupancy
 - increases in modal shares of non-automobile modes
 - TDM programs and rearranged land uses on the number and length of automobile trips per capita
 - land use and subdivision regulations to increase non-auto trip making
- Estimation of future goods movement needs
- Access management

These were incorporated into the adopted TSP and will be carried forward in the update.

Oregon Transportation Plan, Oregon, 1992 (Updated in 1997 Annual Report).

The Oregon Transportation Plan (OTP) sets the general direction for transportation development statewide for the next twenty years. The purpose of the plan is to guide development of a safe, convenient and efficient transportation system that promotes economic prosperity and livability. The OTP contains two elements: Policy and Systems. The OTP provides overall direction for allocating resources and coordinating modes of transportation. It also reviews the relationship of transportation to land use, economic development, the environment, and energy use. Key aspects of the OTP focus on a transportation system that is balanced, efficient, accessible, environmentally responsible, has connectivity among places and modes and carriers, is safe and financially stable. The 1997 Update highlights many of the actions that have been taken to implement the Oregon Transportation Plan in 1997, monitoring its status.

1999 Oregon Highway Plan, Oregon Department of Transportation, May 1999.

The Oregon Highway Plan (OHP) is a specific element of the Oregon Transportation Plan. The plan has three main elements: the Vision, the Policy Element and the System Element. The Vision portion of the plan considers what Oregon's highway system should look like, considering an anticipated 1.2 million new residents over the next 20 years, as well as projections for economic, demographic and technology forecasts. The Policy Element contains policies and actions under goals for System Definition, System Management, Access Management, Travel Alternatives, and Environmental and Scenic

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Resources. The System Element begins with an analysis of 20-year state highway needs and lays out investment strategies to meet these needs. This element also lays out an implementation plan for the goals, policies and actions identified in the Policy Element.

Key areas the Beaverton TSP Update will need to comply with are listed in the following table:

<i>Issue</i>	<i>Existing TSP Complies</i>	<i>Update Needs to Address</i>
Access Spacing Standards (OHP Appendix C)		✓--(meet for highways and interchanges)
Highway Mobility Standards (OHP Tables 6 and 7)		✓--(meet table 7 requirements)
Meet Land Use and Transportation Policy Objectives (i.e. designate STA, Commercial Center, UBA's*)		✓--(designate STA, CC and UBA's)

* STA=Special Transportation Area, UBA= Urban Business Area

These policies apply to the following highways in the Beaverton area (2040 Concept Areas include the Central City, Regional Centers, Town Centers, Station Communities, and Main Streets as identified in the 2000 Metro RTP):

<i>Highway</i>	<i>Classification</i>	<i>V/C Standard</i>				<i>Access Spacing Standard*</i>
		<i>2040 Concept Area</i>		<i>Non-Concept Area</i>		
		<i>1st hour</i>	<i>2nd hour</i>	<i>1st hour</i>	<i>2nd hour</i>	
US Route 26	Statewide Highway	0.99	0.99	0.99	0.99	1320 ft
ORE Route 217	Statewide Highway	0.99	0.99	0.99	0.99	1100-1320 ft
ORE Route 8 (Canyon Road – TV Highway)	Statewide Highway (west of ORE 217)	0.99- 1.1**	0.99	0.99	0.99	175-990 ft
	District Highway (east of ORE 217)	1.1	0.99	0.99	0.99	175-770 ft

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ORE Route 10 (BH Highway – Farmington)	District Highway (County Line to ORE 217 and west of Murray)	1.0- 1.1***	0.99	0.99	0.99	175-500 ft
Scholls Ferry Road	District Highway (ORE 217 to Hall and west of 175 th)	1.0- 1.1***	0.99	0.99	0.99	175-500 ft
Hall Boulevard	District Highway (ORE 217 to 99W)	1.0- 1.1***	0.99	0.99	0.99	175-400 ft

*Spacing Standards vary as per designations in Appendix C of the 1999 OHP

**V/C standard varies between Beaverton Regional Center Area of Special Concern (1.0), Principle Arterial Route from Cedar Hills Blvd. to Brookwood Ave. (0.99), 2040 concept areas (1.1), and other 2040 corridor designation (0.99). The Area of Special Concern and Principal Arterial Route standards supercede the other two standards.

***V/C standard in Beaverton Regional Area of Special Concern is 1.0. V/C standard for other 2040 concept areas is 1.1.

Oregon Bicycle and Pedestrian Plan, Oregon Department of Transportation, June 1995.

This plan serves the following purposes:

- To implement the actions recommended by the Oregon Transportation Plan
- To guide ODOT, MPO's, the cities and counties of Oregon and other agencies in developing bikeway and walkway systems
- To explain the laws pertaining to the establishment of bikeways and walkways
- To provide information to citizens interested in bicycle and pedestrian transportation
- To fulfill the requirements of the Intermodal Surface Transportation Efficiency Act (ISTEA), whereby each state must adopt a statewide bicycle and pedestrian plan
- To fulfill the requirements of the Oregon Administrative Rule 660-12 (Transportation Planning Rule 12), and
- To provide standards for planning, designing and maintaining bikeways and walkways

The document includes two sections, including the Policy & Action Plan and Bikeway & Walkway Planning, Design, Maintenance & Safety. The first section contains background information, legal mandates and current conditions, goals, actions and implementation strategies ODOT proposes to improve bicycle and pedestrian transportation. The second section will assist ODOT, cities and counties in designing,

constructing and maintaining pedestrian and bicycle facilities. Design standards are recommended and information on safety is provided.

Statewide Transportation Improvement Program 2000-2003, Oregon Department of Transportation, January 1999.

This document, referred to as the STIP, is a program schedule for the Oregon Department of Transportation. The purpose of the STIP is to schedule funding for Oregon's highest priority transportation projects for the next two years. The following projects are listed in the STIP relevant to Beaverton:

- Washington County ATMS (Advanced Traffic Management Systems): Install video cameras.
- US 26/Camelot Interchange (Phases 2&3).
- ORE 217/Denny Road: Signalize both ramp terminal intersections.
- Tualatin Valley Highway/Hocken: Overlay highway and turn lanes—add safety improvements.
- Washington County Commuter Rail Alternatives Study—Preliminary Engineering Phase.
- Cedar Hills Boulevard between Walker Road and Butner Road—Construct sidewalks and bike lanes.
- Hall Boulevard between 12th and Allen—Add north and southbound left turn lanes, bike lanes.
- 170th between Merlo Road and Elmonica Light Rail Station—Construct 9 foot sidewalks.
- Farmington Road (Hocken/Murray): Preliminary engineering to widen Farmington to 5 lanes, multimodal (including bike lanes and sidewalks), and construct additional turn lanes at Farmington/Murray.
- Hall Boulevard from SPRR to Ridgecrest – Bike lanes and intersection improvements.

Metro Transportation Improvement Program – Priorities 2000, Metro, November 1999.

This document, referred to as the MTIP, is a list of improvement projects for Metro. The purpose of the MTIP Priorities 2000 is to schedule funding for Metro's highest priority transportation projects for the next two years. The following projects are listed in the MTIP relevant to Beaverton:

- Fanno Creek Multi-Use Path Phase 1 (From Allen south to 105th): Construct a multi-use path with boardwalks and bridge structures.
- Fanno Creek Multi-Use Path Phase 2 (East to Allen/Scholls Ferry): Project Engineering and ROW acquisition.
- Hall Boulevard Bikeway (12th/Allen): Construct bike lanes to complete the regional bike system from Farmington to ORE 217.
- Cornell Road Bikeway (Elam Young Parkway to Ray Circle): Add a 6-foot wide bike lane.
- Farmington Road (Hocken/Murray): Preliminary engineering to widen Farmington to 5 lanes, multimodal (including bike lanes and sidewalks), and construct additional turn lanes at Farmington/Murray.
- Washington County ATMS (Advanced Traffic Management Systems): Install video cameras.
- Sentinel Plaza (Cornell Road/Cedar Hills Blvd/113th Ave): Construct a multi-use path and install a Native American totem.
- SW 170th Ave (Merlo Rd/Elmonica LRT Station): Replace deteriorating asphalt with a sidewalk to improve access to the LRT Station.

- Washington County Commuter Rail (Wilsonville/BV): Environmental work and design for trackwork improvements, stations, park and ride facilities, signals, switches and crossing protection.

Wilsonville to Beaverton Commuter Rail, Washington County, August 2000.

The project is a commuter rail line serving eastern Washington County, from Wilsonville to Beaverton, Oregon. The commuter trains would operate on existing tracks, running parallel and west of I-5 and Highway 217, for a distance approximately 15 miles. Users would access the line via five stations, located in Wilsonville, Tualatin, Tigard, and Beaverton. Beaverton and Tigard would share the fifth station, near Washington Square. Beaverton Transit Center's station would connect with Westside MAX Light Rail and buses serving the Portland and Washington County employment centers. This project will require coordination between Metro, Washington County, Tri-Met, The City of Beaverton, The City of Tigard, The City of Tualatin, and the City of Wilsonville. The design for the project is under way and is expected to be completed in June of 2001. Construction of the project is planned to be completed by 2004. On the transit map for the Beaverton TSP, the commuter rail alignment should be updated with stations. Station areas should also be shown on pedestrian maps.

Tektronix Master Plan (South Tek), Washington County Ordinance No. 530, September 1998.

This project relates to the subdivision and master plan of the existing Tektronix Oregon Campus in Washington County. A list of street improvement projects was developed in the plan (specifically identified in the development agreement between Tektronix and the City of Beaverton dated September 1998) and are as follows:

- Jenkins Road: Widen to 3 lanes with curbs, sidewalks and bike lanes and add a traffic signal (complete by 12/31/00).
- Murray Overpass: Widen to 4 lanes (complete by 12/31/01).
- Millikan Way to become Public Right-of-Way.
- Millikan Way (Murray to Hocken): Widen to 3 lanes with curbs, sidewalks, and bike lanes (schedule to be determined by County).
- Millikan Way extension (Hocken to Cedar Hills): Create a new 3-lane connection to Cedar Hills Blvd (complete by 12/31/03).
- Hocken extension (Hall to Jenkins):
 - a. Interim standards (2 lanes, with ditches, gravel shoulders and turn lanes as necessary) (complete later of 12/31/01 or 12 months after completion of Jenkins widening project).
 - b. Upgrade to urban standards (curbs, sidewalks, landscaping) (completed when adjacent property develops).
 - c. Future widening (if street becomes a major collector or arterial due to Hall Street Extension) (schedule to be determined by County/City of Beaverton).
- Hocken Extension (Millikan to Hall ext.): Upgrade to urban standards (complete when adjacent property redevelops).
- Shannon Road: Re-open road and add sidewalk along west side (completed).
- Terman Road (Hocken Ext. to Shannon):
 - a. Add sidewalks along northwest side and connect to Jenkins Road (complete by 12/31/00).
 - b. Upgrade to urban standards (option to substitute wide sidewalk on one side) (complete when development causes trips to exceed 25% of 1998 levels).
- Terman Road (Shannon to Murray):
 - a. Add sidewalk along north side (complete later of 12/31/00 or completion of Murray widening).

- b. Upgrade to urban standards (complete when development causes trips to exceed 25% of 1998 levels).

The Beaverton Transportation System Plan Update is to be used in developing portions of this project. The Hocken extension classification and capacity will be defined by the TSP. The Terman Road extension classification and number of lanes should also be addressed through the Beaverton TSP, including coordination with Tektronix.

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RTP Projects in the Beaverton Area

Project Name (Facility)	Project Location	Project Description	RTP Program Years
BH Highway/Scholls Redesign	BH Highway/Scholls/Oleson intersection	Redesign intersection to improve safety	2006-10
Oleson Road Improvements	Fanno Creek to Hall Boulevard	Improve to urban standard with bike lanes, sidewalks, lighting, crossings, bus shelters & benches; signal at 80th	2006-10
Scholls Ferry Bikeway	Multnomah County line to BH Highway	Retrofit street to add bike lanes	2011-20
Washington County ATMS	Washington County	Acquire hardware for new traffic operations center and conduct needs analysis	2000-05
Beaverton Connectivity Improvements I	(1) Henry Street: Millikan to Center, (2) Dawson/Westgate: Karl Braun to Hall, (3) Rose Biggi: Canyon to Westgate, (4) Tuala Way to Millikan	Complete central Beaverton street connections	2000-05
Beaverton Connectivity Improvements II	(5) Electric to Whitney to Carousel to 144th, (6) new conn.: Henry & 114, (7) new conn.: Hall and Cedar Hill (8) Griffith to 114th	Complete central Beaverton street connections	2006-10
Jenkins Road Improvement	Murray Boulevard to 158th Avenue	Widen to five lanes	2006-10
Highway 217 Interchange Improvements	NB/SB at Walker Road, SB at TV Highway, NB/SB at BH Highway and at Allen Boulevard	Improve Highway 217 interchanges	2000-05
TV Highway Improvements	Cedar Hills Boulevard to 10th Avenue	Widen to seven lanes Cedar Hills to Murray; six lanes limited access from Murray to Brookwood and five lanes from Brookwood to 10th	2011-20
Millikan Extension	Hocken to Cedar Hills	Three lane extension to connect with Cedar Hills at Henry Street	2000-05
Davis Improvements	160th Avenue to 170th Avenue	Three lane improvement to add bike and pedestrian facilities	2000-05
Hart Improvements	Murray to 165th	Three lane improvement with sidewalks, bikeways and signal at 155th Avenue	2000-05
Lombard Improvements	Broadway to Farmington	Three lane improvement to realign road with segment to the north with pedestrian facilities	2000-05
Farmington Road Improvements	Hocken Avenue to Murray Boulevard	Widen to five lanes; improve intersections at Murray Boulevard and Hocken Avenue	2000-05
Allen Boulevard Improvements	Highway 217 to Murray Boulevard	Widen to five lanes	2011-20
Cedar Hills Boulevard Improvements	Farmington Road to Walker Road	Widen to five lanes with sidewalks and bike lanes	2006-10
125th Avenue Extension	Brockman Street to Hall Boulevard	Construct two-lane extension with turn lanes from Brockman Street to Hall Boulevard	2000-05
Hall Boulevard Extension	Cedar Hills Boulevard to Terman/Hocken	Construct three-lane extension with bikeways and sidewalks	2000-05
158th/Merlo Road Improvements	170th Avenue to Walker Road	Widen to five lanes with sidewalks and bike lanes	2011-20
Nimbus Road Extension	Hall Boulevard to Denney Road	Extend two-lane roadway	
Center Street Improvements	Hall Boulevard to 113th Avenue	Widen to three lanes with bikeways and sidewalks (only bike lanes and sidewalks in financially constrained system)	2011-20
Hall/Watson Improvements	Allen Boulevard to Cedar Hills Boulevard	Complete boulevard design improvements	2000-05
TV Highway Pedestrian Access to Transit Improvements	Murray to Highway 217	Improve sidewalks, lighting, crossings, bus shelters and benches	2006-10
Walker Road Improvements	Cedar Hills Boulevard to Murray Boulevard	Widen to seven lanes with sidewalks and bike lanes	
Farmington Road Bikeway	Hocken to Highway 217	Retrofit to include bike lanes	2006-10
Hall Boulevard Bikeway	BH Highway to Cedar Hills Boulevard	Retrofit to include bike lanes	2000-05
Watson Avenue Bikeway	BH Highway to Hall Boulevard	Retrofit to include bike lanes	2000-05
Downtown Beaverton Pedestrian Improvements	Hocken Avenue/TV Highway/113th Avenue/110th Avenue/Cabot Street	Improve sidewalks, bike lanes, lighting, crossings, bus shelters and benches	2000-05
Walker Road Pedestrian Improvements	Polsky/108th to Highway 217	Improve sidewalks, lighting, crossings, bus shelters and benches	
Hall Boulevard/Watson Pedestrian-to-Transit Improvements	Cedar Hills Boulevard to Tigard TC	Improve sidewalks, lighting, crossings, bus shelters and benches	2006-10
110th Avenue Pedestrian Improvements	B-H Highway to Canyon Road	Fill in missing sidewalks	2000-05
117th Avenue Pedestrian Improvements	light rail transit to Center Street	Improve sidewalks, lighting, crossings	2000-05
Murray Boulevard Bike/Pedestrian Improvements	Scholls Ferry Road to TV Highway	Safety islands and pedestrian crossing improvements at intersections, fill in bicycle network gaps	2011-20
Beaverton-Hillsdale Highway Pedestrian and Bicycle Improvements	65th Avenue to Highway 217	Improve sidewalks, lighting, crossings, bus shelters and benches; stripe bike lanes	2011-20
Canyon Road/TV Highway Bike and Pedestrian Improvements	SW 91st Avenue to Highway 217	Bike lanes, sidewalks and pedestrian crossings	2011-20
Denney Road Bike/Pedestrian Improvements	Nimbus Avenue to Scholls Ferry Road	Improve sidewalks, crossings and fill in bicycle network gaps	
Beaverton Regional Center TMA	Beaverton Regional Center	Implements a transportation management association with area employers	2000-05

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TV Highway Access Management	117th Avenue to Hillsboro	Access management	2006-10
TV Highway System Management	TV Highway from Highway 217 to 209th	Interconnect signals on TV Highway from 209th Avenue to Highway 217	2006-10
Murray Boulevard Improvements	TV Highway to Allen Boulevard	Signal coordination	2000-05
Garden Home/92nd Avenue Improvements	Allen Boulevard to Oleson Road	Widen to three lanes with bikeways and sidewalks	
Scholls Ferry Road Improvements	Hamilton to Garden Home Road	Widen to three lanes with bikeways and sidewalks	2011-20
Fanno Creek Greenway Multi-Use Path	Allen Boulevard to Denney Road east of Highway 217 and from Highway 217 to Allen Boulevard near Scholls Ferry Road	Completes Fanno Creek Greenway multi-use path	2000-05
Beaverton Powerline Multi-use Trail	Farmington Road to Scholls Ferry Road	Construct multi-use trail within powerline easement	2000-05
Barnes Road Bikeway	Burnside to Leahy Road	Retrofit to include bike lanes	
Hall Boulevard Bikeway	12th Street to south of Allen Boulevard	Retrofit to include bike lanes; intersection turn lanes at Allen Boulevard	2000-05
Cedar Hills Boulevard Improvements	Butner Road to Walker Road	Improve sidewalks, lighting, crossings, bike lanes, bus shelters and benches	2000-05
Allen Boulevard Improvements	Highway 217 to Western Avenue	Widen to five lanes with bike lanes and sidewalks	2011-20
Western Avenue Pedestrian Improvements	5th Street to 800 feet south of 5th Street	Improve sidewalks, lighting, crossings, bus shelters and benches	
Canyon Road Bicycle and Pedestrian Improvements	US 26 to 110th Avenue	Retrofit to include bike lanes/sidewalks	2006-10
Allen Boulevard Bike/Ped Improvements	Western Avenue to Scholls Ferry Road	Retrofit to include bike lanes and fill in missing sidewalks	2006-10
Western Avenue Bike Lanes	B-H Highway to Allen Boulevard	Retrofit to include bike lanes	
170th Improvement	Blanton Street to Farmington Road	Widen to five lanes with sidewalks and bike lanes	
170th Improvement	Alexander Road to Merlo Road	Widen to five lanes with sidewalks and bike lanes	2011-20
170th Improvement	Rigert to Alexander	Three lanes from Rigert to Blanton; five lanes from Blanton to Alexander	2000-05
158th Avenue Improvements	Walker to Jenkins Road	Widen to include bike lanes	2011-20
Millikan Way Improvements	TV Highway to 141st Avenue	Widen to five lanes with sidewalks and bike lanes	2011-20
Millikan Way Improvements	141st Avenue to Hocken Road	Widen to three lanes with sidewalks and bike lanes	2011-20
160th Avenue Improvements	Tualatin Valley Highway to Farmington Road	Widen to five lanes with sidewalks and bike lanes	
Walker Road Improvements	173rd to Stucki Boulevard	Widen to include bike lanes	
Murray Boulevard Bikeway	Farmington Road to S of TV Highway	Retrofit to include bike lanes	2011-20
170th Avenue Pedestrian Improvements	Merlo Drive to Elmonica light rail station	Fill in sidewalk gaps and extend to light rail eastside only	2000-05
Pedestrian Access to MAX	Westside LRT station areas	Provide pedestrian connections to light rail stations	2000-05
Walker Road Bike/Ped Improvements	Canyon Road to Cedar Hills Boulevard	Retrofit to include bike lanes and sidewalks	2011-20
Baseline Road Improvements	Murray Boulevard to Brookwood Road	Widen to five lanes with bike lanes and sidewalks	
TV Highway Pedestrian Improvements	10th to Cornelius Pass Road	Improve sidewalks, lighting, crossings, bus shelters and benches	
Murray LRT Overcrossing and Pedestrian Improvements	Terman Road to Millikan Way	Expand LRT bridge from 2 to 4 lanes and improve sidewalks, lighting crossings, bus shelters, benches and landscaped buffers on bridge approach	2000-05
170th/173rd Improvements	Baseline to Walker	Improve to 3 lanes	2006-10
Johnson Street Extension	170th Avenue to 209th Avenue	Three lane extension (two lanes west bound and one lane eastbound with turn lanes), including bike lanes and sidewalks	2000-05
Walker Road Improvements	Cedar Hills to 158th Avenue	Widen to five lanes including sidewalks and bike lanes (three lanes in the financially constrained system)	2006-10
Walker Road Improvements	158th Avenue to Amberglen Parkway	Widen to five lanes including sidewalks and bike lanes (three lanes in the financially constrained system)	2006-10
Walker Road Improvements	Highway 217 to Cedar Hills Boulevard	Widen to five lanes including sidewalks and bike lanes	
Walker Road Improvements	Highway 217 to Cedar Hills Boulevard	Widen to three lanes including sidewalks and bike lanes (only Lynnfield to Cedar Hills in financially constrained)	2006-10
US 26 Undercrossing - Sunset TC	Barnes to Butner west of Highway 217	Construct new underpass to better connect areas north and south of US 26	
Barnes Road Improvements	Miller Road to 84th Avenue	Widen to three lanes with bike lanes and sidewalks	
Barnes Road Improvements	Highway 217 to 119th Avenue	Widen to five lanes with bike lanes and sidewalks	2006-10
90th/98th Avenue Extension	Leahy Road to Barnes Road	Construct new two-lane road connection with bike and pedestrian facilities	2011-20
Cedar Hills Boulevard/Barnes Road Intersection Improvement	Cedar Hills at Barnes Road	Add through and turn lanes, new traffic signal and signal at US 26 EB off-ramp	2000-05
119th Avenue Extension	Barnes Road to Cornell Road	Construct new 3/5 lane extension with sidewalks and bike lanes	2006-10
Cornell Road Improvements - West Cedar Mill	US 26 to 143rd Avenue	Widen to five lanes with bike lanes and sidewalks	2011-20
Cornell Road Improvements - West Cedar Mill	143rd Avenue to Dale Road	Widen to five lanes with boulevard design treatment	
Cornell Road Improvements	143rd Avenue to Saltzman	Widen to three lanes with bikeways and sidewalks	2000-05
Cornell Road Improvements - East Cedar Mill	Saltzman to Miller Road	Widen to three lanes and improve crossings, bus shelters	2011-20
Barnes Road Improvement	Saltzman Road to 119th Avenue	Widen to five lanes with intersection improvement	2000-05

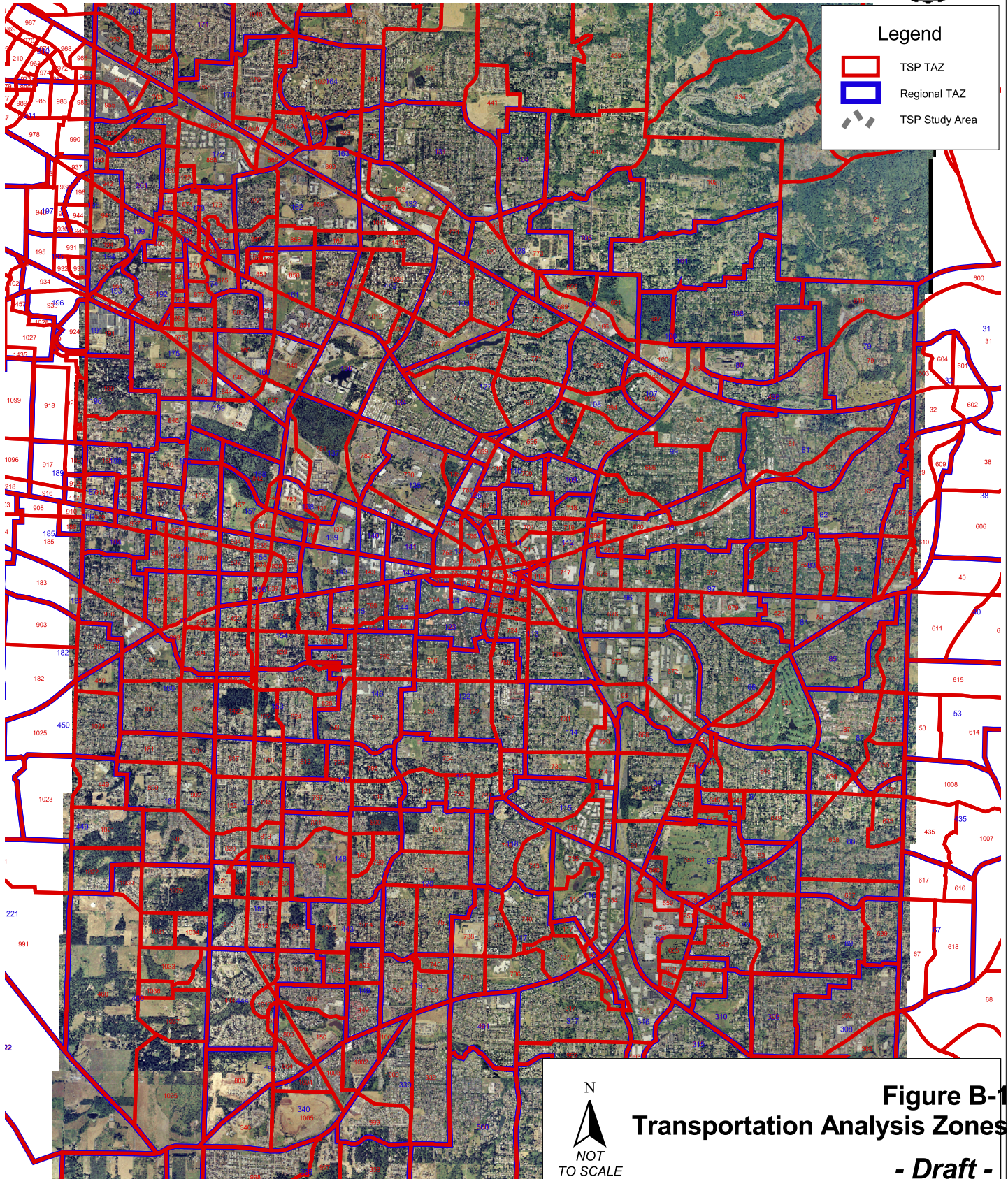
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		at Saltzman	
Murray Boulevard Improvements - Cedar Mill	Science Park Drive to Cornell	Widen Murray Boulevard to five lanes	2000-05
Saltzman Road Improvements	Cornell Road to Burton Street	Widen to three lanes with sidewalks and bike lanes	2011-20
143rd Avenue Improvements	Cornell Road to West Union Road	Widen to three lanes with sidewalks and bike lanes	2006-10
Cornell Intersection Improvements	Intersections at Saltzman, Barnes, Murray and Trail	Improve intersections to relieve congestion and improve safety	2011-20
Cedar Mill Town Center Local Connectivity, Phase 1	Various locations in the town center	Construct additional local road connections to improve traffic circulations	2000-05
Cornell Road Boulevard Treatment	Trail Avenue to Saltzman	Add bike lanes, sidewalks, median, landscaping	2000-05
Cedar Mill Multi-Use Path	North of Cornell Road from 113th Avenue to 119th Avenue	Construct multi-use path along north side of Cornell Road	2000-05
Saltzman Pedestrian Improvements	Marshall Road to Dogwood Road	Construct sidewalks on west side of road	2000-05
Cornell Road Improvements - East Tanasbourne	179th Avenue to Bethany Boulevard	Widen to five lanes with sidewalks and bike lanes	2006-10
173rd/174th Undercrossing	Cornell Road to Bronson Road	Construct new two lane undercrossing with sidewalks and bike lanes	2011-20
185th Avenue Improvements	Improve 185th Avenue and Cornell Road with "boulevard" design treatment, including improved sidewalks and bus stops, curb extensions, street trees, lighting, etc., within the town center.	Complete boulevard design improvements	
Farmington TC Pedestrian Improvements	Farmington Road, Kinnaman, 170th and intersecting streets	Improve sidewalks, lighting, crossings, bus shelters and benches	2011-20
Washington Square Connectivity Improvements	Washington Square Regional Center	Increase local street connections based on recommendations in regional center plan	2011-20
Highway 217 Interchange Imp. - Denney Road	Denney Road at the Highway 217 on and off-ramps	Improve Denney Road at the Highway 217 on and off-ramps, including lights and covered culverts	2011-20
Highway 217 Overcrossing - Cascade Plaza	Nimbus to Locust	Provide a new connection from Nimbus to Washington Square south of Scholls Ferry Road	
Western Avenue Improvements	Allen Boulevard to Walker Road	To improve north/south traffic flow and connectivity east of Highway 217, implement TSM improvements between Allen Boulevard and Canyon Road and extend Western Avenue north to Canyon Road near Walker Road.	2011-20
Taylor's Ferry Road Extension	Washington Drive to Oleson Road	Three lane extension with bikeway and sidewalks	2011-20
Scholls Ferry/Allen Intersection Improvement	Scholls Ferry Road/Allen Boulevard intersection	Realign intersection	2006-10
Oak Street Improvements	Hall Boulevard to 80th Avenue	Signal improvement, bikeway and sidewalks	2000-05
Scholls Ferry Road Improvements	Highway 217 to 125th Avenue	Widen to seven lanes with access management	
Scholls Ferry Pedestrian Improvements	Beaverton-Hillsdale Highway to Hall Boulevard	Improve sidewalks, lighting, crossings, bus shelters and benches	2011-20
Scholls Ferry Road TSM Improvements	Highway 217 to 125th Avenue	Implement appropriate TSM strategies such as signal interconnects, signal re-timing and channelization to improve traffic flows	2000-05
Washington Square Regional Center TMA Startup Program	Washington Square Regional Center	Implements a transportation management association program with employers	2000-05
Scholls Ferry Road Intersection Improvement	At Hall Boulevard	Add SB right turn lane from SB Hall Boulevard	
Murray/Scholls Connectivity Improvements	Teal collector extension to loop road and Barrows Road, transit collectors from Murray Boulevard to loop road; new neighborhood route connections	Teal collector extension to loop road and Barrows Road, transit collectors from Murray Boulevard to loop road; new neighborhood route connections	2011-20
Barrows Road Improvements	Murray Boulevard to 175th Avenue	Widen to add bike lanes	
Murray Boulevard Extension	Scholls Ferry Road to Barrows Road at Walnut Street	Four lane extension with bikeways and sidewalks	2000-05
Davies Road Connection	Scholls Ferry Road to Barrows Road	Three lane connection with bikeways and sidewalks	2006-10

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B- TAZ Map and Land Use

**City of Beaverton
Transportation System Plan**



Legend

- TSP TAZ
- Regional TAZ
- TSP Study Area

N

NOT
TO SCALE

**Figure B-1
Transportation Analysis Zones
- Draft -**

Key: TAZ = Transportation Analysis Zone
WACO = Washington County
TSP = Transportation System Plan (Beaverton)
HH = Households
RET = Retail Employment
OTH = Other Employment
CH = Change (1994 to 2020)
94 = 1994
2020 = 2020

Metro TAZ	WACO TAZ	TSP TAZ	94HH	2020HH	CH HH	94RET	2020RET	CH RET	94OTH	2020OTH	CH OTH
32	32	605	0	0	0	0	0	0	0	0	0
39	39	607	95	174	79	63	129	66	77	121	44
39	39	608	79	145	66	52	106	54	64	101	37
39	39	1417	55	101	46	36	74	38	44	70	26
79	79	79	641	1123	482	5	27	22	72	115	43
81	81	81	693	869	176	39	111	72	419	490	71
81	81	620	195	214	19	17	44	27	179	189	10
82	82	82	230	255	25	1	13	12	36	55	19
82	82	621	553	624	71	4	29	25	106	126	20
83	83	83	204	274	70	6	0	0	77	145	68
83	83	622	151	150	0	13	0	0	160	305	145
83	83	623	74	67	0	0	0	0	4	10	6
83	83	624	32	31	0	1	0	0	12	16	4
83	83	625	161	149	0	1	0	0	12	25	13
84	84	84	289	359	70	579	595	16	1006	1492	486
84	84	626	27	58	31	142	143	1	252	348	96
85	85	85	592	736	144	60	143	83	599	598	0
86	86	86	519	536	17	3	0	0	72	114	42
86	86	627	126	135	9	14	40	26	842	842	0
86	86	628	118	131	13	0	0	0	0	13	13
86	86	629	39	45	6	0	0	0	28	38	10
87	87	87	360	484	124	18	5	0	82	129	47
87	87	630	218	237	19	3	1	0	10	23	13
87	87	631	249	272	23	6	2	0	24	44	20
87	87	632	94	159	65	0	0	0	1	5	4
87	87	633	110	110	0	1	0	0	3	9	6
88	88	88	39	61	22	7	14	7	17	27	10
88	88	634	133	138	5	6	15	9	14	29	15
88	88	635	139	152	13	7	12	5	15	23	8
88	88	636	69	85	16	18	28	10	40	49	9
88	88	637	115	155	40	15	26	11	34	49	15
88	88	638	716	854	138	60	107	47	136	196	60
90	90	90	92	107	15	2	8	6	172	228	56
90	90	643	183	200	17	1	4	3	86	126	40
90	90	644	92	116	24	0	0	0	12	24	12
91	91	91	332	395	63	33	43	10	34	34	0
91	91	645	64	70	6	2	6	4	3	5	2
91	91	646	25	27	2	1	3	2	1	3	2
91	91	647	67	103	36	10	16	6	11	13	2
91	91	648	281	328	47	14	43	29	15	33	18
91	91	649	15	46	31	0	27	27	0	20	20
92	92	650	21	46	25	316	590	274	604	694	90
93	93	93	86	106	20	4	6	2	6	22	16
93	93	658	15	14	0	67	98	31	100	372	272

Metro TAZ	WACO TAZ	TSP TAZ	94HH	2020HH	CH HH	94RET	2020RET	CH RET	94OTH	2020OTH	CH OTH
93	93	659	3	3	0	14	11	0	20	22	2
93	93	660	204	196	0	29	32	3	43	100	57
93	93	661	8	8	0	2	2	0	3	8	5
93	93	662	124	122	0	12	12	0	18	36	18
94	94	94	157	156	0	4	23	19	193	281	88
94	94	663	33	51	18	1	4	3	41	44	3
94	94	664	69	142	73	2	8	6	84	106	22
94	94	665	323	336	13	9	43	34	488	566	78
94	94	666	205	217	12	5	27	22	251	396	145
94	94	667	33	36	3	1	4	3	40	38	0
94	94	668	0	0	0	0	0	0	0	0	0
94	94	669	116	155	39	0	0	0	9	28	19
95	95	95	41	41	0	40	33	0	580	776	196
95	95	671	43	45	2	42	34	0	618	855	237
95	95	672	55	298	243	42	38	0	631	1056	425
95	95	673	0	0	0	63	54	0	937	1376	439
96	96	96	340	643	303	212	453	241	967	892	0
96	96	674	91	95	4	150	319	169	690	622	0
96	96	675	39	39	0	336	723	387	1531	1526	0
96	96	676	107	109	2	354	757	403	1659	1567	0
97	97	97	13	13	0	7	21	14	57	50	0
97	97	677	275	341	66	43	104	61	415	411	0
97	97	678	84	85	1	12	33	21	104	97	0
97	97	679	14	14	0	141	340	199	1192	1204	12
98	98	98	99	111	12	129	214	85	96	81	0
98	98	680	99	121	22	222	352	130	165	133	0
98	98	681	296	313	17	246	406	160	193	157	0
98	98	682	0	0	0	113	160	47	84	59	0
98	98	683	12	21	9	59	103	44	44	39	0
99	99	99	324	336	12	4	24	20	294	328	34
99	99	684	144	160	16	1	6	5	88	112	24
99	99	685	113	123	10	0	0	0	20	32	12
99	99	686	356	374	18	1	6	5	59	85	26
100	100	100	15	228	213	0	0	0	81	718	637
100	100	688	11	13	2	0	0	0	60	439	379
106	106	106	8	245	237	45	680	635	49	129	80
106	106	689	8	8	0	45	149	104	50	91	41
107	107	107	0	0	0	0	0	0	0	0	0
107	107	692	152	175	23	47	147	100	595	1331	736
107	107	693	55	469	414	25	69	44	317	643	326
108	108	108	229	240	11	6	2	0	39	106	67
108	108	694	133	141	8	11	4	0	76	148	72
108	108	695	34	37	3	15	5	0	93	139	46
108	108	696	16	19	3	0	0	0	3	15	12
108	108	697	154	164	10	2	1	0	17	40	23
109	109	109	232	240	8	0	0	0	5	58	53
110	110	110	88	411	323	134	347	213	131	427	296
110	110	698	16	269	253	18	56	38	17	73	56
110	110	699	4	4	0	142	285	143	138	339	201
110	110	700	156	189	33	2	26	24	2	34	32
111	111	111	12	12	0	266	414	148	181	276	95
111	111	701	232	391	159	10	148	138	7	153	146
111	111	702	138	225	87	8	53	45	5	44	39
111	111	703	85	88	3	315	445	130	215	298	83

Metro TAZ	WACO TAZ	TSP TAZ	94HH	2020HH	CH HH	94RET	2020RET	CH RET	94OTH	2020OTH	CH OTH
111	111	704	25	25	0	81	149	68	55	102	47
111	111	705	7	7	0	22	42	20	15	35	20
111	111	706	10	10	0	91	141	50	61	94	33
111	111	707	19	19	0	62	110	48	42	74	32
126	111	708	0	0	0	0	0	0	0	0	0
111	111	709	29	29	0	94	199	105	64	149	85
111	111	710	17	17	0	57	105	48	38	71	33
111	111	711	89	293	204	463	809	346	316	557	241
111	111	712	0	0	0	42	72	30	29	49	20
111	111	713	5	5	0	132	193	61	90	128	38
111	111	714	10	10	0	33	53	20	22	35	13
111	111	715	0	0	0	0	80	80	0	30	30
111	111	1418	36	36	0	115	146	31	79	130	51
112	112	112	0	0	0	185	305	120	37	99	62
112	112	716	61	63	2	343	569	226	68	185	117
112	112	717	3	3	0	614	954	340	122	300	178
112	112	718	150	209	59	30	58	28	5	20	15
112	112	719	134	154	20	177	226	49	36	71	35
112	112	721	18	18	0	24	43	19	5	14	9
113	113	113	51	51	0	217	605	388	1725	1750	25
113	113	722	24	329	305	4	13	9	32	36	4
113	113	723	9	71	62	33	92	59	262	261	0
113	113	724	164	353	189	13	38	25	105	125	20
113	113	725	71	357	286	29	85	56	230	260	30
113	113	726	481	1462	981	35	115	80	278	416	138
113	113	727	91	581	490	60	167	107	472	469	0
113	113	728	9	9	0	4	13	9	34	58	24
113	113	1419	1	1	0	31	85	54	242	241	0
114	114	114	15	16	1	6	12	6	208	261	53
114	114	729	29	29	0	8	18	10	269	365	96
114	114	730	138	141	3	5	11	6	167	201	34
114	114	731	735	818	83	16	39	23	583	810	227
115	115	115	19	19	0	60	44	0	1361	1492	131
115	115	732	80	78	0	23	16	0	511	597	86
115	115	733	390	383	0	14	9	0	324	375	51
116	116	116	2	2	0	144	177	33	1720	2065	345
116	116	734	2	2	0	167	203	36	1988	2534	546
116	116	735	2	2	0	104	128	24	1239	1419	180
117	117	117	70	70	0	13	21	8	32	50	18
117	117	736	303	321	18	2	9	7	4	43	39
117	117	737	235	234	0	83	114	31	211	221	10
117	117	738	49	53	4	21	30	9	55	62	7
117	117	739	486	491	5	73	100	27	184	191	7
117	117	740	243	246	3	53	74	21	132	140	8
117	117	741	150	150	0	5	9	4	13	25	12
117	117	742	22	22	0	4	7	3	10	17	7
118	118	118	164	164	0	0	0	0	3	23	20
118	118	743	321	325	4	3	0	0	73	113	40
118	118	744	547	735	188	2	0	0	9	69	60
119	119	745	56	58	2	0	0	0	10	19	9
119	119	746	148	155	7	0	0	0	27	51	24
119	119	747	230	276	46	0	0	0	33	81	48
120	120	120	256	308	52	6	7	1	18	49	31
120	120	748	378	384	6	7	7	0	20	49	29

Metro TAZ	WACO TAZ	TSP TAZ	94HH	2020HH	CH HH	94RET	2020RET	CH RET	94OTH	2020OTH	CH OTH
120	120	749	229	230	1	10	10	0	29	54	25
120	120	750	314	363	49	7	8	1	20	55	35
121	121	121	188	188	0	2	1	0	9	29	20
121	121	751	114	177	63	1	0	0	5	18	13
121	121	752	108	108	0	1	0	0	5	16	11
121	121	753	105	105	0	1	0	0	4	15	11
121	121	754	349	376	27	21	10	0	121	169	48
122	122	122	246	279	33	18	54	36	224	268	44
122	122	755	208	210	2	7	21	14	84	103	19
122	122	756	239	244	5	1	7	6	18	48	30
122	122	757	601	627	26	24	70	46	305	355	50
122	122	758	457	523	66	6	21	15	73	106	33
122	122	759	595	615	20	13	42	29	163	208	45
123	123	123	296	302	6	0	0	0	65	92	27
124	124	124	57	172	115	13	50	37	49	129	80
124	124	760	51	92	41	21	119	98	81	290	209
125	125	125	4	6	2	24	46	22	37	69	32
125	125	761	54	80	26	3	15	12	4	23	19
125	125	762	1	1	0	50	123	73	77	186	109
125	125	763	42	61	19	202	397	195	310	603	293
125	125	764	0	0	0	133	265	132	204	393	189
125	125	765	18	26	8	108	304	196	165	483	318
125	125	766	18	26	8	113	320	207	173	501	328
126	126	126	4	4	0	77	101	24	92	125	33
126	126	767	201	209	8	295	372	77	350	404	54
126	126	768	5	5	0	757	942	185	910	987	77
127	127	127	175	175	0	0	0	0	9	18	9
127	127	769	272	271	0	1	1	0	15	28	13
127	127	770	136	136	0	1	1	0	23	38	15
127	127	771	458	456	0	2	2	0	38	64	26
127	127	772	493	492	0	14	19	5	242	308	66
128	128	128	482	773	291	23	105	82	251	387	136
132	132	132	74	74	0	270	209	0	692	825	133
132	132	774	40	57	17	145	109	0	371	475	104
132	132	776	54	57	3	197	151	0	504	615	111
133	133	133	193	270	77	1	1	0	25	12	0
133	133	777	131	223	92	2	2	0	36	17	0
133	133	778	353	433	80	6	7	1	108	37	0
134	134	134	744	758	14	0	0	0	33	93	60
135	135	135	7	8	1	0	14	14	77	1110	1033
135	135	779	17	20	3	2	26	24	154	1574	1420
135	135	780	43	51	8	4	89	85	565	5794	5229
136	136	136	32	41	9	108	157	49	2466	7638	5172
137	137	137	0	0	0	0	0	0	947	1015	68
137	137	781	0	1472	1472	0	0	0	44	668	624
137	137	782	25	25	0	0	8	8	3391	3566	175
138	138	138	0	239	239	0	0	0	31	369	338
138	138	783	0	0	0	0	0	0	11	723	712
139	139	139	5	5	0	173	221	48	449	1098	649
139	139	784	0	0	0	5	13	8	13	96	83
140	140	140	31	915	884	1	0	0	830	1169	339
141	141	141	405	918	513	250	243	0	139	325	186
142	142	142	146	289	143	90	61	0	521	653	132
143	143	143	181	182	1	94	265	171	177	212	35

Metro TAZ	WACO TAZ	TSP TAZ	94HH	2020HH	CH HH	94RET	2020RET	CH RET	94OTH	2020OTH	CH OTH
143	143	785	107	491	384	46	46	0	87	230	143
144	144	144	428	476	48	0	0	0	2	28	26
144	144	786	0	23	23	12	4	0	60	117	57
145	145	145	75	75	0	0	0	0	43	52	9
145	145	787	252	319	67	2	0	0	182	217	35
145	145	788	301	337	36	2	0	0	160	199	39
145	145	789	51	52	1	0	0	0	27	31	4
146	146	146	127	127	0	51	69	18	58	64	6
146	146	790	0	0	0	0	0	0	0	0	0
146	146	791	46	46	0	18	35	17	21	40	19
146	146	792	538	576	38	151	151	0	173	258	85
146	146	793	234	233	0	94	225	131	109	129	20
146	146	794	457	466	9	237	337	100	272	329	57
147	147	147	168	171	3	2	5	3	7	20	13
147	147	795	77	87	10	1	3	2	4	12	8
147	147	796	193	213	20	1	4	3	4	17	13
147	147	797	133	178	45	2	6	4	7	25	18
148	148	148	74	91	17	0	0	0	8	8	0
148	148	798	294	493	199	0	2	2	32	45	13
148	148	799	197	245	48	0	0	0	18	14	0
148	148	800	57	171	114	0	0	0	7	6	0
148	148	801	111	255	144	0	0	0	9	10	1
149	149	149	425	523	98	0	0	0	43	92	49
149	149	802	69	69	0	0	0	0	19	39	20
150	150	150	99	99	0	40	127	87	206	356	150
150	150	803	31	962	931	3	3	0	12	154	142
150	150	804	63	112	49	2	2	0	8	32	24
150	150	805	412	412	0	97	97	0	499	592	93
150	150	806	80	82	2	15	15	0	78	90	12
151	151	151	5	21	16	0	0	0	0	3	3
151	151	807	30	220	190	0	1	1	2	9	7
151	151	808	27	99	72	0	1	1	1	10	9
151	151	809	301	393	92	4	4	0	3	11	8
151	151	810	63	71	8	0	1	1	8	15	7
151	151	811	3	19	16	0	0	0	0	3	3
151	151	812	66	319	253	0	1	1	3	8	5
152	152	152	192	210	18	2	3	1	16	37	21
152	152	813	57	60	3	1	2	1	4	15	11
152	152	814	2	12	10	0	0	0	0	1	1
152	152	815	164	163	0	1	2	1	9	26	17
152	152	816	20	20	0	0	0	0	1	9	8
152	152	817	125	127	2	3	4	1	22	40	18
152	152	818	90	96	6	1	2	1	7	22	15
152	152	819	75	75	0	11	9	0	87	96	9
152	152	820	52	152	100	1	1	0	5	14	9
153	153	153	154	187	33	0	4	4	24	51	27
153	153	821	7	7	0	0	0	0	1	1	0
153	153	822	31	164	133	0	2	2	5	24	19
153	153	823	10	11	1	0	0	0	1	2	1
153	153	824	348	351	3	0	2	2	10	34	24
153	153	825	29	32	3	0	0	0	5	10	5
153	153	826	24	47	23	0	0	0	4	6	2
153	153	1422	178	204	26	0	4	4	28	61	33
154	154	154	195	202	7	0	0	0	10	29	19

Metro TAZ	WACO TAZ	TSP TAZ	94HH	2020HH	CH HH	94RET	2020RET	CH RET	94OTH	2020OTH	CH OTH
154	154	827	167	299	132	0	0	0	9	40	31
154	154	828	35	35	0	0	0	0	2	3	1
154	154	829	244	247	3	0	0	0	20	55	35
154	154	830	185	213	28	0	0	0	6	36	30
154	154	831	98	104	6	0	0	0	3	19	16
154	154	1420	48	136	88	0	0	0	5	21	16
154	154	1421	32	37	5	0	0	0	2	7	5
155	155	155	56	58	2	0	0	0	1	4	3
155	155	832	96	100	4	0	0	0	3	4	1
155	155	833	14	58	44	0	0	0	1	2	1
155	155	834	84	89	5	0	0	0	2	3	1
155	155	835	13	33	20	0	0	0	1	2	1
155	155	836	29	39	10	0	0	0	1	2	1
156	156	156	46	100	54	0	0	0	2	60	58
156	156	837	147	144	0	0	0	0	0	29	29
156	156	838	43	74	31	0	0	0	2	18	16
156	156	839	119	142	23	0	0	0	4	38	34
157	157	157	106	106	0	0	107	107	0	250	250
157	157	840	0	0	0	0	0	0	0	99	99
157	157	841	19	19	0	0	0	0	0	244	244
158	158	842	0	19	19	0	9	9	0	52	52
158	158	843	0	19	19	0	98	98	0	541	541
159	159	159	50	50	0	0	0	0	1440	1833	393
159	159	844	0	0	0	0	0	0	399	626	227
160	160	160	12	180	168	132	191	59	458	1038	580
160	160	846	6	6	0	71	152	81	246	1058	812
160	160	847	0	0	0	15	36	21	61	248	187
160	160	848	3	66	63	41	69	28	141	424	283
161	161	161	3	3	0	13	8	0	52	59	7
161	161	849	93	199	106	48	31	0	149	176	27
161	161	850	26	28	2	0	0	0	0	0	0
161	161	851	34	36	2	139	79	0	568	822	254
161	161	852	37	46	9	10	3	0	120	184	64
161	161	853	74	94	20	300	203	0	1223	1330	107
161	161	854	22	35	13	1	1	0	3	5	2
161	161	855	3	4	1	5	3	0	21	23	2
162	162	162	13	390	377	1	4	3	16	67	51
162	162	856	184	345	161	11	24	13	241	399	158
162	162	857	128	164	36	2	7	5	27	87	60
162	162	858	1	1	0	0	0	0	0	2	2
162	162	859	20	20	0	81	166	85	1707	3018	1311
163	163	860	284	299	15	31	76	45	38	146	108
170	170	1048	28	183	155	0	0	0	3	20	17
170	170	1426	32	65	33	0	0	0	4	6	2
172	172	172	7	9	2	0	0	0	9	16	7
172	172	866	14	18	4	6	14	8	104	231	127
172	172	867	44	56	12	18	47	29	311	779	468
172	172	868	26	33	7	61	101	40	1050	1387	337
172	172	869	81	111	30	0	1	1	7	24	17
202	172	870	172	218	46	0	0	0	2	32	30
172	172	871	114	237	123	1	3	2	14	41	27
173	173	173	82	332	250	0	0	0	1	25	24
173	173	872	39	115	76	0	0	0	1	13	12
173	173	873	18	28	10	0	0	0	0	8	8

Metro TAZ	WACO TAZ	TSP TAZ	94HH	2020HH	CH HH	94RET	2020RET	CH RET	94OTH	2020OTH	CH OTH
173	173	874	44	84	40	0	0	0	1	18	17
174	174	174	13	354	341	0	0	0	0	50	50
174	174	875	79	86	7	0	0	0	8	73	65
174	174	876	23	252	229	0	0	0	3	24	21
174	174	877	48	65	17	0	0	0	5	47	42
175	175	175	38	104	66	0	0	0	21	177	156
175	175	878	10	49	39	0	0	0	119	335	216
175	175	879	8	8	0	0	0	0	57	96	39
175	175	880	184	279	95	0	0	0	11	58	47
175	175	881	7	48	41	0	0	0	4	10	6
175	175	883	16	54	38	0	0	0	9	19	10
175	175	884	35	161	126	0	0	0	19	56	37
176	176	176	18	18	0	0	0	0	2	2	0
177	177	1050	292	294	2	1	37	36	11	132	121
178	178	888	139	153	14	6	10	4	17	31	14
178	178	889	22	85	63	36	51	15	106	138	32
179	179	891	113	173	60	0	0	0	5	22	17
179	179	894	118	146	28	0	0	0	12	27	15
179	179	895	36	37	1	0	0	0	2	7	5
180	180	896	203	232	29	56	74	18	30	27	0
180	180	898	30	34	4	9	12	3	4	4	0
181	181	900	135	312	177	0	0	0	6	9	3
181	181	901	78	119	41	0	0	0	7	5	0
181	181	902	204	242	38	0	0	0	71	35	0
192	192	192	21	22	1	0	0	0	4	6	2
192	192	925	40	53	13	0	0	0	7	12	5
192	192	926	301	371	70	0	0	0	37	69	32
192	192	927	16	16	0	0	0	0	2	23	21
193	193	193	160	159	0	1	0	0	37	68	31
193	193	928	33	33	0	0	0	0	12	42	30
194	194	194	98	101	3	2	0	0	4	11	7
194	194	929	0	0	0	0	0	0	0	0	0
194	194	930	146	150	4	5	0	0	9	29	20
198	198	941	140	557	417	7	315	308	24	37	13
198	198	942	69	105	36	49	641	592	195	133	0
199	199	199	87	227	140	0	0	0	0	50	50
200	200	200	52	238	186	0	0	0	16	29	13
200	200	946	13	43	30	0	0	0	4	7	3
200	200	947	12	13	1	0	0	0	4	8	4
200	200	948	32	30	0	0	0	0	11	21	10
200	200	949	0	0	0	0	0	0	0	0	0
200	200	950	0	0	0	0	0	0	0	0	0
200	200	951	0	0	0	0	0	0	0	0	0
200	200	952	16	20	4	0	0	0	5	11	6
200	200	1428	17	104	87	0	0	0	6	13	7
201	201	201	340	353	13	0	67	67	7	16	9
201	201	953	55	70	15	0	18	18	46	28	0
202	202	202	192	357	165	0	0	0	16	67	51
203	203	203	0	0	0	252	651	399	185	401	216
203	203	955	2	2	0	38	287	249	24	143	119
203	203	956	0	0	0	166	505	339	105	258	153
340	340	340	26	94	68	0	0	0	0	172	172
340	340	1001	239	514	275	0	0	0	0	33	33
340	340	1002	207	305	98	0	0	0	0	108	108

Metro TAZ	WACO TAZ	TSP TAZ	94HH	2020HH	CH HH	94RET	2020RET	CH RET	94OTH	2020OTH	CH OTH
340	340	1003	61	103	42	0	0	0	0	64	64
340	340	1004	45	480	435	0	0	0	0	65	65
340	340	1005	33	249	216	1	0	0	42	1143	1101
80	436	436	536	615	79	0	0	0	11	15	4
133	442	442	107	212	105	3	4	1	83	109	26
133	442	1009	306	297	0	2	3	1	44	70	26
133	442	1010	159	136	0	1	1	0	18	27	9
133	442	1011	12	10	0	4	6	2	84	175	91
133	442	1012	383	332	0	19	26	7	381	509	128
133	442	1013	1	0	0	0	0	0	1	0	0
133	442	1433	90	82	0	3	4	1	50	80	30
148	443	443	23	34	11	0	1	1	22	31	9
148	443	1014	182	178	0	0	1	1	14	33	19
148	443	1015	38	310	272	2	2	0	51	73	22
151	444	444	389	644	255	4	2	0	20	39	19
151	444	1016	0	0	0	0	0	0	0	0	0
151	444	1017	16	26	10	0	0	0	0	2	2
151	444	1018	11	24	13	0	0	0	3	3	0
151	444	1019	5	11	6	0	0	0	25	20	0
151	444	1020	5	10	5	0	0	0	71	58	0
221	460	1029	56	93	37	1	0	0	22	6	0
221	460	1031	10	17	7	8	0	0	100	22	0
221	460	1034	37	44	7	1	0	0	16	4	0

C- Traffic Counts

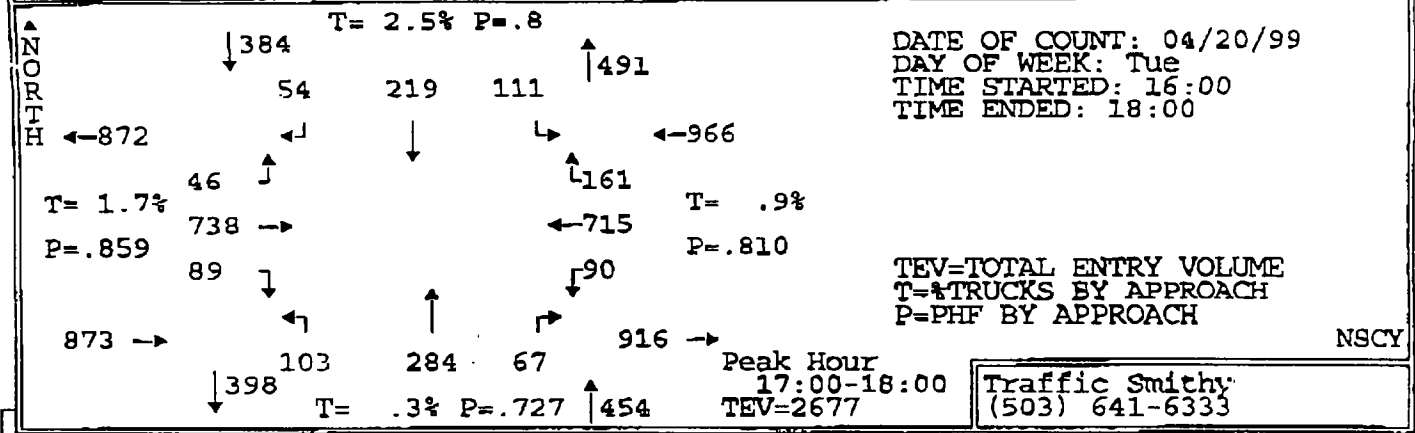
FROM : TRAFFIC SMITHY

PHONE NO. : 5036438866

Dec. 01 2000 10:49AM P7

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
173RD AVENUE AT WALKER ROAD

1234



TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL				
	↓	→	↑	←	↓	↘	↙	↑					
16:00-16:05	3	44	3	8	21	13	6	12	2	5	40	5	162
16:05-16:10	6	43	2	6	26	17	6	21	9	9	49	13	207
16:10-16:15	15	64	7	4	18	7	4	18	3	5	35	7	187
16:15-16:20	13	48	2	2	14	8	3	15	3	8	46	13	176
16:20-16:25	8	40	2	13	11	7	6	20	2	8	43	11	171
16:25-16:30	4	56	1	7	10	1	2	14	4	9	44	11	163
16:30-16:35	8	46	2	7	11	3	5	13	2	4	52	7	160
16:35-16:40	8	41	6	4	19	10	8	21	5	4	47	5	178
16:40-16:45	7	60	5	3	13	7	2	11	4	5	51	12	180
16:45-16:50	6	71	3	8	13	6	5	8	1	9	45	9	184
16:50-16:55	10	43	5	4	22	7	4	32	4	5	64	7	207
16:55-17:00	10	54	0	12	23	13	8	21	5	5	54	2	206
17:00-17:05	8	45	3	7	10	8	3	25	4	3	39	8	163
17:05-17:10	9	58	3	3	8	10	9	19	7	5	58	10	199
17:10-17:15	5	64	2	7	24	5	13	21	8	3	52	11	215
17:15-17:20	8	72	4	5	20	9	5	17	3	8	70	14	235
17:20-17:25	8	64	3	3	34	8	7	25	7	11	59	13	242
17:25-17:30	16	75	4	4	12	10	4	12	3	14	70	8	232
17:30-17:35	5	53	5	5	33	11	17	41	9	7	69	15	270
17:35-17:40	4	75	1	3	12	5	8	18	6	8	77	30	247
17:40-17:45	7	53	6	9	15	10	11	40	6	6	49	8	220
17:45-17:50	9	69	5	1	14	10	12	18	4	8	60	13	223
17:50-17:55	6	50	2	2	25	11	5	24	7	13	61	15	221
17:55-18:00	4	60	8	5	12	14	9	24	3	4	51	16	210

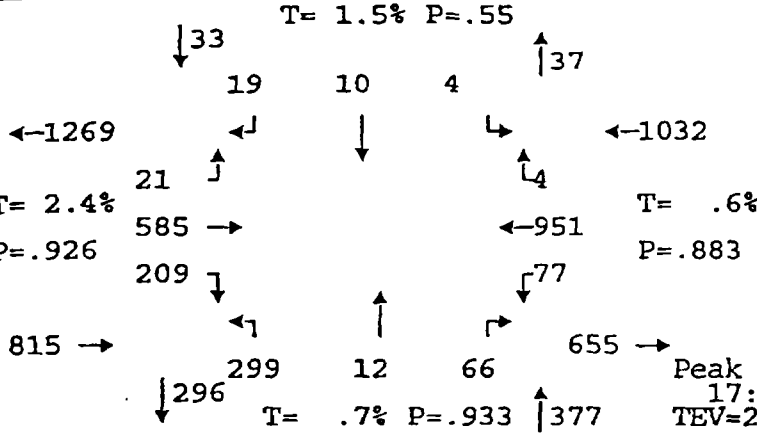
Total Survey	187	1348	84	133	420	210	162	490	110	166	1285	263	4858
PHF	.7	.87	.77	.79	.69	.79	.72	.72	.8	.68	.83	.76	.893
% Trucks	1.1	1.8	1.2	4.5	2.6	1	.6	0	.9	1.2	.8	1.1	1.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	2	0	0
Peds	0	1	0	0	2	0	0	11	0	0	4	0	0

Hourly Totals													
16:00-17:00	98	610	38	79	201	99	59	206	43	76	570	102	2181
16:15-17:15	96	626	34	78	178	85	68	220	48	68	595	106	2202
16:30-17:30	103	693	40	67	209	96	73	225	52	76	661	106	2401
16:45-17:45	96	727	39	70	226	102	94	279	62	84	706	135	2620
17:00-18:00	89	738	46	54	219	111	103	284	67	90	715	161	2677

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 BASELINE ROAD AT 170TH AVENUE

22326

NORTH



DATE OF COUNT: 01/12/00
 DAY OF WEEK: Wed
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

Peak Hour
 17:00-18:00
 TEV=2257

Traffic Smithy
 (503) 641-6333

BKSH

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	16	25	0	1	0	1	13	3	2	2	60	1	124
16:05-16:10	17	50	1	3	1	1	10	1	4	5	72	1	166
16:10-16:15	23	60	0	0	0	0	21	3	5	4	51	1	168
16:15-16:20	19	48	3	1	2	1	14	1	2	4	73	2	170
16:20-16:25	16	36	0	2	1	0	22	0	7	12	62	0	158
16:25-16:30	21	45	0	0	0	0	20	0	7	5	67	0	165
16:30-16:35	16	44	1	2	1	0	21	1	2	2	58	1	149
16:35-16:40	17	46	2	0	1	1	36	0	9	3	64	0	179
16:40-16:45	17	43	1	2	0	0	21	1	8	4	75	4	176
16:45-16:50	17	54	1	3	1	1	19	2	7	8	71	2	186
16:50-16:55	17	44	0	5	0	1	14	1	9	5	70	3	169
16:55-17:00	12	35	0	1	0	2	23	2	1	3	62	2	143
17:00-17:05	16	49	3	0	1	0	29	0	10	9	60	0	177
17:05-17:10	18	58	2	3	0	0	19	0	5	6	88	0	199
17:10-17:15	14	48	1	1	0	0	30	2	6	8	96	0	206
17:15-17:20	17	46	1	2	0	0	24	1	6	3	73	0	173
17:20-17:25	25	54	0	1	0	0	20	3	5	4	79	0	191
17:25-17:30	23	43	1	0	2	0	28	0	6	7	90	0	200
17:30-17:35	15	44	3	2	1	1	23	2	3	5	74	2	175
17:35-17:40	18	40	0	3	1	2	28	1	5	5	96	1	200
17:40-17:45	14	40	2	4	1	0	29	1	8	10	61	1	171
17:45-17:50	14	57	0	0	0	0	10	0	6	14	104	0	205
17:50-17:55	12	51	6	0	4	1	29	1	2	3	61	0	170
17:55-18:00	23	55	2	3	0	0	30	1	4	3	69	0	190

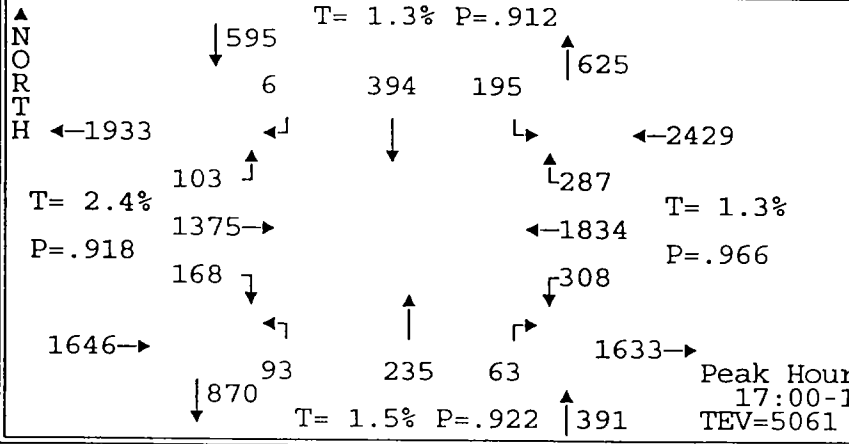
Total Survey	417	1115	30	39	17	12	533	27	129	134	1736	21	4210
PHF	.8	.9	.66	.53	.5	.33	.93	.5	.79	.66	.91	.25	.969
% Trucks	4.6	1.7	0	2.6	0	0	.8	0	.8	.7	.6	0	1.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	8	0	0	2	0	0	15	0	0	3	0	0

Hourly Totals													
16:00-17:00	208	530	9	20	7	8	234	15	63	57	785	17	1953
16:15-17:15	200	550	14	20	7	6	268	10	73	69	846	14	2077
16:30-17:30	209	564	13	20	6	5	284	13	74	62	886	12	2148
16:45-17:45	206	555	14	25	7	7	286	15	71	73	920	11	2190
17:00-18:00	209	585	21	19	10	4	299	12	66	77	951	4	2257

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
170TH AVENUE AT TUALATIN VALLEY HIGHWAY

23906

NORTH



DATE OF COUNT: 6/13/00
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Peak Hour
17:00-18:00
TEV=5061

Traffic Smithy
(503) 641-6333

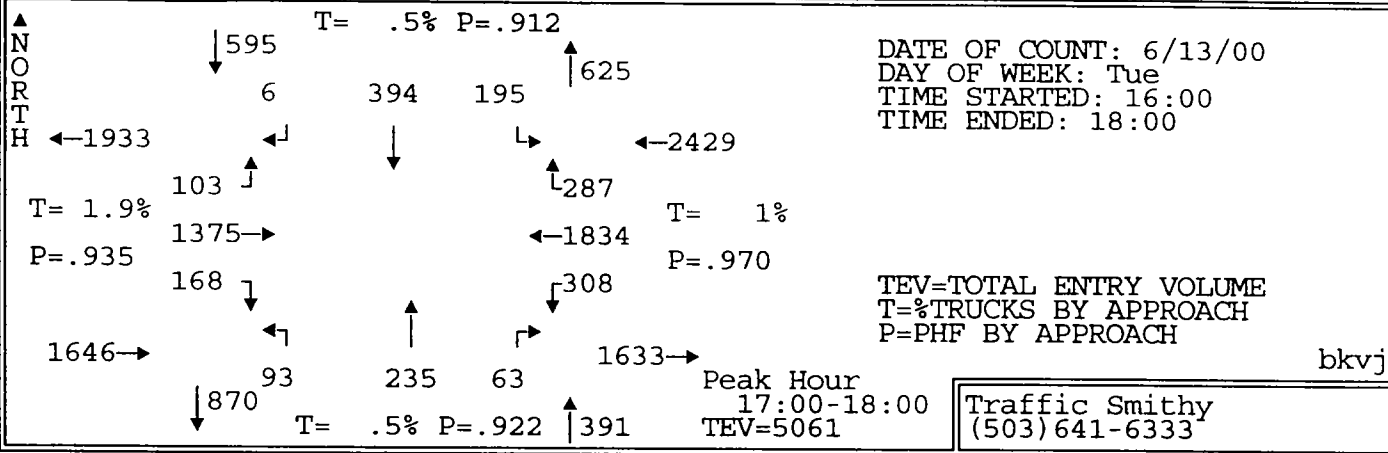
bkvj

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	10	128	10	1	22	12	12	15	1	16	132	20	379
16:05-16:10	9	121	9	0	24	8	12	17	5	20	163	17	405
16:10-16:15	14	89	10	2	36	19	8	21	9	7	106	13	334
16:15-16:20	13	101	9	2	30	14	9	19	3	25	138	13	376
16:20-16:25	11	103	9	4	30	19	11	16	5	22	140	19	389
16:25-16:30	14	128	8	1	24	8	8	17	4	20	137	20	389
16:30-16:35	7	137	7	2	28	12	9	22	6	16	166	21	433
16:35-16:40	12	117	9	1	39	17	13	21	6	13	132	20	400
16:40-16:45	9	90	11	0	35	20	8	11	15	22	138	24	383
16:45-16:50	17	118	9	1	29	14	6	19	5	25	152	22	417
16:50-16:55	17	151	6	0	31	17	4	16	4	14	119	21	400
16:55-17:00	4	128	6	0	23	4	12	19	2	25	164	24	411
17:00-17:05	11	116	7	0	37	22	9	22	4	20	141	36	425
17:05-17:10	8	104	10	0	42	14	7	25	7	15	141	25	398
17:10-17:15	6	129	14	0	30	18	6	21	5	28	146	27	430
17:15-17:20	16	141	4	1	29	19	9	19	7	20	163	27	455
17:20-17:25	17	116	5	0	33	14	10	18	6	27	171	19	436
17:25-17:30	19	114	8	1	30	20	6	18	4	27	151	21	419
17:30-17:35	14	117	9	0	32	13	12	21	5	16	159	27	425
17:35-17:40	11	117	9	1	32	13	5	21	4	35	162	21	431
17:40-17:45	13	126	11	0	32	13	7	17	5	30	126	24	404
17:45-17:50	14	105	4	1	34	11	5	14	5	35	165	21	414
17:50-17:55	21	83	9	1	30	19	8	20	6	32	133	21	383
17:55-18:00	18	107	13	1	33	19	9	19	5	23	176	18	441

Total Survey	305	2786	206	20	745	359	205	448	128	533	3521	521	9777
PHF	.79	.89	.83	.5	.9	.9	.83	.86	.83	.77	.95	.82	.957
% Trucks	2.3	2.4	2.4	0	1.1	1.9	2.9	.9	1.6	.4	1.1	3.3	1.7
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	14	0	0

Hourly Totals													
16:00-17:00	137	1411	103	14	351	164	112	213	65	225	1687	234	4716
16:15-17:15	129	1422	105	11	378	179	102	228	66	245	1714	272	4851
16:30-17:30	143	1461	96	6	386	191	99	231	71	252	1784	287	5007
16:45-17:45	153	1477	98	4	380	181	93	236	58	282	1795	294	5051
17:00-18:00	168	1375	103	6	394	195	93	235	63	308	1834	287	5061

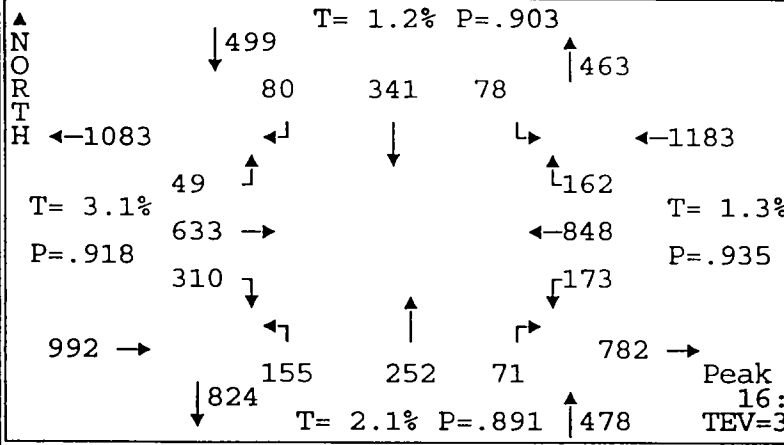
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
170TH AVENUE AT TUALATIN VALLEY HIGHWAY



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	25	349	31	0	109	54	22	68	16	63	428	88	1253
17:15-17:30	52	371	17	2	92	53	25	55	17	74	485	67	1310
17:30-17:45	38	360	29	1	96	39	24	59	14	81	447	72	1260
17:45-18:00	53	295	26	3	97	49	22	53	16	90	474	60	1238
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	8	0	0	0	0	1	0	0	0	2	2	13
17:15-17:30	1	3	0	0	0	0	0	0	0	0	6	3	13
17:30-17:45	1	6	0	0	0	0	0	0	0	0	1	1	9
17:45-18:00	0	5	0	0	1	0	1	0	0	0	2	0	9
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	2	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	1	2	3
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	1
17:15-17:30	0	2	0	0	1	0	0	0	0	0	0	0	3
17:30-17:45	0	3	0	0	0	0	0	0	0	0	1	0	4
17:45-18:00	0	2	0	0	0	0	0	0	0	0	0	0	2
BICYCLES													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	2	0	0	0	0	0	2	0	0	0	0	4
17:45-18:00	0	1	0	0	0	0	0	1	0	0	1	0	3
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	1	0	0	0	0	0	0	0	0	1	0	2	
17:15-17:30	0	0	0	0	0	0	0	0	0	2	0	2	
17:30-17:45	1	0	0	0	0	0	0	0	0	7	0	8	
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour by Movement													
PHF	.79	.93	.83	.5	.9	.9	.93	.86	.93	.86	.95	.82	.965
% Trucks (all)	1.2	2.1	0	0	.8	0	2.2	0	0	0	.9	2.8	1.2
% Trucks (M+H)	0	.5	0	0	.5	0	0	0	0	0	.3	.7	.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	137	1411	103	14	351	164	112	213	65	225	1687	234	4716
16:15-17:15	129	1422	105	11	378	179	102	228	66	245	1714	272	4851
16:30-17:30	143	1461	96	6	386	191	99	231	71	252	1784	287	5007
16:45-17:45	153	1477	98	4	380	181	93	236	58	282	1795	294	5051
17:00-18:00	168	1375	103	6	394	195	93	235	63	308	1834	287	5061

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
170TH AVENUE AT FARMINGTON ROAD

27494



DATE OF COUNT: 05/31/00
 DAY OF WEEK: Wed
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

ERLJ

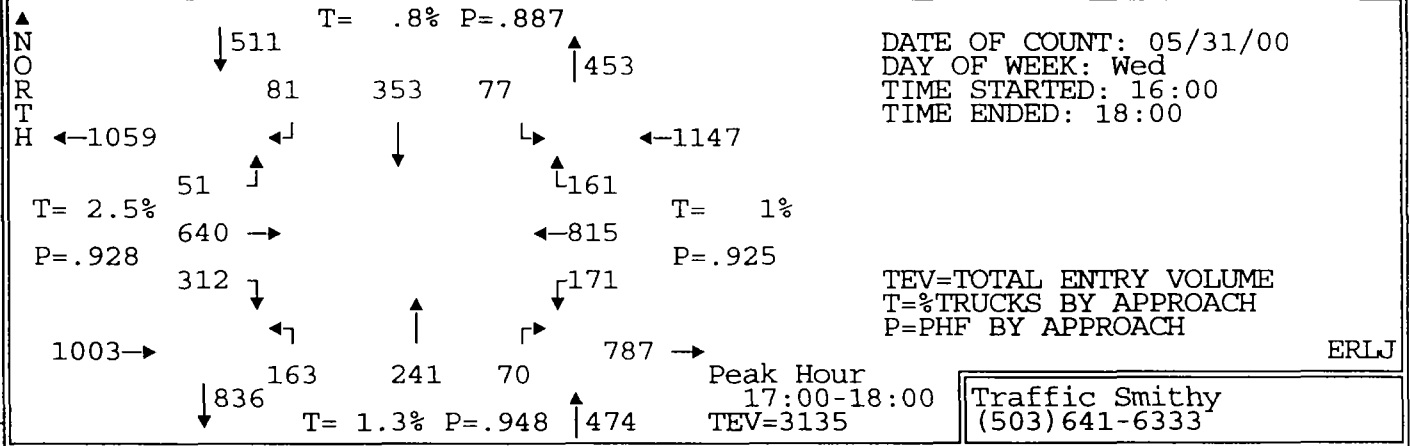
Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↗	↖	↓	↘	↖	↑	↗	↓	←	↖	
16:00-16:05	21	60	3	5	19	6	6	20	6	13	57	8	224
16:05-16:10	31	52	7	5	19	3	8	15	4	14	67	7	232
16:10-16:15	18	53	5	7	28	3	15	18	3	14	73	5	242
16:15-16:20	34	49	4	8	25	6	14	14	4	11	54	9	232
16:20-16:25	17	62	6	13	24	3	6	12	8	11	90	8	260
16:25-16:30	14	51	6	6	28	11	12	14	5	12	80	18	257
16:30-16:35	22	50	4	10	25	5	7	14	4	9	77	10	237
16:35-16:40	17	54	6	9	22	1	12	23	4	10	65	11	234
16:40-16:45	22	47	1	12	25	10	10	14	6	16	84	11	258
16:45-16:50	24	55	4	10	20	3	14	13	10	12	60	8	233
16:50-16:55	12	52	5	7	25	3	13	16	4	10	71	9	227
16:55-17:00	19	38	3	8	28	8	9	30	4	14	59	8	228
17:00-17:05	25	60	6	5	16	10	16	19	2	11	77	21	268
17:05-17:10	25	46	6	2	29	3	11	26	12	7	78	18	263
17:10-17:15	29	49	1	9	29	5	14	19	6	10	64	12	247
17:15-17:20	25	61	2	9	31	6	19	18	9	15	66	15	276
17:20-17:25	27	51	9	9	28	4	4	21	6	19	81	18	277
17:25-17:30	27	48	3	8	33	10	11	30	6	14	68	12	270
17:30-17:35	28	52	6	7	26	7	19	31	4	19	67	18	284
17:35-17:40	30	60	4	8	27	6	22	7	4	20	72	15	275
17:40-17:45	30	57	3	6	30	4	11	19	2	19	71	9	261
17:45-17:50	20	49	4	4	34	6	8	14	10	10	77	7	243
17:50-17:55	25	62	2	5	30	9	11	18	6	15	68	9	260
17:55-18:00	21	45	5	9	40	7	17	19	3	12	26	7	211

Total Survey	563	1263	105	181	641	139	289	444	132	317	1652	273	5999
PHF	.88	.94	.68	.74	.91	.85	.75	.77	.66	.75	.96	.79	.948
% Trucks	2.3	3	7.6	1.7	.9	2.2	2.8	1.8	1.5	.3	1.6	.7	2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	9	0	0	3	0	0	0	0	0	5	0	0

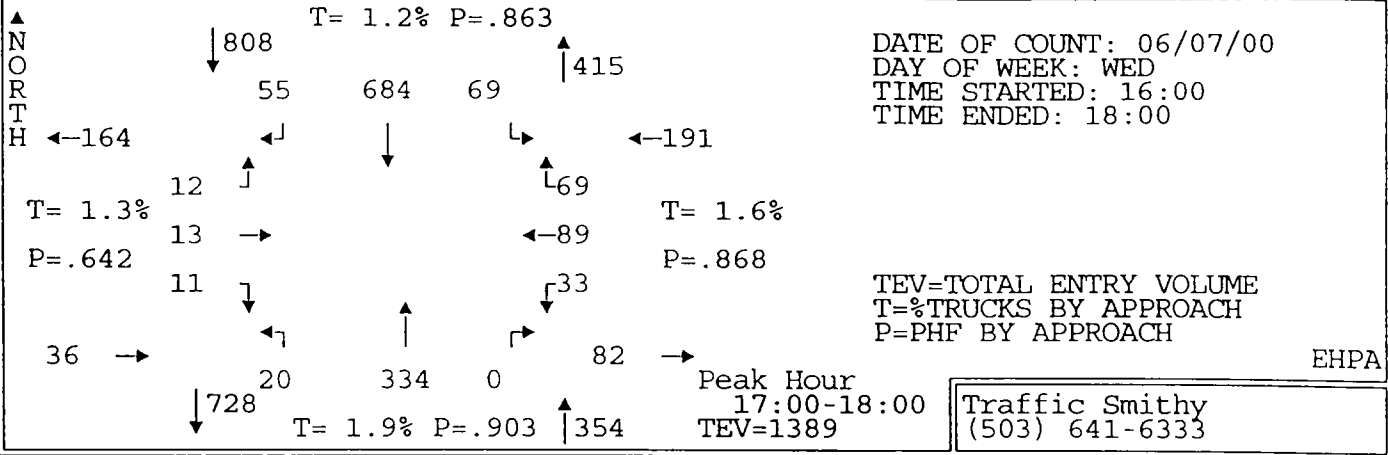
Hourly Totals													
16:00-17:00	251	623	54	100	288	62	126	203	62	146	837	112	2864
16:15-17:15	260	613	52	99	296	68	138	214	69	133	859	143	2944
16:30-17:30	274	611	50	98	311	68	140	243	73	147	850	153	3018
16:45-17:45	301	629	52	88	322	69	163	249	69	170	834	163	3109
17:00-18:00	312	640	51	81	353	77	163	241	70	171	815	161	3135

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
170TH AVENUE AT FARMINGTON ROAD



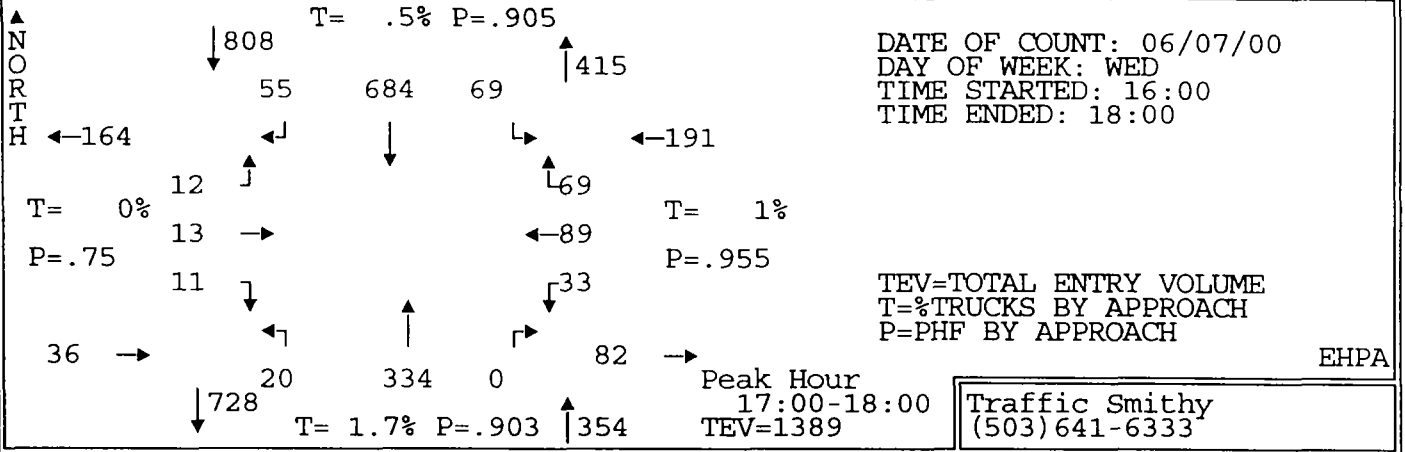
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
17:00-17:15	79	155	13	16	74	18	41	64	20	28	219	51	778
17:15-17:30	79	160	14	26	92	20	34	69	21	48	215	45	823
17:30-17:45	88	169	13	21	83	17	52	57	10	58	210	42	820
17:45-18:00	66	156	11	18	104	22	36	51	19	37	171	23	714
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	5	0	0	0	0	3	0	0	1	4	0	14
17:15-17:30	0	2	1	0	1	0	0	2	0	0	2	0	8
17:30-17:45	3	4	0	0	0	1	1	0	0	0	2	0	11
17:45-18:00	1	1	2	0	2	0	0	0	0	0	1	0	7
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	3	0	0	0	0	0	0	0	0	0	0	3
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	1	0	0	0	1	0	2
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS -----CROSSWALK USEAGE-----													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	2	0	0	0	0	0	0	0	0	2	0	0	4
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	1	0	0	1	0	0	0	0	0	0	0	0	2
Peak Hour by Movement													
PHF	.89	.95	.91	.78	.85	.88	.78	.87	.83	.74	.93	.79	.952
% Trucks (all)	1.6	2.7	5.9	0	.8	1.3	2.5	.8	0	.6	1.2	0	1.5
% Trucks (M+H)	0	.8	0	0	0	0	0	0	0	0	.1	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	251	623	54	100	288	62	126	203	62	146	837	112	2864
16:15-17:15	260	613	52	99	296	68	138	214	69	133	859	143	2944
16:30-17:30	274	611	50	98	311	68	140	243	73	147	850	153	3018
16:45-17:45	301	629	52	88	322	69	163	249	69	170	834	163	3109
17:00-18:00	312	640	51	81	353	77	163	241	70	171	815	161	3135

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
170TH AVENUE AT OAK STREET



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	2	0	2	3	32	1	4	19	1	2	4	4	74
16:05-16:10	1	1	1	3	38	1	3	33	0	2	6	2	91
16:10-16:15	1	1	1	8	34	4	2	28	0	5	1	3	88
16:15-16:20	2	0	1	3	43	8	2	29	0	3	3	4	98
16:20-16:25	0	1	0	8	40	5	0	18	0	7	3	1	83
16:25-16:30	2	1	0	5	48	2	0	23	0	3	3	2	89
16:30-16:35	0	1	1	4	39	2	1	25	0	0	2	1	76
16:35-16:40	2	1	0	4	50	5	1	24	0	2	1	4	94
16:40-16:45	1	2	1	2	48	4	2	32	0	1	3	8	104
16:45-16:50	2	2	1	3	52	11	2	30	1	1	2	7	114
16:50-16:55	1	2	2	4	53	6	3	27	1	3	3	6	111
16:55-17:00	2	0	1	8	62	7	1	22	0	2	9	3	117
17:00-17:05	0	3	0	6	49	6	1	30	0	4	5	4	108
17:05-17:10	0	3	1	3	39	4	1	19	0	2	13	3	88
17:10-17:15	2	2	1	4	47	9	0	31	0	2	14	3	115
17:15-17:20	2	0	2	6	60	5	3	28	0	2	7	9	124
17:20-17:25	2	1	2	5	53	5	3	29	0	4	3	8	115
17:25-17:30	0	0	1	4	72	13	1	34	0	1	4	11	141
17:30-17:35	0	0	0	3	72	5	2	21	0	0	6	1	110
17:35-17:40	0	1	0	4	57	4	1	25	0	4	9	5	110
17:40-17:45	1	0	0	4	53	3	0	27	0	3	10	6	107
17:45-17:50	0	2	3	6	56	6	3	33	0	5	5	6	125
17:50-17:55	2	0	1	4	69	7	2	30	0	6	4	3	128
17:55-18:00	2	1	1	6	57	2	3	27	0	0	9	10	118
Total Survey	27	25	23	110	1223	125	41	644	3	64	129	114	2528
PHF	.46	.41	.6	.86	.85	.75	.63	.92	0	.59	.65	.62	.913
% Trucks	0	4	0	1.8	1.1	.8	0	1.9	33.3	3.1	0	2.6	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	1	0	0	0	0	0	4	0	0	1	0	0
Hourly Totals													
16:00-17:00	16	12	11	55	539	56	21	310	3	31	40	45	1139
16:15-17:15	14	18	9	54	570	69	14	310	2	30	61	46	1197
16:30-17:30	14	17	13	53	624	77	19	331	2	24	66	67	1307
16:45-17:45	12	14	11	54	669	78	18	323	2	28	85	66	1360
17:00-18:00	11	13	12	55	684	69	20	334	0	33	89	69	1389

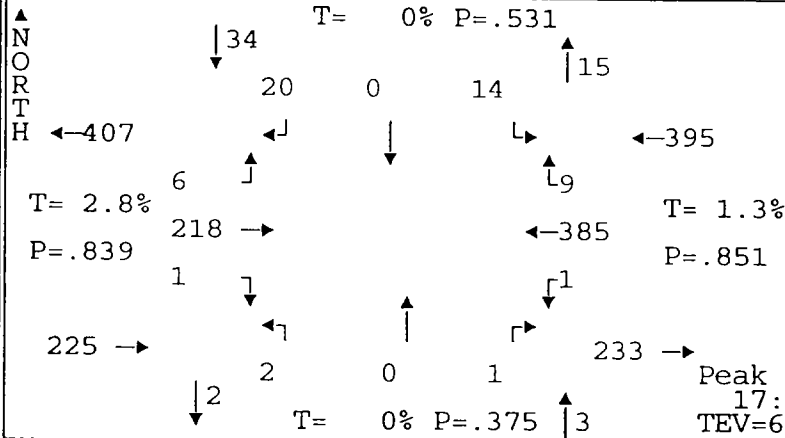
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
170TH AVENUE AT OAK STREET



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↘	←	↑	
ALL VEHICLES													
17:00-17:15	2	8	2	13	135	19	2	80	0	8	32	10	311
17:15-17:30	4	1	5	15	185	23	7	91	0	7	14	28	380
17:30-17:45	1	1	0	11	182	12	3	73	0	7	25	12	327
17:45-18:00	4	3	5	16	182	15	8	90	0	11	18	19	371
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15-17:30	0	0	0	0	1	0	0	2	0	0	0	0	3
17:30-17:45	0	0	0	0	3	0	0	0	0	0	0	0	3
17:45-18:00	0	0	0	0	0	0	0	1	0	1	0	0	2
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	1	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	1	0	0	0	0	1
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	2	0	0	0	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	1	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.69	.41	.6	.86	.92	.75	.63	.92	0	.75	.7	.62	.913
% Trucks (all)	0	0	0	0	.6	0	0	1.8	0	3	0	1.4	.9
% Trucks (M+H)	0	0	0	0	0	0	0	.6	0	0	0	1.4	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	16	12	11	55	539	56	21	310	3	31	40	45	1139
16:15-17:15	14	18	9	54	570	69	14	310	2	30	61	46	1197
16:30-17:30	14	17	13	53	624	77	19	331	2	24	66	67	1307
16:45-17:45	12	14	11	54	669	78	18	323	2	28	85	66	1360
17:00-18:00	11	13	12	55	684	69	20	334	0	33	89	69	1389

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
173RD AVENUE AT BANY ROAD

24088



DATE OF COUNT: 06/28/00
DAY OF WEEK: Wed
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

tbea

Peak Hour
17:00-18:00
TEV=657

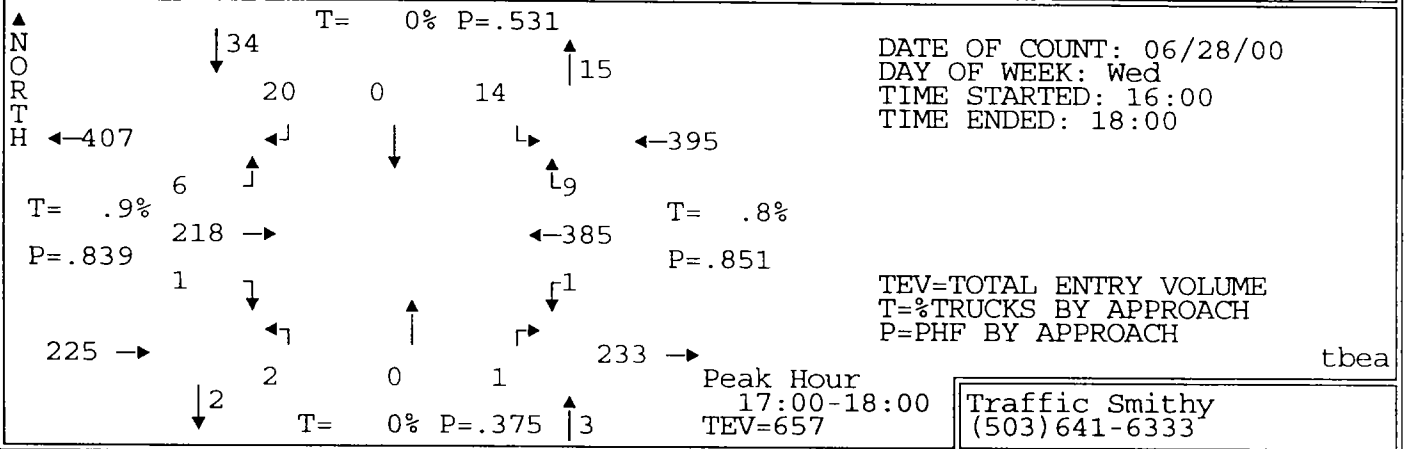
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	0	11	0	0	1	0	0	1	0	0	14	0	27
16:05-16:10	1	20	2	0	0	1	0	0	0	1	31	0	56
16:10-16:15	1	19	0	0	0	1	0	0	0	0	23	0	44
16:15-16:20	0	17	0	0	0	1	0	0	0	0	26	1	45
16:20-16:25	0	14	0	2	0	0	1	0	0	0	26	1	44
16:25-16:30	0	15	1	0	0	0	0	0	0	0	23	1	40
16:30-16:35	0	18	1	0	0	0	0	0	0	0	35	1	55
16:35-16:40	0	8	2	0	0	0	0	0	0	0	27	0	37
16:40-16:45	0	21	1	1	0	1	0	0	0	1	22	1	48
16:45-16:50	0	14	0	0	0	2	0	0	0	0	23	0	39
16:50-16:55	0	24	2	1	0	1	1	0	1	0	22	2	54
16:55-17:00	0	11	0	1	0	0	0	0	0	0	37	0	49
17:00-17:05	0	20	0	0	0	1	0	0	0	0	24	0	45
17:05-17:10	0	12	0	1	0	1	0	0	0	0	32	0	46
17:10-17:15	0	10	2	4	0	2	1	0	1	0	41	2	63
17:15-17:20	0	18	1	0	0	0	0	0	0	0	30	0	49
17:20-17:25	0	14	0	2	0	2	0	0	0	1	36	0	55
17:25-17:30	0	23	1	1	0	2	0	0	0	0	26	2	55
17:30-17:35	0	22	1	0	0	0	0	0	0	0	30	2	55
17:35-17:40	0	15	1	1	0	0	0	0	0	0	30	0	47
17:40-17:45	1	17	0	1	0	0	0	0	0	0	22	1	42
17:45-17:50	0	27	0	6	0	3	0	0	0	0	42	1	79
17:50-17:55	0	20	0	1	0	3	1	0	0	0	32	1	58
17:55-18:00	0	20	0	3	0	0	0	0	0	0	40	0	63

Total Survey	3	410	15	25	1	21	4	1	2	3	694	16	1195
PHF	.25	.81	.5	.5	0	.58	.5	0	.25	.25	.84	.56	.821
% Trucks	0	2.9	0	0	0	0	0	0	0	0	1.2	6.3	1.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	2	0	0	1	0	0

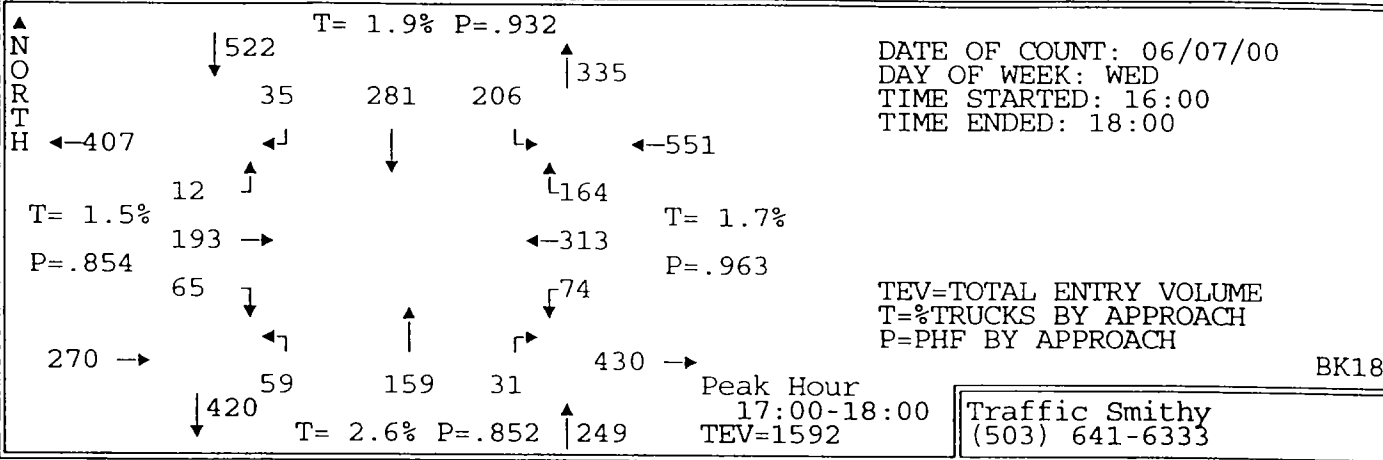
Hourly Totals													
16:00-17:00	2	192	9	5	1	7	2	1	1	2	309	7	538
16:15-17:15	0	184	9	10	0	9	3	0	2	1	338	9	565
16:30-17:30	0	193	10	11	0	12	2	0	2	2	355	8	595
16:45-17:45	1	200	8	12	0	11	2	0	2	1	353	9	599
17:00-18:00	1	218	6	20	0	14	2	0	1	1	385	9	657

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
173RD AVENUE AT BANY ROAD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	0	42	2	5	0	4	1	0	1	0	97	2	154
17:15-17:30	0	55	2	3	0	4	0	0	0	1	92	2	159
17:30-17:45	1	54	2	2	0	0	0	0	0	0	82	3	144
17:45-18:00	0	67	0	10	0	6	1	0	0	0	114	2	200
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	1	0	2
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	1	0	0	0	0	0	0	0	0	0	0	1
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	1	0	0	1	0	0	0	0	2
17:45-18:00	0	0	0	0	3	0	0	0	0	0	0	1	4
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	2	0	0	0	0	0	2
Peak Hour by Movement													
PHF	.25	.81	.75	.5	0	.58	.5	0	.25	.25	.84	.75	.821
% Trucks (all)	0	.9	0	0	0	0	0	0	0	0	.8	0	.8
% Trucks (M+H)	0	0	0	0	0	0	0	0	0	0	.3	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	2	192	9	5	1	7	2	1	1	2	309	7	538
16:15-17:15	0	184	9	10	0	9	3	0	2	1	338	9	565
16:30-17:30	0	193	10	11	0	12	2	0	2	2	355	8	595
16:45-17:45	1	200	8	12	0	11	2	0	2	1	353	9	599
17:00-18:00	1	218	6	20	0	14	2	0	1	1	385	9	657

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
170TH AVENUE AT BANY ROAD

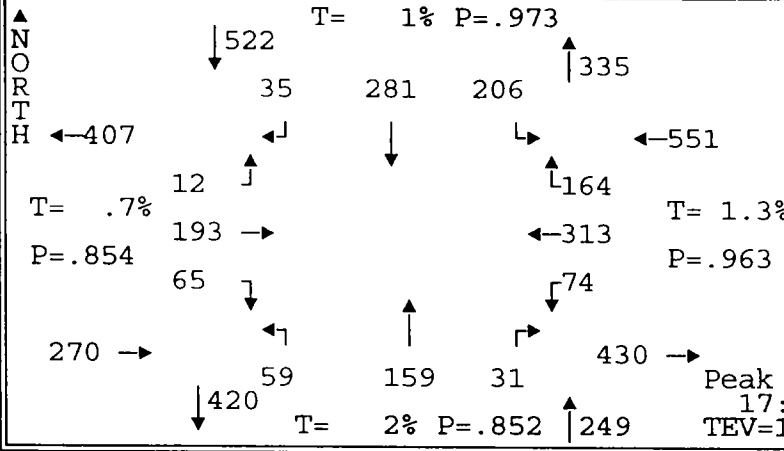


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↘	→	↗	↙	↓	↘	←	↑	↗	↘	←	↖	
16:00-16:05	2	12	3	3	14	8	6	16	6	4	16	16	106
16:05-16:10	2	7	1	1	12	9	4	15	7	2	9	20	89
16:10-16:15	3	8	3	3	23	14	2	15	4	7	15	14	111
16:15-16:20	3	13	3	2	20	11	6	16	0	3	19	9	105
16:20-16:25	3	12	0	1	21	16	4	9	2	2	15	15	100
16:25-16:30	1	15	2	1	20	16	4	13	1	3	29	13	118
16:30-16:35	5	7	2	3	14	14	4	11	5	5	18	13	101
16:35-16:40	4	13	3	1	16	13	1	13	5	2	18	10	99
16:40-16:45	4	6	2	2	30	14	4	12	3	4	16	13	110
16:45-16:50	0	8	4	0	23	12	5	17	1	1	23	16	110
16:50-16:55	4	18	5	5	18	20	5	10	4	4	22	11	126
16:55-17:00	2	15	3	1	20	21	2	15	7	4	20	11	121
17:00-17:05	5	12	2	5	21	21	2	10	5	10	27	13	133
17:05-17:10	5	11	2	3	19	18	6	14	1	3	26	11	119
17:10-17:15	2	21	1	5	20	15	7	12	2	1	27	10	123
17:15-17:20	3	15	1	2	19	20	3	12	3	9	28	13	128
17:20-17:25	8	14	1	2	21	20	10	11	1	10	21	18	137
17:25-17:30	10	10	0	3	30	13	5	13	2	6	24	9	125
17:30-17:35	5	19	0	0	23	24	5	6	4	5	29	21	141
17:35-17:40	4	13	1	4	28	15	3	15	3	4	23	7	120
17:40-17:45	9	26	2	1	19	20	5	16	0	7	31	15	151
17:45-17:50	1	16	2	4	26	15	5	19	4	6	23	19	140
17:50-17:55	6	17	0	5	29	15	4	10	3	4	21	16	130
17:55-18:00	7	19	0	1	26	10	4	21	3	9	33	12	145

Total Survey	98	327	43	58	512	374	106	321	76	115	533	325	2888
PHF	.71	.82	.6	.67	.87	.87	.74	.8	.77	.74	.94	.82	.945
% Trucks	2	.9	4.7	5.2	1.8	1.6	4.7	1.6	3.9	.9	1.3	2.8	1.9
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	33	134	31	23	231	168	47	162	45	41	220	161	1296
16:15-17:15	38	151	29	29	242	191	50	152	36	42	260	145	1365
16:30-17:30	52	150	26	32	251	201	54	150	39	59	270	148	1432
16:45-17:45	57	182	22	31	261	219	58	151	33	64	301	155	1534
17:00-18:00	65	193	12	35	281	206	59	159	31	74	313	164	1592

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
170TH AVENUE AT BANY ROAD



DATE OF COUNT: 06/07/00
DAY OF WEEK: WED
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

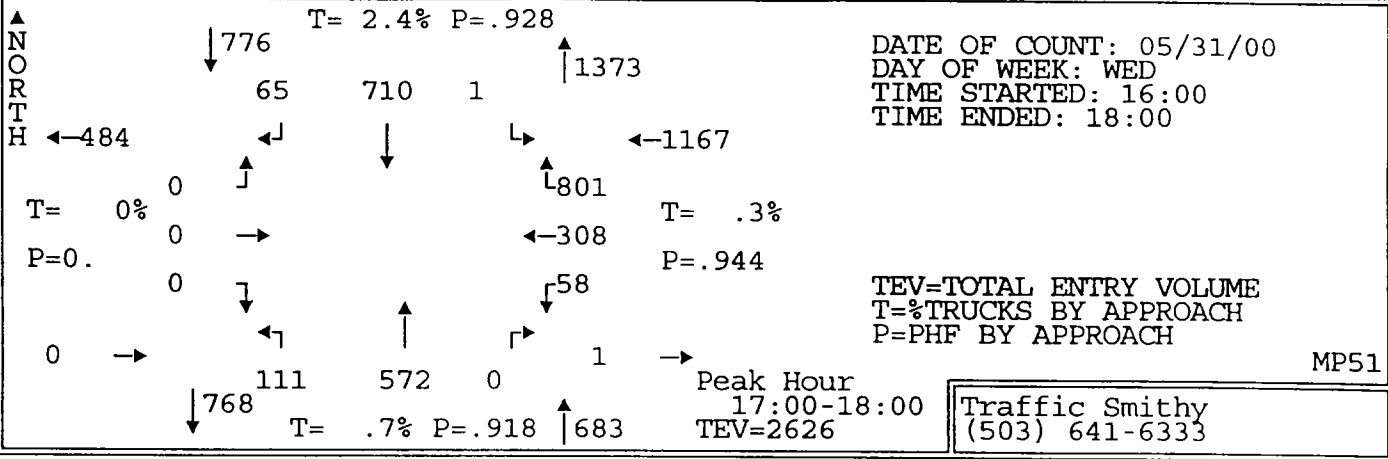
Peak Hour
17:00-18:00
TEV=1592

Traffic Smithy
(503) 641-6333

BK18

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	12	44	5	13	60	54	15	36	8	14	80	34	375
17:15-17:30	21	39	2	7	70	53	18	36	6	25	73	40	390
17:30-17:45	18	58	3	5	70	59	13	37	7	16	83	43	412
17:45-18:00	14	52	2	10	81	40	13	50	10	19	77	47	415
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	1	0	0	0	1	0	1	0	1	0	4
17:15-17:30	0	0	0	1	1	0	0	0	0	0	0	2	4
17:30-17:45	0	0	0	0	2	1	1	1	0	0	1	0	6
17:45-18:00	1	0	0	0	0	0	0	0	0	0	1	1	3
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	1	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.77	.83	.6	.67	.87	.87	.82	.8	.77	.74	.94	.87	.959
% Trucks (all)	1.5	0	8.3	2.9	1.1	.5	3.4	1.3	3.2	0	1	2.4	1.2
% Trucks (M+H)	0	0	0	0	0	0	0	.6	0	0	0	.6	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	33	134	31	23	231	168	47	162	45	41	220	161	1296
16:15-17:15	38	151	29	29	242	191	50	152	36	42	260	145	1365
16:30-17:30	52	150	26	32	251	201	54	150	39	59	270	148	1432
16:45-17:45	57	182	22	31	261	219	58	151	33	64	301	155	1534
17:00-18:00	65	193	12	35	281	206	59	159	31	74	313	164	1592

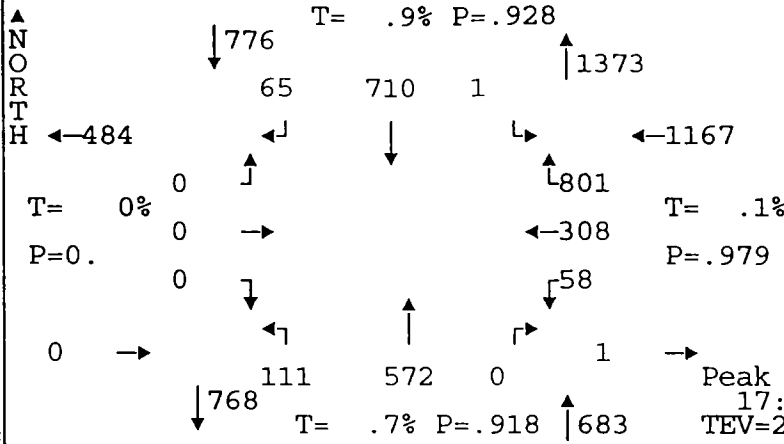
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 BETHANY BOULEVARD AT HIGHWAY 26 WB RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	0	0	0	2	56	0	10	29	0	3	9	50	159
16:05-16:10	0	0	0	1	36	0	12	27	0	3	11	44	134
16:10-16:15	0	0	0	5	56	0	7	26	0	4	27	46	171
16:15-16:20	0	0	0	5	49	0	8	37	0	3	12	56	170
16:20-16:25	0	0	0	4	51	0	11	43	0	2	18	51	180
16:25-16:30	0	0	0	2	44	0	8	24	0	5	19	53	155
16:30-16:35	0	0	0	5	32	0	6	48	0	2	12	49	154
16:35-16:40	0	0	0	4	58	1	8	39	0	4	20	46	180
16:40-16:45	0	0	0	4	43	0	5	33	0	7	22	66	180
16:45-16:50	0	0	0	5	58	0	9	36	0	4	19	50	181
16:50-16:55	0	0	0	2	42	0	5	39	0	6	20	63	177
16:55-17:00	0	0	0	7	51	0	10	40	0	4	19	57	188
17:00-17:05	0	0	0	7	73	0	4	47	0	4	29	67	231
17:05-17:10	0	0	0	3	41	0	15	38	0	8	25	60	190
17:10-17:15	0	0	0	6	71	0	10	46	0	3	17	65	218
17:15-17:20	0	0	0	5	50	0	8	46	0	9	29	71	218
17:20-17:25	0	0	0	7	55	0	11	61	0	5	22	58	219
17:25-17:30	0	0	0	6	60	0	11	47	0	7	29	66	226
17:30-17:35	0	0	0	5	50	0	11	43	0	4	20	72	205
17:35-17:40	0	0	0	7	65	0	6	43	0	0	24	61	206
17:40-17:45	0	0	0	2	54	0	6	44	0	7	30	80	223
17:45-17:50	0	0	0	7	69	1	6	59	0	2	26	58	228
17:50-17:55	0	0	0	4	65	0	11	44	0	6	27	73	230
17:55-18:00	0	0	0	6	57	0	12	54	0	3	30	70	232
Total Survey	0	0	0	111	1286	2	210	993	0	105	516	1432	4655
PHF	0	0	0	.9	.93	.25	.84	.91	0	.69	.93	.94	.951
% Trucks	0	0	0	.9	2.6	0	1.4	.6	0	0	.4	.3	1.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	1	0	0	1	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	0	0	46	576	1	99	421	0	47	208	631	2029
16:15-17:15	0	0	0	54	613	1	99	470	0	52	232	683	2204
16:30-17:30	0	0	0	61	634	1	102	520	0	63	263	718	2362
16:45-17:45	0	0	0	62	670	0	106	530	0	61	283	770	2482
17:00-18:00	0	0	0	65	710	1	111	572	0	58	308	801	2626

286

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
BETHANY BOULEVARD AT HIGHWAY 26 WB RAMPS



DATE OF COUNT: 05/31/00
 DAY OF WEEK: WED
 TIME STARTED: 16:00
 TIME ENDED: 18:00

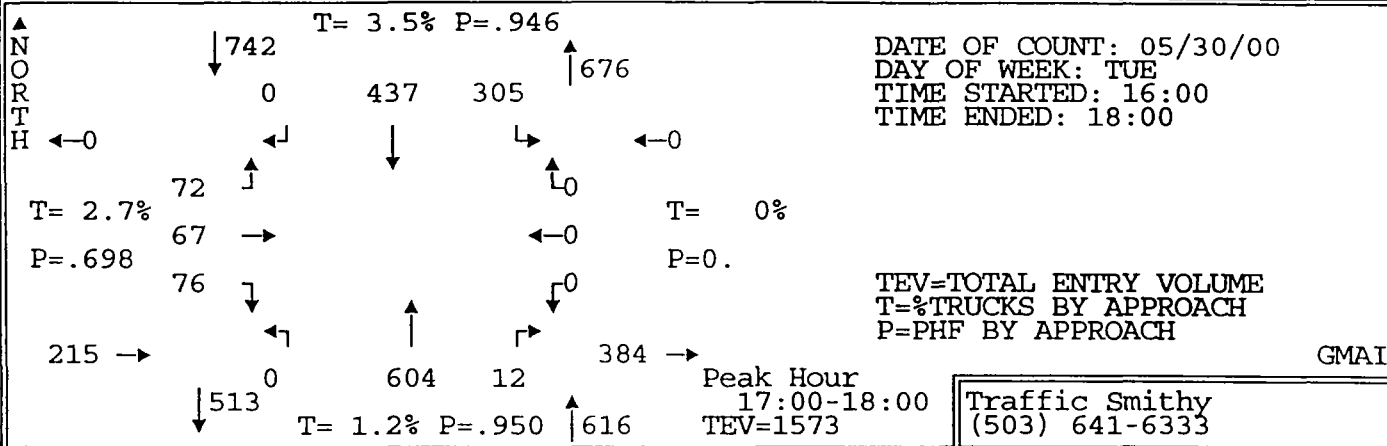
TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

MP51

Traffic Smithy
 (503)641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	0	0	0	16	185	0	29	131	0	15	71	192	639
17:15-17:30	0	0	0	18	165	0	30	154	0	21	80	195	663
17:30-17:45	0	0	0	14	169	0	23	130	0	11	74	213	634
17:45-18:00	0	0	0	17	191	1	29	157	0	11	83	201	690
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	1	0	1	1	0	0	0	0	3
17:15-17:30	0	0	0	0	3	0	1	0	0	0	0	1	5
17:30-17:45	0	0	0	0	1	0	0	2	0	0	0	0	3
17:45-18:00	0	0	0	0	1	0	0	0	0	0	0	0	1
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	1	0	0	0	0	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	1	0	0	0	0	1
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	1	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	1	0	0	0	0	0	0	0	0	1
Peak Hour by Movement													
PHF	0	0	0	.9	.93	.25	.93	.91	0	.69	.93	.94	.951
% Trucks (all)	0	0	0	1.5	.8	0	1.8	.5	0	0	0	.1	.5
% Trucks (M+H)	0	0	0	1.5	0	0	0	0	0	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	0	0	46	576	1	99	421	0	47	208	631	2029
16:15-17:15	0	0	0	54	613	1	99	470	0	52	232	683	2204
16:30-17:30	0	0	0	61	634	1	102	520	0	63	263	718	2362
16:45-17:45	0	0	0	62	670	0	106	530	0	61	283	770	2482
17:00-18:00	0	0	0	65	710	1	111	572	0	58	308	801	2626

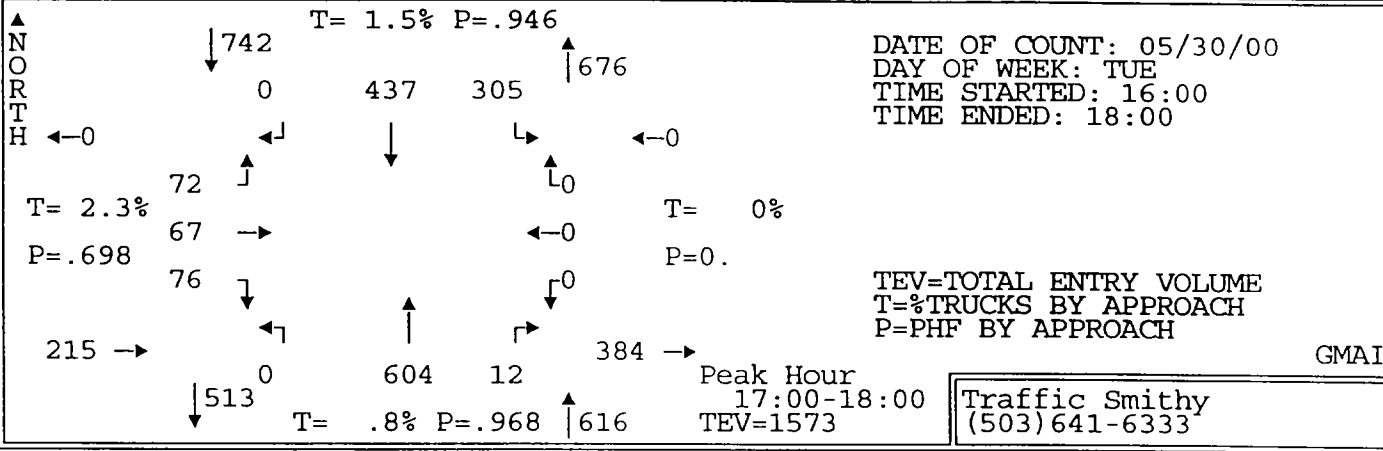
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 BETHANY BOULEVARD AT HIGHWAY EASTBOUND RAMP



GMAI

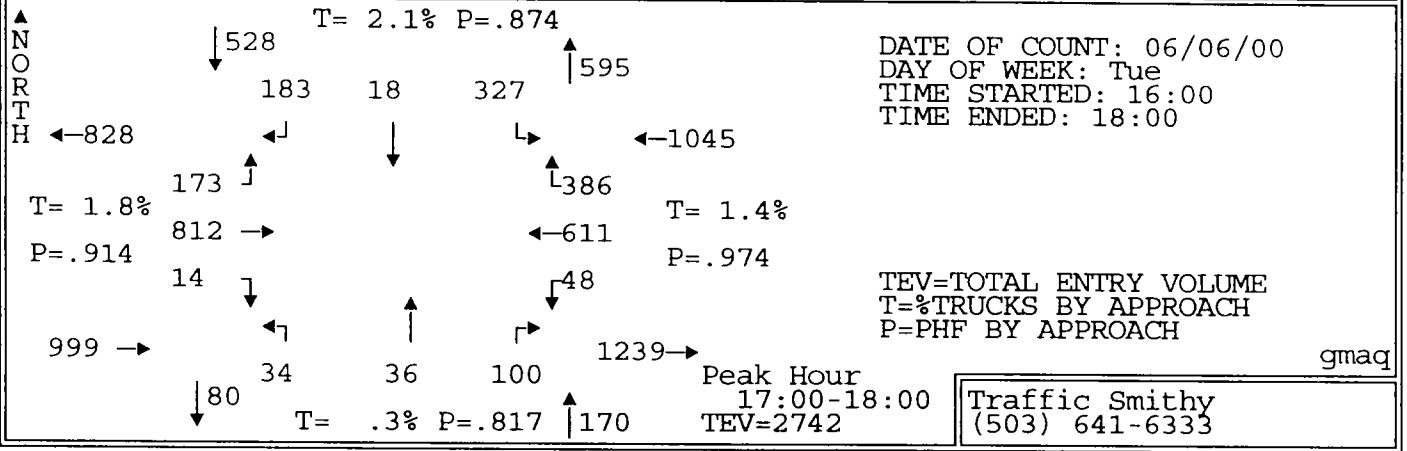
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	5	2	5	0	29	28	0	41	5	0	0	0	115
16:05-16:10	7	3	3	0	24	13	0	29	1	0	0	0	80
16:10-16:15	1	4	4	0	39	22	0	29	0	0	0	0	99
16:15-16:20	2	4	5	0	35	16	0	48	2	0	0	0	112
16:20-16:25	3	9	3	0	28	23	0	42	3	0	0	0	111
16:25-16:30	5	5	2	0	22	27	0	38	1	0	0	0	100
16:30-16:35	3	6	6	0	24	11	0	38	0	0	0	0	88
16:35-16:40	3	6	5	0	34	26	0	41	2	0	0	0	117
16:40-16:45	8	5	13	0	36	15	0	33	2	0	0	0	112
16:45-16:50	6	4	4	0	41	19	0	34	3	0	0	0	111
16:50-16:55	6	1	5	0	31	16	0	50	2	0	0	0	111
16:55-17:00	4	4	1	0	31	24	0	38	2	0	0	0	104
17:00-17:05	3	5	3	0	45	30	0	50	0	0	0	0	136
17:05-17:10	4	8	2	0	28	20	0	55	2	0	0	0	119
17:10-17:15	5	1	5	0	46	27	0	44	2	0	0	0	130
17:15-17:20	7	5	6	0	34	24	0	59	0	0	0	0	135
17:20-17:25	7	13	13	0	33	20	0	47	0	0	0	0	133
17:25-17:30	7	8	11	0	37	31	0	47	0	0	0	0	141
17:30-17:35	8	6	2	0	37	17	0	52	2	0	0	0	124
17:35-17:40	6	3	6	0	35	29	0	40	2	0	0	0	121
17:40-17:45	10	6	5	0	38	21	0	54	1	0	0	0	135
17:45-17:50	4	5	6	0	34	29	0	48	1	0	0	0	127
17:50-17:55	5	4	5	0	40	29	0	53	1	0	0	0	137
17:55-18:00	10	3	8	0	30	28	0	55	1	0	0	0	135
Total Survey	129	120	128	0	811	545	0	1065	35	0	0	0	2833
PHF	.79	.62	.6	0	.92	.89	0	.96	.6	0	0	0	.961
% Trucks	2.3	1.7	3.9	0	2.5	5.1	0	1	5.7	0	0	0	2.5
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													
16:00-17:00	53	53	56	0	374	240	0	461	23	0	0	0	1260
16:15-17:15	52	58	54	0	401	254	0	511	21	0	0	0	1351
16:30-17:30	63	66	74	0	420	263	0	536	15	0	0	0	1437
16:45-17:45	73	64	63	0	436	278	0	570	16	0	0	0	1500
17:00-18:00	76	67	72	0	437	305	0	604	12	0	0	0	1573

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
BETHANY BOULEVARD AT HIGHWAY EASTBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↓		
ALL VEHICLES													
17:00-17:15	12	14	10	0	119	77	0	149	4	0	0	0	385
17:15-17:30	21	26	30	0	104	75	0	153	0	0	0	0	409
17:30-17:45	24	15	13	0	110	67	0	146	5	0	0	0	380
17:45-18:00	19	12	19	0	104	86	0	156	3	0	0	0	399
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	1	1	0	3	0	0	0	0	5
17:15-17:30	0	0	2	0	1	3	0	0	0	0	0	0	6
17:30-17:45	0	1	1	0	2	1	0	1	0	0	0	0	6
17:45-18:00	0	0	0	0	1	1	0	1	0	0	0	0	3
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS -----CROSSWALK USAGE-----													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.79	.64	.6	0	.92	.89	0	.97	.6	0	0	0	.961
% Trucks (all)	0	3	4.2	0	1.1	2	0	.8	0	0	0	0	1.3
% Trucks (M+H)	0	1.5	0	0	0	0	0	0	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	53	53	56	0	374	240	0	461	23	0	0	0	1260
16:15-17:15	52	58	54	0	401	254	0	511	21	0	0	0	1351
16:30-17:30	63	66	74	0	420	263	0	536	15	0	0	0	1437
16:45-17:45	73	64	63	0	436	278	0	570	16	0	0	0	1500
17:00-18:00	76	67	72	0	437	305	0	604	12	0	0	0	1573

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 CORNELL ROAD AT BETHANY BOULEVARD

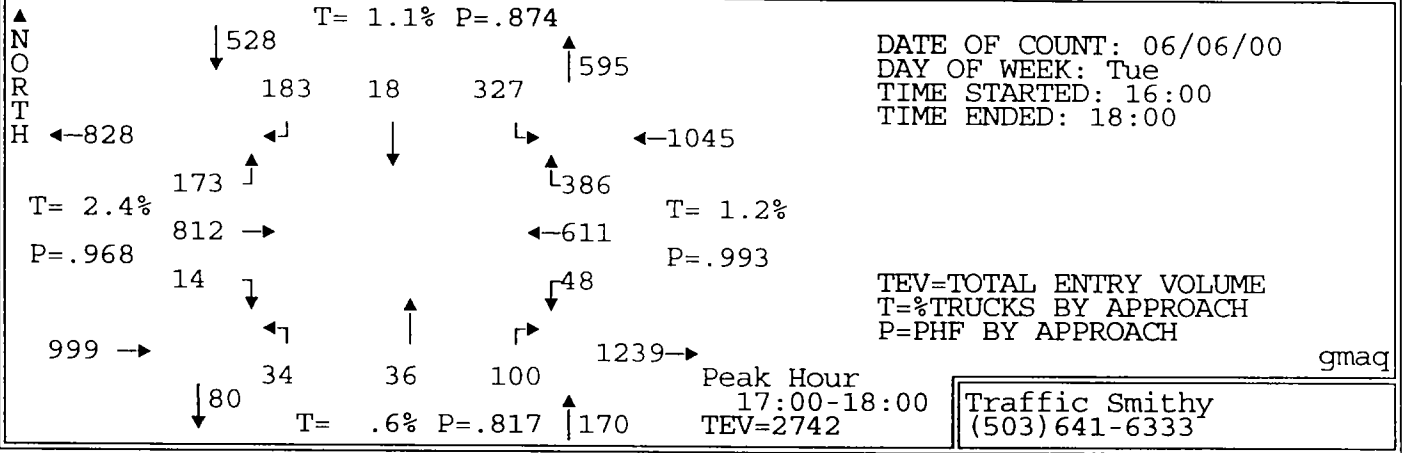


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	3	77	4	22	1	31	3	1	8	10	49	22	231
16:05-16:10	0	65	9	11	1	19	1	2	12	4	52	34	210
16:10-16:15	1	41	10	10	1	36	3	2	7	7	45	16	179
16:15-16:20	0	47	9	12	2	31	2	2	2	6	60	37	210
16:20-16:25	2	66	10	14	1	21	3	3	8	3	58	31	220
16:25-16:30	1	54	9	18	2	40	3	1	6	3	50	22	209
16:30-16:35	0	36	11	16	0	25	3	2	3	2	59	36	193
16:35-16:40	1	63	7	13	2	28	4	0	4	6	51	28	207
16:40-16:45	2	42	7	18	3	34	2	2	5	4	56	31	206
16:45-16:50	2	65	10	15	1	21	1	0	1	10	63	29	218
16:50-16:55	0	63	11	16	5	25	2	1	9	10	57	22	221
16:55-17:00	2	73	15	16	2	12	1	5	11	3	51	28	219
17:00-17:05	1	62	9	8	2	29	5	5	8	2	49	29	209
17:05-17:10	0	68	26	10	0	28	3	6	12	8	48	33	242
17:10-17:15	2	81	9	11	0	28	2	3	8	3	59	30	236
17:15-17:20	0	61	20	13	3	21	4	1	9	3	48	29	212
17:20-17:25	2	85	13	14	2	17	3	4	7	4	51	34	236
17:25-17:30	1	51	19	19	0	30	5	2	9	8	50	31	225
17:30-17:35	3	61	10	16	2	29	2	1	11	3	46	33	217
17:35-17:40	3	54	13	12	3	26	5	2	10	2	47	36	213
17:40-17:45	1	85	14	24	3	27	0	0	5	1	58	37	255
17:45-17:50	1	76	12	11	0	22	1	3	8	5	42	40	221
17:50-17:55	0	65	18	20	3	33	1	5	8	5	52	27	237
17:55-18:00	0	63	10	25	0	37	3	4	5	4	61	27	239

Total Survey	28	1504	285	364	39	650	62	57	176	116	1262	722	5265
PHF	.5	.89	.79	.82	.56	.89	.71	.64	.83	.8	.97	.85	.961
% Trucks	3.6	1.9	1.1	1.4	2.6	2.5	0	1.8	0	.9	1.7	1	1.6
Stopped Buses	0	1	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

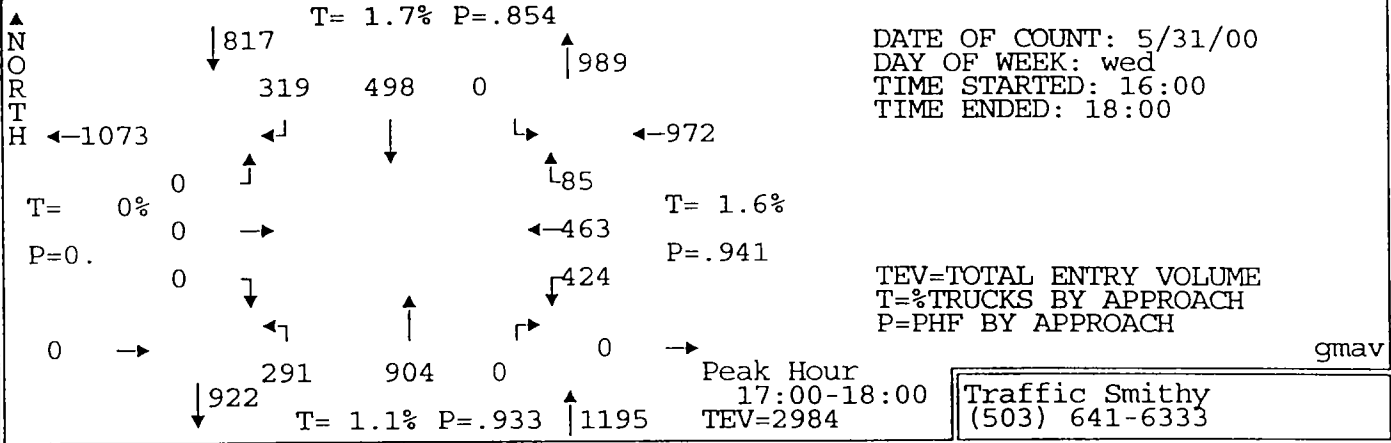
Hourly Totals													
16:00-17:00	14	692	112	181	21	323	28	21	76	68	651	336	2523
16:15-17:15	13	720	133	167	20	322	31	30	77	60	661	356	2590
16:30-17:30	13	750	157	169	20	298	35	31	86	63	642	360	2624
16:45-17:45	17	809	169	174	23	293	33	30	100	57	627	371	2703
17:00-18:00	14	812	173	183	18	327	34	36	100	48	611	386	2742

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CORNELL ROAD AT BETHANY BOULEVARD**



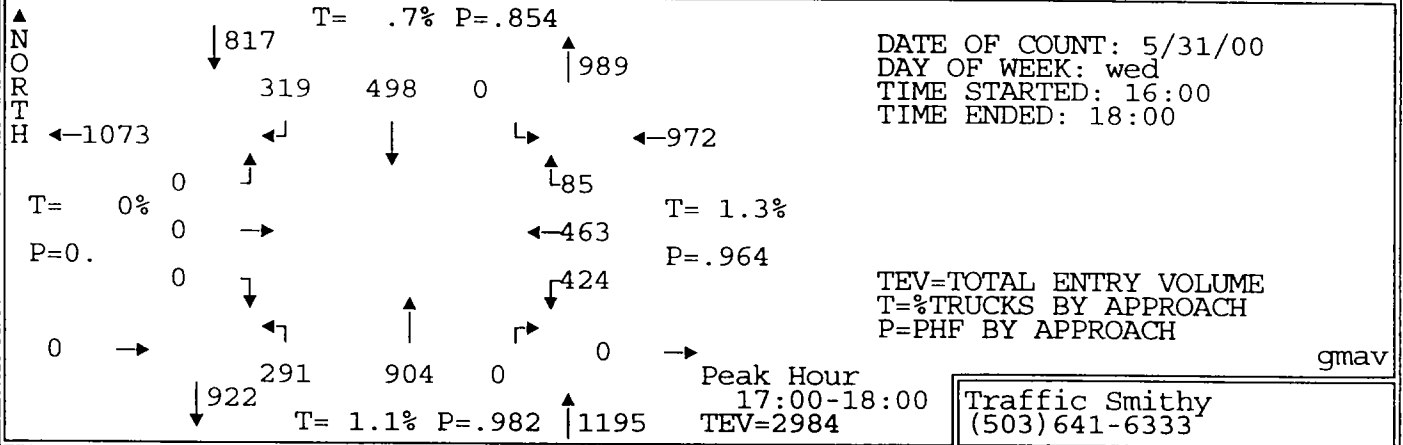
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↗		
ALL VEHICLES													
17:00-17:15	3	211	44	29	2	85	10	14	28	13	156	92	687
17:15-17:30	3	197	52	46	5	68	12	7	25	15	149	94	673
17:30-17:45	7	200	37	52	8	82	7	3	26	6	151	106	685
17:45-18:00	1	204	40	56	3	92	5	12	21	14	155	94	697
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	6	0	0	0	0	0	0	0	1	2	1	10
17:15-17:30	0	6	2	1	0	3	0	0	0	0	2	0	14
17:30-17:45	0	4	1	0	0	0	0	0	0	0	0	2	7
17:45-18:00	0	1	0	0	0	1	0	0	0	0	4	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	2	0	0	0	0	0	0	0	0	0	0	2
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15-17:30	0	0	0	0	0	1	0	0	0	0	1	0	2
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.5	.96	.83	.82	.56	.89	.71	.64	.89	.8	.98	.91	.983
% Trucks (all)	0	2.6	1.7	.5	0	1.5	0	2.8	0	2.1	1.5	.8	1.6
% Trucks (M+H)	0	.5	0	0	0	.3	0	2.8	0	0	.2	0	.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	14	692	112	181	21	323	28	21	76	68	651	336	2523
16:15-17:15	13	720	133	167	20	322	31	30	77	60	661	356	2590
16:30-17:30	13	750	157	169	20	298	35	31	86	63	642	360	2624
16:45-17:45	17	809	169	174	23	293	33	30	100	57	627	371	2703
17:00-18:00	14	812	173	183	18	327	34	36	100	48	611	386	2742

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 CORNELL ROAD AT US 26 WESTBOUND RAMP



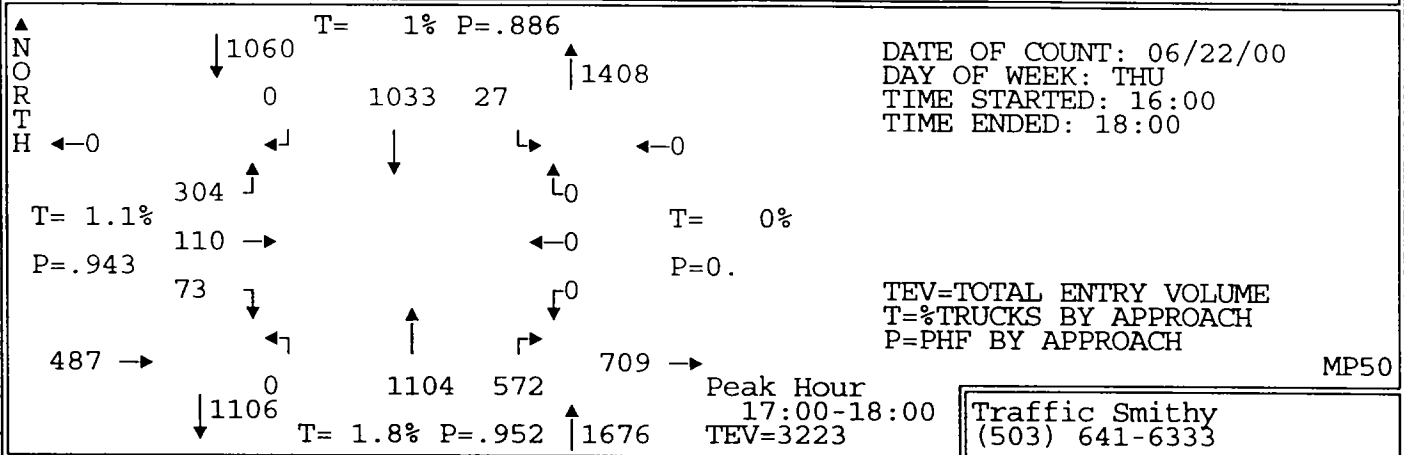
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	0	0	0	20	39	0	8	42	0	35	31	10	185
16:05-16:10	0	0	0	28	46	0	7	44	0	38	27	9	199
16:10-16:15	0	0	0	21	39	0	15	45	0	39	39	8	206
16:15-16:20	0	0	0	19	46	0	14	68	0	32	33	10	222
16:20-16:25	0	0	0	28	30	0	9	50	0	33	39	11	200
16:25-16:30	0	0	0	17	33	0	17	73	0	35	34	9	218
16:30-16:35	0	0	0	26	54	0	9	60	0	38	28	9	224
16:35-16:40	0	0	0	18	39	0	14	53	0	38	35	10	207
16:40-16:45	0	0	0	32	45	0	19	73	0	28	43	7	247
16:45-16:50	0	0	0	27	40	0	18	66	0	38	29	9	227
16:50-16:55	0	0	0	25	46	0	18	76	1	34	43	11	254
16:55-17:00	0	0	0	38	46	0	17	70	0	32	31	4	238
17:00-17:05	0	0	0	20	31	0	21	64	0	38	45	9	228
17:05-17:10	0	0	0	27	55	0	29	83	0	38	33	6	271
17:10-17:15	0	0	0	26	41	0	25	69	0	35	41	7	244
17:15-17:20	0	0	0	22	39	0	27	87	0	27	32	6	240
17:20-17:25	0	0	0	32	47	0	23	75	0	44	38	8	267
17:25-17:30	0	0	0	17	34	0	25	64	0	43	38	12	233
17:30-17:35	0	0	0	23	37	0	30	93	0	26	42	7	258
17:35-17:40	0	0	0	23	37	0	21	71	0	37	35	8	232
17:40-17:45	0	0	0	37	30	0	16	73	0	24	49	7	236
17:45-17:50	0	0	0	30	50	0	27	79	0	29	27	2	244
17:50-17:55	0	0	0	30	44	0	22	62	0	39	45	6	248
17:55-18:00	0	0	0	32	53	0	25	84	0	44	38	7	283
Total Survey	0	0	0	618	1001	0	456	1624	1	844	875	192	5611
PHF	0	0	0	.82	.85	0	.9	.95	0	.93	.92	.79	.962
% Trucks	0	0	0	1.5	1.9	0	.7	1.2	0	2.5	.6	2.1	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	3	0	0	6	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	0	0	299	503	0	165	720	1	420	412	107	2627
16:15-17:15	0	0	0	303	506	0	210	805	1	419	434	102	2780
16:30-17:30	0	0	0	310	517	0	245	840	1	433	436	98	2880
16:45-17:45	0	0	0	317	483	0	270	891	1	416	456	94	2928
17:00-18:00	0	0	0	319	498	0	291	904	0	424	463	85	2984

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CORNELL ROAD AT US 26 WESTBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
17:00-17:15	0	0	0	73	127	0	75	216	0	111	119	22	743
17:15-17:30	0	0	0	71	120	0	75	226	0	114	108	26	740
17:30-17:45	0	0	0	83	104	0	67	237	0	87	126	22	726
17:45-18:00	0	0	0	92	147	0	74	225	0	112	110	15	775
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	8	0	0	1	0	9
17:15-17:30	0	0	0	1	2	0	0	0	0	2	1	0	6
17:30-17:45	0	0	0	1	0	0	0	2	0	2	0	1	6
17:45-18:00	0	0	0	0	1	0	0	1	0	3	2	0	7
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	0	0	1	0	0	2
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	1	0	0	1	0	0	0	0	0	2
17:45-18:00	0	0	0	1	0	0	1	0	0	0	0	0	2
Peak Hour by Movement													
PHF	0	0	0	.87	.85	0	.97	.95	0	.93	.92	.82	.962
% Trucks(all)	0	0	0	.6	.8	0	0	1.4	0	1.9	.9	1.2	1.1
% Trucks(M+H)	0	0	0	0	.2	0	0	.2	0	.2	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	0	0	299	503	0	165	720	1	420	412	107	2627
16:15-17:15	0	0	0	303	506	0	210	805	1	419	434	102	2780
16:30-17:30	0	0	0	310	517	0	245	840	1	433	436	98	2880
16:45-17:45	0	0	0	317	483	0	270	891	1	416	456	94	2928
17:00-18:00	0	0	0	319	498	0	291	904	0	424	463	85	2984

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 CORNELL ROAD AT HIGHWAY 26 EB RAMPS

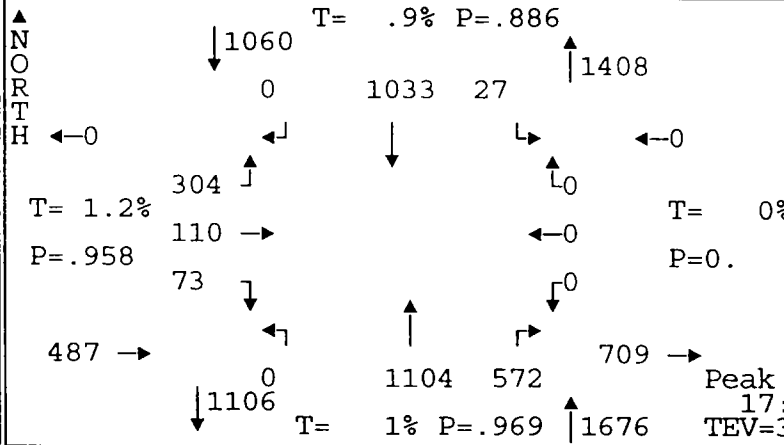


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	3	8	14	0	74	3	0	64	31	0	0	0	197
16:05-16:10	3	10	24	0	71	3	0	38	31	0	0	0	180
16:10-16:15	2	10	19	0	74	0	0	73	36	0	0	0	214
16:15-16:20	3	11	18	0	78	3	0	53	38	0	0	0	204
16:20-16:25	4	9	17	0	84	3	0	57	46	0	0	0	220
16:25-16:30	2	10	16	0	72	5	0	57	28	0	0	0	190
16:30-16:35	2	4	21	0	89	3	0	57	52	0	0	0	228
16:35-16:40	8	7	21	0	84	1	0	81	49	0	0	0	251
16:40-16:45	6	9	28	0	57	4	0	65	36	0	0	0	205
16:45-16:50	13	5	28	0	89	2	0	72	35	0	0	0	244
16:50-16:55	14	4	29	0	58	0	0	82	27	0	0	0	214
16:55-17:00	9	9	23	0	89	3	0	66	26	0	0	0	225
17:00-17:05	10	8	30	0	87	0	0	110	40	0	0	0	285
17:05-17:10	6	12	26	0	68	0	0	79	54	0	0	0	245
17:10-17:15	3	10	13	0	89	1	0	95	30	0	0	0	241
17:15-17:20	3	8	23	0	74	2	0	109	45	0	0	0	264
17:20-17:25	2	11	29	0	75	4	0	75	49	0	0	0	245
17:25-17:30	2	12	25	0	91	0	0	104	50	0	0	0	284
17:30-17:35	3	10	27	0	93	5	0	80	48	0	0	0	266
17:35-17:40	14	9	17	0	82	7	0	95	59	0	0	0	283
17:40-17:45	10	8	29	0	82	1	0	94	43	0	0	0	267
17:45-17:50	5	11	23	0	108	3	0	85	64	0	0	0	299
17:50-17:55	9	7	27	0	85	2	0	96	51	0	0	0	277
17:55-18:00	6	4	35	0	99	2	0	82	39	0	0	0	267

Total Survey	142	206	562	0	1952	57	0	1869	1007	0	0	0	5795
PHF	.63	.83	.89	0	.88	.52	0	.96	.86	0	0	0	.949
% Trucks	.7	1.5	1.1	0	1	1.8	0	.9	3.6	0	0	0	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	3	0	0	1	0	0	0	0	0

Hourly Totals													
16:00-17:00	69	96	258	0	919	30	0	765	435	0	0	0	2572
16:15-17:15	80	98	270	0	944	25	0	874	461	0	0	0	2752
16:30-17:30	78	99	296	0	950	20	0	995	493	0	0	0	2931
16:45-17:45	89	106	299	0	977	25	0	1061	506	0	0	0	3063
17:00-18:00	73	110	304	0	1033	27	0	1104	572	0	0	0	3223

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CORNELL ROAD AT HIGHWAY 26 EB RAMP**



DATE OF COUNT: 06/22/00
DAY OF WEEK: THU
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

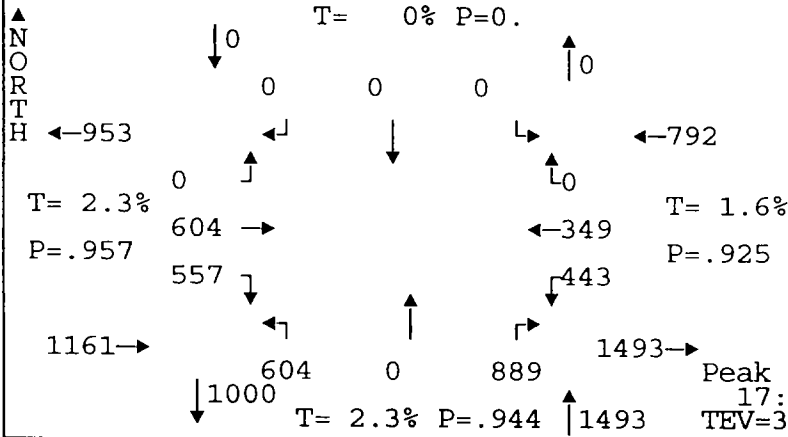
Peak Hour
17:00-18:00
TEV=3223

Traffic Smithy
(503)641-6333

MP50

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	19	30	69	0	244	1	0	284	124	0	0	0	771
17:15-17:30	7	31	77	0	240	6	0	288	144	0	0	0	793
17:30-17:45	27	27	73	0	257	13	0	269	150	0	0	0	816
17:45-18:00	20	22	85	0	292	7	0	263	154	0	0	0	843
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	1	0	0	3	0	0	1	0	0	0	0	5
17:15-17:30	0	1	1	0	3	0	0	2	1	0	0	0	8
17:30-17:45	1	0	1	0	1	0	0	1	4	0	0	0	8
17:45-18:00	0	0	1	0	1	1	0	3	0	0	0	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	1	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	3	0	0	0	3
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	1	0	0	0	1
BICYCLES													
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	1	0	0	3	0	0	0	0	4
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	1	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	1	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	1	0	0	0	0	0	0	1
Peak Hour by Movement													
PHF	.68	.89	.89	0	.88	.52	0	.96	.93	0	0	0	.955
% Trucks (all)	1.4	1.8	1	0	.9	3.7	0	.6	1.7	0	0	0	1
% Trucks (M+H)	0	0	0	0	.1	0	0	0	.9	0	0	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	69	96	258	0	919	30	0	765	435	0	0	0	2572
16:15-17:15	80	98	270	0	944	25	0	874	461	0	0	0	2752
16:30-17:30	78	99	296	0	950	20	0	995	493	0	0	0	2931
16:45-17:45	89	106	299	0	977	25	0	1061	506	0	0	0	3063
17:00-18:00	73	110	304	0	1033	27	0	1104	572	0	0	0	3223

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
158TH AVENUE AT CORNELL ROAD



DATE OF COUNT: 06/06/00
DAY OF WEEK: TUE
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

GMBD

Peak Hour
17:00-18:00
TEV=3446

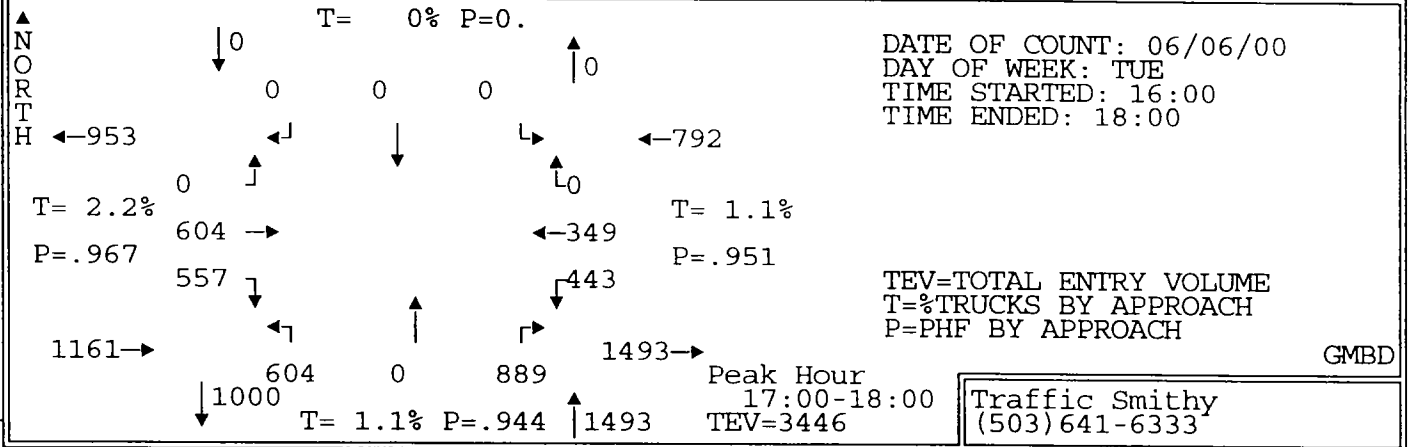
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	49	26	0	0	0	0	46	0	46	30	26	0	223
16:05-16:10	53	54	0	0	0	0	35	0	55	38	43	0	278
16:10-16:15	41	42	0	0	0	0	44	0	64	23	31	0	245
16:15-16:20	50	40	0	0	0	0	52	0	75	51	40	0	308
16:20-16:25	45	49	0	0	0	0	45	0	56	23	33	0	251
16:25-16:30	57	22	0	0	0	0	58	0	42	42	27	0	248
16:30-16:35	48	36	0	0	0	0	41	0	51	23	19	0	218
16:35-16:40	49	32	0	0	0	0	45	0	59	23	36	0	244
16:40-16:45	52	37	0	0	0	0	44	0	62	32	41	0	268
16:45-16:50	40	45	0	0	0	0	52	0	49	30	36	0	252
16:50-16:55	46	44	0	0	0	0	43	0	57	38	43	0	271
16:55-17:00	38	58	0	0	0	0	27	0	22	30	37	0	212
17:00-17:05	37	49	0	0	0	0	58	0	70	34	34	0	282
17:05-17:10	49	56	0	0	0	0	48	0	83	45	27	0	308
17:10-17:15	48	58	0	0	0	0	55	0	81	28	26	0	296
17:15-17:20	49	43	0	0	0	0	48	0	78	35	26	0	279
17:20-17:25	49	55	0	0	0	0	42	0	71	38	40	0	295
17:25-17:30	31	41	0	0	0	0	75	0	77	35	23	0	282
17:30-17:35	56	52	0	0	0	0	45	0	68	38	26	0	285
17:35-17:40	36	56	0	0	0	0	54	0	69	31	32	0	278
17:40-17:45	56	40	0	0	0	0	48	0	90	55	26	0	315
17:45-17:50	57	56	0	0	0	0	37	0	69	28	42	0	289
17:50-17:55	47	39	0	0	0	0	57	0	81	29	17	0	270
17:55-18:00	42	59	0	0	0	0	37	0	52	47	30	0	267

Total Survey	1125	1089	0	0	0	0	1136	0	1527	826	761	0	6464
PHF	.87	.93	0	0	0	0	.87	0	.92	.89	.87	0	.972
% Trucks	1.6	2.9	0	0	0	0	1.4	0	2.9	1.1	2.2	0	2.1
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

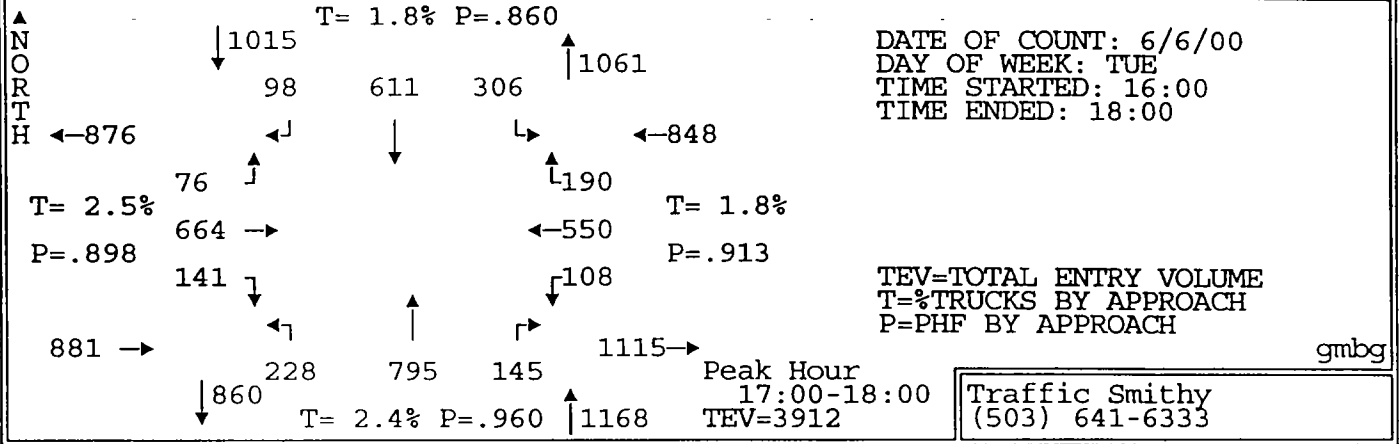
Hourly Totals													
16:00-17:00	568	485	0	0	0	0	532	0	638	383	412	0	3018
16:15-17:15	559	526	0	0	0	0	568	0	707	399	399	0	3158
16:30-17:30	536	554	0	0	0	0	578	0	760	391	388	0	3207
16:45-17:45	535	597	0	0	0	0	595	0	815	437	376	0	3355
17:00-18:00	557	604	0	0	0	0	604	0	889	443	349	0	3446

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
158TH AVENUE AT CORNELL ROAD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↘	↙	↑		
ALL VEHICLES													
17:00-17:15	134	163	0	0	0	0	161	0	234	107	87	0	886
17:15-17:30	129	139	0	0	0	0	165	0	226	108	89	0	856
17:30-17:45	148	148	0	0	0	0	147	0	227	124	84	0	878
17:45-18:00	146	154	0	0	0	0	131	0	202	104	89	0	826
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	4	0	0	0	0	5	0	1	0	0	0	11
17:15-17:30	3	3	0	0	0	0	0	0	3	0	2	0	11
17:30-17:45	1	5	0	0	0	0	3	0	0	1	0	0	10
17:45-18:00	1	1	0	0	0	0	0	0	0	0	3	0	5
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	3	0	0	0	0	0	0	0	0	0	0	3
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	2	0	0	0	2
17:15-17:30	1	0	0	0	0	0	0	0	0	0	1	0	2
17:30-17:45	0	1	0	0	0	0	0	0	0	0	1	0	2
17:45-18:00	0	0	0	0	0	0	0	0	3	1	0	0	4
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USAGE-----												
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.94	.93	0	0	0	0	.92	0	.95	.89	.98	0	.972
% Trucks (all)	1.3	3.1	0	0	0	0	1.3	0	1	.5	2	0	1.5
% Trucks (M+H)	.2	1	0	0	0	0	0	0	.6	.2	.6	0	.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	568	485	0	0	0	0	532	0	638	383	412	0	3018
16:15-17:15	559	526	0	0	0	0	568	0	707	399	399	0	3158
16:30-17:30	536	554	0	0	0	0	578	0	760	391	388	0	3207
16:45-17:45	535	597	0	0	0	0	595	0	815	437	376	0	3355
17:00-18:00	557	604	0	0	0	0	604	0	889	443	349	0	3446

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
158TH AVENUE AT WALKER ROAD

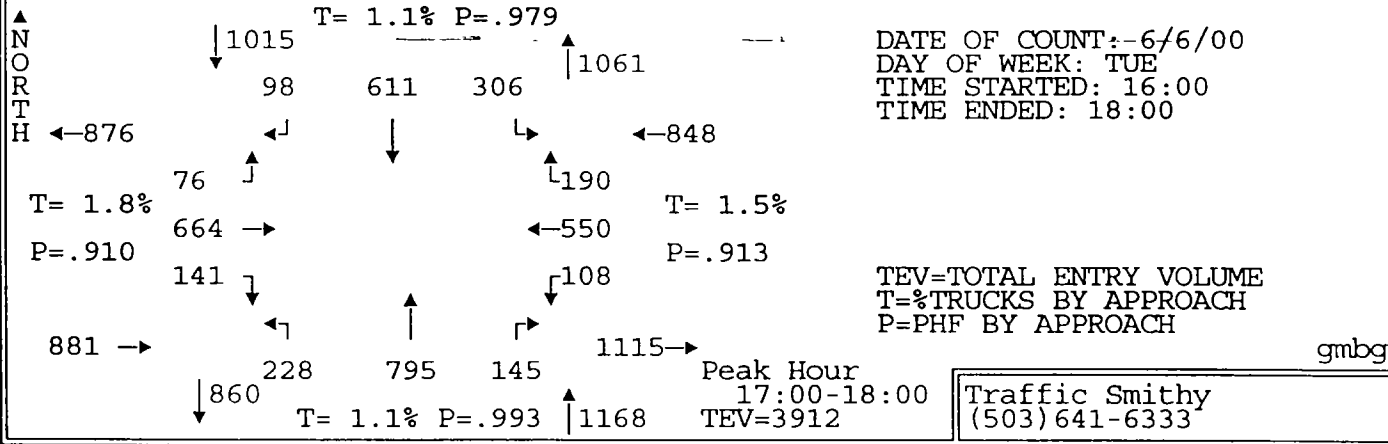


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	14	33	9	3	50	26	12	48	8	10	50	13	276
16:05-16:10	14	40	3	3	54	23	22	47	12	13	35	11	277
16:10-16:15	16	55	9	7	56	15	21	41	9	16	40	11	296
16:15-16:20	7	53	0	5	48	30	9	31	10	8	62	11	274
16:20-16:25	10	49	4	2	36	28	26	50	5	9	34	16	269
16:25-16:30	5	33	6	6	50	27	21	50	15	12	37	12	274
16:30-16:35	9	48	6	6	30	30	15	40	9	6	43	13	255
16:35-16:40	6	38	4	4	43	23	17	48	18	10	41	10	262
16:40-16:45	10	26	4	6	43	23	20	42	13	8	48	18	261
16:45-16:50	8	59	2	2	42	26	19	53	12	4	54	10	291
16:50-16:55	19	68	9	6	53	27	23	41	12	4	48	21	331
16:55-17:00	13	49	8	6	44	24	23	54	11	6	46	7	291
17:00-17:05	5	36	7	5	36	21	16	61	10	13	43	12	265
17:05-17:10	12	70	2	7	57	36	24	74	5	1	52	19	359
17:10-17:15	9	59	5	8	57	25	23	68	12	2	44	19	331
17:15-17:20	16	61	5	0	40	29	23	59	8	14	49	18	322
17:20-17:25	17	58	5	18	63	15	12	85	14	12	56	14	369
17:25-17:30	15	56	8	11	50	26	18	60	8	8	47	14	321
17:30-17:35	10	32	9	9	71	32	20	69	13	14	36	11	326
17:35-17:40	11	50	4	2	44	32	19	70	15	6	46	12	311
17:40-17:45	7	66	4	11	34	24	24	52	12	11	49	19	313
17:45-17:50	9	71	9	4	52	23	17	62	9	8	49	16	329
17:50-17:55	17	56	6	9	53	21	11	73	21	8	40	11	326
17:55-18:00	13	49	12	14	54	22	21	62	18	11	39	25	340

Total Survey	272	1215	140	154	1160	608	456	1340	279	214	1088	343	7269
PHF	.73	.86	.7	.64	.83	.85	.81	.93	.76	.79	.9	.85	.956
% Trucks	1.5	2.6	3.6	1.9	2.2	1	.4	3.3	1.4	2.3	1.6	2.3	2.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	11	0	0	19	0	0	6	0	0	4	0	0

Hourly Totals													
16:00-17:00	131	551	64	56	549	302	228	545	134	106	538	153	3357
16:15-17:15	113	588	57	63	539	320	236	612	132	83	552	168	3463
16:30-17:30	139	628	65	79	558	305	233	685	132	88	571	175	3658
16:45-17:45	142	664	68	85	591	317	244	746	132	95	570	176	3830
17:00-18:00	141	664	76	98	611	306	228	795	145	108	550	190	3912

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
158TH AVENUE AT WALKER ROAD**

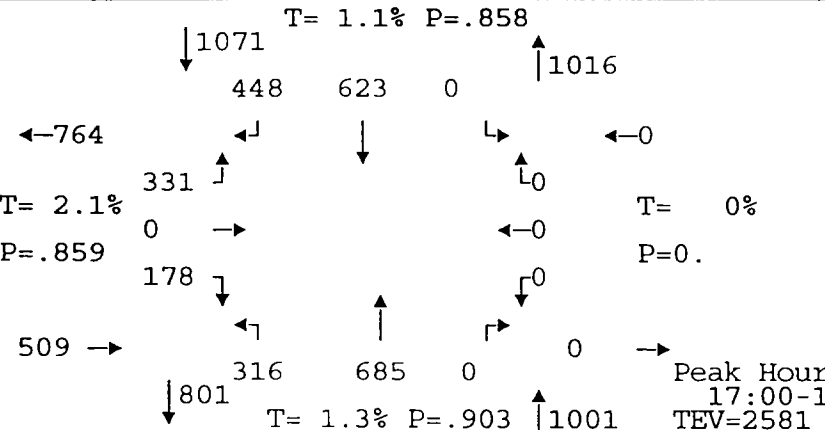


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↖	
ALL VEHICLES													
17:00-17:15	26	165	14	20	150	82	63	203	27	16	139	50	955
17:15-17:30	48	175	18	29	153	70	53	204	30	34	152	46	1012
17:30-17:45	28	148	17	22	149	88	63	191	40	31	131	42	950
17:45-18:00	39	176	27	27	159	66	49	197	48	27	128	52	995
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	4	1	0	2	0	0	2	0	0	1	1	11
17:15-17:30	0	3	0	0	3	1	0	1	0	2	2	0	12
17:30-17:45	2	3	0	0	2	0	0	2	0	0	2	0	11
17:45-18:00	0	1	1	0	1	0	0	0	1	1	2	1	8
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	1	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	1	0	0	0	0	0	1	0	0	0	1	3
17:15-17:30	0	0	0	0	1	0	1	0	1	0	0	0	3
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	1	0	0	2	0	0	0	0	3
BICYCLES													
17:00-17:15	0	0	1	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	1	0	0	0	0	0	2	0	0	0	1	4
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	1			2			1			0		4	
17:15-17:30	1			2			0			0		3	
17:30-17:45	3			3			2			0		8	
17:45-18:00	0			2			0			0		2	
Peak Hour by Movement													
PHF	.73	.94	.7	.84	.96	.87	.9	.97	.76	.79	.9	.91	.966
% Trucks (all)	1.4	1.8	2.6	0	1.6	.3	.4	1.3	1.4	2.8	1.3	1.6	1.4
% Trucks (M+H)	0	.2	0	0	.3	0	.4	.6	.7	0	0	.5	.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Totals													
16:00-17:00	131	551	64	56	549	302	228	545	134	106	538	153	3357
16:15-17:15	113	588	57	63	539	320	236	612	132	83	552	168	3463
16:30-17:30	139	628	65	79	558	305	233	685	132	88	571	175	3658
16:45-17:45	142	664	68	85	591	317	244	746	132	95	570	176	3830
17:00-18:00	141	664	76	98	611	306	228	795	145	108	550	190	3912

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
143RD AVENUE AT CORNELL ROAD

27495

NORTH



DATE OF COUNT: 5/31/00
DAY OF WEEK: Wed
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Peak Hour
17:00-18:00
TEV=2581

Traffic Smithy
(503) 641-6333

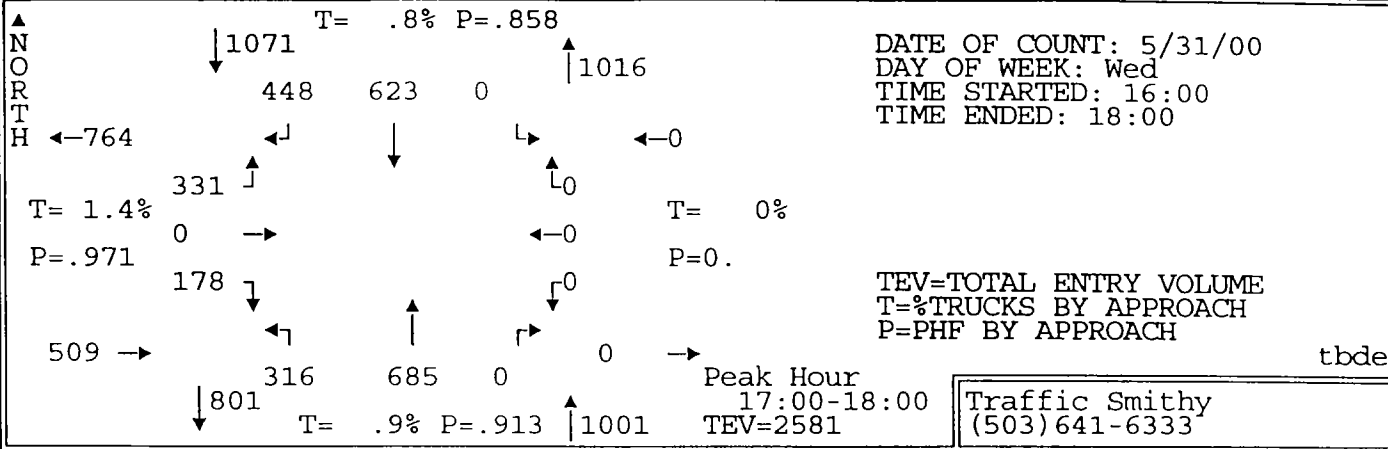
tbde

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	11	0	22	33	49	0	16	41	0	0	0	0	172
16:05-16:10	14	0	24	27	39	0	23	35	0	0	0	0	162
16:10-16:15	11	0	29	25	50	0	18	43	0	0	0	0	176
16:15-16:20	21	0	27	36	42	0	19	50	0	0	0	0	195
16:20-16:25	9	0	29	28	50	0	15	36	0	0	0	0	167
16:25-16:30	11	0	28	38	25	0	8	48	0	0	0	0	158
16:30-16:35	18	0	28	37	53	0	22	61	0	0	0	0	219
16:35-16:40	18	0	21	34	53	0	25	56	0	0	0	0	207
16:40-16:45	7	0	22	34	64	0	21	42	0	0	0	0	190
16:45-16:50	12	0	15	47	57	0	20	70	0	0	0	0	221
16:50-16:55	13	0	35	38	55	0	26	49	0	0	0	0	216
16:55-17:00	12	0	24	46	63	0	27	49	0	0	0	0	221
17:00-17:05	22	0	28	31	41	0	24	55	0	0	0	0	201
17:05-17:10	11	0	27	52	50	0	15	58	0	0	0	0	213
17:10-17:15	15	0	28	33	53	0	34	54	0	0	0	0	217
17:15-17:20	9	0	30	34	45	0	20	41	0	0	0	0	179
17:20-17:25	9	0	26	34	56	0	19	58	0	0	0	0	202
17:25-17:30	15	0	40	31	54	0	29	60	0	0	0	0	229
17:30-17:35	15	0	32	30	44	0	37	39	0	0	0	0	197
17:35-17:40	14	0	32	34	40	0	36	76	0	0	0	0	232
17:40-17:45	17	0	17	53	44	0	22	64	0	0	0	0	217
17:45-17:50	18	0	20	37	57	0	22	54	0	0	0	0	208
17:50-17:55	15	0	28	37	67	0	27	53	0	0	0	0	227
17:55-18:00	18	0	23	42	72	0	31	73	0	0	0	0	259

Total Survey	335	0	635	871	1223	0	556	1265	0	0	0	0	4885
PHF	.87	0	.8	.88	.79	0	.77	.88	0	0	0	0	.929
% Trucks	1.2	0	2.5	1	1.1	0	.9	1.5	0	0	0	0	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	7	0	0	0	0	0	6	0	0

Hourly Totals													
16:00-17:00	157	0	304	423	600	0	240	580	0	0	0	0	2304
16:15-17:15	169	0	312	454	606	0	256	628	0	0	0	0	2425
16:30-17:30	161	0	324	451	644	0	282	653	0	0	0	0	2515
16:45-17:45	164	0	334	463	602	0	309	673	0	0	0	0	2545
17:00-18:00	178	0	331	448	623	0	316	685	0	0	0	0	2581

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
143RD AVENUE AT CORNELL ROAD

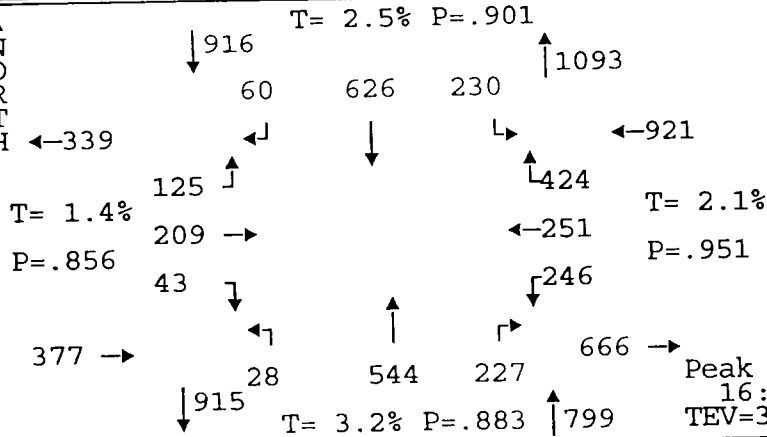


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	←	↑	
ALL VEHICLES													
17:00-17:15	48	0	83	116	144	0	73	167	0	0	0	0	631
17:15-17:30	33	0	96	99	155	0	68	159	0	0	0	0	610
17:30-17:45	46	0	81	117	128	0	95	179	0	0	0	0	646
17:45-18:00	51	0	71	116	196	0	80	180	0	0	0	0	694
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	2	2	1	0	1	4	0	0	0	0	10
17:15-17:30	0	0	1	0	3	0	0	1	0	0	0	0	5
17:30-17:45	1	0	1	1	0	0	0	1	0	0	0	0	4
17:45-18:00	0	0	1	0	2	0	0	0	0	0	0	0	3
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	1	0	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	2	0	0	0	0	2
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15-17:30	0	0	0	1	0	0	1	1	0	0	0	0	3
17:30-17:45	0	0	1	0	0	0	0	1	0	0	0	0	2
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	1	0	0	1	0	0	0	0	0	0	0	0	2
17:30-17:45	0	0	0	0	0	0	0	0	1	0	0	0	1
17:45-18:00	0	0	0	1	0	0	0	0	1	0	0	0	2
Peak Hour by Movement													
PHF	.87	0	.86	.96	.79	0	.83	.95	0	0	0	0	.929
% Trucks (all)	1.1	0	1.5	.7	1	0	.3	1.2	0	0	0	0	1
% Trucks (M+H)	.6	0	0	0	0	0	0	.3	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	157	0	304	423	600	0	240	580	0	0	0	0	2304
16:15-17:15	169	0	312	454	606	0	256	628	0	0	0	0	2425
16:30-17:30	161	0	324	451	644	0	282	653	0	0	0	0	2515
16:45-17:45	164	0	334	463	602	0	309	673	0	0	0	0	2545
17:00-18:00	178	0	331	448	623	0	316	685	0	0	0	0	2581

**INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CORNELL ROAD AT MURRAY BOULEVARD**

NORTH



DATE OF COUNT: 6/8/00
DAY OF WEEK: THUR
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

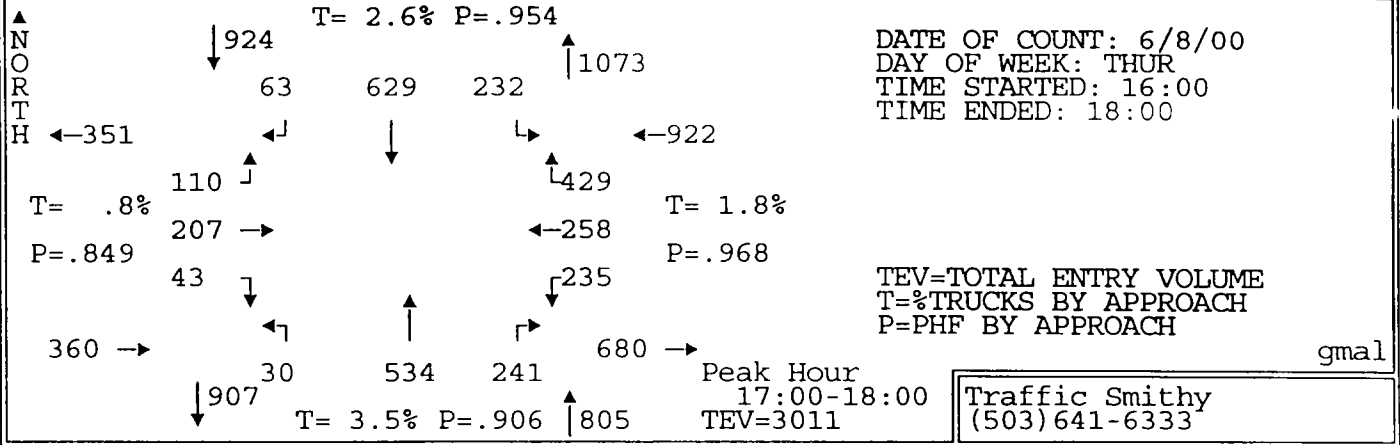
gmal

Peak Hour
16:55-17:55
TEV=3013

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↓	←	↖	
16:00-16:05	3	18	11	8	47	25	2	48	21	21	20	21	245
16:05-16:10	2	16	8	8	46	21	0	36	25	20	16	25	223
16:10-16:15	4	11	10	6	49	16	0	43	21	28	20	22	230
16:15-16:20	1	19	6	4	34	14	4	34	23	24	20	28	211
16:20-16:25	4	11	4	7	59	19	4	47	11	20	11	20	217
16:25-16:30	2	13	10	5	45	20	0	40	18	21	6	30	210
16:30-16:35	2	18	2	5	42	32	0	41	15	19	16	17	209
16:35-16:40	3	21	11	6	44	23	6	40	15	12	19	36	236
16:40-16:45	3	17	5	13	43	24	2	45	11	22	18	29	232
16:45-16:50	4	17	7	2	58	25	1	48	23	18	25	24	252
16:50-16:55	3	16	9	4	37	22	6	44	28	19	16	23	227
16:55-17:00	4	14	21	3	54	20	2	52	15	25	13	29	252
17:00-17:05	7	8	9	2	53	25	0	45	11	18	25	31	234
17:05-17:10	4	26	11	6	46	20	3	35	21	13	22	42	249
17:10-17:15	6	25	10	4	59	18	3	39	15	21	24	37	261
17:15-17:20	5	10	13	8	46	10	2	48	20	24	18	34	238
17:20-17:25	4	15	6	3	59	13	6	49	21	22	12	35	245
17:25-17:30	1	16	5	6	52	16	0	54	22	20	25	36	253
17:30-17:35	5	23	8	9	47	14	3	47	24	22	23	39	264
17:35-17:40	2	21	8	4	62	22	3	34	25	21	19	37	258
17:40-17:45	1	17	12	6	53	25	0	52	12	16	18	30	242
17:45-17:50	4	17	13	4	50	28	3	40	18	22	26	40	265
17:50-17:55	0	17	9	5	45	19	3	49	23	22	26	34	252
17:55-18:00	4	12	6	6	57	22	4	42	29	14	20	34	250
Total Survey	78	398	214	134	1187	493	57	1052	467	484	458	733	5755
PHF	.63	.86	.76	.79	.95	.77	.64	.9	.8	.92	.88	.94	.971
% Trucks	0	1.3	2.3	.7	1.9	4.5	0	3.5	3	1.9	.7	3.1	2.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	7	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	35	191	104	71	558	261	27	518	226	249	200	304	2744
16:15-17:15	43	205	105	61	574	262	31	510	206	232	215	346	2790
16:30-17:30	46	203	109	62	593	248	31	540	217	233	233	373	2888
16:45-17:45	46	208	119	57	626	230	29	547	237	239	240	397	2975
17:00-18:00	43	207	110	63	629	232	30	534	241	235	258	429	3011

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CORNELL ROAD AT MURRAY BOULEVARD**

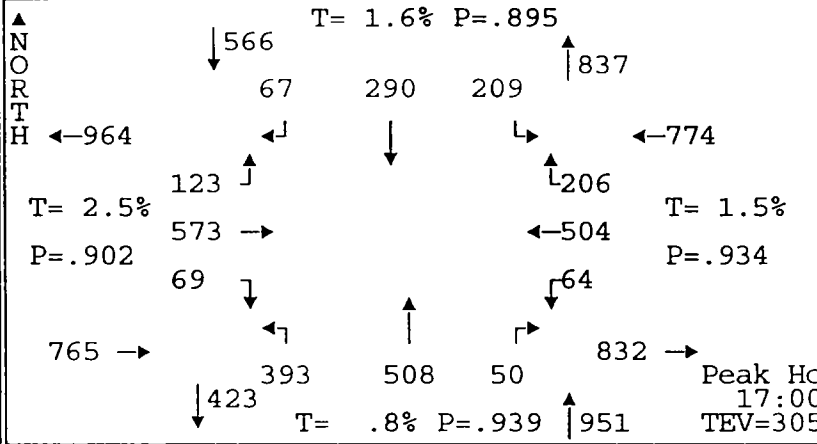


gmal

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
17:00-17:15	17	59	30	12	158	63	6	119	47	52	71	110	744
17:15-17:30	10	41	24	17	157	39	8	151	63	66	55	105	736
17:30-17:45	8	61	28	19	162	61	6	133	61	59	60	106	764
17:45-18:00	8	46	28	15	152	69	10	131	70	58	72	108	767
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	1	0	0	0	4	0	7	2	3	0	5	22
17:15-17:30	0	0	0	0	5	3	0	2	0	0	1	2	13
17:30-17:45	0	0	1	1	3	2	0	4	2	0	0	1	14
17:45-18:00	0	1	0	0	2	2	0	6	1	1	0	4	17
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	1	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	1	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	3	0	0	0	0	3
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS -----CROSSWALK USEAGE-----													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	1	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	1	0	0	0	0	0	0	0	0	0	1
Peak Hour by Movement													
PHF	.63	.85	.92	.83	.97	.84	.75	.88	.86	.89	.9	.98	.981
% Trucks (all)	0	1	.9	1.6	1.6	5.6	0	4.3	2.1	1.7	.4	2.8	2.4
% Trucks (M+H)	0	0	0	0	0	.9	0	.7	0	0	0	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	35	191	104	71	558	261	27	518	226	249	200	304	2744
16:15-17:15	43	205	105	61	574	262	31	510	206	232	215	346	2790
16:30-17:30	46	203	109	62	593	248	31	540	217	233	233	373	2888
16:45-17:45	46	208	119	57	626	230	29	547	237	239	240	397	2975
17:00-18:00	43	207	110	63	629	232	30	534	241	235	258	429	3011

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CORNELL ROAD AT SALTZMAN ROAD

24074



DATE OF COUNT: 06/27/00
 DAY OF WEEK: Tue
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

Traffic Smithy
 (503) 641-6333

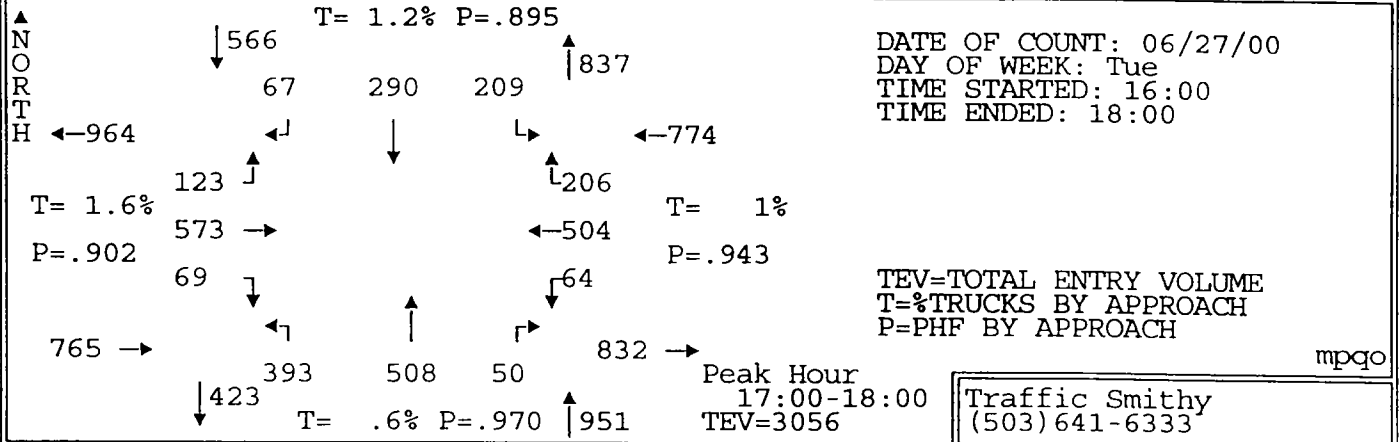
mpdqo

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↗	↖	↓	↘	↖	↑	↗	↓	←	↖	
16:00-16:05	7	41	10	7	29	12	25	23	5	5	27	16	207
16:05-16:10	8	32	10	8	18	9	23	28	2	9	40	20	207
16:10-16:15	11	38	2	8	31	11	25	21	2	3	35	14	201
16:15-16:20	6	42	3	6	23	21	28	23	4	10	36	15	217
16:20-16:25	3	51	8	7	28	8	25	24	2	2	40	8	206
16:25-16:30	4	42	12	4	22	14	35	34	0	7	44	22	240
16:30-16:35	17	40	5	6	17	12	27	26	4	6	42	13	215
16:35-16:40	2	33	8	4	16	24	22	27	4	11	38	15	204
16:40-16:45	3	37	6	11	17	16	39	42	4	2	39	17	233
16:45-16:50	8	41	9	2	19	14	32	39	1	4	35	8	212
16:50-16:55	6	38	9	4	21	25	38	36	5	9	46	17	254
16:55-17:00	2	38	8	5	28	14	24	35	1	3	52	18	228
17:00-17:05	9	40	11	8	27	10	37	37	3	4	29	11	226
17:05-17:10	6	47	10	8	18	20	31	33	2	5	47	19	246
17:10-17:15	9	32	10	2	20	15	31	50	3	6	47	16	241
17:15-17:20	2	43	4	11	25	15	28	45	4	4	42	21	244
17:20-17:25	1	56	14	8	20	20	36	41	6	4	42	11	259
17:25-17:30	3	48	12	5	26	15	27	45	8	10	43	8	250
17:30-17:35	7	57	7	2	28	31	37	42	4	6	41	16	278
17:35-17:40	8	55	15	3	23	19	24	37	2	3	50	30	269
17:40-17:45	4	48	11	7	26	19	43	45	5	3	38	18	267
17:45-17:50	4	46	8	5	28	18	32	46	5	7	42	14	255
17:50-17:55	7	54	10	2	28	9	29	45	3	3	44	19	253
17:55-18:00	9	47	11	6	21	18	38	42	5	9	39	23	268

Total Survey	146	1046	213	139	559	389	736	866	84	135	978	389	5680
PHF	.72	.89	.9	.7	.88	.76	.94	.93	.69	.8	.93	.8	.938
% Trucks	4.8	2.5	.9	2.9	2	.5	1.4	.3	0	.7	2.1	.3	1.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	16	0	0	28	0	0	9	0	0	16	0	0

Hourly Totals													
16:00-17:00	77	473	90	72	269	180	343	358	34	71	474	183	2624
16:15-17:15	75	481	99	67	256	193	369	406	33	69	495	179	2722
16:30-17:30	68	493	106	74	254	200	372	456	45	68	502	174	2812
16:45-17:45	65	543	120	65	281	217	388	485	44	61	512	193	2974
17:00-18:00	69	573	123	67	290	209	393	508	50	64	504	206	3056

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CORNELL ROAD AT SALTZMAN ROAD**

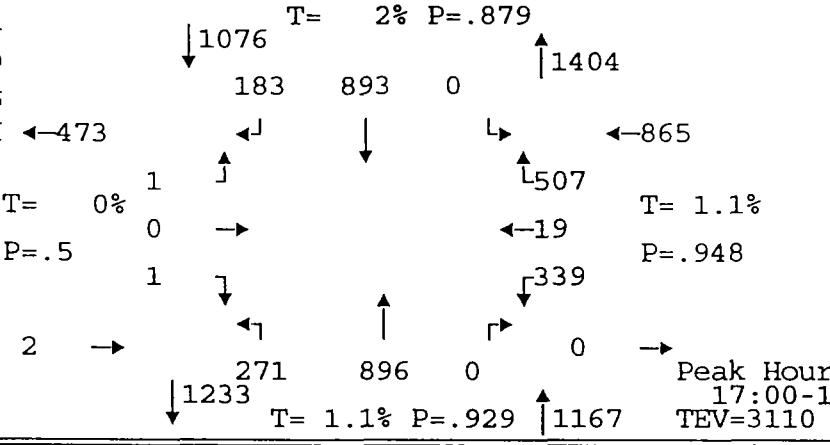


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	24	119	31	18	65	45	99	120	8	15	123	46	713
17:15-17:30	6	147	30	24	71	50	91	131	18	18	127	40	753
17:30-17:45	19	160	33	12	77	69	104	124	11	12	129	64	814
17:45-18:00	20	147	29	13	77	45	99	133	13	19	125	56	776
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	2	0	0	0	1	1	0	0	0	1	0	6
17:15-17:30	0	2	0	0	3	0	2	0	0	0	1	0	8
17:30-17:45	2	1	0	1	1	0	1	0	0	0	3	1	10
17:45-18:00	1	2	0	1	0	0	1	0	0	0	1	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	1	0	0	0	0	1	0	0	0	0	0	2
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	3			1			0			1		5	
17:15-17:30	1			7			3			4		15	
17:30-17:45	1			4			0			0		5	
17:45-18:00	5			0			3			0		8	
Peak Hour by Movement													
PHF	.72	.9	.93	.7	.94	.76	.94	.95	.69	.84	.98	.8	.938
% Trucks (all)	5.8	1.4	0	3	1.4	.5	1.3	.2	0	0	1.4	.5	1.1
% Trucks (M+H)	0	.2	0	0	0	0	0	.2	0	0	.2	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	77	473	90	72	269	180	343	358	34	71	474	183	2624
16:15-17:15	75	481	99	67	256	193	369	406	33	69	495	179	2722
16:30-17:30	68	493	106	74	254	200	372	456	45	68	502	174	2812
16:45-17:45	65	543	120	65	281	217	388	485	44	61	512	193	2974
17:00-18:00	69	573	123	67	290	209	393	508	50	64	504	206	3056

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT HIGHWAY 26 WESTBOUND RAMPS

27520

N
O
R
T
H



DATE OF COUNT: 06/01/00
DAY OF WEEK: Thu
TIME STARTED: 16:00
TIME ENDED: 18:00

T= 0% P=.5
T= 1.1% P=.948

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

MPQI

Peak Hour
17:00-18:00
TEV=3110

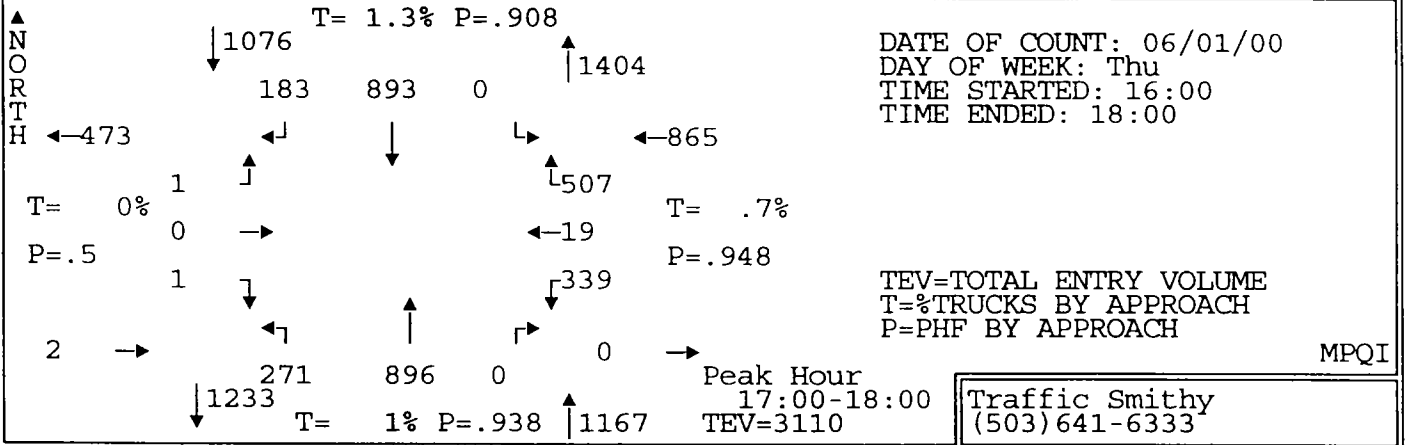
Traffic Smyth
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	0	0	0	21	73	0	13	61	0	37	0	37	242
16:05-16:10	0	0	0	17	77	0	14	42	0	28	0	42	220
16:10-16:15	0	0	0	18	65	0	16	55	0	28	0	39	221
16:15-16:20	0	0	0	12	67	0	11	61	0	30	0	31	212
16:20-16:25	0	0	0	14	87	0	19	51	0	36	0	39	246
16:25-16:30	0	0	0	15	76	0	19	80	0	31	0	35	256
16:30-16:35	0	0	0	20	77	0	15	57	0	36	0	30	235
16:35-16:40	0	0	0	15	67	0	15	60	0	24	0	35	216
16:40-16:45	0	0	0	14	65	0	17	67	0	31	1	37	232
16:45-16:50	0	0	0	13	73	0	24	61	0	29	0	35	235
16:50-16:55	0	0	0	20	89	0	20	58	0	28	0	30	245
16:55-17:00	0	0	0	8	83	0	18	59	0	37	0	31	236
17:00-17:05	0	0	0	13	81	0	28	56	0	38	0	41	257
17:05-17:10	0	0	1	19	87	0	27	70	0	22	0	45	271
17:10-17:15	0	0	0	15	81	0	22	61	0	30	1	32	242
17:15-17:20	0	0	0	23	81	0	27	67	0	26	0	52	276
17:20-17:25	0	0	0	17	69	0	24	80	0	29	1	33	253
17:25-17:30	0	0	0	12	56	0	25	84	0	30	1	48	256
17:30-17:35	0	0	0	14	73	0	24	77	0	23	2	43	256
17:35-17:40	0	0	0	13	83	0	18	69	0	30	2	35	250
17:40-17:45	1	0	0	15	89	0	22	75	0	21	2	50	275
17:45-17:50	0	0	0	17	67	0	22	82	0	37	4	37	266
17:50-17:55	0	0	0	13	64	0	12	82	0	28	5	36	240
17:55-18:00	0	0	0	12	62	0	20	93	0	25	1	55	268

Total Survey	1	0	1	370	1792	0	472	1608	0	714	20	928	5906
PHF	.25	0	.25	.8	.9	0	.88	.87	0	.94	.43	.95	.982
% Trucks	0	0	0	1.9	2	0	1.7	.9	0	1.5	0	.8	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	21	0	0	20	0	0	1	0	0

Hourly Totals													
16:00-17:00	0	0	0	187	899	0	201	712	0	375	1	421	2796
16:15-17:15	0	0	1	178	933	0	235	741	0	372	2	421	2883
16:30-17:30	0	0	1	189	909	0	262	780	0	360	4	449	2954
16:45-17:45	1	0	1	182	945	0	279	817	0	343	9	475	3052
17:00-18:00	1	0	1	183	893	0	271	896	0	339	19	507	3110

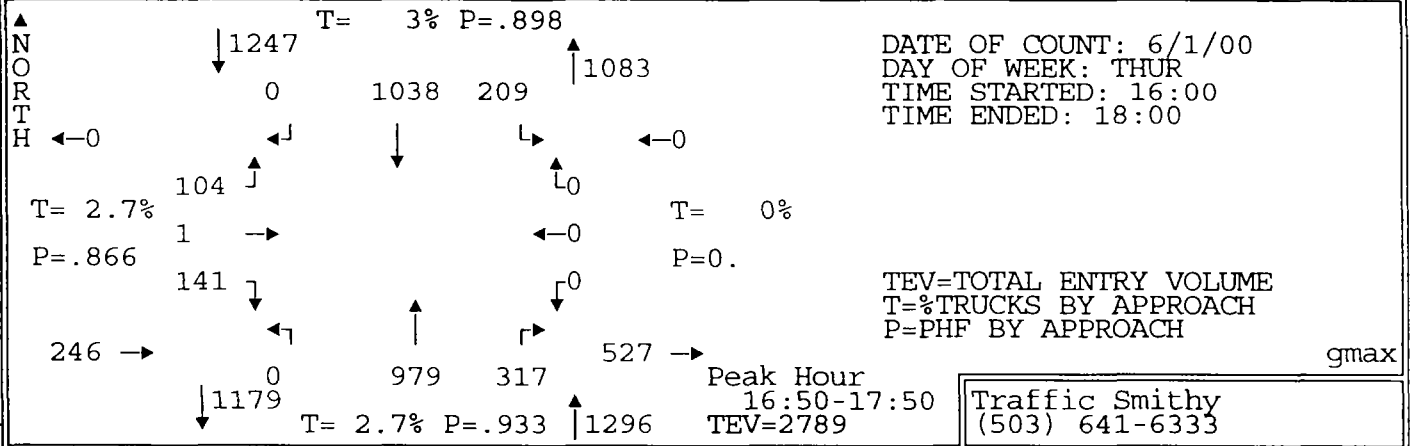
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT HIGHWAY 26 WESTBOUND RAMPS



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↖	
ALL VEHICLES													
17:00-17:15	0	0	1	47	249	0	77	187	0	90	1	118	770
17:15-17:30	0	0	0	52	206	0	76	231	0	85	2	133	785
17:30-17:45	1	0	0	42	245	0	64	221	0	74	6	128	781
17:45-18:00	0	0	0	42	193	0	54	257	0	90	10	128	774
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	1	0	2	2	0	0	0	0	5
17:15-17:30	0	0	0	0	3	0	1	1	0	0	0	0	5
17:30-17:45	0	0	0	1	3	0	0	1	0	0	0	0	5
17:45-18:00	0	0	0	0	3	0	1	2	0	0	0	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	1	0	0	1	0	0	0	0	2
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	1	0	1	2
17:15-17:30	0	0	0	1	1	0	0	0	0	1	0	0	3
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	1	1
17:45-18:00	0	0	0	0	0	0	0	1	0	2	0	0	3
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	2	0	0	0	0	3
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	1	0	0	1	0	0	0	0	2
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	4	0	0	1	0	0	0	0	5	
17:15-17:30	0	0	0	2	0	0	0	0	0	0	0	2	
17:30-17:45	0	0	0	3	0	0	1	0	0	0	0	4	
17:45-18:00	0	0	0	0	0	0	6	0	0	1	0	7	
Peak Hour by Movement													
PHF	.25	0	.25	.88	.9	0	.88	.87	0	.94	.47	.95	.990
% Trucks (all)	0	0	0	1.1	1.3	0	1.5	.9	0	1.2	0	.4	1
% Trucks (M+H)	0	0	0	.5	.2	0	0	.2	0	1.2	0	.4	.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	0	0	187	899	0	201	712	0	375	1	421	2796
16:15-17:15	0	0	1	178	933	0	235	741	0	372	2	421	2883
16:30-17:30	0	0	1	189	909	0	262	780	0	360	4	449	2954
16:45-17:45	1	0	1	182	945	0	279	817	0	343	9	475	3052
17:00-18:00	1	0	1	183	893	0	271	896	0	339	19	507	3110

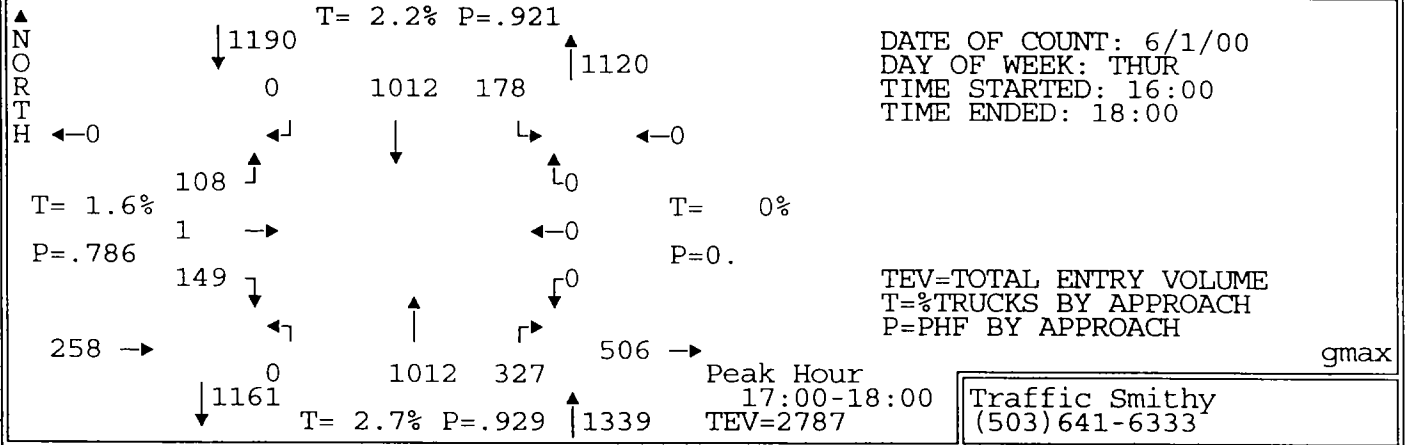
10

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT HIGHWAY 26 EASTBOUND RAMP



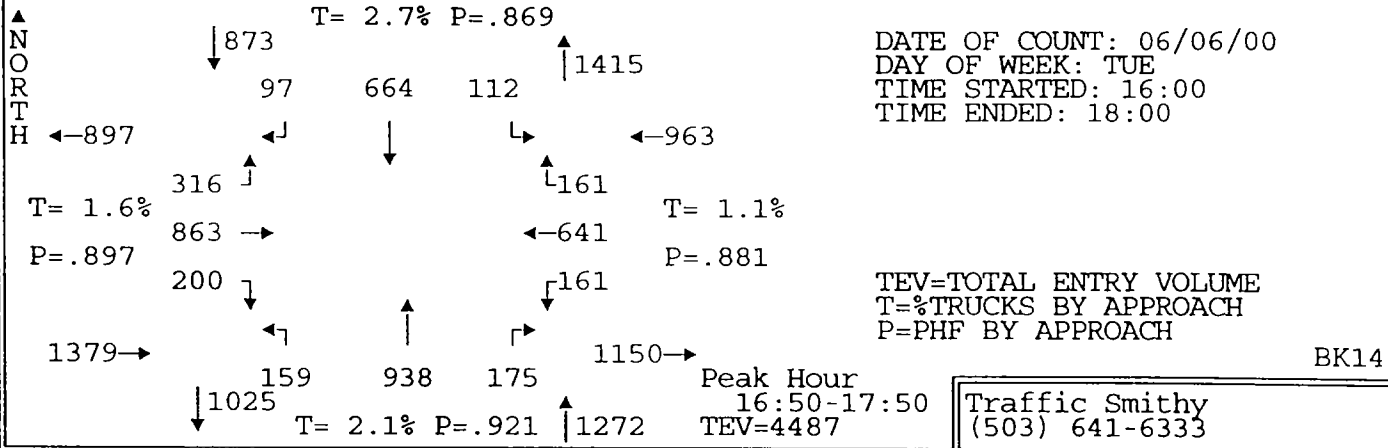
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	10	0	14	0	58	22	0	57	32	0	0	0	193
16:05-16:10	11	0	8	0	73	21	0	51	34	0	0	0	198
16:10-16:15	15	0	12	0	73	19	0	49	28	0	0	0	196
16:15-16:20	8	0	5	0	78	22	0	81	31	0	0	0	225
16:20-16:25	8	0	6	0	95	30	0	67	28	0	0	0	234
16:25-16:30	11	0	9	0	82	22	0	77	26	0	0	0	227
16:30-16:35	15	0	7	0	85	23	0	69	15	0	0	0	214
16:35-16:40	14	0	5	0	72	14	0	73	27	0	0	0	205
16:40-16:45	8	0	5	0	75	18	0	74	26	0	0	0	206
16:45-16:50	11	0	5	0	77	17	0	68	19	0	0	0	197
16:50-16:55	14	0	13	0	99	19	0	69	31	0	0	0	245
16:55-17:00	7	0	10	0	88	29	0	72	21	0	0	0	227
17:00-17:05	11	1	7	0	92	20	0	67	27	0	0	0	225
17:05-17:10	16	0	8	0	81	20	0	70	30	0	0	0	225
17:10-17:15	9	0	7	0	92	18	0	83	38	0	0	0	247
17:15-17:20	13	0	5	0	81	15	0	85	26	0	0	0	225
17:20-17:25	7	0	10	0	82	14	0	93	22	0	0	0	228
17:25-17:30	9	0	12	0	72	12	0	93	19	0	0	0	217
17:30-17:35	10	0	6	0	78	13	0	87	17	0	0	0	211
17:35-17:40	13	0	5	0	93	20	0	67	14	0	0	0	212
17:40-17:45	16	0	11	0	91	18	0	97	44	0	0	0	277
17:45-17:50	16	0	10	0	89	11	0	96	28	0	0	0	250
17:50-17:55	11	0	11	0	85	7	0	84	37	0	0	0	235
17:55-18:00	18	0	16	0	76	10	0	90	25	0	0	0	235
Total Survey	281	1	207	0	1967	434	0	1819	645	0	0	0	5354
PHF	.78	.25	.87	0	.93	.76	0	.9	.83	0	0	0	.943
% Trucks	2.1	0	3.4	0	2.5	5.1	0	2.1	4.3	0	0	0	2.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	5	0	0	13	0	0	15	0	0	0	0	0
Hourly Totals													
16:00-17:00	132	0	99	0	955	256	0	807	318	0	0	0	2567
16:15-17:15	132	1	87	0	1016	252	0	870	319	0	0	0	2677
16:30-17:30	134	1	94	0	996	219	0	916	301	0	0	0	2661
16:45-17:45	136	1	99	0	1026	215	0	951	308	0	0	0	2736
17:00-18:00	149	1	108	0	1012	178	0	1012	327	0	0	0	2787

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT HIGHWAY 26 EASTBOUND RAMPS



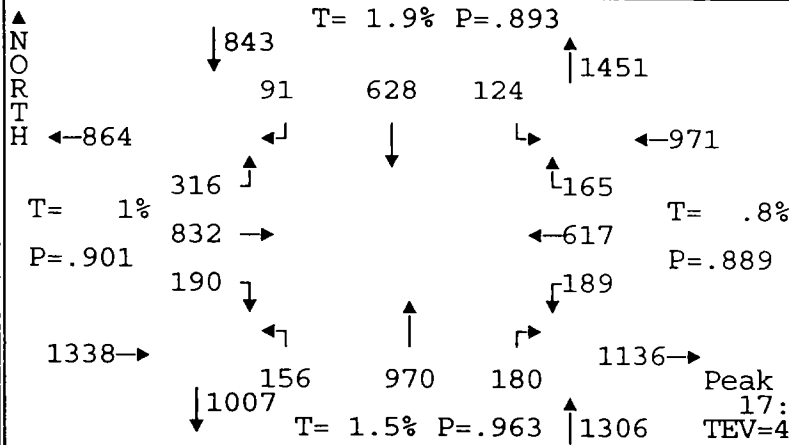
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	36	1	22	0	265	58	0	220	95	0	0	0	697
17:15-17:30	29	0	27	0	235	41	0	271	67	0	0	0	670
17:30-17:45	39	0	22	0	262	51	0	251	75	0	0	0	700
17:45-18:00	45	0	37	0	250	28	0	270	90	0	0	0	720
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	4	0	0	8	1	0	0	0	13
17:15-17:30	0	0	0	0	4	3	0	4	0	0	0	0	11
17:30-17:45	1	0	0	0	4	0	0	2	2	0	0	0	9
17:45-18:00	0	0	1	0	4	1	0	4	2	0	0	0	12
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	1	0	0	0	1	0	0	0	2
17:45-18:00	0	0	0	0	0	0	0	1	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	1	0	1	0	0	2	2	0	0	0	6
17:15-17:30	0	0	0	0	1	1	0	0	2	0	0	0	4
17:30-17:45	1	0	0	0	0	0	0	1	2	0	0	0	4
17:45-18:00	0	0	0	0	2	0	0	0	0	0	0	0	2
BICYCLES													
17:00-17:15	0	0	0	0	4	0	0	0	0	0	0	0	4
17:15-17:30	0	0	0	0	1	0	0	2	0	0	0	0	3
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	1	0	0	2	0	0	0	0	3
PEDESTRIANS	-----CROSSWALK USEAGE-----												
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0			1			0			0			1
17:15-17:30	0			2			0			0			2
17:30-17:45	0			2			3			0			5
17:45-18:00	0			0			5			0			5
Peak Hour by Movement													
PHF	.83	.25	.73	0	.95	.77	0	.93	.86	0	0	0	.967
% Trucks (all)	1.3	0	1.9	0	2.1	2.8	0	2.4	3.7	0	0	0	2.4
% Trucks (M+H)	.7	0	.9	0	.5	.6	0	.6	2.1	0	0	0	.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Totals													
16:00-17:00	132	0	99	0	955	256	0	807	318	0	0	0	2567
16:15-17:15	132	1	87	0	1016	252	0	870	319	0	0	0	2677
16:30-17:30	134	1	94	0	996	219	0	916	301	0	0	0	2661
16:45-17:45	136	1	99	0	1026	215	0	951	308	0	0	0	2736
17:00-18:00	149	1	108	0	1012	178	0	1012	327	0	0	0	2787

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT WALKER ROAD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
16:00-16:05	10	50	16	16	67	12	15	48	13	6	31	6	290
16:05-16:10	12	38	18	9	60	10	10	86	14	8	44	12	321
16:10-16:15	7	43	26	6	54	17	13	70	5	10	41	8	300
16:15-16:20	18	84	20	10	44	7	12	56	9	6	66	10	342
16:20-16:25	13	53	18	13	49	17	18	65	14	7	46	7	320
16:25-16:30	6	48	25	12	69	11	17	94	12	9	41	9	353
16:30-16:35	14	74	21	9	49	8	10	64	7	5	60	10	331
16:35-16:40	29	91	23	9	55	11	9	72	10	9	66	6	390
16:40-16:45	16	50	16	9	52	13	23	75	12	7	56	10	339
16:45-16:50	9	54	12	14	69	5	8	87	11	12	49	10	340
16:50-16:55	22	86	19	10	53	8	7	53	12	8	49	14	341
16:55-17:00	14	77	26	10	65	9	16	69	16	6	52	13	373
17:00-17:05	9	56	20	10	68	3	16	84	15	11	48	12	352
17:05-17:10	17	63	41	6	63	17	6	81	14	19	43	6	376
17:10-17:15	19	60	33	11	51	7	16	91	16	15	46	19	384
17:15-17:20	23	103	25	5	41	3	14	65	14	15	64	11	383
17:20-17:25	15	79	24	9	51	7	22	85	9	15	55	12	383
17:25-17:30	12	71	19	4	66	12	7	86	23	12	48	19	379
17:30-17:35	17	83	28	8	44	11	14	62	14	23	64	13	381
17:35-17:40	15	63	31	10	51	15	11	79	22	10	57	14	378
17:40-17:45	21	72	27	8	42	6	16	84	10	11	67	14	378
17:45-17:50	16	50	23	6	69	14	14	99	10	16	48	14	379
17:50-17:55	10	61	23	9	24	12	8	76	18	24	34	20	319
17:55-18:00	16	71	22	5	58	17	12	78	15	18	43	11	366
Total Survey	360	1580	556	218	1314	252	314	1809	315	282	1218	280	8498
PHF	.85	.85	.8	.81	.85	.74	.76	.9	.74	.81	.85	.88	.975
% Trucks	2.5	1.3	1.8	0	3.3	2	.6	2.7	.3	.7	1.1	1.4	1.9
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	170	748	240	127	686	128	158	839	135	93	601	115	4040
16:15-17:15	186	796	274	123	687	116	158	891	148	114	622	126	4241
16:30-17:30	199	864	279	106	683	103	154	912	159	134	636	142	4371
16:45-17:45	193	867	305	105	664	103	153	926	176	157	642	157	4448
17:00-18:00	190	832	316	91	628	124	156	970	180	189	617	165	4458

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT WALKER ROAD**



DATE OF COUNT: 06/06/00
DAY OF WEEK: TUE
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Peak Hour
17:00-18:00
TEV=4458

Traffic Smithy
(503) 641-6333

BK14

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		

ALL VEHICLES	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑	ALL	
17:00-17:15	45	179	94	27	182	27	38	256	45	45	137	37	1112
17:15-17:30	50	253	68	18	158	22	43	236	46	42	167	42	1145
17:30-17:45	53	218	86	26	137	32	41	225	46	44	188	41	1137
17:45-18:00	42	182	68	20	151	43	34	253	43	58	125	45	1064

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑	ALL	
17:00-17:15	1	2	1	0	4	0	0	5	0	0	2	0	15
17:15-17:30	3	1	0	0	2	0	0	4	0	1	1	0	12
17:30-17:45	0	1	0	0	1	0	0	3	0	0	0	1	6
17:45-18:00	1	0	0	0	3	0	0	2	0	0	3	0	9

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑	ALL	
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	2	0	0	0	0	0	0	0	2
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑	ALL	
17:00-17:15	0	0	1	0	0	0	0	3	0	0	0	0	4
17:15-17:30	0	0	1	0	3	0	0	1	0	0	0	0	5
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	2	0	0	0	0	2

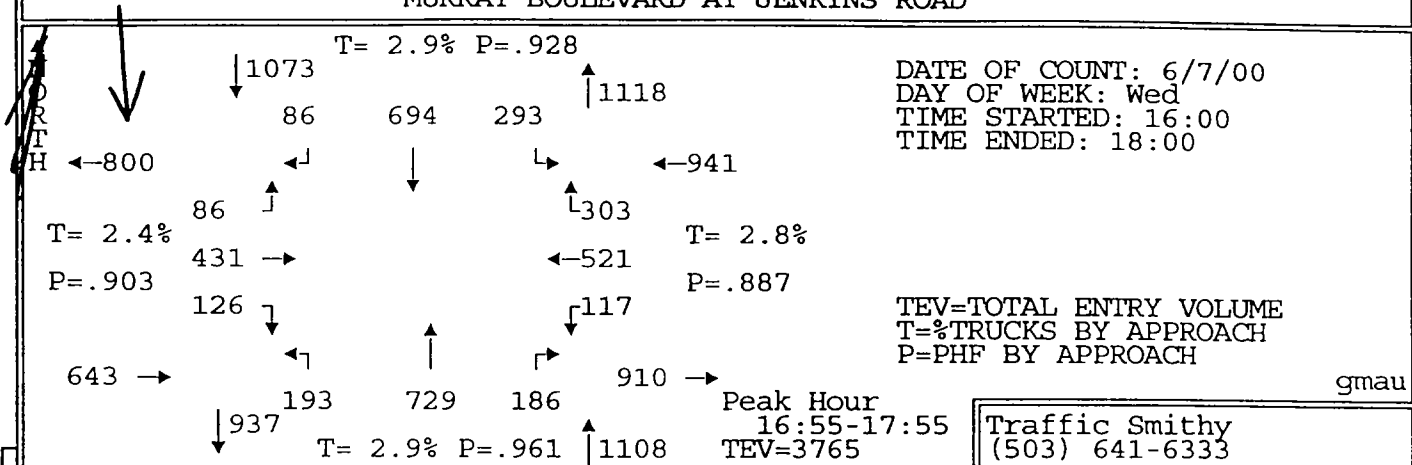
BICYCLES	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑	ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0

PEDESTRIANS	-----CROSSWALK USEAGE-----												ALL
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0

Peak Hour by Movement	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑	ALL	
PHF	.9	.82	.84	.84	.86	.72	.91	.95	.98	.81	.82	.92	.973
% Trucks (all)	2.6	.6	.9	0	2.5	0	0	2.1	0	.5	1	.6	1.3
% Trucks (M+H)	0	.1	.6	0	1	0	0	.6	0	0	0	0	.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑	ALL	
16:00-17:00	170	748	240	127	686	128	158	839	135	93	601	115	4040
16:15-17:15	186	796	274	123	687	116	158	891	148	114	622	126	4241
16:30-17:30	199	864	279	106	683	103	154	912	159	134	636	142	4371
16:45-17:45	193	867	305	105	664	103	153	926	176	157	642	157	4448
17:00-18:00	190	832	316	91	628	124	156	970	180	189	617	165	4458

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT JENKINS ROAD

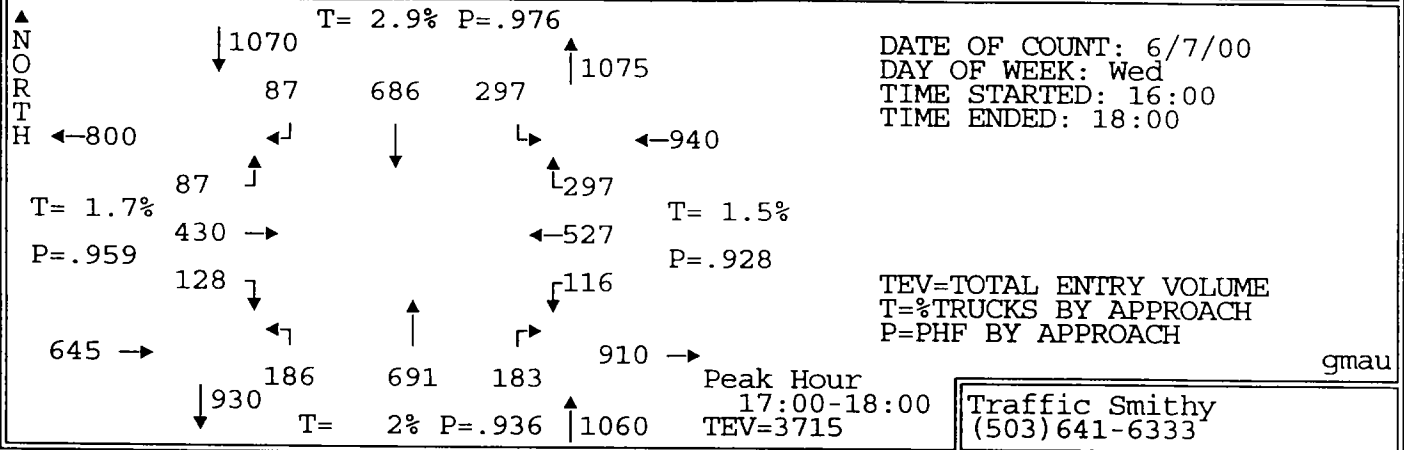


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	7	23	9	8	67	18	5	61	8	6	19	25	256
16:05-16:10	15	38	9	7	48	25	10	47	13	11	38	30	291
16:10-16:15	12	23	7	9	60	14	4	57	14	15	39	28	282
16:15-16:20	12	40	6	7	62	24	10	41	8	5	37	22	274
16:20-16:25	8	33	13	3	49	7	5	54	11	15	39	26	263
16:25-16:30	11	25	2	3	50	25	7	62	9	13	47	29	283
16:30-16:35	13	20	6	5	61	12	8	51	11	18	39	25	269
16:35-16:40	10	52	4	8	47	18	8	51	5	13	53	19	288
16:40-16:45	15	28	8	7	82	28	10	48	14	10	29	32	311
16:45-16:50	9	37	8	9	47	26	9	27	15	11	50	31	279
16:50-16:55	9	29	7	3	57	18	4	62	9	16	43	25	282
16:55-17:00	8	32	5	8	62	19	15	81	14	9	37	25	315
17:00-17:05	8	41	10	9	51	17	9	56	10	10	47	26	294
17:05-17:10	14	33	6	11	53	29	23	57	17	4	44	28	319
17:10-17:15	8	27	7	6	76	22	9	83	13	9	43	27	330
17:15-17:20	8	49	10	5	54	22	13	48	13	15	55	34	326
17:20-17:25	13	36	6	10	47	28	29	49	11	14	44	24	311
17:25-17:30	8	29	9	7	73	17	10	69	18	12	34	21	307
17:30-17:35	10	39	0	6	44	33	21	48	18	6	48	20	293
17:35-17:40	12	29	9	11	72	26	16	70	18	7	34	22	326
17:40-17:45	16	45	8	2	49	21	17	56	19	15	52	30	330
17:45-17:50	10	44	5	4	54	37	22	54	14	7	49	28	328
17:50-17:55	11	27	11	7	59	22	9	58	21	9	34	18	286
17:55-18:00	10	31	6	9	54	23	8	43	11	8	43	19	265

Total Survey	257	810	171	164	1378	531	281	1333	314	258	997	614	7108
PHF	.83	.91	.86	.77	.92	.87	.8	.93	.85	.71	.92	.85	.956
% Trucks	1.6	3.2	0	1.2	3	3.2	1.1	3.2	3.2	3.5	1.9	4.1	2.8
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	1	0	0

Hourly Totals													
16:00-17:00	129	380	84	77	692	234	95	642	131	142	470	317	3393
16:15-17:15	125	397	82	79	697	245	117	673	136	133	508	315	3507
16:30-17:30	123	413	86	88	710	256	147	682	150	141	518	317	3631
16:45-17:45	123	426	85	87	685	278	175	706	175	128	531	313	3712
17:00-18:00	128	430	87	87	686	297	186	691	183	116	527	297	3715

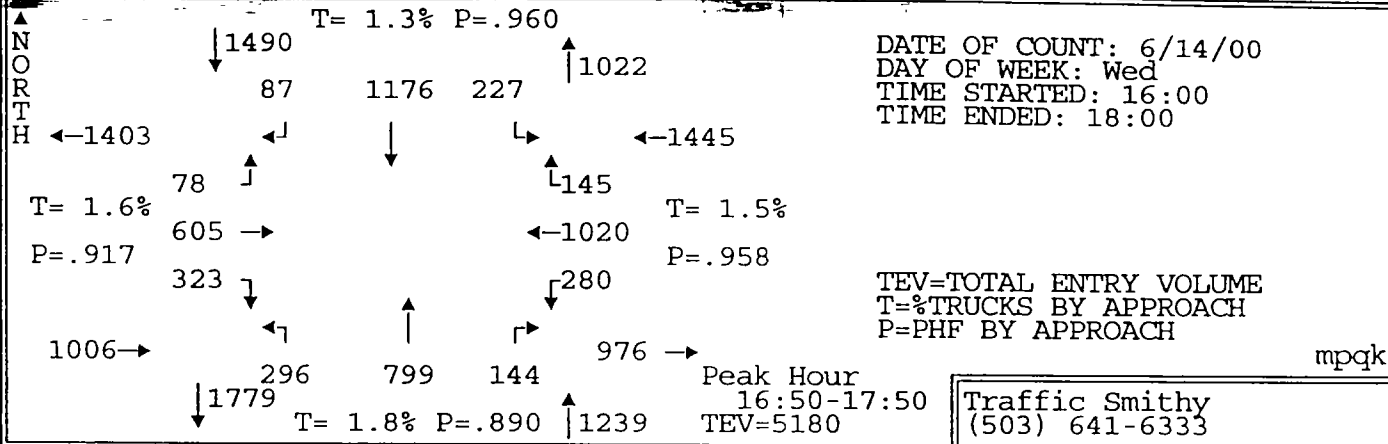
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT JENKINS ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	30	101	23	26	180	68	41	196	40	23	134	81	943
17:15-17:30	29	114	25	22	174	67	52	166	42	41	133	79	944
17:30-17:45	38	113	17	19	165	80	54	174	55	28	134	72	949
17:45-18:00	31	102	22	20	167	82	39	155	46	24	126	65	879
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	2	0	1	4	0	1	4	1	0	1	2	16
17:15-17:30	0	2	0	1	6	2	0	3	0	0	2	1	17
17:30-17:45	0	5	0	0	4	0	0	3	0	1	1	0	14
17:45-18:00	0	2	0	0	2	6	0	1	0	1	0	1	13
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	1	0	0	1	2
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	4	1	0	2	0	0	0	1	8
17:15-17:30	0	0	0	0	0	0	0	1	1	1	0	0	3
17:30-17:45	0	0	0	0	0	0	0	1	1	0	0	0	2
17:45-18:00	0	0	0	0	0	0	0	1	0	1	0	0	2
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
17:30-17:45	0	0	0	0	0	0	1	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	1
PEDESTRIANS -----CROSSWALK USEAGE-----													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	1	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	1	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	1	0	0	0	0	0	0	0	0	1
Peak Hour by Movement													
PHF	.84	.94	.87	.84	.95	.91	.86	.88	.83	.71	.98	.92	.978
% Trucks (all)	0	2.6	0	2.3	2.9	3	.5	2.3	2.2	3.4	.8	2	2.1
% Trucks (M+H)	0	0	0	0	.6	.3	0	.7	1.6	1.7	0	.7	.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	129	380	84	77	692	234	95	642	131	142	470	317	3393
16:15-17:15	125	397	82	79	697	245	117	673	136	133	508	315	3507
16:30-17:30	123	413	86	88	710	256	147	682	150	141	518	317	3631
16:45-17:45	123	426	85	87	685	278	175	706	175	128	531	313	3712
17:00-18:00	128	430	87	87	686	297	186	691	183	116	527	297	3715

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT FARMINGTON ROAD

23930

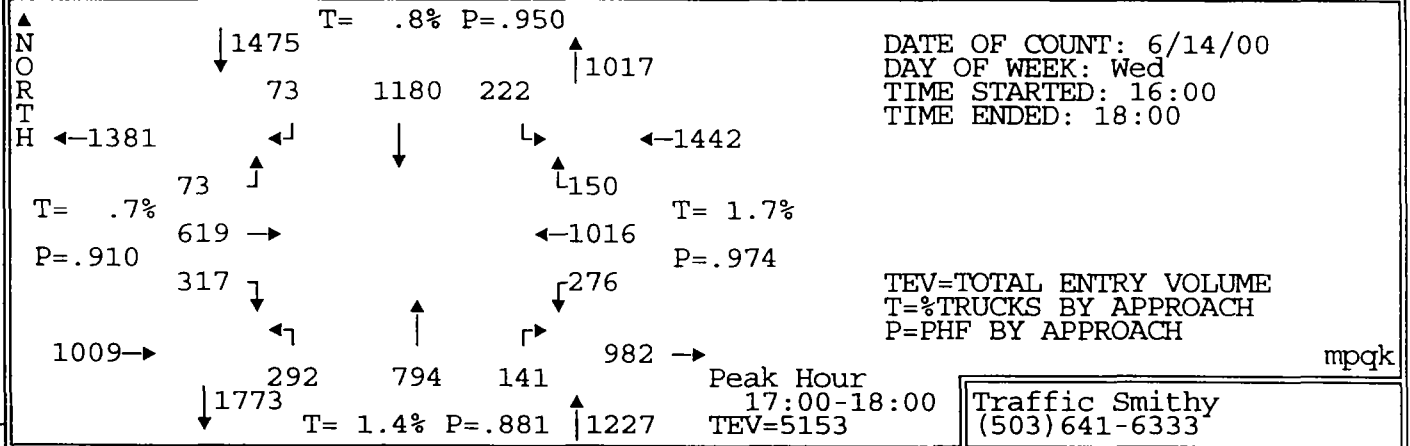


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	11	46	2	7	102	18	23	51	6	22	62	14	364
16:05-16:10	26	49	6	6	64	17	23	55	5	14	58	12	335
16:10-16:15	15	32	5	3	94	16	17	44	6	28	76	10	346
16:15-16:20	23	44	12	12	75	12	24	69	11	24	65	14	385
16:20-16:25	24	54	10	5	88	13	26	75	8	19	66	16	404
16:25-16:30	32	48	13	9	82	14	22	60	23	23	57	17	400
16:30-16:35	20	48	8	15	83	16	25	64	7	24	78	6	394
16:35-16:40	22	54	1	3	78	26	25	64	9	28	99	15	424
16:40-16:45	13	65	7	10	85	17	22	67	12	26	56	16	396
16:45-16:50	19	50	9	6	94	10	26	85	10	23	58	8	398
16:50-16:55	27	38	9	17	92	19	24	67	15	23	87	6	424
16:55-17:00	28	66	7	6	100	16	25	65	12	23	76	16	440
17:00-17:05	21	42	3	11	98	20	23	73	11	22	88	13	425
17:05-17:10	19	50	11	4	103	29	22	53	15	23	79	12	420
17:10-17:15	25	68	3	10	92	21	23	62	11	22	88	17	442
17:15-17:20	24	59	4	5	108	16	25	79	9	21	94	13	457
17:20-17:25	35	52	4	6	95	22	26	78	14	24	90	8	454
17:25-17:30	20	37	5	5	100	11	24	80	13	22	84	14	415
17:30-17:35	30	58	7	7	99	16	26	59	10	25	84	10	431
17:35-17:40	22	33	5	5	93	20	23	55	12	28	95	13	404
17:40-17:45	38	46	11	3	97	24	30	63	13	22	78	11	436
17:45-17:50	34	56	9	8	99	13	25	65	9	25	77	12	432
17:50-17:55	27	67	7	3	91	8	23	59	17	24	80	15	421
17:55-18:00	22	51	4	6	105	22	22	68	7	18	79	12	416

Total Survey	577	1213	162	172	2217	416	574	1560	265	553	1854	300	9863
PHF	.86	.84	.78	.64	.97	.81	.94	.84	.95	.93	.94	.86	.957
% Trucks	1	1.6	3.7	.6	1.2	2.2	1.4	2.1	1.1	.5	1.5	3.3	1.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	21	0	0	28	0	0	29	0	0	14	0	0

Hourly Totals													
16:00-17:00	260	594	89	99	1037	194	282	766	124	277	838	150	4710
16:15-17:15	273	627	93	108	1070	213	287	804	144	280	897	156	4952
16:30-17:30	273	629	71	98	1128	223	290	837	138	281	977	144	5089
16:45-17:45	308	599	78	85	1171	224	297	819	145	278	1001	141	5146
17:00-18:00	317	619	73	73	1180	222	292	794	141	276	1016	150	5153

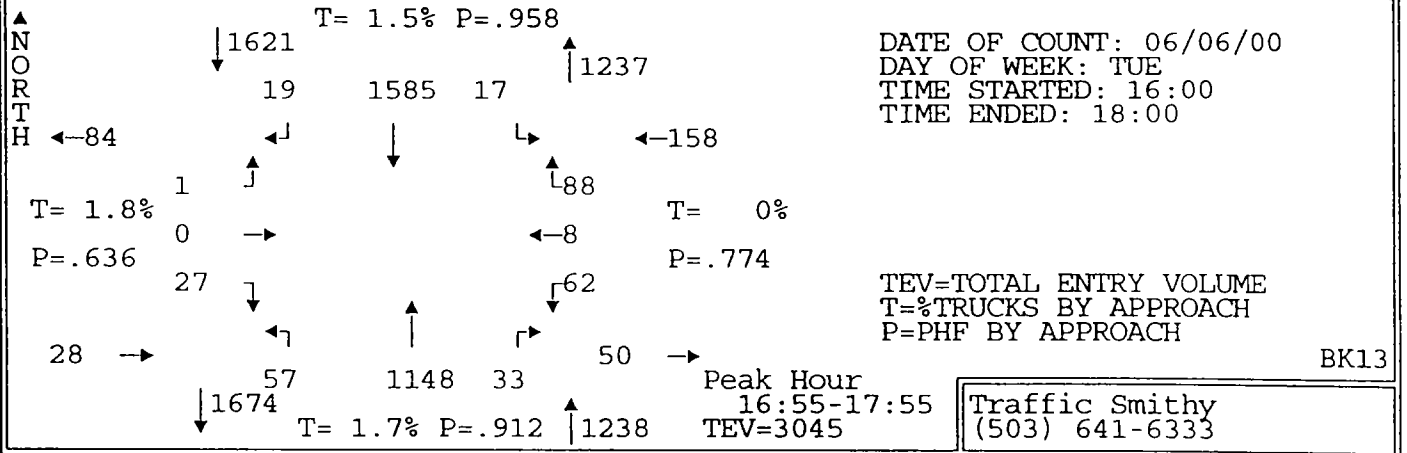
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT FARMINGTON ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	65	160	17	25	293	70	68	188	37	67	255	42	1287
17:15-17:30	79	148	13	16	303	49	75	237	36	67	268	35	1326
17:30-17:45	90	137	23	15	289	60	79	177	35	75	257	34	1271
17:45-18:00	83	174	20	17	295	43	70	192	33	67	236	39	1269
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	2	0	1	4	1	0	6	0	14
17:15-17:30	0	3	0	0	4	0	0	2	0	0	3	3	15
17:30-17:45	0	1	0	0	4	1	1	1	0	0	4	2	14
17:45-18:00	0	1	0	0	0	0	0	5	1	0	4	3	14
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	1	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	1	1	0	0	0	0	0	0	0	0	0	0	2
17:30-17:45	0	0	0	0	1	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	4	0	0	1	0	0	0	0	5
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	2	0	0	0	0	2
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	3			6			2			3		14	
17:15-17:30	3			3			5			0		11	
17:30-17:45	1			1			3			0		5	
17:45-18:00	8			4			4			0		16	
Peak Hour by Movement													
PHF	.88	.89	.79	.73	.97	.79	.92	.84	.95	.92	.95	.89	.971
% Trucks (all)	.3	1	0	0	.9	.5	.7	1.5	2.1	0	1.7	5.3	1.2
% Trucks (M+H)	.3	.2	0	0	.1	0	0	0	.7	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	

Hourly Totals	EAST BOUND	SOUTH BOUND	NORTH BOUND	WEST BOUND	ALL
16:00-17:00	260	594	89	99	1037
16:15-17:15	273	627	93	108	1070
16:30-17:30	273	629	71	98	1128
16:45-17:45	308	599	78	85	1171
17:00-18:00	317	619	73	73	1180

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT 6TH STREET

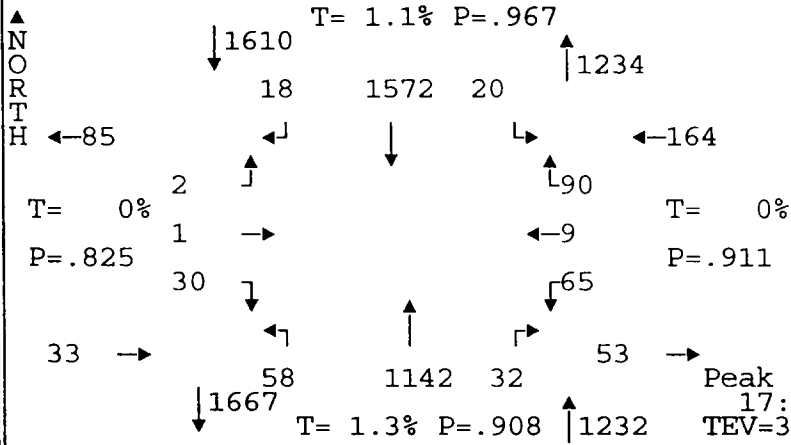


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	1	0	0	3	122	2	2	83	1	3	0	4	221
16:05-16:10	1	0	1	1	122	1	1	91	3	2	0	1	224
16:10-16:15	0	0	0	0	114	1	4	91	2	2	1	5	220
16:15-16:20	1	0	0	0	118	1	7	98	1	1	0	2	229
16:20-16:25	3	0	0	1	119	1	5	87	3	0	2	3	224
16:25-16:30	1	0	0	0	117	3	5	113	4	0	1	6	250
16:30-16:35	2	1	0	0	127	2	1	107	2	1	1	10	254
16:35-16:40	1	0	0	3	116	2	5	84	2	6	1	1	221
16:40-16:45	1	0	1	2	126	2	3	116	1	2	1	6	261
16:45-16:50	3	0	0	0	137	0	0	83	2	4	0	7	236
16:50-16:55	5	0	0	2	125	2	5	106	5	1	0	3	254
16:55-17:00	1	0	0	1	133	1	3	92	4	3	0	6	244
17:00-17:05	1	0	0	2	124	2	6	91	2	3	0	4	235
17:05-17:10	1	0	0	1	118	0	8	82	1	3	0	13	227
17:10-17:15	3	0	1	4	134	0	5	100	5	5	1	11	269
17:15-17:20	4	0	0	1	135	1	3	100	5	4	3	5	261
17:20-17:25	3	0	0	2	127	0	4	85	2	9	2	11	245
17:25-17:30	3	0	0	0	139	0	5	85	1	4	0	5	242
17:30-17:35	1	0	0	4	144	4	4	117	3	6	1	8	292
17:35-17:40	2	0	0	1	129	2	6	113	3	5	1	3	265
17:40-17:45	5	0	0	1	129	2	4	88	1	7	0	5	242
17:45-17:50	2	0	0	0	140	3	5	84	5	6	0	7	252
17:50-17:55	1	0	0	2	133	2	4	111	1	7	0	10	271
17:55-18:00	4	1	1	0	120	4	4	86	3	6	1	8	238

Total Survey	50	2	4	31	3048	38	99	2293	62	90	16	144	5377
PHF	.68	0	.25	.68	.96	.53	.75	.9	.69	.77	.33	.76	.952
% Trucks	2	0	0	0	1.5	2.6	0	1.7	1.6	0	0	0	1.5
Stopped Buses	0	0	0	0	0	0	0	1	0	0	0	0	0
Peds	0	0	0	0	6	0	0	2	0	0	0	0	0

Hourly Totals													
16:00-17:00	20	1	2	13	1476	18	41	1151	30	25	7	54	2838
16:15-17:15	23	1	2	16	1494	16	53	1159	32	29	7	72	2904
16:30-17:30	28	1	2	18	1541	12	48	1131	32	45	9	82	2949
16:45-17:45	32	0	1	19	1574	14	53	1142	34	54	8	81	3012
17:00-18:00	30	1	2	18	1572	20	58	1142	32	65	9	90	3039

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT 6TH STREET**



DATE OF COUNT: 06/06/00
DAY OF WEEK: TUE
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

BK13

Peak Hour
17:00-18:00
TEV=3039

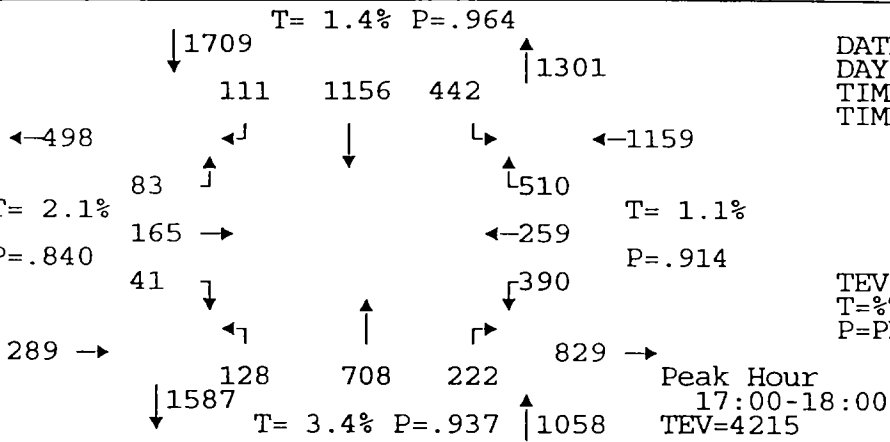
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	5	0	1	7	376	2	19	273	8	11	1	28	731
17:15-17:30	10	0	0	3	401	1	12	270	8	17	5	21	748
17:30-17:45	8	0	0	6	402	8	14	318	7	18	2	16	799
17:45-18:00	7	1	1	2	393	9	13	281	9	19	1	25	761
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	4	0	0	3	0	0	0	0	7
17:15-17:30	0	0	0	0	2	0	0	3	0	0	0	0	5
17:30-17:45	0	0	0	0	4	0	0	3	0	0	0	0	7
17:45-18:00	0	0	0	0	4	0	0	7	0	0	0	0	11
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	2	0	0	0	0	0	0	0	2
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	1	0	0	0	0	0	0	0	1
BICYCLES													
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	2	0	0	0	0	0	0	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	
17:30-17:45	0	0	0	3	0	0	2	0	0	0	0	0	
17:45-18:00	0	0	0	1	0	0	0	0	0	0	0	0	
Peak Hour by Movement													
PHF	.75	.25	.5	.64	.98	.56	.76	.9	.89	.86	.45	.8	.950
% Trucks (all)	0	0	0	0	1.1	0	0	1.4	0	0	0	0	1.1
% Trucks (M+H)	0	0	0	0	.3	0	0	0	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	1	0	0	0	0	0
Hourly Totals													
16:00-17:00	20	1	2	13	1476	18	41	1151	30	25	7	54	2838
16:15-17:15	23	1	2	16	1494	16	53	1159	32	29	7	72	2904
16:30-17:30	28	1	2	18	1541	12	48	1131	32	45	9	82	2949
16:45-17:45	32	0	1	19	1574	14	53	1142	34	54	8	81	3012
17:00-18:00	30	1	2	18	1572	20	58	1142	32	65	9	90	3039

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT ALLEN BOULEVARD (COMPOSITE)

23932

NORTH



DATE OF COUNT: 6/13/00
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

erlt

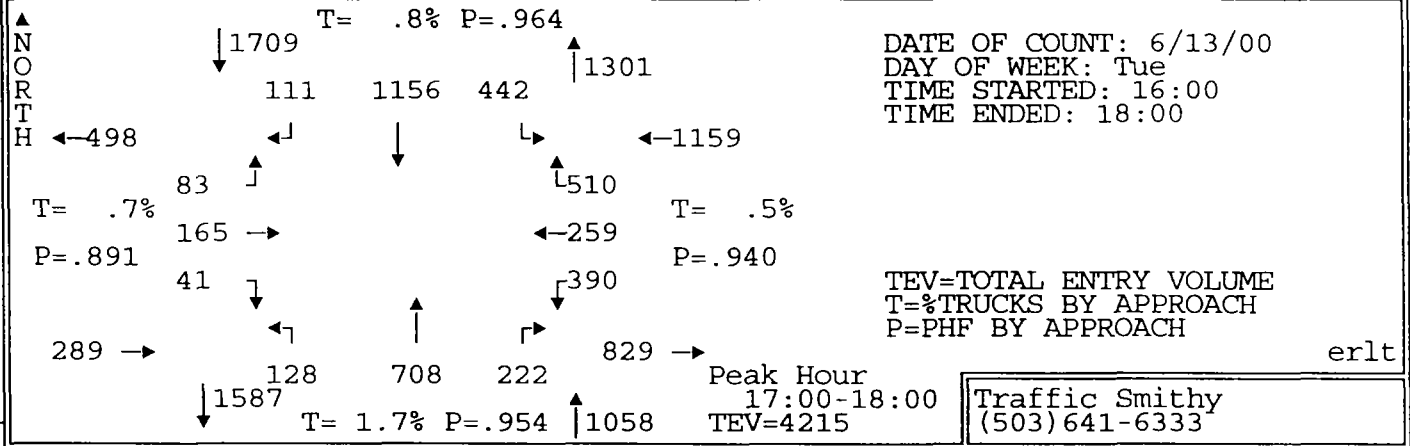
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	4	9	4	6	58	33	10	67	16	18	17	29	271
16:05-16:10	1	7	4	6	72	40	12	52	19	25	18	43	299
16:10-16:15	0	13	7	7	70	37	4	49	14	36	26	32	295
16:15-16:20	5	10	6	6	83	32	8	74	12	23	10	22	291
16:20-16:25	5	16	9	5	89	42	1	40	11	30	30	57	335
16:25-16:30	4	5	8	7	86	35	14	68	14	17	16	39	313
16:30-16:35	2	5	5	6	69	39	9	49	17	27	18	46	292
16:35-16:40	4	10	11	6	99	42	3	36	18	23	21	32	305
16:40-16:45	2	9	7	7	87	26	12	55	22	39	25	42	333
16:45-16:50	1	8	7	13	92	27	5	86	18	24	13	39	333
16:50-16:55	1	13	4	12	93	27	12	52	15	47	20	46	342
16:55-17:00	3	15	11	7	62	43	11	53	13	25	19	36	298
17:00-17:05	1	11	5	8	101	42	9	69	19	32	15	43	355
17:05-17:10	6	13	11	10	103	32	7	49	8	22	19	49	329
17:10-17:15	3	13	10	10	89	30	18	60	23	44	27	44	371
17:15-17:20	2	17	8	9	86	32	6	56	18	40	21	46	341
17:20-17:25	1	13	6	11	93	49	12	67	22	29	21	45	369
17:25-17:30	4	8	5	11	117	26	7	66	23	27	26	53	373
17:30-17:35	4	15	2	7	85	39	11	52	15	37	28	42	337
17:35-17:40	4	8	9	10	86	53	15	51	20	22	19	33	330
17:40-17:45	6	17	6	12	114	37	10	53	16	39	15	51	376
17:45-17:50	7	22	7	7	80	22	18	56	19	37	28	47	350
17:50-17:55	1	10	3	7	81	49	8	66	15	31	25	29	325
17:55-18:00	2	18	11	9	121	31	7	63	24	30	15	28	359

Total Survey	73	285	166	199	2116	865	229	1389	411	724	492	973	7922
PHF	.6	.82	.72	.9	.98	.86	.74	.94	.88	.86	.86	.89	.972
% Trucks	1.4	2.5	1.8	.5	1.7	.9	0	3.2	6.3	1.5	.6	.9	1.9
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	23	0	0	0	0	0	0	0	0	5	0	0

Hourly Totals													
16:00-17:00	32	120	83	88	960	423	101	681	189	334	233	463	3707
16:15-17:15	37	128	94	97	1053	417	109	691	190	353	233	495	3897
16:30-17:30	30	135	90	110	1091	415	111	698	216	379	245	521	4041
16:45-17:45	36	151	84	120	1121	437	123	714	210	388	243	527	4154
17:00-18:00	41	165	83	111	1156	442	128	708	222	390	259	510	4215

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT ALLEN BOULEVARD (COMPOSITE)**

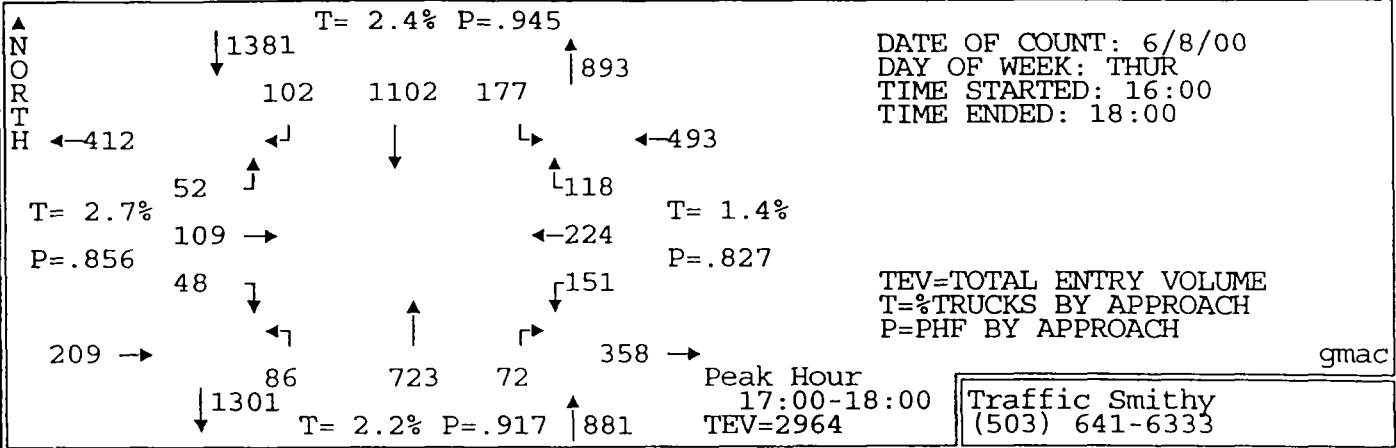


Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	10	37	26	28	293	104	34	178	50	98	61	136	1055
17:15-17:30	7	38	19	31	296	107	25	189	63	96	68	144	1083
17:30-17:45	14	40	17	29	285	129	36	156	51	98	62	126	1043
17:45-18:00	10	50	21	23	282	102	33	185	58	98	68	104	1034
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	1	0	0	1	0	0	7	2	0	0	1	12
17:15-17:30	0	0	0	0	2	0	0	3	0	1	0	0	6
17:30-17:45	0	0	1	0	4	0	0	3	2	0	0	0	10
17:45-18:00	0	0	0	0	3	0	0	1	0	2	0	2	8
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	1	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	1	2
17:15-17:30	0	0	0	0	4	0	0	2	0	0	0	0	6
17:30-17:45	0	0	0	0	1	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	4			0			0			0		4	
17:15-17:30	4			0			0			0		4	
17:30-17:45	3			0			0			0		3	
17:45-18:00	2			0			0			1		3	
Peak Hour by Movement													
PHF	.73	.82	.8	.9	.98	.86	.89	.94	.88	.99	.95	.89	.972
% Trucks (all)	0	.6	1.2	0	1.1	0	0	2	1.8	.8	0	.6	.9
% Trucks (M+H)	0	0	0	0	.3	0	0	0	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	32	120	83	88	960	423	101	681	189	334	233	463	3707
16:15-17:15	37	128	94	97	1053	417	109	691	190	353	233	495	3897
16:30-17:30	30	135	90	110	1091	415	111	698	216	379	245	521	4041
16:45-17:45	36	151	84	120	1121	437	123	714	210	388	243	527	4154
17:00-18:00	41	165	83	111	1156	442	128	708	222	390	259	510	4215

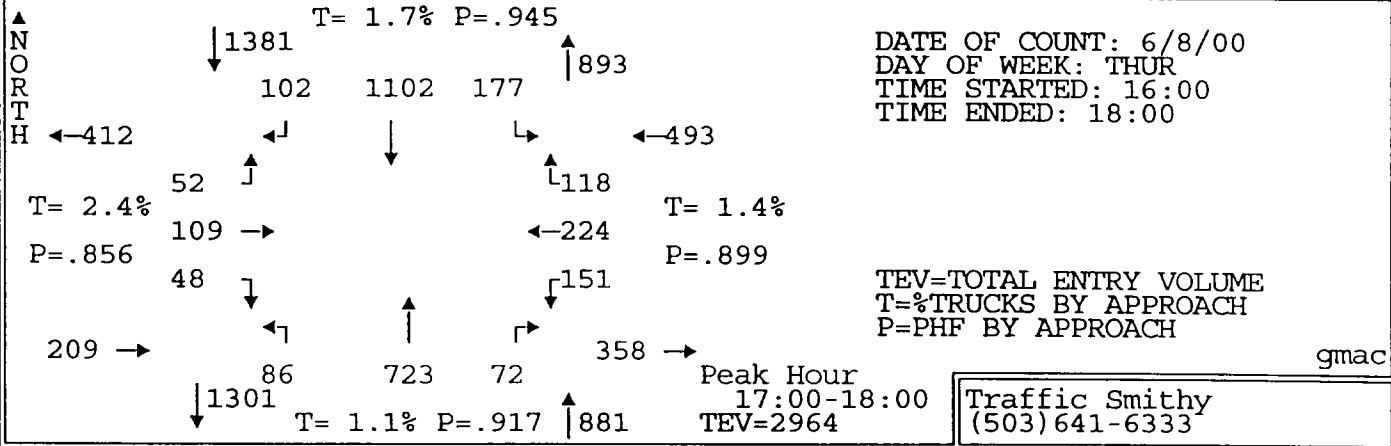
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT BROCKMAN/BEARD ROAD

23948



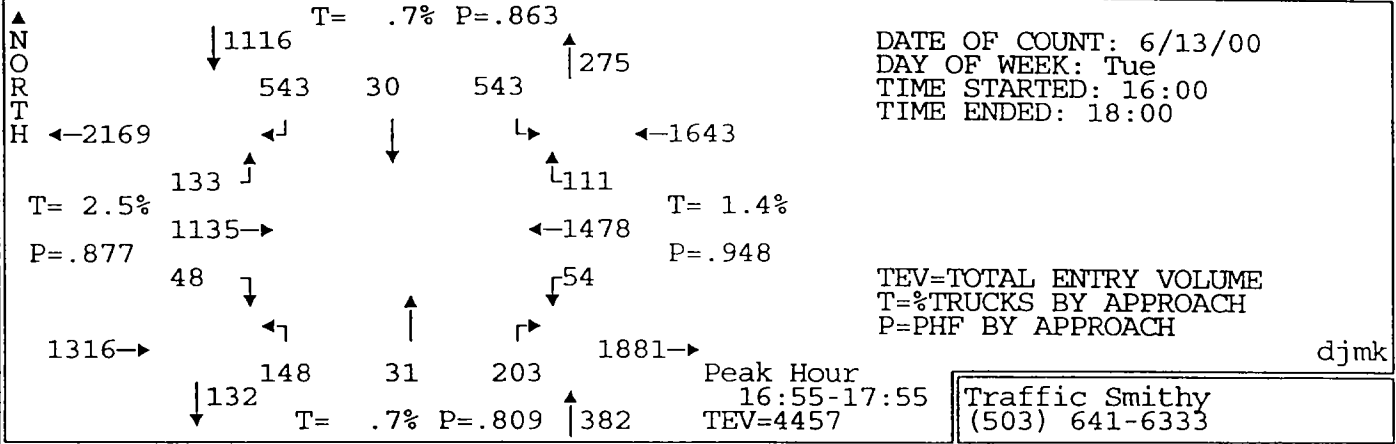
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
16:00-16:05	4	10	2	5	81	6	3	43	5	3	13	10	185
16:05-16:10	6	11	4	9	62	9	8	61	5	13	13	4	205
16:10-16:15	5	7	0	6	80	11	3	57	2	7	17	7	202
16:15-16:20	5	14	6	4	56	4	7	45	4	6	12	10	173
16:20-16:25	5	6	2	2	81	15	0	63	6	13	12	6	211
16:25-16:30	5	5	1	6	76	12	6	58	7	9	17	8	210
16:30-16:35	2	11	6	7	87	10	6	62	3	8	16	6	224
16:35-16:40	6	11	1	5	65	10	5	52	1	18	29	14	217
16:40-16:45	2	6	4	7	74	12	7	68	6	7	7	11	211
16:45-16:50	1	6	12	3	60	14	9	57	3	11	19	14	209
16:50-16:55	2	9	1	6	90	16	7	62	7	2	11	5	218
16:55-17:00	4	13	3	6	67	14	6	57	2	11	18	6	207
17:00-17:05	4	4	7	7	88	19	10	59	4	11	15	4	232
17:05-17:10	4	8	3	12	90	11	10	53	5	10	18	11	235
17:10-17:15	4	11	5	8	89	25	10	54	5	15	18	16	260
17:15-17:20	8	7	2	9	91	7	5	71	6	8	15	2	231
17:20-17:25	5	11	2	6	89	15	10	62	8	19	22	20	269
17:25-17:30	1	10	1	10	104	12	4	66	8	7	23	5	251
17:30-17:35	5	16	7	7	79	13	7	52	3	18	26	9	242
17:35-17:40	2	6	5	9	105	11	4	65	6	12	17	11	253
17:40-17:45	5	8	7	10	75	15	4	68	3	16	18	10	239
17:45-17:50	2	10	3	11	93	15	8	70	11	10	15	6	254
17:50-17:55	4	13	4	7	84	16	4	50	7	11	22	12	234
17:55-18:00	4	.5	6	6	115	18	10	53	6	14	15	12	264
Total Survey	95	218	94	168	1981	310	153	1408	123	259	408	219	5436
PHF	.71	.74	.68	.85	.94	.8	.72	.89	.75	.82	.79	.78	.972
% Trucks	1.1	2.8	4.3	1.2	2.7	1	2.6	2.1	2.4	3.9	0	.9	2.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	1	0	0	6	0	0	4	0	0	1	0	0
Hourly Totals													
16:00-17:00	47	109	42	66	879	133	67	685	51	108	184	101	2472
16:15-17:15	44	104	51	73	923	162	83	690	53	121	192	111	2607
16:30-17:30	43	107	47	86	994	165	89	723	58	127	211	114	2764
16:45-17:45	45	109	55	93	1027	172	86	726	60	140	220	113	2846
17:00-18:00	48	109	52	102	1102	177	86	723	72	151	224	118	2964

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT BROCKMAN/BEARD ROAD**



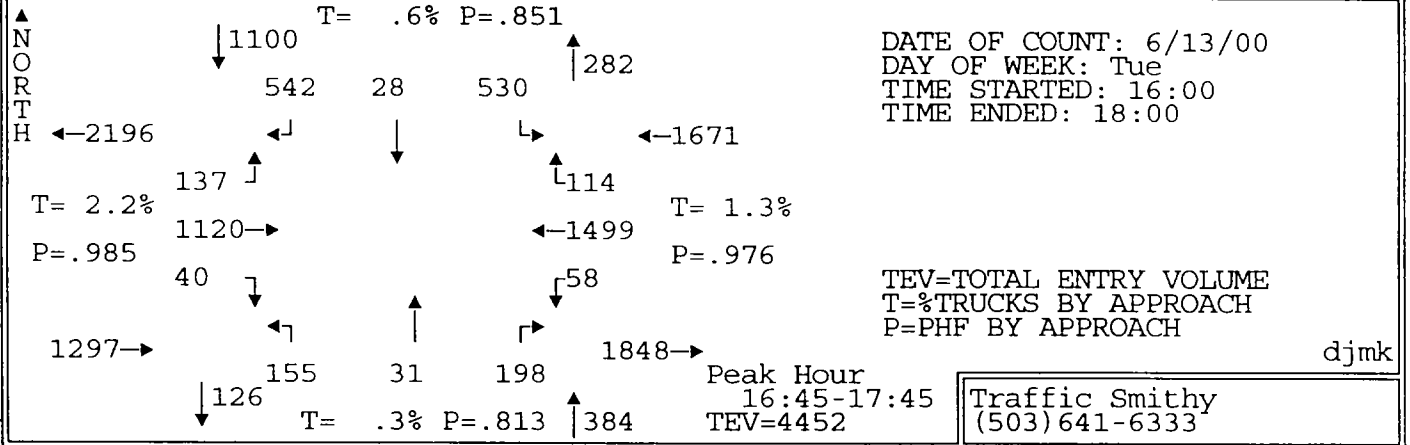
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
17:00-17:15	12	23	15	27	267	55	30	166	14	36	51	31	727
17:15-17:30	14	28	5	25	284	34	19	199	22	34	60	27	751
17:30-17:45	12	30	19	26	259	39	15	185	12	46	61	30	734
17:45-18:00	10	28	13	24	292	49	22	173	24	35	52	30	752
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	1	0	5	0	0	2	0	1	0	1	10
17:15-17:30	0	0	0	1	6	0	1	1	0	0	0	0	9
17:30-17:45	0	1	2	1	5	0	1	0	0	2	0	1	13
17:45-18:00	0	0	0	0	4	0	0	2	0	2	0	0	8
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	1	0	0	1	0	1	0	0	0	0	0	3
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	1	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	1	0	0	0	0	1
BICYCLES													
17:00-17:15	0	0	0	0	2	0	0	0	1	0	0	0	3
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	1	0	0	2	0	0	0	0	3
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	1	0	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	1	0	1	0	0	4	0	1	0	0	0	6
Peak Hour by Movement													
PHF	.86	.91	.68	.94	.94	.8	.72	.91	.75	.82	.92	.95	.985
% Trucks (all)	0	1.8	5.8	2	1.9	0	4.7	.8	0	3.3	0	1.7	1.5
% Trucks (M+H)	0	.9	0	0	.1	0	2.3	.1	0	0	0	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	47	109	42	66	879	133	67	685	51	108	184	101	2472
16:15-17:15	44	104	51	73	923	162	83	690	53	121	192	111	2607
16:30-17:30	43	107	47	86	994	165	89	723	58	127	211	114	2764
16:45-17:45	45	109	55	93	1027	172	86	726	60	140	220	113	2846
17:00-18:00	48	109	52	102	1102	177	86	723	72	151	224	118	2964

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
NIMBUS AVENUE AT SCHOLLS FERRY ROAD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	5	106	14	24	5	41	10	5	11	6	123	17	367
16:05-16:10	12	76	11	30	3	43	6	2	15	8	114	17	337
16:10-16:15	3	102	19	22	1	38	10	0	9	12	128	12	356
16:15-16:20	2	85	12	33	4	42	10	2	10	10	129	17	356
16:20-16:25	9	77	12	31	5	25	5	0	7	9	133	12	325
16:25-16:30	6	74	9	22	3	37	14	3	17	7	133	13	338
16:30-16:35	3	96	6	32	1	23	9	6	21	4	119	8	328
16:35-16:40	2	97	8	41	1	51	11	2	14	7	137	4	375
16:40-16:45	3	88	10	33	2	38	13	4	12	6	135	8	352
16:45-16:50	1	95	14	40	1	25	9	3	19	3	137	12	359
16:50-16:55	5	104	17	26	2	25	9	1	5	9	146	8	357
16:55-17:00	4	80	9	49	2	35	18	4	13	4	96	13	327
17:00-17:05	2	73	15	49	2	53	14	2	30	8	115	11	374
17:05-17:10	10	94	10	43	0	58	7	1	19	5	127	12	386
17:10-17:15	1	100	15	51	2	43	19	3	23	4	134	7	402
17:15-17:20	5	106	10	60	3	53	7	2	18	9	124	8	405
17:20-17:25	2	91	16	47	2	59	16	2	27	5	133	9	409
17:25-17:30	3	86	6	48	5	46	9	7	11	4	95	11	331
17:30-17:35	1	86	8	45	3	47	13	0	9	1	134	12	359
17:35-17:40	5	92	11	43	3	39	16	4	14	3	130	9	369
17:40-17:45	1	113	6	41	3	47	18	2	10	3	128	2	374
17:45-17:50	6	87	17	34	3	39	4	3	22	6	133	8	362
17:50-17:55	8	127	10	33	2	24	7	1	7	2	129	9	359
17:55-18:00	2	89	5	31	7	20	6	0	9	2	134	9	314
Total Survey	101	2224	270	908	65	951	260	59	352	137	3046	248	8621
PHF	.75	.87	.81	.86	.68	.86	.79	.7	.7	.75	.94	.77	.916
% Trucks	0	2.9	.4	.4	3.1	.7	.4	0	1.1	0	1.5	1.6	1.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	1	0	0
Peds	0	9	0	0	0	0	0	0	0	0	17	0	0
Hourly Totals													
16:00-17:00	55	1080	141	383	30	423	124	32	153	85	1530	141	4177
16:15-17:15	48	1063	137	450	25	455	138	31	190	76	1541	125	4279
16:30-17:30	41	1110	136	519	23	509	141	37	212	68	1498	111	4405
16:45-17:45	40	1120	137	542	28	530	155	31	198	58	1499	114	4452
17:00-18:00	46	1144	129	525	35	528	136	27	199	52	1516	107	4444

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
NIMBUS AVENUE AT SCHOLLS FERRY ROAD



TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL
	↓	→	↑	←	←	↑	→	↓	

TIME PERIOD	↓	→	↑	←	←	↑	→	↓	←	↑	ALL		
ALL VEHICLES													
16:45-17:00	10	279	40	115	5	85	36	8	37	16	379	33	1043
17:00-17:15	13	267	40	143	4	154	40	6	72	17	376	30	1162
17:15-17:30	10	283	32	155	10	158	32	11	56	18	352	28	1145
17:30-17:45	7	291	25	129	9	133	47	6	33	7	392	23	1102

TIME PERIOD	↓	→	↑	←	←	↑	→	↓	←	↑	ALL		
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:45-17:00	0	1	0	2	1	1	0	0	0	0	5	0	10
17:00-17:15	0	8	1	1	0	0	0	0	1	0	2	0	13
17:15-17:30	0	8	0	0	0	0	0	0	0	0	4	0	12
17:30-17:45	0	4	0	1	0	0	0	0	0	0	7	0	12

TIME PERIOD	↓	→	↑	←	←	↑	→	↓	←	↑	ALL		
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:45-17:00	0	1	0	0	0	0	0	0	0	1	0	0	2
17:00-17:15	0	1	0	0	0	0	0	0	0	1	0	0	2
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0

TIME PERIOD	↓	→	↑	←	←	↑	→	↓	←	↑	ALL		
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:45-17:00	0	3	0	0	0	0	0	0	0	0	1	0	4
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	1	0	0	0	0	0	0	2

TIME PERIOD	↓	→	↑	←	←	↑	→	↓	←	↑	ALL		
BICYCLES													
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	1	0	0	0	0	0	0	0	1	0	0	2
17:15-17:30	0	0	0	1	0	0	0	0	0	1	0	0	2
17:30-17:45	0	1	0	0	0	0	0	0	0	2	0	0	3

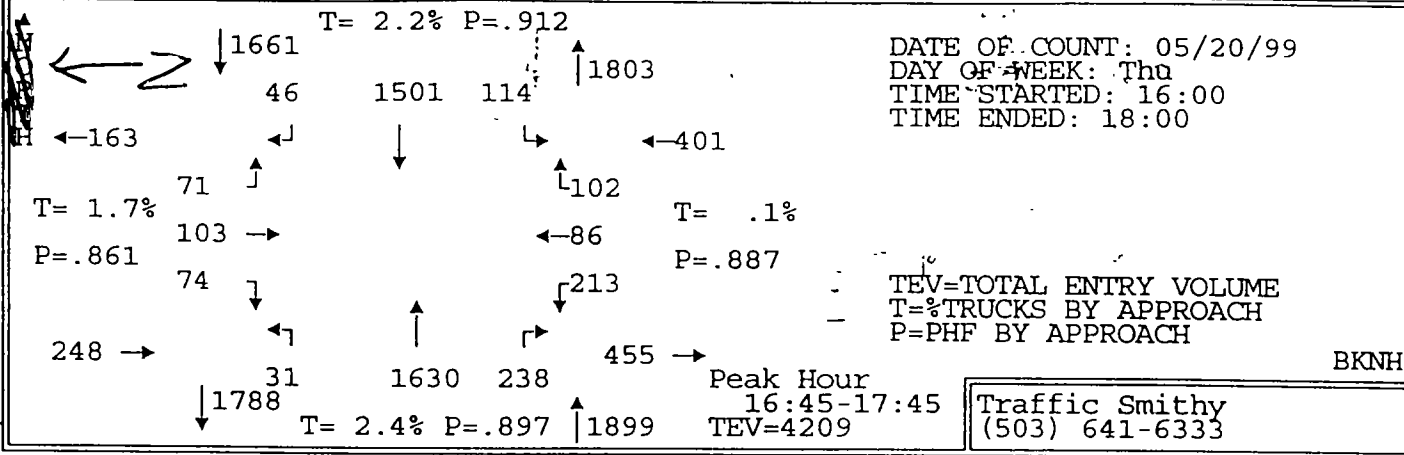
TIME PERIOD	CROSSWALK USEAGE				ALL
	SOUTH	WEST	EAST	NORTH	
16:45-17:00	0	0	0	2	2
17:00-17:15	1	0	0	5	6
17:15-17:30	0	0	0	1	1
17:30-17:45	1	0	0	5	6

Peak Hour by Movement	↓	→	↑	←	←	↑	→	↓	←	↑	ALL		
PHF	.77	.96	.86	.87	.7	.84	.82	.7	.69	.81	.96	.86	.957
% Trucks (all)	0	2.5	.7	.7	3.6	.4	0	0	.5	0	1.3	.9	1.3
% Trucks (M+H)	0	.6	0	0	0	.2	0	0	0	0	.1	.9	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	1	0	

Hourly Totals	↓	→	↑	←	←	↑	→	↓	←	↑	ALL		
16:00-17:00	55	1080	141	383	30	423	124	32	153	85	1530	141	4177
16:15-17:15	48	1063	137	450	25	455	138	31	190	76	1541	125	4279
16:30-17:30	41	1110	136	519	23	509	141	37	212	68	1498	111	4405
16:45-17:45	40	1120	137	542	28	530	155	31	198	58	1499	114	4452
17:00-18:00	46	1144	129	525	35	528	136	27	199	52	1516	107	4444

INTERSECT: TURN MOVEMENT COUNT SUMMARY REPORT
 SCHOLLS FERRY ROAD AT CASCADE AVENUE

19909



DATE OF COUNT: 05/20/99
 DAY OF WEEK: Thu
 TIME STARTED: 16:00
 TIME ENDED: 18:00

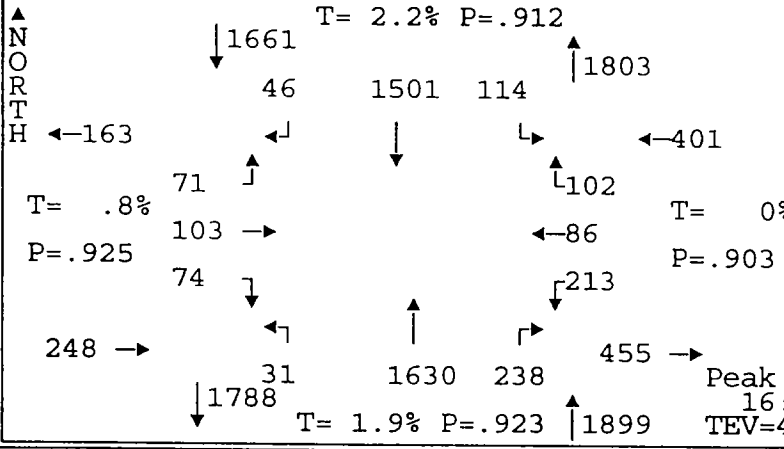
TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

BKNH

Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	5	6	4	9	134	10	3	124	23	15	2	9	344
16:05-16:10	5	18	3	6	109	11	1	153	14	14	7	7	348
16:10-16:15	7	9	3	6	124	8	1	147	11	21	9	5	351
16:15-16:20	15	6	6	2	123	11	3	128	22	19	4	7	346
16:20-16:25	9	8	4	4	123	8	4	118	10	14	5	6	313
16:25-16:30	9	3	3	4	117	12	6	125	13	17	5	10	324
16:30-16:35	4	13	5	8	124	5	2	140	15	12	1	10	339
16:35-16:40	6	9	3	5	126	8	1	134	19	11	4	8	334
16:40-16:45	5	6	3	5	115	14	4	106	18	19	7	8	310
16:45-16:50	7	12	5	6	129	8	2	137	14	11	9	14	354
16:50-16:55	4	8	3	1	142	10	5	138	14	23	5	6	359
16:55-17:00	6	5	9	4	108	10	4	123	13	15	7	6	310
17:00-17:05	8	8	2	1	105	12	2	129	29	19	8	10	333
17:05-17:10	5	6	6	2	127	7	1	148	23	20	3	9	357
17:10-17:15	7	9	9	4	105	13	2	158	22	8	8	14	359
17:15-17:20	8	11	7	4	135	7	3	149	23	26	6	10	389
17:20-17:25	7	7	7	4	119	10	4	153	15	19	8	5	358
17:25-17:30	2	10	8	3	119	11	5	124	14	21	10	6	333
17:30-17:35	8	11	7	4	142	14	2	109	24	16	11	5	353
17:35-17:40	7	11	5	9	133	4	1	132	15	24	8	12	361
17:40-17:45	5	5	3	4	137	8	0	130	32	11	3	5	343
17:45-17:50	4	13	3	3	106	12	3	143	13	8	6	14	328
17:50-17:55	10	6	4	8	144	12	1	112	20	23	3	10	353
17:55-18:00	5	4	5	6	136	4	4	108	11	19	5	11	318
Total Survey	158	204	117	112	2982	229	64	3168	427	405	144	207	8217
PHF	.84	.8	.77	.68	.91	.81	.65	.89	.8	.81	.74	.77	.951
% Trucks	1.9	2	.9	.9	2.3	.4	0	2.7	.7	.2	0	0	2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	3	0	0	2	0	0	1	0	0	0	0	0
Hourly Totals													
16:00-17:00	82	103	51	60	1474	115	36	1573	186	191	65	96	4032
16:15-17:15	85	93	58	46	1444	118	36	1584	212	188	66	108	4038
16:30-17:30	69	104	67	47	1454	115	35	1639	219	204	76	106	4135
16:45-17:45	74	103	71	46	1501	114	31	1630	238	213	86	102	4209
17:00-18:00	76	101	66	52	1508	114	28	1595	241	214	79	111	4185

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
 SCHOOLS FERRY ROAD AT CASCADE AVE



DATE OF COUNT: 05/20/99
 DAY OF WEEK: Thu
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

BKNH

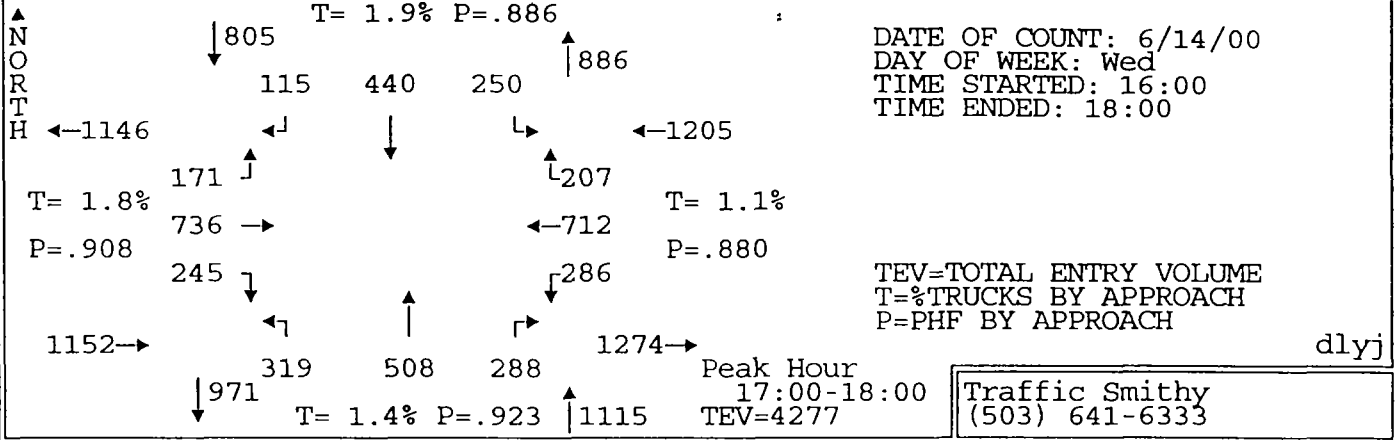
Peak Hour
 16:45-17:45
 TEV=4209

Traffic Smithy
 (503)641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	←	↑		
ALL VEHICLES													
16:45-17:00	17	25	17	11	379	28	11	398	41	49	21	26	1023
17:00-17:15	20	23	17	7	337	32	5	435	74	47	19	33	1049
17:15-17:30	17	28	22	11	373	28	12	426	52	66	24	21	1080
17:30-17:45	20	27	15	17	412	26	3	371	71	51	22	22	1057
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:45-17:00	0	0	0	0	10	0	0	10	0	0	0	0	20
17:00-17:15	1	0	0	1	5	0	0	8	0	0	0	0	15
17:15-17:30	0	0	0	0	9	1	0	8	0	0	0	0	18
17:30-17:45	0	1	0	0	4	0	0	1	0	0	0	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:45-17:00	0	0	0	0	1	0	0	0	0	0	0	0	1
17:00-17:15	0	0	0	0	2	0	0	1	0	0	0	0	3
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:45-17:00	0	0	0	0	1	0	0	4	0	0	0	0	5
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	2	0	0	0	0	2
17:30-17:45	0	0	0	0	2	0	0	1	0	0	0	0	3
BICYCLES													
16:45-17:00	0	0	0	0	1	0	0	0	0	0	1	0	2
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	1	0	0	0	0	0	0	0	1	0	0	2
17:30-17:45	0	0	0	0	1	0	0	0	0	0	0	0	1
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:45-17:00	1			0			0			0			1
17:00-17:15	0			0			0			0			0
17:15-17:30	0			0			0			0			0
17:30-17:45	0			1			0			0			1
Peak Hour by Movement													
PHF	.93	.92	.81	.68	.91	.89	.65	.94	.8	.81	.9	.77	.974
% Trucks (all)	1.4	1	0	2.2	2.3	.9	0	2.2	0	0	0	0	1.8
% Trucks (M+H)	0	0	0	0	.4	0	0	.6	0	0	0	0	.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	82	103	51	60	1474	115	36	1573	186	191	65	96	4032
16:15-17:15	85	93	58	46	1444	118	36	1584	212	188	66	108	4038
16:30-17:30	69	104	67	47	1454	115	35	1639	219	204	76	106	4135
16:45-17:45	74	103	71	46	1501	114	31	1630	238	213	86	102	4209
17:00-18:00	76	101	66	52	1508	114	28	1595	241	214	79	111	4185

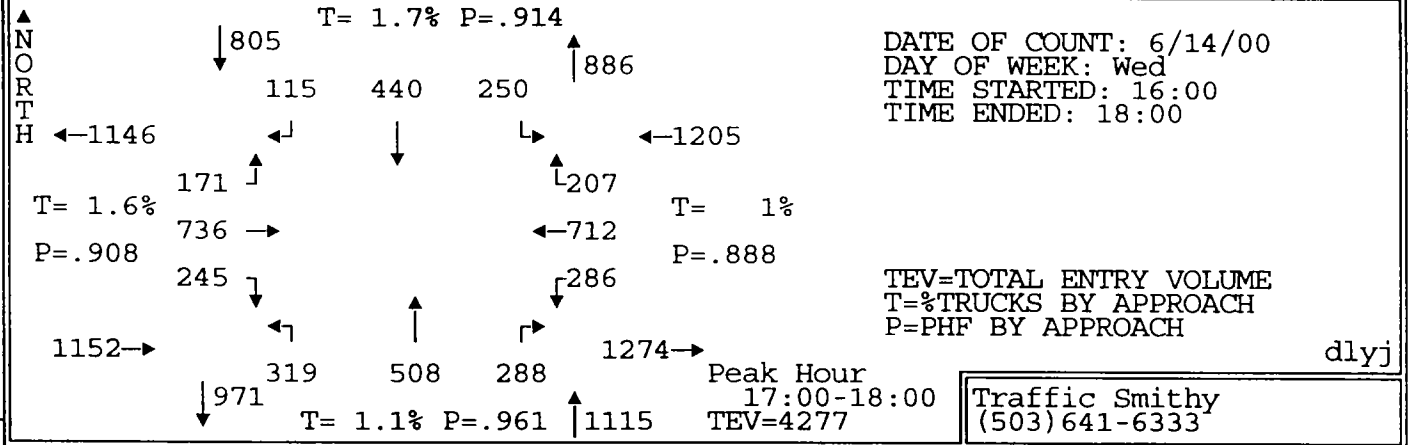
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
HALL BOULEVARD AT SCHOLLS FERRY ROAD

23931



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	17	46	17	4	43	22	21	32	24	27	50	9	312
16:05-16:10	30	70	14	9	32	13	25	29	18	18	45	14	317
16:10-16:15	24	43	16	14	29	23	28	50	23	25	46	16	337
16:15-16:20	22	70	9	10	45	16	24	32	22	16	64	14	344
16:20-16:25	31	66	15	13	52	22	19	33	18	24	44	14	351
16:25-16:30	11	40	12	11	44	24	21	44	27	19	53	21	327
16:30-16:35	24	70	3	11	33	17	20	28	15	18	56	10	305
16:35-16:40	26	56	17	6	50	17	31	38	20	28	44	14	347
16:40-16:45	15	59	16	12	51	21	19	39	26	23	45	18	344
16:45-16:50	8	70	1	8	29	15	24	30	36	30	73	17	341
16:50-16:55	20	72	15	3	34	19	32	33	23	24	50	15	340
16:55-17:00	22	58	7	10	34	16	19	30	16	17	47	16	292
17:00-17:05	21	58	13	9	21	19	30	48	22	28	78	17	364
17:05-17:10	20	73	17	4	53	21	23	25	18	29	65	13	361
17:10-17:15	13	52	19	13	42	27	28	54	27	19	67	23	384
17:15-17:20	26	63	10	12	36	17	24	47	21	33	77	16	382
17:20-17:25	25	64	17	20	39	21	29	35	32	13	44	19	358
17:25-17:30	29	67	16	10	41	24	23	47	29	7	51	13	357
17:30-17:35	22	54	9	5	26	19	28	55	24	26	57	22	347
17:35-17:40	21	74	16	8	42	16	26	43	18	26	44	15	349
17:40-17:45	17	64	13	8	29	26	24	43	29	23	59	19	354
17:45-17:50	14	31	17	5	27	25	29	38	23	32	68	20	329
17:50-17:55	16	67	10	11	49	15	31	35	24	30	57	17	362
17:55-18:00	21	69	14	10	35	20	24	38	21	20	45	13	330
Total Survey	495	1456	313	226	916	475	602	926	556	555	1329	385	8234
PHF	.77	.94	.87	.64	.84	.93	.95	.88	.85	.84	.85	.89	.948
% Trucks	3	1.6	.6	0	2.9	.6	1	2.1	.9	.5	1.6	.5	1.5
Stopped Buses	0	0	0	0	2	0	0	0	0	0	6	0	0
Peds	0	0	0	0	18	0	0	23	0	0	0	0	0
Hourly Totals													
16:00-17:00	250	720	142	111	476	225	283	418	268	269	617	178	3957
16:15-17:15	233	744	144	110	488	234	290	434	270	275	686	192	4100
16:30-17:30	249	762	151	118	463	234	302	454	285	269	697	191	4175
16:45-17:45	244	769	153	110	426	240	310	490	295	275	712	205	4229
17:00-18:00	245	736	171	115	440	250	319	508	288	286	712	207	4277

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
HALL BOULEVARD AT SCHOLLS FERRY ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	

ALL VEHICLES	54	183	49	26	116	67	81	127	67	76	210	53	1109
17:00-17:15	54	183	49	26	116	67	81	127	67	76	210	53	1109
17:15-17:30	80	194	43	42	116	62	76	129	82	53	172	48	1097
17:30-17:45	60	192	38	21	97	61	78	141	71	75	160	56	1050
17:45-18:00	51	167	41	26	111	60	84	111	68	82	170	50	1021

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	2	1	0	0	4	0	1	3	0	0	4	0	15
17:00-17:15	2	1	0	0	4	0	1	3	0	0	4	0	15
17:15-17:30	1	2	1	0	2	0	0	1	0	0	1	0	8
17:30-17:45	2	4	0	0	2	0	1	1	1	0	1	0	12
17:45-18:00	1	2	0	0	4	1	1	1	0	1	4	0	15

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	0	0	0	0	1	0	0	0	0	0	0	0	1
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	1
17:15-17:30	1	1	0	0	0	0	0	0	1	0	0	0	3
17:30-17:45	1	0	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	0	0	0	0	0	0	0	0	0	0	0	0	1
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0

BICYCLES	0	0	0	0	0	0	0	0	0	0	2	0	2
17:00-17:15	0	0	0	0	0	0	0	0	0	0	2	0	2
17:15-17:30	0	0	0	0	1	0	0	0	0	0	0	0	1
17:30-17:45	1	3	0	0	1	0	0	0	0	0	0	0	5
17:45-18:00	0	0	0	0	1	0	0	2	0	0	1	0	4

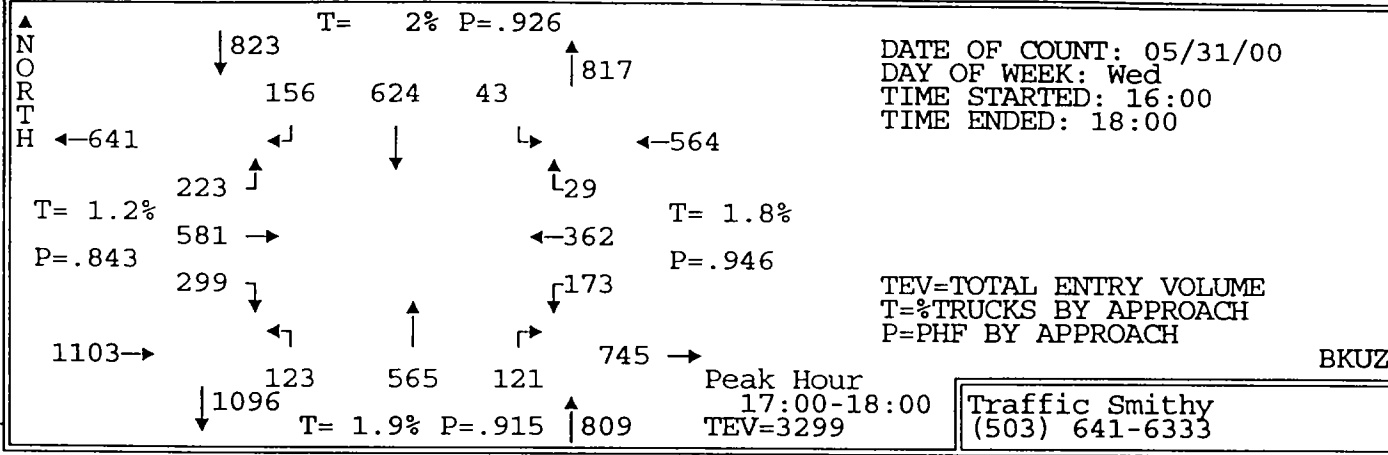
PEDESTRIANS	CROSSWALK USEAGE				ALL
	SOUTH	WEST	EAST	NORTH	
17:00-17:15	0	1	6	0	7
17:15-17:30	0	2	6	0	8
17:30-17:45	0	2	2	0	4
17:45-18:00	0	4	1	0	5

Peak Hour by Movement	.77	.95	.87	.68	.95	.93	.95	.9	.88	.87	.85	.92	.964
PHF	.77	.95	.87	.68	.95	.93	.95	.9	.88	.87	.85	.92	.964
% Trucks (all)	3.3	1.4	.6	0	3	.4	.9	1.4	.7	.3	1.4	.5	1.3
% Trucks (M+H)	.8	.1	0	0	.2	0	0	.2	.3	0	0	.5	.2
Stopped Buses	0	0	0	0	1	0	0	0	0	0	3	0	

Hourly Totals	250	720	142	111	476	225	283	418	268	269	617	178	3957
16:00-17:00	250	720	142	111	476	225	283	418	268	269	617	178	3957
16:15-17:15	233	744	144	110	488	234	290	434	270	275	686	192	4100
16:30-17:30	249	762	151	118	463	234	302	454	285	269	697	191	4175
16:45-17:45	244	769	153	110	426	240	310	490	295	275	712	205	4229
17:00-18:00	245	736	171	115	440	250	319	508	288	286	712	207	4277

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
ALLEN BOULEVARD AT SCHOLLS FERRY ROAD

27496



DATE OF COUNT: 05/31/00
DAY OF WEEK: Wed
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

BKUZ

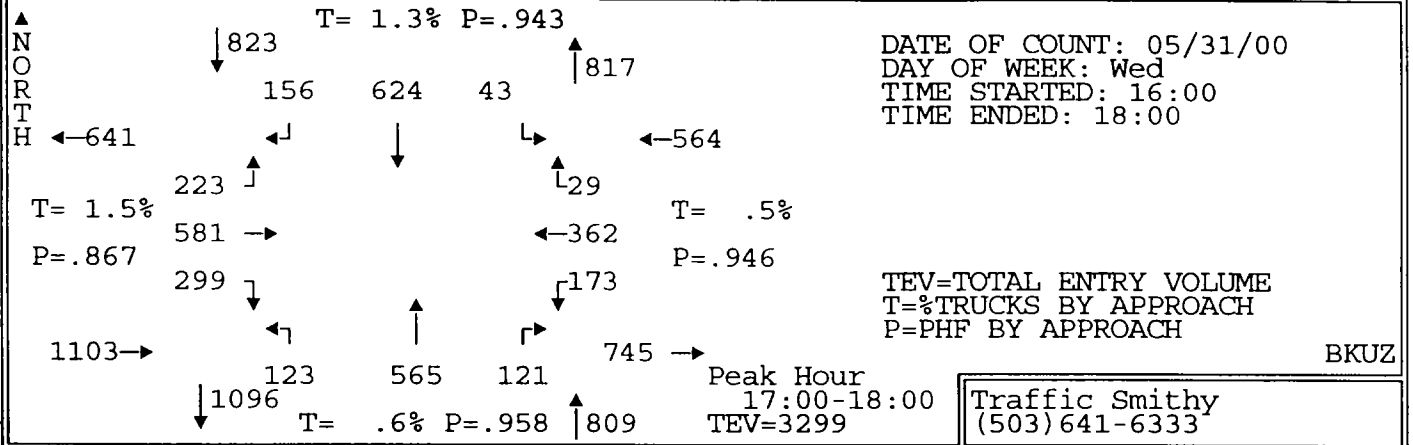
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	14	29	15	17	30	3	15	43	16	7	29	1	219
16:05-16:10	23	51	24	11	32	2	22	42	7	8	32	0	254
16:10-16:15	26	49	16	18	49	2	6	35	10	6	26	3	246
16:15-16:20	20	48	9	18	45	3	11	36	12	15	32	7	256
16:20-16:25	17	30	20	16	54	4	17	46	13	7	17	2	243
16:25-16:30	23	44	13	11	47	2	14	45	11	12	27	2	251
16:30-16:35	30	35	13	14	43	0	13	43	13	12	28	2	246
16:35-16:40	29	45	23	18	47	2	9	37	10	7	28	2	257
16:40-16:45	23	44	24	6	47	2	6	35	17	14	37	0	255
16:45-16:50	21	29	8	15	59	4	8	52	12	12	27	3	250
16:50-16:55	13	45	26	7	43	2	12	46	11	8	23	0	236
16:55-17:00	19	43	8	9	52	2	11	51	11	12	37	2	257
17:00-17:05	44	47	19	12	37	2	10	29	10	21	30	3	264
17:05-17:10	30	39	25	13	57	2	10	41	15	13	25	3	273
17:10-17:15	38	61	15	11	48	4	12	43	14	8	35	1	290
17:15-17:20	30	62	27	10	46	6	9	45	14	14	31	4	298
17:20-17:25	17	44	20	13	63	2	14	60	10	14	27	5	289
17:25-17:30	22	53	17	17	53	8	8	43	8	13	35	4	281
17:30-17:35	18	51	12	14	50	2	8	49	10	18	28	5	265
17:35-17:40	21	36	19	6	59	2	11	52	8	16	28	1	259
17:40-17:45	26	55	13	19	55	4	8	55	5	8	24	1	273
17:45-17:50	18	53	24	14	43	6	13	43	6	11	41	1	273
17:50-17:55	12	32	22	15	62	3	10	54	10	24	23	1	268
17:55-18:00	23	48	10	12	51	2	10	51	11	13	35	0	266

Total Survey	557	1073	422	316	1172	71	267	1076	264	293	705	53	6269
PHF	.67	.87	.83	.81	.94	.67	.88	.91	.7	.9	.91	.52	.940
% Trucks	1.4	1	1.4	2.5	1.9	1.4	6	1.1	1.1	.3	2.4	1.9	1.7
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	5	0	0	12	0	0	14	0	0	22	0	0

Hourly Totals													
16:00-17:00	258	492	199	160	548	28	144	511	143	120	343	24	2970
16:15-17:15	307	510	203	150	579	29	133	504	149	141	346	27	3078
16:30-17:30	316	547	225	145	595	36	122	525	145	148	363	29	3196
16:45-17:45	299	565	209	146	622	40	121	566	128	157	350	32	3235
17:00-18:00	299	581	223	156	624	43	123	565	121	173	362	29	3299

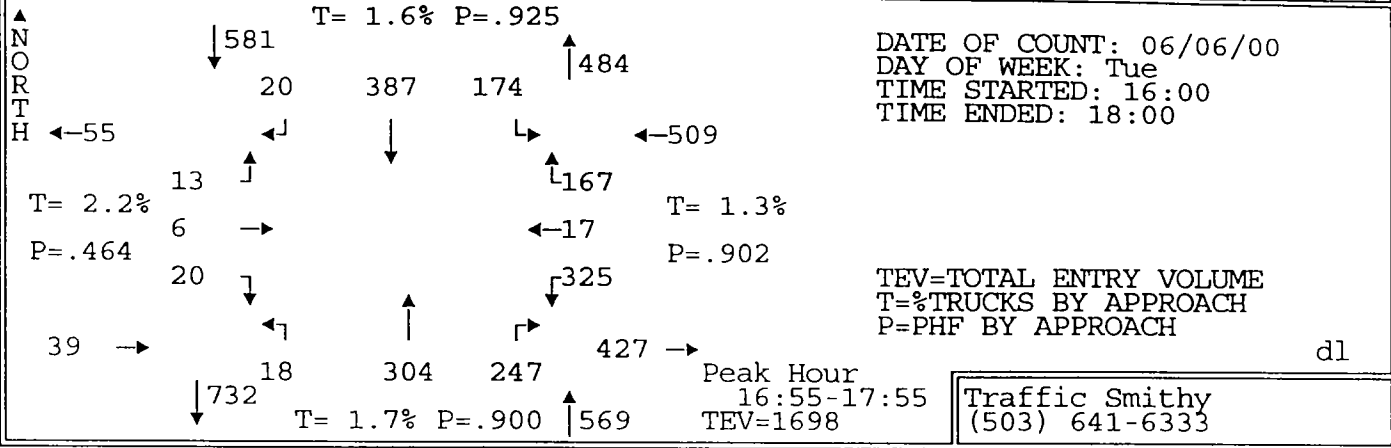
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
ALLEN BOULEVARD AT SCHOLLS FERRY ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↖	
ALL VEHICLES													
17:00-17:15	112	147	59	36	142	8	32	113	39	42	90	7	827
17:15-17:30	69	159	64	40	162	16	31	148	32	41	93	13	868
17:30-17:45	65	142	44	39	164	8	27	156	23	42	80	7	797
17:45-18:00	53	133	56	41	156	11	33	148	27	48	99	2	807
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	5	3	1	0	2	0	1	0	0	0	0	1	13
17:15-17:30	2	1	2	0	2	0	0	1	0	0	2	0	10
17:30-17:45	0	1	0	1	3	0	0	1	1	0	0	0	7
17:45-18:00	0	1	1	0	2	0	0	1	0	0	0	0	5
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	1	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	2	0	0	0	0	0	0	0	0	0	0	2
17:15-17:30	0	0	0	0	1	0	0	0	0	0	1	0	2
17:30-17:45	0	1	0	0	0	0	0	1	0	0	0	0	2
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	0	0	0	0	0	0	3	0	3	
17:15-17:30	0	0	0	0	0	0	0	0	0	1	0	1	
17:30-17:45	1	0	0	0	0	0	0	0	0	0	0	1	
17:45-18:00	1	0	0	2	0	0	1	0	0	0	0	4	
Peak Hour by Movement													
PHF	.67	.91	.87	.95	.95	.67	.93	.91	.78	.9	.91	.56	.950
% Trucks (all)	2.3	1	1.8	.6	1.6	0	.8	.5	.8	0	.6	3.4	1.1
% Trucks (M+H)	0	0	0	0	.2	0	0	0	0	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	258	492	199	160	548	28	144	511	143	120	343	24	2970
16:15-17:15	307	510	203	150	579	29	133	504	149	141	346	27	3078
16:30-17:30	316	547	225	145	595	36	122	525	145	148	363	29	3196
16:45-17:45	299	565	209	146	622	40	121	566	128	157	350	32	3235
17:00-18:00	299	581	223	156	624	43	123	565	121	173	362	29	3299

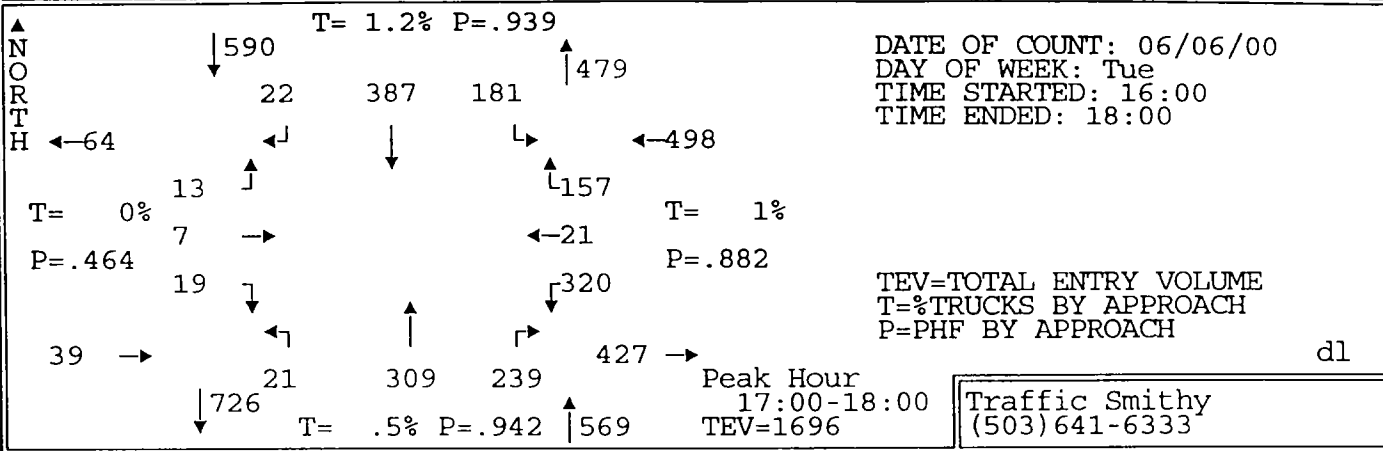
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 OLESON ROAD AT VERMONT STREET

23834



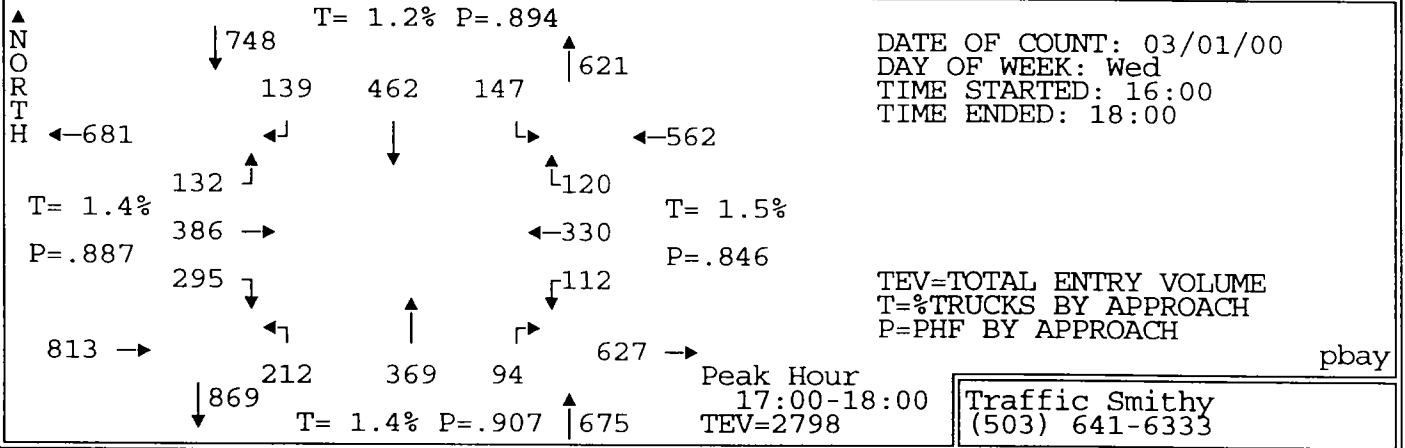
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	2	0	1	1	23	9	4	19	18	21	3	8	109
16:05-16:10	1	2	1	3	27	19	2	19	11	13	2	16	116
16:10-16:15	6	1	2	0	21	15	4	23	12	17	1	9	111
16:15-16:20	2	0	0	1	29	18	0	25	25	26	2	14	142
16:20-16:25	1	1	5	1	33	12	1	20	13	28	1	7	123
16:25-16:30	1	2	0	1	25	13	1	25	23	20	1	15	127
16:30-16:35	1	3	0	0	27	15	0	16	11	21	0	10	104
16:35-16:40	2	0	2	1	26	17	1	28	15	15	1	10	118
16:40-16:45	1	2	0	0	44	13	1	25	17	23	3	8	137
16:45-16:50	2	0	1	2	25	15	3	13	18	19	1	16	115
16:50-16:55	5	0	3	2	26	19	3	20	12	25	1	14	130
16:55-17:00	3	0	0	3	28	8	1	19	20	28	0	16	126
17:00-17:05	3	1	5	4	39	13	3	20	25	18	1	9	141
17:05-17:10	7	1	1	2	33	12	0	28	16	14	0	15	129
17:10-17:15	1	0	2	1	29	15	0	31	20	33	0	16	148
17:15-17:20	0	0	2	1	38	14	1	26	22	29	3	11	147
17:20-17:25	1	0	0	1	31	14	1	22	11	28	2	12	123
17:25-17:30	1	1	0	2	38	18	0	25	25	25	4	10	149
17:30-17:35	1	0	0	1	30	15	0	25	22	40	0	12	146
17:35-17:40	1	1	0	0	28	18	0	29	19	25	1	21	143
17:40-17:45	1	0	3	2	30	14	3	27	17	24	2	16	139
17:45-17:50	0	1	0	2	32	19	4	30	23	28	1	13	153
17:50-17:55	1	1	0	1	31	14	5	22	27	33	3	16	154
17:55-18:00	2	1	0	5	28	15	4	24	12	23	4	6	124
Total Survey	46	18	28	37	721	354	42	561	434	576	37	300	3154
PHF	.38	.75	.41	.56	.9	.85	.38	.88	.92	.87	.47	.83	.951
% Trucks	2.2	5.6	0	0	1.8	1.4	2.4	1.2	2.3	1.7	2.7	.3	1.6
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	1	0	0	4	0	0	3	0	0	6	0	0
Hourly Totals													
16:00-17:00	27	11	15	15	334	173	21	252	195	256	16	143	1458
16:15-17:15	29	10	19	18	364	170	14	270	215	270	11	150	1540
16:30-17:30	27	8	16	19	384	173	14	273	212	278	16	147	1567
16:45-17:45	26	4	17	21	375	175	15	285	227	308	15	168	1636
17:00-18:00	19	7	13	22	387	181	21	309	239	320	21	157	1696

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
OLESON ROAD AT VERMONT STREET**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↘	←	↑		
ALL VEHICLES													
17:00-17:15	11	2	8	7	101	40	3	79	61	65	1	40	418
17:15-17:30	2	1	2	4	107	46	2	73	58	82	9	33	419
17:30-17:45	3	1	3	3	88	47	3	81	58	89	3	49	428
17:45-18:00	3	3	0	8	91	48	13	76	62	84	8	35	431
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	2	0	0	0	1	1	0	0	4
17:15-17:30	0	0	0	0	1	2	0	0	0	0	0	0	3
17:30-17:45	0	0	0	0	2	0	0	0	0	0	0	0	2
17:45-18:00	0	0	0	0	0	0	0	0	1	1	0	1	3
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	1	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	1	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	1	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	1	0	0	0	0	2	0	0	0	3
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	1	0	0	0	0	0	3	0	2	0	0	0	6
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.43	.58	.41	.69	.9	.94	.4	.95	.96	.9	.58	.8	.983
% Trucks (all)	0	0	0	0	1.3	1.1	0	0	1.3	1.3	0	0	.9
% Trucks (M+H)	0	0	0	0	0	0	0	0	.4	.6	0	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	27	11	15	15	334	173	21	252	195	256	16	143	1458
16:15-17:15	29	10	19	18	364	170	14	270	215	270	11	150	1540
16:30-17:30	27	8	16	19	384	173	14	273	212	278	16	147	1567
16:45-17:45	26	4	17	21	375	175	15	285	227	308	15	168	1636
17:00-18:00	19	7	13	22	387	181	21	309	239	320	21	157	1696

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
OELSON ROAD AT GARDEN HOME ROAD

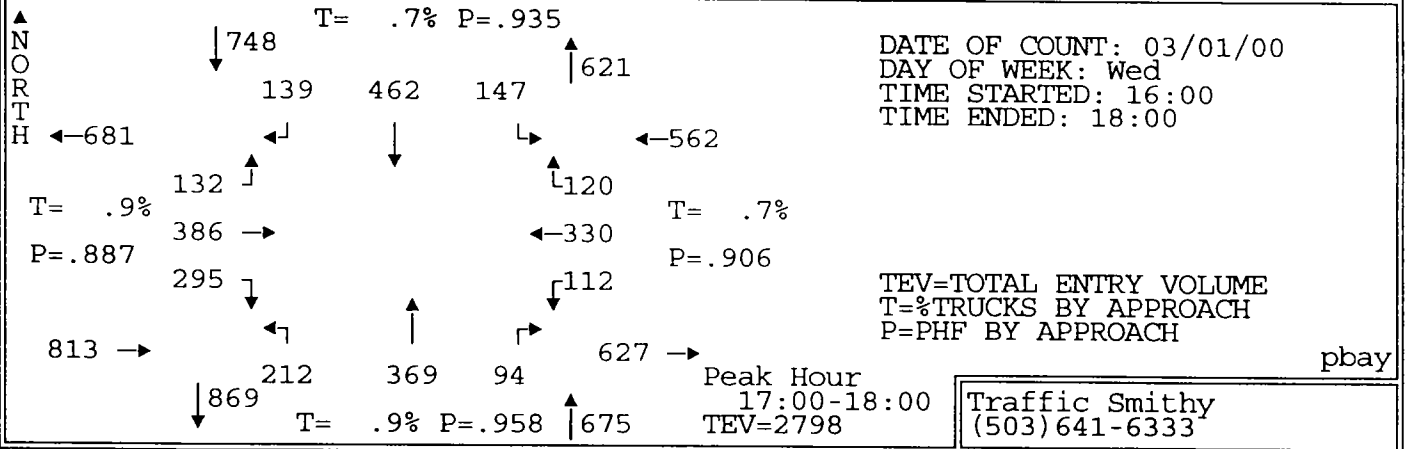


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	20	23	1	13	20	15	12	15	10	3	16	3	151
16:05-16:10	22	16	2	11	31	12	17	22	2	6	19	10	170
16:10-16:15	16	27	9	7	28	7	11	28	0	9	14	7	163
16:15-16:20	24	24	8	8	36	9	17	20	5	2	26	11	190
16:20-16:25	18	28	10	10	29	11	23	26	4	7	19	16	201
16:25-16:30	19	23	6	13	46	13	25	35	3	5	19	14	221
16:30-16:35	18	23	6	7	19	11	18	26	4	7	24	17	180
16:35-16:40	10	17	8	12	38	11	12	23	5	11	27	8	182
16:40-16:45	30	36	4	8	38	12	16	21	11	8	26	9	219
16:45-16:50	20	28	11	5	29	15	14	27	4	10	25	10	198
16:50-16:55	22	23	12	12	29	11	20	23	10	9	29	10	210
16:55-17:00	22	14	6	13	34	10	14	34	8	10	31	11	207
17:00-17:05	22	37	10	8	27	11	12	29	5	11	21	7	200
17:05-17:10	30	31	11	16	24	7	21	36	5	6	20	11	218
17:10-17:15	24	35	15	19	41	14	13	27	8	6	19	7	228
17:15-17:20	23	28	10	10	43	14	10	34	3	4	31	9	219
17:20-17:25	24	25	8	14	45	9	19	33	7	14	30	15	243
17:25-17:30	24	31	12	10	46	9	18	35	12	5	33	14	249
17:30-17:35	25	37	10	12	40	11	22	35	5	9	37	9	252
17:35-17:40	24	17	7	12	34	11	26	21	4	10	30	11	207
17:40-17:45	19	35	10	17	32	16	23	33	7	12	22	5	231
17:45-17:50	31	35	13	10	46	19	14	26	11	14	35	5	259
17:50-17:55	21	40	11	7	42	12	11	33	13	11	28	15	244
17:55-18:00	28	35	15	4	42	14	23	27	14	10	24	12	248

Total Survey	536	668	215	258	839	284	411	669	160	199	605	246	5090
PHF	.92	.88	.85	.77	.86	.78	.75	.9	.62	.76	.82	.79	.931
% Trucks	1.7	.6	3.3	1.6	1	1.4	1.9	1	1.3	.5	1.8	1.6	1.4
Stopped Buses	0	3	0	0	0	0	0	0	0	0	0	0	0
Peds	0	7	0	0	12	0	0	24	0	0	13	0	0

Hourly Totals	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	ALL
16:00-17:00	241	282	83	119	377	137	199	300	66	87	275	126	2292
16:15-17:15	259	319	107	131	390	135	205	327	72	92	286	131	2454
16:30-17:30	269	328	113	134	413	134	187	348	82	101	316	128	2553
16:45-17:45	279	341	122	148	424	138	212	367	78	106	328	119	2662
17:00-18:00	295	386	132	139	462	147	212	369	94	112	330	120	2798

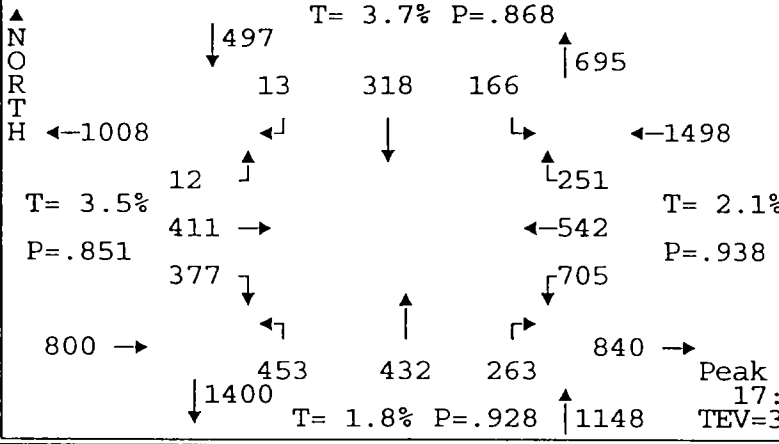
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
OELSON ROAD AT GARDEN HOME ROAD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↘	↙	↓	←	
ALL VEHICLES													
17:00-17:15	76	103	36	43	92	32	46	92	18	23	60	25	646
17:15-17:30	71	84	30	34	134	32	47	102	22	23	94	38	711
17:30-17:45	68	89	27	41	106	38	71	89	16	31	89	25	690
17:45-18:00	80	110	39	21	130	45	48	86	38	35	87	32	751
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	2	0	2	0	1	0	0	0	1	0	6
17:15-17:30	2	0	0	1	0	0	1	0	0	0	1	0	5
17:30-17:45	1	0	0	1	0	0	1	0	1	1	0	0	5
17:45-18:00	1	1	0	0	0	0	1	0	1	0	0	0	4
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	1	0	0	0	0	0	1	0	2
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	1	0	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	2	0	0	0	0	0	0	0	2
17:45-18:00	0	0	0	1	0	0	0	0	0	0	0	0	1
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	3			5			1			3		12	
17:15-17:30	0			2			8			2		12	
17:30-17:45	0			0			1			0		1	
17:45-18:00	0			3			3			3		9	
Peak Hour by Movement													
PHF	.92	.88	.85	.81	.86	.82	.75	.9	.62	.8	.88	.79	.931
% Trucks (all)	1.4	.3	1.5	1.4	.6	0	1.9	0	2.1	.9	.9	0	.8
% Trucks (M+H)	0	0	0	0	.2	0	0	0	0	0	.3	0	.1
Stopped Buses	0	1	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	241	282	83	119	377	137	199	300	66	87	275	126	2292
16:15-17:15	259	319	107	131	390	135	205	327	72	92	286	131	2454
16:30-17:30	269	328	113	134	413	134	187	348	82	101	316	128	2553
16:45-17:45	279	341	122	148	424	138	212	367	78	106	328	119	2662
17:00-18:00	295	386	132	139	462	147	212	369	94	112	330	120	2798

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CEDAR HILLS BOULEVARD AT BARNES ROAD

24002



DATE OF COUNT: 6/21/00
DAY OF WEEK: Wed
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Peak Hour
17:00-18:00
TEV=3943

Traffic Smithy
(503) 641-6333

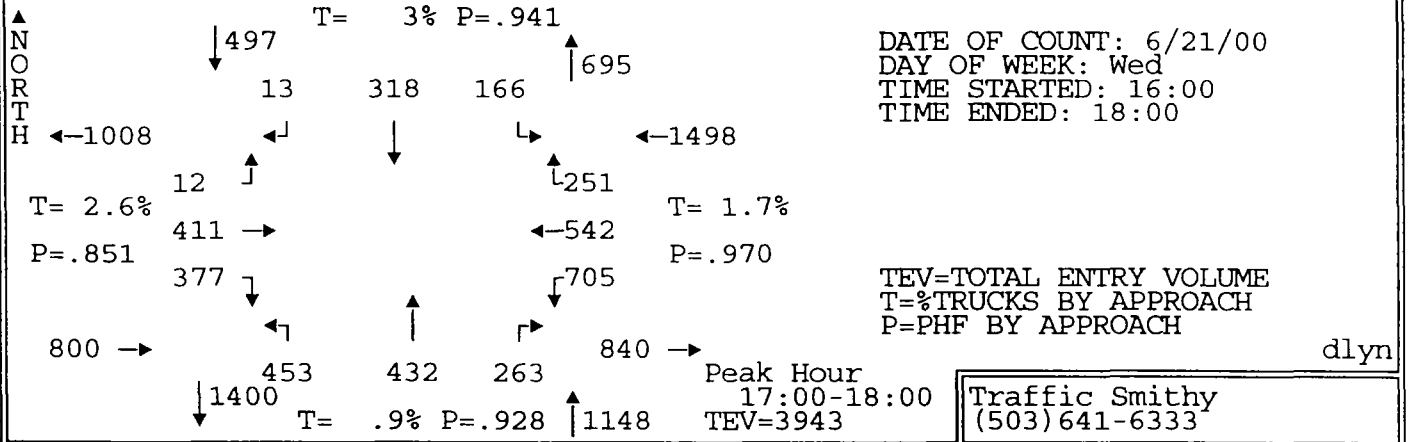
dlyn

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	21	26	0	0	21	11	32	21	8	44	25	12	221
16:05-16:10	31	24	1	2	19	9	46	35	24	48	28	17	284
16:10-16:15	27	28	1	0	18	10	33	39	23	47	29	16	271
16:15-16:20	29	21	1	0	20	13	28	27	21	46	50	28	284
16:20-16:25	15	16	0	1	24	7	39	18	17	56	32	15	240
16:25-16:30	9	11	0	0	20	12	47	43	26	44	35	12	259
16:30-16:35	37	32	1	3	27	11	23	25	24	59	35	10	287
16:35-16:40	38	34	0	1	19	15	34	34	22	72	43	17	329
16:40-16:45	42	31	1	0	15	17	23	23	32	43	47	20	294
16:45-16:50	26	27	3	1	35	11	15	29	21	51	39	14	272
16:50-16:55	16	35	0	1	28	19	48	25	18	39	33	18	280
16:55-17:00	24	32	1	3	19	11	20	31	26	43	34	15	259
17:00-17:05	38	33	0	0	32	17	37	33	17	57	28	12	304
17:05-17:10	22	33	1	0	22	14	42	35	19	67	49	19	323
17:10-17:15	28	37	2	0	27	19	27	28	33	63	43	17	324
17:15-17:20	28	30	0	0	27	11	49	47	21	58	45	23	339
17:20-17:25	27	34	4	4	34	21	39	33	27	60	42	26	351
17:25-17:30	27	38	0	0	24	11	30	33	18	56	40	24	301
17:30-17:35	38	38	1	4	23	13	45	39	28	52	57	17	355
17:35-17:40	34	38	1	0	20	14	39	40	21	60	52	23	342
17:40-17:45	44	39	2	1	16	13	44	28	25	58	38	26	334
17:45-17:50	37	32	0	0	29	11	42	40	24	63	55	24	357
17:50-17:55	31	33	1	1	27	5	30	37	18	61	51	19	314
17:55-18:00	23	26	0	3	37	17	29	39	12	50	42	21	299

Total Survey	692	728	21	25	583	312	841	782	525	1297	972	445	7223
PHF	.81	.89	.5	.41	.85	.81	.88	.93	.81	.94	.91	.86	.954
% Trucks	2.2	4.7	4.8	8	2.7	5.1	1.5	2.4	1.3	1	2.7	4.3	2.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	1	0	0	0	0	0	1	0	0	2	0	0

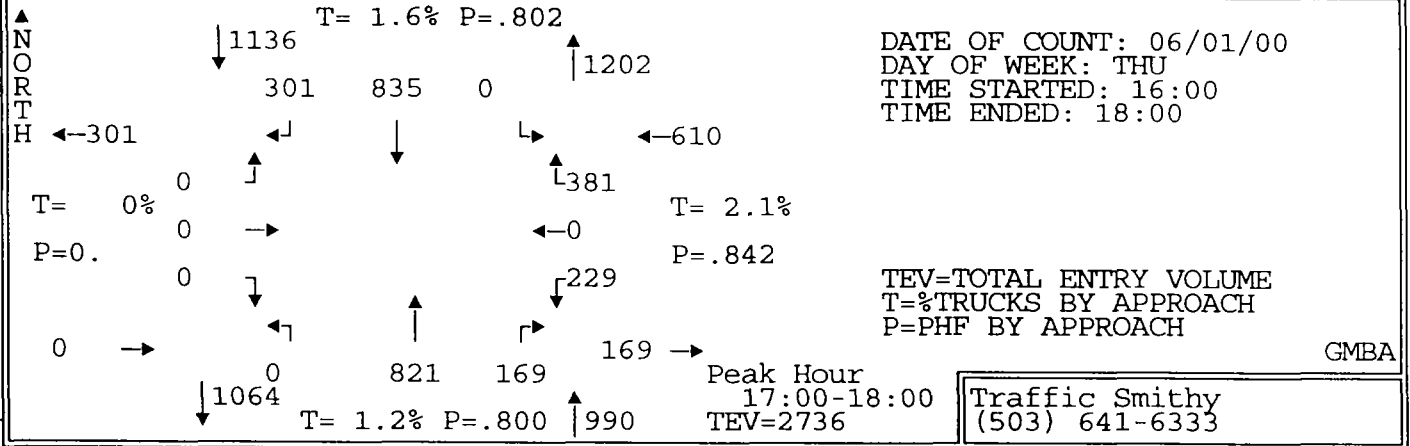
Hourly Totals													
16:00-17:00	315	317	9	12	265	146	388	350	262	592	430	194	3280
16:15-17:15	324	342	10	10	288	166	383	351	276	640	468	197	3455
16:30-17:30	353	396	13	13	309	177	387	376	278	668	478	215	3663
16:45-17:45	352	414	15	14	307	174	435	401	274	664	500	234	3784
17:00-18:00	377	411	12	13	318	166	453	432	263	705	542	251	3943

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CEDAR HILLS BOULEVARD AT BARNES ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	88	103	3	0	81	50	106	96	69	187	120	48	951
17:15-17:30	82	102	4	4	85	43	118	113	66	174	127	73	991
17:30-17:45	116	115	4	5	59	40	128	107	74	170	147	66	1031
17:45-18:00	91	91	1	4	93	33	101	116	54	174	148	64	970
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	4	0	0	0	3	1	1	1	1	2	1	15
17:15-17:30	2	1	0	0	4	2	1	1	0	1	4	3	19
17:30-17:45	1	6	0	0	1	2	1	1	0	4	1	4	21
17:45-18:00	1	3	0	0	1	1	0	0	1	0	1	2	10
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	1	0	2
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	1	0	1	0	0	0	0	3
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	3	0	0	0	0	3
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	1	0	0	0	0	0	4	0	0	1	0	6
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour by Movement													
PHF	.81	.89	.75	.65	.85	.83	.88	.93	.89	.94	.92	.86	.956
% Trucks (all)	1.3	3.9	0	0	1.9	5.4	.7	1.2	.8	.9	1.7	4	1.8
% Trucks (M+H)	0	.5	0	0	0	.6	0	.5	0	0	.2	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	315	317	9	12	265	146	388	350	262	592	430	194	3280
16:15-17:15	324	342	10	10	288	166	383	351	276	640	468	197	3455
16:30-17:30	353	396	13	13	309	177	387	376	278	668	478	215	3663
16:45-17:45	352	414	15	14	307	174	435	401	274	664	500	234	3784
17:00-18:00	377	411	12	13	318	166	453	432	263	705	542	251	3943

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CEDAR HILLS BOULEVARD AT HIGHWAY 26 WESTBOUND RAMPS

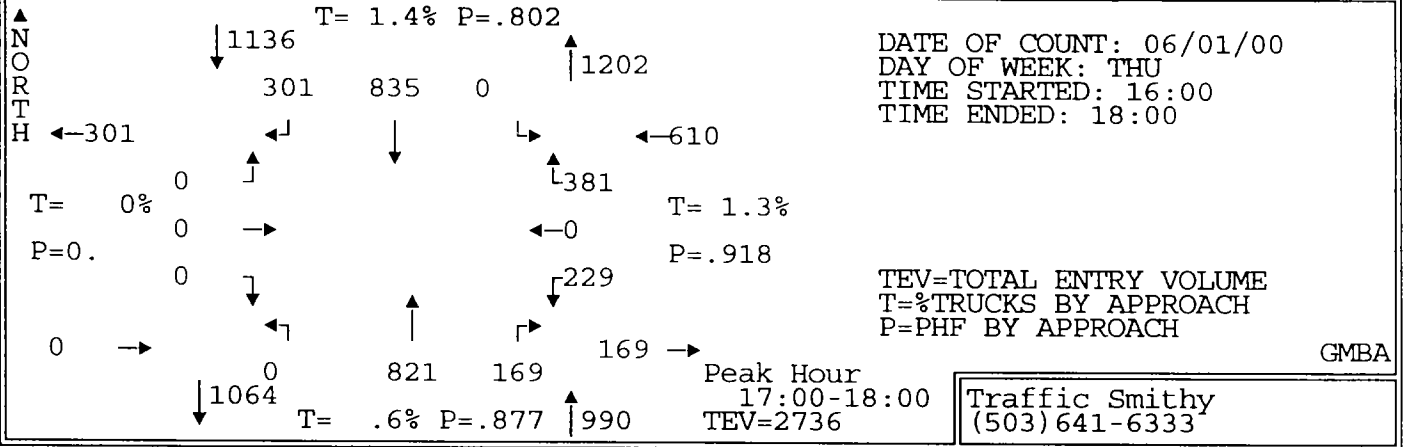


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	0	0	0	27	64	0	0	46	13	17	0	19	186
16:05-16:10	0	0	0	24	59	0	0	49	22	17	0	24	195
16:10-16:15	0	0	0	32	66	0	0	41	13	10	0	26	188
16:15-16:20	0	0	0	21	64	0	0	39	9	13	0	26	172
16:20-16:25	0	0	0	23	58	0	0	50	13	14	0	22	180
16:25-16:30	0	0	0	30	56	0	0	45	7	11	0	24	173
16:30-16:35	0	0	0	20	63	0	0	39	6	15	0	34	177
16:35-16:40	0	0	0	30	66	0	0	52	11	14	0	44	217
16:40-16:45	0	0	0	24	62	0	0	51	10	13	0	23	183
16:45-16:50	0	0	0	39	72	0	0	31	20	13	0	31	206
16:50-16:55	0	0	0	36	72	0	0	38	16	21	0	39	222
16:55-17:00	0	0	0	23	81	0	0	47	12	15	0	25	203
17:00-17:05	0	0	0	28	82	0	0	67	17	19	0	21	234
17:05-17:10	0	0	0	30	99	0	0	51	12	13	0	28	233
17:10-17:15	0	0	0	31	84	0	0	46	22	21	0	44	248
17:15-17:20	0	0	0	23	80	0	0	66	18	16	0	36	239
17:20-17:25	0	0	0	20	67	0	0	63	11	20	0	44	225
17:25-17:30	0	0	0	20	71	0	0	72	15	21	0	29	228
17:30-17:35	0	0	0	17	56	0	0	66	6	22	0	25	192
17:35-17:40	0	0	0	29	56	0	0	92	18	19	0	35	249
17:40-17:45	0	0	0	24	58	0	0	90	10	22	0	18	222
17:45-17:50	0	0	0	29	61	0	0	84	15	19	0	24	232
17:50-17:55	0	0	0	22	60	0	0	59	15	22	0	45	223
17:55-18:00	0	0	0	28	61	0	0	65	10	15	0	32	211

Total Survey	0	0	0	630	1618	0	0	1349	321	402	0	718	5038
PHF	0	0	0	.85	.79	0	0	.77	.81	.91	0	.77	.95
% Trucks	0	0	0	1.1	1.9	0	0	1	1.9	1	0	2.6	1.6
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	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	ALL
16:00-17:00	0	0	0	329	783	0	0	528	152	173	0	337	2302
16:15-17:15	0	0	0	335	859	0	0	556	155	182	0	361	2448
16:30-17:30	0	0	0	324	899	0	0	623	170	201	0	398	2615
16:45-17:45	0	0	0	320	878	0	0	729	177	222	0	375	2701
17:00-18:00	0	0	0	301	835	0	0	821	169	229	0	381	2736

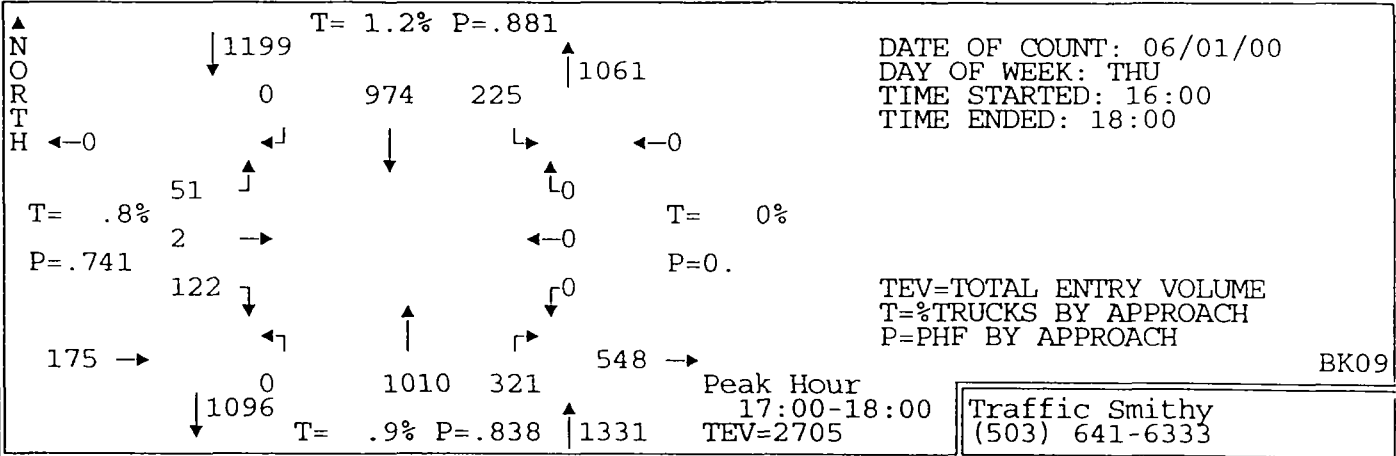
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CEDAR HILLS BOULEVARD AT HIGHWAY 26 WESTBOUND RAMP**



GMBA

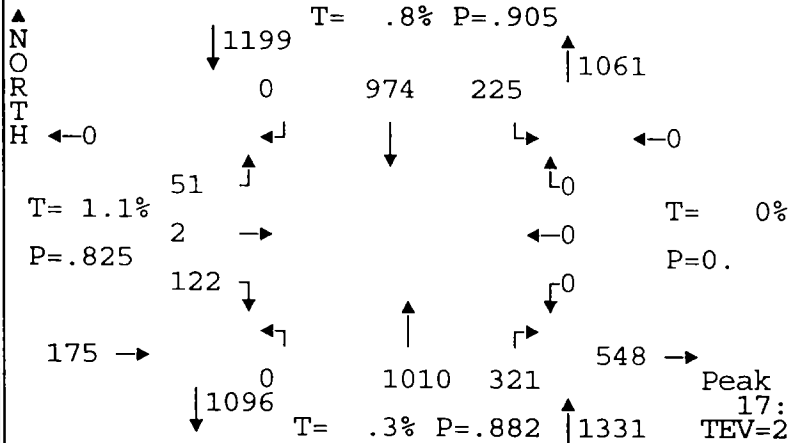
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL	
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↗			
ALL VEHICLES														
17:00-17:15	0	0	0	89	265	0	0	0	164	51	53	0	93	715
17:15-17:30	0	0	0	63	218	0	0	0	201	44	57	0	109	692
17:30-17:45	0	0	0	70	170	0	0	0	248	34	63	0	78	663
17:45-18:00	0	0	0	79	182	0	0	0	208	40	56	0	101	666
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)														
17:00-17:15	0	0	0	1	3	0	0	0	0	0	0	0	1	5
17:15-17:30	0	0	0	0	4	0	0	0	3	0	2	0	1	10
17:30-17:45	0	0	0	0	3	0	0	0	2	0	0	0	2	7
17:45-18:00	0	0	0	1	2	0	0	0	1	0	0	0	2	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)														
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)														
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	1	0	0	0	0	0	0	0	0	0	1
BICYCLES														
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL		
	SOUTH			WEST			EAST			NORTH				
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour by Movement														
PHF	0	0	0	.85	.79	0	0	0	.83	.83	.91	0	.87	.956
% Trucks (all)	0	0	0	1	1.6	0	0	0	.7	0	.9	0	1.6	1.1
% Trucks (M+H)	0	0	0	.3	.1	0	0	0	0	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals														
16:00-17:00	0	0	0	329	783	0	0	0	528	152	173	0	337	2302
16:15-17:15	0	0	0	335	859	0	0	0	556	155	182	0	361	2448
16:30-17:30	0	0	0	324	899	0	0	0	623	170	201	0	398	2615
16:45-17:45	0	0	0	320	878	0	0	0	729	177	222	0	375	2701
17:00-18:00	0	0	0	301	835	0	0	0	821	169	229	0	381	2736

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CEDAR HILLS BOULEVARD AT HIGHWAY 26 EB RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	18	0	9	0	59	19	0	70	21	0	0	0	196
16:05-16:10	15	0	3	0	53	24	0	66	29	0	0	0	190
16:10-16:15	14	0	4	0	62	19	0	53	19	0	0	0	171
16:15-16:20	12	0	2	0	70	9	0	52	30	0	0	0	175
16:20-16:25	12	0	3	0	57	19	0	60	26	0	0	0	177
16:25-16:30	11	0	6	0	51	27	0	59	26	0	0	0	180
16:30-16:35	11	0	3	0	62	21	0	43	20	0	0	0	160
16:35-16:40	10	1	3	0	59	20	0	66	18	0	0	0	177
16:40-16:45	10	0	4	0	59	24	0	59	23	0	0	0	179
16:45-16:50	10	0	4	0	61	29	1	50	25	0	0	0	180
16:50-16:55	6	0	3	0	76	19	0	51	25	0	0	0	180
16:55-17:00	6	0	5	0	74	23	0	60	25	0	0	0	193
17:00-17:05	10	0	5	0	82	16	0	82	27	0	0	0	222
17:05-17:10	9	0	5	0	99	20	0	70	29	0	0	0	232
17:10-17:15	19	0	5	0	88	26	0	75	29	0	0	0	242
17:15-17:20	17	0	4	0	88	19	0	74	28	0	0	0	230
17:20-17:25	4	0	4	0	88	16	0	89	19	0	0	0	220
17:25-17:30	10	0	2	0	88	15	0	91	35	0	0	0	241
17:30-17:35	15	0	1	0	83	15	0	90	38	0	0	0	242
17:35-17:40	5	0	2	0	59	24	0	119	24	0	0	0	233
17:40-17:45	8	0	3	0	86	16	0	80	26	0	0	0	219
17:45-17:50	10	0	10	0	80	17	0	87	24	0	0	0	228
17:50-17:55	4	0	3	0	76	16	0	73	24	0	0	0	196
17:55-18:00	11	2	7	0	57	25	0	80	18	0	0	0	200
Total Survey	257	3	100	0	1717	478	1	1699	608	0	0	0	4863
PHF	.68	.25	.64	0	.89	.87	0	.84	.83	0	0	0	.944
% Trucks	.8	33.3	0	0	.9	2.1	0	1	.5	0	0	0	1
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	135	1	49	0	743	253	1	689	287	0	0	0	2158
16:15-17:15	126	1	48	0	838	253	1	727	303	0	0	0	2297
16:30-17:30	122	1	47	0	924	248	1	810	303	0	0	0	2456
16:45-17:45	119	0	43	0	972	238	1	931	330	0	0	0	2634
17:00-18:00	122	2	51	0	974	225	0	1010	321	0	0	0	2705

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CEDAR HILLS BOULEVARD AT HIGHWAY 26 EB RAMP**



DATE OF COUNT: 06/01/00
DAY OF WEEK: THU
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

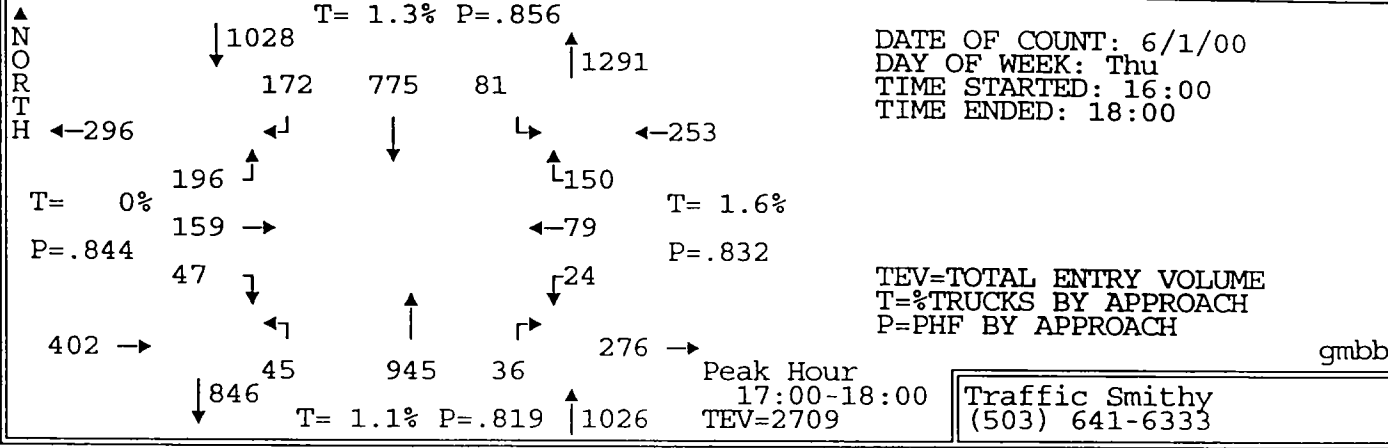
BK09

Peak Hour
17:00-18:00
TEV=2705

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	38	0	15	0	269	62	0	227	85	0	0	0	696
17:15-17:30	31	0	10	0	264	50	0	254	82	0	0	0	691
17:30-17:45	28	0	6	0	228	55	0	289	88	0	0	0	694
17:45-18:00	25	2	20	0	213	58	0	240	66	0	0	0	624
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	1	1	0	1	0	0	0	0	3
17:15-17:30	0	0	0	0	2	1	0	1	0	0	0	0	4
17:30-17:45	0	0	0	0	1	0	0	1	0	0	0	0	2
17:45-18:00	0	1	0	0	1	1	0	1	0	0	0	0	4
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	1	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	1	0	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS -----CROSSWALK USEAGE-----													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.8	.25	.64	0	.91	.91	0	.87	.91	0	0	0	.971
% Trucks (all)	.8	50	0	0	.5	1.8	0	.4	0	0	0	0	.6
% Trucks (M+H)	.8	0	0	0	0	.4	0	0	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	135	1	49	0	743	253	1	689	287	0	0	0	2158
16:15-17:15	126	1	48	0	838	253	1	727	303	0	0	0	2297
16:30-17:30	122	1	47	0	924	248	1	810	303	0	0	0	2456
16:45-17:45	119	0	43	0	972	238	1	931	330	0	0	0	2634
17:00-18:00	122	2	51	0	974	225	0	1010	321	0	0	0	2705

**INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CEDAR HILLS BOULEVARD AT BUTNER ROAD**

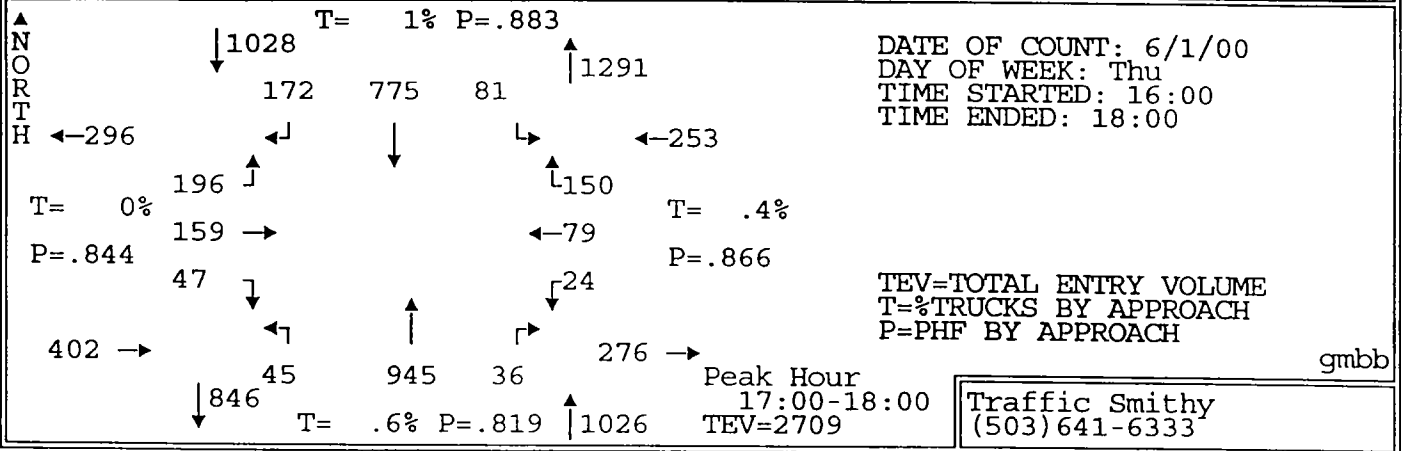


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	3	7	9	6	43	6	1	64	0	2	5	7	153
16:05-16:10	2	4	12	13	41	5	2	57	2	5	2	12	157
16:10-16:15	2	8	4	7	57	13	0	68	2	2	4	7	174
16:15-16:20	3	13	9	10	57	8	3	64	2	2	5	7	183
16:20-16:25	1	7	11	13	46	11	3	62	1	3	2	14	174
16:25-16:30	2	8	8	7	47	6	2	62	2	1	7	7	159
16:30-16:35	3	6	12	11	51	10	1	43	3	1	2	7	150
16:35-16:40	5	6	12	8	46	10	0	60	1	1	4	7	160
16:40-16:45	2	5	16	6	50	7	6	58	1	0	8	8	167
16:45-16:50	0	12	11	12	41	5	6	52	2	1	8	10	160
16:50-16:55	4	4	4	18	63	3	1	69	2	1	4	7	180
16:55-17:00	4	10	10	10	63	3	3	68	2	2	6	7	188
17:00-17:05	6	10	11	9	70	2	4	69	2	5	14	18	220
17:05-17:10	4	11	20	14	82	8	3	70	2	1	5	8	228
17:10-17:15	3	19	16	13	84	9	4	80	4	3	3	16	254
17:15-17:20	5	13	15	11	70	9	5	66	0	0	2	11	207
17:20-17:25	5	15	23	15	68	7	1	95	3	1	8	11	252
17:25-17:30	2	13	14	15	74	8	5	73	3	1	9	23	240
17:30-17:35	4	8	15	12	63	12	6	104	6	3	8	12	253
17:35-17:40	2	12	12	10	42	5	5	99	4	1	10	8	210
17:40-17:45	3	10	12	14	65	6	2	86	1	3	8	8	218
17:45-17:50	5	24	26	22	57	8	1	63	6	1	6	13	232
17:50-17:55	4	14	18	22	50	4	4	65	3	4	4	12	204
17:55-18:00	4	10	14	15	50	3	5	75	2	1	2	10	191

Total Survey	78	249	314	293	1380	168	73	1672	56	45	136	250	4714
PHF	.9	.83	.84	.73	.82	.75	.7	.82	.69	.67	.73	.82	.909
% Trucks	0	0	0	.7	1.4	1.8	1.4	1.1	1.8	4.4	.7	1.6	1.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	3	0	0	2	0	0	2	0	0	3	0	0

Hourly Totals													
16:00-17:00	31	90	118	121	605	87	28	727	20	21	57	100	2005
16:15-17:15	37	111	140	131	700	82	36	757	24	21	68	116	2223
16:30-17:30	43	124	164	142	762	81	39	803	25	17	73	133	2406
16:45-17:45	42	137	163	153	785	77	45	931	31	22	85	139	2610
17:00-18:00	47	159	196	172	775	81	45	945	36	24	79	150	2709

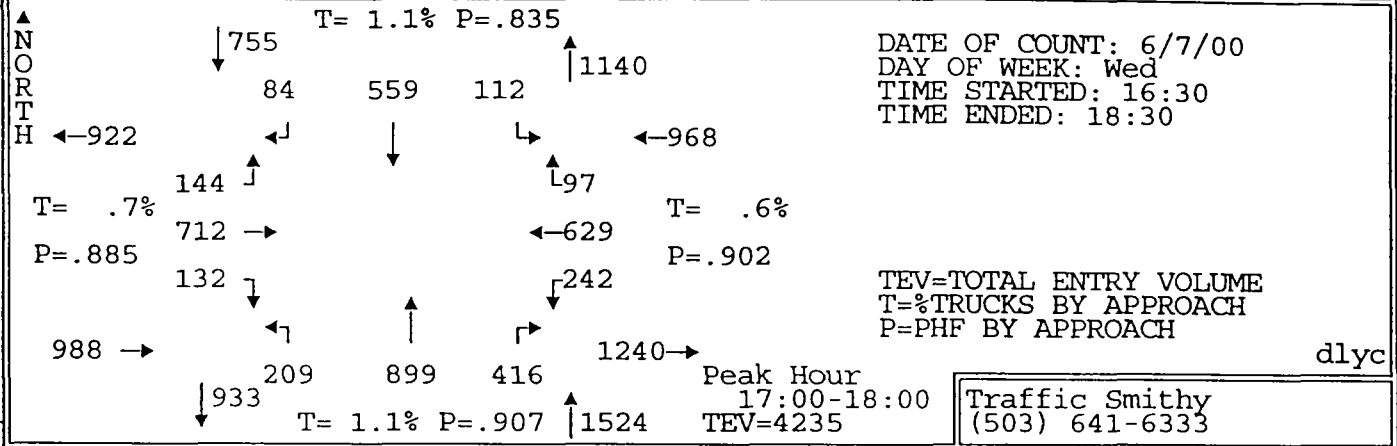
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CEDAR HILLS BOULEVARD AT BUTNER ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
ALL VEHICLES													
17:00-17:15	13	40	47	36	236	19	11	219	8	9	22	42	702
17:15-17:30	12	41	52	41	212	24	11	234	6	2	19	45	699
17:30-17:45	9	30	39	36	170	23	13	289	11	7	26	28	681
17:45-18:00	13	48	58	59	157	15	10	203	11	6	12	35	627
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	2	0	0	1	1	0	0	1	5
17:15-17:30	0	0	0	1	3	0	0	1	0	0	0	0	5
17:30-17:45	0	0	0	0	1	1	0	0	0	0	0	0	5
17:45-18:00	0	0	0	0	1	0	0	0	0	0	0	0	1
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	1	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	1	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	1	0	0	0	0	0	0	0	0	0	0	1
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	2	0	0	0	0	0	0	0	0	0	0	0	4
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.9	.83	.84	.73	.82	.84	.87	.82	.82	.67	.76	.83	.964
% Trucks (all)	0	0	0	.6	1	1.2	0	.5	2.8	0	0	.7	.6
% Trucks (M+H)	0	0	0	0	.1	0	0	0	0	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	31	90	118	121	605	87	28	727	20	21	57	100	2005
16:15-17:15	37	111	140	131	700	82	36	757	24	21	68	116	2223
16:30-17:30	43	124	164	142	762	81	39	803	25	17	73	133	2406
16:45-17:45	42	137	163	153	785	77	45	931	31	22	85	139	2610
17:00-18:00	47	159	196	172	775	81	45	945	36	24	79	150	2709

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CEDAR HILLS BOULEVARD AT WALKER ROAD

23850

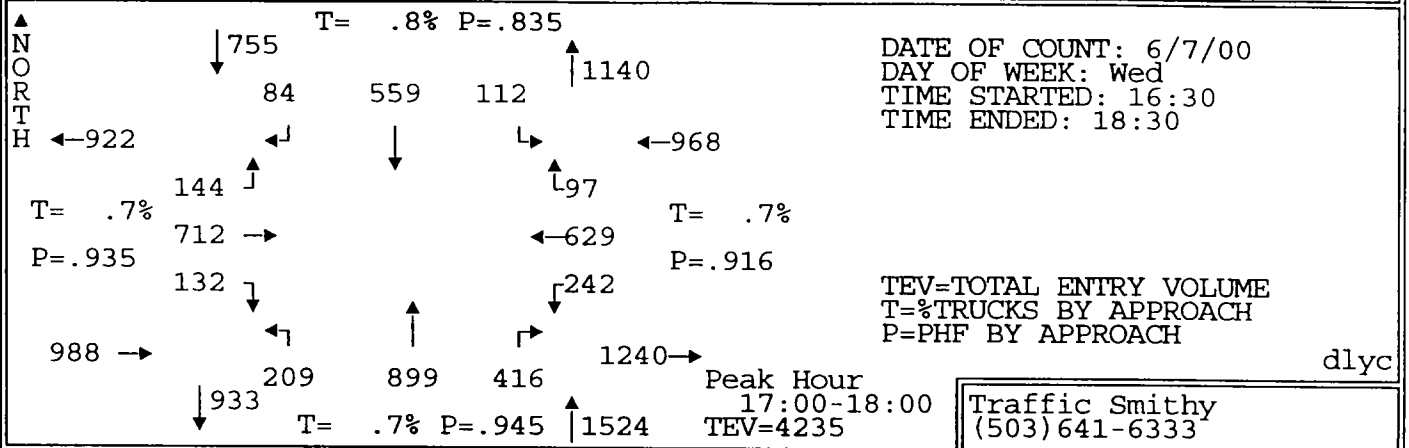


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:30-16:35	7	60	5	3	31	8	13	55	22	20	51	8	283
16:35-16:40	17	47	13	11	34	11	20	55	34	20	50	7	319
16:40-16:45	9	47	7	9	53	9	17	56	38	16	38	4	303
16:45-16:50	8	47	9	11	45	12	14	67	31	20	38	9	311
16:50-16:55	9	49	15	5	44	12	21	72	24	22	35	5	313
16:55-17:00	9	39	6	7	43	9	12	65	24	22	37	9	282
17:00-17:05	9	62	12	6	32	11	11	73	35	25	47	9	332
17:05-17:10	8	63	9	5	44	8	26	95	35	15	45	3	356
17:10-17:15	7	51	15	9	52	8	21	63	30	21	58	10	345
17:15-17:20	14	71	9	10	45	5	28	92	30	14	46	5	369
17:20-17:25	9	63	14	11	65	16	21	82	32	14	57	13	397
17:25-17:30	11	43	14	13	50	11	18	57	33	22	60	10	342
17:30-17:35	6	61	5	5	32	6	14	86	40	24	63	5	347
17:35-17:40	19	69	8	3	39	10	21	96	38	20	30	11	364
17:40-17:45	15	59	22	5	50	6	16	56	36	14	56	7	342
17:45-17:50	14	60	13	4	57	8	16	77	34	20	51	7	361
17:50-17:55	10	65	7	9	44	9	8	58	41	26	52	10	339
17:55-18:00	10	45	16	4	49	14	9	64	32	27	64	7	341
18:00-18:05	7	58	0	10	40	8	17	73	19	26	44	10	312
18:05-18:10	16	63	7	5	41	11	16	61	33	24	39	8	324
18:10-18:15	8	60	11	8	33	8	17	69	22	17	55	8	316
18:15-18:20	17	64	13	16	40	11	24	67	27	11	53	11	354
18:20-18:25	13	67	11	15	34	8	15	59	32	14	48	4	320
18:25-18:30	14	40	16	7	45	9	8	59	23	15	45	5	286

Total Survey	266	1353	257	191	1042	228	403	1657	745	469	1162	185	7958
PHF	.69	.94	.84	.62	.86	.85	.7	.9	.91	.83	.87	.87	.952
% Trucks	1.1	.6	.8	0	1.5	0	.2	1.3	1.2	.6	.7	0	.9
Stopped Buses	0	0	0	0	0	0	0	0	0	0	1	0	0
Peds	0	0	0	0	5	0	0	10	0	0	1	0	0

Hourly Totals													
16:30-17:30	117	642	128	100	538	120	222	832	368	231	562	92	3952
16:45-17:45	124	677	138	90	541	114	223	904	388	233	572	96	4100
17:00-18:00	132	712	144	84	559	112	209	899	416	242	629	97	4235
17:15-18:15	139	717	126	87	545	112	201	871	390	248	617	101	4154
17:30-18:30	149	711	129	91	504	108	181	825	377	238	600	93	4006

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CEDAR HILLS BOULEVARD AT WALKER ROAD**

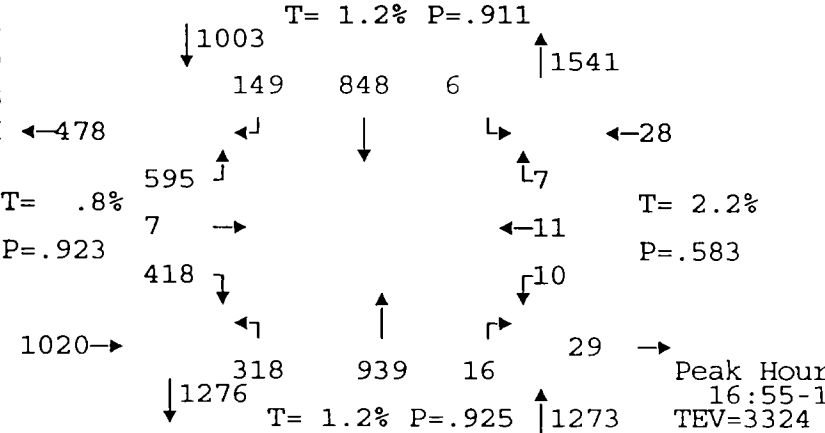


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	24	176	36	20	128	27	58	231	100	61	150	22	1033
17:15-17:30	34	177	37	34	160	32	67	231	95	50	163	28	1108
17:30-17:45	40	189	35	13	121	22	51	238	114	58	149	23	1053
17:45-18:00	34	170	36	17	150	31	33	199	107	73	167	24	1041
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	3	0	0	2	0	0	2	0	0	3	0	10
17:15-17:30	0	0	1	0	1	0	0	1	1	0	1	0	5
17:30-17:45	0	0	0	0	1	0	0	3	0	2	1	0	7
17:45-18:00	1	0	1	0	2	0	0	1	0	0	0	0	5
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	1	0	0	0	0	0	1	0	0	0	0	2
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	1	0	0	0	0	0	0	0	0	0	0	1
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	2	0	0	2	0	0	0	0	0	4
17:30-17:45	0	0	0	0	0	0	2	0	0	1	0	0	3
17:45-18:00	0	0	0	2	0	0	1	0	0	0	0	0	3
Peak Hour by Movement													
PHF	.82	.94	.97	.62	.87	.88	.78	.94	.91	.83	.94	.87	.955
% Trucks(all)	.8	.6	1.4	0	1.1	0	0	1	.2	.8	.8	0	.7
% Trucks(M+H)	0	.1	0	0	0	0	0	.2	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Totals													
16:30-17:30	117	642	128	100	538	120	222	832	368	231	562	92	3952
16:45-17:45	124	677	138	90	541	114	223	904	388	233	572	96	4100
17:00-18:00	132	712	144	84	559	112	209	899	416	242	629	97	4235
17:15-18:15	139	717	126	87	545	112	201	871	390	248	617	101	4154
17:30-18:30	149	711	129	91	504	108	181	825	377	238	600	93	4006

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CEDAR HILLS BOULEVARD AT JENKINS ROAD

27514

NORTH



DATE OF COUNT: 06/01/00
DAY OF WEEK: Thu
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Peak Hour
16:55-17:55
TEV=3324

Traffic Smithy
(503) 641-6333

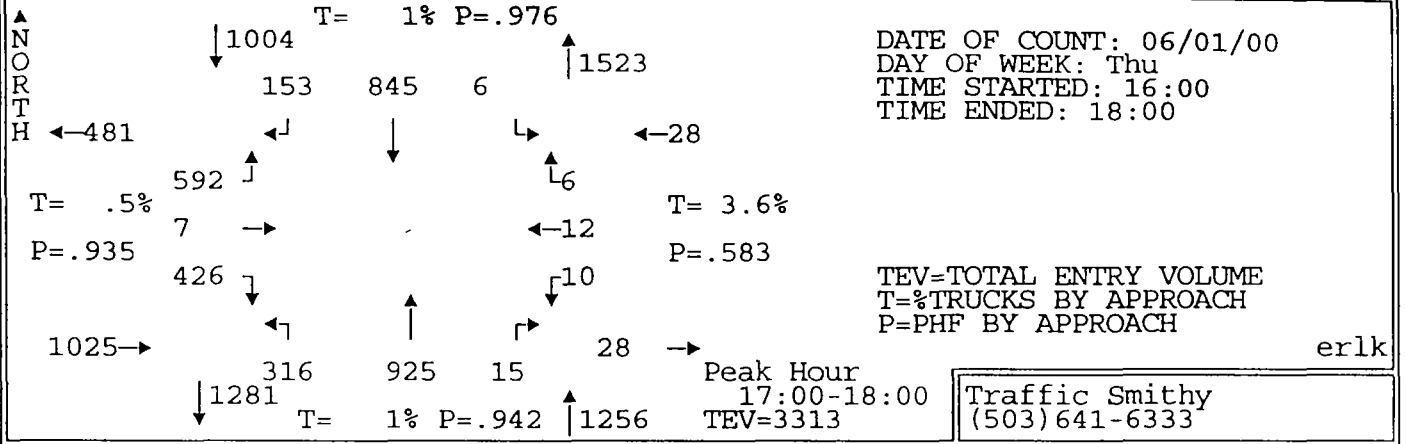
erlk

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	27	0	31	12	65	0	20	66	0	1	1	0	223
16:05-16:10	29	0	41	14	79	1	17	63	0	0	0	0	244
16:10-16:15	35	1	34	14	76	0	21	71	1	0	0	1	254
16:15-16:20	19	0	57	15	62	0	29	63	5	1	1	0	252
16:20-16:25	30	0	43	13	64	0	24	81	2	1	0	1	259
16:25-16:30	42	1	32	10	63	0	25	71	0	0	0	1	245
16:30-16:35	23	4	32	11	80	1	19	71	0	0	0	0	241
16:35-16:40	27	0	50	8	50	0	18	57	0	1	0	0	211
16:40-16:45	18	0	30	12	80	1	30	70	1	1	1	3	247
16:45-16:50	36	0	50	17	70	0	15	60	1	0	0	0	249
16:50-16:55	35	0	49	13	69	0	23	73	0	2	0	0	264
16:55-17:00	37	2	50	9	58	1	29	90	3	0	0	1	280
17:00-17:05	34	1	53	11	53	0	10	70	0	2	0	0	234
17:05-17:10	20	1	40	12	84	1	29	76	1	0	2	0	266
17:10-17:15	28	0	54	19	77	0	27	84	2	0	0	1	292
17:15-17:20	34	0	46	8	73	1	40	84	0	2	1	1	290
17:20-17:25	33	0	48	15	61	1	32	73	2	0	2	1	268
17:25-17:30	32	0	58	16	75	0	27	75	0	2	2	1	288
17:30-17:35	44	0	42	12	79	2	31	79	1	0	0	0	290
17:35-17:40	39	1	47	16	62	0	23	64	3	0	0	0	255
17:40-17:45	42	1	53	6	80	0	25	81	2	1	1	2	294
17:45-17:50	35	1	53	15	71	0	22	76	2	2	1	0	278
17:50-17:55	40	0	51	10	75	0	23	87	0	1	2	0	289
17:55-18:00	45	2	47	13	55	1	27	76	2	0	1	0	269

Total Survey	784	15	1091	301	1661	10	586	1761	28	17	15	13	6282
PHF	.84	.44	.95	.85	.91	.5	.8	.96	.57	.63	.55	.58	.965
% Trucks	.8	0	.8	2.3	1	0	1.2	1.2	0	0	6.7	0	1.1
Stopped Buses	0	0	0	0	0	0	0	5	0	0	0	0	0
Peds	0	20	0	0	8	0	0	15	0	0	12	0	0

Hourly Totals													
16:00-17:00	358	8	499	148	816	4	270	836	13	7	3	7	2969
16:15-17:15	349	9	540	150	810	4	278	866	15	8	4	7	3040
16:30-17:30	357	8	560	151	830	6	299	883	10	10	8	8	3130
16:45-17:45	414	6	590	154	841	6	311	909	15	9	8	7	3270
17:00-18:00	426	7	592	153	845	6	316	925	15	10	12	6	3313

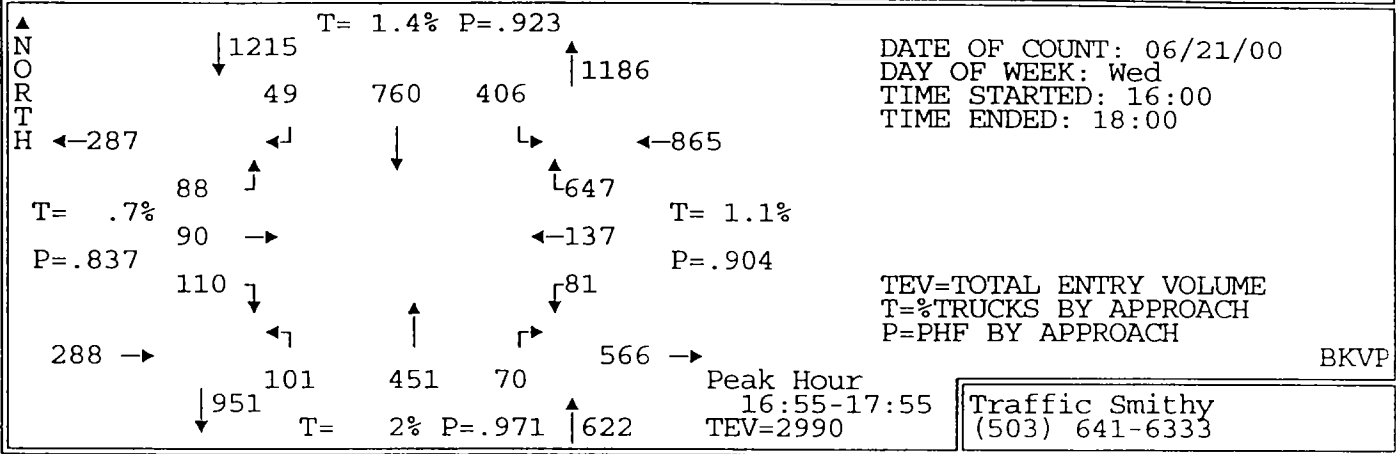
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CEDAR HILLS BOULEVARD AT JENKINS ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
ALL VEHICLES													
17:00-17:15	82	2	147	42	214	1	66	230	3	2	2	1	792
17:15-17:30	99	0	152	39	209	2	99	232	2	4	5	3	846
17:30-17:45	125	2	142	34	221	2	79	224	6	1	1	2	839
17:45-18:00	120	3	151	38	201	1	72	239	4	3	4	0	836
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	0	1	0	5	0	1	0	0	0	0	0	8
17:15-17:30	0	0	1	0	0	0	1	3	0	0	0	0	5
17:30-17:45	0	0	0	0	2	0	0	2	0	0	0	0	4
17:45-18:00	1	0	1	1	1	0	1	2	0	0	1	0	8
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	3	0	0	0	0	3
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	1	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	1	0	0	0	1
17:45-18:00	1	0	1	0	0	0	0	0	0	0	0	0	2
PEDESTRIANS -----CROSSWALK USEAGE-----													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	3			1			5			1			10
17:15-17:30	2			1			3			1			7
17:30-17:45	2			0			3			1			6
17:45-18:00	3			0			1			1			5
Peak Hour by Movement													
PHF	.85	.58	.97	.91	.96	.75	.8	.97	.63	.63	.6	.5	.979
% Trucks (all)	.5	0	.5	.7	1.1	0	.9	1.1	0	0	8.3	0	.9
% Trucks (M+H)	0	0	0	0	.1	0	0	.3	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	1	0	0	0	0	
Hourly Totals													
16:00-17:00	358	8	499	148	816	4	270	836	13	7	3	7	2969
16:15-17:15	349	9	540	150	810	4	278	866	15	8	4	7	3040
16:30-17:30	357	8	560	151	830	6	299	883	10	10	8	8	3130
16:45-17:45	414	6	590	154	841	6	311	909	15	9	8	7	3270
17:00-18:00	426	7	592	153	845	6	316	925	15	10	12	6	3313

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CEDAR HILLS BOULEVARD AT HALL BOULEVARD

24003

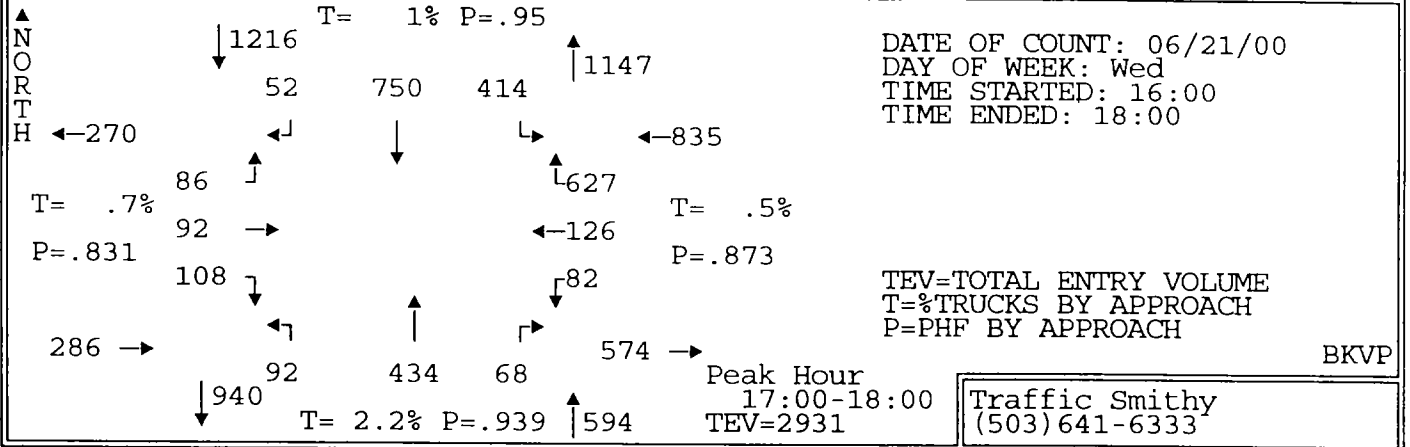


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	13	9	8	6	52	24	8	27	1	5	14	46	213
16:05-16:10	8	9	7	7	51	25	6	24	6	4	16	45	208
16:10-16:15	7	11	7	5	72	35	5	34	6	6	9	44	241
16:15-16:20	14	14	6	3	45	29	11	26	3	11	17	61	240
16:20-16:25	10	5	7	3	45	27	9	36	3	9	7	52	213
16:25-16:30	9	10	11	2	48	30	5	24	2	7	12	34	194
16:30-16:35	14	7	2	5	53	28	11	34	7	2	12	55	230
16:35-16:40	6	9	7	2	53	37	8	28	7	6	7	56	226
16:40-16:45	5	14	5	3	60	33	13	34	8	5	13	47	240
16:45-16:50	11	2	10	2	52	32	6	31	6	7	15	57	231
16:50-16:55	8	9	11	4	39	21	10	29	4	6	10	53	204
16:55-17:00	12	5	6	2	63	35	13	44	4	3	16	59	262
17:00-17:05	3	10	5	6	57	28	10	35	0	11	9	54	228
17:05-17:10	11	6	5	3	76	25	5	42	5	9	10	57	254
17:10-17:15	10	9	10	7	58	35	7	43	3	8	19	62	271
17:15-17:20	13	4	7	2	68	38	11	34	5	4	13	55	254
17:20-17:25	12	9	11	3	67	35	9	39	4	5	9	56	259
17:25-17:30	14	7	9	3	62	32	10	41	5	6	9	54	252
17:30-17:35	9	4	3	4	56	25	7	30	8	12	13	63	234
17:35-17:40	6	9	7	5	67	24	9	37	13	4	7	41	229
17:40-17:45	4	4	7	5	61	44	7	20	10	5	10	53	230
17:45-17:50	5	15	12	6	63	42	5	51	8	9	12	55	283
17:50-17:55	11	8	6	3	62	43	8	35	5	5	10	38	234
17:55-18:00	10	7	4	5	53	43	4	27	2	4	5	39	203

Total Survey	225	196	173	96	1383	770	197	805	125	153	274	1236	5633
PHF	.71	.8	.79	.77	.94	.79	.84	.93	.56	.72	.82	.93	.953
% Trucks	1.3	0	.6	0	1.8	.9	0	2.7	.8	2	.7	1.1	1.4
Stopped Buses	0	0	0	0	3	0	0	2	0	0	3	0	0
Peds	0	34	0	0	21	0	0	27	0	0	86	0	0

Hourly Totals													
16:00-17:00	117	104	87	44	633	356	105	371	57	71	148	609	2702
16:15-17:15	113	100	85	42	649	360	108	406	52	84	147	647	2793
16:30-17:30	119	91	88	42	708	379	113	434	58	72	142	665	2911
16:45-17:45	113	78	91	46	726	374	104	425	67	80	140	664	2908
17:00-18:00	108	92	86	52	750	414	92	434	68	82	126	627	2931

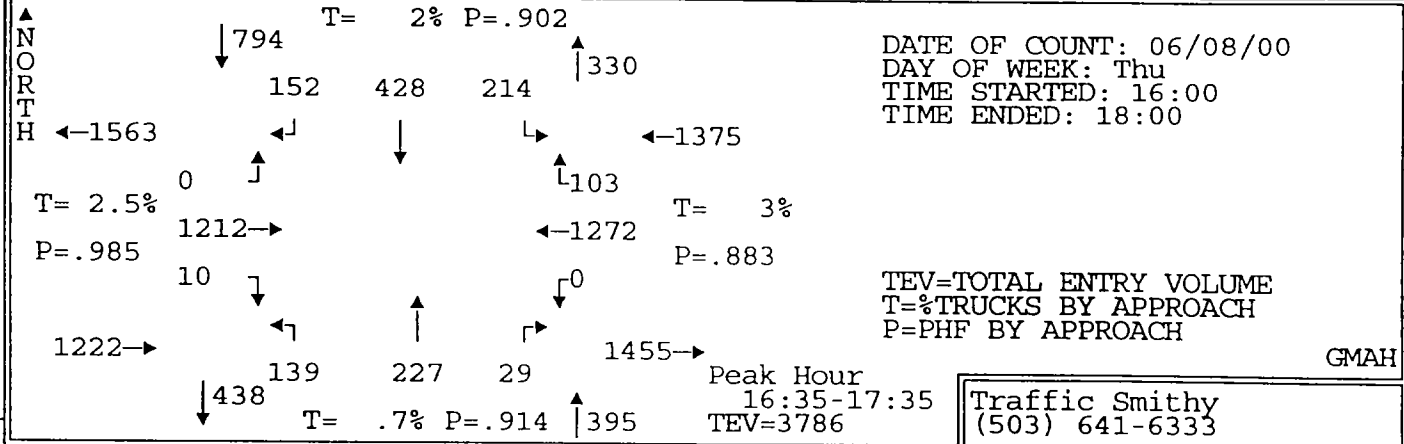
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CEDAR HILLS BOULEVARD AT HALL BOULEVARD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	24	25	20	16	191	88	22	120	8	28	38	173	753
17:15-17:30	39	20	27	8	197	105	30	114	14	15	31	165	765
17:30-17:45	19	17	17	14	184	93	23	87	31	21	30	157	693
17:45-18:00	26	30	22	14	178	128	17	113	15	18	27	132	720
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	2	2	0	2	0	0	0	1	7
17:15-17:30	1	0	0	0	2	0	0	4	0	0	0	2	9
17:30-17:45	0	0	0	0	1	1	0	1	0	0	0	1	4
17:45-18:00	0	0	1	0	2	0	0	3	0	0	0	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	1	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	1	0	0	1	0	0	0	0	2
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	1	0	0	0	0	0	0	0	1
BICYCLES													
17:00-17:15	0	0	0	0	0	1	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	1	0	0	1	0	0	0	0	2
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	1	2
17:45-18:00	0	2	0	0	0	3	0	0	0	0	0	0	5
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	4			1			8			10		23	
17:15-17:30	1			0			2			15		18	
17:30-17:45	4			3			2			10		19	
17:45-18:00	5			0			2			8		15	
Peak Hour by Movement													
PHF	.69	.77	.8	.81	.95	.81	.77	.9	.55	.73	.83	.91	.957
% Trucks (all)	.9	0	1.2	0	1.2	.7	0	3	0	0	0	.6	1.1
% Trucks (M+H)	0	0	0	0	.3	0	0	.7	0	0	0	0	.2
Stopped Buses	0	0	0	0	2	0	0	2	0	0	1	0	
Hourly Totals													
16:00-17:00	117	104	87	44	633	356	105	371	57	71	148	609	2702
16:15-17:15	113	100	85	42	649	360	108	406	52	84	147	647	2793
16:30-17:30	119	91	88	42	708	379	113	434	58	72	142	665	2911
16:45-17:45	113	78	91	46	726	374	104	425	67	80	140	664	2908
17:00-18:00	108	92	86	52	750	414	92	434	68	82	126	627	2931

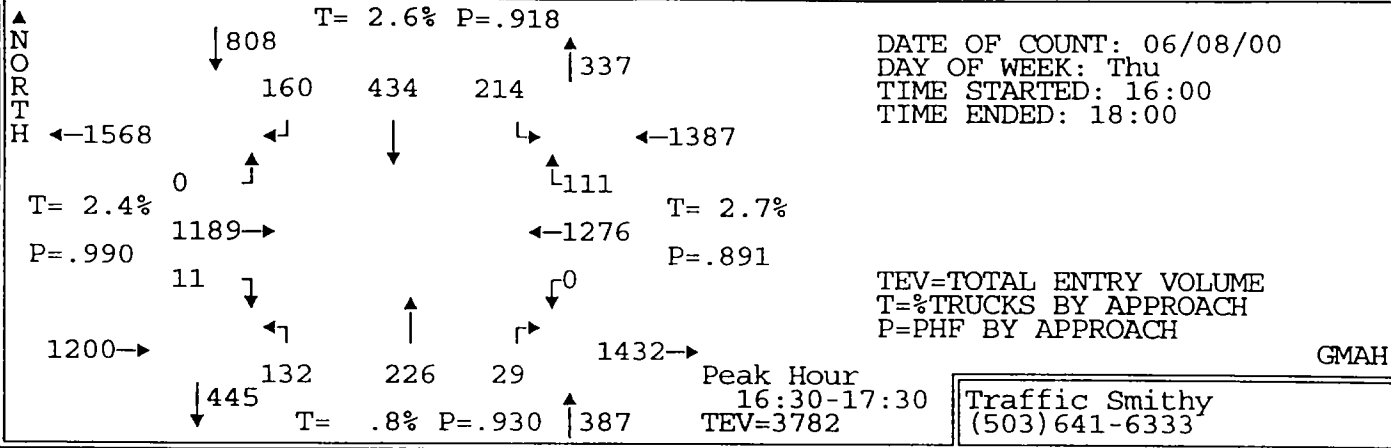
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT CEDAR HILLS BOULEVARD

23949



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	1	58	0	14	24	17	10	12	2	0	93	8	239
16:05-16:10	2	93	0	14	33	10	9	16	0	0	119	6	302
16:10-16:15	1	99	0	10	27	11	12	16	0	0	120	10	306
16:15-16:20	0	83	0	12	33	18	9	20	0	0	103	5	283
16:20-16:25	0	90	0	6	34	13	10	19	2	0	104	10	288
16:25-16:30	2	75	0	10	25	9	8	17	2	0	116	11	275
16:30-16:35	1	95	0	16	44	8	7	23	2	0	115	12	323
16:35-16:40	0	94	0	14	38	18	16	24	3	0	103	8	318
16:40-16:45	0	113	0	14	34	14	13	15	1	0	107	7	318
16:45-16:50	0	89	0	10	37	17	9	22	1	0	111	9	305
16:50-16:55	0	106	0	14	33	15	9	18	3	0	121	13	332
16:55-17:00	2	104	0	10	22	13	11	17	4	0	130	5	318
17:00-17:05	0	97	0	13	33	27	6	27	3	0	100	14	320
17:05-17:10	0	99	0	16	33	24	12	14	3	0	83	11	295
17:10-17:15	0	102	0	18	34	19	13	14	2	0	102	6	310
17:15-17:20	0	109	0	15	40	19	11	13	3	0	110	14	334
17:20-17:25	1	86	0	6	46	19	11	14	1	0	105	10	299
17:25-17:30	7	95	0	14	40	21	14	25	3	0	89	2	310
17:30-17:35	0	118	0	8	38	8	14	24	2	0	111	4	327
17:35-17:40	0	91	0	8	37	20	15	21	4	0	99	7	302
17:40-17:45	1	88	0	12	37	21	9	20	4	0	106	4	302
17:45-17:50	0	91	0	4	39	14	10	24	1	0	111	4	298
17:50-17:55	1	94	0	15	37	22	13	20	1	0	111	4	318
17:55-18:00	1	104	0	12	44	20	8	19	3	0	118	10	339
Total Survey	20	2273	0	285	842	397	259	454	50	0	2587	194	7361
PHF	.31	.98	0	.78	.85	.76	.89	.9	.73	0	.88	.8	.975
% Trucks	0	2.5	0	1.1	1.2	4.5	1.2	.4	0	0	2.6	7.7	2.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	3	0	0	1	0	0	31	0	0	20	0	0
Hourly Totals													
16:00-17:00	9	1099	0	144	384	163	123	219	20	0	1342	104	3607
16:15-17:15	5	1147	0	153	400	195	123	230	26	0	1295	111	3685
16:30-17:30	11	1189	0	160	434	214	132	226	29	0	1276	111	3782
16:45-17:45	11	1184	0	144	430	223	134	229	33	0	1267	99	3754
17:00-18:00	11	1174	0	141	458	234	136	235	30	0	1245	90	3754

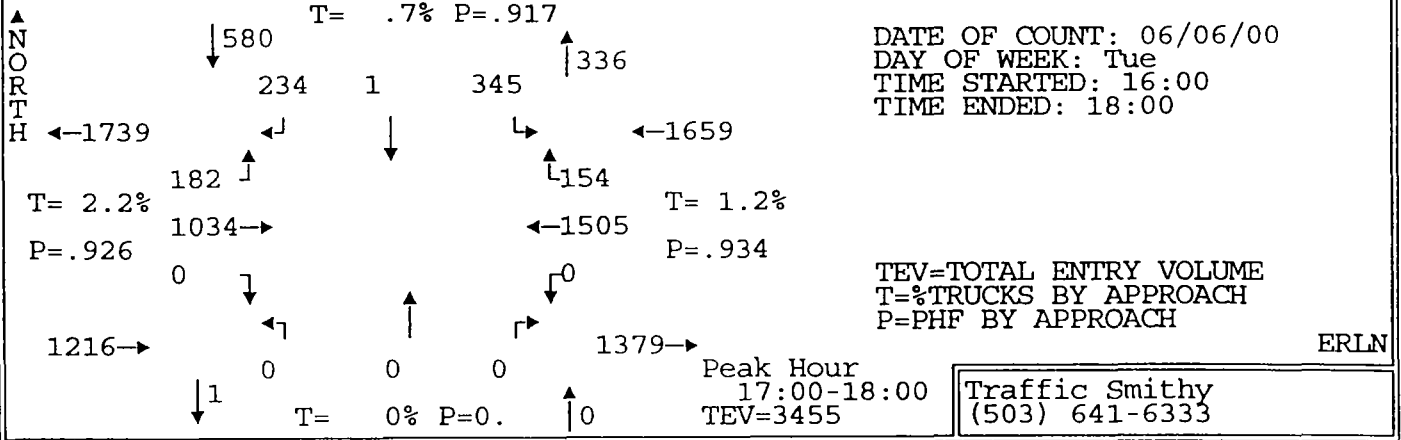
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CANYON ROAD AT CEDAR HILLS BOULEVARD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↖	
ALL VEHICLES													
16:30-16:45	1	302	0	44	116	40	36	62	6	0	325	27	959
16:45-17:00	2	299	0	34	92	45	29	57	8	0	362	27	955
17:00-17:15	0	298	0	47	100	70	31	55	8	0	285	31	925
17:15-17:30	8	290	0	35	126	59	36	52	7	0	304	26	943
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:30-16:45	0	7	0	1	2	2	1	0	0	0	8	1	22
16:45-17:00	0	2	0	0	2	0	0	0	0	0	5	2	11
17:00-17:15	0	4	0	0	1	3	0	1	0	0	5	1	15
17:15-17:30	0	6	0	1	1	5	0	0	0	0	6	2	21
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:30-16:45	0	1	0	0	0	0	1	0	0	0	1	0	3
16:45-17:00	0	0	0	0	0	0	0	0	0	0	1	0	1
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	2	0	0	0	0	0	0	0	0	0	0	2
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:30-16:45	0	3	0	0	1	0	0	0	0	0	1	0	5
16:45-17:00	0	2	0	0	0	0	0	0	0	0	1	1	4
17:00-17:15	0	2	0	1	0	1	0	0	0	0	1	0	5
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
BICYCLES													
16:30-16:45	0	0	0	0	1	0	0	0	0	0	0	0	1
16:45-17:00	0	1	0	0	0	0	0	1	0	0	0	0	2
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:30-16:45	0	0	0	0	0	4	0	0	0	6	0	0	10
16:45-17:00	0	0	0	0	0	4	0	0	0	1	0	0	5
17:00-17:15	0	0	0	0	0	1	0	0	0	4	0	0	5
17:15-17:30	2	0	0	0	0	3	0	0	0	5	0	0	10
Peak Hour by Movement													
PHF	.34	.98	0	.85	.86	.76	.92	.91	.91	0	.88	.9	.985
% Trucks (all)	0	2.4	0	1.9	1.6	5.1	1.5	.4	0	0	2.4	6.3	2.4
% Trucks (M+H)	0	.8	0	.6	.2	.5	.8	0	0	0	.5	.9	.6
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	9	1099	0	144	384	163	123	219	20	0	1342	104	3607
16:15-17:15	5	1147	0	153	400	195	123	230	26	0	1295	111	3685
16:30-17:30	11	1189	0	160	434	214	132	226	29	0	1276	111	3782
16:45-17:45	11	1184	0	144	430	223	134	229	33	0	1267	99	3754
17:00-18:00	11	1174	0	141	458	234	136	235	30	0	1245	90	3754

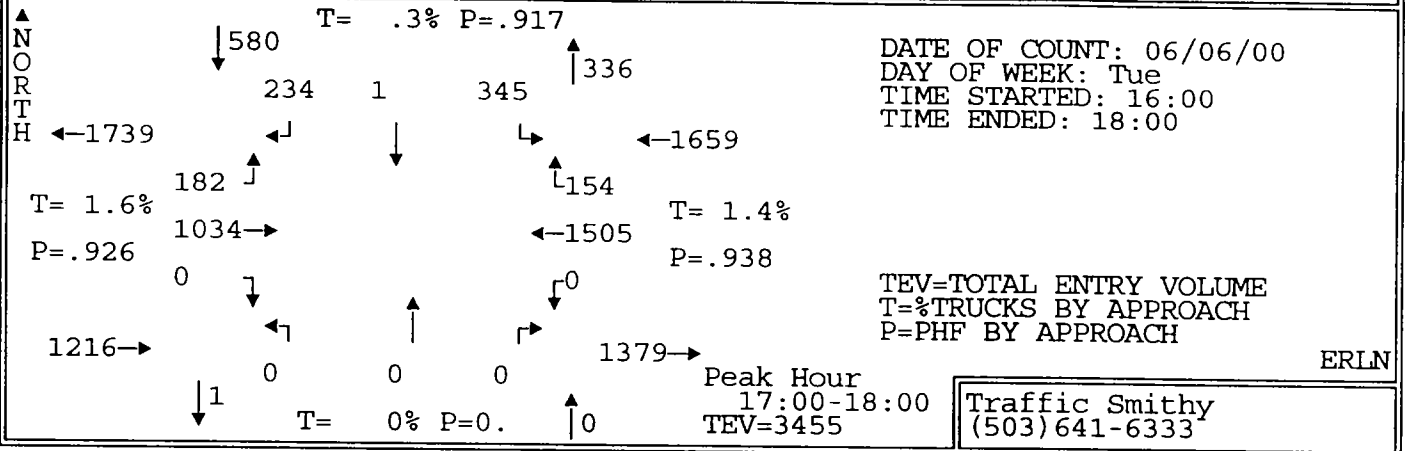
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CEDAR HILLS BOULEVARD AT FARMINGTON ROAD

23828



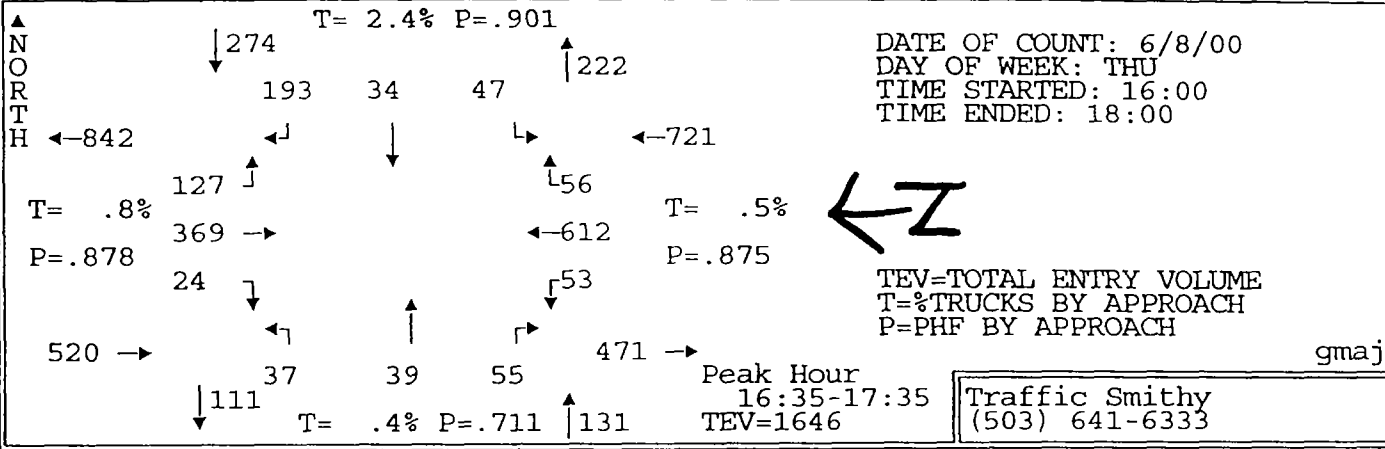
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
16:00-16:05	0	79	14	5	0	8	0	0	0	0	111	14	231
16:05-16:10	0	77	14	18	0	24	0	0	0	0	104	12	249
16:10-16:15	0	106	20	19	0	28	0	0	0	0	100	15	288
16:15-16:20	0	87	9	15	0	22	0	0	0	0	108	13	254
16:20-16:25	0	72	15	23	0	15	0	0	0	0	110	23	258
16:25-16:30	0	103	14	18	0	17	0	0	0	0	119	12	283
16:30-16:35	0	77	18	20	0	23	0	0	0	0	114	12	264
16:35-16:40	0	82	12	10	0	27	0	0	0	0	108	9	248
16:40-16:45	0	86	25	16	0	27	0	0	0	0	98	10	262
16:45-16:50	0	98	14	13	0	23	0	0	0	0	137	13	298
16:50-16:55	0	109	14	17	0	25	0	0	0	0	119	12	296
16:55-17:00	0	84	10	19	0	25	0	0	0	0	100	16	254
17:00-17:05	0	79	15	19	0	26	0	0	0	0	84	6	229
17:05-17:10	0	87	14	22	0	18	0	0	0	0	129	13	283
17:10-17:15	0	95	11	18	0	21	0	0	0	0	116	12	273
17:15-17:20	0	76	15	17	0	31	0	0	0	0	140	15	294
17:20-17:25	0	65	18	17	0	40	0	0	0	0	128	14	282
17:25-17:30	0	96	11	14	1	31	0	0	0	0	135	10	298
17:30-17:35	0	90	11	18	0	27	0	0	0	0	128	15	289
17:35-17:40	0	101	12	17	0	30	0	0	0	0	127	13	300
17:40-17:45	0	79	13	25	0	30	0	0	0	0	130	16	293
17:45-17:50	0	90	27	25	0	30	0	0	0	0	133	13	318
17:50-17:55	0	86	12	18	0	28	0	0	0	0	135	17	296
17:55-18:00	0	90	23	24	0	33	0	0	0	0	120	10	300
Total Survey	0	2094	361	427	1	609	0	0	0	0	2833	315	6640
PHF	0	.9	.73	.86	.25	.85	0	0	0	0	.93	.84	.945
% Trucks	0	2.6	0	.2	0	1	0	0	0	0	1.3	.3	1.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	6	0	0
Peds	0	0	0	0	17	0	0	0	0	0	8	0	0
Hourly Totals													
16:00-17:00	0	1060	179	193	0	264	0	0	0	0	1328	161	3185
16:15-17:15	0	1059	171	210	0	269	0	0	0	0	1342	151	3202
16:30-17:30	0	1034	177	202	1	317	0	0	0	0	1408	142	3281
16:45-17:45	0	1059	158	216	1	327	0	0	0	0	1473	155	3389
17:00-18:00	0	1034	182	234	1	345	0	0	0	0	1505	154	3455

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CEDAR HILLS BOULEVARD AT FARMINGTON ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	0	261	40	59	0	65	0	0	0	0	329	31	785
17:15-17:30	0	237	44	48	1	102	0	0	0	0	403	39	874
17:30-17:45	0	270	36	60	0	87	0	0	0	0	385	44	882
17:45-18:00	0	266	62	67	0	91	0	0	0	0	388	40	914
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	6	0	0	0	1	0	0	0	0	4	0	11
17:15-17:30	0	2	0	0	0	0	0	0	0	0	8	0	10
17:30-17:45	0	4	0	0	0	1	0	0	0	0	5	0	10
17:45-18:00	0	5	0	0	0	0	0	0	0	0	4	0	9
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	2	0	0	0	0	0	0	0	0	0	0	2
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	1	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS -----CROSSWALK USAGE-----													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0			2			0			1			3
17:15-17:30	0			1			0			1			2
17:30-17:45	0			1			0			0			1
17:45-18:00	0			2			0			1			3
Peak Hour by Movement													
PHF	0	.96	.73	.87	.25	.85	0	0	0	0	.93	.88	.945
% Trucks (all)	0	1.8	0	0	0	.6	0	0	0	0	1.5	.6	1.3
% Trucks (M+H)	0	.2	0	0	0	0	0	0	0	0	.1	.6	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	4	0	
Hourly Totals													
16:00-17:00	0	1060	179	193	0	264	0	0	0	0	1328	161	3185
16:15-17:15	0	1059	171	210	0	269	0	0	0	0	1342	151	3202
16:30-17:30	0	1034	177	202	1	317	0	0	0	0	1408	142	3281
16:45-17:45	0	1059	158	216	1	327	0	0	0	0	1473	155	3389
17:00-18:00	0	1034	182	234	1	345	0	0	0	0	1505	154	3455

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
HALL BOULEVARD AT CENTER STREET

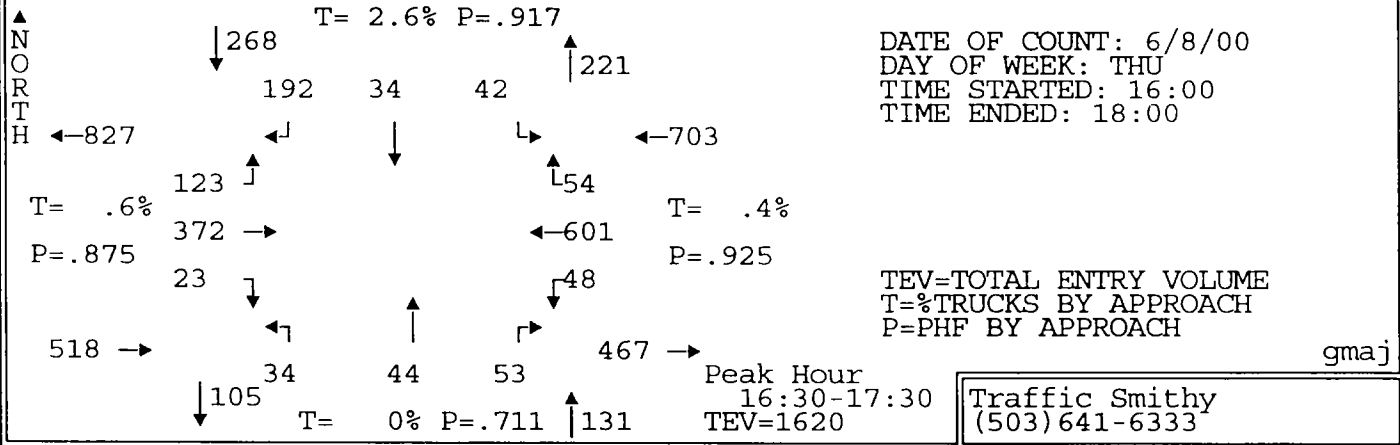


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	1	27	6	18	5	1	3	4	4	4	47	4	124
16:05-16:10	2	30	6	8	3	4	2	5	1	3	46	1	111
16:10-16:15	0	34	10	17	3	4	4	4	4	2	50	6	137
16:15-16:20	2	22	9	20	2	4	3	5	3	1	30	4	105
16:20-16:25	3	24	5	21	0	3	1	3	1	4	41	4	110
16:25-16:30	0	29	12	17	6	3	2	5	2	6	42	3	127
16:30-16:35	0	28	9	13	1	1	1	6	1	1	41	3	105
16:35-16:40	2	30	12	20	0	0	3	5	1	3	72	6	154
16:40-16:45	3	28	8	14	7	7	5	3	6	6	55	3	145
16:45-16:50	5	22	11	17	3	5	3	1	10	5	52	4	138
16:50-16:55	1	30	7	19	2	2	0	4	6	6	53	6	136
16:55-17:00	0	32	12	17	2	6	7	7	8	2	38	5	136
17:00-17:05	1	32	11	16	5	6	3	4	2	0	47	1	128
17:05-17:10	0	33	8	18	3	0	2	1	2	8	42	5	122
17:10-17:15	1	33	11	14	3	2	2	6	2	3	55	4	136
17:15-17:20	4	26	12	16	1	4	3	3	2	3	44	9	127
17:20-17:25	4	41	14	16	6	5	3	0	8	5	38	4	144
17:25-17:30	2	37	8	12	1	4	2	4	5	6	64	4	149
17:30-17:35	1	25	13	14	1	6	4	1	3	6	52	5	131
17:35-17:40	1	36	10	14	2	2	0	1	7	3	55	3	134
17:40-17:45	3	39	11	18	1	2	1	1	5	3	47	4	135
17:45-17:50	1	35	11	22	2	4	4	7	2	0	53	5	146
17:50-17:55	0	25	12	19	2	5	3	4	4	8	35	6	123
17:55-18:00	4	35	3	18	2	6	1	4	2	1	28	5	109

Total Survey	41	733	231	398	63	86	61	88	91	89	1127	104	3112
PHF	.6	.89	.86	.91	.71	.78	.77	.65	.57	.78	.85	.78	.941
% Trucks	0	.4	2.2	2.8	1.6	1.2	0	1.1	0	0	.6	0	.9
Stopped Buses	0	0	0	0	1	0	0	0	0	0	0	0	0
Peds	0	18	0	0	15	0	0	8	0	0	25	0	0

Hourly Totals													
16:00-17:00	19	336	107	201	34	40	33	52	47	43	567	49	1528
16:15-17:15	18	343	115	206	34	39	32	50	44	45	568	48	1542
16:30-17:30	23	372	123	192	34	42	34	44	53	48	601	54	1620
16:45-17:45	23	386	128	191	30	44	30	33	60	50	587	54	1616
17:00-18:00	22	397	124	197	29	46	28	36	44	46	560	55	1584

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
HALL BOULEVARD AT CENTER STREET**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	

ALL VEHICLES	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:30-16:45	5	86	29	47	8	8	9	14	8	10	168	12	404
16:45-17:00	6	84	30	53	7	13	10	12	24	13	143	15	410
17:00-17:15	2	98	30	48	11	8	7	11	6	11	144	10	386
17:15-17:30	10	104	34	44	8	13	8	7	15	14	146	17	420

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:30-16:45	0	1	0	2	0	0	0	0	0	0	1	0	4
16:45-17:00	0	0	1	0	0	0	0	0	0	0	0	0	1
17:00-17:15	0	0	1	4	0	0	0	0	0	0	1	0	6
17:15-17:30	0	0	0	0	0	1	0	0	0	0	1	0	2

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0

BICYCLES	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:30-16:45	0	0	0	0	1	0	0	0	0	0	0	0	1
16:45-17:00	0	1	0	0	0	0	0	0	0	0	0	0	1
17:00-17:15	0	0	0	1	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0

PEDESTRIANS	CROSSWALK USEAGE				ALL
	SOUTH	WEST	EAST	NORTH	
16:30-16:45	3	1	0	7	11
16:45-17:00	1	0	0	4	5
17:00-17:15	2	1	0	3	6
17:15-17:30	1	1	3	0	5

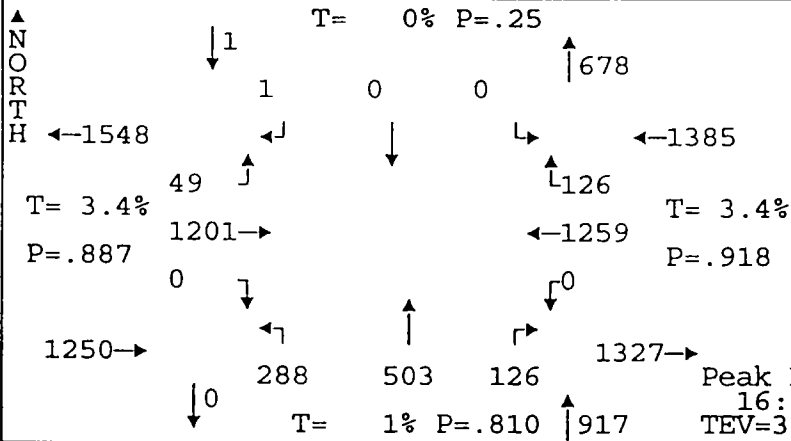
Peak Hour by Movement	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
PHF	.57	.89	.9	.91	.77	.81	.85	.79	.55	.86	.89	.79	.964
% Trucks (all)	0	.3	1.6	3.1	0	2.4	0	0	0	0	.5	0	.8
% Trucks (M+H)	0	0	0	0	0	0	0	0	0	0	0	0	0
Stopped Buses	0	0	0	0	1	0	0	0	0	0	0	0	0

Hourly Totals	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-17:00	19	336	107	201	34	40	33	52	47	43	567	49	1528
16:15-17:15	18	343	115	206	34	39	32	50	44	45	568	48	1542
16:30-17:30	23	372	123	192	34	42	34	44	53	48	601	54	1620
16:45-17:45	23	386	128	191	30	44	30	33	60	50	587	54	1616
17:00-18:00	22	397	124	197	29	46	28	36	44	46	560	55	1584

040

INTERSECT I TURN MOVEMENT COUNT SUMMAR REPORT
 ALL BOULEVARD AT CANYON ROAD

19773



DATE OF COUNT: 05/13/99
 DAY OF WEEK: Thu
 TIME STARTED: 16:01
 TIME ENDED: 18:01

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

ERVB

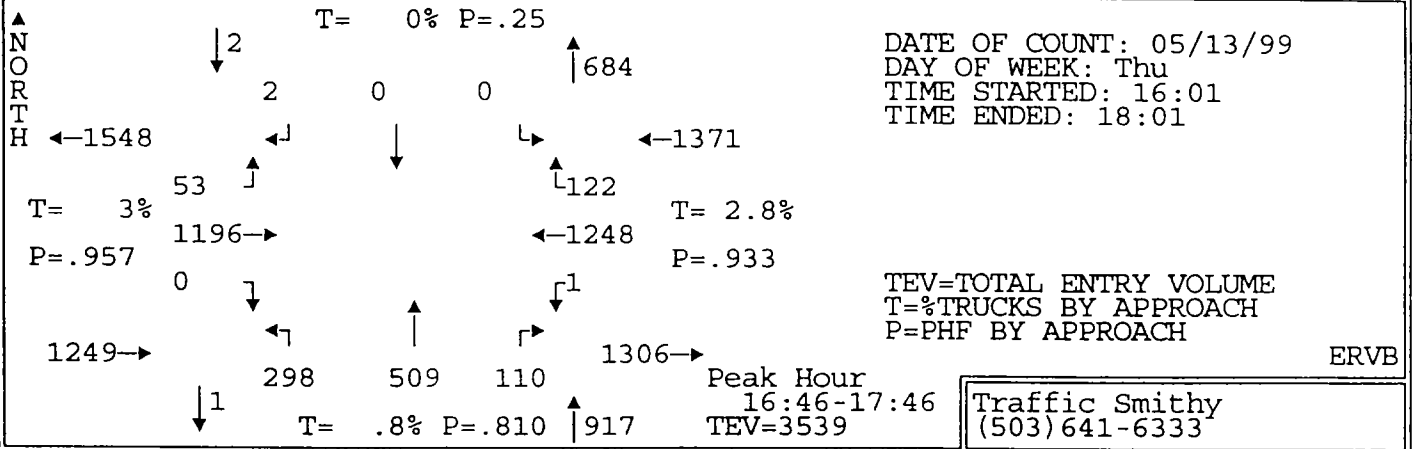
Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↑	↙	↓	←	↑		
16:01-16:06	0	85	3	0	0	0	19	35	10	0	85	7	244
16:06-16:11	0	82	2	0	0	0	23	26	14	0	92	8	247
16:11-16:16	0	89	6	0	0	0	22	39	5	0	68	5	234
16:16-16:21	0	120	3	0	0	0	29	38	5	0	87	10	292
16:21-16:26	0	80	3	0	0	0	30	43	5	0	98	12	271
16:26-16:31	0	87	7	0	0	0	28	43	5	0	90	10	270
16:31-16:36	0	91	4	0	0	0	20	39	6	0	91	19	270
16:36-16:41	0	94	3	0	0	0	24	38	11	0	89	13	272
16:41-16:46	0	96	5	0	0	0	22	27	11	0	103	12	276
16:46-16:51	0	89	3	1	0	0	26	43	7	1	83	10	263
16:51-16:56	0	96	9	0	0	0	25	37	5	0	95	11	278
16:56-17:01	0	124	5	1	0	0	22	46	7	0	85	9	299
17:01-17:06	0	122	8	0	0	0	26	28	12	0	88	5	289
17:06-17:11	0	87	6	0	0	0	23	39	10	0	118	12	295
17:11-17:16	0	98	2	0	0	0	26	31	10	0	118	9	294
17:16-17:21	0	118	3	0	0	0	37	61	9	0	109	11	348
17:21-17:26	0	91	7	0	0	0	20	41	13	0	115	6	293
17:26-17:31	0	68	3	0	0	0	34	54	14	0	107	12	292
17:31-17:36	0	118	2	0	0	0	24	41	9	0	82	14	290
17:36-17:41	0	75	2	0	0	0	16	47	9	0	121	13	283
17:41-17:46	0	110	3	0	0	0	19	41	5	0	127	10	315
17:46-17:51	0	79	4	0	0	0	30	48	14	0	85	13	273
17:51-17:56	0	111	4	0	0	0	11	26	14	0	104	12	282
17:56-18:01	0	100	3	0	0	0	18	48	8	0	85	7	269

Total Survey	0	2310	100	2	0	0	574	959	218	1	2325	250	6739
PHF	0	.9	.64	.25	0	0	.79	.81	.88	0	.91	.81	.947
% Trucks	0	3.4	2	0	0	0	.9	.3	4.6	0	3.7	.4	2.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	4	0	
Peds	0	1	0	0	4	0	0	14	0	0	1	0	

Hourly Totals													
16:01-17:01	0	1133	53	2	0	0	290	454	91	1	1066	126	3216
16:16-17:16	0	1184	58	2	0	0	301	452	94	1	1145	132	3369
16:31-17:31	0	1174	58	2	0	0	305	484	115	1	1201	129	3469
16:46-17:46	0	1196	53	2	0	0	298	509	110	1	1248	122	3539
17:01-18:01	0	1177	47	0	0	0	284	505	127	0	1259	124	3523

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
LL BOULEVARD AT CANYON ROAD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	

ALL VEHICLES	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
16:46-17:01	0	309	17	2	0	0	73	126	19	1	263	30	840
17:01-17:16	0	307	16	0	0	0	75	98	32	0	324	26	878
17:16-17:31	0	277	13	0	0	0	91	156	36	0	331	29	933
17:31-17:46	0	303	7	0	0	0	59	129	23	0	330	37	888

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
16:46-17:01	0	9	0	0	0	0	0	0	1	0	8	0	18
17:01-17:16	0	5	0	0	0	0	1	0	1	0	7	0	14
17:16-17:31	0	8	0	0	0	0	0	1	1	0	7	0	17
17:31-17:46	0	2	0	0	0	0	0	0	1	0	7	0	10

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
16:46-17:01	0	2	0	0	0	0	0	0	0	0	2	0	4
17:01-17:16	0	4	0	0	0	0	0	0	0	0	1	0	5
17:16-17:31	0	1	0	0	0	0	1	0	0	0	0	0	2
17:31-17:46	0	1	0	0	0	0	0	0	0	0	1	0	2

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
16:46-17:01	0	0	0	0	0	0	0	0	0	0	1	0	1
17:01-17:16	0	2	0	0	0	0	0	0	0	0	2	0	4
17:16-17:31	0	2	0	0	0	0	0	0	0	0	0	0	2
17:31-17:46	0	1	0	0	0	0	0	0	0	0	3	0	4

BICYCLES	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
16:46-17:01	0	0	0	0	0	0	0	0	0	0	0	0	0
17:01-17:16	0	0	0	0	0	0	0	1	0	0	0	0	1
17:16-17:31	0	0	0	0	0	0	0	0	0	0	0	0	0
17:31-17:46	0	0	0	0	0	0	0	0	0	0	0	0	0

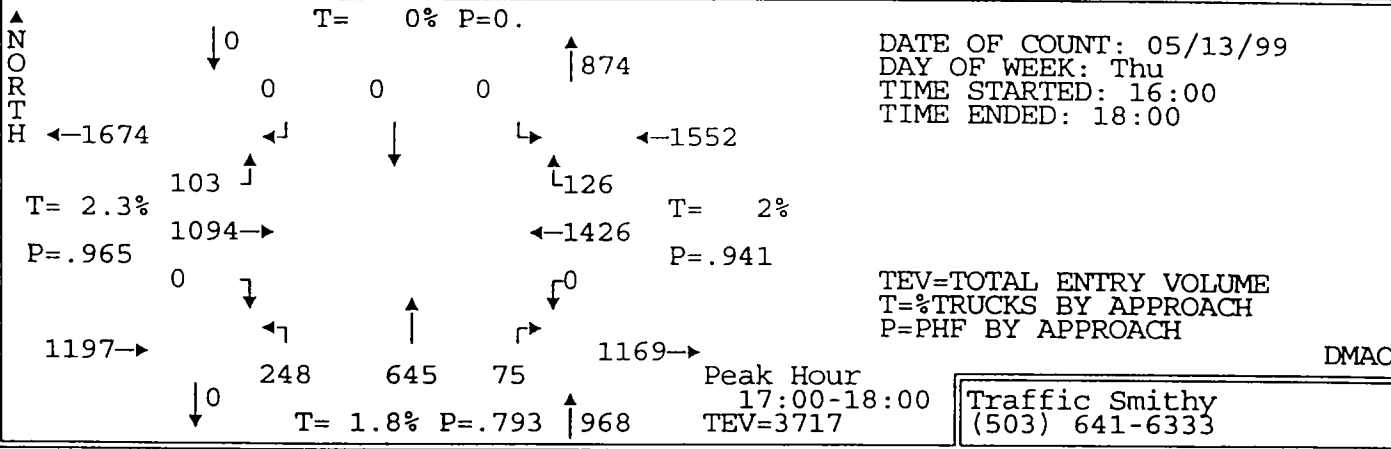
PEDESTRIANS	CROSSWALK USAGE				ALL
	SOUTH	WEST	EAST	NORTH	
16:46-17:01	0	1	1	0	2
17:01-17:16	0	0	1	0	1
17:16-17:31	0	0	2	0	2
17:31-17:46	1	1	0	0	2

Peak Hour by Movement	PHF												
PHF	0	.97	.78	.25	0	0	.82	.82	.76	.25	.94	.82	.948
% Trucks (all)	0	3.1	0	0	0	0	.7	.2	3.6	0	3.1	0	2.3
% Trucks (M+H)	0	1.1	0	0	0	0	.3	0	0	0	.8	0	.7
Stopped Buses	0	0	0	0	0	0	0	0	0	0	1	0	

Hourly Totals	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
16:01-17:01	0	1133	53	2	0	0	290	454	91	1	1066	126	3216
16:16-17:16	0	1184	58	2	0	0	301	452	94	1	1145	132	3369
16:31-17:31	0	1174	58	2	0	0	305	484	115	1	1201	129	3469
16:46-17:46	0	1196	53	2	0	0	298	509	110	1	1248	122	3539
17:01-18:01	0	1177	47	0	0	0	284	505	127	0	1259	124	3523

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 FARMINGTON ROAD AT HALL BOULEVARD

19772



DATE OF COUNT: 05/13/99
 DAY OF WEEK: Thu
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

DMAO

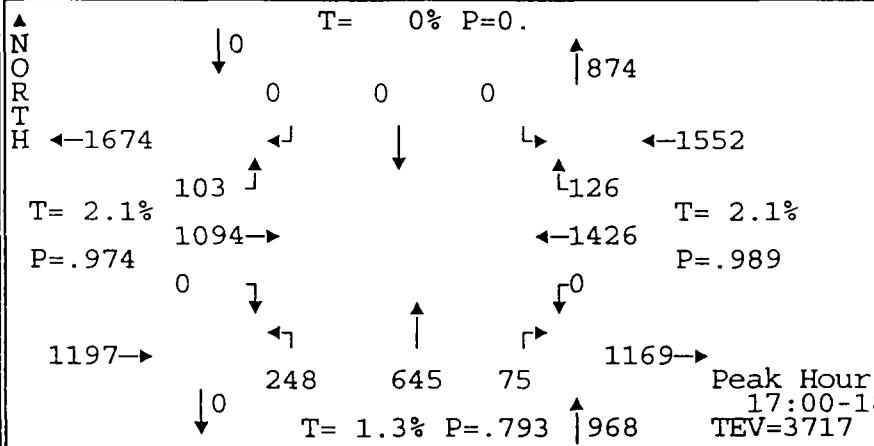
Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	0	74	9	0	0	0	17	66	2	0	82	9	259
16:05-16:10	1	93	7	0	0	0	20	39	8	0	75	7	250
16:10-16:15	0	90	6	0	0	0	21	41	4	0	128	13	303
16:15-16:20	0	87	8	0	0	0	25	55	4	0	118	12	309
16:20-16:25	1	109	4	0	0	0	22	61	10	0	108	12	327
16:25-16:30	0	75	6	0	0	0	29	57	5	0	101	8	281
16:30-16:35	0	89	8	0	0	0	23	51	8	0	112	5	296
16:35-16:40	0	77	7	0	0	0	23	55	11	0	122	9	304
16:40-16:45	0	107	4	0	0	0	21	43	5	0	108	16	304
16:45-16:50	0	83	7	0	0	0	17	47	7	0	111	15	287
16:50-16:55	0	78	9	0	0	0	13	52	5	0	113	8	278
16:55-17:00	0	95	13	0	0	0	21	35	8	0	102	6	280
17:00-17:05	0	95	10	0	0	0	18	56	7	0	115	9	310
17:05-17:10	0	80	8	0	0	0	16	59	2	0	102	14	281
17:10-17:15	0	100	5	0	0	0	18	46	5	0	133	13	320
17:15-17:20	0	99	8	0	0	0	31	69	5	0	127	9	348
17:20-17:25	0	87	10	0	0	0	31	63	10	0	118	8	327
17:25-17:30	0	85	11	0	0	0	28	64	4	0	121	9	322
17:30-17:35	0	87	8	0	0	0	19	53	12	0	124	12	315
17:35-17:40	0	87	6	0	0	0	19	47	4	0	98	10	271
17:40-17:45	0	106	13	0	0	0	24	46	4	0	128	11	332
17:45-17:50	0	91	7	0	0	0	16	59	9	0	137	13	332
17:50-17:55	0	86	6	0	0	0	14	41	4	0	113	10	274
17:55-18:00	0	91	11	0	0	0	14	42	9	0	110	8	285

Total Survey	2	2151	191	0	0	0	500	1247	152	0	2706	246	7195
PHF	0	.96	.89	0	0	0	.69	.82	.72	0	.94	.88	.932
% Trucks	0	2.5	.5	0	0	0	2.6	1.6	1.3	0	2.2	.4	2.1
Stopped Buses	0	1	0	0	0	0	0	0	0	0	1	0	0
Peds	0	8	0	0	17	0	0	24	0	0	9	0	0

Hourly Totals													
16:00-17:00	2	1057	88	0	0	0	252	602	77	0	1280	120	3478
16:15-17:15	1	1075	89	0	0	0	246	617	77	0	1345	127	3577
16:30-17:30	0	1075	100	0	0	0	260	640	77	0	1384	121	3657
16:45-17:45	0	1082	108	0	0	0	255	637	73	0	1392	124	3671
17:00-18:00	0	1094	103	0	0	0	248	645	75	0	1426	126	3717

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
F. LINGTON ROAD AT HALL BOULEVA



DATE OF COUNT: 05/13/99
 DAY OF WEEK: Thu
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

DMAO

Peak Hour
 17:00-18:00
 TEV=3717

Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	0	275	23	0	0	0	52	161	14	0	350	36	911
17:15-17:30	0	271	29	0	0	0	90	196	19	0	366	26	997
17:30-17:45	0	280	27	0	0	0	62	146	20	0	350	33	918
17:45-18:00	0	268	24	0	0	0	44	142	22	0	360	31	891
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	8	0	0	0	0	1	2	0	0	10	0	21
17:15-17:30	0	2	0	0	0	0	2	1	0	0	5	0	10
17:30-17:45	0	5	1	0	0	0	0	2	0	0	3	0	11
17:45-18:00	0	4	0	0	0	0	1	3	0	0	9	0	17
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	2	0	0	0	0	0	0	0	0	1	0	3
17:15-17:30	0	0	0	0	0	0	0	1	0	0	1	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	1	2
17:15-17:30	0	2	0	0	0	0	0	0	0	0	0	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	1	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	1
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	2	0	0	0	0	2
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	1
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	1			1			1			1			4
17:15-17:30	0			0			1			1			2
17:30-17:45	1			2			3			0			6
17:45-18:00	2			3			3			0			8
Peak Hour by Movement													
PHF	0	.98	.89	0	0	0	.69	.82	.85	0	.97	.88	.932
% Trucks (all)	0	2.2	1	0	0	0	1.6	1.4	0	0	2.2	.8	1.9
% Trucks (M+H)	0	.5	0	0	0	0	0	.2	0	0	.3	.8	.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	2	1057	88	0	0	0	252	602	77	0	1280	120	3478
16:15-17:15	1	1075	89	0	0	0	246	617	77	0	1345	127	3577
16:30-17:30	0	1075	100	0	0	0	260	640	77	0	1384	121	3657
16:45-17:45	0	1082	108	0	0	0	255	637	73	0	1392	124	3671
17:00-18:00	0	1094	103	0	0	0	248	645	75	0	1426	126	3717

FROM : TRAFFIC SMITHY

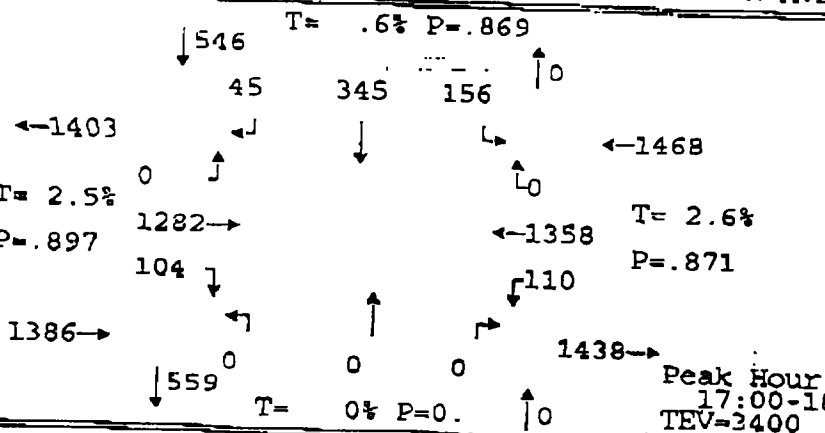
PHONE NO. : 5036438866

Dec. 01 2000 10:46AM P2

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
TV HIGHWAY AT WATSON AVENUE

35526

NORTH



DATE OF COUNT: 11/28/00
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

ERPL

Traffic Smithy
(503) 641-6333

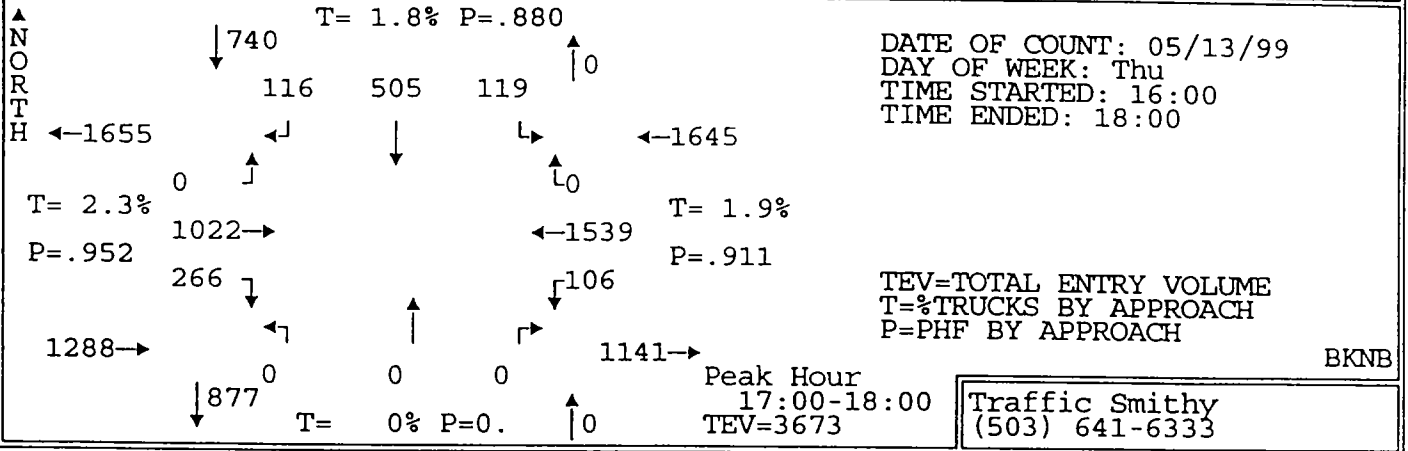
TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL
	↓	→	↑	←	←	↑	→	↓	
16:00-16:05	8	91	0	0	0	0	0	0	259
16:05-16:10	7	111	0	0	0	0	0	0	290
16:10-16:15	7	99	0	0	0	0	0	0	289
16:15-16:20	5	135	0	0	0	0	0	0	264
16:20-16:25	5	102	0	0	0	0	0	0	315
16:25-16:30	5	116	0	0	0	0	0	0	284
16:30-16:35	5	105	0	0	0	0	0	0	289
16:35-16:40	5	94	0	0	0	0	0	0	273
16:40-16:45	6	105	0	0	0	0	0	0	263
16:45-16:50	6	87	0	0	0	0	0	0	272
16:50-16:55	11	86	0	0	0	0	0	0	268
16:55-17:00	10	95	0	0	0	0	0	0	253
17:00-17:05	10	102	0	0	0	0	0	0	290
17:05-17:10	10	93	0	0	0	0	0	0	302
17:10-17:15	10	120	0	0	0	0	0	0	311
17:15-17:20	10	120	0	0	0	0	0	0	276
17:20-17:25	10	111	0	0	0	0	0	0	295
17:25-17:30	17	116	0	0	0	0	0	0	281
17:30-17:35	4	120	0	0	0	0	0	0	271
17:35-17:40	6	108	0	0	0	0	0	0	295
17:40-17:45	6	100	0	0	0	0	0	0	276
17:45-17:50	6	109	0	0	0	0	0	0	276
17:50-17:55	8	111	0	0	0	0	0	0	291
17:55-18:00	8	111	0	0	0	0	0	0	291

Total Survey	192	2500	0	93	682	289	0	0	0	187	2786	0	6729
PHF	1.72	2.9	0	0.54	0.85	0.91	0	0	0	0.83	0.84	0	0.941
% Trucks	1.6	2.6	0	0	0.3	0.3	0	0	0	4.3	2.5	0	2.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	6	0	0	22	0	0	5	0	0	6	0	0

Hourly Totals													
16:00-17:00	88	1218	0	48	337	133	0	0	0	77	1428	0	3329
16:15-17:15	90	1207	0	56	340	130	0	0	0	83	1430	0	3336
16:30-17:30	99	1214	0	45	358	135	0	0	0	92	1412	0	3355
16:45-17:45	109	1243	0	44	343	146	0	0	0	97	1395	0	3377
17:00-18:00	104	1282	0	45	345	156	0	0	0	110	1358	0	3400

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 FARMINGTON ROAD AT WATSON AVENUE

19771

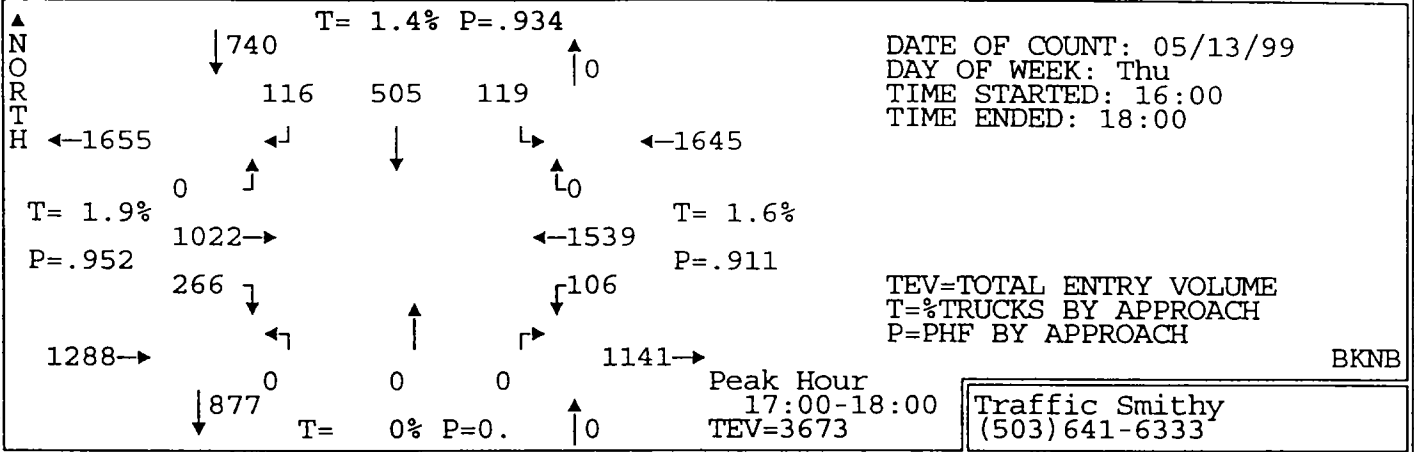


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	21	74	0	9	33	8	0	0	0	10	108	0	263
16:05-16:10	9	87	0	9	43	8	0	0	0	5	68	0	229
16:10-16:15	11	87	0	7	33	10	0	0	0	9	138	0	295
16:15-16:20	22	76	0	3	33	12	0	0	0	10	133	0	289
16:20-16:25	15	95	0	3	21	12	0	0	0	11	125	0	282
16:25-16:30	22	68	0	6	34	6	0	0	0	4	125	0	265
16:30-16:35	24	80	0	5	34	16	0	0	0	10	114	0	283
16:35-16:40	23	74	0	6	38	12	0	0	0	8	116	0	277
16:40-16:45	15	105	0	11	38	13	0	0	0	7	123	0	312
16:45-16:50	21	82	0	5	34	6	0	0	0	7	108	0	263
16:50-16:55	17	95	0	7	34	14	0	0	0	8	106	0	281
16:55-17:00	15	96	0	2	38	11	0	0	0	3	109	0	274
17:00-17:05	18	89	0	7	34	7	0	0	0	10	123	0	288
17:05-17:10	17	91	0	10	50	6	0	0	0	8	117	0	299
17:10-17:15	21	80	0	14	55	15	0	0	0	11	115	0	311
17:15-17:20	22	91	0	8	41	11	0	0	0	11	140	0	324
17:20-17:25	22	85	0	16	36	8	0	0	0	5	144	0	316
17:25-17:30	26	79	0	11	49	13	0	0	0	9	142	0	329
17:30-17:35	23	79	0	11	42	11	0	0	0	10	138	0	314
17:35-17:40	17	72	0	5	48	10	0	0	0	11	115	0	278
17:40-17:45	23	95	0	7	38	10	0	0	0	8	126	0	307
17:45-17:50	25	82	0	9	41	13	0	0	0	8	138	0	316
17:50-17:55	25	85	0	10	34	8	0	0	0	8	119	0	289
17:55-18:00	27	94	0	8	37	7	0	0	0	7	122	0	302

Total Survey	481	2041	0	189	918	247	0	0	0	198	2912	0	6986
PHF	.86	.98	0	.76	.86	.88	0	0	0	.88	.9	0	.947
% Trucks	2.3	2.3	0	1.1	2	1.6	0	0	0	2	1.9	0	2
Stopped Buses	0	1	0	0	0	0	0	0	0	0	2	0	0
Peds	0	26	0	0	0	0	0	17	0	0	0	0	0

Hourly Totals													
16:00-17:00	215	1019	0	73	413	128	0	0	0	92	1373	0	3313
16:15-17:15	230	1031	0	79	443	130	0	0	0	97	1414	0	3424
16:30-17:30	241	1047	0	102	481	132	0	0	0	97	1457	0	3557
16:45-17:45	242	1034	0	103	499	122	0	0	0	101	1483	0	3584
17:00-18:00	266	1022	0	116	505	119	0	0	0	106	1539	0	3673

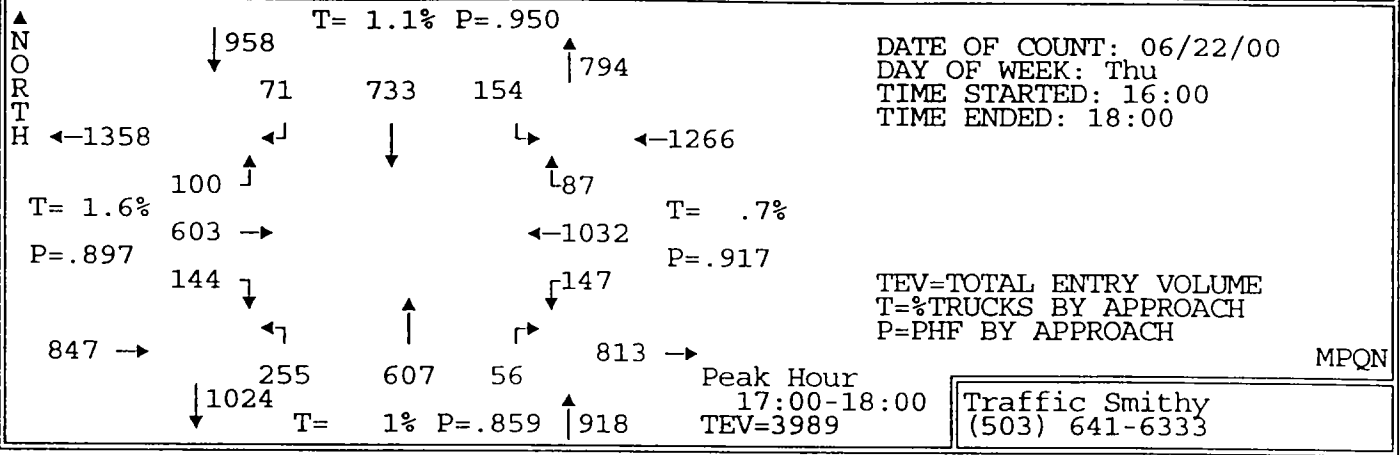
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
 F. WASHINGTON ROAD AT WATSON AVENUE



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	56	260	0	31	139	28	0	0	0	29	355	0	898
17:15-17:30	70	255	0	35	126	32	0	0	0	25	426	0	969
17:30-17:45	63	246	0	23	128	31	0	0	0	29	379	0	899
17:45-18:00	77	261	0	27	112	28	0	0	0	23	379	0	907
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	4	0	0	1	1	0	0	0	0	9	0	16
17:15-17:30	1	3	0	0	2	0	0	0	0	1	6	0	13
17:30-17:45	1	5	0	0	3	0	0	0	0	0	3	0	12
17:45-18:00	1	4	0	0	3	0	0	0	0	0	6	0	14
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	2	0	0	0	0	0	0	0	0	1	0	3
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	2	0	0	0	0	0	0	0	0	0	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	1
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	1	0	0	1
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	3			0			4			0			7
17:15-17:30	4			0			5			0			9
17:30-17:45	2			0			1			0			3
17:45-18:00	2			0			2			0			4
Peak Hour by Movement													
PHF	.86	.98	0	.83	.91	.93	0	0	0	.91	.9	0	.947
% Trucks (all)	1.5	2.1	0	0	1.8	.8	0	0	0	.9	1.7	0	1.7
% Trucks (M+H)	0	.5	0	0	0	0	0	0	0	0	.1	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	1	0	0
Hourly Totals													
16:00-17:00	215	1019	0	73	413	128	0	0	0	92	1373	0	3313
16:15-17:15	230	1031	0	79	443	130	0	0	0	97	1414	0	3424
16:30-17:30	241	1047	0	102	481	132	0	0	0	97	1457	0	3557
16:45-17:45	242	1034	0	103	499	122	0	0	0	101	1483	0	3584
17:00-18:00	266	1022	0	116	505	119	0	0	0	106	1539	0	3673

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
HALL BOULEVARD AT ALLEN BOULEVARD

24030



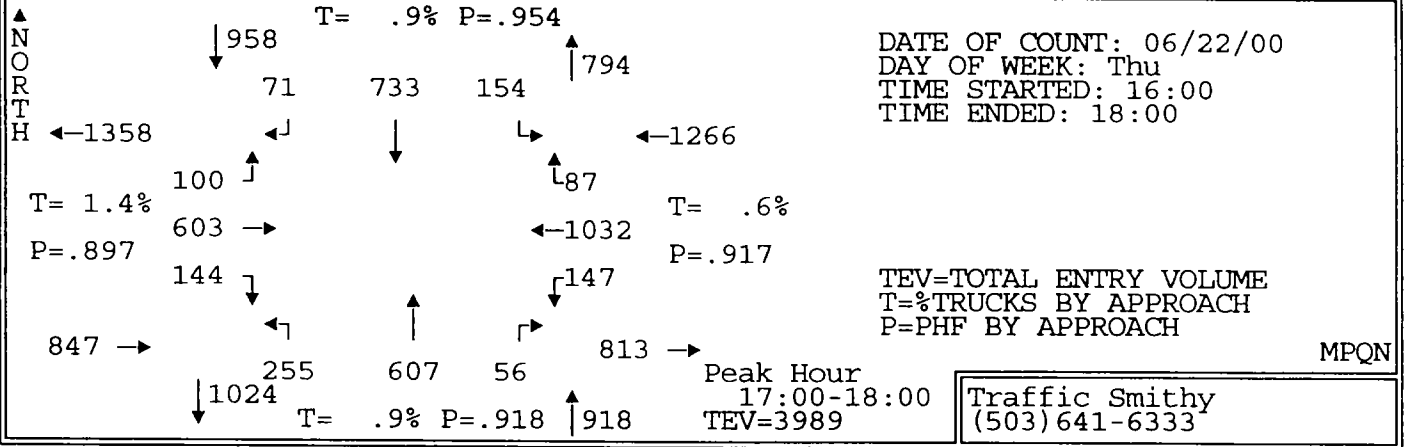
MPQN

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	14	60	3	13	40	15	21	46	6	12	64	5	299
16:05-16:10	19	55	9	8	47	11	26	44	6	7	67	9	308
16:10-16:15	10	38	9	10	50	10	17	47	6	11	61	6	275
16:15-16:20	15	44	6	8	39	10	22	36	10	12	75	12	289
16:20-16:25	13	39	7	4	52	5	18	64	7	15	66	8	298
16:25-16:30	12	49	7	10	41	5	20	35	7	14	64	15	279
16:30-16:35	10	42	7	7	55	10	20	48	10	12	74	7	302
16:35-16:40	14	46	4	5	40	12	21	51	7	15	87	7	309
16:40-16:45	15	28	7	6	64	11	24	71	4	13	69	3	315
16:45-16:50	16	55	9	8	41	14	22	45	5	10	105	1	331
16:50-16:55	13	36	8	3	73	9	21	58	9	12	70	4	316
16:55-17:00	15	52	8	7	38	11	17	39	7	10	97	5	306
17:00-17:05	11	42	4	10	61	10	15	62	5	9	71	7	307
17:05-17:10	10	51	10	2	44	13	19	42	5	15	92	7	310
17:10-17:15	7	46	5	6	80	17	31	66	5	7	89	6	365
17:15-17:20	18	45	10	7	44	12	14	54	5	18	99	12	338
17:20-17:25	6	42	8	6	71	8	28	61	3	12	85	6	336
17:25-17:30	10	46	12	7	64	10	19	41	9	18	88	7	331
17:30-17:35	14	61	6	4	59	16	29	42	6	10	94	5	346
17:35-17:40	13	54	17	9	52	11	21	61	1	13	93	7	352
17:40-17:45	12	54	5	4	64	16	21	36	5	9	99	8	333
17:45-17:50	16	46	6	2	84	10	15	49	2	11	72	9	322
17:50-17:55	13	71	9	4	46	17	25	46	6	9	72	7	325
17:55-18:00	14	45	8	10	64	14	18	47	4	16	78	6	324

Total Survey	310	1147	184	160	1313	277	504	1191	140	290	1931	169	7616
PHF	.84	.88	.71	.89	.92	.9	.84	.84	.78	.77	.9	.87	.959
% Trucks	1.3	1.8	.5	.6	1.4	.4	.8	1.2	0	.3	.7	.6	1.1
Stopped Buses	0	1	0	0	0	0	0	1	0	0	1	0	0
Peds	0	5	0	0	88	0	0	38	0	0	22	0	0

Hourly Totals													
16:00-17:00	166	544	84	89	580	123	249	584	84	143	899	82	3627
16:15-17:15	151	530	82	76	628	127	250	617	81	144	959	82	3727
16:30-17:30	145	531	92	74	675	137	251	638	74	151	1026	72	3866
16:45-17:45	145	584	102	73	691	147	257	607	65	143	1082	75	3971
17:00-18:00	144	603	100	71	733	154	255	607	56	147	1032	87	3989

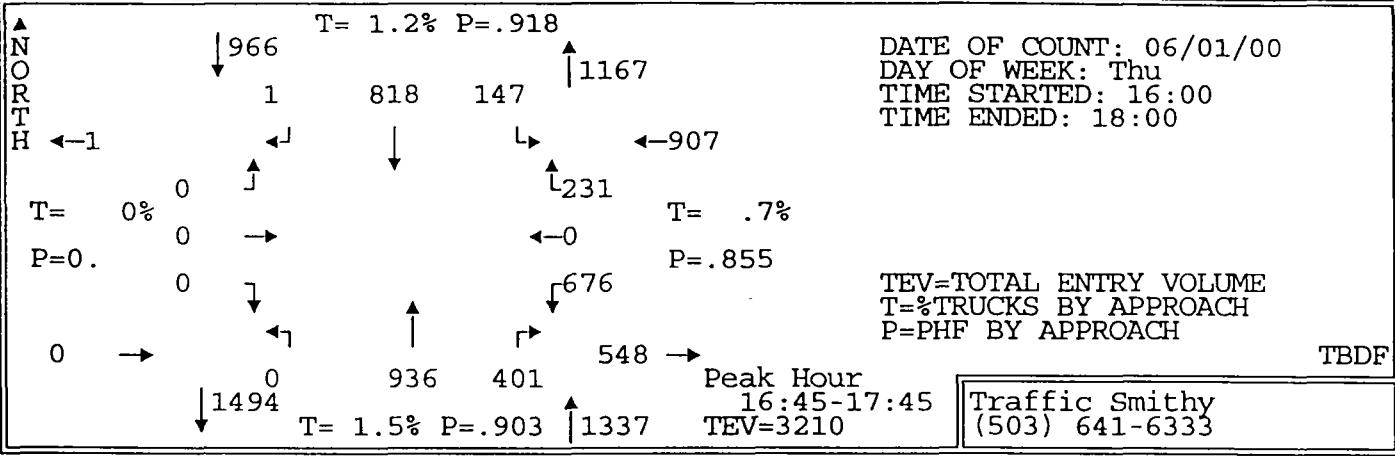
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
HALL BOULEVARD AT ALLEN BOULEVARD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	↖	↑	↳	↓	←	↖	
ALL VEHICLES													
17:00-17:15	28	139	19	18	185	40	65	170	15	31	252	20	982
17:15-17:30	34	133	30	20	179	30	61	156	17	48	272	25	1005
17:30-17:45	39	169	28	17	175	43	71	139	12	32	286	20	1031
17:45-18:00	43	162	23	16	194	41	58	142	12	36	222	22	971
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	1	1	0	2	0	0	3	0	0	2	0	10
17:15-17:30	1	2	0	0	2	0	0	1	0	0	2	1	9
17:30-17:45	0	3	0	0	1	0	0	3	0	0	2	0	9
17:45-18:00	1	2	0	1	3	0	0	0	0	0	0	0	7
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	1	0	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	1	0	0	0	0	0	0	0	1
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0			13			11			8		32	
17:15-17:30	0			9			3			1		13	
17:30-17:45	0			8			6			3		17	
17:45-18:00	5			8			3			5		21	
Peak Hour by Movement													
PHF	.84	.89	.83	.89	.94	.9	.9	.89	.82	.77	.9	.87	.967
% Trucks (all)	2.1	1.3	1	1.4	1.1	0	0.4	1.2	0	0	.6	1.1	.9
% Trucks (M+H)	0	0	0	0	0	0	0	0	0	0	0	0	0
Stopped Buses	0	1	0	0	0	0	0	0	0	0	1	0	0
Hourly Totals													
16:00-17:00	166	544	84	89	580	123	249	584	84	143	899	82	3627
16:15-17:15	151	530	82	76	628	127	250	617	81	144	959	82	3727
16:30-17:30	145	531	92	74	675	137	251	638	74	151	1026	72	3866
16:45-17:45	145	584	102	73	691	147	257	607	65	143	1082	75	3971
17:00-18:00	144	603	100	71	733	154	255	607	56	147	1032	87	3989

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
HALL BOULEVARD AT DENNEY ROAD

27515

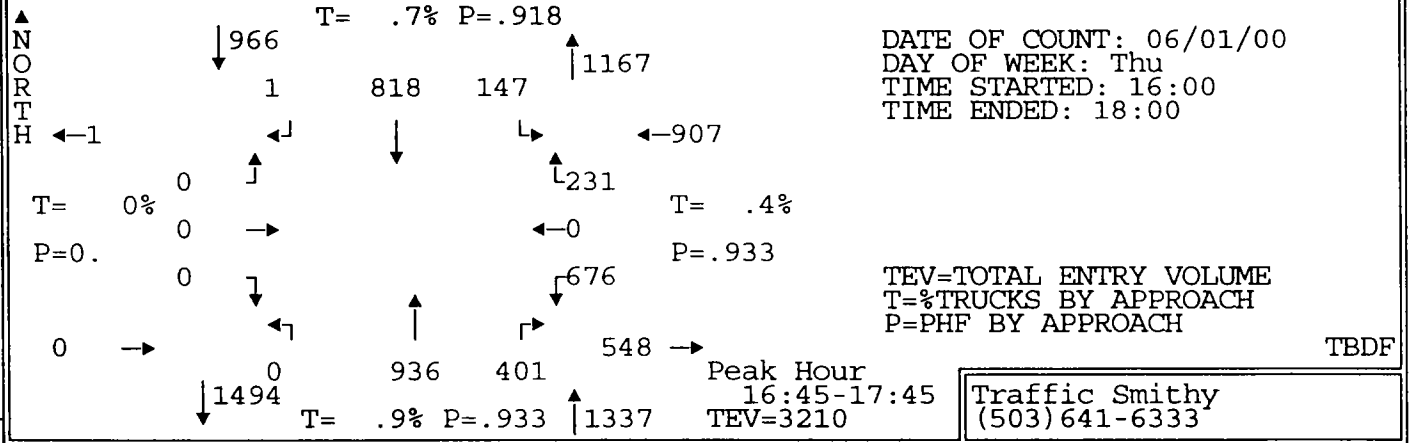


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	0	0	0	0	47	13	0	67	28	26	0	24	205
16:05-16:10	0	0	0	0	68	7	0	70	34	37	0	23	239
16:10-16:15	0	0	0	0	52	22	0	77	44	36	0	12	243
16:15-16:20	0	0	1	0	48	12	0	68	17	54	0	22	222
16:20-16:25	0	0	0	0	72	9	0	72	25	57	1	22	258
16:25-16:30	0	0	0	0	62	18	0	64	28	33	0	21	226
16:30-16:35	0	0	0	0	55	12	1	81	35	38	0	26	248
16:35-16:40	0	0	0	0	56	15	0	79	35	54	0	21	260
16:40-16:45	0	0	0	0	51	8	0	91	25	44	0	14	233
16:45-16:50	0	0	0	0	75	12	0	83	34	49	0	26	279
16:50-16:55	0	0	0	0	68	11	0	66	35	62	0	15	257
16:55-17:00	0	0	0	0	83	14	0	64	28	44	0	16	249
17:00-17:05	0	0	0	0	52	15	0	90	24	53	0	22	256
17:05-17:10	0	0	0	0	69	16	0	80	38	47	0	16	266
17:10-17:15	0	0	0	0	63	17	0	82	44	59	0	19	284
17:15-17:20	0	0	0	0	78	10	0	92	34	58	0	14	286
17:20-17:25	0	0	0	0	56	14	0	79	28	69	0	23	269
17:25-17:30	0	0	0	1	74	16	0	83	33	59	0	20	286
17:30-17:35	0	0	0	0	49	4	0	61	27	71	0	23	235
17:35-17:40	0	0	0	0	73	8	0	86	43	44	0	20	274
17:40-17:45	0	0	0	0	78	10	0	70	33	61	0	17	269
17:45-17:50	0	0	0	0	55	11	0	87	27	46	0	17	243
17:50-17:55	0	0	0	0	62	5	0	74	22	65	0	16	244
17:55-18:00	0	0	0	0	55	4	0	66	24	45	0	11	205

Total Survey	0	0	1	1	1501	283	1	1832	745	1211	1	460	6036
PHF	0	0	0	.25	.9	.77	0	.92	.86	.85	0	.88	.954
% Trucks	0	0	0	0	1.2	1.4	0	1.3	2	.5	0	1.3	1.2
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	15	0	0

Hourly Totals													
16:00-17:00	0	0	1	0	737	153	1	882	368	534	1	242	2919
16:15-17:15	0	0	1	0	754	159	1	920	368	594	1	240	3038
16:30-17:30	0	0	0	1	780	160	1	970	393	636	0	232	3173
16:45-17:45	0	0	0	1	818	147	0	936	401	676	0	231	3210
17:00-18:00	0	0	0	1	764	130	0	950	377	677	0	218	3117

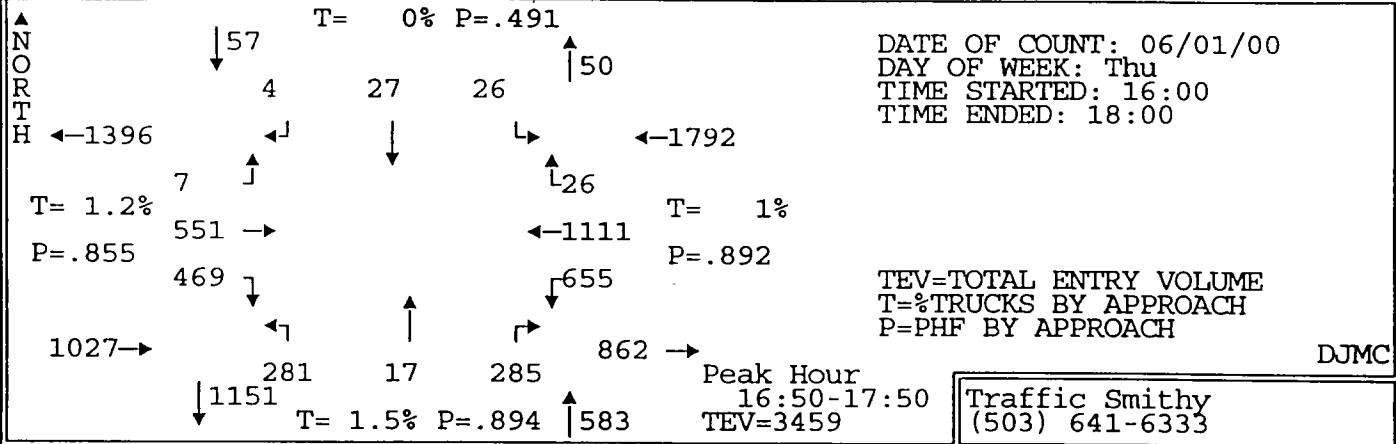
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
HALL BOULEVARD AT DENNEY ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
16:45-17:00	0	0	0	0	226	37	0	213	97	155	0	57	785
17:00-17:15	0	0	0	0	184	48	0	252	106	159	0	57	806
17:15-17:30	0	0	0	1	208	40	0	254	95	186	0	57	841
17:30-17:45	0	0	0	0	200	22	0	217	103	176	0	60	778
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:45-17:00	0	0	0	0	1	0	0	0	1	1	0	1	4
17:00-17:15	0	0	0	0	2	0	0	5	1	0	0	1	9
17:15-17:30	0	0	0	0	1	1	0	0	1	0	0	0	3
17:30-17:45	0	0	0	0	2	0	0	2	1	0	0	1	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
16:45-17:00	0	0	0	0	1	0	0	0	2	0	0	0	3
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	1	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	3	0	0	0	0	3
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
16:45-17:00	0	0	0	0	0	0	1	0	0	5	0	6	
17:00-17:15	0	0	0	0	0	0	0	0	0	3	0	3	
17:15-17:30	0	0	0	0	0	0	0	0	0	2	0	2	
17:30-17:45	0	0	0	0	0	0	0	0	0	2	0	2	
Peak Hour by Movement													
PHF	0	0	0	.25	.9	.77	0	.92	.95	.91	0	.96	.954
% Trucks (all)	0	0	0	0	.7	.7	0	.9	1	.1	0	1.3	.7
% Trucks (M+H)	0	0	0	0	0	0	0	.1	0	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	0	1	0	737	153	1	882	368	534	1	242	2919
16:15-17:15	0	0	1	0	754	159	1	920	368	594	1	240	3038
16:30-17:30	0	0	0	1	780	160	1	970	393	636	0	232	3173
16:45-17:45	0	0	0	1	818	147	0	936	401	676	0	231	3210
17:00-18:00	0	0	0	1	764	130	0	950	377	677	0	218	3117

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
HALL BOULEVARD AT GREENWAY ROAD

27516



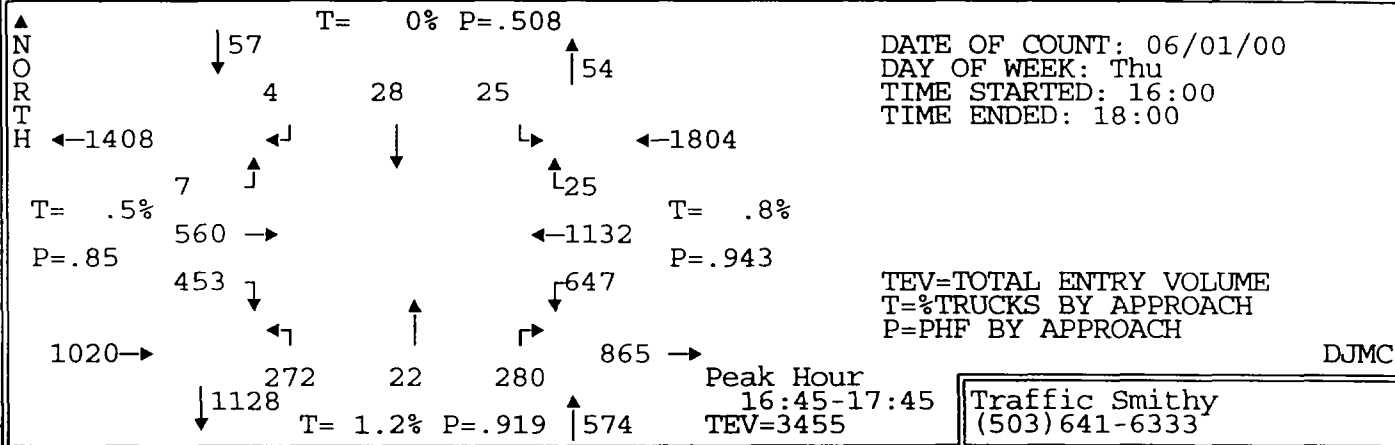
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	25	52	0	0	0	0	18	0	14	44	83	0	236
16:05-16:10	21	52	1	0	1	1	22	0	22	25	87	0	232
16:10-16:15	32	36	0	1	0	0	18	0	28	53	76	2	246
16:15-16:20	22	42	0	0	0	0	28	1	27	49	78	0	247
16:20-16:25	31	61	0	1	1	0	15	0	31	44	78	1	263
16:25-16:30	25	61	0	0	0	0	25	0	27	27	58	1	224
16:30-16:35	19	40	0	1	2	2	22	1	31	49	102	2	271
16:35-16:40	25	44	0	0	0	0	21	0	26	57	83	0	256
16:40-16:45	28	41	0	0	0	0	24	0	25	57	78	0	253
16:45-16:50	24	47	1	0	2	11	13	9	23	49	81	3	263
16:50-16:55	34	53	1	2	2	1	25	2	33	55	82	1	291
16:55-17:00	45	36	0	1	1	8	20	6	25	49	85	2	278
17:00-17:05	31	44	0	0	0	0	27	1	24	42	76	1	246
17:05-17:10	47	40	1	0	0	0	21	0	15	68	126	0	318
17:10-17:15	23	29	0	1	1	1	29	0	23	55	109	1	272
17:15-17:20	38	63	0	0	2	1	28	0	23	41	101	1	298
17:20-17:25	57	58	1	0	3	0	21	1	16	58	110	2	327
17:25-17:30	42	39	2	0	2	1	23	0	26	63	96	0	294
17:30-17:35	36	53	0	0	0	1	22	0	23	47	75	5	262
17:35-17:40	40	39	1	0	13	1	25	2	27	61	109	9	327
17:40-17:45	36	59	0	0	2	0	18	1	22	59	82	0	279
17:45-17:50	40	38	1	0	1	12	22	4	28	57	60	4	267
17:50-17:55	38	67	0	2	2	2	31	0	19	37	52	1	251
17:55-18:00	26	37	0	0	0	0	24	0	22	71	66	1	247

Total Survey	785	1131	9	9	35	42	542	28	580	1217	2033	37	6448
PHF	.86	.86	.58	.33	.42	.5	.9	.47	.87	.93	.83	.46	.940
% Trucks	.5	1.8	0	0	0	0	1.7	0	1.4	1	1	2.7	1.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	38	0	0	12	0	0	36	0	0	13	0	0

Hourly Totals													
16:00-17:00	331	565	3	6	9	23	251	19	312	558	971	12	3060
16:15-17:15	354	538	3	6	9	23	270	20	310	601	1036	12	3182
16:30-17:30	413	534	6	5	15	25	274	20	290	643	1129	13	3367
16:45-17:45	453	560	7	4	28	25	272	22	280	647	1132	25	3455
17:00-18:00	454	566	6	3	26	19	291	9	268	659	1062	25	3388

365

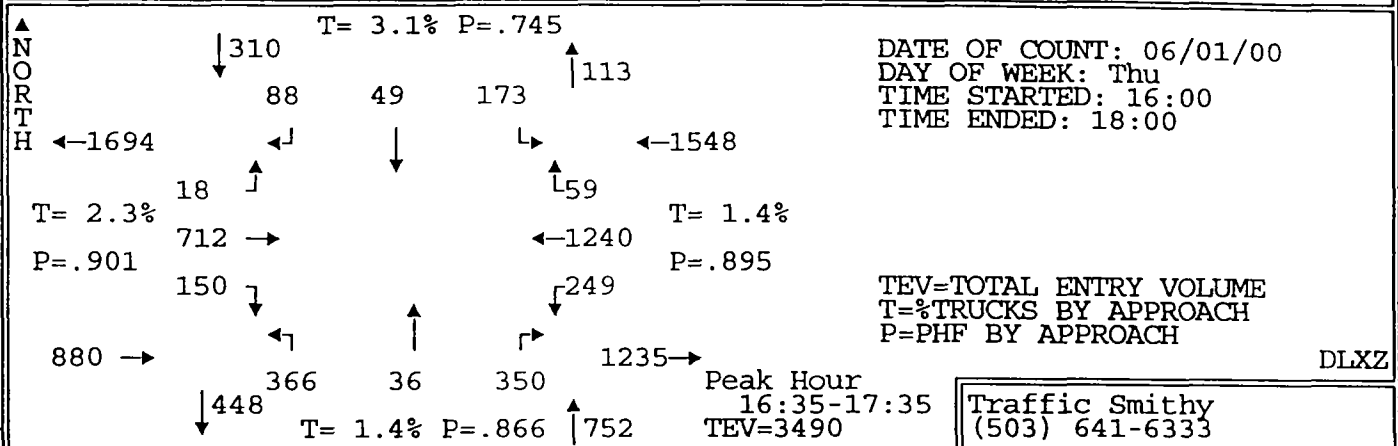
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
HALL BOULEVARD AT GREENWAY ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
16:45-17:00	103	136	2	3	5	20	58	17	81	153	248	6	832
17:00-17:15	101	113	1	1	1	1	77	1	62	165	311	2	836
17:15-17:30	137	160	3	0	7	2	72	1	65	162	307	3	919
17:30-17:45	112	151	1	0	15	2	65	3	72	167	266	14	868
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:45-17:00	0	1	0	0	0	0	2	0	0	1	1	0	5
17:00-17:15	0	1	0	0	0	0	0	0	1	3	3	1	9
17:15-17:30	0	2	0	0	0	0	0	0	2	1	1	0	6
17:30-17:45	0	1	0	0	0	0	1	0	0	3	1	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	1	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
16:45-17:00	0	0	0	0	0	0	1	0	0	0	0	0	1
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
16:45-17:00	1			0			5			1			7
17:00-17:15	7			2			10			2			21
17:15-17:30	4			1			4			2			11
17:30-17:45	7			6			1			3			17
Peak Hour by Movement													
PHF	.83	.88	.58	.33	.47	.31	.88	.32	.86	.97	.91	.45	.939
% Trucks (all)	0	.9	0	0	0	0	1.1	0	1.4	1.2	.5	4	.8
% Trucks (M+H)	0	0	0	0	0	0	0	0	.4	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	331	565	3	6	9	23	251	19	312	558	971	12	3060
16:15-17:15	354	538	3	6	9	23	270	20	310	601	1036	12	3182
16:30-17:30	413	534	6	5	15	25	274	20	290	643	1129	13	3367
16:45-17:45	453	560	7	4	28	25	272	22	280	647	1132	25	3455
17:00-18:00	454	566	6	3	26	19	291	9	268	659	1062	25	3388

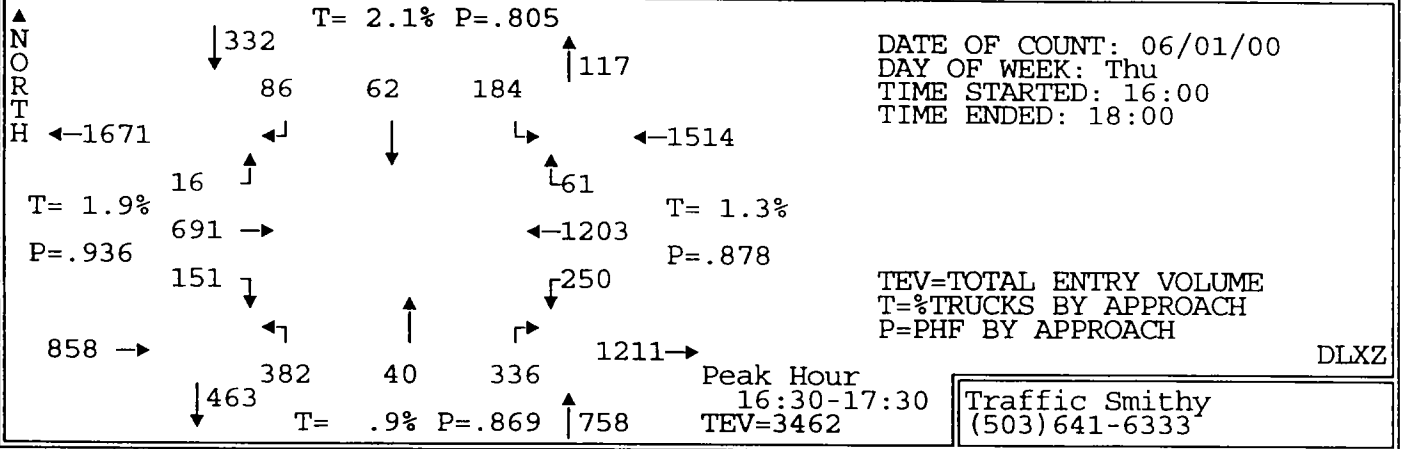
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
HALL BOULEVARD AT NIMBUS AVENUE

27517



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↓	←	↖	
16:00-16:05	13	54	4	5	3	15	28	1	40	12	84	4	263
16:05-16:10	9	46	1	5	3	10	38	2	36	25	66	3	244
16:10-16:15	18	59	1	4	4	9	20	1	29	15	101	7	268
16:15-16:20	17	55	2	4	2	5	23	4	22	23	96	3	256
16:20-16:25	27	74	1	2	4	6	21	3	14	22	98	8	280
16:25-16:30	17	53	2	8	6	17	19	3	32	16	70	3	246
16:30-16:35	15	48	1	11	13	22	37	5	19	15	84	5	275
16:35-16:40	5	59	3	3	6	30	38	2	44	22	69	1	282
16:40-16:45	14	50	2	3	4	11	34	7	32	25	112	4	298
16:45-16:50	14	50	1	7	6	10	26	6	19	23	108	7	277
16:50-16:55	18	75	2	4	2	10	31	1	32	24	95	4	298
16:55-17:00	10	56	3	7	3	12	25	3	21	27	98	7	272
17:00-17:05	13	66	3	7	8	27	24	5	33	12	85	4	285
17:05-17:10	6	60	0	11	10	19	40	4	30	17	90	9	296
17:10-17:15	13	48	1	7	2	8	44	1	31	26	107	3	291
17:15-17:20	11	65	0	10	2	13	37	3	27	24	123	6	321
17:20-17:25	19	53	2	9	2	12	23	1	24	18	122	3	288
17:25-17:30	13	61	0	7	4	10	23	2	24	17	110	8	279
17:30-17:35	14	69	3	13	0	11	21	1	33	14	121	3	303
17:35-17:40	13	42	0	7	3	12	31	2	27	21	99	6	263
17:40-17:45	12	68	0	7	3	11	34	1	19	20	101	7	283
17:45-17:50	17	63	0	2	1	9	20	4	23	17	92	6	254
17:50-17:55	8	66	1	2	2	10	15	0	21	24	105	7	261
17:55-18:00	9	54	1	2	2	10	15	1	14	22	88	2	220
Total Survey	325	1394	32	147	95	309	667	63	646	481	2324	120	6603
PHF	.82	.9	.75	.76	.58	.75	.76	.6	.92	.84	.87	.74	.960
% Trucks	2.2	2.4	3.1	1.4	6.3	2.9	1.2	0	1.7	1.7	1.1	6.7	1.8
Stopped Buses	0	5	0	0	0	0	0	0	0	0	0	0	0
Peds	0	18	0	0	17	0	0	4	0	0	6	0	0
Hourly Totals													
16:00-17:00	177	679	23	63	56	157	340	38	340	249	1081	56	3259
16:15-17:15	169	694	19	74	66	177	362	44	329	252	1112	58	3356
16:30-17:30	151	691	16	86	62	184	382	40	336	250	1203	61	3462
16:45-17:45	156	713	13	96	45	155	359	30	320	243	1259	67	3456
17:00-18:00	148	715	9	84	39	152	327	25	306	232	1243	64	3344

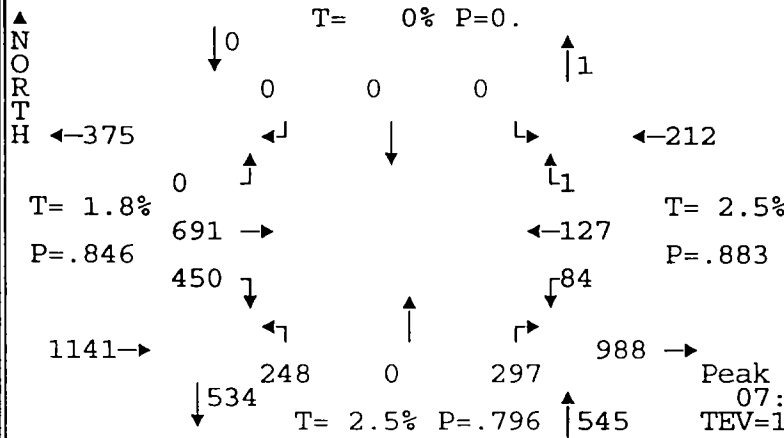
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
HALL BOULEVARD AT NIMBUS AVENUE**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↓	←	↑	
ALL VEHICLES													
16:30-16:45	34	157	6	17	23	63	109	14	95	62	265	10	855
16:45-17:00	42	181	6	18	11	32	82	10	72	74	301	18	847
17:00-17:15	32	174	2	25	20	54	108	10	94	55	282	16	872
17:15-17:30	43	179	2	26	8	35	83	6	75	59	355	17	888
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:30-16:45	2	1	0	0	2	0	2	0	1	0	1	1	10
16:45-17:00	0	5	0	0	1	1	0	0	2	1	3	1	14
17:00-17:15	1	3	0	0	0	0	1	0	1	1	7	0	14
17:15-17:30	0	3	0	0	0	0	0	0	0	1	1	0	5
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:30-16:45	0	0	0	0	1	0	0	0	0	0	0	0	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	1	0	1
17:00-17:15	0	1	0	0	0	1	0	0	0	0	0	1	3
17:15-17:30	0	0	0	0	0	1	0	0	0	0	0	0	1
BICYCLES													
16:30-16:45	0	1	0	0	0	0	0	0	0	0	0	0	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	1	0	1
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	1	0	0	0	0	0	1	0	2
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
16:30-16:45	2			2			0			0		4	
16:45-17:00	1			1			1			2		5	
17:00-17:15	0			6			0			1		7	
17:15-17:30	3			2			0			0		5	
Peak Hour by Movement													
PHF	.88	.95	.67	.83	.67	.73	.88	.71	.88	.84	.85	.85	.974
% Trucks (all)	2	1.9	0	0	6.5	1.6	.8	0	1.2	1.2	1.1	4.9	1.4
% Trucks (M+H)	0	.1	0	0	1.6	1.1	0	0	0	0	.1	1.6	.2
Stopped Buses	0	1	0	0	0	0	0	0	0	0	0	0	
Hourly Totals													
16:00-17:00	177	679	23	63	56	157	340	38	340	249	1081	56	3259
16:15-17:15	169	694	19	74	66	177	362	44	329	252	1112	58	3356
16:30-17:30	151	691	16	86	62	184	382	40	336	250	1203	61	3462
16:45-17:45	156	713	13	96	45	155	359	30	320	243	1259	67	3456
17:00-18:00	148	715	9	84	39	152	327	25	306	232	1243	64	3344

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
125TH AVENUE AT GREENWAY ROAD

23835



DATE OF COUNT: 06/06/00
DAY OF WEEK: Tue
TIME STARTED: 07:00
TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Peak Hour
07:15-08:15
TEV=1898

Traffic Smithy
(503) 641-6333

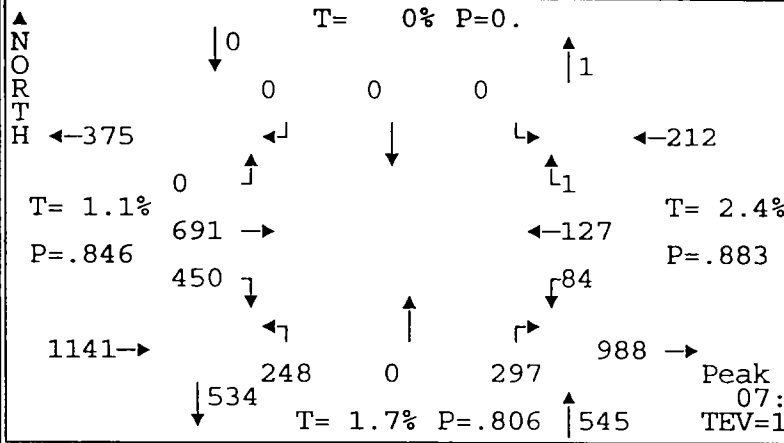
tbdg

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
07:00-07:05	12	35	0	0	0	0	13	0	10	5	13	0	88
07:05-07:10	27	57	0	0	0	0	8	0	13	7	8	0	120
07:10-07:15	29	33	0	0	0	0	12	0	15	5	13	0	107
07:15-07:20	25	59	0	0	0	0	13	0	18	4	6	0	125
07:20-07:25	28	45	0	0	0	0	12	0	13	11	9	0	118
07:25-07:30	44	51	0	0	0	0	16	0	23	7	11	0	152
07:30-07:35	63	47	0	0	0	0	32	0	22	11	7	1	183
07:35-07:40	60	56	0	0	0	0	27	0	26	7	7	0	183
07:40-07:45	57	54	0	0	0	0	24	0	23	10	14	0	182
07:45-07:50	41	67	0	0	0	0	33	0	34	4	10	0	189
07:50-07:55	30	71	0	0	0	0	23	0	34	6	10	0	174
07:55-08:00	36	59	0	0	0	0	18	0	27	4	13	0	157
08:00-08:05	34	71	0	0	0	0	15	0	19	4	16	0	159
08:05-08:10	20	60	0	0	0	0	19	0	28	10	10	0	147
08:10-08:15	12	51	0	0	0	0	16	0	30	6	14	0	129
08:15-08:20	21	32	0	0	0	0	6	0	16	13	15	0	103
08:20-08:25	15	65	0	0	0	0	14	0	21	9	13	0	137
08:25-08:30	13	41	0	0	0	0	12	0	5	6	13	0	90
08:30-08:35	17	48	0	0	0	0	16	0	17	8	17	0	123
08:35-08:40	18	32	0	0	0	0	17	0	13	4	5	0	89
08:40-08:45	37	32	0	0	0	0	18	0	7	10	11	0	115
08:45-08:50	24	32	0	0	0	0	24	0	14	5	13	0	112
08:50-08:55	30	28	0	0	0	0	17	0	15	3	11	0	104
08:55-09:00	20	30	0	0	0	0	16	0	18	4	12	0	100

Total Survey	713	1156	0	0	0	0	421	0	461	163	271	1	3186
PHF	.63	.86	0	0	0	0	.74	0	.78	.72	.79	.25	.856
% Trucks	3.1	1	0	0	0	0	3.8	0	1.3	3.7	1.8	0	2.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	0	0	0	16	0	0	3	0	0

Hourly Totals													
07:00-08:00	452	634	0	0	0	0	231	0	258	81	121	1	1778
07:15-08:15	450	691	0	0	0	0	248	0	297	84	127	1	1898
07:30-08:30	402	674	0	0	0	0	239	0	285	90	142	1	1833
07:45-08:45	294	629	0	0	0	0	207	0	251	84	147	0	1612
08:00-09:00	261	522	0	0	0	0	190	0	203	82	150	0	1408

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
125TH AVENUE AT GREENWAY ROAD



DATE OF COUNT: 06/06/00
 DAY OF WEEK: Tue
 TIME STARTED: 07:00
 TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

Peak Hour
 07:15-08:15
 TEV=1898

Traffic Smithy
 (503) 641-6333

tbdg

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	

ALL VEHICLES	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
07:15-07:30	97	155	0	0	0	0	41	0	54	22	26	0	395
07:30-07:45	180	157	0	0	0	0	83	0	71	28	28	1	548
07:45-08:00	107	197	0	0	0	0	74	0	95	14	33	0	520
08:00-08:15	66	182	0	0	0	0	50	0	77	20	40	0	435

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
07:15-07:30	4	1	0	0	0	0	2	0	1	1	1	0	10
07:30-07:45	2	0	0	0	0	0	2	0	1	1	0	0	6
07:45-08:00	1	4	0	0	0	0	3	0	0	0	0	0	8
08:00-08:15	1	0	0	0	0	0	0	0	0	1	1	0	3

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0

BICYCLES	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
07:15-07:30	0	0	0	0	0	0	1	0	0	0	0	0	1
07:30-07:45	0	0	0	0	0	0	1	0	0	0	0	0	1
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0

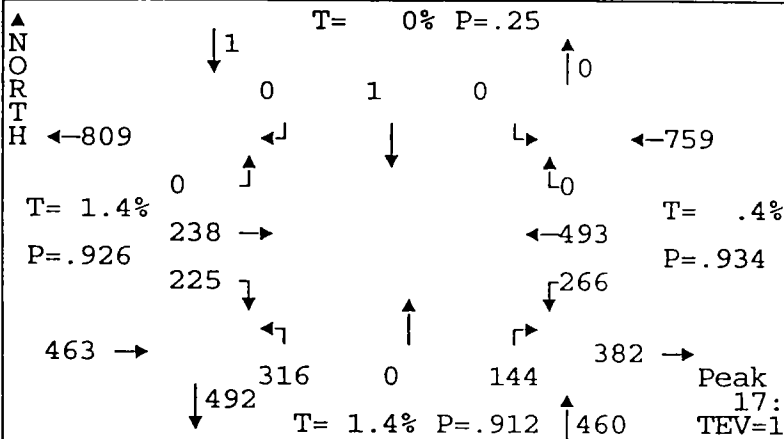
PEDESTRIANS	CROSSWALK USAGE				ALL
	SOUTH	WEST	EAST	NORTH	
07:15-07:30	0	0	1	1	2
07:30-07:45	0	0	0	0	0
07:45-08:00	0	0	0	2	2
08:00-08:15	0	0	3	0	3

Peak Hour by Movement	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
PHF	.63	.88	0	0	0	0	.75	0	.78	.75	.79	.25	.865
% Trucks (all)	1.8	.7	0	0	0	0	2.8	0	.7	3.6	1.6	0	1.4
% Trucks (M+H)	0	0	0	0	0	0	0	0	0	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
07:00-08:00	452	634	0	0	0	0	231	0	258	81	121	1	1778
07:15-08:15	450	691	0	0	0	0	248	0	297	84	127	1	1898
07:30-08:30	402	674	0	0	0	0	239	0	285	90	142	1	1833
07:45-08:45	294	629	0	0	0	0	207	0	251	84	147	0	1612
08:00-09:00	261	522	0	0	0	0	190	0	203	82	150	0	1408

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
125TH AVENUE AT GREENWAY ROAD

23851



DATE OF COUNT: 06/07/00
DAY OF WEEK: Wed
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

PBBO

Peak Hour
17:00-18:00
TEV=1683

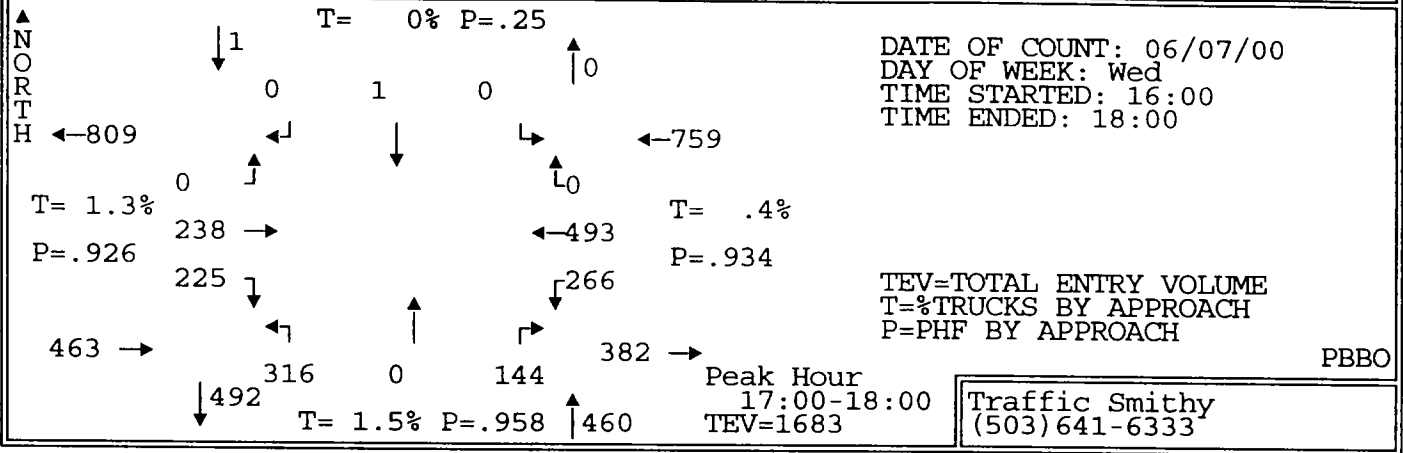
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	14	15	0	0	1	0	32	1	15	15	36	0	129
16:05-16:10	17	20	0	0	0	0	29	0	11	13	20	0	110
16:10-16:15	18	12	0	0	0	0	24	0	10	13	35	0	112
16:15-16:20	17	18	0	0	0	0	21	0	9	14	31	0	110
16:20-16:25	15	25	0	0	0	0	22	0	10	14	28	0	114
16:25-16:30	18	28	0	0	0	0	33	0	15	17	41	0	152
16:30-16:35	12	27	0	0	0	0	19	0	11	15	36	0	120
16:35-16:40	22	24	0	0	0	0	26	0	11	18	32	0	133
16:40-16:45	17	18	0	0	0	0	14	0	10	25	36	0	120
16:45-16:50	16	21	0	0	0	0	25	0	8	11	41	0	122
16:50-16:55	13	24	0	0	0	0	22	0	9	32	26	0	126
16:55-17:00	24	18	0	0	0	0	23	0	7	23	42	0	137
17:00-17:05	14	16	0	0	0	0	27	0	13	27	52	0	149
17:05-17:10	22	25	0	0	0	0	26	0	5	24	31	0	133
17:10-17:15	19	17	0	0	0	0	27	0	15	14	35	0	127
17:15-17:20	23	16	0	0	0	0	24	0	10	22	33	0	128
17:20-17:25	14	24	0	0	1	0	36	0	5	23	42	0	145
17:25-17:30	19	16	0	0	0	0	27	0	11	24	43	0	140
17:30-17:35	25	20	0	0	0	0	20	0	13	24	44	0	146
17:35-17:40	22	18	0	0	0	0	30	0	17	26	34	0	147
17:40-17:45	20	20	0	0	0	0	25	0	15	24	34	0	138
17:45-17:50	11	27	0	0	0	0	26	0	13	15	52	0	144
17:50-17:55	17	17	0	0	0	0	22	0	7	18	45	0	126
17:55-18:00	19	22	0	0	0	0	26	0	20	25	48	0	160

Total Survey	428	488	0	0	2	0	606	1	270	476	897	0	3168
PHF	.84	.9	0	0	.25	0	.91	0	.8	.9	.85	0	.971
% Trucks	1.2	1.6	0	0	0	0	1.3	0	1.5	0	.7	0	1
Stopped Buses	0	1	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	17	0	0

Hourly Totals													
16:00-17:00	203	250	0	0	1	0	290	1	126	210	404	0	1485
16:15-17:15	209	261	0	0	0	0	285	0	123	234	431	0	1543
16:30-17:30	215	246	0	0	1	0	296	0	115	258	449	0	1580
16:45-17:45	231	235	0	0	1	0	312	0	128	274	457	0	1638
17:00-18:00	225	238	0	0	1	0	316	0	144	266	493	0	1683

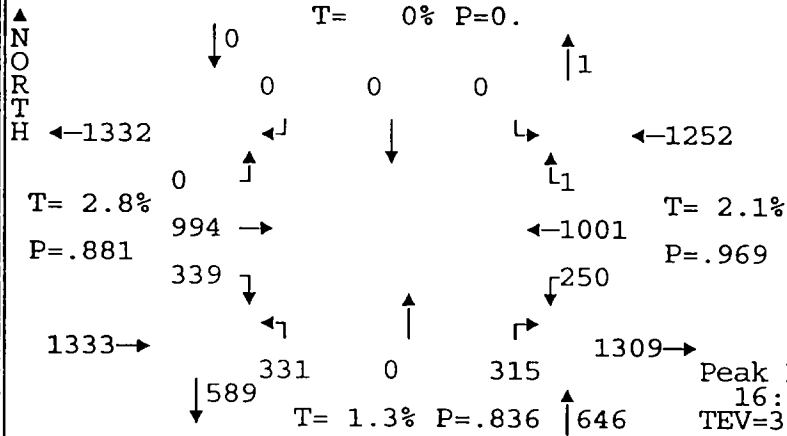
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
125TH AVENUE AT GREENWAY ROAD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	55	58	0	0	0	0	80	0	33	65	118	0	409
17:15-17:30	56	56	0	0	1	0	87	0	26	69	118	0	413
17:30-17:45	67	58	0	0	0	0	75	0	45	74	112	0	431
17:45-18:00	47	66	0	0	0	0	74	0	40	58	145	0	430
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	3	0	0	0	0	1	0	0	0	1	0	5
17:15-17:30	2	0	0	0	0	0	0	0	0	0	1	0	3
17:30-17:45	0	0	0	0	0	0	3	0	1	0	1	0	5
17:45-18:00	0	1	0	0	0	0	2	0	0	0	0	0	3
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	1	0	0	0	0	0	0	0	0	0	0	1
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	0	0	0	0	0	0	1	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	2	0	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	2	0	0	2
Peak Hour by Movement													
PHF	.84	.9	0	0	.25	0	.91	0	.8	.9	.85	0	.976
% Trucks (all)	.9	1.7	0	0	0	0	1.9	0	.7	.9	.6	0	1
% Trucks (M+H)	0	0	0	0	0	0	0	0	0	0	0	0	0
Stopped Buses	0	1	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	203	250	0	0	1	0	290	1	126	210	404	0	1485
16:15-17:15	209	261	0	0	0	0	285	0	123	234	431	0	1543
16:30-17:30	215	246	0	1	0	0	296	0	115	258	449	0	1580
16:45-17:45	231	235	0	0	1	0	312	0	128	274	457	0	1638
17:00-18:00	225	238	0	0	1	0	316	0	144	266	493	0	1683

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
WESTERN AVENUE AT BEAVERTON HILLSDALE HIGHWAY

23908



DATE OF COUNT: 06/13/00
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

PBBS

Peak Hour
16:20-17:20
TEV=3231

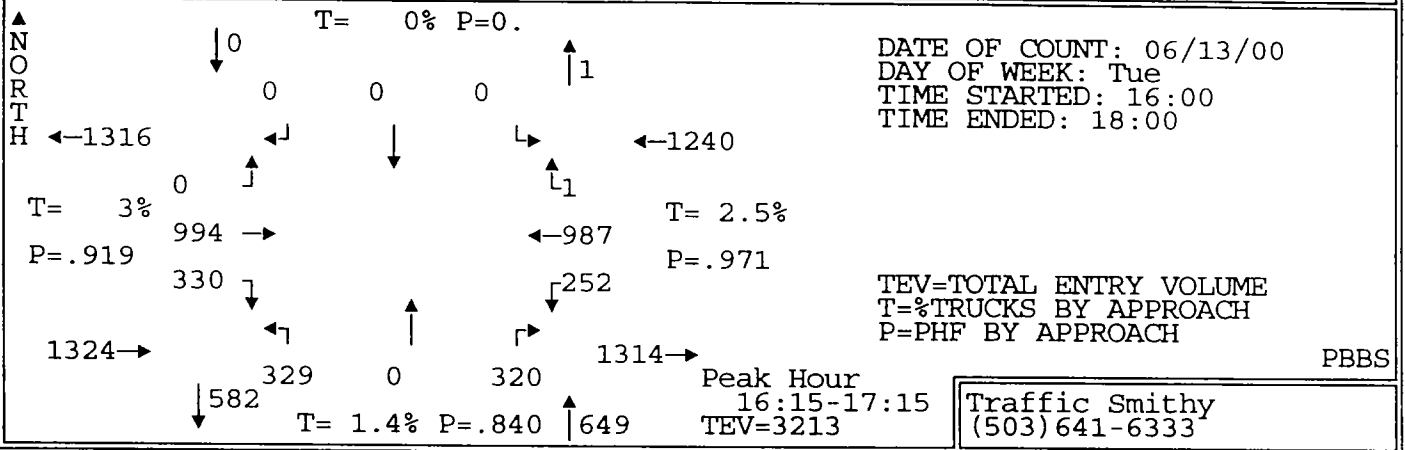
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	23	74	0	0	0	2	22	0	22	18	70	0	231
16:05-16:10	16	85	0	0	0	0	15	0	27	20	80	0	243
16:10-16:15	25	62	0	0	0	0	28	0	25	20	82	0	242
16:15-16:20	18	75	0	0	0	0	15	0	24	23	75	0	230
16:20-16:25	39	107	0	0	0	0	20	0	24	17	87	0	294
16:25-16:30	29	92	0	0	0	0	24	0	19	21	87	0	272
16:30-16:35	35	69	0	0	0	0	20	0	20	25	86	0	255
16:35-16:40	16	78	0	0	0	0	24	0	25	10	86	0	239
16:40-16:45	39	99	0	0	0	0	31	0	18	26	86	0	299
16:45-16:50	31	104	0	0	0	0	38	0	34	17	77	0	301
16:50-16:55	18	87	0	0	0	0	34	0	31	13	96	0	279
16:55-17:00	18	67	0	0	0	0	27	0	29	34	69	0	244
17:00-17:05	21	61	0	0	0	0	28	0	28	22	89	0	249
17:05-17:10	31	83	0	0	0	0	34	0	38	19	76	0	281
17:10-17:15	35	72	0	0	0	0	34	0	30	25	73	1	270
17:15-17:20	27	75	0	0	0	0	17	0	19	21	89	0	248
17:20-17:25	14	68	0	0	0	0	20	0	26	18	45	0	191
17:25-17:30	29	69	0	0	0	0	16	0	34	28	36	0	212
17:30-17:35	25	82	0	0	0	0	20	0	19	30	82	0	258
17:35-17:40	22	64	0	0	0	0	21	0	36	19	68	0	230
17:40-17:45	26	80	0	0	0	0	19	0	29	19	63	0	236
17:45-17:50	21	73	0	0	0	0	16	0	20	26	97	0	253
17:50-17:55	19	93	0	0	0	0	18	0	20	16	95	0	261
17:55-18:00	16	87	0	0	0	0	20	0	29	26	82	0	260

Total Survey	593	1906	0	0	0	2	561	0	626	513	1876	1	6078
PHF	.82	.86	0	0	0	0	.8	0	.82	.83	.96	.25	.918
% Trucks	4.6	2.3	0	0	0	0	1.4	0	1.3	1.9	2.2	0	2.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	1	0	0
Peds	0	17	0	0	0	0	0	25	0	0	14	0	0

Hourly Totals													
16:00-17:00	307	999	0	0	0	2	298	0	298	244	981	0	3129
16:15-17:15	330	994	0	0	0	0	329	0	320	252	987	1	3213
16:30-17:30	314	932	0	0	0	0	323	0	332	258	908	1	3068
16:45-17:45	297	912	0	0	0	0	308	0	353	265	863	1	2999
17:00-18:00	286	907	0	0	0	0	263	0	328	269	895	1	2949

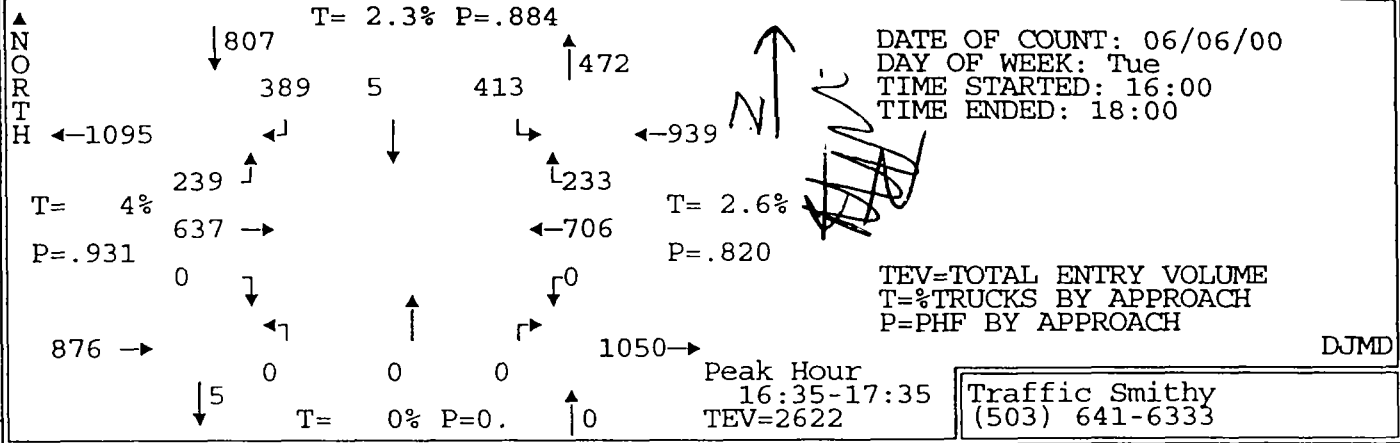
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
WESTERN AVENUE AT BEAVERTON HILLSDALE HIGHWAY**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
16:15-16:30	86	274	0	0	0	0	59	0	67	61	249	0	796
16:30-16:45	90	246	0	0	0	0	75	0	63	61	258	0	793
16:45-17:00	67	258	0	0	0	0	99	0	94	64	242	0	824
17:00-17:15	87	216	0	0	0	0	96	0	96	66	238	1	800
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:15-16:30	9	6	0	0	0	0	1	0	0	3	6	0	25
16:30-16:45	4	4	0	0	0	0	0	0	0	0	5	0	13
16:45-17:00	2	5	0	0	0	0	2	0	1	0	5	0	15
17:00-17:15	1	2	0	0	0	0	0	0	2	1	8	0	14
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:15-16:30	0	0	0	0	0	0	0	0	0	1	0	0	1
16:30-16:45	2	1	0	0	0	0	0	0	0	0	0	0	3
16:45-17:00	0	1	0	0	0	0	0	0	0	1	1	0	3
17:00-17:15	1	0	0	0	0	0	1	0	1	0	0	0	3
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:15-16:30	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30-16:45	1	0	0	0	0	0	0	0	0	0	0	0	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	1	0	0	0	0	0	0	1	0	0	0	2
BICYCLES													
16:15-16:30	0	0	0	0	0	0	0	0	0	0	2	0	2
16:30-16:45	0	0	0	0	0	0	0	0	1	0	0	0	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	1	0	1
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:15-16:30	1			0			1			0			2
16:30-16:45	4			0			1			0			5
16:45-17:00	5			0			7			10			22
17:00-17:15	0			0			5			0			5
Peak Hour by Movement													
PHF	.92	.91	0	0	0	0	.83	0	.83	.95	.96	.25	.974
% Trucks (all)	6.1	2	0	0	0	0	1.2	0	1.6	2.4	2.5	0	2.5
% Trucks (M+H)	1.2	.3	0	0	0	0	.3	0	.6	.8	.1	0	.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	1	0	0
Hourly Totals													
16:00-17:00	307	999	0	0	0	2	298	0	298	244	981	0	3129
16:15-17:15	330	994	0	0	0	0	329	0	320	252	987	1	3213
16:30-17:30	314	932	0	0	0	0	323	0	332	258	908	1	3068
16:45-17:45	297	912	0	0	0	0	308	0	353	265	863	1	2999
17:00-18:00	286	907	0	0	0	0	263	0	328	269	895	1	2949

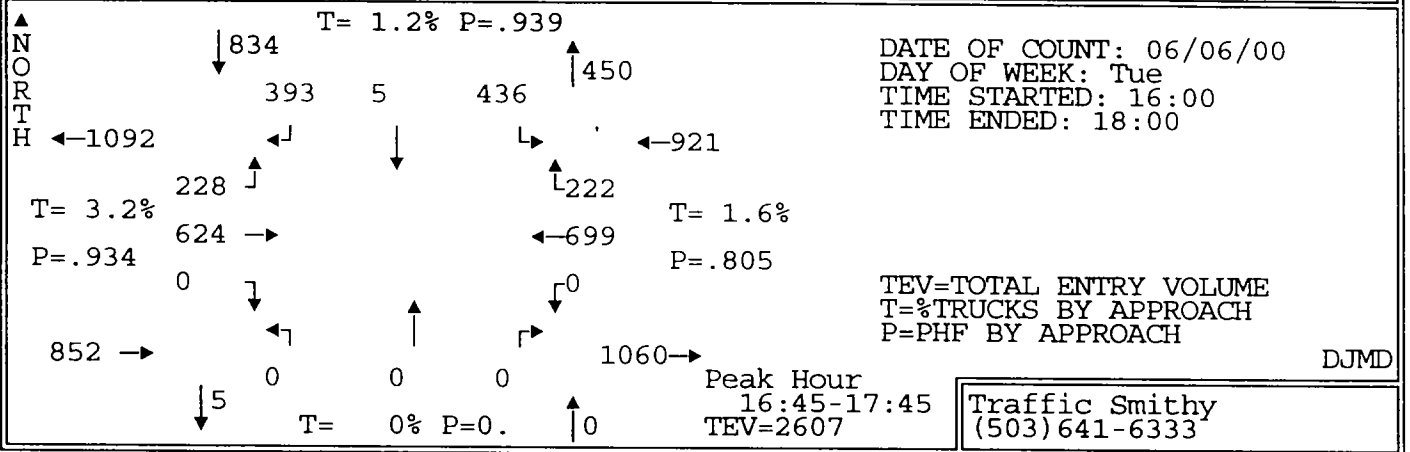
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
WESTERN AVENUE AT ALLEN BOULEVARD

23830



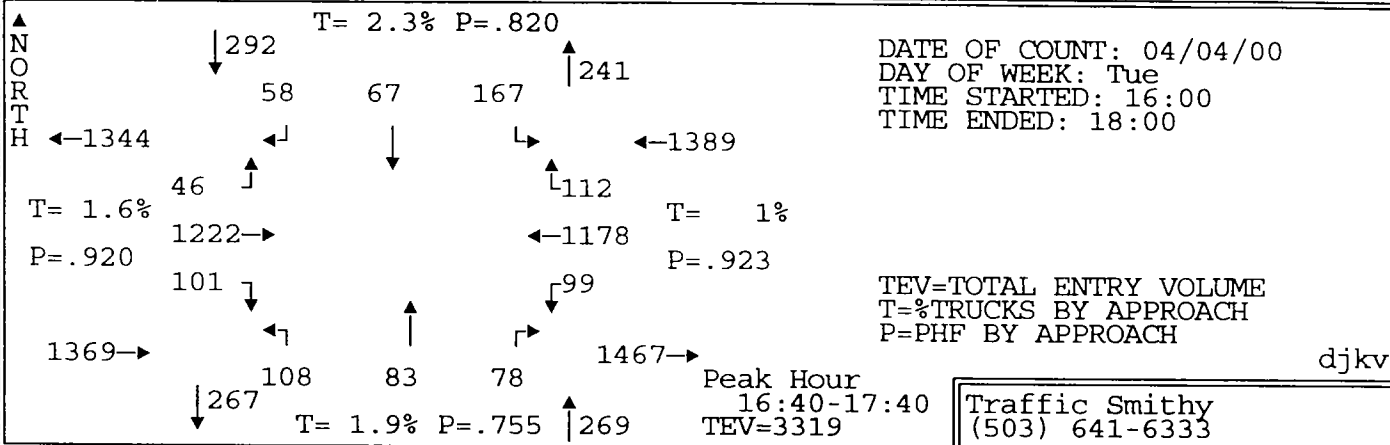
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	0	46	22	17	0	17	0	0	0	0	57	14	173
16:05-16:10	0	40	23	31	0	28	0	0	0	0	49	18	189
16:10-16:15	0	59	21	22	0	18	0	0	0	0	53	15	188
16:15-16:20	0	41	17	40	0	35	0	0	0	0	43	13	189
16:20-16:25	0	44	22	29	0	31	0	0	0	0	54	23	203
16:25-16:30	0	40	21	18	0	24	0	0	0	0	48	12	163
16:30-16:35	0	44	20	30	0	23	0	0	0	0	53	17	187
16:35-16:40	0	44	26	30	0	22	0	0	0	0	72	23	217
16:40-16:45	0	62	18	33	0	32	0	0	0	0	49	17	211
16:45-16:50	0	54	26	28	0	34	0	0	0	0	41	17	200
16:50-16:55	0	47	22	33	0	38	0	0	0	0	48	19	207
16:55-17:00	0	68	11	19	1	41	0	0	0	0	53	15	208
17:00-17:05	0	57	30	37	0	26	0	0	0	0	59	14	223
17:05-17:10	0	56	12	40	0	39	0	0	0	0	114	23	284
17:10-17:15	0	53	20	35	0	45	0	0	0	0	58	18	229
17:15-17:20	0	50	19	33	1	35	0	0	0	0	48	22	208
17:20-17:25	0	47	13	33	2	25	0	0	0	0	66	24	210
17:25-17:30	0	49	16	32	0	38	0	0	0	0	49	20	204
17:30-17:35	0	50	26	36	1	38	0	0	0	0	49	21	221
17:35-17:40	0	43	21	33	0	44	0	0	0	0	56	9	206
17:40-17:45	0	50	12	34	0	33	0	0	0	0	58	20	207
17:45-17:50	0	55	13	36	0	41	0	0	0	0	51	7	203
17:50-17:55	0	38	16	28	0	37	0	0	0	0	50	11	180
17:55-18:00	0	59	18	24	0	24	0	0	0	0	28	11	164
Total Survey	0	1196	465	731	5	768	0	0	0	0	1306	403	4874
PHF	0	.88	.85	.87	.42	.87	0	0	0	0	.76	.88	.890
% Trucks	0	2.8	7.1	3.3	20	1.3	0	0	0	0	2.8	2	3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	1	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	589	249	330	1	343	0	0	0	0	620	203	2335
16:15-17:15	0	610	245	372	1	390	0	0	0	0	692	211	2521
16:30-17:30	0	631	233	383	4	398	0	0	0	0	710	229	2588
16:45-17:45	0	624	228	393	5	436	0	0	0	0	699	222	2607
17:00-18:00	0	607	216	401	4	425	0	0	0	0	686	200	2539

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
WESTERN AVENUE AT ALLEN BOULEVARD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↘	↙	←	↑	
ALL VEHICLES													
16:45-17:00	0	169	59	80	1	113	0	0	0	0	142	51	615
17:00-17:15	0	166	62	112	0	110	0	0	0	0	231	55	736
17:15-17:30	0	146	48	98	3	98	0	0	0	0	163	66	622
17:30-17:45	0	143	59	103	1	115	0	0	0	0	163	50	634
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:45-17:00	0	4	1	1	0	0	0	0	0	0	3	0	9
17:00-17:15	0	5	4	1	0	0	0	0	0	0	1	0	11
17:15-17:30	0	1	1	0	0	0	0	0	0	0	2	0	4
17:30-17:45	0	2	1	0	1	1	0	0	0	0	1	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:45-17:00	0	0	0	0	0	0	0	0	0	0	1	0	1
17:00-17:15	0	0	1	1	0	0	0	0	0	0	0	0	2
17:15-17:30	0	0	1	0	0	0	0	0	0	0	4	0	5
17:30-17:45	0	0	2	1	0	0	0	0	0	0	1	0	4
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:45-17:00	0	1	0	0	0	2	0	0	0	0	1	0	4
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	2	0	1	0	0	0	0	0	0	0	0	3
17:30-17:45	0	0	1	0	0	1	0	0	0	0	1	0	3
BICYCLES													
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	0	.92	.92	.88	.42	.95	0	0	0	0	.76	.84	.885
% Trucks (all)	0	2.4	5.3	1.3	20	.9	0	0	0	0	2.1	0	2
% Trucks (M+H)	0	.5	2.2	.8	0	.7	0	0	0	0	1.1	0	.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	589	249	330	1	343	0	0	0	0	620	203	2335
16:15-17:15	0	610	245	372	1	390	0	0	0	0	692	211	2521
16:30-17:30	0	631	233	383	4	398	0	0	0	0	710	229	2588
16:45-17:45	0	624	228	393	5	436	0	0	0	0	699	222	2607
17:00-18:00	0	607	216	401	4	425	0	0	0	0	686	200	2539

**INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
BEAVERTON-HILLSDALE HIGHWAY AT LAURELWOOD AVENUE**

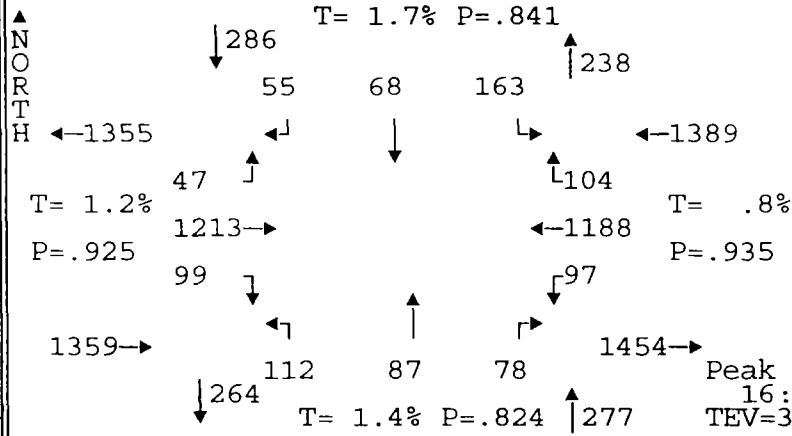


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	0	89	5	4	10	12	7	8	6	9	98	9	257
16:05-16:10	7	98	3	6	9	15	10	9	11	7	81	10	266
16:10-16:15	11	84	6	6	7	14	8	11	4	3	80	11	245
16:15-16:20	11	92	7	2	5	13	9	6	5	5	69	21	245
16:20-16:25	6	97	7	3	5	13	12	7	9	7	98	14	278
16:25-16:30	9	88	4	3	2	11	8	15	4	9	80	2	235
16:30-16:35	1	99	1	0	3	10	2	5	5	3	97	11	237
16:35-16:40	7	83	2	7	9	13	6	4	6	2	94	13	246
16:40-16:45	8	90	3	3	4	17	7	6	5	11	88	14	256
16:45-16:50	6	93	1	5	6	16	4	7	2	8	112	11	271
16:50-16:55	7	100	5	2	10	9	5	5	10	7	95	7	262
16:55-17:00	8	113	7	1	8	16	7	4	12	10	113	8	307
17:00-17:05	9	104	1	9	7	16	8	7	9	4	100	10	284
17:05-17:10	6	110	3	9	6	17	9	6	5	8	97	5	281
17:10-17:15	12	114	8	8	2	11	5	1	5	8	119	5	298
17:15-17:20	9	106	4	1	4	10	8	13	6	8	85	11	265
17:20-17:25	16	96	1	1	2	14	19	10	4	11	112	17	303
17:25-17:30	9	106	3	6	8	17	10	7	7	8	91	10	282
17:30-17:35	6	101	3	7	7	12	15	11	6	5	75	5	253
17:35-17:40	5	89	7	6	3	12	11	6	7	11	91	9	257
17:40-17:45	6	81	4	0	5	13	11	10	5	9	98	6	248
17:45-17:50	9	89	1	4	8	13	4	5	3	3	94	10	243
17:50-17:55	10	111	3	9	8	9	2	6	9	15	102	5	289
17:55-18:00	2	87	5	5	6	5	8	10	6	9	84	7	234

Total Survey	180	2320	94	107	144	308	195	179	151	180	2253	231	6342
PHF	.68	.93	.77	.56	.67	.85	.61	.69	.63	.92	.92	.74	.951
% Trucks	.6	1.7	1.1	7.5	2.1	.6	1	3.9	.7	0	1.1	.9	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	22	0	0	2	0	0	2	0	0	3	0	0

Hourly Totals													
16:00-17:00	81	1126	51	42	78	159	85	87	79	81	1105	131	3105
16:15-17:15	90	1183	49	52	67	162	82	73	77	82	1162	121	3200
16:30-17:30	98	1214	39	52	69	166	90	75	76	88	1203	122	3292
16:45-17:45	99	1213	47	55	68	163	112	87	78	97	1188	104	3311
17:00-18:00	99	1194	43	65	66	149	110	92	72	99	1148	100	3237

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
BEAVERTON-HILLSDALE HIGHWAY AT LAURELWOOD AVENUE**



DATE OF COUNT: 04/04/00
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

djkv

Peak Hour
16:45-17:45
TEV=3311

Traffic Smithy
(503)641-6333

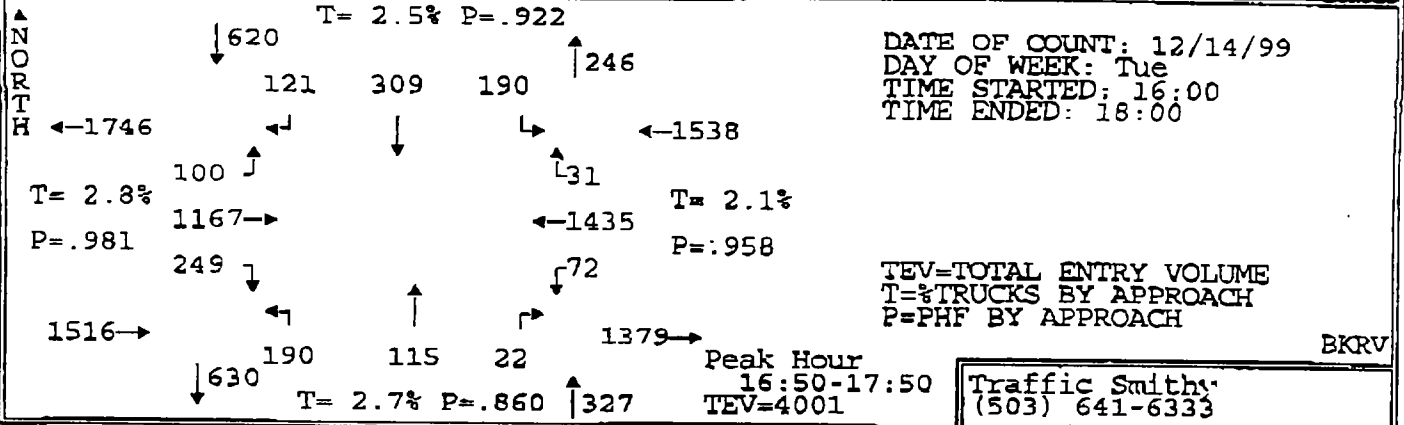
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
16:45-17:00	21	306	13	8	24	41	16	16	24	25	320	26	840
17:00-17:15	27	328	12	26	15	44	22	14	19	20	316	20	863
17:15-17:30	34	308	8	8	14	41	37	30	17	27	288	38	850
17:30-17:45	17	271	14	13	15	37	37	27	18	25	264	20	758
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:45-17:00	0	2	0	1	0	0	0	0	0	0	3	0	6
17:00-17:15	0	4	0	2	0	1	1	1	0	0	4	0	13
17:15-17:30	1	3	0	0	0	0	0	0	0	0	1	0	5
17:30-17:45	0	4	0	0	0	0	0	2	0	0	3	0	9
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:45-17:00	0	1	0	0	0	0	0	0	0	0	0	0	1
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	1	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
16:45-17:00	0	1	0	0	0	0	0	0	0	0	0	0	1
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	2	0	2
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:45-17:00	1			0			0			0			1
17:00-17:15	0			0			0			0			0
17:15-17:30	3			1			1			1			6
17:30-17:45	0			0			0			0			0
Peak Hour by Movement													
PHF	.73	.92	.84	.53	.71	.93	.76	.73	.81	.9	.93	.68	.959
% Trucks (all)	1	1.2	0	7.3	0	.6	.9	3.4	0	0	.9	0	1.1
% Trucks (M+H)	0	.2	0	1.8	0	0	0	0	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	
Hourly Totals													
16:00-17:00	81	1126	51	42	78	159	85	87	79	81	1105	131	3105
16:15-17:15	90	1183	49	52	67	162	82	73	77	82	1162	121	3200
16:30-17:30	98	1214	39	52	69	166	90	75	76	88	1203	122	3292
16:45-17:45	99	1213	47	55	68	163	112	87	78	97	1188	104	3311
17:00-18:00	99	1194	43	65	66	149	110	92	72	99	1148	100	3237

FROM : TRAFFIC SMITHY

PHONE NO. : 5036438866

Dec. 01 2000 10:49AM PG

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
TUALATIN VALLEY HIGHWAY AT HOCKEN AVENUE



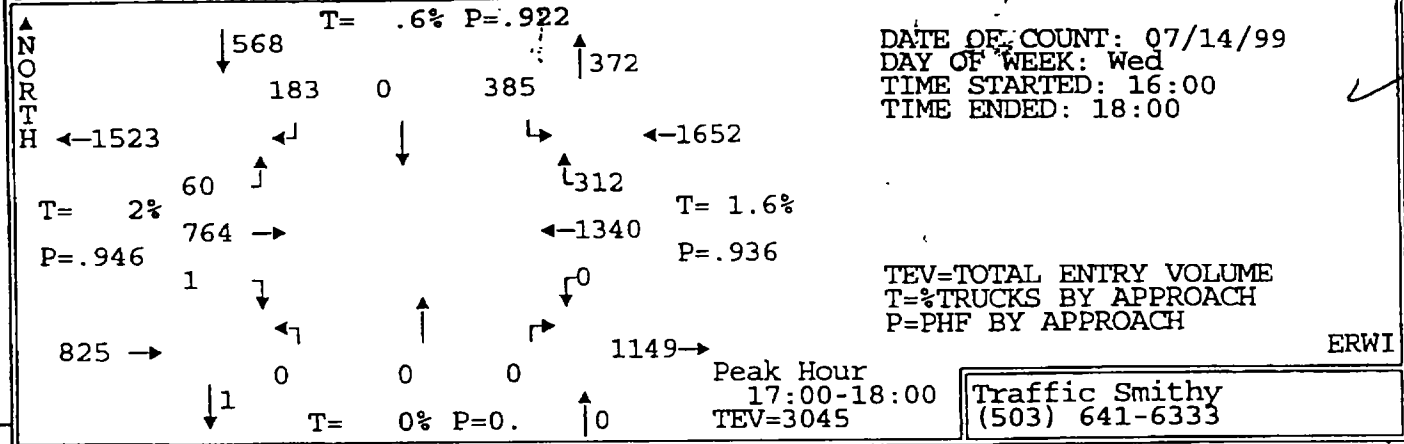
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	13	68	6	13	12	10	15	5	2	6	119	3	272
16:05-16:10	24	93	12	6	22	12	10	7	3	5	126	4	324
16:10-16:15	19	99	15	10	25	4	15	10	0	8	116	4	325
16:15-16:20	15	100	5	7	18	11	9	6	2	4	137	4	318
16:20-16:25	13	103	9	7	9	3	21	8	2	7	113	2	296
16:25-16:30	18	86	6	14	31	7	12	8	2	2	122	6	314
16:30-16:35	20	94	9	15	21	11	10	8	2	2	129	4	328
16:35-16:40	19	106	10	11	25	14	20	10	4	6	115	4	336
16:40-16:45	17	70	7	14	25	5	10	4	2	9	133	3	301
16:45-16:50	11	69	12	14	26	11	19	9	1	6	116	3	297
16:50-16:55	21	110	8	16	15	19	8	9	2	9	127	3	346
16:55-17:00	17	89	9	6	18	8	19	11	3	4	119	7	310
17:00-17:05	19	87	12	12	26	17	12	14	2	7	113	2	223
17:05-17:10	19	105	8	6	29	14	21	14	2	7	124	3	339
17:10-17:15	24	99	6	9	30	20	14	16	2	8	114	3	340
17:15-17:20	23	91	3	10	30	16	17	14	1	4	136	6	351
17:20-17:25	25	93	1	6	26	17	20	9	2	5	111	3	329
17:25-17:30	23	99	9	17	24	11	15	10	2	7	116	1	334
17:30-17:35	17	100	8	15	30	14	11	5	3	7	114	1	325
17:35-17:40	17	89	9	9	26	20	21	13	1	6	118	1	330
17:40-17:45	27	107	7	10	28	16	11	4	1	5	125	2	343
17:45-17:50	17	98	9	5	27	18	21	8	3	7	118	0	331
17:50-17:55	13	98	16	8	27	11	11	2	0	5	106	7	305
17:55-18:00	22	92	14	16	28	18	17	9	1	7	113	4	341

Total Survey	453	2245	221	256	578	307	359	199	45	139	2879	77	7758
PHF	.86	.99	.86	.74	.87	.88	.9	.74	.79	.9	.96	.65	.971
% Trucks	2	2.8	4.5	3.9	1.6	3.3	1.7	5	0	.7	2	6.5	2.5
Stopped Buses	0	3	0	0	0	0	0	0	0	0	0	0	0
Peds	0	3	0	0	8	0	0	9	0	0	6	0	0

Hourly Totals	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-17:00	207	1087	108	133	247	115	168	92	27	68	1471	44	3767
16:15-17:15	213	1118	101	131	273	140	175	102	26	67	1461	41	3848
16:30-17:30	238	1112	105	136	295	163	185	113	25	70	1453	39	3934
16:45-17:45	243	1138	103	130	308	183	188	116	20	71	1433	34	3967
17:00-18:00	246	1158	113	123	331	192	191	107	18	71	1408	33	3991

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
BEAVERTON HILLSDALE HIGHWAY AT HOCKEN AVENUE

20908

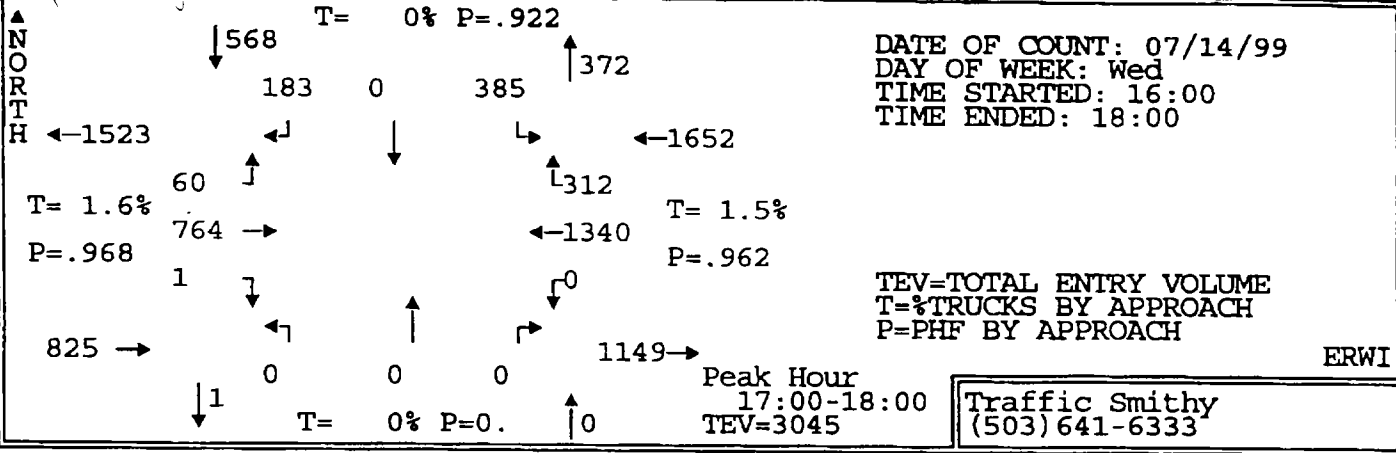


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	0	63	2	12	0	28	0	0	0	0	96	16	217
16:05-16:10	0	73	4	15	0	25	0	0	0	0	52	6	175
16:10-16:15	0	55	4	17	0	30	0	0	0	0	104	26	236
16:15-16:20	0	68	9	12	0	25	0	0	0	0	89	16	219
16:20-16:25	0	71	5	9	0	29	0	0	0	0	95	23	232
16:25-16:30	0	69	4	10	0	37	0	0	0	0	91	21	232
16:30-16:35	0	60	5	13	0	32	0	0	0	0	104	19	233
16:35-16:40	0	55	5	11	0	30	0	0	0	0	87	21	209
16:40-16:45	0	56	4	13	0	31	0	0	0	0	101	19	224
16:45-16:50	0	69	6	10	0	32	0	0	0	0	86	18	221
16:50-16:55	0	68	8	8	0	26	0	0	0	0	72	21	203
16:55-17:00	0	58	3	16	0	28	0	0	0	0	109	19	233
17:00-17:05	0	62	7	21	0	37	0	0	0	0	97	34	258
17:05-17:10	0	55	1	12	0	21	0	0	0	0	129	30	248
17:10-17:15	0	75	4	15	0	34	0	0	0	0	96	22	246
17:15-17:20	0	60	7	17	0	37	0	0	0	0	123	22	266
17:20-17:25	0	66	6	14	0	32	0	0	0	0	113	23	254
17:25-17:30	0	66	3	10	0	39	0	0	0	0	110	38	266
17:30-17:35	0	62	4	16	0	35	0	0	0	0	121	32	270
17:35-17:40	1	67	4	11	0	39	0	0	0	0	110	30	262
17:40-17:45	0	59	3	22	0	31	0	0	0	0	108	14	237
17:45-17:50	0	66	9	15	0	23	0	0	0	0	115	20	248
17:50-17:55	0	61	7	18	0	30	0	0	0	0	101	25	242
17:55-18:00	0	65	5	12	0	27	0	0	0	0	117	22	248

Total Survey	1	1529	119	329	0	738	0	0	0	0	2426	537	5679
PHF	.25	.95	.71	.83	0	.85	0	0	0	0	.96	.78	.953
% Trucks	0	1.8	5	.3	0	.7	0	0	0	0	1.5	2.2	1.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	2	0	0
Peds	0	0	0	0	11	0	0	0	0	0	9	0	0

Hourly Totals													
16:00-17:00	0	765	59	146	0	353	0	0	0	0	1086	225	2634
16:15-17:15	0	766	61	150	0	362	0	0	0	0	1156	263	2758
16:30-17:30	0	750	59	160	0	379	0	0	0	0	1227	286	2861
16:45-17:45	1	767	56	172	0	391	0	0	0	0	1274	303	2964
17:00-18:00	1	764	60	183	0	385	0	0	0	0	1340	312	3045

(Canyon)
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
BEAVERTON HILLSDALE HIGHWAY AT HOCKEN AVENUE

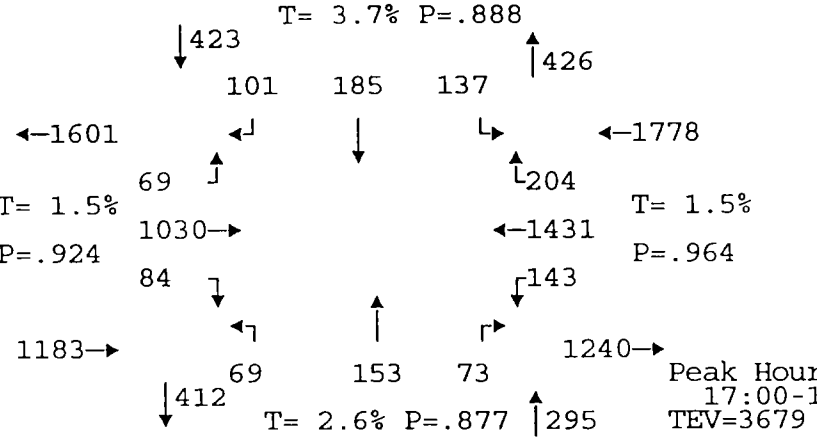


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL	
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑		
ALL VEHICLES														
17:00-17:15	0	192	12	48	0	92	0	0	0	0	0	322	86	752
17:15-17:30	0	192	16	41	0	108	0	0	0	0	0	346	83	786
17:30-17:45	1	188	11	49	0	105	0	0	0	0	0	339	76	769
17:45-18:00	0	192	21	45	0	80	0	0	0	0	0	333	67	738
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)														
17:00-17:15	0	3	0	0	0	0	0	0	0	0	0	6	1	10
17:15-17:30	0	3	0	0	0	0	0	0	0	0	0	2	3	8
17:30-17:45	0	3	0	0	0	0	0	0	0	0	0	3	4	10
17:45-18:00	0	1	1	0	0	0	0	0	0	0	0	5	0	7
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)														
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)														
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES														
17:00-17:15	0	0	0	1	0	0	0	0	0	0	0	0	1	2
17:15-17:30	0	0	0	1	0	1	0	0	0	0	0	0	0	2
17:30-17:45	0	1	0	2	0	2	0	0	0	0	0	0	0	5
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL		
	SOUTH			WEST			EAST			NORTH				
17:00-17:15	0			2			0			2			4	
17:15-17:30	0			0			0			1			1	
17:30-17:45	0			2			0			2			4	
17:45-18:00	0			1			0			0			1	
Peak Hour by Movement														
PHF	.25	.99	.71	.93	0	.89	0	0	0	0	.97	.91	.968	
% Trucks (all)	0	1.6	1.7	0	0	0	0	0	0	0	1.2	2.6	1.2	
% Trucks (M+H)	0	.3	0	0	0	0	0	0	0	0	0	0	.1	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	1	0	0	
Hourly Totals														
16:00-17:00	0	765	59	146	0	353	0	0	0	0	1086	225	2634	
16:15-17:15	0	766	61	150	0	362	0	0	0	0	1156	263	2758	
16:30-17:30	0	750	59	160	0	379	0	0	0	0	1227	286	2861	
16:45-17:45	1	767	56	172	0	391	0	0	0	0	1274	303	2964	
17:00-18:00	1	764	60	183	0	385	0	0	0	0	1340	312	3045	

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 LOMBARD AVENUE AT FARMINGTON ROAD

23982

NORTH



DATE OF COUNT: 06/20/00
 DAY OF WEEK: Tue
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

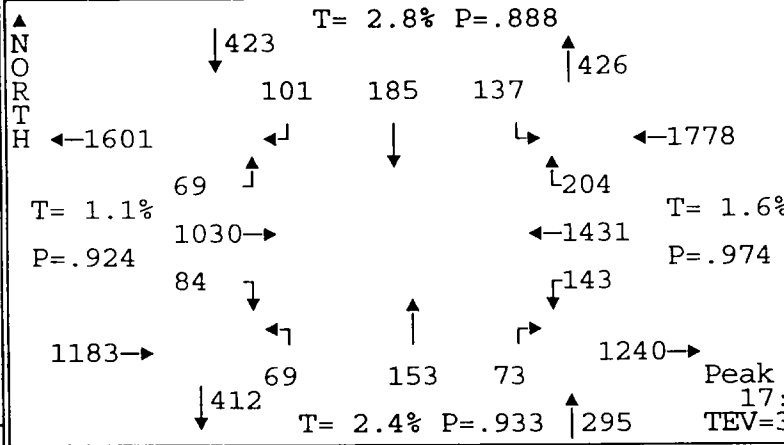
BKVP

Traffic Smyth
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	8	72	8	3	10	14	9	9	8	8	78	13	240
16:05-16:10	6	86	5	4	24	8	6	10	10	20	127	15	321
16:10-16:15	10	79	2	5	20	12	9	7	10	15	125	16	310
16:15-16:20	9	77	5	6	17	13	3	10	4	10	104	18	276
16:20-16:25	4	73	6	7	18	7	3	11	7	16	122	17	291
16:25-16:30	7	81	6	6	20	9	4	12	3	12	113	13	286
16:30-16:35	4	72	5	10	9	7	4	14	4	11	111	14	265
16:35-16:40	5	68	9	2	11	14	11	10	7	7	81	13	238
16:40-16:45	4	82	6	6	13	10	4	17	5	16	141	17	321
16:45-16:50	7	82	5	5	17	14	5	12	9	13	114	7	290
16:50-16:55	4	98	6	4	13	5	4	8	5	11	111	21	290
16:55-17:00	11	64	1	8	17	13	10	9	4	17	112	13	279
17:00-17:05	6	90	8	10	10	11	6	6	9	9	121	13	299
17:05-17:10	5	97	6	12	12	14	8	10	5	12	114	21	316
17:10-17:15	8	86	7	8	19	7	13	12	10	8	116	19	313
17:15-17:20	8	92	4	3	20	9	2	13	7	12	127	15	312
17:20-17:25	5	87	7	7	10	12	8	16	3	11	110	19	295
17:25-17:30	6	67	5	7	15	8	7	17	5	17	123	22	299
17:30-17:35	5	82	6	11	17	14	7	12	7	15	111	26	313
17:35-17:40	4	87	4	11	14	10	4	14	6	9	124	14	301
17:40-17:45	7	70	4	9	18	15	4	9	7	11	126	18	298
17:45-17:50	10	96	6	7	16	18	1	15	5	19	124	9	326
17:50-17:55	7	95	5	5	17	8	5	12	2	15	117	13	301
17:55-18:00	13	81	7	11	17	11	4	17	7	5	118	15	306
Total Survey	163	1964	133	167	374	263	141	282	149	299	2770	381	7086
PHF	.7	.94	.82	.81	.91	.8	.64	.83	.76	.79	.96	.76	.977
% Trucks	3.7	1	6	4.8	2.9	4.2	1.4	3.5	2	.3	1.4	3.1	1.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	16	0	0	1	0	0	96	0	0	7	0	0
Hourly Totals													
16:00-17:00	79	934	64	66	189	126	72	129	76	156	1339	177	3407
16:15-17:15	74	970	70	84	176	124	75	131	72	142	1360	186	3464
16:30-17:30	73	985	69	82	166	124	82	144	73	144	1381	194	3517
16:45-17:45	76	1002	63	95	182	132	78	138	77	145	1409	208	3605
17:00-18:00	84	1030	69	101	185	137	69	153	73	143	1431	204	3679

382

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
LOMBARD AVENUE AT FARMINGTON ROAD**



DATE OF COUNT: 06/20/00
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

BKVP

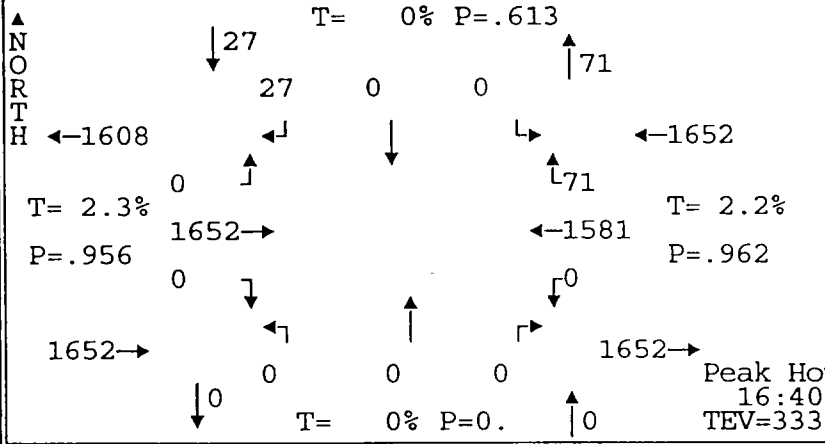
Peak Hour
17:00-18:00
TEV=3679

Traffic Smithy
(503)641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	←	↑		
ALL VEHICLES													
17:00-17:15	19	273	21	30	41	32	27	28	24	29	351	53	928
17:15-17:30	19	246	16	17	45	29	17	46	15	40	360	56	906
17:30-17:45	16	239	14	31	49	39	15	35	20	35	361	58	912
17:45-18:00	30	272	18	23	50	37	10	44	14	39	359	37	933
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	3	1	1	2	0	0	1	0	0	4	2	14
17:15-17:30	0	1	1	1	0	1	0	1	0	0	2	2	9
17:30-17:45	0	1	1	1	2	1	0	2	0	0	6	2	16
17:45-18:00	2	0	1	1	0	1	0	2	0	0	8	1	16
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	1	0	0	0	0	0	1	0	2
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	1	0	0	0	0	0	0	0	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	1	0	0	0	0	0	0	0	0	0	0	0	1
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0			0			16			1		17	
17:15-17:30	5			0			14			0		19	
17:30-17:45	0			0			3			2		5	
17:45-18:00	5			0			17			1		23	
Peak Hour by Movement													
PHF	.7	.94	.82	.81	.93	.88	.64	.83	.76	.89	.99	.88	.985
% Trucks (all)	4.8	.5	5.8	4	2.7	2.2	0	4.6	0	0	1.5	3.4	1.6
% Trucks (M+H)	2.4	0	0	0	.5	0	0	.7	0	0	.1	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	79	934	64	66	189	126	72	129	76	156	1339	177	3407
16:15-17:15	74	970	70	84	176	124	75	131	72	142	1360	186	3464
16:30-17:30	73	985	69	82	166	124	82	144	73	144	1381	194	3517
16:45-17:45	76	1002	63	95	182	132	78	138	77	145	1409	208	3605
17:00-18:00	84	1030	69	101	185	137	69	153	73	143	1431	204	3679

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT 114TH AVENUE

23950



DATE OF COUNT: 6/8/00
DAY OF WEEK: THU
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

gmaa

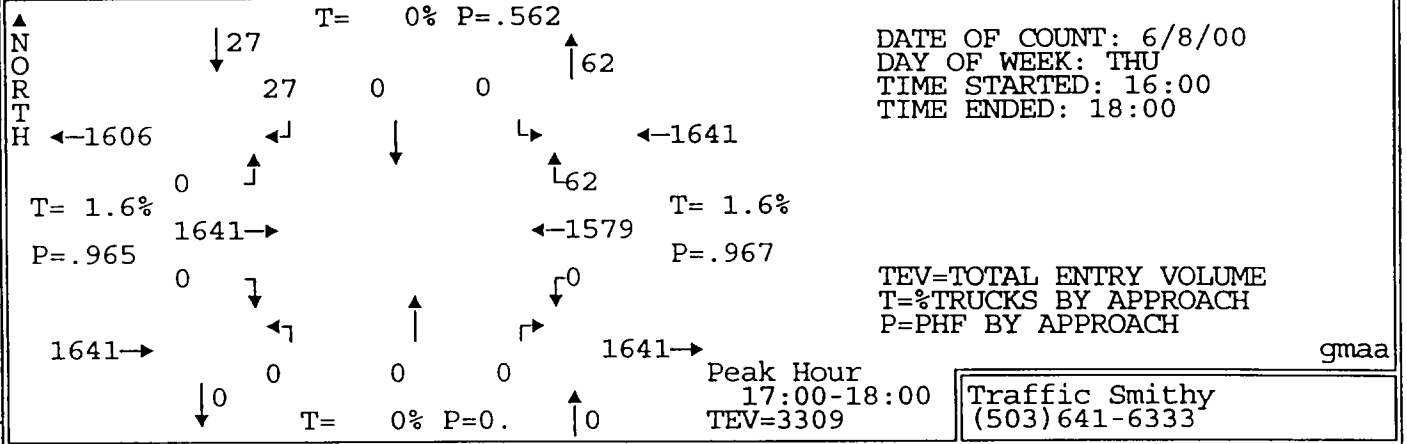
Peak Hour
16:40-17:40
TEV=3331

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↖	
16:00-16:05	0	89	0	3	0	0	0	0	0	0	138	10	240
16:05-16:10	0	116	0	2	0	0	0	0	0	0	136	4	258
16:10-16:15	0	129	0	2	0	0	0	0	0	0	139	10	280
16:15-16:20	0	133	0	2	0	0	0	0	0	0	142	5	282
16:20-16:25	0	124	0	4	0	0	0	0	0	0	118	9	255
16:25-16:30	0	131	0	2	0	0	0	0	0	0	132	7	272
16:30-16:35	0	105	0	3	0	0	0	0	0	0	123	3	234
16:35-16:40	0	123	0	0	0	0	0	0	0	0	152	3	278
16:40-16:45	0	143	0	0	0	0	0	0	0	0	141	8	292
16:45-16:50	0	129	0	3	0	0	0	0	0	0	124	5	261
16:50-16:55	0	120	0	4	0	0	0	0	0	0	146	5	275
16:55-17:00	0	118	0	1	0	0	0	0	0	0	121	7	247
17:00-17:05	0	147	0	2	0	0	0	0	0	0	131	8	288
17:05-17:10	0	132	0	1	0	0	0	0	0	0	128	12	273
17:10-17:15	0	146	0	3	0	0	0	0	0	0	141	4	294
17:15-17:20	0	140	0	1	0	0	0	0	0	0	138	4	283
17:20-17:25	0	146	0	1	0	0	0	0	0	0	118	8	273
17:25-17:30	0	136	0	2	0	0	0	0	0	0	127	3	268
17:30-17:35	0	139	0	3	0	0	0	0	0	0	130	2	274
17:35-17:40	0	156	0	6	0	0	0	0	0	0	136	5	303
17:40-17:45	0	125	0	3	0	0	0	0	0	0	124	3	255
17:45-17:50	0	132	0	0	0	0	0	0	0	0	131	4	267
17:50-17:55	0	122	0	3	0	0	0	0	0	0	139	6	270
17:55-18:00	0	120	0	2	0	0	0	0	0	0	136	3	261
Total Survey	0	3101	0	53	0	0	0	0	0	0	3191	138	6483
PHF	0	.96	0	.61	0	0	0	0	0	0	.96	.66	.973
% Trucks	0	2.3	0	0	0	0	0	0	0	0	2.3	.7	2.2
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	17	0	0
Hourly Totals													
16:00-17:00	0	1460	0	26	0	0	0	0	0	0	1612	76	3174
16:15-17:15	0	1551	0	25	0	0	0	0	0	0	1599	76	3251
16:30-17:30	0	1585	0	21	0	0	0	0	0	0	1590	70	3266
16:45-17:45	0	1634	0	30	0	0	0	0	0	0	1564	66	3294
17:00-18:00	0	1641	0	27	0	0	0	0	0	0	1579	62	3309

384

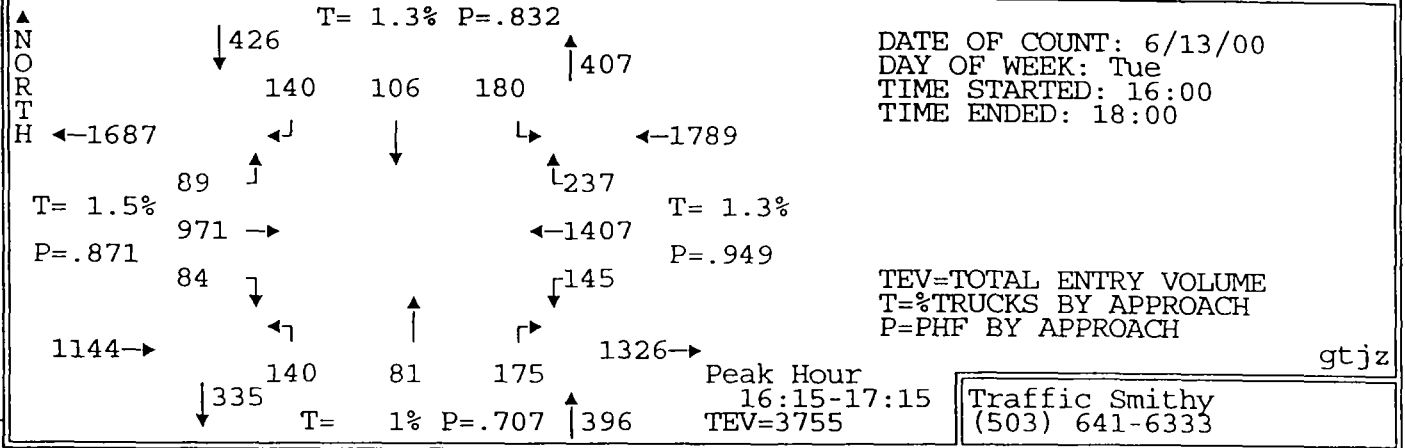
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CANYON ROAD AT 114TH AVENUE



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL	
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↖		
ALL VEHICLES														
17:00-17:15	0	425	0	6	0	0	0	0	0	0	0	400	24	855
17:15-17:30	0	422	0	4	0	0	0	0	0	0	0	383	15	824
17:30-17:45	0	420	0	12	0	0	0	0	0	0	0	390	10	832
17:45-18:00	0	374	0	5	0	0	0	0	0	0	0	406	13	798
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)														
17:00-17:15	0	4	0	0	0	0	0	0	0	0	0	6	0	10
17:15-17:30	0	9	0	0	0	0	0	0	0	0	0	5	0	14
17:30-17:45	0	2	0	0	0	0	0	0	0	0	0	3	0	5
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	6	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)														
17:00-17:15	0	2	0	0	0	0	0	0	0	0	0	1	0	3
17:15-17:30	0	2	0	0	0	0	0	0	0	0	0	0	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	1	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)														
17:00-17:15	0	5	0	0	0	0	0	0	0	0	0	1	0	6
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	1	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	2	0	2
17:45-18:00	0	2	0	0	0	0	0	0	0	0	0	1	0	3
BICYCLES														
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	1	0	1
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL		
	SOUTH			WEST			EAST			NORTH				
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	3	3	
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	1	1	
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	1	1	
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	3	3	
Peak Hour by Movement														
PHF	0	.97	0	.56	0	0	0	0	0	0	0	.97	.65	.967
% Trucks (all)	0	1.6	0	0	0	0	0	0	0	0	0	1.7	0	1.6
% Trucks (M+H)	0	.7	0	0	0	0	0	0	0	0	0	.4	0	.6
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals														
16:00-17:00	0	1460	0	26	0	0	0	0	0	0	0	1612	76	3174
16:15-17:15	0	1551	0	25	0	0	0	0	0	0	0	1599	76	3251
16:30-17:30	0	1585	0	21	0	0	0	0	0	0	0	1590	70	3266
16:45-17:45	0	1634	0	30	0	0	0	0	0	0	0	1564	66	3294
17:00-18:00	0	1641	0	27	0	0	0	0	0	0	0	1579	62	3309

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
GRIFFITH DRIVE AT BEAVERTON-HILLSDALE HIGHWAY

23983

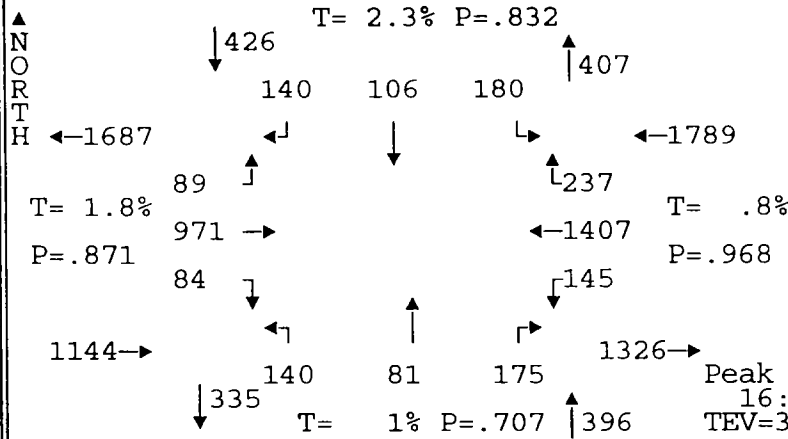


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
16:00-16:05	2	61	11	5	4	15	9	5	14	16	110	15	267
16:05-16:10	13	89	10	14	16	7	15	5	9	9	86	17	290
16:10-16:15	8	83	14	15	5	18	17	3	12	10	87	14	286
16:15-16:20	7	78	5	7	15	13	8	6	15	18	125	28	325
16:20-16:25	6	81	6	11	10	14	15	7	5	25	95	17	292
16:25-16:30	9	75	6	23	13	22	6	2	16	11	123	20	326
16:30-16:35	4	72	7	12	7	12	12	7	11	10	118	18	290
16:35-16:40	6	66	8	15	5	9	12	5	26	13	122	19	306
16:40-16:45	7	83	10	7	5	16	12	11	8	10	126	23	318
16:45-16:50	12	87	6	11	5	17	4	5	14	13	126	19	319
16:50-16:55	4	72	6	11	10	16	8	9	5	12	128	11	292
16:55-17:00	12	74	7	15	10	13	10	7	10	10	108	26	302
17:00-17:05	5	90	9	9	8	18	16	4	15	6	123	17	320
17:05-17:10	3	100	11	10	7	13	22	12	29	7	122	19	355
17:10-17:15	9	93	8	9	11	17	15	6	21	10	91	20	310
17:15-17:20	5	93	10	13	12	19	10	7	19	11	81	19	299
17:20-17:25	9	88	11	9	8	16	7	5	16	9	97	10	285
17:25-17:30	8	68	4	9	7	8	12	9	16	14	127	24	306
17:30-17:35	7	72	10	12	13	11	6	8	9	9	109	16	282
17:35-17:40	4	106	6	15	6	15	8	7	21	16	85	12	301
17:40-17:45	7	73	3	15	10	15	15	7	13	9	132	27	326
17:45-17:50	11	95	9	13	4	21	6	9	5	13	130	17	333
17:50-17:55	9	79	6	13	7	13	6	4	8	9	116	17	287
17:55-18:00	5	83	5	15	3	16	9	1	8	8	122	19	294

Total Survey	172	1961	188	288	201	354	260	151	325	278	2689	444	7311
PHF	.75	.86	.79	.7	.7	.92	.66	.81	.67	.67	.93	.91	.953
% Trucks	0	1.7	0	1	.5	2	1.5	.7	.6	.4	1.6	.5	1.3
Stopped Buses	0	2	0	0	0	0	0	0	0	0	0	0	0
Peds	0	14	0	0	36	0	0	38	0	0	14	0	0

Hourly Totals													
16:00-17:00	90	921	96	146	105	172	128	72	145	157	1354	227	3613
16:15-17:15	84	971	89	140	106	180	140	81	175	145	1407	237	3755
16:30-17:30	84	986	97	130	95	174	140	87	190	125	1369	225	3702
16:45-17:45	85	1016	91	138	107	178	133	86	188	126	1329	220	3697
17:00-18:00	82	1040	92	142	96	182	132	79	180	121	1335	217	3698

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
GRIFFITH DRIVE AT BEAVERTON-HILLSDALE HIGHWAY**



DATE OF COUNT: 6/13/00
DAY OF WEEK: Tue
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

gtjz

Peak Hour
16:15-17:15
TEV=3755

Traffic Smithy
(503)641-6333

TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL
	↓	→	↑	←	↓	←	↑	→	

ALL VEHICLES	↓	→	↑	←	↓	←	↑	→	↓	←	↑	ALL	
16:15-16:30	22	234	17	41	38	49	29	15	36	54	343	65	943
16:30-16:45	17	221	25	34	17	37	36	23	45	33	366	60	914
16:45-17:00	28	233	19	37	25	46	22	21	29	35	362	56	913
17:00-17:15	17	283	28	28	26	48	53	22	65	23	336	56	985

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	↓	→	↑	←	↓	←	↑	→	↓	←	↑	ALL	
16:15-16:30	0	5	0	0	0	0	1	0	0	1	3	1	11
16:30-16:45	0	5	0	1	0	3	0	0	1	0	2	0	12
16:45-17:00	0	3	0	0	0	3	1	0	1	0	1	0	9
17:00-17:15	0	2	0	1	0	0	0	0	0	0	5	1	9

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	↓	→	↑	←	↓	←	↑	→	↓	←	↑	ALL	
16:15-16:30	0	2	0	0	0	0	0	0	0	0	0	0	2
16:30-16:45	0	1	0	0	0	0	0	0	0	0	1	0	2
16:45-17:00	0	0	0	1	0	0	0	0	0	0	0	0	1
17:00-17:15	0	1	0	0	0	1	0	0	0	0	0	0	2

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	↓	→	↑	←	↓	←	↑	→	↓	←	↑	ALL	
16:15-16:30	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30-16:45	0	1	0	0	0	0	0	0	0	0	0	0	1
16:45-17:00	0	1	0	0	0	0	0	0	0	0	0	0	1
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0

BICYCLES	↓	→	↑	←	↓	←	↑	→	↓	←	↑	ALL	
16:15-16:30	0	0	0	0	1	0	0	0	1	0	1	0	3
16:30-16:45	0	0	0	0	0	0	0	0	0	0	1	0	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1

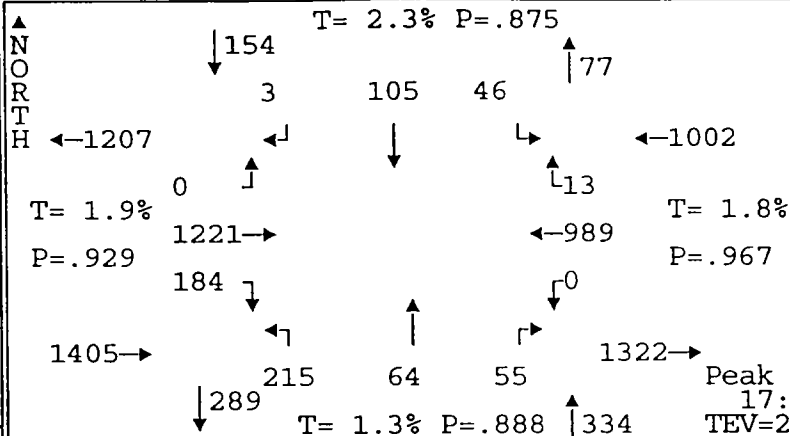
PEDESTRIANS	CROSSWALK USEAGE				ALL
	SOUTH	WEST	EAST	NORTH	
16:15-16:30	0	8	6	3	17
16:30-16:45	2	5	0	0	7
16:45-17:00	3	2	6	2	13
17:00-17:15	3	5	6	0	14

Peak Hour by Movement	↓	→	↑	←	↓	←	↑	→	↓	←	↑	ALL	
PHF	.75	.86	.79	.85	.7	.92	.66	.88	.67	.67	.96	.91	.953
% Trucks (all)	0	2.2	0	2.1	0	3.9	1.4	0	1.1	.7	.9	.8	1.3
% Trucks (M+H)	0	.6	0	.7	0	.6	0	0	0	0	.1	0	.2
Stopped Buses	0	1	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals	↓	→	↑	←	↓	←	↑	→	↓	←	↑	ALL	
16:00-17:00	90	921	96	146	105	172	128	72	145	157	1354	227	3613
16:15-17:15	84	971	89	140	106	180	140	81	175	145	1407	237	3755
16:30-17:30	84	986	97	130	95	174	140	87	190	125	1369	225	3702
16:45-17:45	85	1016	91	138	107	178	133	86	188	126	1329	220	3697
17:00-18:00	82	1040	92	142	96	182	132	79	180	121	1335	217	3698

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT 87TH AVENUE

23951



DATE OF COUNT: 6/8/00
DAY OF WEEK: Thu
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

gmag

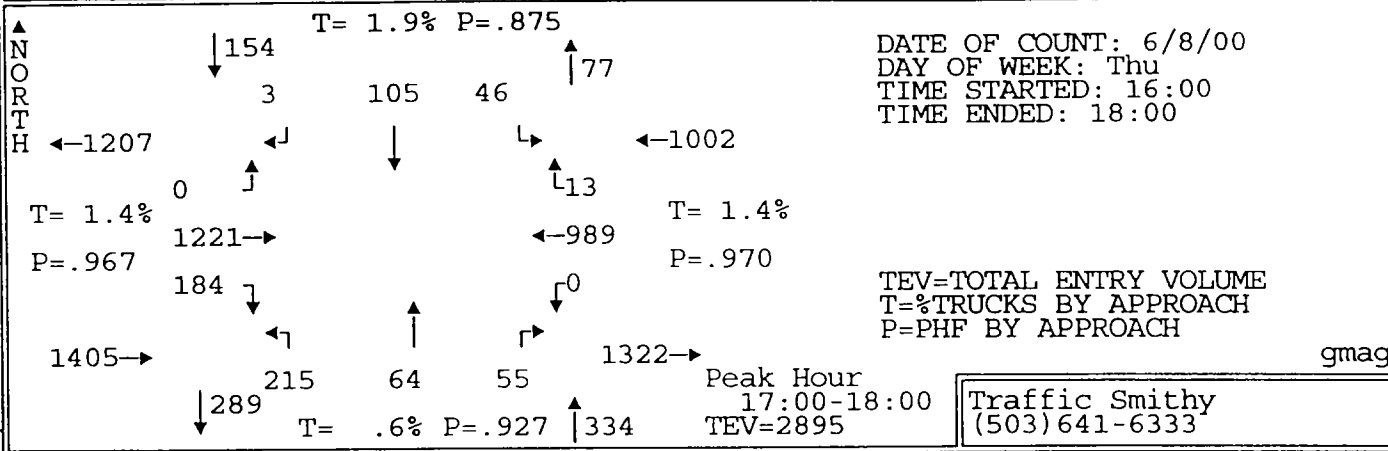
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↳	
16:00-16:05	14	52	0	0	12	8	16	2	2	0	45	0	151
16:05-16:10	12	67	0	2	6	5	21	4	6	0	68	1	192
16:10-16:15	12	84	0	2	11	1	15	7	6	0	73	0	211
16:15-16:20	18	79	0	0	4	5	13	3	1	0	66	4	193
16:20-16:25	14	99	0	0	11	4	17	5	0	0	69	1	220
16:25-16:30	13	72	0	0	5	1	13	7	5	0	77	1	194
16:30-16:35	14	74	0	0	13	3	18	4	6	0	76	0	208
16:35-16:40	14	88	0	1	9	0	18	6	4	0	71	1	212
16:40-16:45	13	105	0	1	5	4	13	9	5	0	76	1	232
16:45-16:50	14	92	0	0	8	3	13	5	2	0	83	0	220
16:50-16:55	14	108	0	0	8	1	11	10	9	0	78	2	241
16:55-17:00	19	83	0	0	10	4	12	4	6	0	74	2	214
17:00-17:05	10	76	0	0	9	5	20	6	9	0	91	1	227
17:05-17:10	18	119	0	0	5	4	14	5	4	0	69	2	240
17:10-17:15	6	123	0	0	16	5	18	3	6	0	83	0	260
17:15-17:20	9	96	0	0	5	2	25	7	8	0	96	1	249
17:20-17:25	19	112	0	0	7	2	18	7	2	0	79	0	246
17:25-17:30	14	113	0	1	9	5	16	4	3	0	81	1	247
17:30-17:35	17	100	0	0	12	5	13	7	7	0	83	3	247
17:35-17:40	16	118	0	0	11	1	20	5	4	0	81	0	256
17:40-17:45	20	92	0	1	6	3	15	3	1	0	71	2	214
17:45-17:50	22	101	0	1	6	3	20	3	5	0	89	0	250
17:50-17:55	19	69	0	0	11	4	17	8	4	0	92	0	224
17:55-18:00	14	102	0	0	8	7	19	6	2	0	74	3	235

Total Survey	355	2224	0	9	207	85	395	130	107	0	1845	26	5383
PHF	.75	.9	0	.38	.82	.82	.88	.89	.72	0	.96	.65	.958
% Trucks	1.7	1.9	0	11.1	2.4	1.2	.5	3.1	1.9	0	1.8	0	1.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	0	0	0	6	0	0	8	0	0

Hourly Totals	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↳	ALL
16:00-17:00	171	1003	0	6	102	39	180	66	52	0	856	13	2488
16:15-17:15	167	1118	0	2	103	39	180	67	57	0	913	15	2661
16:30-17:30	164	1189	0	3	104	38	196	70	64	0	957	11	2796
16:45-17:45	176	1232	0	2	106	40	195	66	61	0	969	14	2861
17:00-18:00	184	1221	0	3	105	46	215	64	55	0	989	13	2895

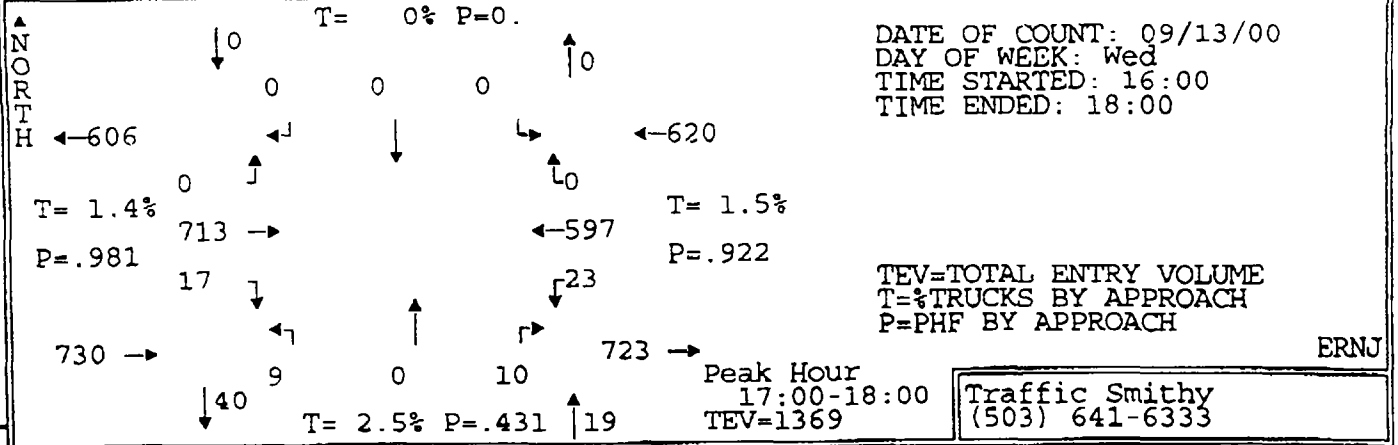
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CANYON ROAD AT 87TH AVENUE



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
17:00-17:15	34	318	0	0	30	14	52	14	19	0	243	3	727
17:15-17:30	42	321	0	1	21	9	59	18	13	0	256	2	742
17:30-17:45	53	310	0	1	29	9	48	15	12	0	235	5	717
17:45-18:00	55	272	0	1	25	14	56	17	11	0	255	3	709
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	4	0	0	0	0	0	1	0	0	2	0	8
17:15-17:30	0	6	0	0	1	0	0	1	0	0	4	0	12
17:30-17:45	0	3	0	0	1	0	0	0	0	0	1	0	5
17:45-18:00	2	1	0	0	1	0	0	0	0	0	6	0	10
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	1
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0	0	0	0	0	0	0	0	0	3	0	0	3
17:15-17:30	0	0	0	0	0	0	3	0	0	1	0	0	4
17:30-17:45	0	0	0	0	0	0	0	0	0	1	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	2	0	0	2
Peak Hour by Movement													
PHF	.84	.95	0	.75	.88	.82	.91	.89	.72	0	.97	.65	.975
% Trucks (all)	1.6	1.4	0	0	2.9	0	0	3.1	0	0	1.4	0	1.3
% Trucks (M+H)	0	.2	0	0	0	0	0	0	0	0	.1	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	171	1003	0	6	102	39	180	66	52	0	856	13	2488
16:15-17:15	167	1118	0	2	103	39	180	67	57	0	913	15	2661
16:30-17:30	164	1189	0	3	104	38	196	70	64	0	957	11	2796
16:45-17:45	176	1232	0	2	106	40	195	66	61	0	969	14	2861
17:00-18:00	184	1221	0	3	105	46	215	64	55	0	989	13	2895

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
GARDEN HOME ROAD AT 88TH AVENUE

24785



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	1	47	0	0	0	0	0	0	0	0	37	0	85
16:05-16:10	0	33	0	0	0	0	1	0	0	1	23	0	58
16:10-16:15	3	47	0	0	0	0	4	0	0	0	32	0	86
16:15-16:20	0	47	0	0	0	0	1	0	2	0	42	0	92
16:20-16:25	0	37	0	0	0	0	0	0	2	0	45	0	84
16:25-16:30	1	51	0	0	0	0	0	0	1	1	46	0	100
16:30-16:35	1	36	0	0	0	0	1	0	1	0	44	0	83
16:35-16:40	2	51	0	0	0	0	0	0	1	1	37	0	92
16:40-16:45	2	51	0	0	0	0	1	0	1	2	53	0	110
16:45-16:50	1	57	0	0	0	0	1	0	1	0	47	0	107
16:50-16:55	1	51	0	0	0	0	1	0	1	3	39	0	96
16:55-17:00	3	64	0	0	0	0	1	0	0	1	51	0	120
17:00-17:05	4	64	0	0	0	0	1	0	0	0	62	0	131
17:05-17:10	0	58	0	0	0	0	1	0	1	0	48	0	108
17:10-17:15	3	52	0	0	0	0	0	0	0	1	50	0	106
17:15-17:20	1	59	0	0	0	0	1	0	0	4	43	0	108
17:20-17:25	3	57	0	0	0	0	0	0	1	1	58	0	120
17:25-17:30	2	55	0	0	0	0	1	0	0	3	32	0	93
17:30-17:35	1	68	0	0	0	0	1	0	3	4	54	0	131
17:35-17:40	1	57	0	0	0	0	2	0	2	3	47	0	112
17:40-17:45	0	59	0	0	0	0	1	0	2	0	60	0	122
17:45-17:50	0	52	0	0	0	0	0	0	0	5	50	0	107
17:50-17:55	1	61	0	0	0	0	1	0	0	0	47	0	110
17:55-18:00	1	71	0	0	0	0	0	0	1	2	46	0	121

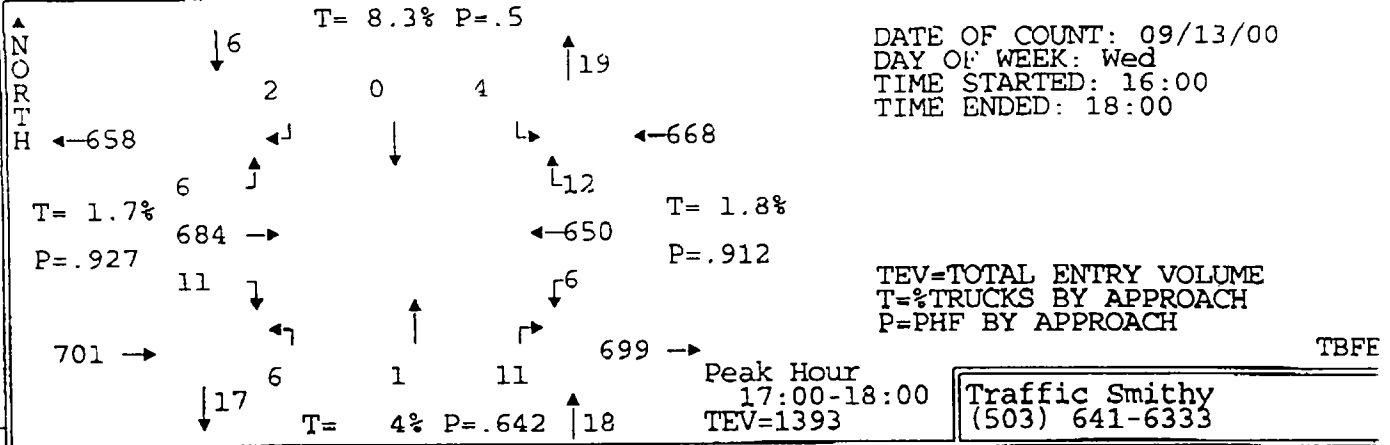
Total Survey	32	1285	0	0	0	0	20	0	20	32	1093	0	2482
PHF	.61	.97	0	0	0	0	.56	0	.36	.57	.93	0	.937
% Trucks	0	1.4	0	0	0	0	0	0	5	3.1	1.5	0	1.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	15	572	0	0	0	0	11	0	10	9	496	0	1113
16:15-17:15	18	619	0	0	0	0	8	0	11	9	564	0	1229
16:30-17:30	23	655	0	0	0	0	9	0	7	16	564	0	1274
16:45-17:45	20	701	0	0	0	0	11	0	11	20	591	0	1354
17:00-18:00	17	713	0	0	0	0	9	0	10	23	597	0	1369

390

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
GARDEN HOME ROAD AT 84TH AVENUE

24784



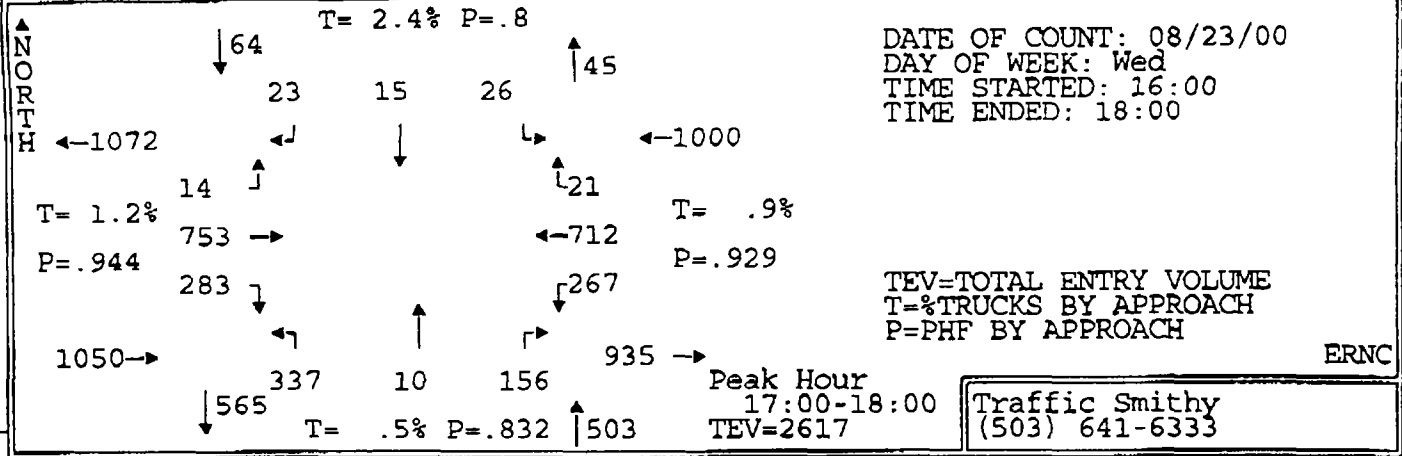
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
16:00-16:05	1	32	0	1	0	0	0	0	1	1	33	0	69
16:05-16:10	0	35	1	0	0	0	0	0	2	0	30	0	68
16:10-16:15	1	51	0	0	1	0	0	0	0	1	32	0	86
16:15-16:20	0	46	1	0	0	0	0	0	0	0	45	0	92
16:20-16:25	0	41	0	0	0	0	0	0	0	0	43	0	84
16:25-16:30	0	49	0	1	1	0	0	0	0	1	37	0	89
16:30-16:35	0	40	0	0	0	0	0	0	2	4	48	0	94
16:35-16:40	0	43	0	0	0	0	1	1	0	0	44	1	90
16:40-16:45	0	50	0	0	0	0	0	0	0	1	52	2	105
16:45-16:50	0	53	0	0	0	0	0	0	0	1	47	1	102
16:50-16:55	2	44	0	0	0	0	0	0	0	1	47	0	94
16:55-17:00	2	65	0	1	0	0	0	0	1	1	40	0	110
17:00-17:05	2	61	0	1	0	1	2	0	2	1	67	2	139
17:05-17:10	1	48	1	0	0	0	1	0	0	1	52	0	104
17:10-17:15	1	58	2	0	0	0	0	0	2	2	57	0	122
17:15-17:20	1	45	0	1	0	0	1	0	0	0	51	1	100
17:20-17:25	1	59	0	0	0	0	1	1	0	0	50	1	113
17:25-17:30	1	69	0	0	0	0	0	0	1	0	46	0	117
17:30-17:35	0	59	0	0	0	1	0	0	2	1	56	2	121
17:35-17:40	0	59	1	0	0	1	0	0	0	0	62	0	123
17:40-17:45	2	67	0	0	0	1	0	0	1	0	55	2	128
17:45-17:50	1	50	0	0	0	0	1	0	2	0	64	0	118
17:50-17:55	1	48	0	0	0	0	0	0	0	0	44	1	94
17:55-18:00	0	61	2	0	0	0	0	0	1	1	46	3	114

Total Survey	17	1233	8	5	2	5	7	1	17	17	1148	16	2476
PHF	.69	.91	.5	.55	.33	.5	.25	.69	.38	.9	.75	.936	
% Trucks	5.9	1.6	0	20	0	0	0	5.9	0	1.8	0	1.8	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	
Peds	0	1	0	0	0	0	2	0	0	4	0		

Hourly Totals													
16:00-17:00	6	549	2	3	2	1	4	0	6	11	498	4	1083
16:15-17:15	8	598	4	3	1	2	4	7	13	579	6	1225	
16:30-17:30	11	635	3	3	0	2	6	1	8	12	601	8	1290
16:45-17:45	13	687	4	3	0	4	5	1	9	8	630	9	1373
17:00-18:00	11	684	6	2	0	4	6	1	11	6	650	12	1393

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 CORNELL ROAD AT 173RD AVENUE

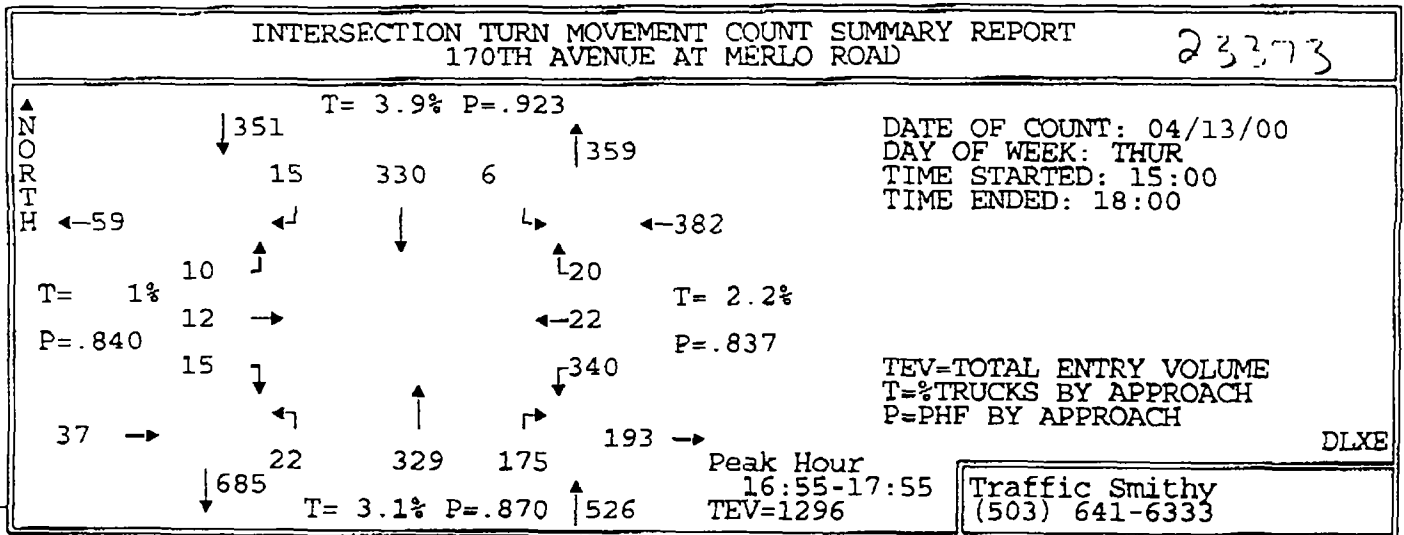
24668



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	12	49	1	2	0	1	17	1	5	16	47	2	153
16:05-16:10	17	48	2	1	1	4	22	0	2	10	54	0	161
16:10-16:15	21	51	1	2	1	2	17	1	9	5	55	4	169
16:15-16:20	13	47	1	2	4	4	17	0	12	15	49	2	166
16:20-16:25	20	45	2	1	1	1	19	0	9	13	61	0	172
16:25-16:30	19	43	1	4	2	1	25	0	10	6	65	2	178
16:30-16:35	17	44	0	4	2	1	21	1	10	14	39	1	154
16:35-16:40	14	46	0	2	3	1	13	0	7	10	48	3	147
16:40-16:45	16	68	2	2	0	4	21	0	11	18	53	0	195
16:45-16:50	17	48	1	0	0	2	21	0	14	15	57	0	175
16:50-16:55	14	78	0	0	1	0	19	0	8	9	48	1	178
16:55-17:00	18	51	1	0	3	1	14	2	11	16	48	0	165
17:00-17:05	17	59	1	1	4	3	22	1	9	12	59	1	189
17:05-17:10	23	61	0	1	1	2	31	2	10	22	62	1	216
17:10-17:15	19	73	1	0	0	1	41	1	13	24	52	2	227
17:15-17:20	22	77	1	2	0	2	18	1	8	18	63	1	213
17:20-17:25	28	55	2	4	0	2	29	0	14	24	52	2	212
17:25-17:30	23	61	1	3	0	4	19	1	11	24	66	0	213
17:30-17:35	14	73	0	2	2	2	27	2	12	16	69	2	221
17:35-17:40	22	67	3	2	0	0	29	0	11	25	53	1	215
17:40-17:45	25	51	1	3	2	2	34	1	17	24	55	3	218
17:45-17:50	29	61	1	2	1	2	33	0	18	26	60	2	235
17:50-17:55	26	52	1	3	1	4	28	1	19	28	69	2	234
17:55-18:00	35	63	2	0	2	2	26	0	14	24	52	4	224

Total Survey	481	1371	26	43	33	48	563	15	264	414	1336	36	4630
PHF	.79	.89	.7	.64	.63	.81	.88	.63	.72	.86	.95	.66	.944
% Trucks	.2	1.5	0	0	3	4.2	.2	13.3	.4	.2	1.1	0	1
Stopped Buses	0	2	0	0	0	0	0	0	0	0	1	0	0
Peds	0	6	0	0	1	0	0	1	0	0	2	0	0

Hourly Totals													
16:00-17:00	198	618	12	20	18	22	226	5	108	147	624	15	2013
16:15-17:15	207	663	10	17	21	21	264	7	124	174	641	13	2162
16:30-17:30	228	721	10	19	14	23	269	9	126	206	647	12	2284
16:45-17:45	242	754	12	18	15	21	304	11	138	229	684	14	2442
17:00-18:00	283	753	14	23	15	26	337	10	156	267	712	21	2617

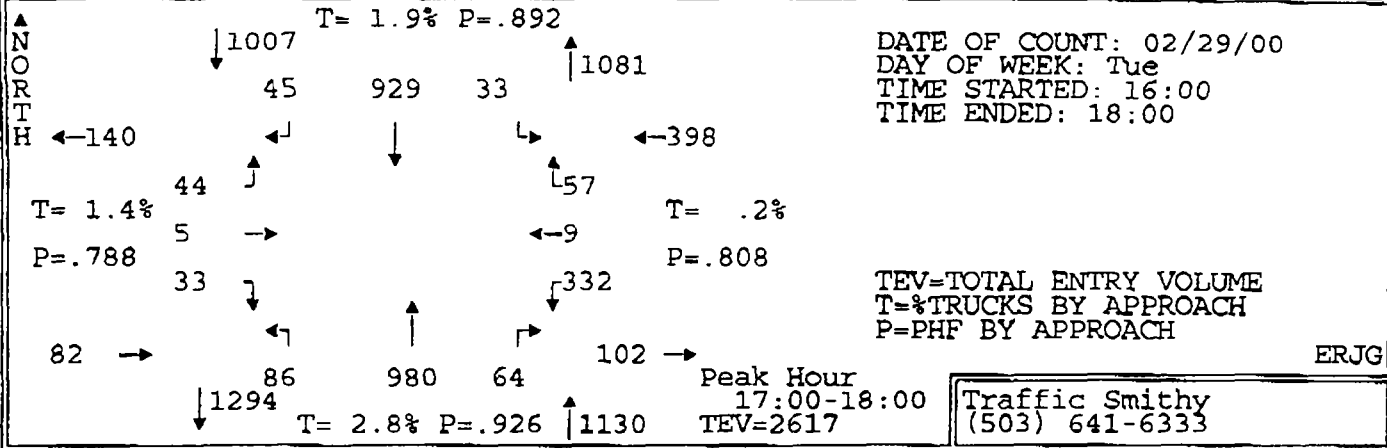


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
15:00-15:05	4	2	2	0	16	1	1	19	9	28	4	4	90
15:05-15:10	0	2	0	3	13	1	4	20	16	23	1	2	85
15:10-15:15	1	0	1	0	18	3	0	28	15	22	2	2	92
15:15-15:20	2	1	1	0	13	0	1	27	17	24	0	0	89
15:20-15:25	4	1	2	1	12	2	5	18	14	11	0	3	70
15:25-15:30	1	0	0	1	22	1	0	20	22	18	1	3	89
15:30-15:35	0	0	0	4	23	1	2	21	14	18	1	0	84
15:35-15:40	0	0	1	0	17	0	2	20	16	21	1	4	82
15:40-15:45	2	0	1	2	18	2	0	14	12	36	0	2	89
15:45-15:50	0	0	0	0	24	2	1	14	12	21	0	2	76
15:50-15:55	0	1	1	1	17	1	0	15	9	20	1	1	67
15:55-16:00	0	0	0	1	25	1	1	19	16	22	0	0	87
16:00-16:05	0	1	0	1	22	1	2	13	11	22	1	0	74
16:05-16:10	1	0	1	2	26	2	1	19	11	23	2	3	91
16:10-16:15	1	2	0	2	15	1	2	25	15	30	1	0	94
16:15-16:20	2	0	0	4	30	2	2	31	15	21	0	1	107
16:20-16:25	0	0	1	0	17	2	2	23	13	31	1	0	90
16:25-16:30	1	1	0	2	30	0	3	24	14	22	4	1	102
16:30-16:35	2	3	0	3	17	2	0	19	8	30	1	9	94
16:35-16:40	1	0	0	0	30	1	1	30	17	35	4	1	122
16:40-16:45	2	1	0	1	20	1	2	22	9	28	2	4	92
16:45-16:50	2	2	0	3	20	1	3	20	14	19	1	3	88
16:50-16:55	1	3	0	2	17	3	0	28	12	29	1	2	98
16:55-17:00	2	1	1	2	20	1	2	20	14	26	1	2	92
17:00-17:05	1	0	0	0	30	0	0	27	14	35	2	2	111
17:05-17:10	3	1	1	1	33	1	2	27	8	38	0	0	115
17:10-17:15	1	0	0	0	29	1	1	29	10	32	2	3	108
17:15-17:20	1	1	1	1	26	0	3	16	10	29	1	4	93
17:20-17:25	0	0	2	2	31	1	1	39	16	23	2	1	118
17:25-17:30	2	2	0	0	32	0	1	29	11	29	1	2	109
17:30-17:35	2	0	0	3	24	0	3	30	20	39	4	2	129
17:35-17:40	1	0	2	1	31	0	4	25	13	24	0	0	101
17:40-17:45	0	0	1	0	21	1	1	33	15	26	5	1	104
17:45-17:50	0	3	1	3	33	1	3	25	25	14	2	1	111
17:50-17:55	2	2	1	2	20	0	1	29	19	25	2	2	105
17:55-18:00	3	2	1	2	21	1	1	26	16	15	2	1	91
Total Survey	47	34	23	50	813	37	59	844	502	909	53	68	3439
PHF	.63	.6	.63	.75	.9	.75	.69	.84	.74	.81	.61	.63	.910
% Trucks	2.1	0	0	2	3.9	5.4	0	3.3	3.2	2.2	1.9	2.9	3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	20	0	0	3	0	0	12	0	0
Hourly Totals													
15:00-16:00	16	7	9	13	218	15	17	235	172	264	11	23	1000
15:15-16:15	13	6	7	15	234	14	17	225	169	266	8	18	992
15:30-16:30	9	5	5	19	264	14	18	238	158	287	12	14	1043
15:45-16:45	12	9	4	17	273	15	18	254	150	305	17	22	1096
16:00-17:00	15	14	4	22	264	16	21	274	153	316	19	26	1144
16:15-17:15	18	12	4	18	293	14	19	300	148	346	19	28	1219
16:30-17:30	18	14	6	15	305	12	17	306	143	353	18	33	1240
16:45-17:45	16	12	8	15	314	9	21	323	157	349	20	22	1266
17:00-18:00	16	13	10	15	331	6	21	335	177	329	23	19	1295

393

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
BLUERIDGE DRIVE AT 158TH AVENUE

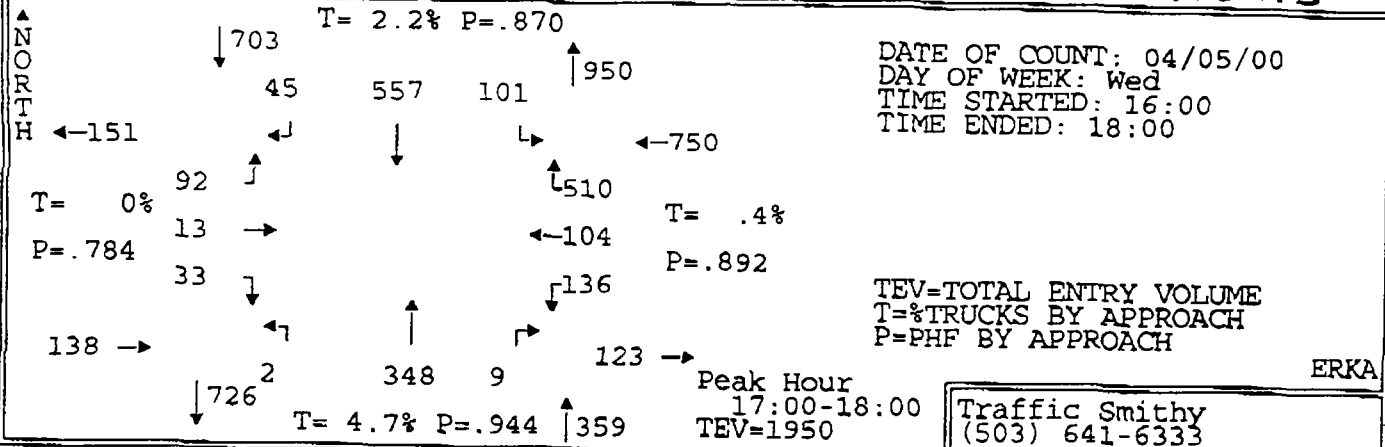
22809



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↗		
16:00-16:05	1	0	4	1	65	3	7	62	10	14	1	3	171
16:05-16:10	1	0	3	3	44	2	3	83	9	13	1	6	168
16:10-16:15	5	1	0	0	82	1	8	58	8	9	0	2	174
16:15-16:20	1	1	4	4	55	2	5	63	2	19	0	4	160
16:20-16:25	0	0	6	3	65	2	4	60	8	34	0	0	182
16:25-16:30	3	0	5	3	85	1	5	66	6	36	0	3	213
16:30-16:35	7	1	1	0	77	4	3	56	5	12	0	4	170
16:35-16:40	2	0	1	1	60	1	4	76	6	13	0	1	165
16:40-16:45	2	0	0	4	74	0	7	81	2	18	0	1	189
16:45-16:50	6	0	1	10	72	3	4	75	6	14	0	2	193
16:50-16:55	3	0	0	1	68	4	9	62	1	14	0	4	166
16:55-17:00	3	0	2	4	61	5	3	75	7	10	0	1	171
17:00-17:05	4	0	4	5	66	5	6	59	10	21	0	1	181
17:05-17:10	3	1	2	5	83	2	6	83	7	36	1	6	235
17:10-17:15	3	0	1	4	96	3	7	92	3	35	1	2	247
17:15-17:20	0	1	5	4	83	2	7	70	3	32	3	4	214
17:20-17:25	2	0	4	3	78	4	8	86	4	28	0	10	227
17:25-17:30	6	0	6	5	74	0	3	88	8	40	1	5	236
17:30-17:35	4	0	4	3	94	1	6	83	4	18	1	9	227
17:35-17:40	2	0	4	3	57	3	8	77	3	29	0	3	189
17:40-17:45	2	3	3	3	67	4	5	86	6	21	0	5	205
17:45-17:50	3	0	4	3	74	3	14	97	5	28	1	7	239
17:50-17:55	1	0	5	3	62	2	10	77	5	21	1	4	191
17:55-18:00	3	0	2	4	95	4	6	82	6	23	0	1	226
Total Survey	67	8	71	79	1737	61	148	1797	134	538	11	88	4739
PHF	.69	.42	.73	.8	.89	.82	.72	.94	.8	.81	.45	.59	.940
% Trucks	1.5	0	1.4	2.5	1.8	3.3	0	2.9	4.5	.2	0	0	2
Stopped Buses	0	0	0	0	0	0	0	2	0	0	0	0	0
Peds	0	8	0	0	10	0	0	1	0	0	2	0	0
Hourly Totals													
16:00-17:00	34	3	27	34	808	28	62	817	70	206	2	31	2122
16:15-17:15	37	3	27	44	862	32	63	848	63	262	2	29	2272
16:30-17:30	41	3	27	46	892	33	67	903	62	273	6	41	2394
16:45-17:45	38	5	36	50	899	36	72	936	62	298	7	52	2491
17:00-18:00	33	5	44	45	929	33	86	980	64	332	9	57	2617

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
158TH AVENUE AT JAY STREET

23273



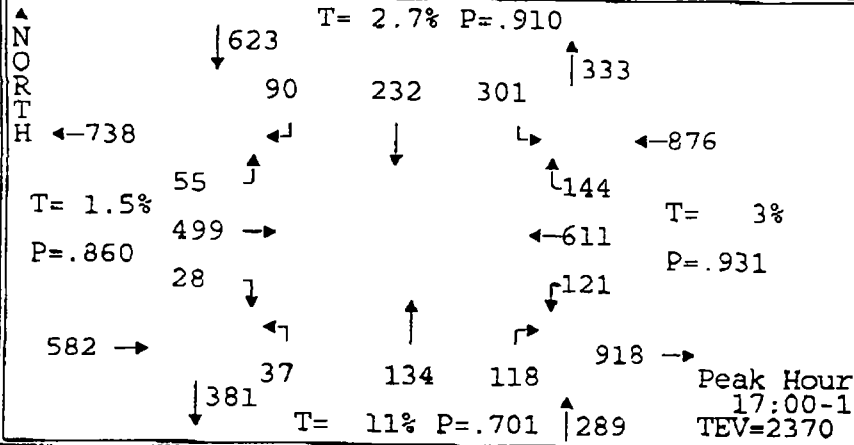
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	1	1	11	1	44	8	2	35	0	2	1	19	125
16:05-16:10	5	11	8	5	44	5	1	39	1	3	3	18	133
16:10-16:15	3	11	5	3	40	5	0	37	2	5	4	16	120
16:15-16:20	3	11	9	5	40	4	0	26	0	3	5	16	112
16:20-16:25	2	11	14	4	55	13	1	25	0	7	2	14	138
16:25-16:30	2	11	7	3	55	4	0	28	2	5	4	22	137
16:30-16:35	5	2	5	7	37	3	0	31	3	4	2	26	121
16:35-16:40	0	0	10	3	28	8	0	41	10	6	2	19	119
16:40-16:45	5	3	9	3	42	9	0	31	0	9	4	32	144
16:45-16:50	5	3	6	2	45	7	2	29	2	5	1	24	133
16:50-16:55	4	0	8	2	52	8	0	36	1	5	3	30	149
16:55-17:00	2	1	11	4	35	10	0	22	1	5	3	21	115
17:00-17:05	2	1	4	5	45	9	0	31	2	2	2	35	145
17:05-17:10	2	1	4	5	45	9	0	31	1	8	4	42	147
17:10-17:15	5	2	12	2	28	9	0	29	1	11	6	46	161
17:15-17:20	2	0	9	6	44	1	0	25	1	12	12	51	182
17:20-17:25	2	0	9	5	58	10	0	21	0	13	13	43	170
17:25-17:30	2	0	5	4	53	6	0	36	1	13	7	42	155
17:30-17:35	2	0	8	4	35	8	0	33	0	12	11	53	175
17:35-17:40	4	1	8	5	53	8	0	24	1	11	9	41	185
17:40-17:45	5	2	4	0	58	7	0	34	1	17	10	38	165
17:45-17:50	5	2	4	0	50	14	0	31	0	13	8	45	164
17:50-17:55	1	1	13	2	49	11	1	24	1	10	12	37	169
17:55-18:00	3	2	6	5	47	8	0	36	2	13	8	37	132

Total Survey	67	30	195	87	1074	185	8	728	22	195	138	767	3496
PHF	.75	.65	.77	.7	.86	.77	.25	.94	.75	.83	.81	.91	.928
% Trucks	0	0	0	0	2.7	0	0	4.9	0	1	0	.3	2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	9	0	0	17	0	0	0	0	0

Hourly Totals													
16:00-17:00	34	17	103	42	517	84	6	380	13	59	34	257	1546
16:15-17:15	36	19	104	46	506	85	3	354	13	80	48	327	1621
16:30-17:30	32	15	96	47	502	88	2	365	12	103	68	411	1741
16:45-17:45	38	14	90	46	556	97	2	351	11	125	86	466	1882
17:00-18:00	33	13	92	45	557	101	2	348	9	136	104	510	1950

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
158TH AVENUE AT JENKINS ROAD

23370



DATE OF COUNT: 04/13/00
DAY OF WEEK: Thu
TIME STARTED: 15:00
TIME ENDED: 18:00

T= 1.5%
P=.860

T= 3%
P=.931

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Peak Hour
17:00-18:00
TEV=2370

Traffic Smithy
(503) 641-6333

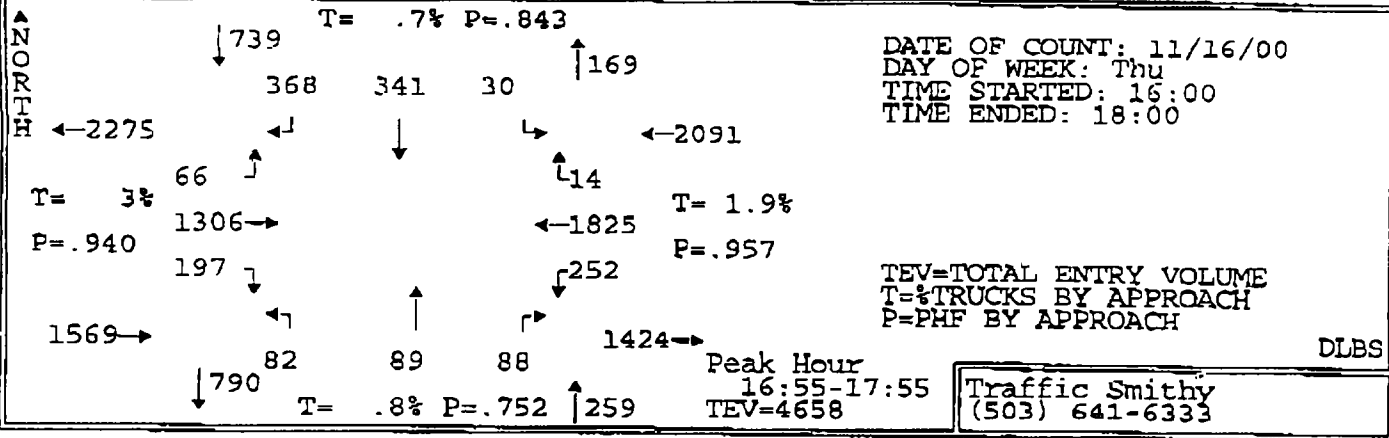
ERKH

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
15:00-15:05	2	49	8	1	23	9	3	19	10	7	37	9	177
15:05-15:10	2	26	3	4	22	24	3	7	13	15	31	6	156
15:10-15:15	0	40	5	6	8	18	1	10	7	10	52	5	162
15:15-15:20	2	27	4	6	22	18	2	17	11	9	35	9	162
15:20-15:25	3	42	3	1	7	14	2	14	12	7	49	14	168
15:25-15:30	4	37	4	2	14	15	4	11	6	12	43	11	163
15:30-15:35	2	48	3	3	11	21	3	9	11	6	36	19	172
15:35-15:40	4	33	13	2	6	8	2	15	8	9	41	20	161
15:40-15:45	5	37	6	2	24	17	4	7	19	3	45	14	190
15:45-15:50	2	28	1	5	23	25	2	14	3	17	49	14	183
15:50-15:55	2	44	7	3	12	17	1	14	8	6	52	10	176
15:55-16:00	5	35	5	0	10	19	2	9	9	6	45	6	151
16:00-16:05	2	29	2	4	22	20	2	15	4	2	53	10	165
16:05-16:10	2	46	11	4	12	18	3	10	12	9	50	6	183
16:10-16:15	1	34	7	4	15	30	5	11	9	10	42	10	178
16:15-16:20	0	47	1	4	23	30	3	6	4	5	60	12	195
16:20-16:25	1	24	4	4	23	18	4	21	7	8	49	10	173
16:25-16:30	0	25	5	4	28	29	4	17	4	17	44	7	184
16:30-16:35	3	43	8	6	13	32	4	7	5	4	45	15	185
16:35-16:40	3	35	6	0	20	10	2	11	21	6	47	14	175
16:40-16:45	2	22	3	5	26	33	6	22	6	6	36	8	175
16:45-16:50	2	39	12	4	18	24	4	7	9	11	53	10	193
16:50-16:55	4	34	7	5	14	24	2	13	6	10	51	14	184
16:55-17:00	3	45	6	2	11	19	0	16	11	9	57	8	187
17:00-17:05	2	24	5	1	18	26	1	7	6	12	57	7	166
17:05-17:10	4	35	4	6	21	21	7	15	7	13	47	8	188
17:10-17:15	1	39	4	11	30	31	2	9	10	12	47	11	207
17:15-17:20	4	53	1	4	14	21	0	7	9	4	61	14	192
17:20-17:25	2	43	6	11	27	22	3	3	17	8	44	13	199
17:25-17:30	1	41	13	9	20	30	3	8	8	12	38	10	193
17:30-17:35	4	56	3	6	18	24	2	9	5	10	56	15	208
17:35-17:40	2	36	5	9	17	28	0	11	14	13	44	10	189
17:40-17:45	1	40	4	16	19	24	3	12	8	5	55	15	202
17:45-17:50	4	44	2	8	13	22	3	20	16	11	55	9	207
17:50-17:55	2	48	7	5	15	30	9	11	9	10	56	9	211
17:55-18:00	1	40	1	4	20	22	4	22	9	11	51	23	208
Total Survey	84	1368	189	172	639	793	105	436	333	331	1713	405	6568
PHF	.78	.89	.63	.68	.82	.92	.58	.63	.78	.82	.92	.88	.946
% Trucks	3.6	1.2	2.1	.6	4.2	1.9	0	14.7	9.6	14.5	1.1	1.5	3.6
Stopped Buses	0	0	0	0	1	0	0	1	0	0	0	0	3.6
Peds	0	1	0	0	8	0	0	15	0	0	1	0	
Hourly Totals													
15:00-16:00	33	446	62	36	182	205	29	146	117	113	515	137	2021
15:15-16:15	34	440	66	37	178	222	32	146	112	102	540	143	2052
15:30-16:30	26	430	65	40	209	252	35	148	98	104	566	138	2111
15:45-16:45	23	412	60	43	227	281	38	157	92	96	572	122	2123
16:00-17:00	23	423	72	46	225	287	39	156	98	97	587	124	2177
16:15-17:15	25	412	65	52	245	297	39	151	96	113	593	124	2212
16:30-17:30	31	453	75	64	232	293	34	125	115	107	583	132	2244
16:45-17:45	30	485	70	84	227	294	27	117	110	119	610	135	2308
17:00-18:00	28	499	55	90	232	301	37	134	118	121	611	144	2370

966

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
TV HIGHWAY AT 160TH AVENUE/MILLIKAN BOULEVARD

25480



DATE OF COUNT: 11/16/00
DAY OF WEEK: Thu
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

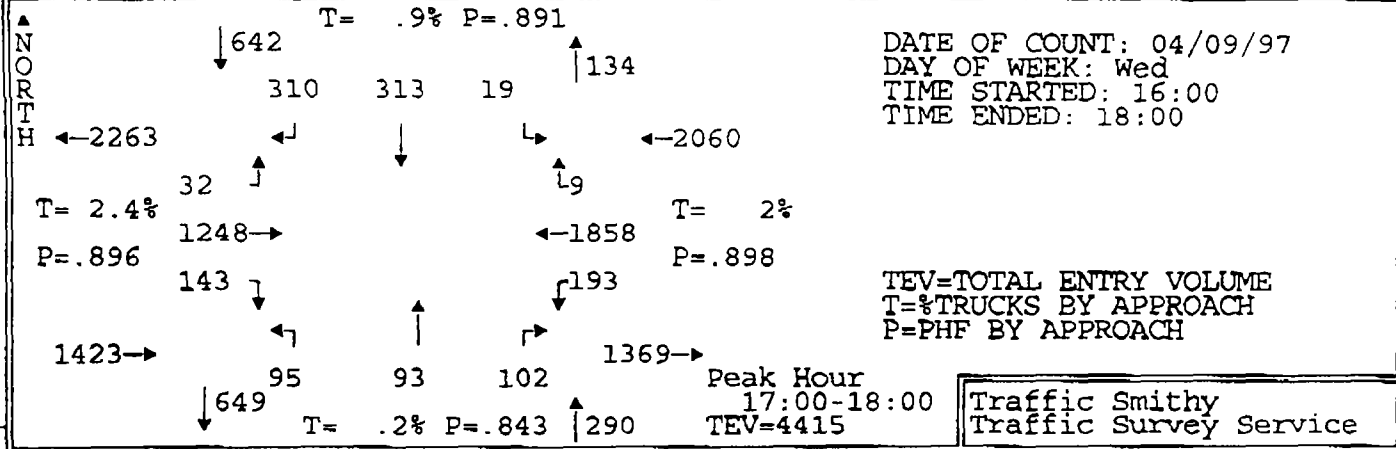
DLBS

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
16:00-16:05	14	135	7	18	18	1	12	7	6	8	161	4	391
16:05-16:10	9	123	3	32	25	2	4	7	2	18	164	0	389
16:10-16:15	11	105	3	11	18	4	7	12	6	16	118	2	313
16:15-16:20	17	108	7	35	26	2	4	8	8	8	168	2	406
16:20-16:25	17	100	2	17	17	2	7	14	10	16	131	2	336
16:25-16:30	7	124	2	26	27	1	9	2	3	11	170	3	382
16:30-16:35	19	118	1	29	22	6	8	14	4	18	121	1	361
16:35-16:40	8	92	5	39	30	9	9	7	7	10	179	1	390
16:40-16:45	17	154	0	24	19	0	11	8	3	10	148	1	395
16:45-16:50	13	122	6	26	24	3	3	4	4	17	171	1	399
16:50-16:55	18	141	9	9	21	2	3	14	9	9	89	1	325
16:55-17:00	12	83	3	28	31	4	5	9	5	31	179	1	391
17:00-17:05	17	134	3	20	18	0	4	5	5	18	149	1	374
17:05-17:10	10	90	6	49	40	5	8	6	5	19	147	1	383
17:10-17:15	13	135	7	37	25	3	5	5	5	17	171	1	423
17:15-17:20	12	109	2	37	21	2	5	11	9	23	153	1	385
17:20-17:25	13	118	8	31	24	3	4	9	9	14	151	1	385
17:25-17:30	23	118	1	27	23	3	6	6	6	28	155	0	396
17:30-17:35	18	91	12	23	41	1	9	3	16	17	128	1	366
17:35-17:40	22	125	4	41	20	1	11	9	8	27	143	0	411
17:40-17:45	15	70	12	38	43	1	10	9	5	18	166	3	390
17:45-17:50	24	139	2	18	27	3	5	9	9	16	152	1	404
17:50-17:55	18	94	6	19	28	4	7	8	9	24	131	1	350
17:55-18:00	13	90	1	25	28	0	7	10	4	17	152	1	348
Total Survey	360	2718	112	659	616	55	171	196	146	410	3617	33	9093
PHF	.78	.9	.59	.75	.82	.75	.68	.82	.71	.88	.96	.58	.966
% Trucks	3.9	2.9	.9	.6	.6	1.8	.6	.5	1.4	1.5	.2	0	.2
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	162	1405	48	294	278	29	87	106	59	172	1819	19	4478
16:15-17:15	168	1401	51	339	300	30	81	94	57	184	1843	17	4565
16:30-17:30	175	1414	51	356	298	33	79	93	67	214	1813	14	4607
16:45-17:45	186	1336	73	366	331	28	81	91	82	238	1802	14	4628
17:00-18:00	198	1313	64	365	338	26	84	90	87	238	1798	14	4615

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
TUALATIN VALLEY HIGHWAY AT MILIKAN WAY / 160TH AVENUE

12978



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	4	121	3	19	11	2	6	6	9	5	93	1	280
16:05-16:10	8	98	1	17	13	3	7	5	10	17	111	1	291
16:10-16:15	13	134	3	18	20	2	8	6	9	8	129	0	350
16:15-16:20	6	112	3	12	11	2	7	7	8	13	140	1	322
16:20-16:25	4	95	1	16	18	0	4	3	12	4	132	2	291
16:25-16:30	6	91	5	12	28	1	8	12	10	12	148	3	336
16:30-16:35	12	142	1	19	4	3	4	2	7	14	153	1	362
16:35-16:40	4	99	2	12	20	0	7	7	7	18	142	1	319
16:40-16:45	10	138	3	20	12	3	9	4	14	18	113	3	347
16:45-16:50	9	93	3	11	22	3	8	5	4	16	144	0	318
16:50-16:55	10	111	2	19	18	2	6	1	10	9	157	5	350
16:55-17:00	5	101	2	18	22	2	2	4	7	16	138	0	317
17:00-17:05	11	104	1	20	20	1	9	11	7	18	161	0	363
17:05-17:10	18	110	2	21	11	2	11	8	7	11	180	1	382
17:10-17:15	11	91	3	31	36	2	5	5	11	19	127	2	343
17:15-17:20	13	131	2	24	25	2	9	10	11	17	156	0	400
17:20-17:25	18	92	4	26	25	0	4	6	5	20	204	0	404
17:25-17:30	7	130	0	32	22	3	9	7	12	14	161	1	398
17:30-17:35	3	116	1	25	42	1	4	7	7	11	157	1	375
17:35-17:40	12	90	3	28	23	0	8	5	8	17	165	0	359
17:40-17:45	10	112	2	30	23	2	7	5	6	17	144	0	358
17:45-17:50	14	66	7	33	30	2	7	11	8	16	138	3	335
17:50-17:55	14	100	4	23	34	3	3	6	7	19	156	0	369
17:55-18:00	12	106	3	17	22	1	19	12	13	14	109	1	329

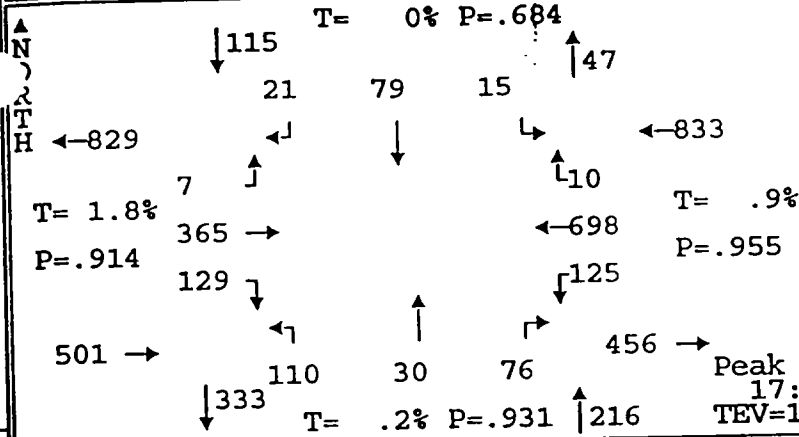
Total Survey	234	2583	61	503	512	42	171	155	209	343	3458	27	8298
PHF	.85	.88	.57	.85	.88	.68	.82	.8	.88	.86	.89	.56	.918
% Trucks	.4	2.5	4.9	.8	.8	2.4	0	0	.5	.3	2.1	0	1.9
Stopped Buses	0	2	0	1	0	0	0	0	0	0	17	0	0
Peds	0	8	0	0	6	0	0	176	0	0	3	0	0

Hourly Totals													
16:00-17:00	91	1335	29	193	199	23	76	62	107	150	1600	18	3883
16:15-17:15	106	1287	28	211	222	21	80	69	104	168	1735	19	4050
16:30-17:30	128	1342	25	253	237	23	83	70	102	190	1836	14	4303
16:45-17:45	127	1281	25	285	289	20	82	74	95	185	1894	10	4367
17:00-18:00	143	1248	32	310	313	19	95	93	102	193	1858	9	4415

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
HART ROAD AT 155TH AVENUE

21246

DATE OF COUNT: 10/06/99
DAY OF WEEK: Wed
TIME STARTED: 16:00
TIME ENDED: 18:30



TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

BKQQ

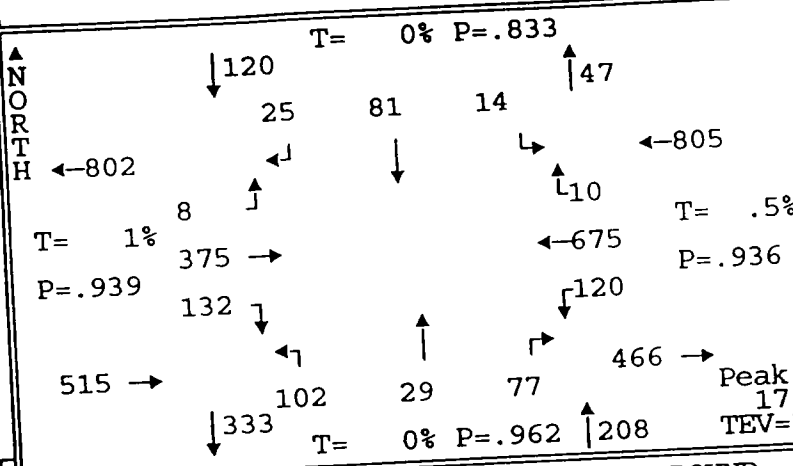
Peak Hour
17:05-18:05
TEV=1665

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL				
	↓	→	↑	←	↓	←	↑	→					
16:00-16:05	10	25	1	2	3	0	4	1	7	8	22	1	84
16:05-16:10	7	26	0	0	4	1	9	1	4	8	51	0	111
16:10-16:15	8	27	0	4	3	1	7	4	6	12	41	4	117
16:15-16:20	5	36	0	1	3	0	13	1	6	9	37	1	112
16:20-16:25	11	19	1	0	1	0	4	3	6	6	39	0	90
16:25-16:30	6	24	1	1	2	0	3	0	5	7	40	0	89
16:30-16:35	5	27	0	1	3	0	11	2	7	8	43	1	108
16:35-16:40	6	31	1	1	2	0	4	3	4	8	41	0	101
16:40-16:45	2	21	1	1	2	2	5	2	6	7	55	4	106
16:45-16:50	9	31	0	0	4	0	8	2	4	2	57	0	117
16:50-16:55	15	24	0	0	5	1	8	3	7	11	40	1	115
16:55-17:00	10	40	0	1	5	1	9	2	6	11	43	1	129
17:00-17:05	14	26	0	0	3	1	10	1	10	9	48	1	124
17:05-17:10	6	25	1	0	2	1	11	2	11	9	59	0	127
17:10-17:15	8	33	0	0	5	2	8	2	4	13	61	1	137
17:15-17:20	10	32	0	1	8	1	7	5	5	7	59	0	132
17:20-17:25	14	25	1	2	7	1	10	10	4	10	62	0	147
17:25-17:30	9	24	0	3	6	1	7	4	13	13	63	1	134
17:30-17:35	14	29	1	2	4	2	6	10	15	15	54	0	139
17:35-17:40	13	35	2	3	7	1	12	5	9	8	52	0	140
17:40-17:45	10	30	1	4	7	1	7	2	7	8	56	3	137
17:45-17:50	15	29	0	4	10	1	9	0	4	11	57	1	141
17:50-17:55	6	39	0	1	13	1	11	2	3	10	51	2	139
17:55-18:00	12	36	0	0	5	1	13	4	6	11	59	2	150
18:00-18:05	12	28	1	1	6	2	9	3	6	9	65	0	142
18:05-18:10	7	33	2	1	5	0	7	11	5	5	52	1	124
18:10-18:15	10	35	0	3	4	2	4	3	5	12	45	0	123
18:15-18:20	14	29	1	1	6	0	4	1	3	11	49	0	119
18:20-18:25	9	41	3	0	11	2	10	1	6	11	44	2	140
18:25-18:30	7	30	1	3	5	0	3	3	5	6	45	1	109
Total Survey	284	890	19	42	150	26	233	61	184	276	1490	28	3683
PHF	.85	.88	.44	.48	.66	.94	.83	.75	.79	.82	.95	.42	.965
% Trucks	.7	2.1	0	0	0	0	.4	0	0	.7	.9	0	1
Stopped Buses	0	1	0	0	0	0	0	0	0	0	2	0	0
Peds	0	1	0	0	3	0	0	7	0	0	3	0	0
Hourly Totals													
16:00-17:00	94	331	5	12	37	6	85	22	68	97	509	13	1279
16:15-17:15	97	337	5	7	37	8	94	21	76	100	563	10	1355
16:30-17:30	108	339	4	11	52	11	98	27	78	108	631	10	1477
16:45-17:45	132	354	6	17	62	13	103	29	83	117	654	8	1578
17:00-18:00	131	363	6	21	76	14	111	28	80	125	681	11	1647
17:15-18:15	132	375	8	25	81	14	102	29	77	120	675	10	1648
17:30-18:30	129	394	12	23	82	13	95	24	72	118	629	12	1603

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT

HART ROAD AT 155TH AVENUE



DATE OF COUNT: 10/06/99
 DAY OF WEEK: Wed
 TIME STARTED: 16:00
 TIME ENDED: 18:30

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

BKQQ

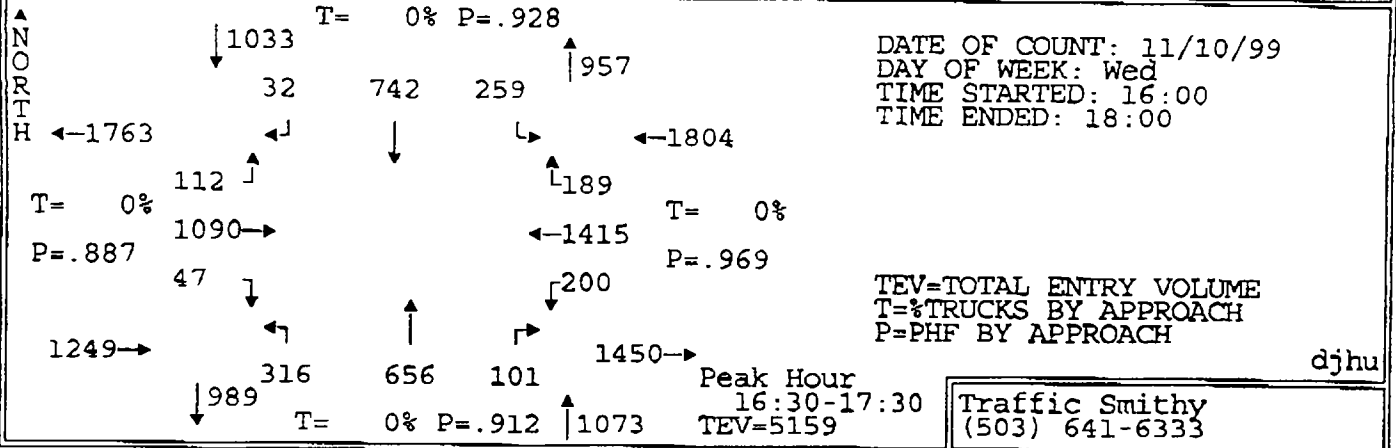
Peak Hour
 17:15-18:15
 TEV=1648

Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL				
	↓	→	↑	←	↓	←	↑	→	↓	←			
ALL VEHICLES													
17:15-17:30	33	81	1	6	21	3	24	10	19	30	184	1	413
17:30-17:45	37	94	4	9	17	4	25	7	22	32	162	3	416
17:45-18:00	33	104	0	5	28	3	33	6	14	32	167	5	430
18:00-18:15	29	96	3	5	15	4	20	6	22	26	162	1	389
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:15-17:30	0	2	0	0	0	0	0	0	0	0	1	0	3
17:30-17:45	0	1	0	0	0	0	0	0	0	0	2	0	3
17:45-18:00	0	1	0	0	0	0	0	0	0	0	1	0	1
18:00-18:15	0	0	0	0	0	0	0	0	0	0	0	0	0
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00-18:15	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00-18:15	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:15-17:30	0	0	0	0	1	0	0	0	0	0	1	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	1	1	0	2
18:00-18:15	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USAGE-----												
	SOUTH				WEST		EAST		NORTH				
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0		
17:30-17:45	0	0	0	0	0	0	2	0	0	0	2		
17:45-18:00	0	0	0	0	0	0	3	0	0	0	3		
18:00-18:15	0	0	0	0	0	0	0	0	0	0	0		
Peak Hour by Movement													
PHF	.89	.9	.5	.69	.72	.88	.77	.73	.88	.94	.92	.5	.958
% Trucks (all)	0	1.3	0	0	0	0	0	0	0	0	.6	0	.5
% Trucks (M+H)	0	.3	0	0	0	0	0	0	0	0	2	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	94	331	5	12	37	6	85	22	68	97	509	13	1279
16:15-17:15	97	337	5	7	37	8	94	21	76	100	563	10	1355
16:30-17:30	108	339	4	11	52	11	98	27	78	108	631	10	1477
16:45-17:45	132	354	6	17	62	13	103	29	83	117	654	8	1578
17:00-18:00	131	363	6	21	76	14	111	28	80	125	681	11	1647
17:15-18:15	132	375	8	25	81	14	102	29	77	120	675	10	1648
17:30-18:30	129	394	12	23	82	13	95	24	72	118	629	12	1603

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
TUALATIN VALLEY HIGHWAY AT MURRAY BOULEVARD

21668



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	4	68	20	9	50	13	33	46	14	9	78	17	361
16:05-16:10	4	86	6	6	57	30	16	44	14	16	112	16	407
16:10-16:15	8	115	8	6	49	24	26	43	2	13	116	12	422
16:15-16:20	4	73	6	4	81	17	22	54	12	9	69	14	365
16:20-16:25	3	119	2	6	29	18	22	46	9	17	118	10	399
16:25-16:30	8	96	11	5	59	24	18	26	10	15	123	16	411
16:30-16:35	6	64	17	2	81	11	28	76	17	11	104	14	431
16:35-16:40	0	126	6	2	54	18	21	49	10	19	116	13	434
16:40-16:45	4	59	8	2	70	38	36	51	6	17	105	21	417
16:45-16:50	4	80	9	3	63	21	21	59	12	18	107	5	402
16:50-16:55	8	128	9	3	46	19	24	47	12	17	124	20	457
16:55-17:00	9	96	5	2	54	23	24	54	10	16	130	17	440
17:00-17:05	3	90	4	2	84	21	41	47	9	13	109	17	440
17:05-17:10	1	83	15	3	56	21	23	46	6	27	114	7	402
17:10-17:15	0	95	6	4	55	24	19	45	5	15	147	16	431
17:15-17:20	2	71	18	4	77	14	31	58	5	12	104	16	412
17:20-17:25	4	98	9	2	51	25	19	72	5	20	118	16	439
17:25-17:30	6	100	6	3	51	24	29	52	4	15	137	27	454
17:30-17:35	9	80	3	2	55	27	33	43	1	13	117	12	395
17:35-17:40	2	81	10	1	72	22	24	59	1	23	114	11	420
17:40-17:45	6	112	7	0	56	21	18	49	1	15	147	20	452
17:45-17:50	5	72	3	3	85	22	21	59	3	13	104	10	400
17:50-17:55	0	117	5	3	57	15	23	57	1	9	116	11	414
17:55-18:00	3	58	10	0	56	21	18	39	5	17	132	15	374

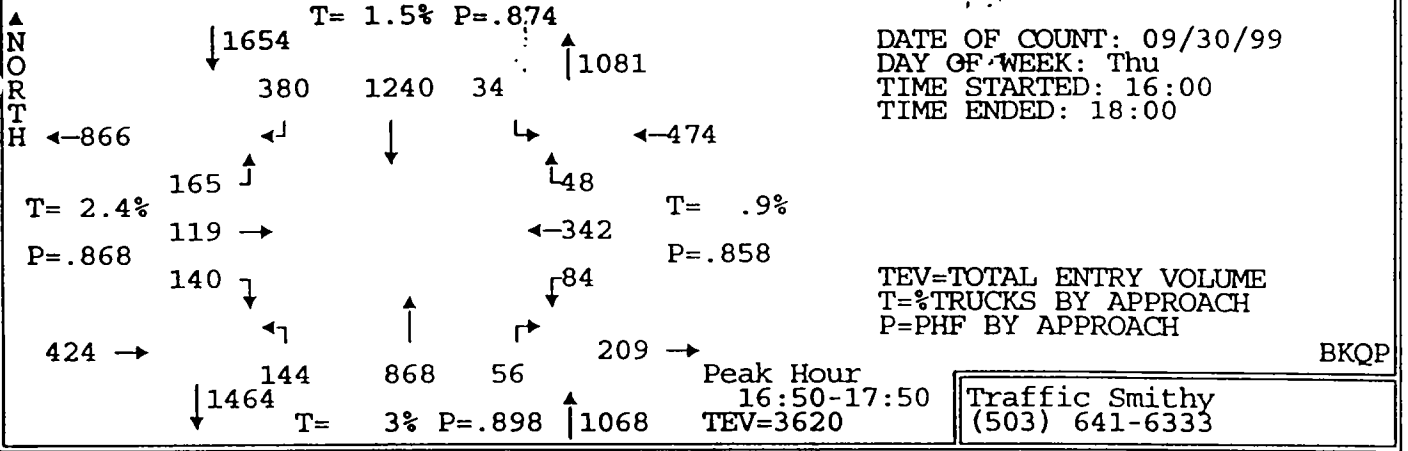
Total Survey	103	2167	203	77	1448	513	590	1221	174	369	2761	353	9979
PHF	.56	.87	.72	.73	.9	.83	.89	.9	.74	.89	.96	.8	.964
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-17:00	62	1110	107	50	693	256	291	595	128	177	1302	175	4946
16:15-17:15	50	1109	98	38	732	255	299	600	118	194	1366	170	5029
16:30-17:30	47	1090	112	32	742	259	316	656	101	200	1415	189	5159
16:45-17:45	54	1114	101	29	720	262	306	631	71	204	1468	184	5144
17:00-18:00	41	1057	96	27	755	257	299	626	46	192	1459	178	5033

401

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT HART ROAD

21208

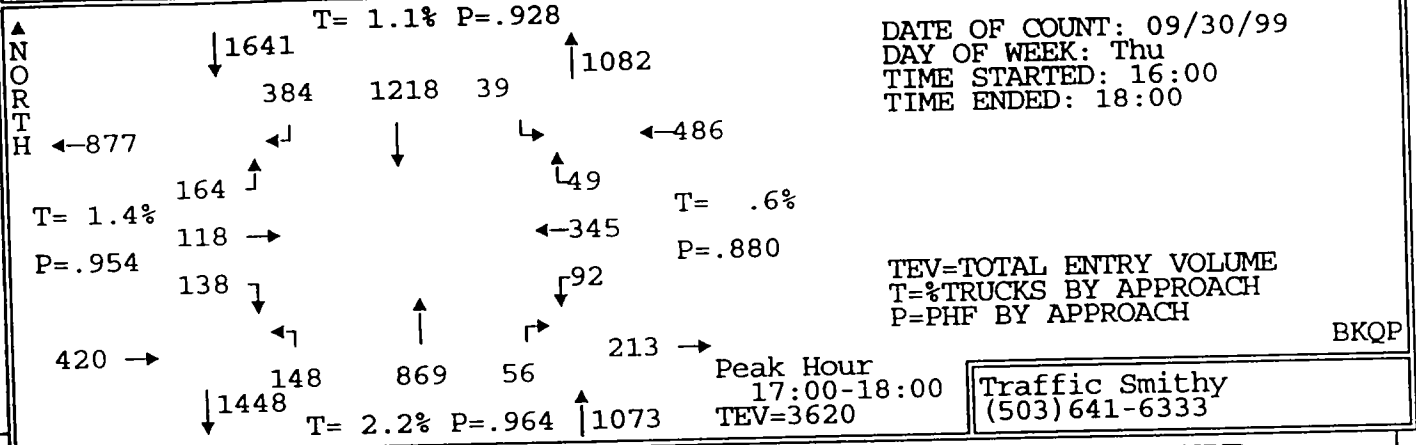


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	8	14	13	15	71	4	10	46	2	3	12	5	203
16:05-16:10	8	7	12	32	102	2	8	77	3	5	20	2	278
16:10-16:15	12	14	14	27	97	2	2	47	1	1	28	0	245
16:15-16:20	9	8	10	26	93	2	12	70	4	6	29	2	271
16:20-16:25	14	9	20	32	63	0	15	70	3	7	18	3	254
16:25-16:30	9	11	12	21	79	7	17	57	3	4	38	2	260
16:30-16:35	15	12	20	16	104	0	2	65	0	1	21	10	266
16:35-16:40	14	11	13	30	83	7	10	41	1	4	33	3	250
16:40-16:45	15	10	13	25	104	0	10	76	3	8	15	3	282
16:45-16:50	20	16	21	21	82	4	16	58	3	2	21	4	268
16:50-16:55	9	7	7	26	138	1	8	77	3	3	25	2	306
16:55-17:00	14	11	21	32	93	0	5	69	2	4	25	1	277
17:00-17:05	9	8	10	39	101	3	12	74	2	3	21	7	289
17:05-17:10	11	9	16	25	78	3	12	57	10	4	41	7	273
17:10-17:15	15	9	10	26	99	5	16	88	7	3	25	3	306
17:15-17:20	13	14	16	28	77	1	5	77	5	10	34	3	283
17:20-17:25	5	14	10	36	100	5	19	70	10	6	39	3	317
17:25-17:30	11	10	17	33	108	2	16	61	2	16	24	3	303
17:30-17:35	8	5	13	38	108	4	19	62	5	7	30	6	305
17:35-17:40	13	5	19	35	141	4	6	89	6	13	20	5	356
17:40-17:45	17	15	14	18	90	4	17	62	1	8	40	4	290
17:45-17:50	15	12	12	44	107	2	9	82	3	7	18	4	315
17:50-17:55	18	13	18	18	85	4	13	51	3	11	34	1	269
17:55-18:00	3	4	9	44	124	2	4	96	2	4	19	3	314

Total Survey	285	248	340	687	2327	68	263	1622	84	140	630	86	6780
PHF	.78	.78	.84	.89	.87	.71	.67	.92	.64	.58	.86	.71	.938
% Trucks	.7	1.6	4.4	1.5	1.5	1.5	1.1	3.3	3.6	.7	1	1.2	2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	5	0	0	4	0	0	4	0	0	4	0	0

Hourly Totals													
16:00-17:00	147	130	176	303	1109	29	115	753	28	48	285	37	3160
16:15-17:15	154	121	173	319	1117	32	135	802	41	49	312	47	3302
16:30-17:30	151	131	174	337	1167	31	131	813	48	64	324	49	3420
16:45-17:45	145	123	174	357	1215	36	151	844	56	79	345	48	3573
17:00-18:00	138	118	164	384	1218	39	148	869	56	92	345	49	3620

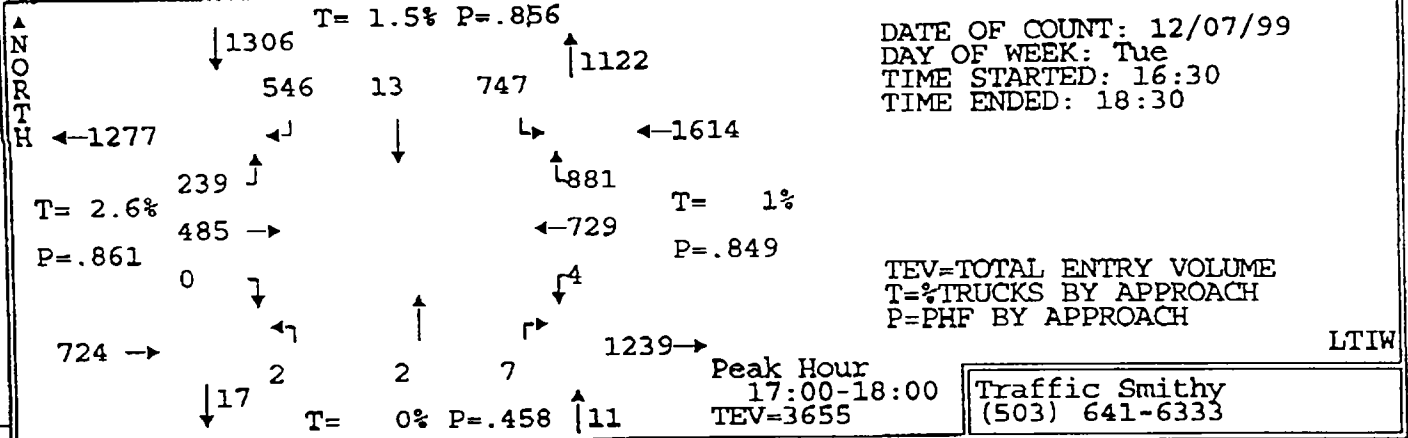
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT HART ROAD**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	35	26	36	90	278	11	40	219	19	10	87	17	868
17:15-17:30	29	38	43	97	285	8	40	208	17	32	97	9	903
17:30-17:45	38	25	46	91	339	12	42	213	12	28	90	15	951
17:45-18:00	36	29	39	106	316	8	26	229	8	22	71	8	898
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	1	1	2	0	0	5	0	0	1	0	10
17:15-17:30	0	1	1	1	2	0	0	4	0	0	1	0	10
17:30-17:45	1	0	0	1	6	0	1	4	0	0	0	0	8
17:45-18:00	0	0	1	3	6	0	0	5	1	0	0	0	16
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	1	0	0	1	0	2
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	1	0	0	0	0	1	0	0	0	0	2
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	3	0	0	0	1	0	0	0	4
17:30-17:45	0	0	0	0	2	0	0	0	0	0	0	0	2
17:45-18:00	0	0	0	1	0	0	1	3	0	0	0	0	5
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	1			0			0			0			1
17:15-17:30	1			1			2			1			5
17:30-17:45	2			0			0			0			2
17:45-18:00	0			0			0			0			0
Peak Hour by Movement													
PHF	.91	.78	.89	.91	.9	.81	.88	.95	.74	.72	.89	.72	.951
% Trucks (all)	.7	.8	2.4	1.6	1	0	.7	2.5	1.8	0	.9	0	1.4
% Trucks (M+H)	0	0	.6	0	.1	0	0	.5	0	0	.3	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	147	130	176	303	1109	29	115	753	28	48	285	37	3160
16:15-17:15	154	121	173	319	1117	32	135	802	41	49	312	47	3302
16:30-17:30	151	131	174	337	1167	31	131	813	48	64	324	49	3420
16:45-17:45	145	123	174	357	1215	36	151	844	56	79	345	48	3573
17:00-18:00	138	118	164	384	1218	39	148	869	56	92	345	49	3620

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
MURRAY BOULEVARD AT SCHOLLS FERRY ROAD

21970

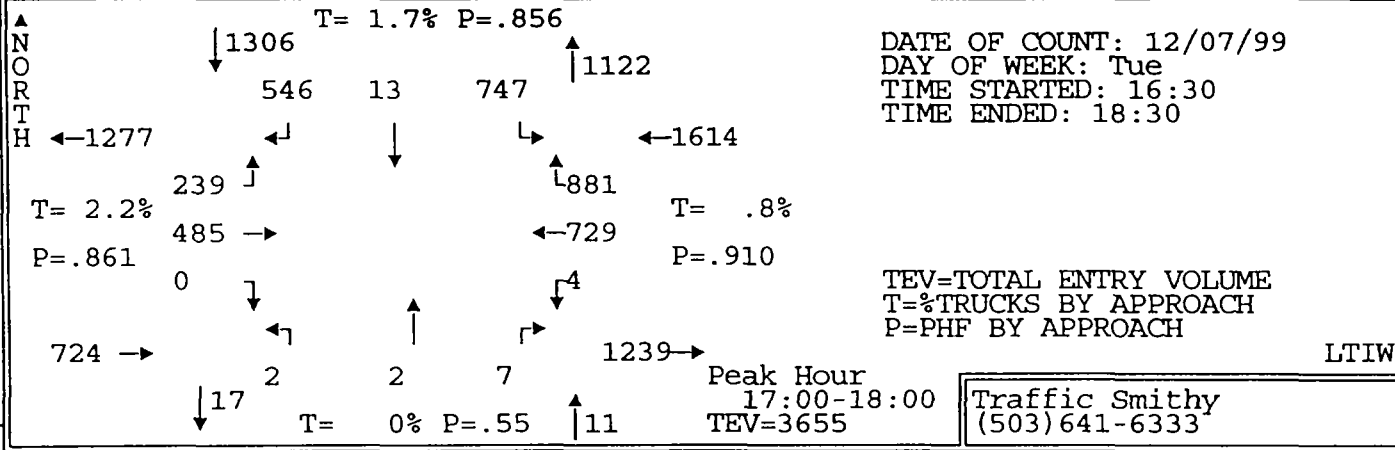


TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL				
	↓	→	↑	←	↓	←	↑	→					
16:30-16:35	0	20	15	33	1	63	1	0	1	37	53	224	
16:35-16:40	0	39	17	23	4	55	0	1	1	58	55	253	
16:40-16:45	0	39	28	38	0	43	1	0	0	1	58	60	268
16:45-16:50	0	36	12	39	0	75	0	0	2	0	57	71	292
16:50-16:55	0	29	29	42	2	58	0	0	0	0	47	57	264
16:55-17:00	1	27	18	26	0	62	0	0	0	0	45	69	248
17:00-17:05	0	27	18	51	0	58	0	0	0	0	59	63	276
17:05-17:10	0	40	21	34	0	42	0	0	0	1	64	61	263
17:10-17:15	0	33	11	47	0	74	0	0	0	0	83	79	327
17:15-17:20	0	43	35	52	0	67	0	1	1	1	61	66	326
17:20-17:25	0	47	7	51	0	78	0	1	0	1	64	104	353
17:25-17:30	0	47	31	39	1	37	1	0	1	0	67	79	303
17:30-17:35	0	36	9	37	3	72	1	0	2	0	70	90	320
17:35-17:40	0	38	31	31	2	55	0	1	0	0	46	73	277
17:40-17:45	0	40	24	49	4	41	0	0	1	1	53	70	283
17:45-17:50	0	49	22	47	0	75	0	0	0	0	62	80	335
17:50-17:55	0	45	18	65	1	87	0	0	1	0	43	61	321
17:55-18:00	0	40	12	43	2	61	0	0	1	0	57	55	271
18:00-18:05	1	26	27	39	0	57	0	0	0	0	42	54	246
18:05-18:10	0	29	15	42	4	58	0	1	1	0	48	61	259
18:10-18:15	0	31	10	29	0	60	1	0	0	1	61	60	253
18:15-18:20	0	29	22	43	0	49	0	0	1	0	62	68	274
18:20-18:25	0	25	11	33	5	71	0	0	0	1	48	58	252
18:25-18:30	0	41	17	30	1	61	0	0	0	0	62	57	269

Total Survey	2	856	460	963	30	1459	5	4	13	7	1354	1604	6757
PHF	0	.89	.78	.85	.36	.84	.25	.5	.58	.5	.88	.81	.908
% Trucks	0	2.6	2.6	2	0	1.2	0	0	0	0	.8	1.1	1.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	16	0	0	10	0	0	17	0	0	4	0	0

Hourly Totals													
16:30-17:30	1	427	242	475	8	712	3	2	6	4	700	817	3397
16:45-17:45	1	443	246	498	12	719	2	2	7	4	716	882	3532
17:00-18:00	0	485	239	546	13	747	2	2	7	4	729	881	3655
17:15-18:15	1	471	241	524	17	748	3	3	8	4	674	853	3547
17:30-18:30	1	429	218	488	22	747	2	2	7	3	654	787	3360

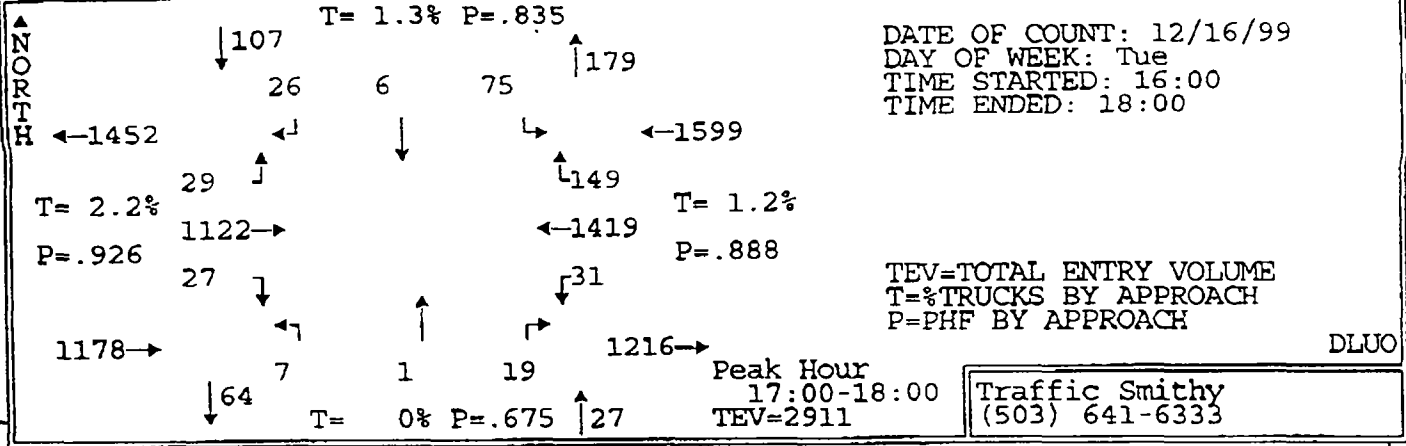
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
MURRAY BOULEVARD AT SCHOLLS FERRY ROAD



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	0	100	50	132	0	174	0	0	0	1	206	203	866
17:15-17:30	0	137	73	142	1	182	1	1	2	2	192	249	982
17:30-17:45	0	114	64	117	9	168	1	1	3	1	169	233	880
17:45-18:00	0	134	52	155	3	223	0	0	2	0	162	196	927
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	4	0	2	0	1	0	0	0	0	2	1	10
17:15-17:30	0	3	2	3	0	3	0	0	0	0	1	1	13
17:30-17:45	0	2	2	3	0	2	0	0	0	0	0	2	11
17:45-18:00	0	1	0	2	0	5	0	0	0	0	2	2	12
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	1	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15-17:30	0	1	0	0	0	0	0	0	0	0	1	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	1	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	0			1			0			0		1	
17:15-17:30	1			2			0			0		3	
17:30-17:45	0			2			2			3		7	
17:45-18:00	0			0			0			0		0	
Peak Hour by Movement													
PHF	0	.89	.82	.88	.36	.84	.5	.5	.58	.5	.88	.88	.930
% Trucks (all)	0	2.5	1.7	2	0	1.5	0	0	0	0	1	.7	1.4
% Trucks (M+H)	0	.4	0	.2	0	0	0	0	0	0	.3	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:30-17:30	1	427	242	475	8	712	3	2	6	4	700	817	3397
16:45-17:45	1	443	246	498	12	719	2	2	7	4	716	882	3532
17:00-18:00	0	485	239	546	13	747	2	2	7	4	729	881	3655
17:15-18:15	1	471	241	524	17	748	3	3	8	4	674	853	3547
17:30-18:30	1	429	218	488	22	747	2	2	7	3	654	787	3360

INTERSEC. ON TURN MOVEMENT COUNT SUMMARY REPORT
 DAVIES ROAD AT SCHOLLS FERRY ROAD

22109



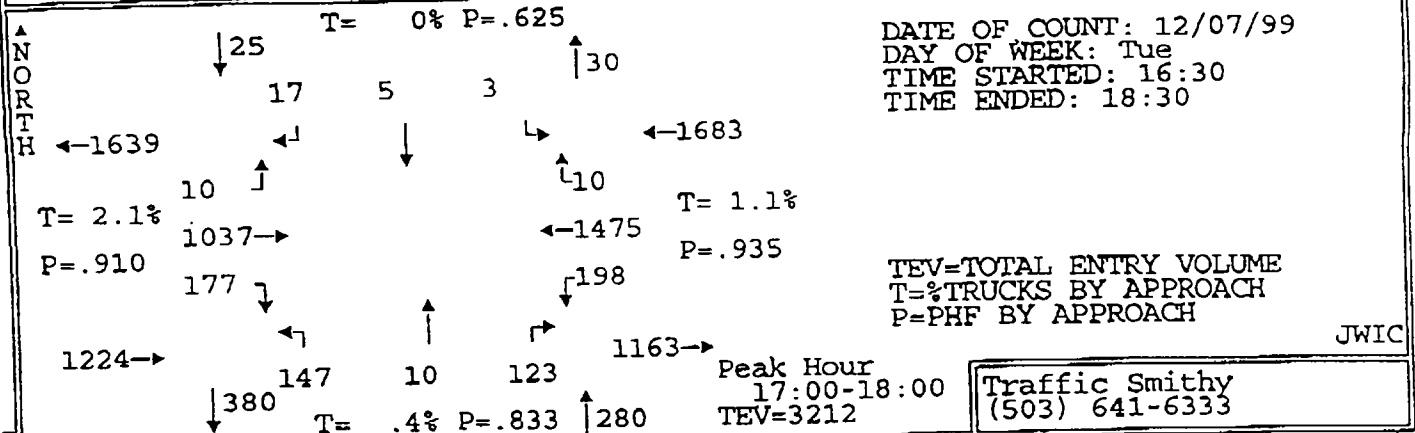
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
16:00-16:05	0	72	0	3	0	11	0	0	1	2	120	14	223
16:05-16:10	2	81	2	2	1	11	1	1	1	0	115	8	225
16:10-16:15	2	64	1	2	0	9	0	0	0	2	119	16	215
16:15-16:20	2	81	1	0	0	8	0	0	0	3	106	11	212
16:20-16:25	2	77	1	1	0	9	0	0	0	1	93	8	192
16:25-16:30	0	75	0	1	0	9	1	1	0	1	78	7	173
16:30-16:35	1	66	5	3	1	6	0	0	3	2	107	13	207
16:35-16:40	1	76	4	4	0	3	0	0	2	3	103	17	213
16:40-16:45	2	73	3	3	2	8	1	0	1	0	117	4	214
16:45-16:50	0	65	3	2	0	4	0	1	1	1	98	14	189
16:50-16:55	2	89	1	1	0	7	1	0	0	2	108	9	220
16:55-17:00	1	73	0	1	0	11	0	0	1	4	94	10	195
17:00-17:05	5	124	0	0	0	7	0	0	1	2	137	11	287
17:05-17:10	2	87	0	3	2	5	0	0	2	5	112	11	229
17:10-17:15	1	94	5	0	0	3	1	0	3	1	101	10	219
17:15-17:20	2	95	7	5	0	4	0	0	1	3	120	17	254
17:20-17:25	1	102	2	2	0	4	0	0	3	2	139	10	265
17:25-17:30	4	84	1	3	0	9	1	0	3	1	146	12	264
17:30-17:35	0	80	3	4	0	9	0	1	2	2	108	15	224
17:35-17:40	1	88	5	4	0	3	0	0	0	5	133	18	255
17:40-17:45	4	77	2	2	1	7	0	0	0	0	111	9	213
17:45-17:50	1	91	1	0	1	5	3	0	1	4	88	10	205
17:50-17:55	2	96	0	3	0	12	1	0	2	4	109	11	240
17:55-18:00	4	104	3	2	2	7	1	0	1	2	115	15	256

Total Survey	42	2014	50	49	10	171	11	4	29	52	2677	280	5389
PHF	.84	.92	.52	.65	.5	.78	.35	.25	.59	.77	.88	.83	.929
% Trucks	2.4	2.3	0	0	0	1.8	0	0	0	0	1.4	0	1.6
Stopped Buses	0	0	0	0	0	0	0	0	0	0	2	0	0
Peds	0	2	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	15	892	21	23	4	96	4	3	10	21	1258	131	2478
16:15-17:15	19	980	23	19	5	80	4	2	14	25	1254	125	2550
16:30-17:30	22	1028	31	27	5	71	4	1	21	26	1382	138	2756
16:45-17:45	23	1058	29	25	3	73	3	2	17	28	1407	146	2814
17:00-18:00	27	1122	29	26	6	75	7	1	19	31	1419	149	2911

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT 135TH AVENUE

21976



DATE OF COUNT: 12/07/99
DAY OF WEEK: Tue
TIME STARTED: 16:30
TIME ENDED: 18:30

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

JWIC

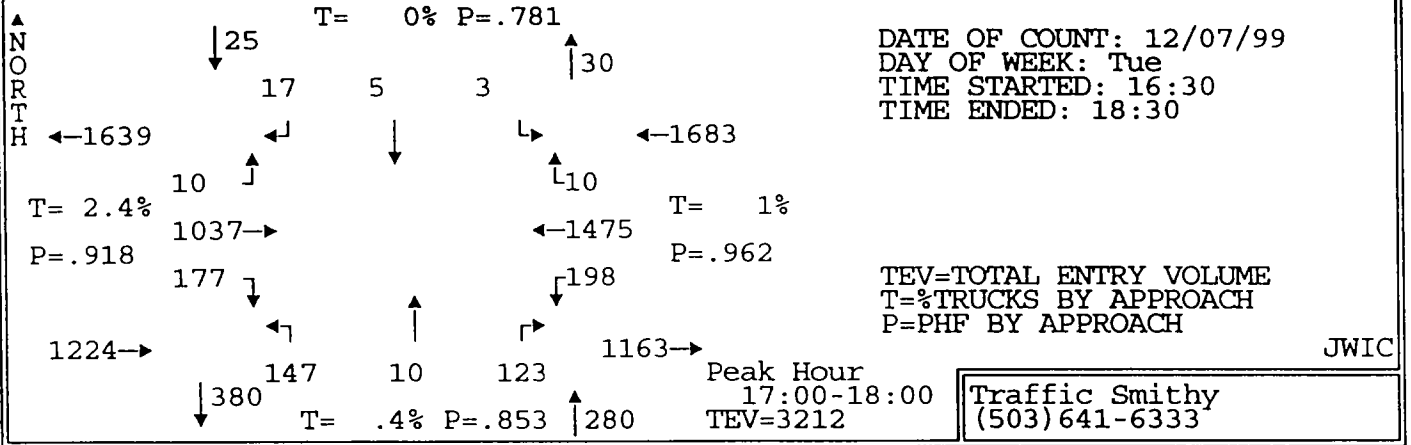
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL				
	↓	→	↑	←	↓	←	↑	→					
16:30-16:35	13	89	1	2	0	1	4	0	5	24	113	1	253
16:35-16:40	19	89	2	1	1	0	11	1	7	11	115	1	258
16:40-16:45	13	76	0	1	0	1	24	0	8	15	120	0	258
16:45-16:50	28	91	0	0	2	0	8	0	7	15	136	2	289
16:50-16:55	16	64	0	0	0	0	13	3	10	26	112	1	245
16:55-17:00	13	78	0	0	0	1	12	1	10	13	94	0	222
17:00-17:05	18	91	0	1	0	1	14	1	12	7	112	0	257
17:05-17:10	8	67	2	1	1	0	17	2	10	21	127	0	256
17:10-17:15	18	94	0	1	0	0	12	0	11	18	149	1	304
17:15-17:20	16	72	0	2	0	0	19	0	13	13	114	0	249
17:20-17:25	22	102	0	0	3	0	11	0	16	18	136	1	309
17:25-17:30	8	73	0	2	0	1	13	0	10	14	140	1	262
17:30-17:35	19	81	1	4	0	0	16	0	5	22	101	1	250
17:35-17:40	14	99	3	2	0	0	13	0	7	19	142	2	301
17:40-17:45	5	78	0	1	0	0	10	5	8	12	113	1	233
17:45-17:50	17	108	2	2	0	0	7	0	7	20	139	0	302
17:50-17:55	18	107	1	2	0	1	3	1	15	15	90	1	252
17:55-18:00	14	65	1	1	1	0	12	1	9	19	112	2	237
18:00-18:05	12	106	1	2	0	1	6	1	14	14	87	1	239
18:05-18:10	5	67	1	2	0	3	26	0	8	25	79	4	224
18:10-18:15	27	88	1	0	0	1	7	0	10	21	133	1	289
18:15-18:20	17	59	1	2	1	0	12	2	12	15	100	1	222
18:20-18:25	15	63	0	1	1	0	9	0	19	29	119	0	256
18:25-18:30	17	87	1	1	0	0	10	1	12	13	104	0	246

Total Survey	372	1994	18	29	10	11	289	19	243	419	2787	22	6213
PHF	.79	.88	.5	.53	.42	.75	.77	.42	.77	.9	.92	.63	.931
% Trucks	1.1	2.3	5.6	0	0	0	.3	0	.4	.5	1.3	0	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	6	0	0	2	0	0	5	0	0	2	0	0

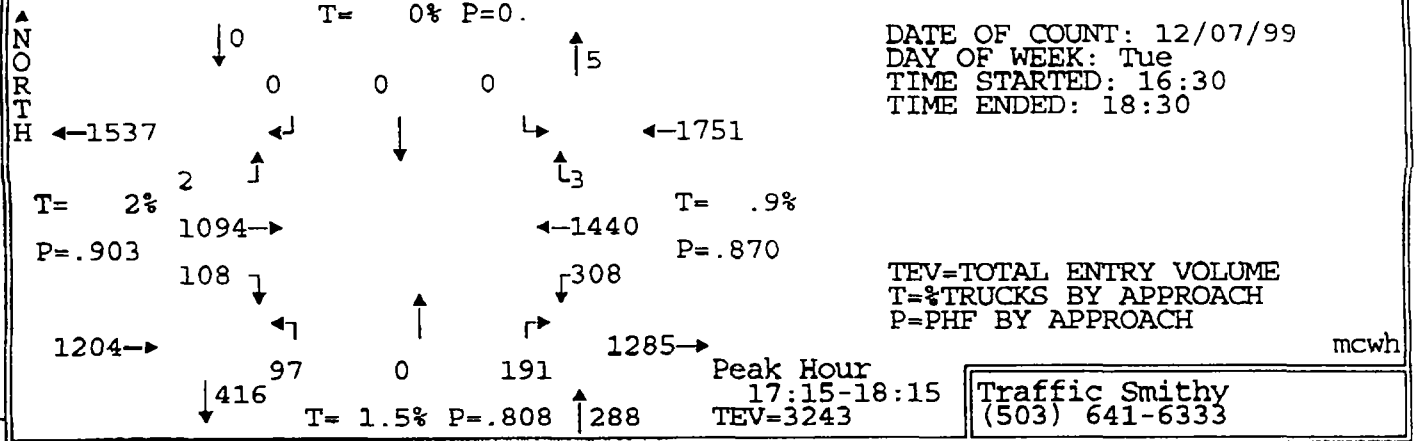
Hourly Totals													
16:30-17:30	192	986	5	11	7	5	158	8	119	195	1468	8	3162
16:45-17:45	185	990	6	14	6	3	158	12	119	198	1476	10	3177
17:00-18:00	177	1037	10	17	5	3	147	10	123	198	1475	10	3212
17:15-18:15	177	1046	11	18	4	7	143	8	120	212	1386	15	3147
17:30-18:30	180	1008	13	18	3	6	131	11	124	224	1319	14	3051

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
SULLS FERRY ROAD AT 135TH AVE



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	←	↑	
ALL VEHICLES													
17:00-17:15	44	252	2	3	1	1	43	3	33	46	388	1	817
17:15-17:30	46	247	0	4	3	1	43	0	39	45	390	2	820
17:30-17:45	38	258	4	7	0	0	39	5	20	53	356	4	784
17:45-18:00	49	280	4	3	1	1	22	2	31	54	341	3	791
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	1	6	0	0	0	0	0	0	0	1	3	0	11
17:15-17:30	1	7	0	0	0	0	0	0	0	0	4	0	12
17:30-17:45	0	5	0	0	0	0	0	0	0	0	2	0	7
17:45-18:00	0	5	1	0	0	0	0	0	1	0	3	0	10
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	1	0	0	0	0	0	0	0	0	1	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	1	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	1			0			0			0			1
17:15-17:30	0			1			1			0			2
17:30-17:45	0			1			0			0			1
17:45-18:00	0			0			0			0			0
Peak Hour by Movement													
PHF	.9	.93	.63	.61	.42	.75	.85	.5	.79	.92	.95	.63	.979
% Trucks (all)	1.1	2.5	10	0	0	0	0	0	.8	.5	1	0	1.4
% Trucks (M+H)	0	.3	0	0	0	0	0	0	0	0	.2	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:30-17:30	192	986	5	11	7	5	158	8	119	195	1468	8	3162
16:45-17:45	185	990	6	14	6	3	158	12	119	198	1476	10	3177
17:00-18:00	177	1037	10	17	5	3	147	10	123	198	1475	10	3212
17:15-18:15	177	1046	11	18	4	7	143	8	120	212	1386	15	3147
17:30-18:30	180	1008	13	18	3	6	131	11	124	224	1319	14	3051

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT BARROWS ROAD



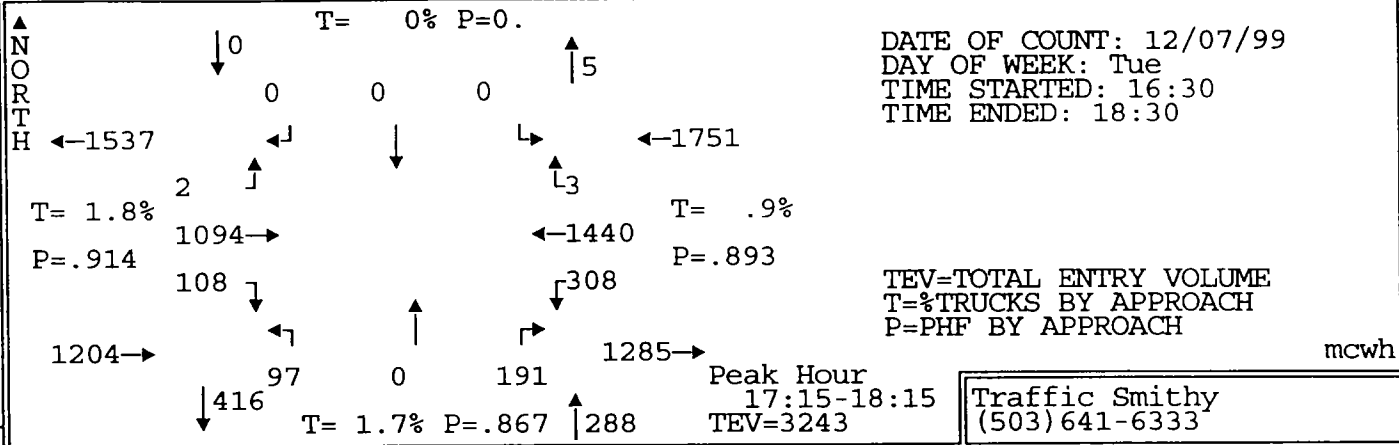
DATE OF COUNT: 12/07/99
DAY OF WEEK: Tue
TIME STARTED: 16:30
TIME ENDED: 18:30

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:30-16:35	8	74	0	0	0	0	6	0	15	34	87	0	224
16:35-16:40	8	99	1	0	0	0	9	0	23	23	130	0	293
16:40-16:45	12	66	0	0	0	0	3	0	15	26	118	0	240
16:45-16:50	10	108	0	0	0	0	8	0	20	23	120	0	289
16:50-16:55	15	79	0	0	0	0	6	0	9	16	134	0	259
16:55-17:00	8	68	0	0	0	0	12	0	12	29	95	0	224
17:00-17:05	7	95	0	0	0	0	3	0	14	21	132	0	272
17:05-17:10	10	68	0	0	0	0	2	0	10	44	117	0	251
17:10-17:15	5	91	1	0	0	0	21	2	11	17	88	1	237
17:15-17:20	10	95	0	0	0	0	7	0	8	22	149	0	291
17:20-17:25	7	83	0	0	0	0	11	0	16	31	112	0	260
17:25-17:30	10	96	0	0	0	0	10	0	11	22	153	1	303
17:30-17:35	10	91	1	0	0	0	10	0	17	35	141	0	305
17:35-17:40	8	86	0	0	0	0	16	0	21	21	130	0	282
17:40-17:45	6	86	0	0	0	0	3	0	14	16	140	1	266
17:45-17:50	11	95	1	0	0	0	16	0	19	34	94	0	270
17:50-17:55	12	122	0	0	0	0	1	0	9	20	99	1	264
17:55-18:00	6	82	0	0	0	0	1	0	15	34	103	0	241
18:00-18:05	9	98	0	0	0	0	9	0	18	18	86	0	238
18:05-18:10	12	72	0	0	0	0	6	0	20	22	110	0	242
18:10-18:15	7	88	0	0	0	0	7	0	23	33	123	0	281
18:15-18:20	16	77	0	0	0	0	4	0	17	22	134	0	270
18:20-18:25	8	65	0	0	0	0	5	0	19	33	115	0	245
18:25-18:30	7	109	0	0	0	0	3	0	10	25	101	0	255
Total Survey	222	2093	4	0	0	0	179	2	366	621	2811	4	6302
PHF	.93	.9	.5	0	0	0	.67	0	.78	.88	.85	.38	.910
% Trucks	1.8	2.1	0	0	0	0	.6	0	1.9	.8	1	0	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	4	0	0	0	0	0	0	0	0	2	0	0
Hourly Totals													
16:30-17:30	110	1022	2	0	0	0	98	2	164	308	1435	2	3143
16:45-17:45	106	1046	2	0	0	0	109	2	163	297	1511	3	3239
17:00-18:00	102	1090	3	0	0	0	101	2	165	317	1458	4	3242
17:15-18:15	108	1094	2	0	0	0	97	0	191	308	1440	3	3243
17:30-18:30	112	1071	2	0	0	0	81	0	202	313	1376	2	3159

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
SHELLS FERRY ROAD AT BARROWS RC

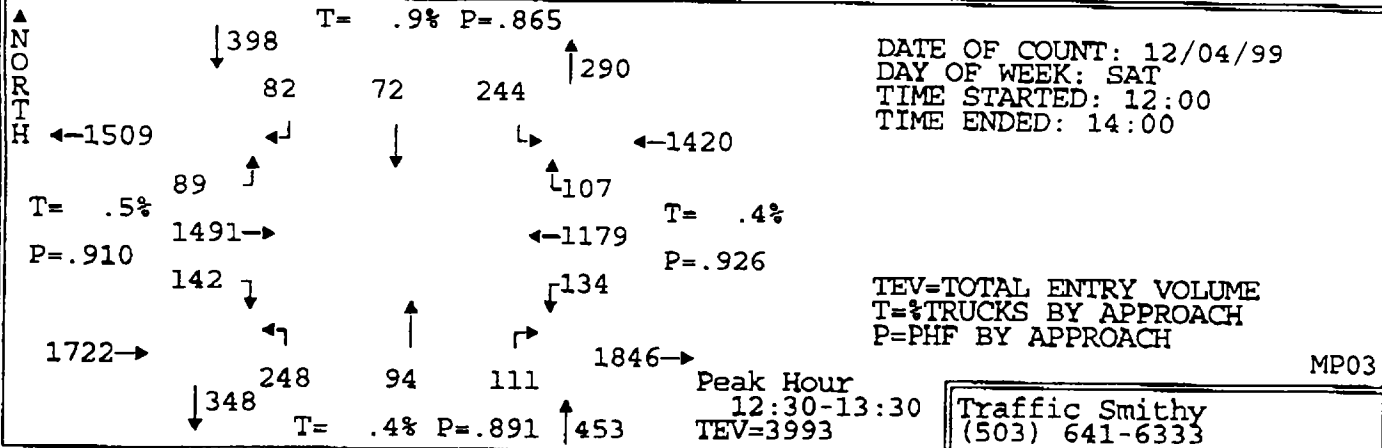


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↓		
ALL VEHICLES													
17:15-17:30	27	274	0	0	0	0	28	0	35	75	414	1	854
17:30-17:45	24	263	1	0	0	0	29	0	52	72	411	1	853
17:45-18:00	29	299	1	0	0	0	18	0	43	88	296	1	775
18:00-18:15	28	258	0	0	0	0	22	0	61	73	319	0	761
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:15-17:30	1	5	0	0	0	0	0	0	0	1	3	0	10
17:30-17:45	0	5	0	0	0	0	1	0	1	2	1	0	10
17:45-18:00	2	5	0	0	0	0	0	0	2	0	2	0	11
18:00-18:15	0	2	0	0	0	0	0	0	1	0	5	0	8
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00-18:15	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:15-17:30	0	1	0	0	0	0	0	0	0	0	1	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00-18:15	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	1
18:00-18:15	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	1	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
18:00-18:15	1	0	0	0	0	0	0	0	0	0	0	0	1
Peak Hour by Movement													
PHF	.93	.91	.5	0	0	0	.84	0	.78	.88	.87	.75	.949
% Trucks (all)	2.8	1.7	0	0	0	0	1	0	2.1	1	.8	0	1.3
% Trucks (M+H)	0	.2	0	0	0	0	0	0	0	0	.1	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:30-17:30	110	1022	2	0	0	0	98	2	164	308	1435	2	3143
16:45-17:45	106	1046	2	0	0	0	109	2	163	297	1511	3	3239
17:00-18:00	102	1090	3	0	0	0	101	2	165	317	1458	4	3242
17:15-18:15	108	1094	2	0	0	0	97	0	191	308	1440	3	3243
17:30-18:30	112	1071	2	0	0	0	81	0	202	313	1376	2	3159

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT 125TH AVENUE

22061

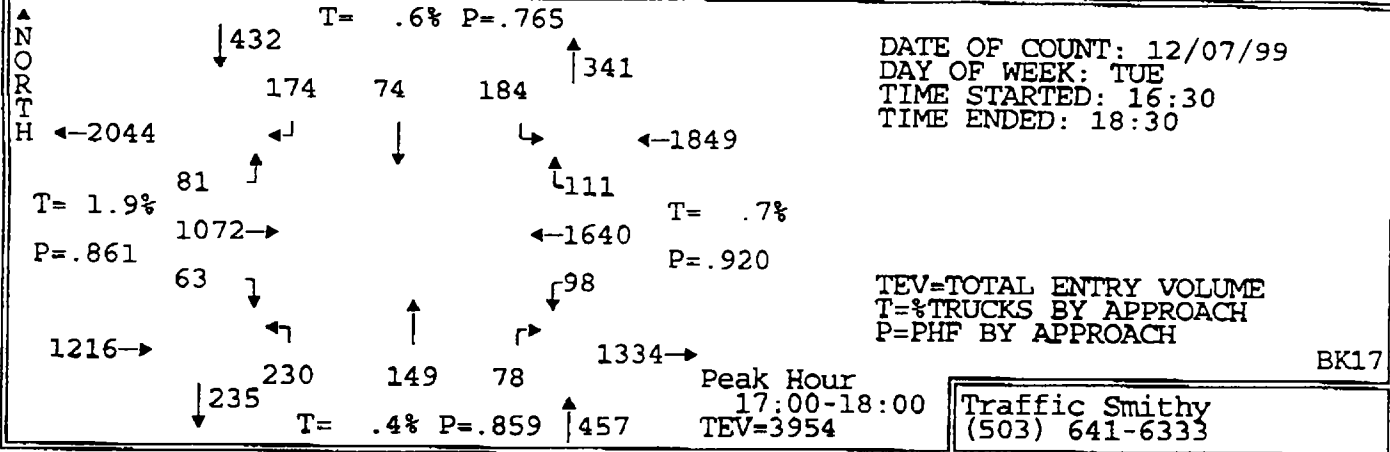


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
12:00-12:05	9	112	8	16	4	9	13	2	5	11	96	11	296
12:05-12:10	12	122	6	16	6	19	19	1	13	10	121	5	350
12:10-12:15	7	121	12	10	8	16	15	12	6	9	86	8	310
12:15-12:20	9	102	5	5	8	16	11	4	10	19	124	10	323
12:20-12:25	13	121	7	7	9	12	7	7	13	14	69	6	285
12:25-12:30	14	108	10	10	1	23	26	4	9	16	112	7	340
12:30-12:35	11	125	7	4	6	16	22	6	11	12	107	11	338
12:35-12:40	12	118	5	8	6	24	31	4	5	12	115	4	344
12:40-12:45	13	140	6	8	6	17	19	7	13	10	99	13	351
12:45-12:50	11	112	6	6	6	16	19	11	8	5	77	7	284
12:50-12:55	15	140	8	4	3	25	17	9	8	6	92	10	337
12:55-13:00	10	100	1	5	7	23	23	12	8	14	108	8	319
13:00-13:05	7	129	10	9	6	13	12	9	5	10	90	12	312
13:05-13:10	8	105	10	7	5	21	20	7	10	17	85	12	307
13:10-13:15	12	121	9	8	12	26	21	10	12	15	102	10	358
13:15-13:20	19	131	6	6	5	25	29	8	10	15	79	7	340
13:20-13:25	12	152	11	11	4	14	11	2	7	9	113	4	350
13:25-13:30	12	118	10	6	6	24	24	9	14	9	112	9	353
13:30-13:35	9	118	7	8	3	10	13	3	9	10	89	8	287
13:35-13:40	10	110	3	5	5	17	28	8	10	13	115	4	328
13:40-13:45	12	127	9	7	4	13	15	4	7	15	102	8	323
13:45-13:50	9	120	7	7	4	22	28	7	8	13	104	11	340
13:50-13:55	8	133	14	8	10	21	18	8	7	5	87	11	330
13:55-14:00	7	103	5	7	1	26	27	9	14	15	90	8	312

Total Survey	261	2888	182	188	135	448	468	163	222	284	2374	204	7817
PHF	.83	.92	.77	.82	.78	.85	.86	.73	.87	.71	.92	.79	.952
% Trucks	0	.5	1.1	.5	.7	1.1	0	.6	.9	0	.5	0	.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	22	0	0	17	0	0	9	0	0	7	0	0

Hourly Totals													
12:00-13:00	136	1421	81	99	70	216	222	79	109	138	1206	100	3877
12:15-13:15	135	1421	84	81	75	232	228	90	112	150	1180	110	3898
12:30-13:30	142	1491	89	82	72	244	248	94	111	134	1179	107	3993
12:45-13:45	137	1463	90	82	66	227	232	92	108	138	1164	99	3898
13:00-14:00	125	1467	101	89	65	232	246	84	113	146	1168	104	3940

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT 125TH AVENUE



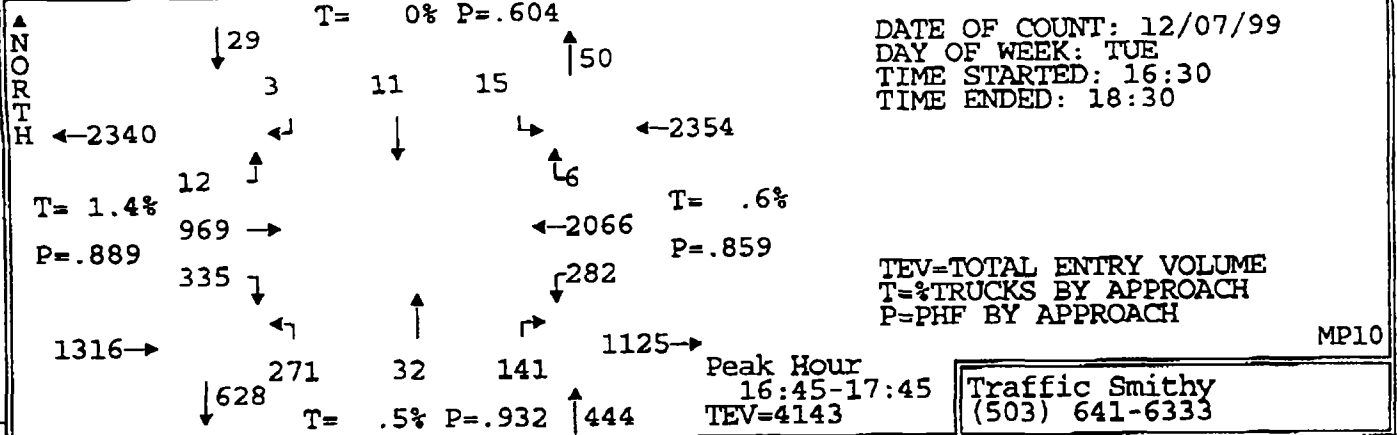
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:30-16:35	5	98	8	10	6	9	14	10	5	5	138	14	322
16:35-16:40	7	79	7	9	3	18	17	12	6	6	113	21	298
16:40-16:45	1	77	12	19	8	16	23	13	3	9	92	8	281
16:45-16:50	3	93	6	11	4	16	13	4	3	11	150	11	325
16:50-16:55	7	76	7	17	8	26	15	10	4	5	125	6	306
16:55-17:00	3	66	14	17	10	16	15	9	8	13	95	10	276
17:00-17:05	5	82	4	14	3	16	18	8	7	20	172	15	364
17:05-17:10	6	86	15	15	11	16	20	10	5	4	89	8	285
17:10-17:15	2	89	5	14	3	7	22	20	6	5	171	4	348
17:15-17:20	10	63	2	13	2	18	14	16	6	9	157	1	311
17:20-17:25	7	99	16	13	0	17	21	17	5	8	135	8	346
17:25-17:30	5	91	3	15	3	6	19	13	9	10	161	13	348
17:30-17:35	2	82	5	21	12	25	21	19	9	6	113	6	321
17:35-17:40	10	93	6	17	11	19	10	10	7	8	144	4	339
17:40-17:45	3	68	4	14	2	20	21	4	9	13	109	15	282
17:45-17:50	5	110	8	14	13	15	25	18	1	8	140	6	363
17:50-17:55	4	107	6	10	5	8	18	5	10	4	136	24	337
17:55-18:00	4	102	7	14	9	17	21	9	4	3	113	7	310
18:00-18:05	6	109	7	6	7	12	13	1	4	3	122	2	292
18:05-18:10	8	61	3	17	7	18	18	8	11	10	111	12	284
18:10-18:15	7	99	12	19	3	13	10	7	8	10	120	10	318
18:15-18:20	2	77	12	9	8	13	10	2	16	16	147	5	317
18:20-18:25	7	72	11	20	5	17	22	8	2	7	103	4	278
18:25-18:30	5	116	6	8	5	12	6	7	6	9	135	6	321

Total Survey	124	2095	186	336	148	370	406	240	154	202	3091	220	7572
PHF	.72	.84	.84	.82	.69	.72	.9	.7	.78	.84	.89	.62	.973
% Trucks	0	2.1	1.6	0	1.4	.8	.5	0	.6	0	.8	.5	1.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	4	0	0	6	0	0	12	0	0	0	0	0

Hourly Totals													
16:30-17:30	61	999	99	167	61	181	211	142	67	105	1598	119	3810
16:45-17:45	63	988	87	181	69	202	209	140	78	112	1621	101	3851
17:00-18:00	63	1072	81	174	74	184	230	149	78	98	1640	111	3954
17:15-18:15	71	1084	79	173	74	188	211	127	83	92	1561	108	3851
17:30-18:30	63	1096	87	169	87	189	195	98	87	97	1493	101	3762

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT 121ST AVENUE

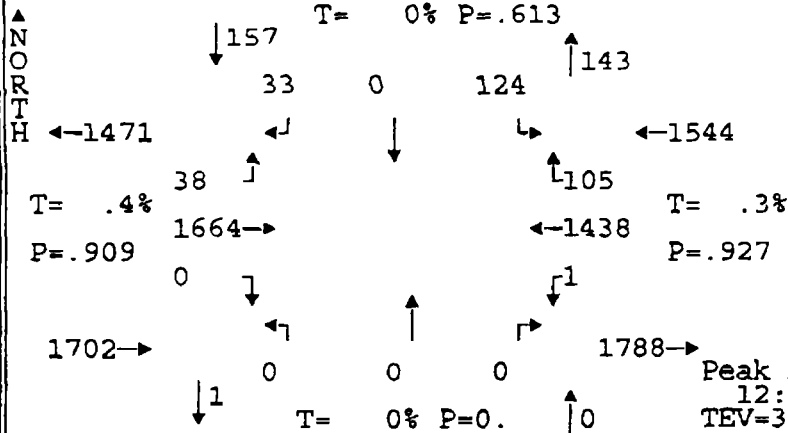
22057



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:30-16:35	20	66	0	1	2	2	20	0	18	22	119	1	271
16:35-16:40	19	59	1	0	0	0	15	1	12	28	175	1	311
16:40-16:45	18	76	2	0	1	1	26	1	16	14	103	0	258
16:45-16:50	21	88	1	0	1	0	16	1	11	29	179	1	348
16:50-16:55	35	74	2	0	3	2	24	1	20	25	153	3	342
16:55-17:00	22	53	1	0	1	0	21	0	12	37	155	0	302
17:00-17:05	36	80	0	0	2	4	25	5	8	19	191	0	370
17:05-17:10	25	105	1	0	0	1	24	2	9	24	151	1	343
17:10-17:15	30	69	0	1	1	0	22	0	9	33	226	0	391
17:15-17:20	26	60	1	0	1	1	28	4	16	17	185	0	339
17:20-17:25	36	100	3	1	1	0	25	2	13	18	205	1	405
17:25-17:30	24	102	0	0	0	2	16	2	12	24	201	0	383
17:30-17:35	33	70	2	0	0	2	20	7	11	12	130	0	287
17:35-17:40	27	88	0	0	1	2	25	7	7	22	155	0	334
17:40-17:45	20	80	1	1	0	1	25	1	13	22	135	0	299
17:45-17:50	21	71	0	0	0	0	21	13	8	27	130	0	291
17:50-17:55	13	114	6	0	1	0	22	3	11	22	182	0	374
17:55-18:00	30	84	4	0	2	1	14	4	10	32	129	0	310
18:00-18:05	18	103	1	1	2	2	18	4	13	13	140	0	315
18:05-18:10	22	39	2	0	3	0	18	6	15	29	131	0	265
18:10-18:15	21	105	7	0	0	2	23	1	9	15	165	2	350
18:15-18:20	13	87	0	1	0	4	11	1	26	23	168	0	334
18:20-18:25	18	49	0	1	3	0	12	5	17	20	136	2	263
18:25-18:30	21	109	1	0	3	0	23	3	12	13	159	0	344
Total Survey	569	1931	36	7	28	27	494	74	308	540	3803	12	7829
PHF	.9	.89	.6	.38	.46	.63	.9	.5	.82	.77	.84	.38	.912
% Trucks	1.4	1.5	0	0	0	0	.4	0	.6	1.5	.5	0	.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	3	0	0	0	0	0	0	0	0
Hourly Totals													
16:30-17:30	312	932	12	3	13	13	262	19	156	290	2043	8	4063
16:45-17:45	335	969	12	3	11	15	271	32	141	282	2066	6	4143
17:00-18:00	321	1023	18	3	9	14	267	50	127	272	2020	2	4126
17:15-18:15	291	1016	27	3	11	13	255	54	138	253	1888	3	3952
17:30-18:30	257	999	24	4	15	14	232	55	152	250	1760	4	3766

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT CONESTOGA DRIVE

22069



DATE OF COUNT: 12/04/99
DAY OF WEEK: SAT
TIME STARTED: 12:00
TIME ENDED: 14:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

MP01

Peak Hour
12:55-13:55
TEV=3403

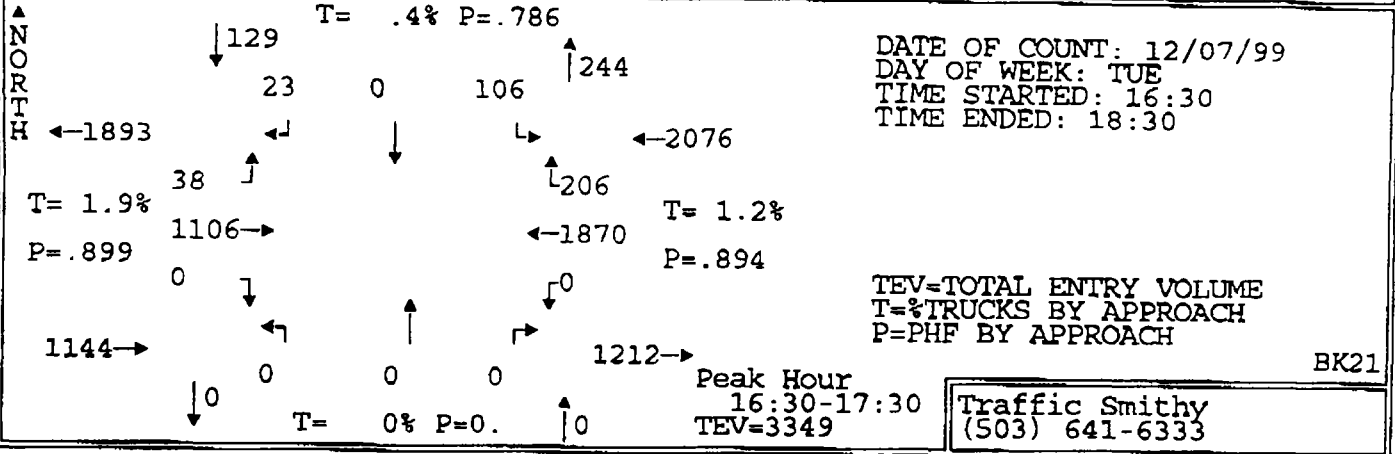
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↖	
12:00-12:05	0	129	1	4	0	5	0	0	0	0	129	4	272
12:05-12:10	0	127	2	2	0	13	0	0	0	0	116	10	270
12:10-12:15	0	127	1	2	0	5	0	0	0	0	146	13	294
12:15-12:20	0	132	5	2	0	17	0	0	0	0	106	6	268
12:20-12:25	0	143	0	0	0	4	0	0	0	0	105	5	257
12:25-12:30	0	110	3	2	0	10	0	0	0	0	132	5	262
12:30-12:35	0	123	2	3	0	9	0	0	0	0	106	11	254
12:35-12:40	0	157	4	2	0	12	0	0	0	0	115	8	298
12:40-12:45	0	156	4	0	0	7	0	0	0	0	115	10	292
12:45-12:50	0	131	1	3	0	17	0	0	0	0	100	8	260
12:50-12:55	0	146	3	1	0	4	0	0	0	0	86	7	247
12:55-13:00	0	135	4	1	0	8	0	0	0	0	144	10	302
13:00-13:05	0	141	2	2	0	13	0	0	0	0	126	7	291
13:05-13:10	0	113	2	1	0	16	0	0	0	0	119	10	261
13:10-13:15	0	129	2	2	0	9	0	0	0	0	135	14	291
13:15-13:20	0	150	1	0	0	5	0	0	0	0	93	5	254
13:20-13:25	0	135	3	5	0	7	0	0	0	0	137	11	298
13:25-13:30	0	147	3	3	0	7	0	0	0	1	116	9	286
13:30-13:35	0	150	1	4	0	6	0	0	0	0	107	10	278
13:35-13:40	0	107	9	4	0	15	0	0	0	0	117	12	264
13:40-13:45	0	154	3	4	0	13	0	0	0	0	115	4	293
13:45-13:50	0	150	5	6	0	22	0	0	0	0	106	6	295
13:50-13:55	0	153	3	1	0	3	0	0	0	0	123	7	290
13:55-14:00	0	130	2	5	0	8	0	0	0	0	115	11	271

Total Survey	0	3275	66	59	0	235	0	0	0	0	1	2809	203	6648
PHF	0	.91	.56	.59	0	.62	0	0	0	0	.25	.92	.85	.968
% Trucks	0	.4	0	0	0	0	0	0	0	0	0	.3	0	.3
Stopped Buses	0	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	12	0	0

Hourly Totals														
12:00-13:00	0	1616	30	22	0	111	0	0	0	0	0	1400	97	3276
12:15-13:15	0	1616	32	19	0	126	0	0	0	0	0	1389	101	3283
12:30-13:30	0	1663	31	23	0	114	0	0	0	0	1	1392	110	3334
12:45-13:45	0	1638	34	30	0	120	0	0	0	0	1	1395	107	3325
13:00-14:00	0	1659	36	37	0	124	0	0	0	0	1	1409	106	3372

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT CONESTOGA DRIVE



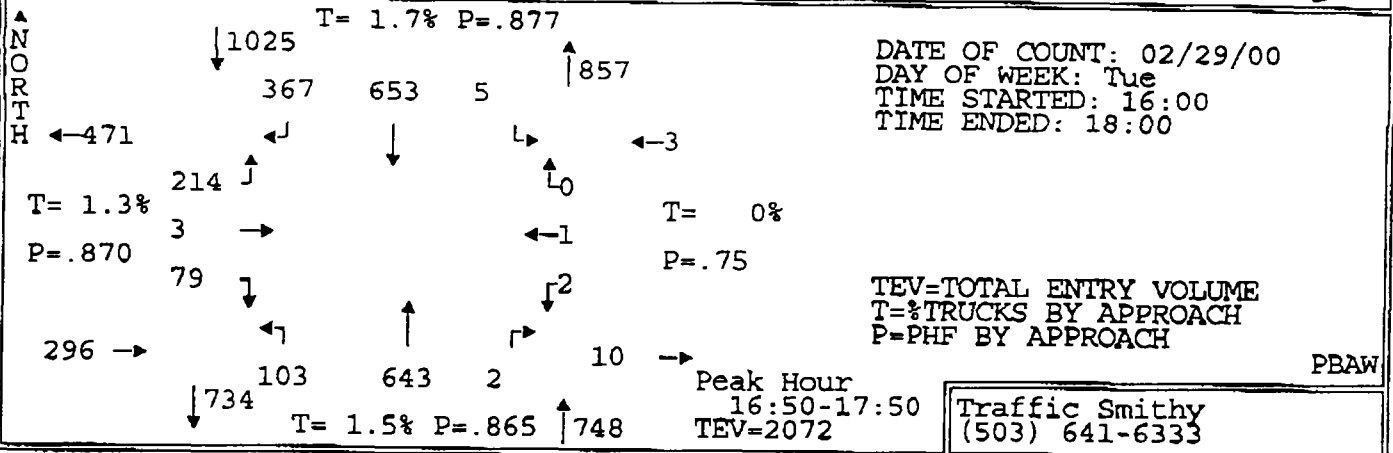
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:30-16:35	0	112	1	1	0	5	0	0	0	0	159	14	292
16:35-16:40	0	102	7	2	0	5	0	0	0	0	140	12	268
16:40-16:45	0	93	3	1	0	8	0	0	0	0	146	26	277
16:45-16:50	0	88	2	2	0	6	0	0	0	0	170	13	281
16:50-16:55	0	99	2	0	0	9	0	0	0	0	128	12	250
16:55-17:00	0	92	2	2	0	12	0	0	0	0	160	15	283
17:00-17:05	0	93	2	3	0	7	0	0	0	0	158	20	283
17:05-17:10	0	84	4	6	0	10	0	0	0	0	141	15	260
17:10-17:15	0	80	3	1	0	11	0	0	0	0	197	16	308
17:15-17:20	0	78	4	1	0	12	0	0	0	0	155	17	267
17:20-17:25	0	79	6	1	0	13	0	0	0	0	172	23	295
17:25-17:30	0	106	2	2	0	8	0	0	0	0	144	23	285
17:30-17:35	0	84	3	3	0	14	0	0	0	0	134	18	256
17:35-17:40	0	89	3	3	0	3	0	0	0	0	163	18	279
17:40-17:45	0	86	2	2	0	10	0	0	0	0	118	11	229
17:45-17:50	0	100	3	2	0	7	0	0	0	0	161	10	283
17:50-17:55	0	104	5	3	0	7	0	0	0	0	159	15	293
17:55-18:00	0	115	2	1	0	11	0	0	0	0	139	21	289
18:00-18:05	0	118	0	4	0	2	0	0	0	0	138	14	276
18:05-18:10	0	73	2	3	0	11	0	0	0	0	124	17	230
18:10-18:15	0	97	4	2	0	3	0	0	0	0	177	20	303
18:15-18:20	0	104	5	3	0	7	0	0	0	0	149	18	286
18:20-18:25	0	86	5	3	0	9	0	0	0	0	132	19	252
18:25-18:30	0	103	1	3	0	10	0	0	0	0	150	15	282

Total Survey	0	2265	73	53	0	200	0	0	0	0	3614	402	6607
PHF	0	.9	.73	.52	0	.74	0	0	0	0	.89	.82	.962
% Trucks	0	1.9	0	0	0	.5	0	0	0	0	1.1	2.2	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	9	0	0	8	0	0	5	0	0	4	0	0

Hourly Totals													
16:30-17:30	0	1106	38	23	0	106	0	0	0	0	1870	206	3349
16:45-17:45	0	1058	35	27	0	115	0	0	0	0	1840	201	3276
17:00-18:00	0	1098	39	29	0	113	0	0	0	0	1841	207	3327
17:15-18:15	0	1129	36	28	0	101	0	0	0	0	1784	207	3285
17:30-18:30	0	1159	35	30	0	94	0	0	0	0	1744	196	3258

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT DENNEY ROAD

22795



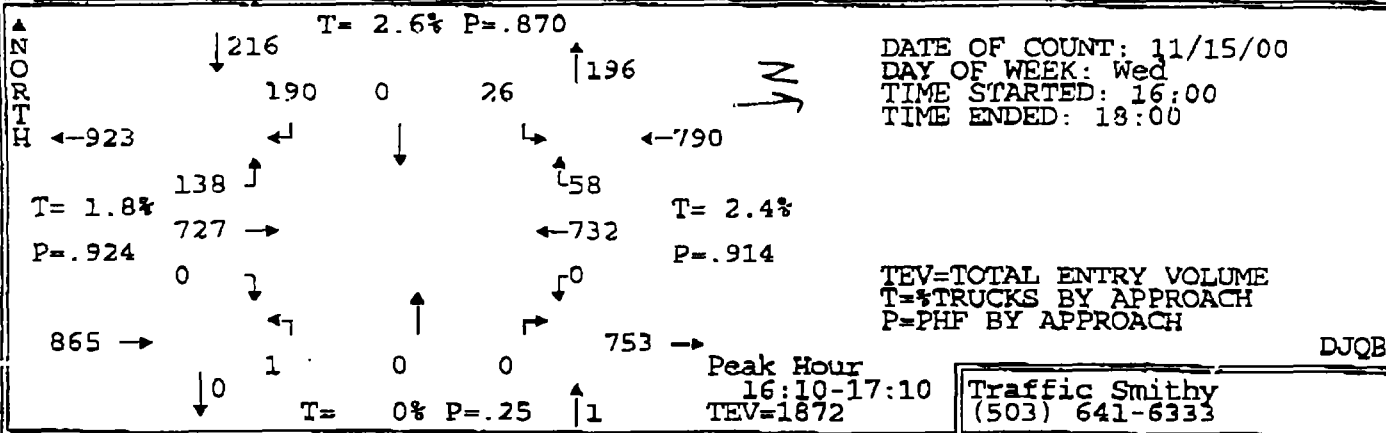
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	6	1	14	24	31	0	9	45	0	0	0	0	130
16:05-16:10	4	0	10	21	38	0	4	38	0	0	0	0	115
16:10-16:15	8	0	18	32	37	1	9	43	0	0	0	0	148
16:15-16:20	5	0	16	30	48	1	8	36	0	0	0	0	144
16:20-16:25	10	0	9	22	43	0	11	37	0	0	0	0	132
16:25-16:30	4	0	18	31	38	0	6	31	0	0	0	0	128
16:30-16:35	7	1	21	26	36	1	8	44	0	1	0	0	145
16:35-16:40	5	0	17	34	74	0	9	44	0	0	0	0	183
16:40-16:45	5	0	10	20	54	0	4	39	0	0	0	0	132
16:45-16:50	6	0	15	26	58	0	7	48	0	0	0	0	160
16:50-16:55	8	0	20	34	48	0	6	49	0	0	0	0	165
16:55-17:00	8	0	14	25	54	1	8	42	0	1	0	0	153
17:00-17:05	12	0	22	30	52	1	10	57	0	0	0	0	184
17:05-17:10	8	1	18	24	55	0	8	45	0	0	0	0	159
17:10-17:15	7	0	17	42	68	0	4	54	0	0	0	0	192
17:15-17:20	7	0	17	42	61	0	19	61	1	0	0	0	208
17:20-17:25	1	1	24	32	41	0	10	55	0	0	0	0	164
17:25-17:30	4	0	21	33	43	1	10	60	0	0	0	0	172
17:30-17:35	10	0	17	22	66	0	4	48	0	1	0	0	168
17:35-17:40	3	0	19	27	65	0	12	56	1	0	0	0	183
17:40-17:45	4	0	12	27	49	1	4	56	0	0	0	0	153
17:45-17:50	7	1	13	29	51	1	8	60	0	0	1	0	171
17:50-17:55	10	0	25	23	44	0	12	43	0	0	0	0	157
17:55-18:00	6	0	12	26	63	0	9	42	0	0	0	0	158

Total Survey	155	5	399	682	1217	8	199	1133	2	3	1	0	3804
PHF	.71	.75	.86	.79	.89	.63	.66	.91	.5	.5	.25	0	.918
% Trucks	1.3	0	1.3	1	2	12.5	1.5	1.5	0	0	0	0	1.6
Stopped Buses	0	0	0	0	0	0	0	2	0	0	0	0	
Peds	0	1	0	0	11	0	0	8	0	0	0	0	

Hourly Totals	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	ALL
16:00-17:00	76	2	182	325	559	4	89	496	0	2	0	0	1735
16:15-17:15	85	2	197	344	628	4	89	526	0	2	0	0	1877
16:30-17:30	78	3	216	368	644	4	103	598	1	2	0	0	2017
16:45-17:45	78	2	216	364	660	4	102	631	2	2	0	0	2061
17:00-18:00	79	3	217	357	658	4	110	637	2	1	1	0	2069

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLTS FERRY ROAD AT LAURELWOOD AVENUE

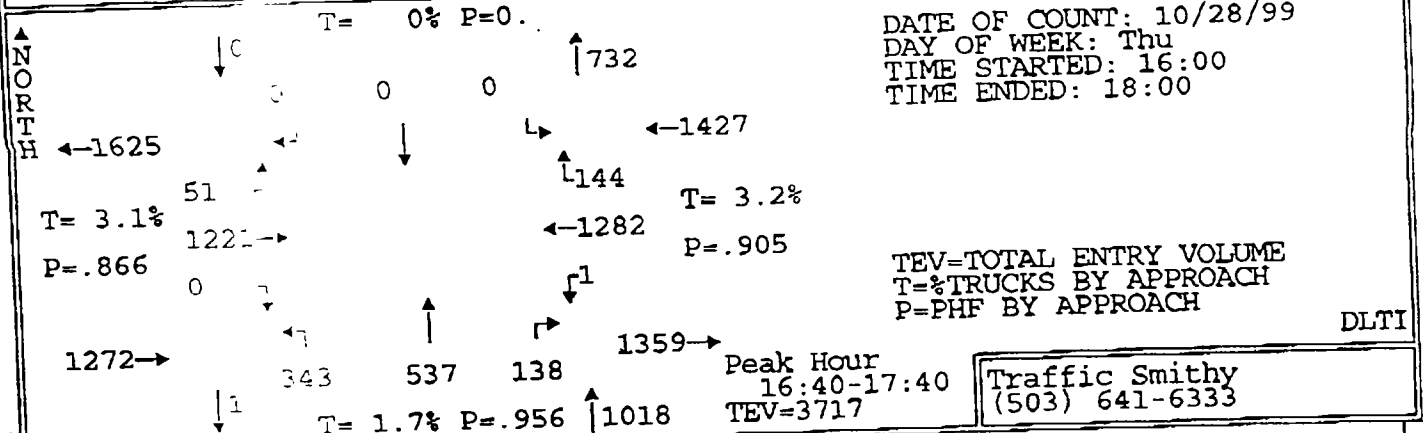
25461



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND		NORTH BOUND		WEST BOUND			ALL		
	↓	→	↑	←	↓	←	↑	→	↓	←			
16:00-16:05	0	59	12	20	1	5	1	0	0	0	51	11	160
16:05-16:10	0	60	23	13	0	0	0	0	0	1	62	1	160
16:10-16:15	0	68	10	23	0	2	0	0	0	0	55	2	160
16:15-16:20	0	57	11	14	0	2	0	0	0	0	70	10	164
16:20-16:25	0	58	11	16	0	1	0	0	0	0	66	3	155
16:25-16:30	0	51	14	14	0	1	0	0	0	0	51	5	138
16:30-16:35	0	50	10	18	0	2	0	0	0	0	65	8	153
16:35-16:40	0	61	14	16	0	2	0	0	0	0	50	2	145
16:40-16:45	0	67	9	15	0	2	0	0	0	0	61	3	157
16:45-16:50	0	54	15	10	0	1	0	0	0	0	55	2	137
16:50-16:55	0	59	12	14	0	4	0	0	0	0	58	6	153
16:55-17:00	0	62	12	17	0	4	0	0	0	0	66	5	166
17:00-17:05	0	71	7	19	0	4	1	0	0	0	58	5	165
17:05-17:10	0	69	13	14	0	1	0	0	0	0	75	7	179
17:10-17:15	0	58	10	18	0	1	0	0	0	0	44	6	137
17:15-17:20	0	60	14	10	0	2	0	0	0	0	62	4	152
17:20-17:25	0	43	11	9	0	0	0	0	0	0	63	7	133
17:25-17:30	0	53	13	13	0	1	0	0	0	0	69	4	153
17:30-17:35	0	45	17	23	0	0	0	0	0	0	69	5	160
17:35-17:40	0	54	6	14	1	2	0	0	0	0	56	5	138
17:40-17:45	0	55	8	15	0	4	0	0	0	0	69	10	161
17:45-17:50	0	58	8	18	0	2	0	0	0	0	82	5	173
17:50-17:55	0	50	10	20	0	2	0	0	0	0	66	2	150
17:55-18:00	0	48	8	8	0	4	0	0	0	0	61	11	140
Total Survey	0	1370	278	371	2	49	2	0	0	1	1486	130	3689
PHF	0	.9	.88	.9	0	.54	.25	0	0	0	.92	.81	.917
% Trucks	0	2	1.1	2.4	0	4.1	0	0	0	0	2.4	2.3	2.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Trucks	0	0	0	0	0	0	0	0	0	0	2	0	0
Hourly Totals													
16:00-17:00	0	706	153	190	1	26	1	0	0	1	712	58	1848
16:15-17:15	0	717	138	185	0	25	1	0	0	0	721	62	1849
16:30-17:30	0	707	140	173	0	24	1	0	0	0	726	59	1830
16:45-17:45	0	683	138	176	1	24	1	0	0	0	744	67	1834
17:00-18:00	0	664	125	181	1	23	1	0	0	0	774	72	1841

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON RD AT HALL BOULEVARD

21500



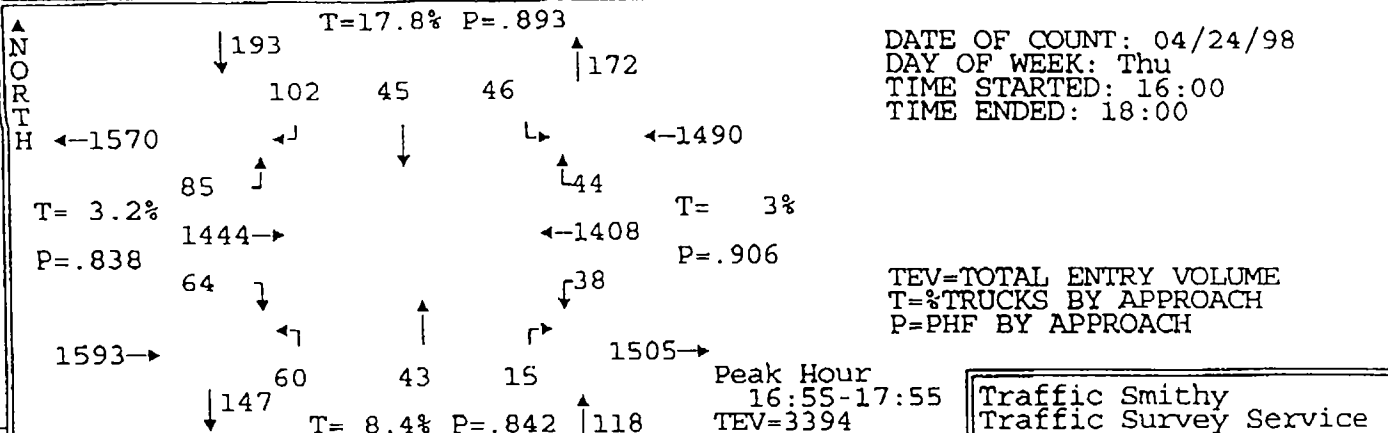
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
16:00-16:05	0	114	4	0	0	0	17	51	10	0	99	13	308
16:05-16:10	0	89	7	0	0	0	17	31	9	0	131	6	290
16:10-16:15	0	115	5	0	0	0	25	38	11	0	113	10	317
16:15-16:20	0	91	6	0	0	0	40	36	19	0	118	9	319
16:20-16:25	0	93	3	0	0	0	17	28	9	0	104	11	265
16:25-16:30	0	102	2	0	0	0	30	37	9	0	102	16	298
16:30-16:35	0	106	1	0	0	0	16	25	7	0	114	9	278
16:35-16:40	0	91	9	0	0	0	25	35	7	0	96	11	274
16:40-16:45	0	106	5	0	0	0	33	43	12	0	114	9	322
16:45-16:50	0	84	2	0	0	0	30	42	13	0	128	11	310
16:50-16:55	0	74	4	0	0	0	25	32	10	0	119	13	277
16:55-17:00	0	89	4	0	0	0	25	56	12	0	98	13	297
17:00-17:05	0	108	4	0	0	0	25	44	9	0	97	9	296
17:05-17:10	0	129	0	0	0	0	33	51	11	0	106	13	343
17:10-17:15	0	121	3	0	0	0	30	51	12	0	106	10	333
17:15-17:20	0	111	3	0	0	0	24	41	9	0	107	11	306
17:20-17:25	0	104	8	0	0	0	34	45	15	0	91	10	307
17:25-17:30	0	105	6	0	0	0	30	51	12	1	107	18	330
17:30-17:35	0	84	7	0	0	0	28	36	15	0	118	15	303
17:35-17:40	0	106	5	0	0	0	26	45	8	0	91	12	293
17:40-17:45	0	121	6	0	0	0	16	38	11	0	104	8	304
17:45-17:50	0	96	7	0	0	0	25	50	9	0	108	8	303
17:50-17:55	0	112	6	0	0	0	20	33	5	0	87	13	276
17:55-18:00	0	112	3	0	0	0	22	44	12	0	111	7	311

Total Survey	0	2463	110	0	0	0	613	983	256	1	2569	265	7260
PHF	0	.85	.61	0	0	0	.93	.89	.82	.25	.89	.8	.94
% Truck	0	3.2	.9	0	0	0	1.8	.9	4.7	0	3.5	.4	2.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	3	0	0
Peds	0	9	0	0	3	0	0	28	0	0	9	0	0

Hourly Total	0	1154	52	0	0	0	300	454	128	0	1336	131	355
16:00-17:00	0	1194	43	0	0	0	329	480	130	0	1302	134	361
16:15-17:15	0	1228	49	0	0	0	330	516	129	1	1283	137	367
16:30-17:30	0	1236	52	0	0	0	326	532	137	1	1272	143	369
16:45-17:45	0	1309	58	0	0	0	313	529	128	1	1233	134	370

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
LOMBARD AVENUE AT CANYON ROAD

13127



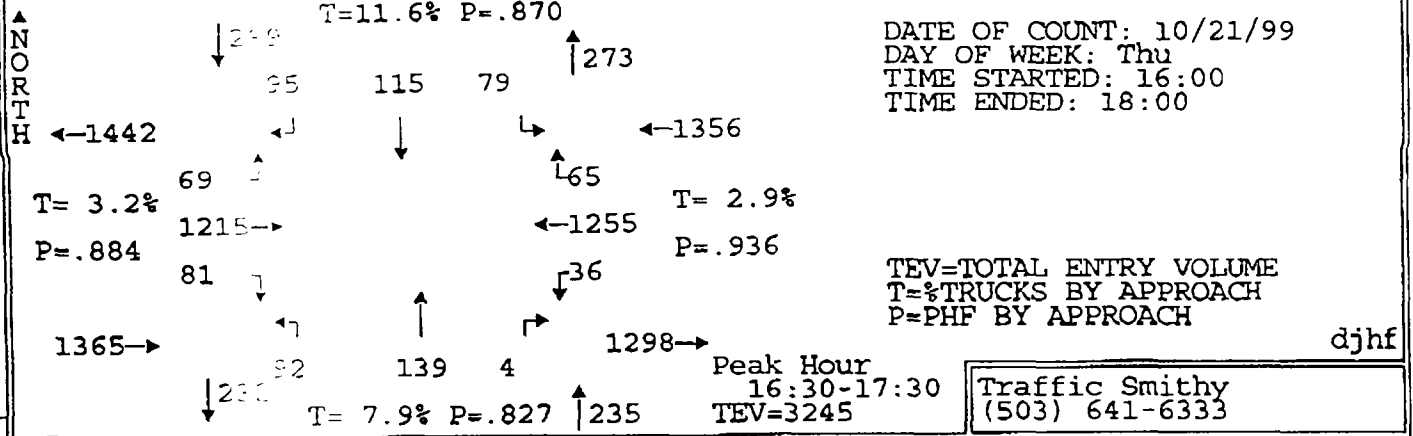
TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL				
	→ R	↑ T	← L	↓ R	← L	↑ T	→ R	↓ L					
16:00-16:05	1	88	8	4	7	9	10	1	3	4	102	4	241
16:05-16:10	4	117	2	7	3	2	7	0	0	2	114	2	260
16:10-16:15	6	124	4	5	2	4	9	2	4	4	108	3	275
16:15-16:20	2	130	6	19	8	6	7	2	0	1	91	1	273
16:20-16:25	6	98	8	10	0	2	6	6	1	5	113	12	267
16:25-16:30	5	106	8	10	4	5	7	4	0	4	111	4	268
16:30-16:35	7	120	2	11	6	6	6	5	2	2	118	3	288
16:35-16:40	6	90	6	7	4	6	9	7	3	0	109	2	249
16:40-16:45	5	96	7	10	8	4	6	5	0	3	105	3	252
16:45-16:50	5	99	3	13	3	3	4	0	2	4	133	6	275
16:50-16:55	3	144	9	9	3	7	6	1	0	5	117	2	306
16:55-17:00	5	97	4	7	4	1	5	6	3	6	108	2	248
17:00-17:05	5	109	6	8	2	6	6	4	0	4	125	3	278
17:05-17:10	4	97	4	9	0	6	5	2	1	2	113	5	248
17:10-17:15	7	113	6	6	3	1	7	7	0	0	120	3	273
17:15-17:20	3	132	10	8	7	6	7	3	1	7	108	7	299
17:20-17:25	5	115	6	8	4	3	7	2	1	2	131	4	288
17:25-17:30	6	100	10	6	2	3	3	3	1	6	87	4	231
17:30-17:35	1	136	6	10	8	6	3	3	5	0	99	2	279
17:35-17:40	7	121	3	11	2	4	6	5	0	2	123	6	290
17:40-17:45	9	147	13	8	4	1	8	3	2	2	115	1	313
17:45-17:50	3	131	7	10	5	6	2	5	0	3	151	4	327
17:50-17:55	9	146	10	11	4	3	1	0	1	4	128	3	320
17:55-18:00	3	111	6	6	2	2	4	2	0	1	98	0	235

Total Survey	117	2767	154	213	95	102	141	78	30	73	2727	86	6583
PHF	.76	.85	.71	.88	.8	.88	.71	.83	.54	.63	.89	.73	.883
% Trucks	1.7	2.4	18.2	18.8	17.9	15.7	1.4	24.4	0	0	2.6	19.8	4.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	8	0	0	38	0	0	44	0	0	19	0	0

Hourly Totals													
16:00-17:00	55	1309	67	112	52	55	82	39	18	40	1329	44	3202
16:15-17:15	60	1299	69	119	45	53	74	49	12	36	1363	46	3225
16:30-17:30	61	1312	73	102	46	52	71	45	14	41	1374	44	3235
16:45-17:45	60	1410	80	103	42	47	67	39	16	40	1379	45	3328
17:00-18:00	62	1458	87	101	43	47	59	39	12	33	1398	44	3381

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT LOMBARD AVENUE

21413



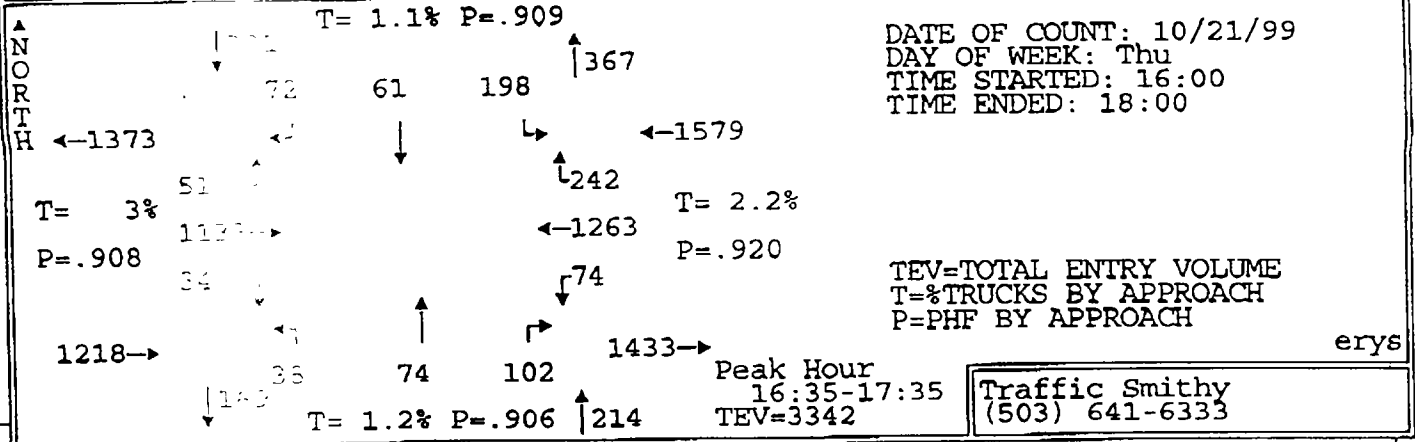
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	7	91	6	9	10	7	9	5	0	3	83	5	235
16:05-16:10	10	101	6	3	9	4	10	8	5	6	101	8	271
16:10-16:15	3	78	3	13	2	3	10	6	2	6	108	5	239
16:15-16:20	13	77	9	5	7	2	8	18	0	3	107	6	255
16:20-16:25	7	86	6	7	10	4	9	12	3	2	105	4	255
16:25-16:30	5	61	5	8	8	4	7	24	3	4	108	2	239
16:30-16:35	6	95	3	7	8	8	11	3	0	6	110	9	266
16:35-16:40	6	114	9	5	13	9	12	10	0	1	95	7	281
16:40-16:45	10	83	9	8	4	11	5	13	0	7	92	3	245
16:45-16:50	6	108	8	12	10	11	16	15	0	3	99	8	296
16:50-16:55	9	110	4	8	7	4	7	9	0	2	114	5	279
16:55-17:00	4	73	6	4	7	5	6	8	3	2	106	6	230
17:00-17:05	5	86	4	11	12	6	5	16	1	1	118	8	273
17:05-17:10	8	116	6	5	9	3	9	10	0	1	95	1	263
17:10-17:15	8	113	4	8	10	3	5	12	0	4	121	6	294
17:15-17:20	6	115	7	9	11	4	10	10	0	1	84	6	263
17:20-17:25	6	121	6	9	13	9	3	17	0	3	113	3	303
17:25-17:30	7	81	3	9	11	6	3	16	0	5	108	3	252
17:30-17:35	3	87	6	9	12	4	9	14	1	0	101	9	255
17:35-17:40	4	72	6	5	5	5	3	9	0	1	105	5	220
17:40-17:45	5	111	7	9	9	2	8	3	0	3	109	4	270
17:45-17:50	8	101	7	12	8	5	7	11	0	0	106	6	271
17:50-17:55	2	105	6	9	7	9	1	15	3	3	82	7	249
17:55-18:00	3	99	10	12	9	7	3	8	1	2	89	9	252

Total Survey	151	2284	146	196	211	135	176	272	22	69	2459	135	6256
PHF	.81	.87	.66	.85	.82	.64	.7	.81	.25	.64	.93	.86	.943
% Trucks	1.3	2.4	18.5	14.8	10	9.6	2.8	11.8	0	0	2.5	11.9	4.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	17	0	0	23	0	0	105	0	0	12	0	0

Hourly Totals	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-17:00	66	1077	74	89	95	72	110	131	16	45	1228	68	3091
16:15-17:15	87	1122	73	88	105	70	100	150	10	36	1270	65	3176
16:30-17:30	81	1215	69	95	115	79	92	139	4	36	1255	65	3245
16:45-17:45	71	1193	67	98	116	62	84	139	5	26	1273	64	3198
17:00-18:00	65	1207	72	107	116	63	66	141	6	24	1231	67	3165

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT 117TH AVENUE/BROADWAY

21411



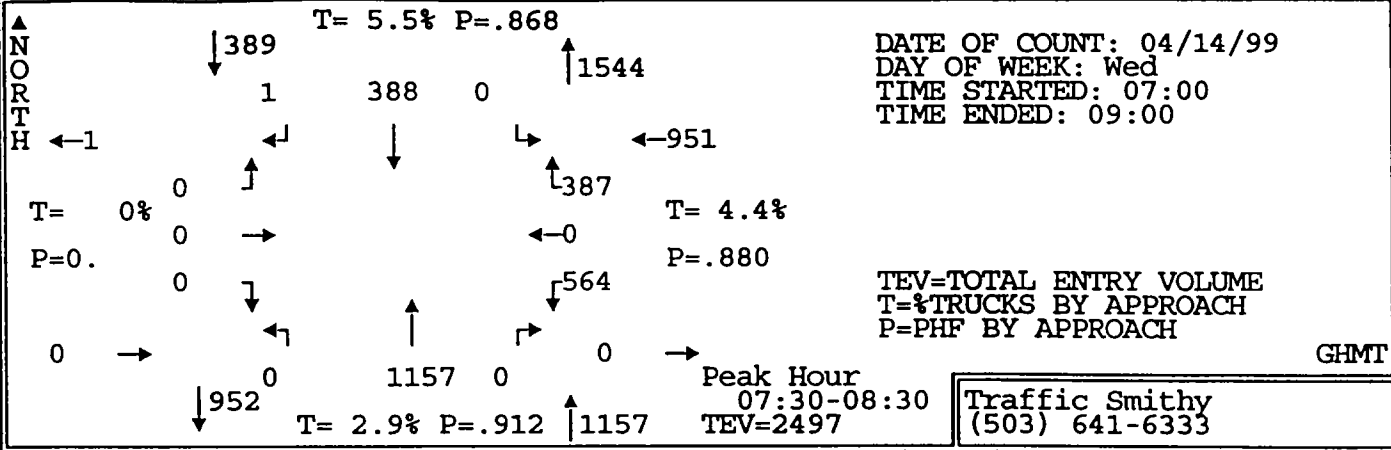
TIME PERIOD FROM - TO	EAST BOUND		SOUTH BOUND		NORTH BOUND		WEST BOUND		ALL				
	↓	→	↑	↙	↓	↘	←	↑					
16:00-16:05	4	72	6	2	3	19	1	5	8	2	85	15	222
16:05-16:10	3	84	3	5	4	21	3	8	17	2	80	26	256
16:10-16:15	5	93	4	8	2	19	6	2	13	13	103	24	284
16:15-16:20	5	90	4	7	7	22	5	4	15	7	104	20	288
16:20-16:25	1	75	2	6	4	10	4	4	14	4	105	20	249
16:25-16:30	2	85	4	4	7	12	2	5	12	12	100	29	272
16:30-16:35	1	66	6	5	6	13	5	10	3	3	105	20	249
16:35-16:40	1	91	4	5	6	16	3	8	5	10	110	14	275
16:40-16:45	4	103	2	5	5	18	1	4	15	7	103	21	288
16:45-16:50	2	106	5	7	11	18	3	4	9	4	92	19	280
16:50-16:55	4	92	6	4	16	16	5	10	10	4	97	21	263
16:55-17:00	4	90	5	6	5	16	4	10	5	8	115	25	293
17:00-17:05	6	75	3	4	3	18	3	9	8	8	105	16	258
17:05-17:10	1	80	5	8	7	10	3	5	11	7	121	24	282
17:10-17:15	1	87	6	8	5	21	3	3	9	2	89	21	255
17:15-17:20	1	97	4	6	4	17	2	6	6	10	122	18	293
17:20-17:25	4	109	1	6	3	14	4	7	12	3	93	20	276
17:25-17:30	1	111	7	6	6	14	3	5	7	6	110	17	293
17:30-17:35	3	92	3	7	4	20	4	8	5	5	106	26	286
17:35-17:40	6	75	5	8	8	22	1	5	10	5	98	22	265
17:40-17:45	3	63	3	4	10	22	2	5	9	5	107	20	253
17:45-17:50	3	82	5	7	10	15	4	9	10	5	110	20	280
17:50-17:55	4	90	5	9	6	26	2	1	10	7	99	27	286
17:55-18:00	3	115	6	7	4	25	4	4	3	6	85	15	277

Total Stop	73	2123	104	144	132	424	77	136	221	145	2444	500	6523
PHF	.77	.89	.8	.82	.69	.95	.79	.77	.75	.8	.93	.93	.969
% Truck	0	3	3.8	3.5	0	.7	1.3	1.5	.9	.7	2.7	.6	2.3
Stopped	0	2	0	0	1	0	0	0	0	0	0	0	0
Peds	0	17	0	0	35	0	0	27	0	0	16	0	0

Hourly	4	1047	51	64	62	200	42	69	121	76	1199	254	3219
16:00-17:00	30	1040	52	69	68	190	41	71	119	76	1246	250	3252
16:15-17:00	29	1107	54	70	63	191	39	76	106	72	1262	236	3305
16:30-17:00	36	1077	53	74	68	208	37	72	101	67	1255	249	3297
16:45-17:00	39	1076	53	80	70	224	35	67	100	69	1245	246	3304

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 NORTHBOUND OFF RAMP

19268

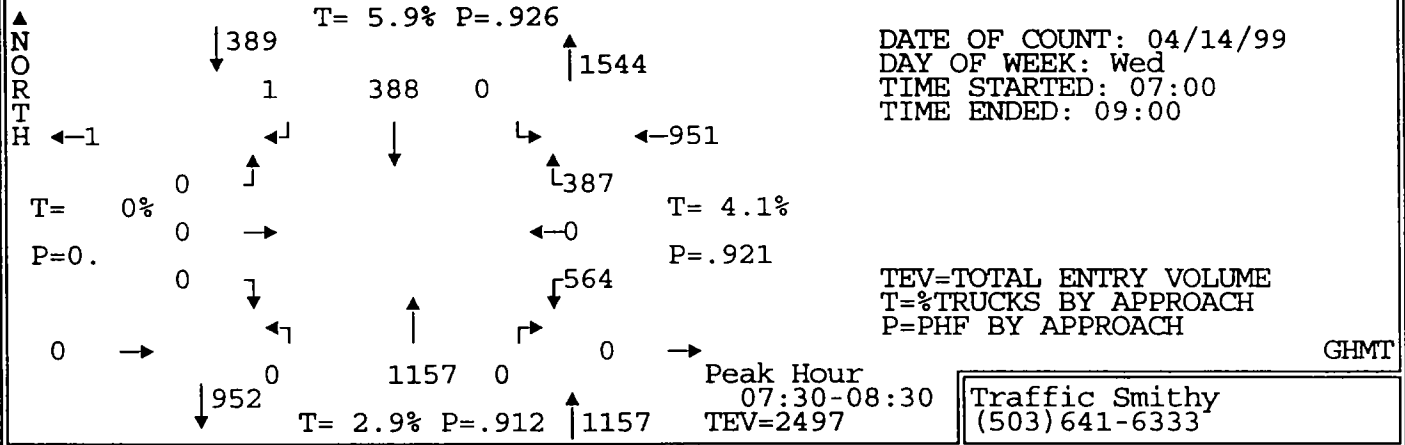


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	0	0	0	0	17	0	0	84	0	35	0	18	154
07:05-07:10	0	0	0	1	21	0	0	103	0	38	0	12	175
07:10-07:15	0	0	0	0	14	0	0	116	0	28	0	18	176
07:15-07:20	0	0	0	0	21	0	0	95	0	27	0	22	165
07:20-07:25	0	0	0	0	12	0	0	133	0	32	0	25	202
07:25-07:30	0	0	0	0	18	0	0	128	0	30	0	39	215
07:30-07:35	0	0	0	0	22	0	0	118	0	39	0	30	209
07:35-07:40	0	0	0	0	35	0	0	109	0	52	0	28	224
07:40-07:45	0	0	0	0	34	0	0	90	0	30	0	31	185
07:45-07:50	0	0	0	0	30	0	0	107	0	42	0	27	206
07:50-07:55	0	0	0	0	30	0	0	103	0	54	0	46	233
07:55-08:00	0	0	0	1	44	0	0	78	0	48	0	35	206
08:00-08:05	0	0	0	0	21	0	0	85	0	56	0	31	193
08:05-08:10	0	0	0	0	22	0	0	104	0	55	0	32	213
08:10-08:15	0	0	0	0	47	0	0	59	0	50	0	34	190
08:15-08:20	0	0	0	0	33	0	0	94	0	36	0	32	195
08:20-08:25	0	0	0	0	32	0	0	91	0	53	0	26	202
08:25-08:30	0	0	0	0	38	0	0	119	0	49	0	35	241
08:30-08:35	0	0	0	1	30	0	0	72	0	44	0	24	171
08:35-08:40	0	0	0	0	35	0	0	93	0	39	0	19	186
08:40-08:45	0	0	0	0	30	0	0	81	0	41	0	29	181
08:45-08:50	0	0	0	0	28	0	0	92	0	42	0	31	193
08:50-08:55	0	0	0	0	45	0	0	80	0	50	0	32	207
08:55-09:00	0	0	0	0	29	0	0	68	0	38	0	27	162

Total Survey	0	0	0	3	688	0	0	2302	0	1008	0	683	4684
PHF	0	0	0	.25	.87	0	0	.91	0	.88	0	.86	.967
% Trucks	0	0	0	0	5.5	0	0	2.9	0	4.8	0	3.8	3.8
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	0	0	0	2	0	0	0	0	0

Hourly Totals													
07:00-08:00	0	0	0	2	298	0	0	1264	0	455	0	331	2350
07:15-08:15	0	0	0	1	336	0	0	1209	0	515	0	380	2441
07:30-08:30	0	0	0	1	388	0	0	1157	0	564	0	387	2497
07:45-08:45	0	0	0	2	392	0	0	1086	0	567	0	370	2417
08:00-09:00	0	0	0	1	390	0	0	1038	0	553	0	352	2334

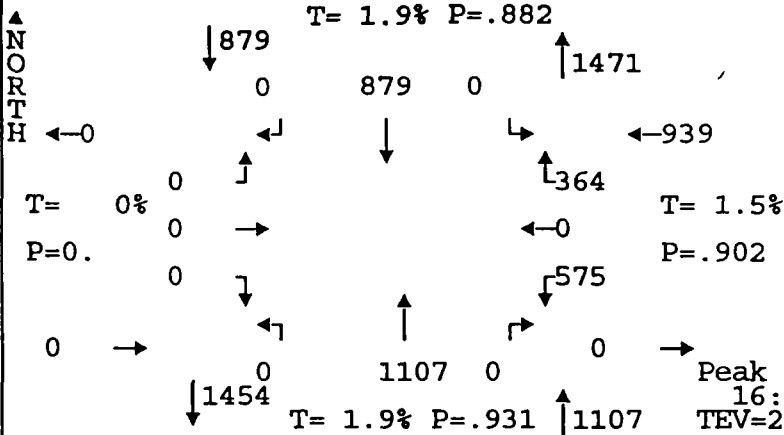
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 NORTHBOUND OFF RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
ALL VEHICLES													
07:30-07:45	0	0	0	0	91	0	0	317	0	121	0	89	618
07:45-08:00	0	0	0	1	104	0	0	288	0	144	0	108	645
08:00-08:15	0	0	0	0	90	0	0	248	0	161	0	97	596
08:15-08:30	0	0	0	0	103	0	0	304	0	138	0	93	638
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:30-07:45	0	0	0	0	5	0	0	6	0	3	0	4	18
07:45-08:00	0	0	0	0	2	0	0	6	0	3	0	0	11
08:00-08:15	0	0	0	0	6	0	0	6	0	5	0	1	18
08:15-08:30	0	0	0	0	4	0	0	6	0	5	0	7	22
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	1	0	0	5	0	1	0	0	7
08:00-08:15	0	0	0	0	1	0	0	0	0	2	0	0	3
08:15-08:30	0	0	0	0	3	0	0	1	0	1	0	0	5
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:30-07:45	0	0	0	0	0	0	0	0	0	1	0	1	2
07:45-08:00	0	0	0	0	0	0	0	0	0	2	0	0	2
08:00-08:15	0	0	0	0	0	0	0	2	0	2	0	1	5
08:15-08:30	0	0	0	0	1	0	0	1	0	0	0	0	2
BICYCLES													
07:30-07:45	0	0	0	0	0	0	0	1	0	0	0	0	1
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	1	0	0	0	0	0	0	0	1
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	0	0	0	.25	.93	0	0	.91	0	.88	0	.9	.967
% Trucks (all)	0	0	0	0	5.9	0	0	2.9	0	4.4	0	3.6	3.8
% Trucks (M+H)	0	0	0	0	1.5	0	0	.8	0	1.6	0	.5	1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	0	0	0	2	298	0	0	1264	0	455	0	331	2350
07:15-08:15	0	0	0	1	336	0	0	1209	0	515	0	380	2441
07:30-08:30	0	0	0	1	388	0	0	1157	0	564	0	387	2497
07:45-08:45	0	0	0	2	392	0	0	1086	0	567	0	370	2417
08:00-09:00	0	0	0	1	390	0	0	1038	0	553	0	352	2334

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 SCHOLLS FERRY ROAD AT HIGHWAY 217 NORTHBOUND OFF RAMP

19269



DATE OF COUNT: 04/14/99
 DAY OF WEEK: Wed
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

DJCC

Peak Hour
 16:35-17:35
 TEV=2925

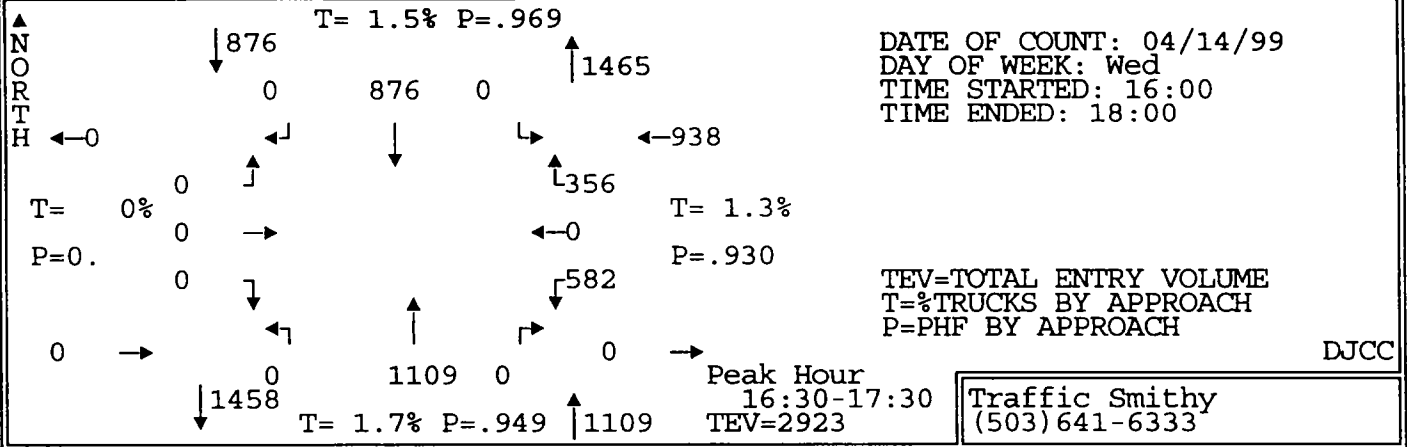
Traffic Smyth
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↓	←	↑	
16:00-16:05	0	0	0	0	74	6	0	91	0	53	0	23	247
16:05-16:10	0	0	0	0	74	0	0	75	0	47	0	35	231
16:10-16:15	0	0	0	0	52	0	0	86	0	43	0	38	219
16:15-16:20	0	0	0	0	55	0	0	97	0	41	0	28	221
16:20-16:25	0	0	0	0	55	0	0	75	0	56	0	33	219
16:25-16:30	0	0	0	0	68	0	0	72	0	44	0	36	220
16:30-16:35	0	0	0	0	65	0	0	98	0	50	0	19	232
16:35-16:40	0	0	0	0	82	0	0	87	0	55	0	19	243
16:40-16:45	0	0	0	0	77	0	0	74	0	54	0	33	238
16:45-16:50	0	0	0	0	90	0	0	94	0	55	0	37	276
16:50-16:55	0	0	0	0	62	0	0	95	0	43	0	38	238
16:55-17:00	0	0	0	0	74	0	0	80	0	43	0	22	219
17:00-17:05	0	0	0	0	67	0	0	97	0	48	0	35	247
17:05-17:10	0	0	0	0	79	0	0	99	0	43	0	27	248
17:10-17:15	0	0	0	0	58	0	0	96	0	57	0	42	253
17:15-17:20	0	0	0	0	79	0	0	102	0	46	0	33	260
17:20-17:25	0	0	0	0	69	0	0	95	0	51	0	19	234
17:25-17:30	0	0	0	0	74	0	0	92	0	37	0	32	235
17:30-17:35	0	0	0	0	68	0	0	96	0	43	0	27	234
17:35-17:40	0	0	0	0	56	0	0	85	0	54	0	30	225
17:40-17:45	0	0	0	0	63	0	0	100	0	51	0	21	235
17:45-17:50	0	0	0	0	66	0	0	84	0	45	0	33	228
17:50-17:55	0	0	0	0	67	0	0	105	0	44	0	42	258
17:55-18:00	0	0	0	0	56	0	0	99	0	49	0	45	249

Total Survey	0	0	0	0	1630	6	0	2174	0	1152	0	747	5709
PHF	0	0	0	0	.88	0	0	.93	0	.88	0	.84	.960
% Trucks	0	0	0	0	1.9	0	0	1.9	0	2.1	0	.5	1.8
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

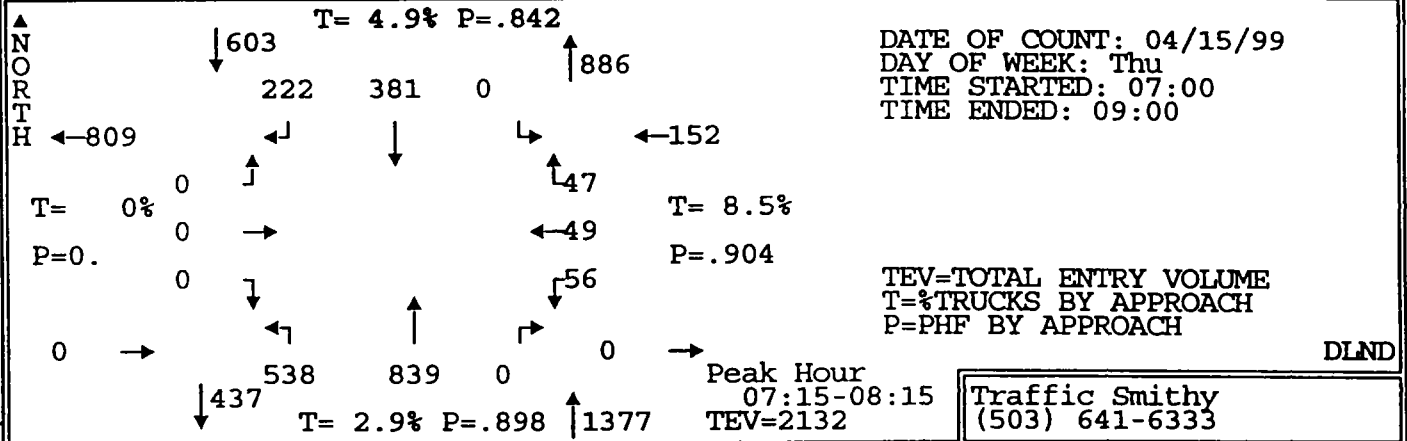
Hourly Totals													
16:00-17:00	0	0	0	0	828	6	0	1024	0	584	0	361	2803
16:15-17:15	0	0	0	0	832	0	0	1064	0	589	0	369	2854
16:30-17:30	0	0	0	0	876	0	0	1109	0	582	0	356	2923
16:45-17:45	0	0	0	0	839	0	0	1131	0	571	0	363	2904
17:00-18:00	0	0	0	0	802	0	0	1150	0	568	0	386	2906

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 NORTHBOUND OFF RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
16:30-16:45	0	0	0	0	224	0	0	259	0	159	0	71	713
16:45-17:00	0	0	0	0	226	0	0	269	0	141	0	97	733
17:00-17:15	0	0	0	0	204	0	0	292	0	148	0	104	748
17:15-17:30	0	0	0	0	222	0	0	289	0	134	0	84	729
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:30-16:45	0	0	0	0	4	0	0	2	0	1	0	0	7
16:45-17:00	0	0	0	0	2	0	0	7	0	3	0	1	13
17:00-17:15	0	0	0	0	2	0	0	4	0	2	0	0	8
17:15-17:30	0	0	0	0	4	0	0	3	0	1	0	0	8
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	1	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	1	0	0	0	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:30-16:45	0	0	0	0	0	0	0	1	0	1	0	0	2
16:45-17:00	0	0	0	0	0	0	0	2	0	0	0	1	3
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	1	0	0	1
BICYCLES													
16:30-16:45	0	0	0	0	1	0	0	0	0	0	0	0	1
16:45-17:00	0	0	0	0	1	0	0	0	0	0	0	0	1
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	2	0	0	0	0	2
PEDESTRIANS													
	-----CROSSWALK USEAGE-----												
	SOUTH			WEST			EAST			NORTH			ALL
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	1	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	0	0	0	0	.97	0	0	.95	0	.92	0	.86	.976
% Trucks (all)	0	0	0	0	1.5	0	0	1.7	0	1.5	0	.8	1.5
% Trucks (M+H)	0	0	0	0	.1	0	0	.3	0	.3	0	.6	.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	0	0	0	828	6	0	1024	0	584	0	361	2803
16:15-17:15	0	0	0	0	832	0	0	1064	0	589	0	369	2854
16:30-17:30	0	0	0	0	876	0	0	1109	0	582	0	356	2923
16:45-17:45	0	0	0	0	839	0	0	1131	0	571	0	363	2904
17:00-18:00	0	0	0	0	802	0	0	1150	0	568	0	386	2906

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 NORTHBOUND ON RAMP 19204

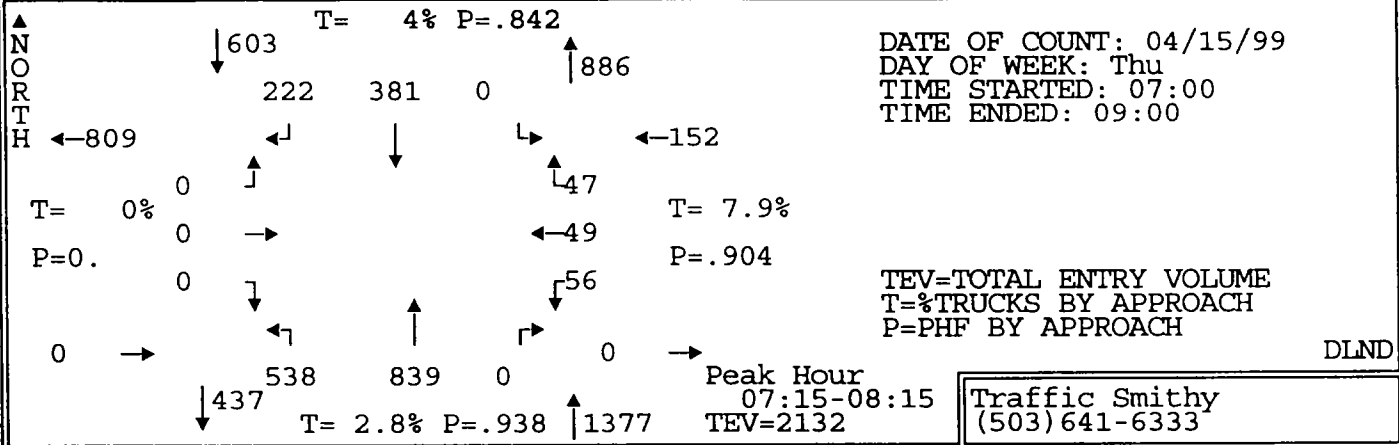


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
07:00-07:05	0	0	0	13	16	0	31	47	0	2	2	2	113
07:05-07:10	0	0	0	16	14	0	41	64	0	2	4	3	144
07:10-07:15	0	0	0	29	29	0	39	55	0	6	5	1	164
07:15-07:20	0	0	0	17	30	0	55	72	0	6	7	4	191
07:20-07:25	0	0	0	6	24	0	49	67	0	3	6	3	158
07:25-07:30	0	0	0	18	20	0	60	64	0	7	2	4	175
07:30-07:35	0	0	0	26	24	0	48	76	0	9	2	2	187
07:35-07:40	0	0	0	15	25	0	58	77	0	2	4	3	184
07:40-07:45	0	0	0	21	33	0	31	59	0	5	2	6	157
07:45-07:50	0	0	0	17	40	0	56	79	0	4	2	3	201
07:50-07:55	0	0	0	22	26	0	28	55	0	2	5	5	143
07:55-08:00	0	0	0	18	42	0	48	85	0	1	8	3	205
08:00-08:05	0	0	0	22	29	0	24	55	0	7	4	6	147
08:05-08:10	0	0	0	14	45	0	51	71	0	5	5	2	193
08:10-08:15	0	0	0	26	43	0	30	79	0	5	2	6	191
08:15-08:20	0	0	0	22	36	0	45	61	0	4	2	3	173
08:20-08:25	0	0	0	16	40	0	37	59	0	1	4	4	161
08:25-08:30	0	0	0	16	29	0	35	65	0	5	3	1	154
08:30-08:35	0	0	0	21	36	0	58	74	0	4	7	2	202
08:35-08:40	0	0	0	27	33	0	32	60	0	6	2	5	165
08:40-08:45	0	0	0	29	24	0	40	53	0	5	6	8	165
08:45-08:50	0	0	0	16	21	0	55	46	0	6	5	4	153
08:50-08:55	0	0	0	22	33	0	47	54	0	3	3	4	166
08:55-09:00	0	0	0	26	33	0	33	36	0	4	3	1	136

Total Survey	0	0	0	475	725	0	1031	1513	0	104	95	85	4028
PHF	0	0	0	.9	.81	0	.81	.96	0	.74	.72	.84	.970
% Trucks	0	0	0	5.7	4.4	0	2.3	3.3	0	12.5	5.3	7.1	3.9
Stopped Buses	0	0	0	0	0	0	0	8	0	0	0	0	0
Peds	0	45	0	0	0	0	0	11	0	0	3	0	0

Hourly Totals													
07:00-08:00	0	0	0	218	323	0	544	800	0	49	49	39	2022
07:15-08:15	0	0	0	222	381	0	538	839	0	56	49	47	2132
07:30-08:30	0	0	0	235	412	0	491	821	0	50	43	44	2096
07:45-08:45	0	0	0	250	423	0	484	796	0	49	50	48	2100
08:00-09:00	0	0	0	257	402	0	487	713	0	55	46	46	2006

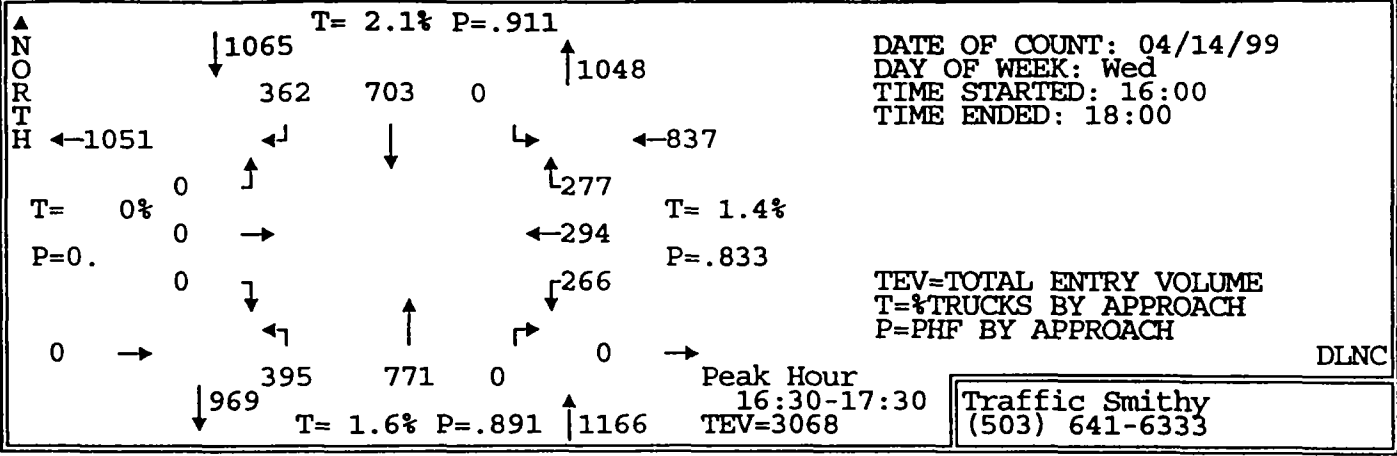
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 NORTHBOUND ON RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND		NORTH BOUND		WEST BOUND			ALL		
	↓	→	↑	←	↓	↘	↙	↑	↗	←		↑	
ALL VEHICLES													
07:15-07:30	0	0	0	41	74	0	164	203	0	16	15	11	524
07:30-07:45	0	0	0	62	82	0	137	212	0	16	8	11	528
07:45-08:00	0	0	0	57	108	0	132	219	0	7	15	11	549
08:00-08:15	0	0	0	62	117	0	105	205	0	17	11	14	531
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:15-07:30	0	0	0	1	1	0	2	4	0	1	1	2	12
07:30-07:45	0	0	0	3	5	0	1	6	0	1	0	0	16
07:45-08:00	0	0	0	1	2	0	3	3	0	2	1	1	13
08:00-08:15	0	0	0	0	3	0	0	7	0	3	0	0	13
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:15-07:30	0	0	0	1	1	0	0	0	0	0	0	0	2
07:30-07:45	0	0	0	0	2	0	1	0	0	0	0	0	3
07:45-08:00	0	0	0	0	0	0	0	2	0	0	0	0	2
08:00-08:15	0	0	0	1	0	0	1	4	0	0	0	0	6
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:15-07:30	0	0	0	0	0	0	1	0	0	0	0	0	1
07:30-07:45	0	0	0	0	0	0	0	1	0	0	0	0	1
07:45-08:00	0	0	0	1	0	0	0	2	0	0	0	0	3
08:00-08:15	0	0	0	1	1	0	0	1	0	0	0	0	3
BICYCLES													
07:15-07:30	0	0	0	0	1	0	0	0	0	0	0	0	1
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	1	0	0	0	0	0	0	0	1
08:00-08:15	0	0	0	0	1	0	0	0	0	0	0	0	1
PEDESTRIANS													
				SOUTH		WEST			EAST		NORTH		ALL
07:15-07:30				9		0		2		0			11
07:30-07:45				7		0		0		0			7
07:45-08:00				4		0		2		1			7
08:00-08:15				5		0		1		1			7
Peak Hour by Movement													
PHF	0	0	0	.9	.81	0	.82	.96	0	.82	.82	.84	.970
% Trucks (all)	0	0	0	4.1	3.9	0	1.7	3.6	0	12.5	4.1	6.4	3.5
% Trucks (M+H)	0	0	0	1.8	1	0	.6	1.2	0	0	0	0	1
Stopped Buses	0	0	0	0	0	0	0	6	0	0	0	0	

Hourly Totals													
07:00-08:00	0	0	0	218	323	0	544	800	0	49	49	39	2022
07:15-08:15	0	0	0	222	381	0	538	839	0	56	49	47	2132
07:30-08:30	0	0	0	235	412	0	491	821	0	50	43	44	2096
07:45-08:45	0	0	0	250	423	0	484	796	0	49	50	48	2100
08:00-09:00	0	0	0	257	402	0	487	713	0	55	46	46	2006

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 NORTHBOUND ON RAMP 19270

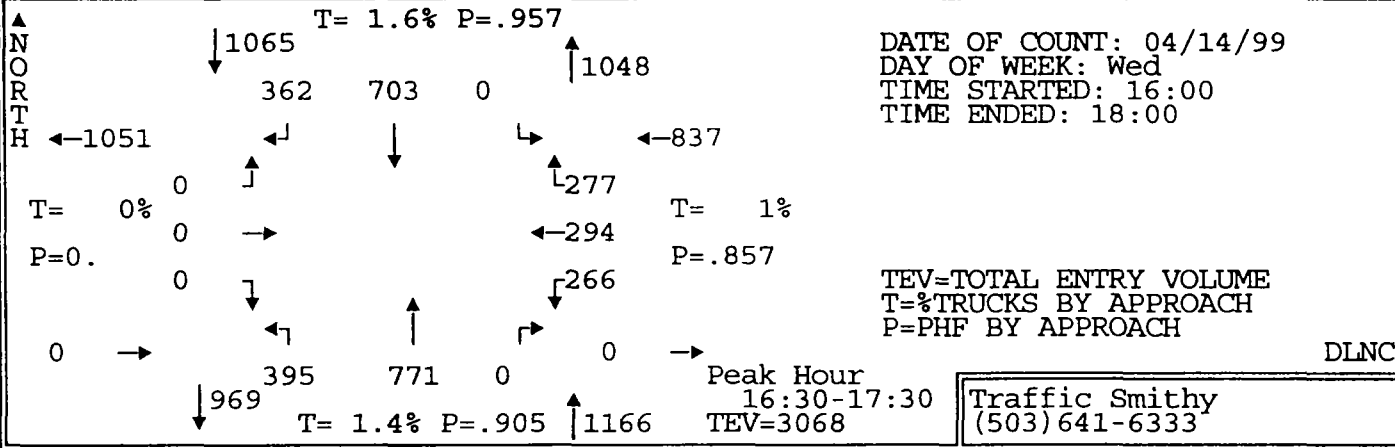


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↓	←	↑	
16:00-16:05	0	0	0	27	65	0	35	53	0	20	24	12	236
16:05-16:10	0	0	0	23	48	0	24	62	0	25	21	14	217
16:10-16:15	0	0	0	28	55	0	31	67	0	17	18	17	233
16:15-16:20	0	0	0	24	41	0	28	75	0	17	23	24	232
16:20-16:25	0	0	0	32	45	0	39	50	0	19	30	14	229
16:25-16:30	0	0	0	24	51	0	24	63	0	31	14	13	220
16:30-16:35	0	0	0	22	62	0	41	45	0	15	27	10	222
16:35-16:40	0	0	0	20	61	0	33	57	0	27	24	19	241
16:40-16:45	0	0	0	37	70	0	18	50	0	28	24	19	246
16:45-16:50	0	0	0	23	66	0	42	66	0	21	17	26	261
16:50-16:55	0	0	0	31	65	0	34	69	0	17	19	16	251
16:55-17:00	0	0	0	28	41	0	33	46	0	31	22	16	217
17:00-17:05	0	0	0	41	60	0	36	75	0	24	36	18	290
17:05-17:10	0	0	0	37	44	0	32	76	0	25	25	33	272
17:10-17:15	0	0	0	34	62	0	21	82	0	17	24	42	282
17:15-17:20	0	0	0	34	69	0	38	78	0	21	28	36	304
17:20-17:25	0	0	0	26	46	0	34	58	0	22	28	29	243
17:25-17:30	0	0	0	29	57	0	33	69	0	18	20	13	239
17:30-17:35	0	0	0	16	47	0	35	58	0	16	20	19	211
17:35-17:40	0	0	0	22	60	0	37	60	0	18	19	18	234
17:40-17:45	0	0	0	31	48	0	40	61	0	20	22	12	234
17:45-17:50	0	0	0	27	59	0	27	61	0	18	20	19	231
17:50-17:55	0	0	0	33	54	0	34	77	0	18	19	12	247
17:55-18:00	0	0	0	28	57	0	28	53	0	21	21	12	220

Total Survey	0	0	0	677	1333	0	777	1511	0	506	545	463	5812
PHF	0	0	0	.81	.87	0	.91	.82	0	.83	.86	.62	.893
% Trucks	0	0	0	2.4	2	0	3.1	.8	0	2.6	.2	1.5	1.7
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	4	0	0	1	0	0	2	0	0

Hourly Totals													
16:00-17:00	0	0	0	319	670	0	382	703	0	268	263	200	2805
16:15-17:15	0	0	0	353	668	0	381	754	0	272	285	250	2963
16:30-17:30	0	0	0	362	703	0	395	771	0	266	294	277	3068
16:45-17:45	0	0	0	352	665	0	415	798	0	250	280	278	3038
17:00-18:00	0	0	0	358	663	0	395	808	0	238	282	263	3007

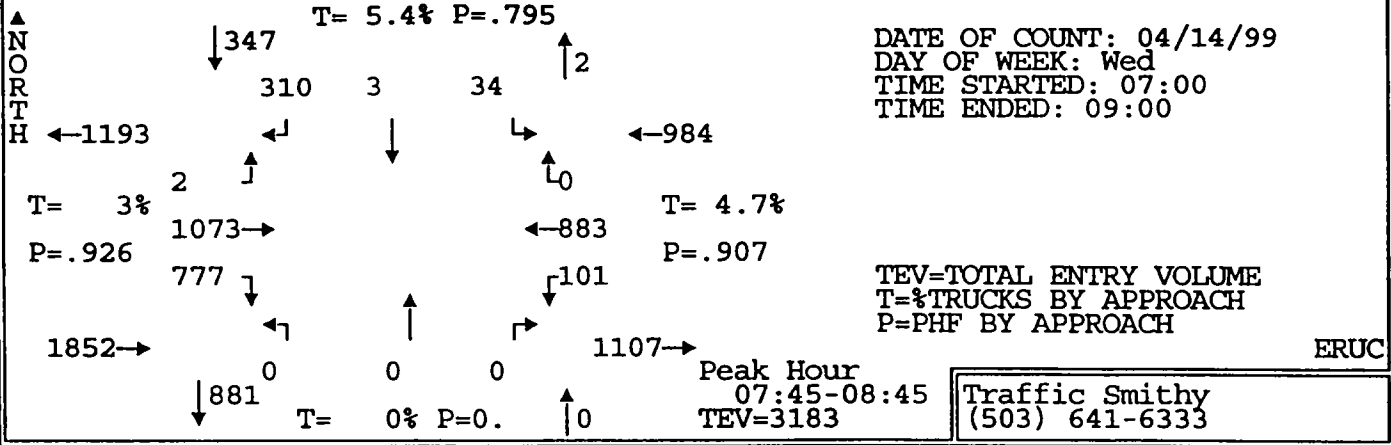
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 NORTHBOUND ON RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
16:30-16:45	0	0	0	79	193	0	92	152	0	70	75	48	709
16:45-17:00	0	0	0	82	172	0	109	181	0	69	58	58	729
17:00-17:15	0	0	0	112	166	0	89	233	0	66	85	93	844
17:15-17:30	0	0	0	89	172	0	105	205	0	61	76	78	786
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:30-16:45	0	0	0	2	4	0	2	0	0	1	0	0	9
16:45-17:00	0	0	0	0	2	0	5	1	0	1	0	1	10
17:00-17:15	0	0	0	0	3	0	2	1	0	1	0	0	7
17:15-17:30	0	0	0	1	2	0	3	0	0	2	0	2	10
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:30-16:45	0	0	0	1	0	0	0	0	0	0	0	0	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:30-16:45	0	0	0	1	0	0	0	0	0	0	0	0	1
16:45-17:00	0	0	0	0	0	0	0	2	0	0	0	0	2
17:00-17:15	0	0	0	1	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
16:30-16:45	0	0	0	0	1	0	0	1	0	0	0	0	2
16:45-17:00	0	0	0	0	1	0	0	0	0	0	0	0	1
17:00-17:15	0	0	0	0	2	0	0	0	0	0	0	0	2
17:15-17:30	0	0	0	0	1	0	0	2	0	0	0	0	3
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:30-16:45	0	0	0	1	0	0	0	0	0	0	0	0	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	0	0	0	.81	.91	0	.91	.83	0	.95	.86	.74	.908
% Trucks (all)	0	0	0	1.7	1.6	0	3	.5	0	1.9	0	1.1	1.3
% Trucks (M+H)	0	0	0	.8	0	0	0	.3	0	0	0	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	0	0	319	670	0	382	703	0	268	263	200	2805
16:15-17:15	0	0	0	353	668	0	381	754	0	272	285	250	2963
16:30-17:30	0	0	0	362	703	0	395	771	0	266	294	277	3068
16:45-17:45	0	0	0	352	665	0	415	798	0	250	280	278	3038
17:00-18:00	0	0	0	358	663	0	395	808	0	238	282	263	3007

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 SOUTHBOUND RAMP

19271

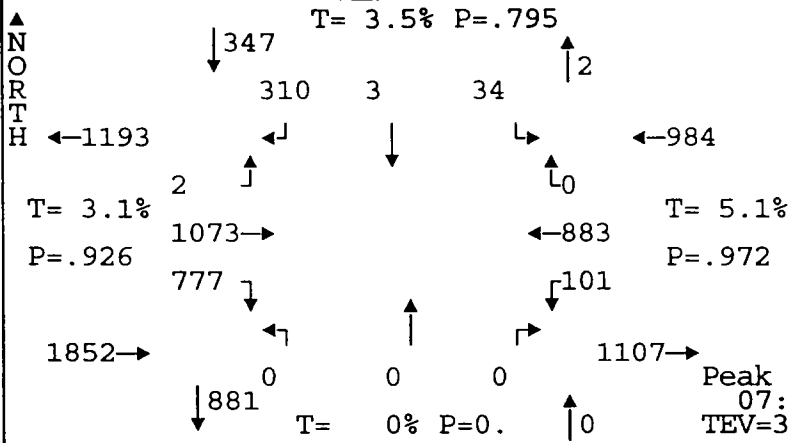


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	68	86	0	24	0	3	0	0	0	3	71	0	255
07:05-07:10	49	93	0	31	0	0	0	0	0	7	44	0	224
07:10-07:15	63	117	0	17	0	2	0	0	0	2	52	0	253
07:15-07:20	55	84	0	20	0	2	0	0	0	3	37	0	201
07:20-07:25	61	108	0	21	0	1	0	0	0	5	37	0	233
07:25-07:30	68	126	0	19	0	4	0	0	0	5	46	0	268
07:30-07:35	72	109	0	22	1	3	0	0	0	3	43	0	253
07:35-07:40	72	108	0	21	0	2	0	0	0	7	50	0	260
07:40-07:45	55	79	0	14	0	6	0	0	0	7	67	0	228
07:45-07:50	74	136	0	22	0	0	0	0	0	3	64	0	299
07:50-07:55	64	84	0	20	0	2	0	0	0	11	74	0	255
07:55-08:00	49	93	0	20	0	1	0	0	0	7	86	0	256
08:00-08:05	76	92	0	29	0	3	0	0	0	6	81	0	287
08:05-08:10	69	85	0	32	0	2	0	0	0	6	70	0	264
08:10-08:15	65	77	0	19	0	1	0	0	0	7	69	0	238
08:15-08:20	52	78	0	23	1	6	0	0	0	8	75	0	243
08:20-08:25	56	65	0	40	0	8	0	0	0	6	66	0	241
08:25-08:30	55	96	0	27	1	3	0	0	0	16	82	0	280
08:30-08:35	74	111	0	21	1	2	0	0	0	9	76	0	294
08:35-08:40	78	82	2	29	0	4	0	0	0	13	75	0	283
08:40-08:45	65	74	0	28	0	2	0	0	0	9	65	0	243
08:45-08:50	82	101	0	27	0	2	0	0	0	7	55	0	274
08:50-08:55	78	74	0	23	0	3	0	0	0	11	72	0	261
08:55-09:00	50	53	2	29	0	6	0	0	0	16	80	0	236

Total Survey	1550	2211	4	578	4	68	0	0	0	177	1537	0	6129
PHF	.9	.86	.25	.86	.38	.5	0	0	0	.66	.92	0	.928
% Trucks	2.6	3.2	0	5.9	0	1.5	0	0	0	2.8	4.9	0	3.7
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	0	0	0

Hourly Totals													
07:00-08:00	750	1223	0	251	1	26	0	0	0	63	671	0	2985
07:15-08:15	780	1181	0	259	1	27	0	0	0	70	724	0	3042
07:30-08:30	759	1102	0	289	3	37	0	0	0	87	827	0	3104
07:45-08:45	777	1073	2	310	3	34	0	0	0	101	883	0	3183
08:00-09:00	800	988	4	327	3	42	0	0	0	114	866	0	3144

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 SOUTHBOUND RAMPS**



DATE OF COUNT: 04/14/99
DAY OF WEEK: Wed
TIME STARTED: 07:00
TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

ERUC

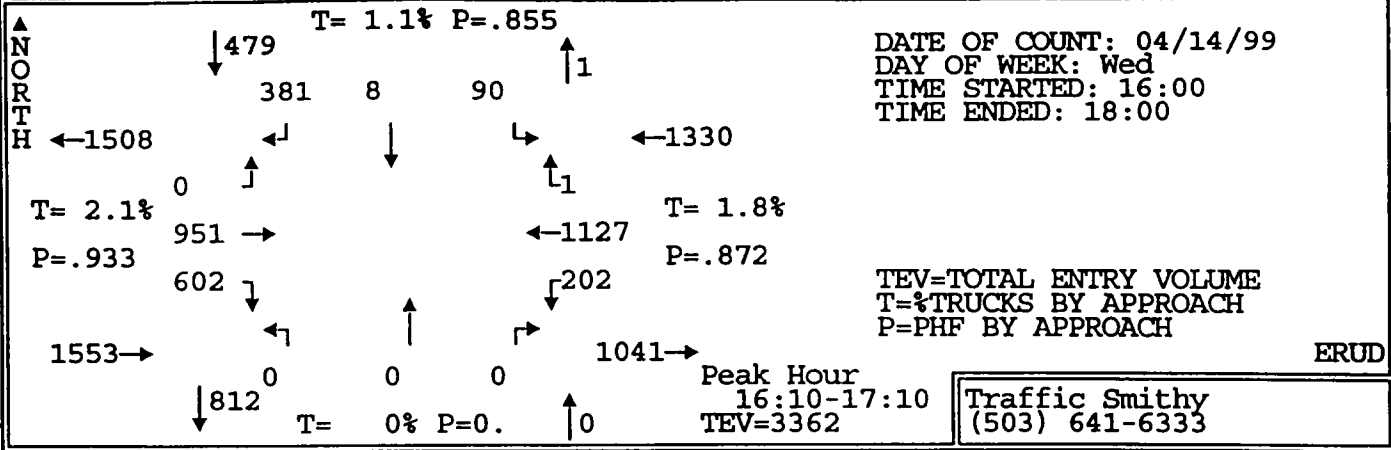
Peak Hour
07:45-08:45
TEV=3183

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
ALL VEHICLES													
07:45-08:00	187	313	0	62	0	3	0	0	0	21	224	0	810
08:00-08:15	210	254	0	80	0	6	0	0	0	19	220	0	789
08:15-08:30	163	239	0	90	2	17	0	0	0	30	223	0	764
08:30-08:45	217	267	2	78	1	8	0	0	0	31	216	0	820
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:45-08:00	5	5	0	2	0	0	0	0	0	0	7	0	19
08:00-08:15	0	6	0	1	0	0	0	0	0	0	6	0	13
08:15-08:30	4	4	0	1	0	0	0	0	0	0	7	0	16
08:30-08:45	0	7	0	1	0	0	0	0	0	0	11	0	19
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:45-08:00	0	5	0	0	0	0	0	0	0	0	1	0	6
08:00-08:15	4	2	0	1	0	0	0	0	0	1	4	0	12
08:15-08:30	2	1	0	2	0	0	0	0	0	2	3	0	10
08:30-08:45	1	3	0	2	0	0	0	0	0	0	3	0	9
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:45-08:00	0	0	0	0	0	0	0	0	0	0	1	0	1
08:00-08:15	0	0	0	0	0	0	0	0	0	0	1	0	1
08:15-08:30	3	0	0	1	0	0	0	0	0	1	0	0	5
08:30-08:45	1	5	0	1	0	0	0	0	0	1	1	0	9
BICYCLES													
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	1	0	1
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30-08:45	0	1	0	0	0	0	0	0	0	0	0	0	1
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30-08:45	2	0	0	0	0	0	0	0	0	0	0	0	2
Peak Hour by Movement													
PHF	.9	.86	.25	.86	.38	.5	0	0	0	.81	.99	0	.970
% Trucks (all)	2.6	3.5	0	3.9	0	0	0	0	0	5	5.1	0	3.8
% Trucks (M+H)	1.4	1.5	0	2.3	0	0	0	0	0	5	1.6	0	1.7
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	750	1223	0	251	1	26	0	0	0	63	671	0	2985
07:15-08:15	780	1181	0	259	1	27	0	0	0	70	724	0	3042
07:30-08:30	759	1102	0	289	3	37	0	0	0	87	827	0	3104
07:45-08:45	777	1073	2	310	3	34	0	0	0	101	883	0	3183
08:00-09:00	800	988	4	327	3	42	0	0	0	114	866	0	3144

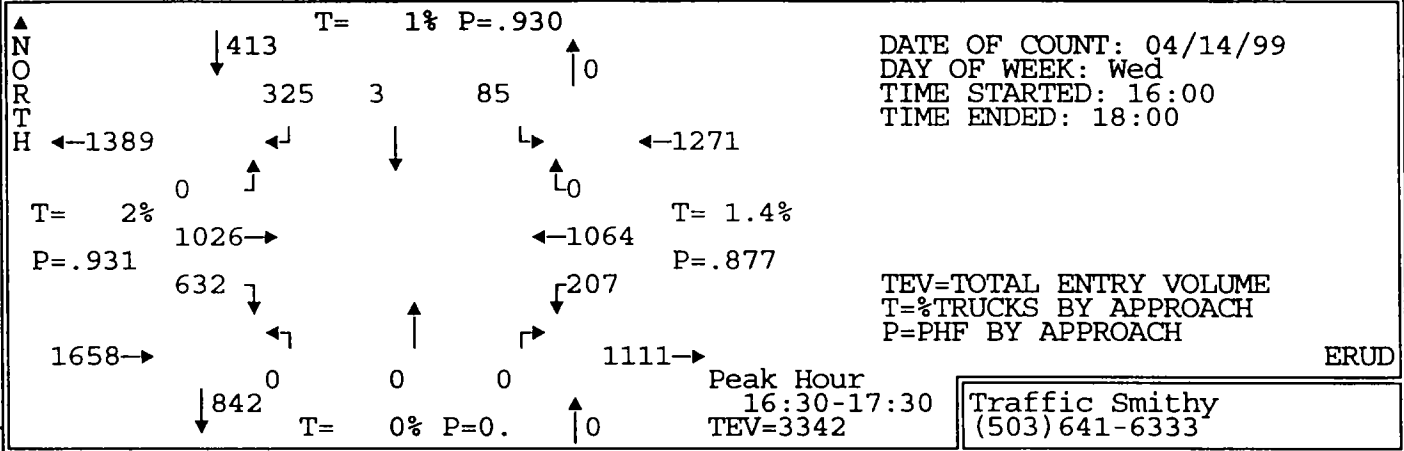
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 SOUTHBOUND RAMP

19272



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
16:00-16:05	50	77	0	33	0	5	0	0	0	14	85	0	264
16:05-16:10	51	65	0	27	1	10	0	0	0	27	98	0	279
16:10-16:15	53	73	0	45	0	10	0	0	0	21	85	0	287
16:15-16:20	59	90	0	35	0	9	0	0	0	18	75	0	286
16:20-16:25	43	71	0	33	0	8	0	0	0	8	83	0	246
16:25-16:30	35	52	0	30	6	4	0	0	0	17	99	1	244
16:30-16:35	52	76	0	27	0	8	0	0	0	21	81	0	265
16:35-16:40	48	86	0	32	0	8	0	0	0	10	111	0	295
16:40-16:45	61	92	0	25	1	5	0	0	0	20	119	0	323
16:45-16:50	45	64	0	26	1	4	0	0	0	23	98	0	261
16:50-16:55	55	94	0	41	0	6	0	0	0	19	102	0	317
16:55-17:00	52	75	0	26	0	7	0	0	0	19	83	0	262
17:00-17:05	49	91	0	31	0	14	0	0	0	3	80	0	268
17:05-17:10	50	87	0	30	0	7	0	0	0	23	111	0	308
17:10-17:15	53	83	0	18	1	5	0	0	0	20	66	0	246
17:15-17:20	64	96	0	31	0	7	0	0	0	21	64	0	283
17:20-17:25	45	96	0	17	0	5	0	0	0	13	65	0	241
17:25-17:30	58	86	0	21	0	9	0	0	0	15	84	0	273
17:30-17:35	50	83	0	30	0	8	0	0	0	18	86	0	275
17:35-17:40	45	84	0	29	0	5	0	0	0	14	78	0	255
17:40-17:45	52	100	0	26	0	7	0	0	0	10	97	0	292
17:45-17:50	54	76	0	36	0	9	0	0	0	12	87	0	274
17:50-17:55	43	74	0	30	1	11	0	0	0	13	92	0	264
17:55-18:00	51	85	0	22	0	10	0	0	0	12	87	0	267
Total Survey	1218	1956	0	701	11	181	0	0	0	391	2116	1	6575
PHF	.93	.91	0	.84	.33	.8	0	0	0	.81	.86	.25	.932
% Trucks	2.2	2	0	1	0	1.7	0	0	0	1.3	1.8	0	1.8
Stopped Buses	0	1	0	0	0	0	0	0	0	1	0	0	0
Peds	0	1	0	0	2	0	0	0	0	0	1	0	0
Hourly Totals													
16:00-17:00	604	915	0	380	9	84	0	0	0	217	1119	1	3329
16:15-17:15	602	961	0	354	9	85	0	0	0	201	1108	1	3321
16:30-17:30	632	1026	0	325	3	85	0	0	0	207	1064	0	3342
16:45-17:45	618	1039	0	326	2	84	0	0	0	198	1014	0	3281
17:00-18:00	614	1041	0	321	2	97	0	0	0	174	997	0	3246

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
SCHOLLS FERRY ROAD AT HIGHWAY 217 SOUTHBOUND RAMP**

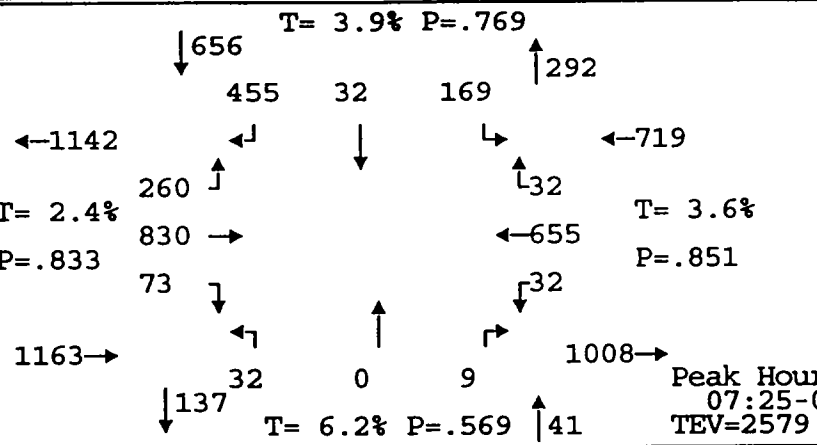


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
16:30-16:45	161	254	0	84	1	21	0	0	0	51	311	0	883
16:45-17:00	152	233	0	93	1	17	0	0	0	61	283	0	840
17:00-17:15	152	261	0	79	1	26	0	0	0	46	257	0	822
17:15-17:30	167	278	0	69	0	21	0	0	0	49	213	0	797
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:30-16:45	2	3	0	0	0	0	0	0	0	1	6	0	12
16:45-17:00	2	7	0	2	0	0	0	0	0	0	2	0	13
17:00-17:15	4	5	0	0	0	0	0	0	0	0	2	0	11
17:15-17:30	1	4	0	0	0	0	0	0	0	0	5	0	10
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:30-16:45	2	0	0	0	0	0	0	0	0	0	0	0	2
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:30-16:45	2	0	0	1	0	0	0	0	0	0	0	0	3
16:45-17:00	1	0	0	0	0	1	0	0	0	0	1	0	3
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
BICYCLES													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	1	0	1
16:45-17:00	0	0	0	0	0	0	0	0	0	0	1	0	1
17:00-17:15	0	0	0	0	0	0	0	0	0	0	2	0	2
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:30-16:45	0			0			0			0			0
16:45-17:00	1			1			0			0			2
17:00-17:15	0			0			0			0			0
17:15-17:30	0			1			0			1			2
Peak Hour by Movement													
PHF	.95	.92	0	.87	.75	.82	0	0	0	.85	.86	0	.946
% Trucks (all)	2.2	1.9	0	.9	0	1.2	0	0	0	.5	1.6	0	1.6
% Trucks (M+H)	.8	0	0	.3	0	1.2	0	0	0	0	.2	0	.3
Stopped Buses	0	1	0	0	0	0	0	0	0	1	0	0	
Hourly Totals													
16:00-17:00	604	915	0	380	9	84	0	0	0	217	1119	1	3329
16:15-17:15	602	961	0	354	9	85	0	0	0	201	1108	1	3321
16:30-17:30	632	1026	0	325	3	85	0	0	0	207	1064	0	3342
16:45-17:45	618	1039	0	326	2	84	0	0	0	198	1014	0	3281
17:00-18:00	614	1041	0	321	2	97	0	0	0	174	997	0	3246

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 HALL BOULEVARD AT HIGHWAY 217 SOUTHBOUND RAMPS

19302

NORTH



DATE OF COUNT: 04/15/99
 DAY OF WEEK: Thu
 TIME STARTED: 07:00
 TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

GHMV

Peak Hour
 07:25-08:25
 TEV=2579

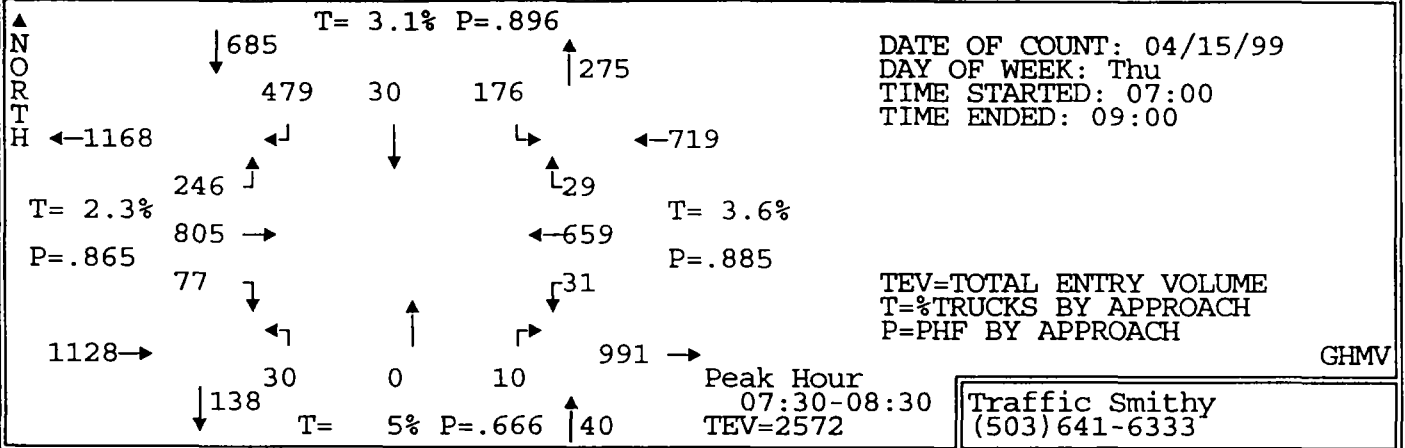
Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↖	
07:00-07:05	4	34	17	23	2	6	0	0	1	3	29	4	123
07:05-07:10	6	38	13	26	3	9	3	0	0	2	32	3	135
07:10-07:15	1	51	22	21	1	17	1	0	0	0	42	3	159
07:15-07:20	3	43	18	27	1	5	0	0	1	3	44	1	146
07:20-07:25	2	46	21	36	3	10	1	0	0	1	49	9	178
07:25-07:30	3	79	31	20	4	11	2	0	0	3	51	4	208
07:30-07:35	1	68	22	47	1	8	2	0	1	1	51	2	204
07:35-07:40	3	68	24	25	0	16	1	0	0	1	48	3	189
07:40-07:45	7	88	31	27	2	12	0	0	0	2	52	2	223
07:45-07:50	14	84	23	37	2	9	3	0	1	3	59	3	238
07:50-07:55	6	73	23	51	2	18	3	0	0	2	54	5	237
07:55-08:00	7	70	26	50	7	15	2	0	0	6	58	3	244
08:00-08:05	12	61	23	48	7	15	2	0	1	4	50	1	224
08:05-08:10	7	75	13	34	0	16	5	0	0	3	81	5	243
08:10-08:15	2	46	13	39	3	12	3	0	0	2	56	1	177
08:15-08:20	5	61	19	36	2	19	5	0	1	5	47	2	202
08:20-08:25	6	57	12	41	2	18	4	0	1	0	48	1	190
08:25-08:30	7	54	17	44	2	18	0	0	1	2	55	1	201
08:30-08:35	2	60	16	38	1	16	3	0	0	1	59	1	197
08:35-08:40	6	58	12	31	1	14	3	0	1	3	41	4	174
08:40-08:45	4	45	11	26	3	13	1	0	1	1	44	1	150
08:45-08:50	4	52	17	38	4	13	0	0	1	0	53	0	182
08:50-08:55	5	50	19	25	4	7	3	1	0	5	39	3	161
08:55-09:00	3	50	9	27	4	9	0	0	2	2	39	3	148

Total Survey	120	1411	452	817	61	306	47	1	17	55	1181	65	4533
PHF	.68	.85	.83	.76	.5	.86	.62	0	.45	.62	.87	.73	.896
% Trucks	.8	2.8	1.3	2.8	8.2	5.9	6.4	0	5.9	3.6	3.6	4.6	3.2
Stopped Buses	0	2	0	0	0	0	0	0	0	0	0	0	0
Peds	0	11	0	0	4	0	0	0	0	0	0	0	0

Hourly Totals													
07:00-08:00	57	742	271	390	28	136	18	0	4	27	569	42	2284
07:15-08:15	67	801	268	441	32	147	24	0	8	31	653	39	2511
07:30-08:30	77	805	246	479	30	176	30	0	10	31	659	29	2572
07:45-08:45	78	744	208	475	32	183	34	0	11	32	652	28	2477
08:00-09:00	63	669	181	427	33	170	29	1	13	28	612	23	2249

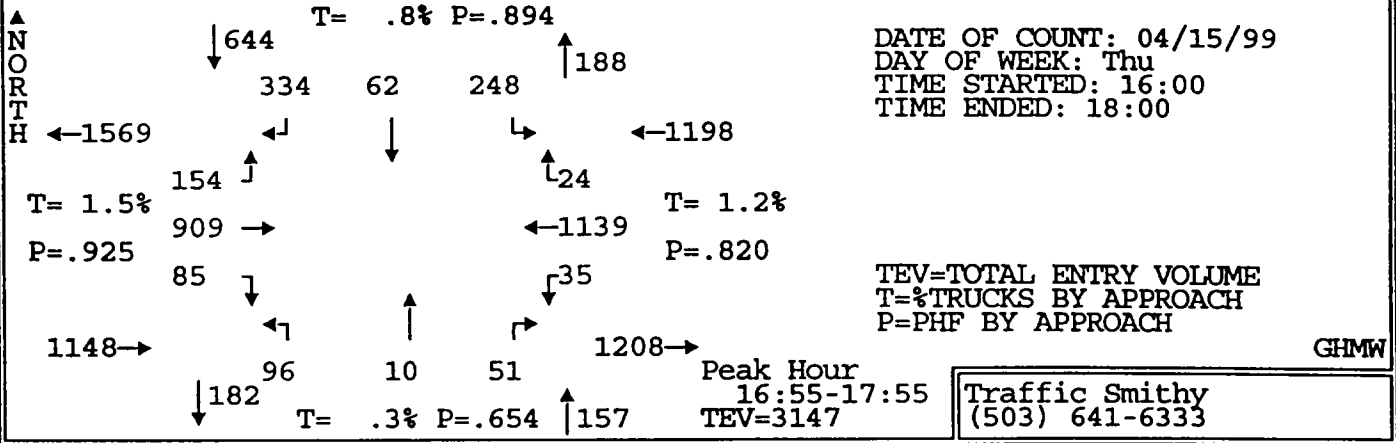
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
HALL BOULEVARD AT HIGHWAY 217 SOUTHBOUND RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↖	
ALL VEHICLES													
07:30-07:45	11	224	77	99	3	36	3	0	1	4	151	7	616
07:45-08:00	27	227	72	138	11	42	8	0	1	11	171	11	719
08:00-08:15	21	182	49	121	10	43	10	0	5	9	187	7	644
08:15-08:30	18	172	48	121	6	55	9	0	3	7	150	4	593
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:30-07:45	0	6	0	1	1	1	0	0	0	0	4	0	13
07:45-08:00	1	3	0	0	0	1	0	0	0	0	2	0	7
08:00-08:15	0	4	0	2	0	0	1	0	0	1	6	2	16
08:15-08:30	0	3	0	1	0	3	0	0	0	0	4	1	12
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	2	0	1	1	1	0	0	0	0	0	0	5
08:15-08:30	0	0	0	1	0	2	0	0	1	0	0	0	4
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:30-07:45	0	1	0	1	0	1	0	0	0	0	1	0	4
07:45-08:00	0	2	1	0	0	2	0	0	0	0	2	0	7
08:00-08:15	0	1	1	0	0	0	0	0	0	0	1	0	3
08:15-08:30	0	1	0	1	0	0	0	0	0	0	2	0	4
BICYCLES													
07:30-07:45	0	0	0	0	0	0	0	0	0	0	2	0	2
07:45-08:00	0	1	0	0	0	0	0	0	0	0	0	0	1
08:00-08:15	0	0	0	0	0	0	0	0	0	0	1	0	1
08:15-08:30	0	1	0	0	0	0	0	0	0	0	1	0	2
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
07:30-07:45	2			2			0			0			4
07:45-08:00	2			1			0			0			3
08:00-08:15	2			1			0			0			3
08:15-08:30	0			0			0			0			0
Peak Hour by Movement													
PHF	.71	.89	.8	.87	.68	.8	.75	0	.5	.7	.88	.66	.894
% Trucks (all)	1.3	2.9	.8	1.7	6.7	6.3	3.3	0	10	3.2	3.3	10.3	2.9
% Trucks (M+H)	0	.9	.8	.8	3.3	3.4	0	0	10	0	.9	0	1
Stopped Buses	0	1	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	57	742	271	390	28	136	18	0	4	27	569	42	2284
07:15-08:15	67	801	268	441	32	147	24	0	8	31	653	39	2511
07:30-08:30	77	805	246	479	30	176	30	0	10	31	659	29	2572
07:45-08:45	78	744	208	475	32	183	34	0	11	32	652	28	2477
08:00-09:00	63	669	181	427	33	170	29	1	13	28	612	23	2249

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
HALL BOULEVARD AT HIGHWAY 217 SOUTHBOUND RAMP

19308

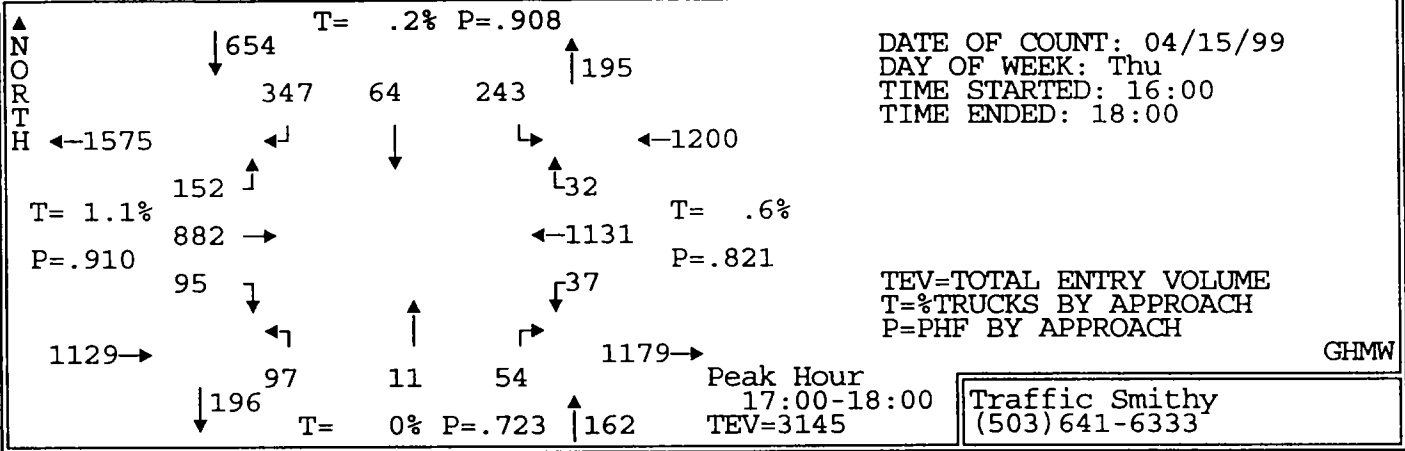


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	8	51	8	27	6	15	8	3	8	1	65	4	204
16:05-16:10	8	78	13	19	7	20	12	4	13	2	56	3	235
16:10-16:15	2	67	15	26	5	21	8	3	6	1	90	2	246
16:15-16:20	7	72	19	20	5	23	5	1	5	3	81	3	244
16:20-16:25	6	63	15	26	8	30	7	4	5	7	62	3	236
16:25-16:30	5	70	14	38	4	12	9	0	6	3	73	1	235
16:30-16:35	4	76	15	22	8	17	7	0	6	1	69	3	228
16:35-16:40	9	74	6	24	6	22	13	0	5	0	70	2	231
16:40-16:45	5	72	11	24	8	25	4	0	2	8	81	0	240
16:45-16:50	9	69	8	26	7	19	7	1	3	3	88	6	246
16:50-16:55	10	65	10	27	8	22	8	2	9	2	74	1	238
16:55-17:00	6	88	9	16	2	27	5	1	2	3	85	1	245
17:00-17:05	7	92	5	21	6	14	7	1	4	5	83	1	246
17:05-17:10	8	72	21	30	11	21	13	3	8	0	73	3	263
17:10-17:15	11	74	20	29	4	18	12	2	6	1	113	0	290
17:15-17:20	5	74	13	31	3	19	11	1	4	4	96	2	263
17:20-17:25	8	82	13	33	4	22	7	0	5	2	136	3	315
17:25-17:30	4	67	10	22	5	23	8	2	5	5	111	6	268
17:30-17:35	8	62	12	31	4	27	9	0	4	1	92	2	252
17:35-17:40	7	81	11	37	5	19	7	0	3	3	83	0	256
17:40-17:45	5	76	5	32	5	20	6	0	6	3	102	2	262
17:45-17:50	3	70	17	27	6	20	8	0	1	4	76	3	235
17:50-17:55	13	71	18	25	7	18	3	0	3	4	89	1	252
17:55-18:00	16	61	7	29	4	22	6	2	5	5	77	9	243

Total Survey	174	1727	295	642	138	496	190	30	124	71	2025	61	5973
PHF	.82	.9	.71	.83	.74	.86	.67	.42	.71	.8	.83	.55	.906
% Trucks	1.1	1.6	1	.8	.7	.8	.5	0	0	0	1.2	1.6	1.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	33	0	0	6	0	0	0	0	0	2	0	0

Hourly Totals													
16:00-17:00	79	845	143	295	74	253	93	19	70	34	894	29	2828
16:15-17:15	87	887	153	303	77	250	97	15	61	36	952	24	2942
16:30-17:30	86	905	141	305	72	249	102	13	59	34	1079	28	3073
16:45-17:45	88	902	137	335	64	251	100	13	59	32	1136	27	3144
17:00-18:00	95	882	152	347	64	243	97	11	54	37	1131	32	3145

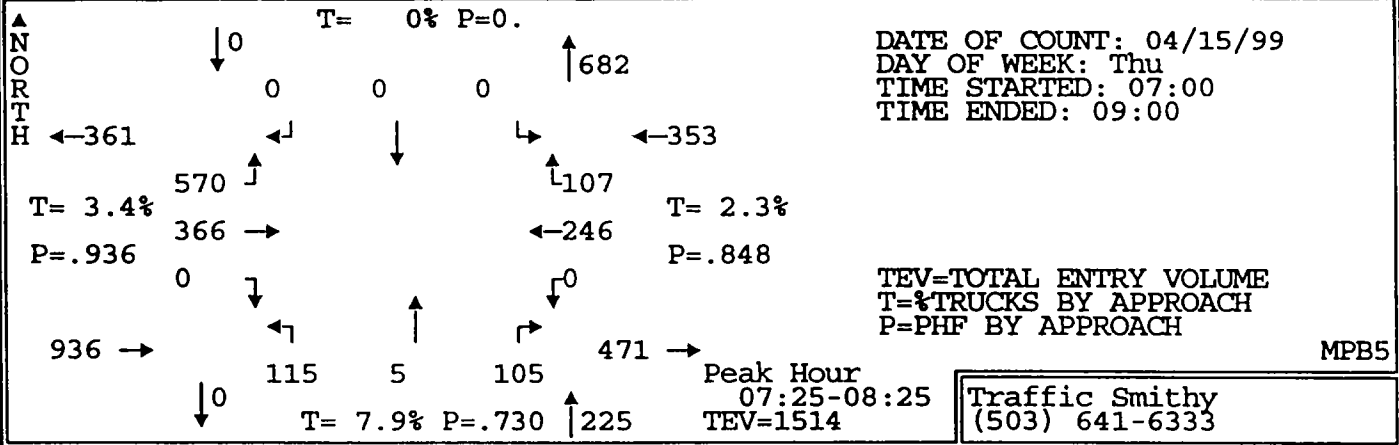
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
HALL BOULEVARD AT HIGHWAY 217 SOUTHBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	26	238	46	80	21	53	32	6	18	6	269	4	799
17:15-17:30	17	223	36	86	12	64	26	3	14	11	343	11	846
17:30-17:45	20	219	28	100	14	66	22	0	13	7	277	4	770
17:45-18:00	32	202	42	81	17	60	17	2	9	13	242	13	730
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	1	1	0	0	0	0	0	0	0	1	0	3
17:15-17:30	0	3	0	0	0	0	0	0	0	0	3	0	6
17:30-17:45	1	2	0	0	0	0	0	0	0	0	1	0	4
17:45-18:00	0	2	1	1	0	0	0	0	0	0	1	0	5
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	0	0	0	0	0	0	0	0	0	1	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	1	0	0	0	0	0	0	0	0	2	0	3
17:30-17:45	0	3	0	0	0	0	0	0	0	0	0	0	3
17:45-18:00	0	3	0	0	0	0	0	0	0	0	0	0	3
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
17:00-17:15	4			0			0			0		4	
17:15-17:30	4			1			0			0		5	
17:30-17:45	2			0			0			0		2	
17:45-18:00	1			0			0			0		1	
Peak Hour by Movement													
PHF	.74	.93	.83	.87	.76	.92	.76	.46	.75	.71	.82	.62	.929
% Trucks (all)	1.1	1	1.3	.3	0	0	0	0	0	0	.6	0	.6
% Trucks (M+H)	0	.1	0	0	0	0	0	0	0	0	.1	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	79	845	143	295	74	253	93	19	70	34	894	29	2828
16:15-17:15	87	887	153	303	77	250	97	15	61	36	952	24	2942
16:30-17:30	86	905	141	305	72	249	102	13	59	34	1079	28	3073
16:45-17:45	88	902	137	335	64	251	100	13	59	32	1136	27	3144
17:00-18:00	95	882	152	347	64	243	97	11	54	37	1131	32	3145

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
DENNEY ROAD AT HIGHWAY 217 NORTHBOUND RAMP

19297

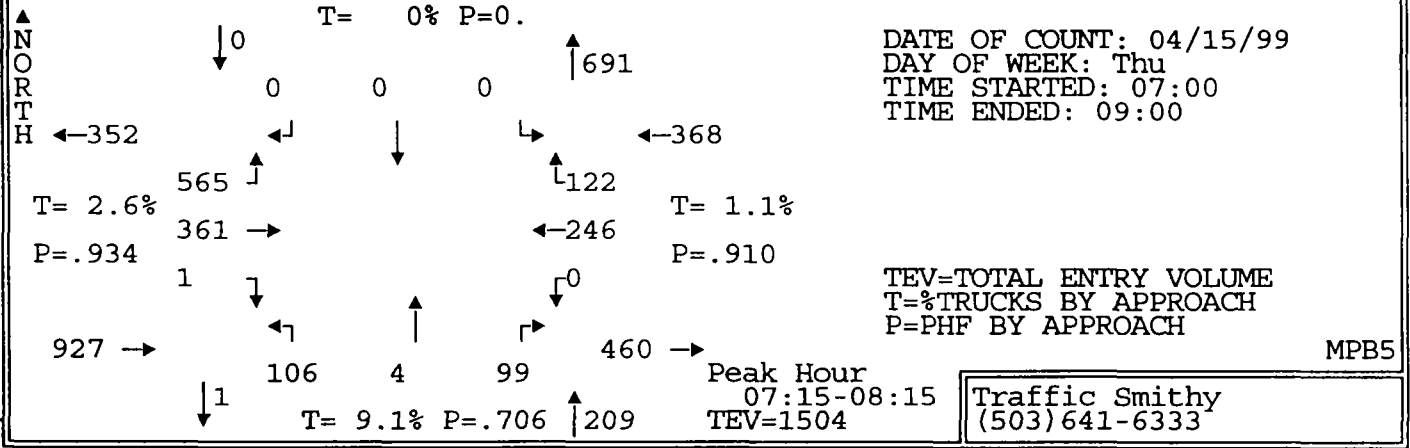


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	0	17	45	0	0	0	9	0	2	0	11	5	89
07:05-07:10	0	14	53	0	0	0	2	0	6	0	14	3	92
07:10-07:15	0	30	46	0	0	0	9	0	6	0	18	8	117
07:15-07:20	0	26	56	0	0	0	5	0	9	0	17	6	119
07:20-07:25	1	35	43	0	0	0	4	0	5	0	15	16	119
07:25-07:30	0	33	54	0	0	0	9	0	4	0	21	10	131
07:30-07:35	0	18	51	0	0	0	5	0	3	0	27	9	113
07:35-07:40	0	32	45	0	0	0	9	0	10	0	17	14	127
07:40-07:45	0	26	43	0	0	0	7	0	6	0	21	13	116
07:45-07:50	0	33	49	0	0	0	10	1	8	0	23	10	134
07:50-07:55	0	32	40	0	0	0	6	0	10	0	23	14	125
07:55-08:00	0	33	45	0	0	0	12	2	10	0	20	9	131
08:00-08:05	0	23	50	0	0	0	10	0	7	0	14	4	108
08:05-08:10	0	38	43	0	0	0	10	0	13	0	23	8	135
08:10-08:15	0	32	46	0	0	0	19	1	14	0	25	9	146
08:15-08:20	0	34	57	0	0	0	13	1	6	0	10	5	126
08:20-08:25	0	32	47	0	0	0	5	0	14	0	22	2	122
08:25-08:30	0	26	42	0	0	0	13	4	8	0	14	11	118
08:30-08:35	0	29	38	0	0	0	13	3	18	0	15	4	120
08:35-08:40	0	17	33	0	0	0	17	1	8	0	25	7	108
08:40-08:45	0	30	33	0	0	0	5	0	5	0	18	8	99
08:45-08:50	0	26	34	0	0	0	9	0	5	0	20	2	96
08:50-08:55	0	29	28	0	0	0	8	0	3	0	25	7	100
08:55-09:00	0	25	28	0	0	0	9	0	8	0	17	5	92

Total Survey	1	670	1049	0	0	0	218	13	188	0	455	189	2783
PHF	0	.88	.95	0	0	0	.68	.42	.77	0	.92	.72	.929
% Trucks	0	3	3.6	0	0	0	12.8	7.7	2.1	0	2.2	2.6	3.8
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	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
07:00-08:00	1	329	570	0	0	0	87	3	79	0	227	117	1413
07:15-08:15	1	361	565	0	0	0	106	4	99	0	246	122	1504
07:30-08:30	0	359	558	0	0	0	119	9	109	0	239	108	1501
07:45-08:45	0	359	523	0	0	0	133	13	121	0	232	91	1472
08:00-09:00	0	341	479	0	0	0	131	10	109	0	228	72	1370

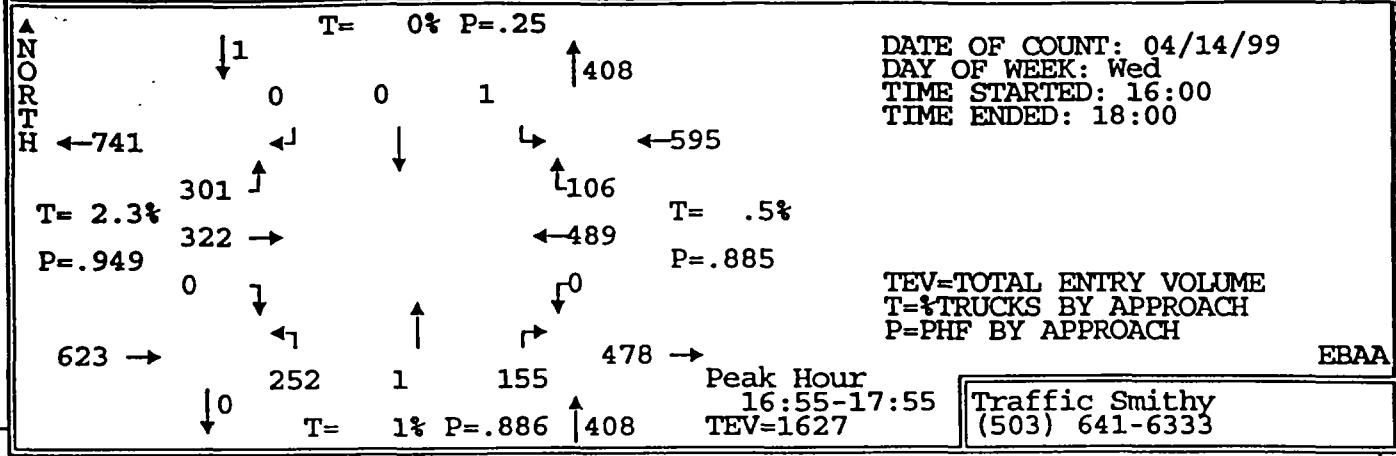
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
DENNEY ROAD AT HIGHWAY 217 NORTHBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
ALL VEHICLES													
07:15-07:30	1	94	153	0	0	0	18	0	18	0	53	32	369
07:30-07:45	0	76	139	0	0	0	21	0	19	0	65	36	356
07:45-08:00	0	98	134	0	0	0	28	3	28	0	66	33	390
08:00-08:15	0	93	139	0	0	0	39	1	34	0	62	21	389
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:15-07:30	0	2	0	0	0	0	2	0	0	0	0	1	5
07:30-07:45	0	1	2	0	0	0	1	0	0	0	1	1	6
07:45-08:00	0	3	0	0	0	0	2	0	0	0	0	0	5
08:00-08:15	0	2	3	0	0	0	1	0	0	0	0	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:15-07:30	0	0	3	0	0	0	2	0	0	0	1	0	6
07:30-07:45	0	0	3	0	0	0	2	0	0	0	0	0	5
07:45-08:00	0	0	2	0	0	0	1	0	0	0	0	0	3
08:00-08:15	0	1	1	0	0	0	3	0	0	0	0	0	5
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	1	0	0	0	3	0	0	0	0	0	4
07:45-08:00	0	0	0	0	0	0	1	1	0	0	0	0	2
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
07:15-07:30	0	1	0	0	0	0	0	0	0	0	0	0	1
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.25	.92	.92	0	0	0	.68	.33	.73	0	.93	.85	.964
% Trucks (all)	0	2.5	2.7	0	0	0	17	25	0	0	.8	1.6	3.1
% Trucks (M+H)	0	.3	1.8	0	0	0	11.3	25	0	0	.4	0	1.7
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	1	329	570	0	0	0	87	3	79	0	227	117	1413
07:15-08:15	1	361	565	0	0	0	106	4	99	0	246	122	1504
07:30-08:30	0	359	558	0	0	0	119	9	109	0	239	108	1501
07:45-08:45	0	359	523	0	0	0	133	13	121	0	232	91	1472
08:00-09:00	0	341	479	0	0	0	131	10	109	0	228	72	1370

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
DENNEY ROAD AT HIGHWAY 217 NORTHBOUND RAMP

19266



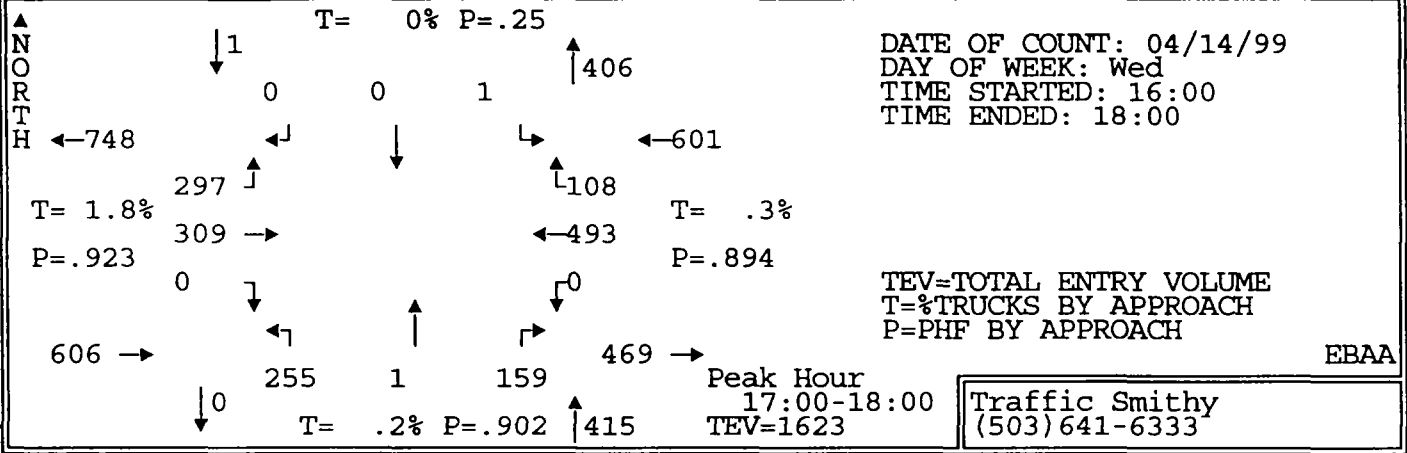
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	0	16	30	0	0	0	28	0	13	0	28	8	123
16:05-16:10	0	24	26	0	0	0	17	1	12	0	25	7	112
16:10-16:15	0	16	32	0	0	0	20	0	12	0	33	16	129
16:15-16:20	0	15	21	0	0	0	23	0	7	0	36	3	105
16:20-16:25	0	33	23	0	0	0	20	0	10	0	21	5	112
16:25-16:30	0	18	16	0	0	0	26	1	8	0	30	4	103
16:30-16:35	0	27	22	0	0	0	15	0	10	0	35	4	113
16:35-16:40	0	14	18	0	0	0	16	0	6	0	43	9	106
16:40-16:45	0	26	25	0	0	0	21	0	9	0	38	11	130
16:45-16:50	0	27	21	0	0	0	21	1	8	0	34	10	122
16:50-16:55	0	20	23	0	0	0	18	0	4	0	29	8	102
16:55-17:00	0	30	23	0	0	0	22	0	5	0	29	8	117
17:00-17:05	0	28	22	0	0	0	22	1	14	0	46	7	140
17:05-17:10	0	34	24	0	0	0	21	0	15	0	47	9	150
17:10-17:15	0	21	31	0	0	1	11	0	16	0	49	10	139
17:15-17:20	0	27	21	0	0	0	25	0	14	0	33	7	127
17:20-17:25	0	32	32	0	0	0	18	0	10	0	51	6	149
17:25-17:30	0	23	29	0	0	0	18	0	12	0	42	13	137
17:30-17:35	0	26	22	0	0	0	22	0	20	0	43	13	146
17:35-17:40	0	19	31	0	0	0	22	0	11	0	32	8	123
17:40-17:45	0	30	26	0	0	0	26	0	14	0	41	7	144
17:45-17:50	0	26	24	0	0	0	21	0	11	0	36	13	131
17:50-17:55	0	26	16	0	0	0	24	0	13	0	40	5	124
17:55-18:00	0	17	19	0	0	0	25	0	9	0	33	10	113

Total Survey	0	575	577	0	0	1	502	4	263	0	874	201	2997
PHF	0	.88	.9	0	0	.25	.89	.25	.86	0	.86	.78	.941
% Trucks	0	.7	3.8	0	0	0	1.4	0	.4	0	.5	.5	1.3
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	9	0	0

Hourly Totals													
16:00-17:00	0	266	280	0	0	0	247	3	104	0	381	93	1374
16:15-17:15	0	293	269	0	0	1	236	3	112	0	437	88	1439
16:30-17:30	0	309	291	0	0	1	228	2	123	0	476	102	1532
16:45-17:45	0	317	305	0	0	1	246	2	143	0	476	106	1596
17:00-18:00	0	309	297	0	0	1	255	1	159	0	493	108	1623

440

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
DENNEY ROAD AT HIGHWAY 217 NORTHBOUND RAMP**

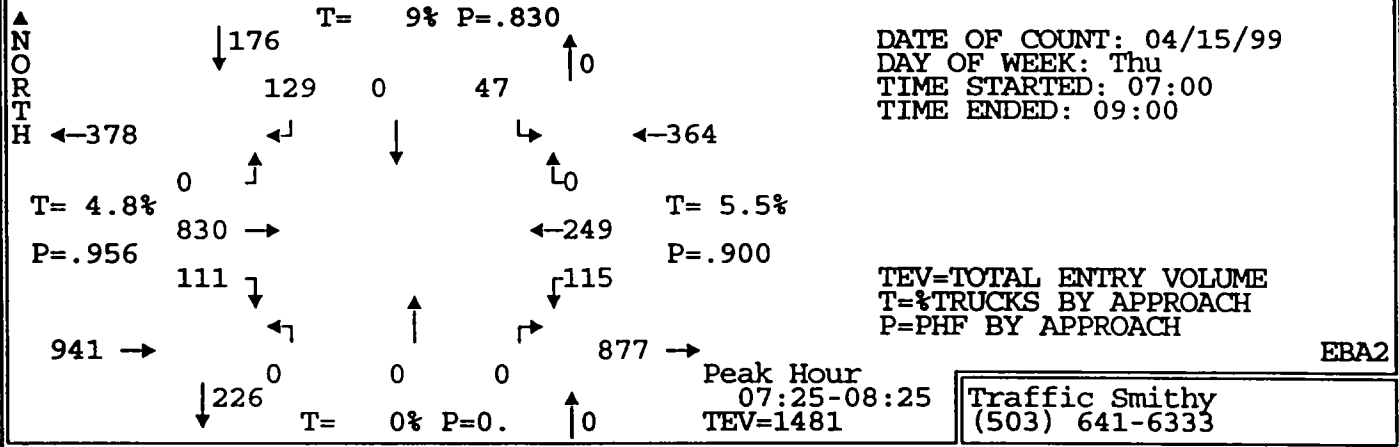


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	0	83	77	0	0	1	54	1	45	0	142	26	429
17:15-17:30	0	82	82	0	0	0	61	0	36	0	126	26	413
17:30-17:45	0	75	79	0	0	0	70	0	45	0	116	28	413
17:45-18:00	0	69	59	0	0	0	70	0	33	0	109	28	368
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	0	0	0	0	0	1	0	0	0	0	1	2
17:15-17:30	0	0	3	0	0	0	0	0	0	0	0	0	3
17:30-17:45	0	1	1	0	0	0	0	0	0	0	0	0	2
17:45-18:00	0	1	2	0	0	0	0	0	0	0	0	0	3
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	1	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	1	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	1	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	1	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	1	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	4	0	0	4
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	1	0	0	1
Peak Hour by Movement													
PHF	0	.93	.91	0	0	.25	.91	.25	.88	0	.87	.96	.945
% Trucks (all)	0	.6	.3	0	0	0	.4	0	0	0	.2	.9	.9
% Trucks (M+H)	0	0	1	0	0	0	0	0	0	0	.2	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	0	266	280	0	0	0	247	3	104	0	381	93	1374
16:15-17:15	0	293	269	0	0	1	236	3	112	0	437	88	1439
16:30-17:30	0	309	291	0	0	1	228	2	123	0	476	102	1532
16:45-17:45	0	317	305	0	0	1	246	2	143	0	476	106	1596
17:00-18:00	0	309	297	0	0	1	255	1	159	0	493	108	1623

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
DENNEY ROAD AT HIGHWAY 217 SOUTHBOUND RAMP

19298

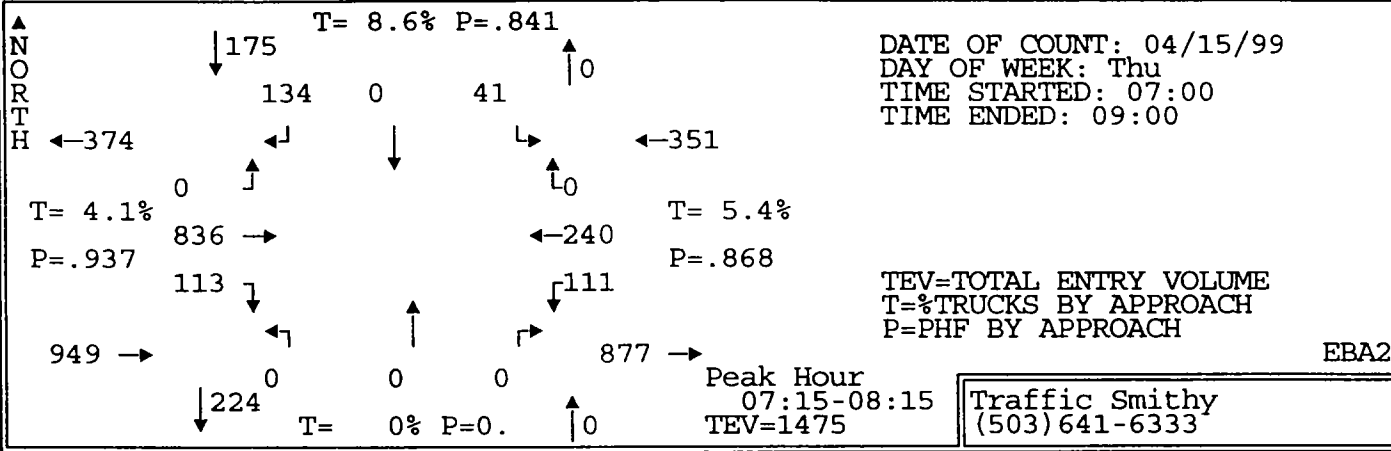


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	5	63	0	5	0	0	0	0	0	7	13	0	93
07:05-07:10	8	57	0	4	0	2	0	0	0	6	8	0	85
07:10-07:15	10	69	0	1	0	3	1	0	2	7	20	0	113
07:15-07:20	9	73	0	14	0	3	0	0	0	7	12	0	118
07:20-07:25	6	73	0	12	0	4	0	0	0	5	15	0	115
07:25-07:30	10	82	0	8	0	3	0	0	0	10	19	0	132
07:30-07:35	11	65	0	7	0	3	0	0	0	5	25	0	116
07:35-07:40	7	71	0	9	0	2	0	0	0	4	24	0	117
07:40-07:45	10	65	0	9	0	0	0	0	0	9	21	0	114
07:45-07:50	10	71	0	13	0	3	0	0	0	13	16	0	126
07:50-07:55	10	67	0	15	0	6	0	0	0	14	18	0	130
07:55-08:00	12	68	0	7	0	5	0	0	0	10	23	0	125
08:00-08:05	9	58	0	12	0	4	0	0	0	8	19	0	110
08:05-08:10	9	76	0	19	0	6	0	0	0	10	18	0	138
08:10-08:15	10	67	0	9	0	2	0	0	0	16	30	0	134
08:15-08:20	9	73	0	9	0	5	0	0	0	4	17	0	117
08:20-08:25	4	67	0	12	0	8	0	0	0	12	19	0	122
08:25-08:30	11	54	0	11	0	5	0	0	0	3	20	0	104
08:30-08:35	8	57	0	9	0	6	0	0	0	7	19	0	106
08:35-08:40	10	44	0	8	0	4	0	0	0	11	26	0	103
08:40-08:45	11	59	0	12	0	4	0	0	0	12	13	0	111
08:45-08:50	10	47	0	8	0	8	0	0	0	9	19	0	101
08:50-08:55	5	45	0	8	0	9	0	0	0	13	18	0	98
08:55-09:00	9	42	0	8	0	8	0	0	0	10	15	0	92

Total Survey	213	1513	0	229	0	103	1	0	2	212	447	0	2720
PHF	.87	.95	0	.81	0	.78	0	0	0	.78	.89	0	.951
% Trucks	14.1	3.5	0	12.7	0	1	0	0	0	0	8.1	0	5.5
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	6	0	0

Hourly Totals													
07:00-08:00	108	824	0	104	0	34	1	0	2	97	214	0	1384
07:15-08:15	113	836	0	134	0	41	0	0	0	111	240	0	1475
07:30-08:30	112	802	0	132	0	49	0	0	0	108	250	0	1453
07:45-08:45	113	761	0	136	0	58	0	0	0	120	238	0	1426
08:00-09:00	105	689	0	125	0	69	0	0	0	115	233	0	1336

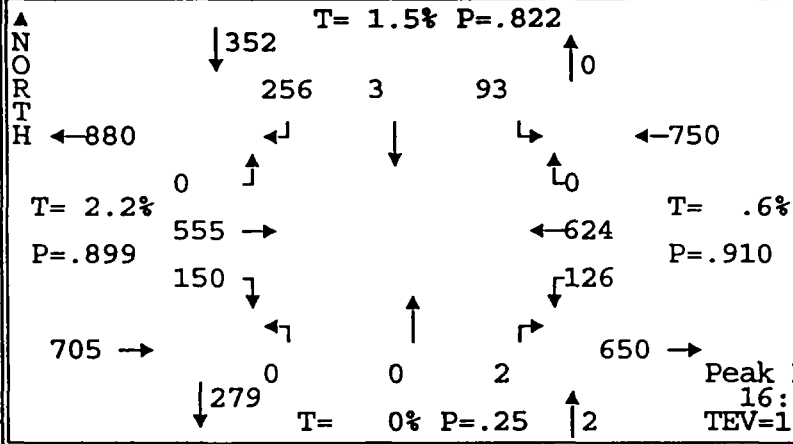
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
DENNEY ROAD AT HIGHWAY 217 SOUTHBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
07:15-07:30	25	228	0	34	0	10	0	0	0	22	46	0	365
07:30-07:45	28	201	0	25	0	5	0	0	0	18	70	0	347
07:45-08:00	32	206	0	35	0	14	0	0	0	37	57	0	381
08:00-08:15	28	201	0	40	0	12	0	0	0	34	67	0	382
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:15-07:30	2	5	0	2	0	0	0	0	0	0	2	0	11
07:30-07:45	2	2	0	2	0	0	0	0	0	0	1	0	7
07:45-08:00	2	2	0	3	0	0	0	0	0	0	2	0	9
08:00-08:15	3	5	0	2	0	0	0	0	0	0	2	0	12
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:15-07:30	0	3	0	0	0	0	0	0	0	0	3	0	6
07:30-07:45	1	3	0	1	0	0	0	0	0	0	2	0	7
07:45-08:00	0	2	0	2	0	0	0	0	0	0	1	0	5
08:00-08:15	0	2	0	2	0	0	0	0	0	0	2	0	6
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	3	0	3
07:45-08:00	0	0	0	0	0	0	0	0	0	0	1	0	1
08:00-08:15	4	1	0	1	0	0	0	0	0	0	0	0	6
BICYCLES													
07:15-07:30	0	1	0	0	0	0	0	0	0	0	0	0	1
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
07:15-07:30	0			0			0			0		0	
07:30-07:45	0			0			0			2		2	
07:45-08:00	0			0			0			0		0	
08:00-08:15	0			0			0			2		2	
Peak Hour by Movement													
PHF	.88	.92	0	.84	0	.73	0	0	0	.75	.86	0	.965
% Trucks (all)	12.4	3	0	11.2	0	0	0	0	0	0	7.9	0	4.9
% Trucks (M+H)	4.4	1.3	0	4.5	0	0	0	0	0	0	5	0	2.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	108	824	0	104	0	34	1	0	2	97	214	0	1384
07:15-08:15	113	836	0	134	0	41	0	0	0	111	240	0	1475
07:30-08:30	112	802	0	132	0	49	0	0	0	108	250	0	1453
07:45-08:45	113	761	0	136	0	58	0	0	0	120	238	0	1426
08:00-09:00	105	689	0	125	0	69	0	0	0	115	233	0	1336

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
DENNEY ROAD AT HIGHWAY 217 SOUTHBOUND RAMP

19286



DATE OF COUNT: 04/13/99
 DAY OF WEEK: Tue
 TIME STARTED: 16:00
 TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

WMAJ

Peak Hour
 16:55-17:55
 TEV=1809

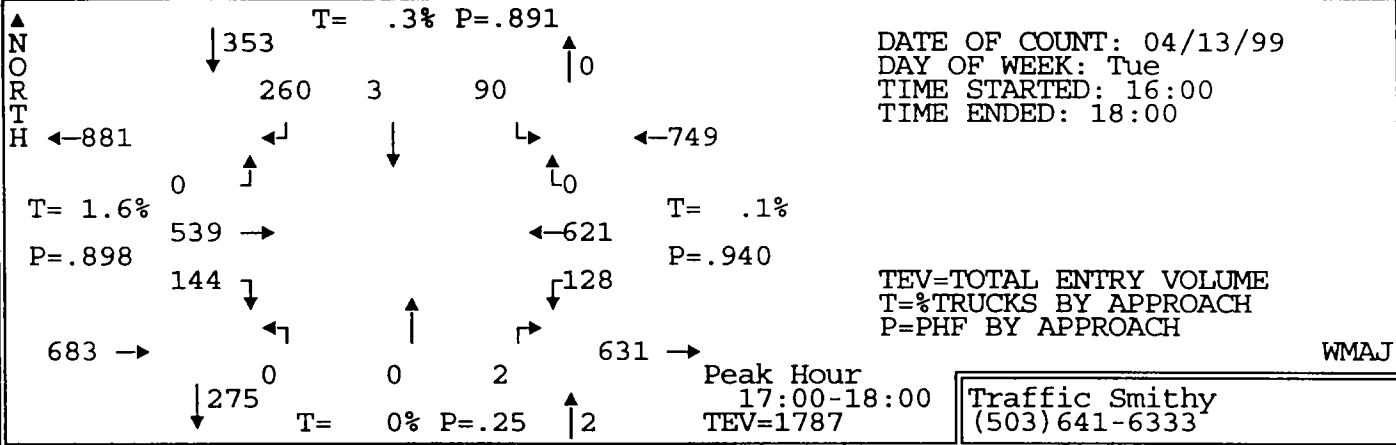
Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	9	48	0	15	0	7	0	0	0	8	32	0	119
16:05-16:10	11	53	0	18	0	6	0	0	0	16	37	0	141
16:10-16:15	17	43	0	11	0	10	0	0	0	13	34	0	128
16:15-16:20	4	53	0	20	0	6	0	0	0	3	46	0	132
16:20-16:25	13	51	0	27	0	7	0	0	0	4	51	0	153
16:25-16:30	11	53	0	22	0	8	0	0	0	4	42	0	140
16:30-16:35	5	42	0	25	0	7	0	0	0	13	33	0	125
16:35-16:40	15	51	0	9	0	8	0	0	0	15	43	0	141
16:40-16:45	8	46	0	17	0	7	0	0	0	10	44	0	132
16:45-16:50	10	50	0	26	0	6	0	0	0	11	43	0	146
16:50-16:55	12	39	1	23	0	10	0	0	0	8	38	1	132
16:55-17:00	18	51	0	17	0	8	0	0	0	5	44	0	143
17:00-17:05	7	47	0	21	0	6	0	0	0	8	46	0	135
17:05-17:10	10	59	0	19	0	4	0	0	0	15	47	0	154
17:10-17:15	14	53	0	23	0	4	0	0	0	14	52	0	160
17:15-17:20	4	56	0	17	0	6	0	0	0	15	45	0	143
17:20-17:25	11	41	0	22	0	11	0	0	2	8	65	0	160
17:25-17:30	12	41	0	24	0	15	0	0	0	10	56	0	158
17:30-17:35	14	30	0	25	0	10	0	0	0	16	51	0	146
17:35-17:40	19	48	0	18	0	10	0	0	0	4	53	0	152
17:40-17:45	19	40	0	28	2	6	0	0	0	7	55	0	157
17:45-17:50	9	41	0	21	0	8	0	0	0	10	53	0	142
17:50-17:55	13	48	0	21	1	5	0	0	0	14	57	0	159
17:55-18:00	12	35	0	21	0	5	0	0	0	7	41	0	121

Total Survey	277	1119	1	490	3	180	0	0	2	238	1108	1	3419
PHF	.72	.83	0	.9	.25	.65	0	0	.25	.72	.91	0	.974
% Trucks	1.8	2.3	0	1.6	0	1.1	0	0	0	.4	.6	0	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	1	0	0	0	0	0	0	0	0	5	0	0

Hourly Totals													
16:00-17:00	133	580	1	230	0	90	0	0	0	110	487	1	1632
16:15-17:15	127	595	1	249	0	81	0	0	0	110	529	1	1693
16:30-17:30	126	576	1	243	0	92	0	0	2	132	556	1	1729
16:45-17:45	150	555	1	263	2	96	0	0	2	121	595	1	1786
17:00-18:00	144	539	0	260	3	90	0	0	2	128	621	0	1787

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
DENNEY ROAD AT HIGHWAY 217 SOUTHBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↠		

ALL VEHICLES	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↠	ALL	
17:00-17:15	31	159	0	63	0	14	0	0	0	37	145	0	449
17:15-17:30	27	138	0	63	0	32	0	0	2	33	166	0	461
17:30-17:45	52	118	0	71	2	26	0	0	0	27	159	0	455
17:45-18:00	34	124	0	63	1	18	0	0	0	31	151	0	422

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↠	ALL
17:00-17:15	1	3	0	0	0	0	0	0	0	0	0	4
17:15-17:30	1	0	0	1	0	0	0	0	0	0	1	3
17:30-17:45	0	3	0	0	0	0	0	0	0	0	0	3
17:45-18:00	0	2	0	0	0	0	0	0	0	0	0	2

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↠	ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↠	ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0

BICYCLES	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↠	ALL
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0

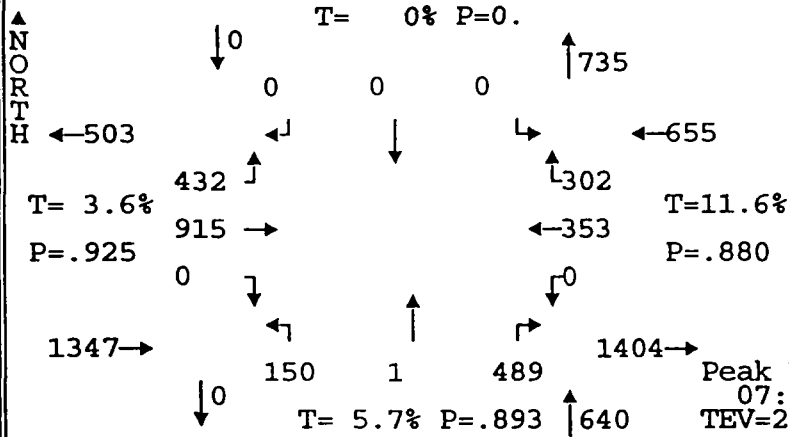
PEDESTRIANS	CROSSWALK USEAGE				ALL
	SOUTH	WEST	EAST	NORTH	
17:00-17:15	0	0	0	1	1
17:15-17:30	0	0	0	0	0
17:30-17:45	1	0	0	1	2
17:45-18:00	0	0	0	0	0

Peak Hour by Movement													
PHF	.69	.85	0	.92	.38	.7	0	0	.25	.86	.94	0	.969
% Trucks (all)	1.4	1.7	0	.4	0	0	0	0	0	0	.2	0	.7
% Trucks (M+H)	0	.2	0	0	0	0	0	0	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	133	580	1	230	0	90	0	0	0	110	487	1	1632
16:15-17:15	127	595	1	249	0	81	0	0	0	110	529	1	1693
16:30-17:30	126	576	1	243	0	92	0	0	2	132	556	1	1729
16:45-17:45	150	555	1	263	2	96	0	0	2	121	595	1	1786
17:00-18:00	144	539	0	260	3	90	0	0	2	128	621	0	1787

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
 ALLEN BOULEVARD AT HIGHWAY 217 NORTHBOUND RAMPS

19291



DATE OF COUNT: 04/15/99
 DAY OF WEEK: Thu
 TIME STARTED: 07:00
 TIME ENDED: 09:00

TEV-TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

DJCD

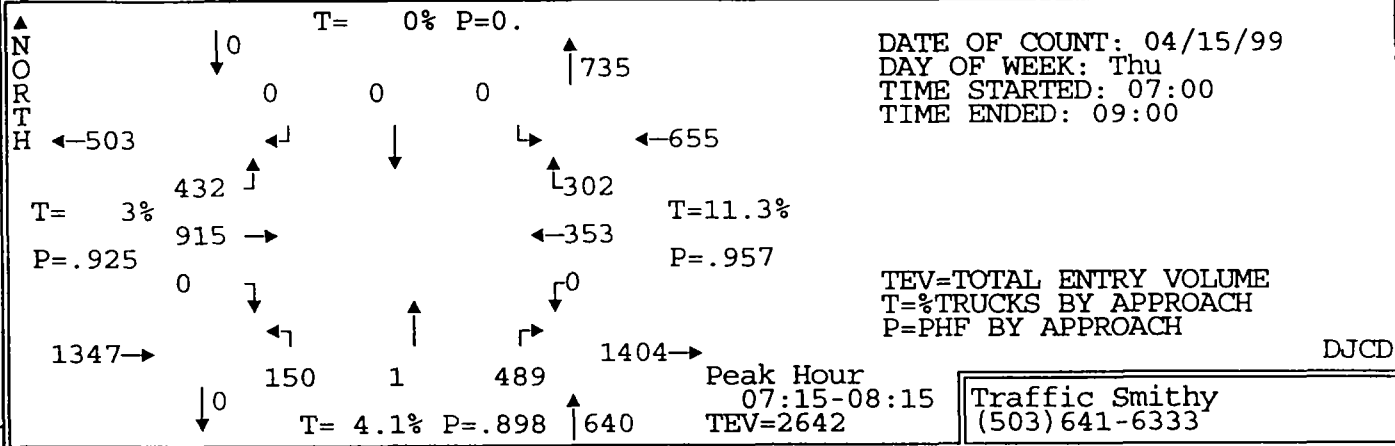
Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↓	←	↑	
07:00-07:05	0	77	32	0	0	0	11	0	30	0	20	40	210
07:05-07:10	0	68	27	0	0	0	5	0	31	0	30	24	185
07:10-07:15	0	77	33	0	0	0	9	0	48	0	27	30	224
07:15-07:20	0	64	39	0	0	0	10	0	33	0	31	19	196
07:20-07:25	0	76	36	0	0	0	17	0	51	0	34	25	239
07:25-07:30	0	80	36	0	0	0	15	0	52	0	28	28	239
07:30-07:35	0	81	31	0	0	0	13	0	31	0	35	19	210
07:35-07:40	0	64	46	0	0	0	17	0	39	0	33	17	216
07:40-07:45	0	74	37	0	0	0	9	0	34	0	27	36	217
07:45-07:50	0	75	33	0	0	0	11	0	53	0	30	29	231
07:50-07:55	0	77	33	0	0	0	13	0	53	0	37	27	240
07:55-08:00	0	73	28	0	0	0	8	0	21	0	15	14	159
08:00-08:05	0	94	26	0	0	0	12	1	39	0	32	34	238
08:05-08:10	0	74	33	0	0	0	14	0	54	0	21	26	222
08:10-08:15	0	83	54	0	0	0	11	0	29	0	30	28	235
08:15-08:20	0	69	26	0	0	0	13	0	35	0	25	24	192
08:20-08:25	0	59	23	0	0	0	14	1	48	0	21	30	196
08:25-08:30	0	64	37	0	0	0	9	0	38	0	24	37	209
08:30-08:35	0	69	30	0	0	0	11	0	37	0	34	23	204
08:35-08:40	0	51	36	0	0	0	22	1	20	0	35	27	192
08:40-08:45	0	60	39	0	0	0	16	0	23	0	25	19	182
08:45-08:50	0	62	25	0	0	0	14	0	21	0	32	38	192
08:50-08:55	0	51	23	0	0	0	15	0	31	0	29	24	173
08:55-09:00	0	55	27	0	0	0	18	0	33	0	17	15	165

Total Survey	0	1677	790	0	0	0	307	3	884	0	672	633	4966
PHF	0	.91	.93	0	0	0	.83	.25	.87	0	.91	.82	.950
% Trucks	0	4.4	2	0	0	0	5.2	0	5.9	0	12.4	10.9	6.2
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	0	886	411	0	0	0	138	0	476	0	347	308	2566
07:15-08:15	0	915	432	0	0	0	150	1	489	0	353	302	2642
07:30-08:30	0	887	407	0	0	0	144	2	474	0	330	321	2565
07:45-08:45	0	848	398	0	0	0	154	3	450	0	329	318	2500
08:00-09:00	0	791	379	0	0	0	169	3	408	0	325	325	2400

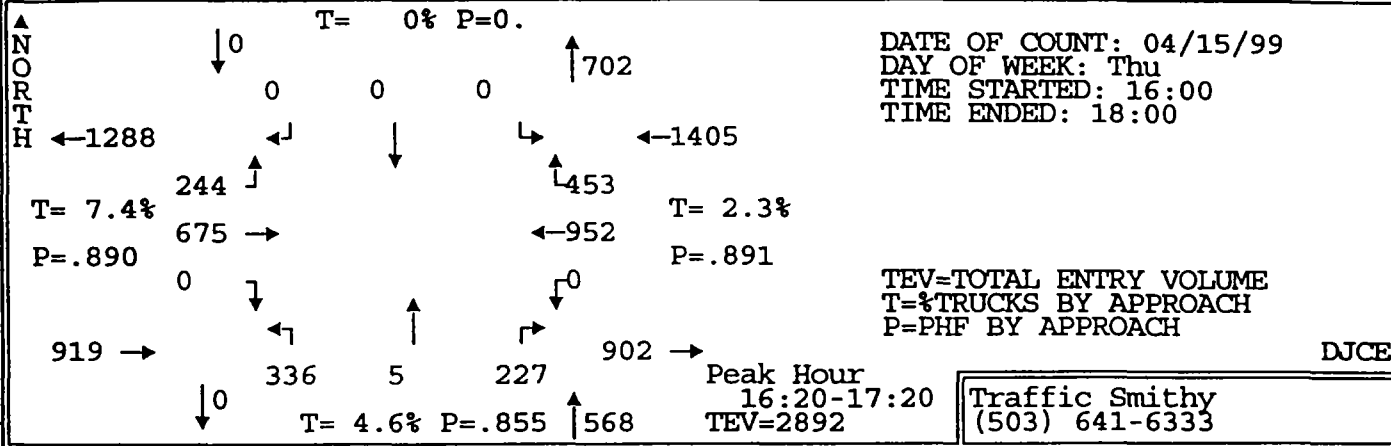
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
ALLEN BOULEVARD AT HIGHWAY 217 NORTHBOUND RAMPS



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↘	←	↑	
ALL VEHICLES													
07:15-07:30	0	220	111	0	0	0	42	0	136	0	93	72	674
07:30-07:45	0	219	114	0	0	0	39	0	104	0	95	72	643
07:45-08:00	0	225	94	0	0	0	32	0	127	0	82	70	630
08:00-08:15	0	251	113	0	0	0	37	1	122	0	83	88	695
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:15-07:30	0	5	0	0	0	0	1	0	4	0	21	3	34
07:30-07:45	0	6	1	0	0	0	0	0	1	0	8	3	19
07:45-08:00	0	4	2	0	0	0	1	0	3	0	2	1	13
08:00-08:15	0	7	3	0	0	0	0	0	2	0	4	1	17
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:15-07:30	0	0	0	0	0	0	0	0	1	0	0	0	1
07:30-07:45	0	0	0	0	0	0	0	0	1	0	3	1	5
07:45-08:00	0	0	2	0	0	0	0	0	1	0	2	1	6
08:00-08:15	0	0	1	0	0	0	0	0	1	0	2	4	8
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:15-07:30	0	1	0	0	0	0	0	0	3	0	1	2	7
07:30-07:45	0	4	0	0	0	0	1	0	3	0	1	2	11
07:45-08:00	0	1	1	0	0	0	1	0	2	0	1	8	14
08:00-08:15	0	2	0	0	0	0	0	0	0	0	2	1	5
BICYCLES													
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	0	.91	.95	0	0	0	.89	.25	.9	0	.93	.86	.950
% Trucks (all)	0	3.3	2.3	0	0	0	2.7	0	4.5	0	13.3	8.9	5.3
% Trucks (M+H)	0	.9	.9	0	0	0	1.3	0	2.5	0	3.4	6.3	2.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	0	886	411	0	0	0	138	0	476	0	347	308	2566
07:15-08:15	0	915	432	0	0	0	150	1	489	0	353	302	2642
07:30-08:30	0	887	407	0	0	0	144	2	474	0	330	321	2565
07:45-08:45	0	848	398	0	0	0	154	3	450	0	329	318	2500
08:00-09:00	0	791	379	0	0	0	169	3	408	0	325	325	2400

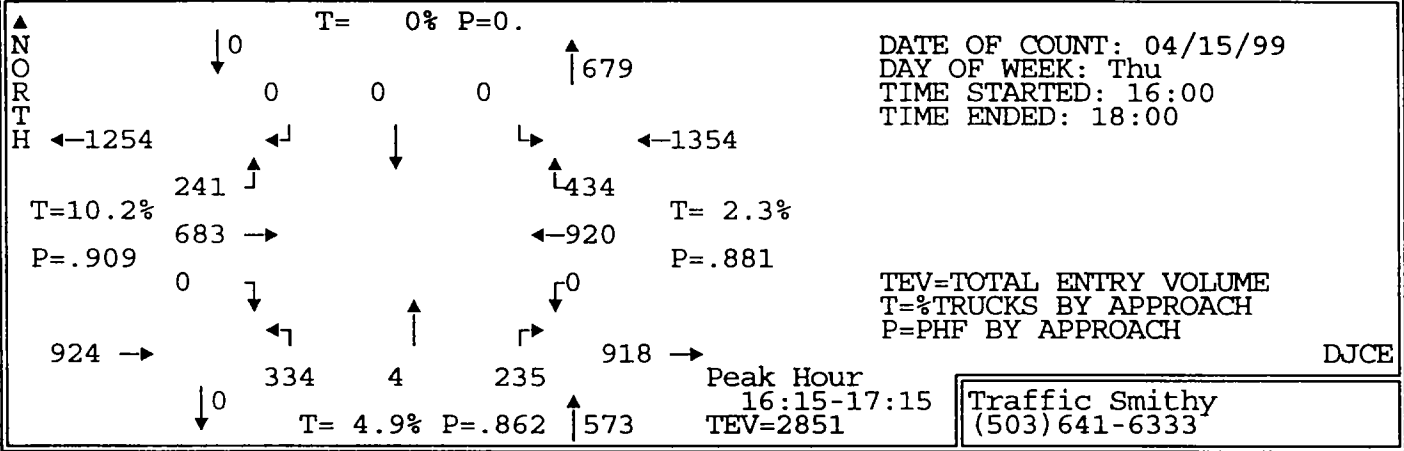
INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
ALLEN BOULEVARD AT HIGHWAY 217 NORTHBOUND RAMPS

19292



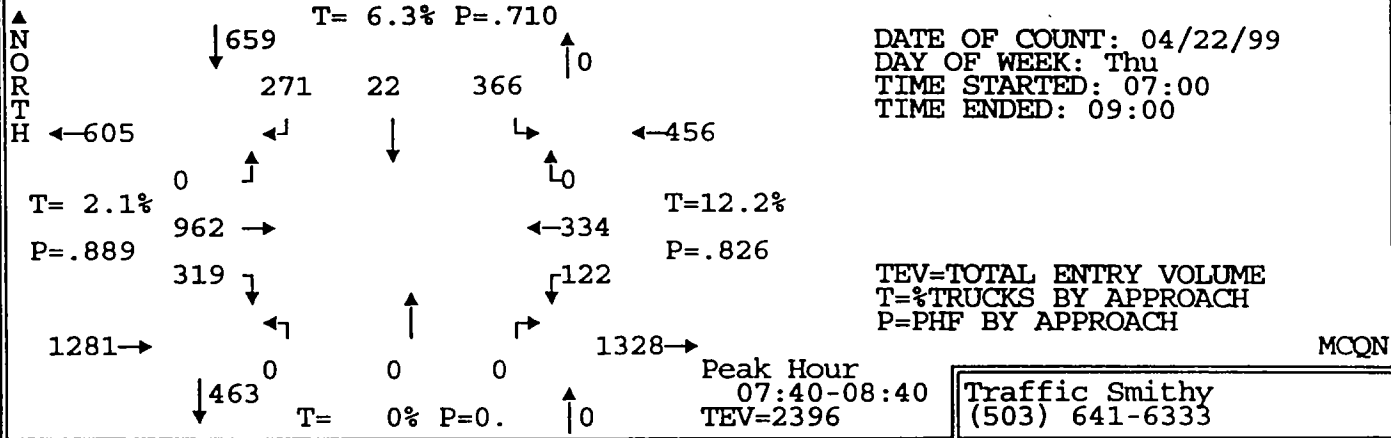
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↘	←	↑	
16:00-16:05	0	53	26	0	0	0	28	1	19	0	46	25	198
16:05-16:10	0	54	14	0	0	0	31	0	20	0	78	38	235
16:10-16:15	0	59	14	0	0	0	33	0	15	0	73	44	238
16:15-16:20	0	58	18	0	0	0	26	0	26	0	51	18	197
16:20-16:25	0	56	21	0	0	0	23	0	19	0	80	39	238
16:25-16:30	0	68	14	0	0	0	38	1	33	0	76	29	259
16:30-16:35	0	68	18	0	0	0	29	0	14	0	58	41	228
16:35-16:40	0	66	24	0	0	0	23	3	18	0	81	39	254
16:40-16:45	0	53	25	0	0	0	29	0	18	0	95	25	245
16:45-16:50	0	58	21	0	0	0	29	0	11	0	79	54	252
16:50-16:55	0	54	16	0	0	0	23	0	16	0	65	28	202
16:55-17:00	0	62	18	0	0	0	30	0	23	0	81	31	245
17:00-17:05	0	53	21	0	0	0	34	0	28	0	71	39	246
17:05-17:10	0	37	20	0	0	0	30	0	21	0	87	54	249
17:10-17:15	0	50	25	0	0	0	20	0	8	0	96	37	236
17:15-17:20	0	50	21	0	0	0	28	1	18	0	83	37	238
17:20-17:25	0	52	16	0	0	0	20	0	16	0	63	33	200
17:25-17:30	0	53	30	0	0	0	36	0	21	0	64	33	237
17:30-17:35	0	62	20	0	0	0	27	0	20	0	72	32	233
17:35-17:40	0	62	20	0	0	0	42	0	25	0	59	29	237
17:40-17:45	0	62	19	0	0	0	28	0	19	0	71	17	216
17:45-17:50	0	67	11	0	0	0	29	0	20	0	59	19	205
17:50-17:55	0	49	26	0	0	0	24	0	25	0	65	25	214
17:55-18:00	0	42	13	0	0	0	28	0	14	0	65	23	185
Total Survey	0	1348	471	0	0	0	688	6	467	0	1718	789	5487
PHF	0	.84	.87	0	0	0	.89	.31	.79	0	.89	.87	.962
% Trucks	0	9.5	1.5	0	0	0	1.3	0	9.4	0	1.8	3.3	4.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	2	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	709	229	0	0	0	342	5	232	0	863	411	2791
16:15-17:15	0	683	241	0	0	0	334	4	235	0	920	434	2851
16:30-17:30	0	656	255	0	0	0	331	4	212	0	923	451	2832
16:45-17:45	0	655	247	0	0	0	347	1	226	0	891	424	2791
17:00-18:00	0	639	242	0	0	0	346	1	235	0	855	378	2696

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
ALLEN BOULEVARD AT HIGHWAY 217 NORTHBOUND RAMP**



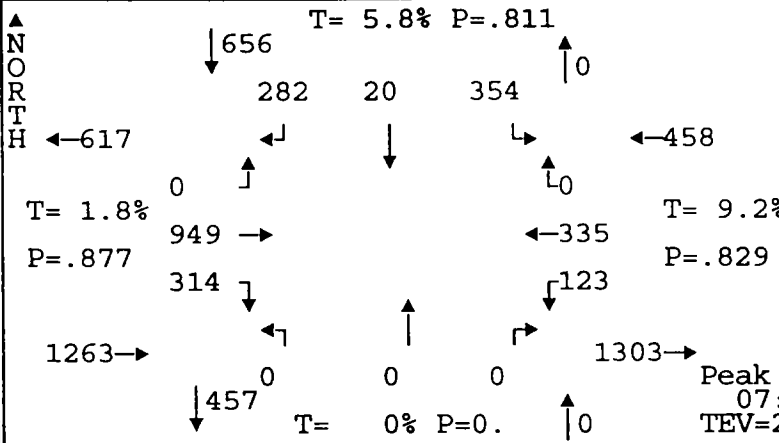
TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
16:15-16:30	0	182	53	0	0	0	87	1	78	0	207	86	694
16:30-16:45	0	187	67	0	0	0	81	3	50	0	234	105	727
16:45-17:00	0	174	55	0	0	0	82	0	50	0	225	113	699
17:00-17:15	0	140	66	0	0	0	84	0	57	0	254	130	731
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:15-16:30	0	46	3	1	0	0	1	0	10	0	3	3	67
16:30-16:45	0	27	0	1	0	0	1	0	4	0	1	0	34
16:45-17:00	0	8	0	0	0	0	0	0	2	0	1	1	12
17:00-17:15	0	3	0	0	0	0	0	0	0	0	4	1	8
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:15-16:30	0	1	0	0	0	0	0	0	0	0	0	0	1
16:30-16:45	0	1	0	0	0	0	0	0	0	0	0	0	1
16:45-17:00	0	0	0	0	0	0	1	0	2	0	0	0	3
17:00-17:15	0	0	0	0	0	0	0	0	2	0	0	0	2
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:15-16:30	0	0	0	0	0	0	0	0	3	0	2	4	9
16:30-16:45	0	1	1	0	0	0	0	0	2	0	2	3	9
16:45-17:00	0	2	1	0	0	0	0	0	0	0	1	4	8
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	1	1
BICYCLES													
16:15-16:30	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
16:15-16:30	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	0	.91	.9	0	0	0	.96	.33	.75	0	.91	.83	.975
% Trucks (all)	0	.13	2.1	0	0	0	.9	0	10.6	0	1.5	3.9	5.4
% Trucks (M+H)	0	.7	.8	0	0	0	.3	0	3.8	0	.5	2.8	1.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	709	229	0	0	0	342	5	232	0	863	411	2791
16:15-17:15	0	683	241	0	0	0	334	4	235	0	920	434	2851
16:30-17:30	0	656	255	0	0	0	331	4	212	0	923	451	2832
16:45-17:45	0	655	247	0	0	0	347	1	226	0	891	424	2791
17:00-18:00	0	639	242	0	0	0	346	1	235	0	855	378	2696

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
ALLEN BOULEVARD AT HIGHWAY 217 SOUTHBOUND RAMPS 19405



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	33	84	0	9	0	23	0	0	0	9	22	0	180
07:05-07:10	36	83	0	15	0	18	0	0	0	11	23	0	186
07:10-07:15	38	78	0	7	0	30	0	0	0	13	21	0	187
07:15-07:20	40	77	0	10	0	35	0	0	0	13	28	0	203
07:20-07:25	25	86	0	11	0	36	0	0	0	10	37	0	205
07:25-07:30	27	86	0	16	0	27	0	0	0	11	25	0	192
07:30-07:35	16	68	0	9	0	43	0	0	0	12	19	0	167
07:35-07:40	34	70	0	7	1	20	0	0	0	19	39	0	190
07:40-07:45	34	78	0	10	4	40	0	0	0	10	22	0	198
07:45-07:50	22	84	0	11	0	48	0	0	0	19	38	0	222
07:50-07:55	21	96	0	7	0	24	0	0	0	12	33	0	193
07:55-08:00	43	94	0	8	0	25	0	0	0	9	27	0	206
08:00-08:05	18	80	0	18	3	38	0	0	0	7	16	0	180
08:05-08:10	29	88	0	11	0	22	0	0	0	9	18	0	177
08:10-08:15	21	87	0	11	0	28	0	0	0	8	35	0	190
08:15-08:20	34	68	0	14	2	35	0	0	0	12	25	0	190
08:20-08:25	33	59	0	49	3	23	0	0	0	8	27	0	202
08:25-08:30	27	82	0	46	4	24	0	0	0	7	29	0	219
08:30-08:35	16	82	0	45	3	35	0	0	0	11	23	0	215
08:35-08:40	21	64	0	41	3	24	0	0	0	10	41	0	204
08:40-08:45	29	65	0	21	2	28	0	0	0	11	23	0	179
08:45-08:50	21	52	0	13	1	34	0	0	0	13	24	0	158
08:50-08:55	17	90	0	20	0	30	0	0	0	16	48	0	221
08:55-09:00	21	77	0	26	0	28	0	0	0	13	34	0	199
Total Survey	656	1878	0	435	26	718	0	0	0	273	677	0	4663
PHF	.85	.88	0	.48	.55	.82	0	0	0	.74	.85	0	.938
% Trucks	1.5	2.3	0	3.7	0	8.1	0	0	0	17.9	9.9	0	5.2
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	369	984	0	120	5	369	0	0	0	148	334	0	2329
07:15-08:15	330	994	0	129	8	386	0	0	0	139	337	0	2323
07:30-08:30	332	954	0	201	17	370	0	0	0	132	328	0	2334
07:45-08:45	314	949	0	282	20	354	0	0	0	123	335	0	2377
08:00-09:00	287	894	0	315	21	349	0	0	0	125	343	0	2334

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
ALLEN BOULEVARD AT HIGHWAY 217 SOUTHBOUND RAMPS**



DATE OF COUNT: 04/22/99
DAY OF WEEK: Thu
TIME STARTED: 07:00
TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

MCQN

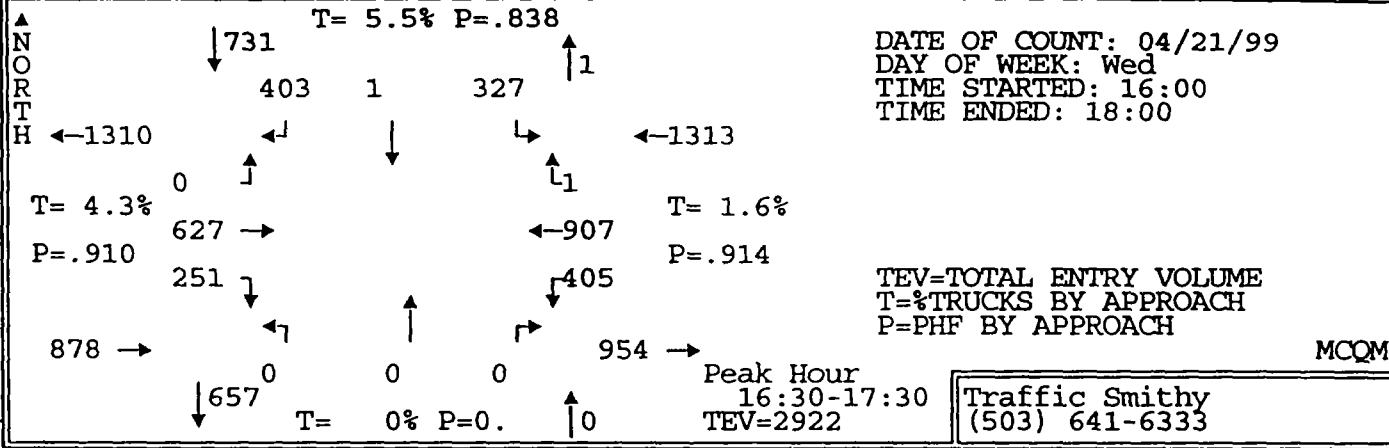
Peak Hour
07:45-08:45
TEV=2377

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↘	↙	↑		
ALL VEHICLES													
07:45-08:00	86	274	0	26	0	97	0	0	0	40	98	0	621
08:00-08:15	68	255	0	40	3	88	0	0	0	24	69	0	547
08:15-08:30	94	209	0	109	9	82	0	0	0	27	81	0	611
08:30-08:45	66	211	0	107	8	87	0	0	0	32	87	0	598
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:45-08:00	1	3	0	2	0	0	0	0	0	1	6	0	13
08:00-08:15	1	3	0	1	0	5	0	0	0	3	3	0	16
08:15-08:30	0	1	0	2	0	1	0	0	0	2	6	0	12
08:30-08:45	0	4	0	3	0	6	0	0	0	2	7	0	22
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	1	0	0	0	0	1	0	0	0	0	0	0	2
08:15-08:30	0	1	0	0	0	2	0	0	0	1	0	0	4
08:30-08:45	1	2	0	0	0	0	0	0	0	0	0	0	3
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:45-08:00	0	1	0	0	0	2	0	0	0	1	0	0	4
08:00-08:15	1	1	0	1	0	4	0	0	0	1	0	0	8
08:15-08:30	0	1	0	1	0	4	0	0	0	2	0	0	8
08:30-08:45	1	0	0	1	0	2	0	0	0	6	1	0	11
BICYCLES													
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30-08:45	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30-08:45	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.84	.87	0	.65	.56	.91	0	0	0	.77	.85	0	.956
% Trucks (all)	1.9	1.8	0	3.9	0	7.6	0	0	0	15.4	6.9	0	4.3
% Trucks (M+H)	1.3	.6	0	1.1	0	4.2	0	0	0	8.9	.3	0	1.7
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	369	984	0	120	5	369	0	0	0	148	334	0	2329
07:15-08:15	330	994	0	129	8	386	0	0	0	139	337	0	2323
07:30-08:30	332	954	0	201	17	370	0	0	0	132	328	0	2334
07:45-08:45	314	949	0	282	20	354	0	0	0	123	335	0	2377
08:00-09:00	287	894	0	315	21	349	0	0	0	125	343	0	2334

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
ALLEN BOULEVARD AT HIGHWAY 217 SOUTHBOUND RAMPS

19357

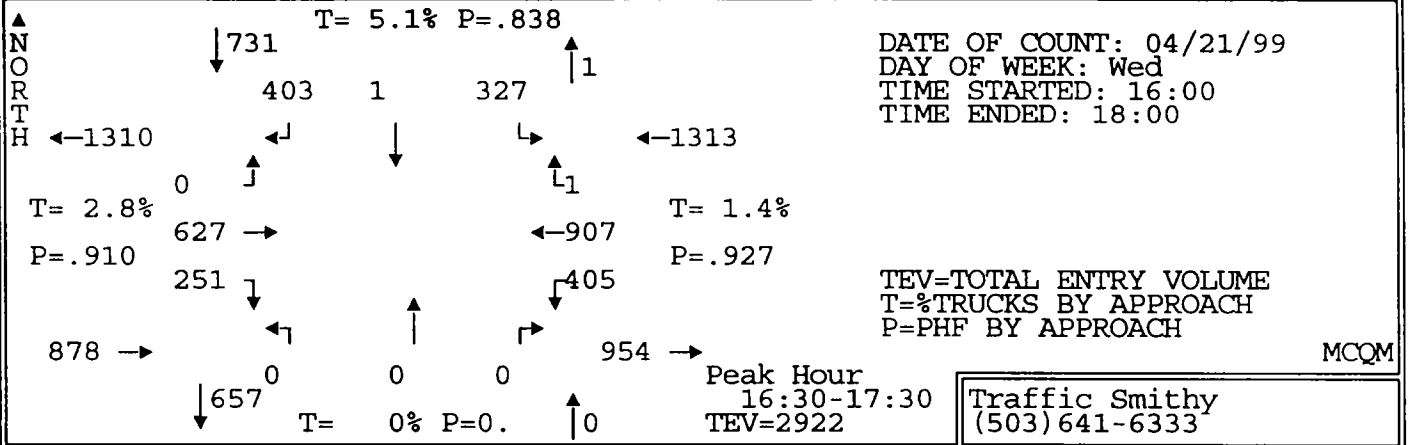


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	32	51	0	27	1	19	0	0	0	30	61	0	221
16:05-16:10	21	62	0	34	0	22	0	0	0	36	57	0	232
16:10-16:15	22	43	0	34	0	29	0	0	0	25	46	0	199
16:15-16:20	23	62	0	28	0	19	0	0	0	19	53	0	204
16:20-16:25	33	40	0	32	0	29	0	0	0	29	75	0	238
16:25-16:30	22	59	0	37	0	24	0	0	0	20	66	0	228
16:30-16:35	18	61	0	35	0	22	0	0	0	27	67	0	230
16:35-16:40	26	61	0	29	0	28	0	0	0	45	89	0	278
16:40-16:45	20	52	0	28	0	21	0	0	0	33	64	1	219
16:45-16:50	25	39	0	31	0	23	0	0	0	28	91	0	237
16:50-16:55	22	46	0	47	0	33	0	0	0	30	71	0	249
16:55-17:00	15	48	0	29	0	17	0	0	0	30	68	0	207
17:00-17:05	18	63	0	31	0	23	0	0	0	30	76	0	241
17:05-17:10	21	47	0	26	0	33	0	0	0	47	69	0	243
17:10-17:15	17	38	0	27	0	30	0	0	0	47	85	0	244
17:15-17:20	17	53	0	43	0	27	0	0	0	31	80	0	251
17:20-17:25	27	50	0	38	1	35	0	0	0	33	82	0	266
17:25-17:30	25	69	0	39	0	35	0	0	0	24	65	0	257
17:30-17:35	15	49	0	52	1	29	0	0	0	25	59	0	230
17:35-17:40	26	51	0	43	0	22	0	0	0	21	72	0	235
17:40-17:45	19	65	0	37	1	25	0	0	0	22	72	0	241
17:45-17:50	14	52	0	54	2	21	0	0	0	20	74	0	237
17:50-17:55	15	44	0	46	2	29	0	0	0	18	52	0	206
17:55-18:00	13	46	0	40	0	22	0	0	0	25	75	0	221

Total Survey	506	1251	0	867	8	617	0	0	0	695	1669	1	5614
PHF	.88	.9	0	.84	.25	.84	0	0	0	.81	.92	.25	.943
% Trucks	3.4	4.7	0	.6	0	12.5	0	0	0	2.9	1.1	0	3.5
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	5	0	0

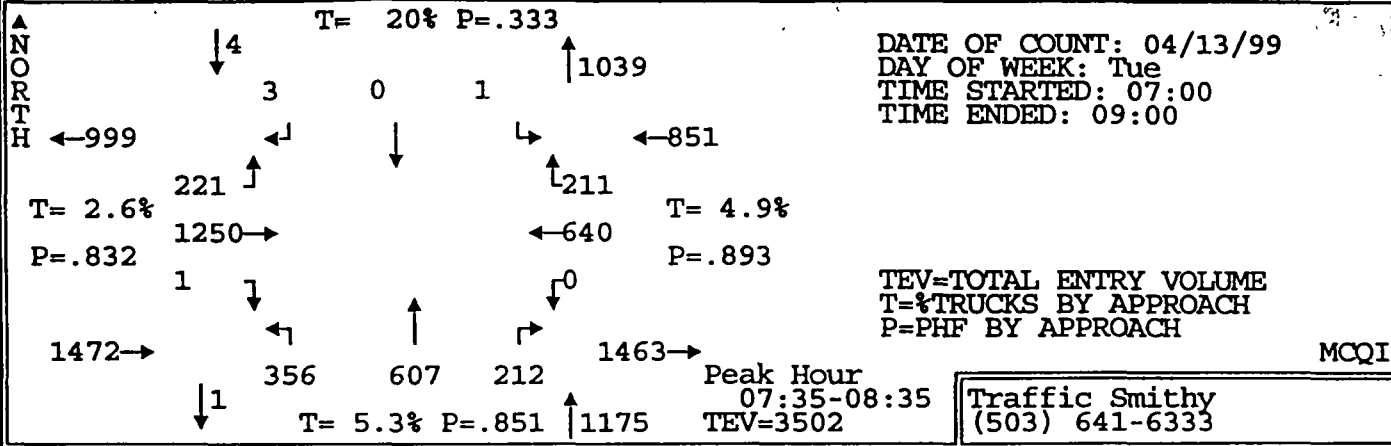
Hourly Totals													
16:00-17:00	279	624	0	391	1	286	0	0	0	352	808	1	2742
16:15-17:15	260	616	0	380	0	302	0	0	0	385	874	1	2818
16:30-17:30	251	627	0	403	1	327	0	0	0	405	907	1	2922
16:45-17:45	247	618	0	443	3	332	0	0	0	368	890	0	2901
17:00-18:00	227	627	0	476	7	331	0	0	0	343	861	0	2872

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
ALLEN BOULEVARD AT HIGHWAY 217 SOUTHBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
ALL VEHICLES													
16:30-16:45	64	174	0	92	0	71	0	0	0	105	220	1	727
16:45-17:00	62	133	0	107	0	73	0	0	0	88	230	0	693
17:00-17:15	56	148	0	84	0	86	0	0	0	124	230	0	728
17:15-17:30	69	172	0	120	1	97	0	0	0	88	227	0	774
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:30-16:45	4	5	0	0	0	18	0	0	0	2	3	0	32
16:45-17:00	3	4	0	0	0	2	0	0	0	0	3	0	12
17:00-17:15	2	3	0	2	0	3	0	0	0	1	2	0	13
17:15-17:30	1	1	0	1	0	2	0	0	0	2	0	0	7
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	1	0	0	0	0	0	0	0	0	0	0	1
17:00-17:15	1	0	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:30-16:45	0	0	0	0	0	2	0	0	0	0	0	0	2
16:45-17:00	0	0	0	0	0	0	0	0	0	2	0	0	2
17:00-17:15	0	0	0	0	0	3	0	0	0	0	0	0	3
17:15-17:30	0	0	0	0	0	4	0	0	0	3	0	0	7
BICYCLES													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:30-16:45	0	0	0	0	0	0	0	0	0	2	0	0	2
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	1	0	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	1	0	0	1
Peak Hour by Movement													
PHF	.91	.9	0	.84	.25	.84	0	0	0	.82	.99	.25	.943
% Trucks (all)	4.4	2.2	0	.7	0	10.4	0	0	0	2.5	.9	0	2.7
% Trucks (M+H)	.4	.2	0	0	0	2.8	0	0	0	1.2	0	0	.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	279	624	0	391	1	286	0	0	0	352	808	1	2742
16:15-17:15	260	616	0	380	0	302	0	0	0	385	874	1	2818
16:30-17:30	251	627	0	403	1	327	0	0	0	405	907	1	2922
16:45-17:45	247	618	0	443	3	332	0	0	0	368	890	0	2901
17:00-18:00	227	627	0	476	7	331	0	0	0	343	861	0	2872

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
BEAVERTON-HILLSDALE HIGHWAY AT HIGHWAY 217 NORTHBOUND RAMP 19249

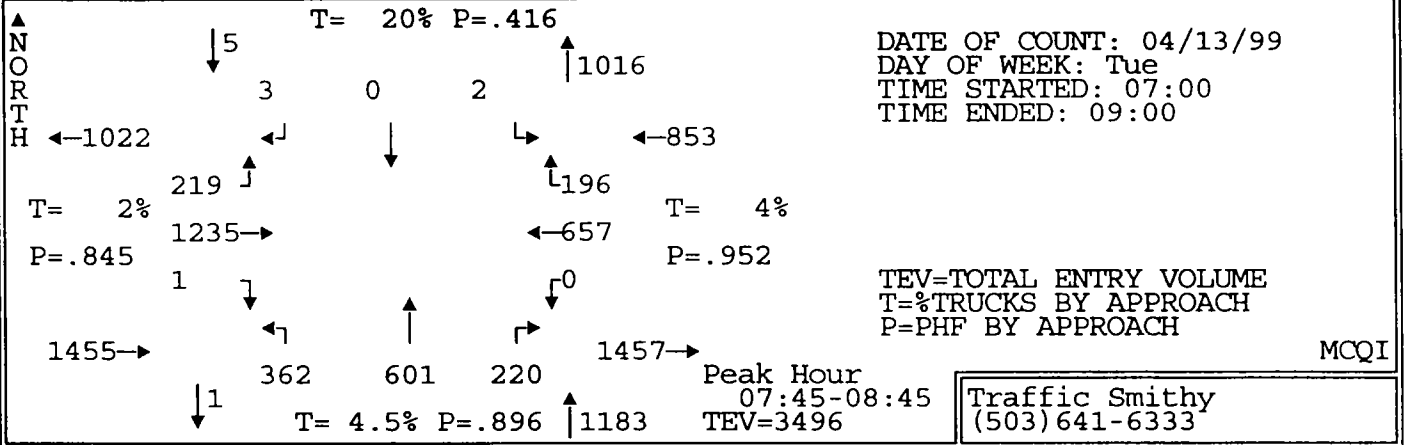


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	0	67	17	0	0	0	11	36	17	0	39	16	203
07:05-07:10	0	77	20	0	0	0	20	29	16	0	47	11	220
07:10-07:15	0	50	13	0	0	0	39	44	22	0	37	13	218
07:15-07:20	0	88	7	0	0	0	41	42	16	0	58	26	278
07:20-07:25	0	97	16	0	0	0	28	50	19	0	40	21	271
07:25-07:30	0	96	18	0	0	0	39	51	18	0	32	22	276
07:30-07:35	0	88	13	0	0	0	19	68	14	0	39	26	267
07:35-07:40	0	117	21	0	0	0	18	60	12	0	39	17	284
07:40-07:45	0	63	16	0	0	0	25	52	16	0	38	24	234
07:45-07:50	0	93	19	0	0	0	16	36	14	0	69	19	266
07:50-07:55	0	152	20	3	0	0	13	30	14	0	71	17	320
07:55-08:00	0	71	11	0	0	0	41	53	21	0	34	14	245
08:00-08:05	0	78	17	0	0	0	40	49	20	0	59	13	276
08:05-08:10	0	119	21	0	0	0	40	47	9	0	57	15	308
08:10-08:15	0	92	14	0	0	0	48	54	17	0	52	28	305
08:15-08:20	0	90	16	0	0	1	26	79	25	0	55	20	312
08:20-08:25	0	151	24	0	0	0	24	51	17	0	51	13	331
08:25-08:30	1	121	27	0	0	0	30	51	27	0	62	14	333
08:30-08:35	0	103	15	0	0	0	35	45	20	0	53	17	288
08:35-08:40	0	82	16	0	0	1	19	50	22	0	47	12	249
08:40-08:45	0	83	19	0	0	0	30	56	14	0	47	14	263
08:45-08:50	0	88	15	0	0	0	17	45	9	0	63	13	250
08:50-08:55	0	83	10	0	0	0	28	41	13	0	46	16	237
08:55-09:00	0	114	15	0	0	0	35	53	27	0	34	19	297

Total Survey	1	2263	400	3	0	2	682	1172	419	0	1169	420	6531
PHF	.25	.83	.82	.25	0	.25	.7	.82	.77	0	.9	.84	.897
% Trucks	0	2.7	1.5	0	0	50	4.7	5.6	5.3	0	4.3	6.7	4.1
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

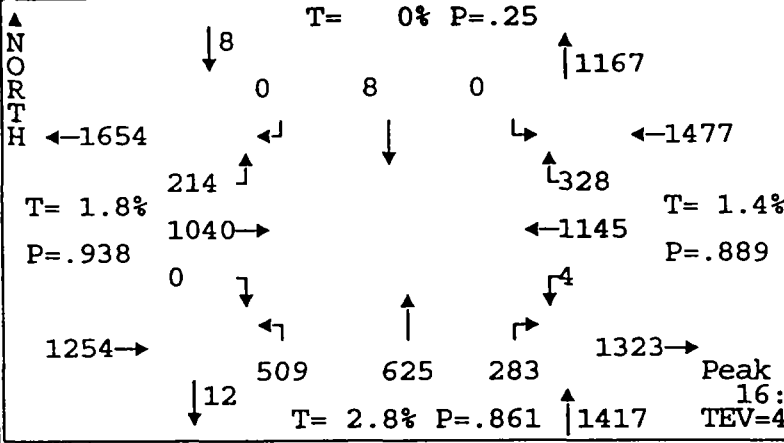
Hourly Totals													
07:00-08:00	0	1059	191	3	0	0	310	551	199	0	543	226	3082
07:15-08:15	0	1154	193	3	0	0	368	592	190	0	588	242	3330
07:30-08:30	1	1235	219	3	0	1	340	630	206	0	626	220	3481
07:45-08:45	1	1235	219	3	0	2	362	601	220	0	657	196	3496
08:00-09:00	1	1204	209	0	0	2	372	621	220	0	626	194	3449

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
BEAVERTON-HILLSDALE HIGHWAY AT HIGHWAY 217 NORTHBOUND RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
ALL VEHICLES													
07:45-08:00	0	316	50	3	0	0	70	119	49	0	174	50	831
08:00-08:15	0	289	52	0	0	0	128	150	46	0	168	56	889
08:15-08:30	1	362	67	0	0	1	80	181	69	0	168	47	976
08:30-08:45	0	268	50	0	0	1	84	151	56	0	147	43	800
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:45-08:00	0	2	0	0	0	0	2	4	0	0	5	2	15
08:00-08:15	0	6	0	0	0	0	4	1	1	0	4	1	17
08:15-08:30	0	2	1	0	0	0	1	8	1	0	6	3	22
08:30-08:45	0	8	1	0	0	1	4	4	4	0	4	0	26
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:45-08:00	0	0	0	0	0	0	0	1	0	0	0	0	1
08:00-08:15	0	1	0	0	0	0	1	0	0	0	0	1	3
08:15-08:30	0	0	0	0	0	0	0	1	0	0	0	0	1
08:30-08:45	0	1	0	0	0	0	0	1	0	0	1	1	4
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:45-08:00	0	1	0	0	0	0	1	2	0	0	1	0	5
08:00-08:15	0	3	0	0	0	0	3	1	0	0	0	1	8
08:15-08:30	0	1	0	0	0	0	0	3	0	0	2	0	6
08:30-08:45	0	2	0	0	0	0	1	2	2	0	2	0	9
BICYCLES													
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
08:30-08:45	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS	-----CROSSWALK USEAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
07:45-08:00	0			1			0			0		1	
08:00-08:15	0			2			0			0		2	
08:15-08:30	0			0			0			0		0	
08:30-08:45	0			0			0			0		0	
Peak Hour by Movement													
PHF	.25	.85	.82	.25	0	.5	.71	.83	.8	0	.94	.88	.895
% Trucks (all)	0	2.2	.9	0	0	50	4.7	4.7	3.6	0	3.8	4.6	3.3
% Trucks (M+H)	0	.7	0	0	0	0	1.7	1.8	.9	0	.9	1.5	1.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	0	1059	191	3	0	0	310	551	199	0	543	226	3082
07:15-08:15	0	1154	193	3	0	0	368	592	190	0	588	242	3330
07:30-08:30	1	1235	219	3	0	1	340	630	206	0	626	220	3481
07:45-08:45	1	1235	219	3	0	2	362	601	220	0	657	196	3496
08:00-09:00	1	1204	209	0	0	2	372	621	220	0	626	194	3449

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
BEAVERTON-HILLSDALE HIGHWAY AT HIGHWAY 217 NORTHBOUND RAMP 19381



DATE OF COUNT: 04/22/99
 DAY OF WEEK: Thu
 TIME STARTED: 16:00
 TIME ENDED: 18:00

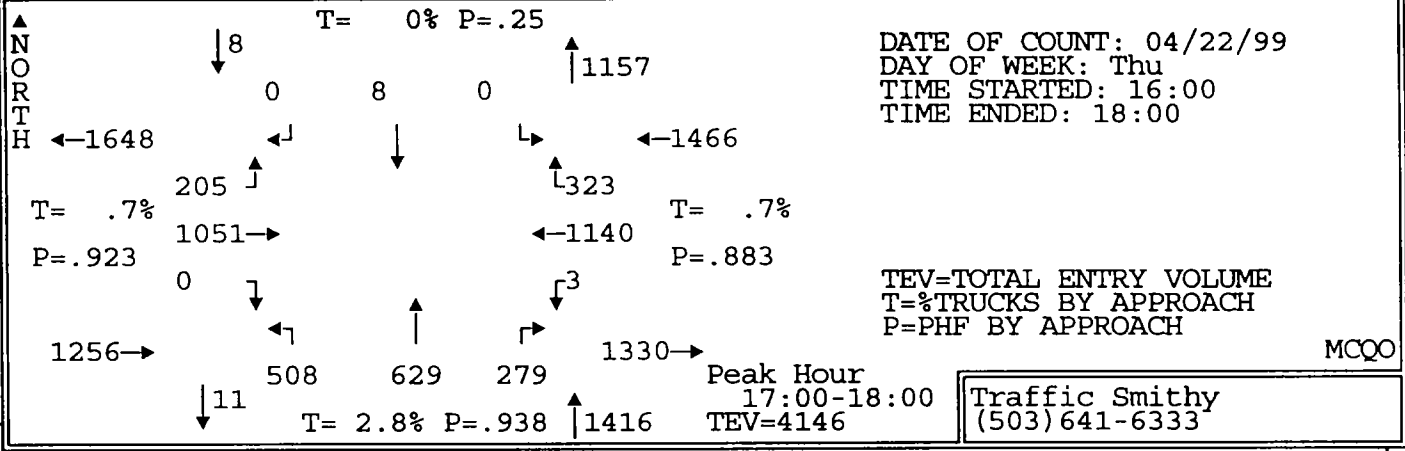
TEV=TOTAL ENTRY VOLUME
 T=%TRUCKS BY APPROACH
 P=PHF BY APPROACH

MCQO

Traffic Smithy
 (503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
16:00-16:05	0	100	6	0	0	0	46	52	20	0	94	28	346
16:05-16:10	0	86	12	0	0	0	30	44	18	0	75	27	292
16:10-16:15	0	83	10	0	0	0	39	52	25	0	82	32	323
16:15-16:20	0	89	7	0	0	0	47	49	20	0	105	20	337
16:20-16:25	0	102	16	0	0	0	47	42	28	0	96	28	359
16:25-16:30	0	93	25	0	0	0	52	48	25	0	94	16	353
16:30-16:35	0	81	21	0	0	0	44	48	18	0	96	33	341
16:35-16:40	0	92	19	0	0	0	32	49	20	0	111	37	360
16:40-16:45	0	92	21	0	0	0	44	63	16	0	92	27	355
16:45-16:50	0	89	23	0	0	0	53	63	21	0	97	26	372
16:50-16:55	0	103	9	0	0	0	32	43	22	0	100	31	340
16:55-17:00	0	92	19	0	0	0	38	42	29	1	99	28	348
17:00-17:05	0	89	18	0	0	0	37	50	21	0	94	28	337
17:05-17:10	0	72	17	0	0	0	35	45	19	0	90	22	300
17:10-17:15	0	70	15	0	8	0	41	45	21	2	92	28	322
17:15-17:20	0	87	13	0	0	0	48	65	9	0	67	28	317
17:20-17:25	0	87	23	0	0	0	36	48	15	1	83	24	317
17:25-17:30	0	100	15	0	0	0	51	66	26	0	98	20	376
17:30-17:35	0	87	22	0	0	0	48	52	31	0	112	40	392
17:35-17:40	0	80	18	0	0	0	44	62	31	0	109	28	372
17:40-17:45	0	83	20	0	0	0	34	43	32	0	96	30	338
17:45-17:50	0	96	15	0	0	0	54	50	31	0	110	25	381
17:50-17:55	0	97	19	0	0	0	43	57	18	0	95	27	356
17:55-18:00	0	103	10	0	0	0	37	46	25	0	94	23	338
Total Survey	0	2153	393	0	8	0	1012	1224	541	4	2281	656	8272
PHF	0	.94	.89	0	.25	0	.89	.87	.75	.33	.9	.84	.911
% Trucks	0	2.1	.5	0	0	0	2.8	3.3	2	0	1.3	1.5	2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	5	0	0	0	0	0	1	0	0	15	0	0
Hourly Totals													
16:00-17:00	0	1102	188	0	0	0	504	595	262	1	1141	333	4126
16:15-17:15	0	1064	210	0	8	0	502	587	260	3	1166	324	4124
16:30-17:30	0	1054	213	0	8	0	491	627	237	4	1119	332	4085
16:45-17:45	0	1039	212	0	8	0	497	624	277	4	1137	333	4131
17:00-18:00	0	1051	205	0	8	0	508	629	279	3	1140	323	4146

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
BEAVERTON-HILLSDALE HIGHWAY AT HIGHWAY 217 NORTHBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↗		

ALL VEHICLES	0	231	50	0	8	0	113	140	61	2	276	78	959
17:00-17:15	0	231	50	0	8	0	113	140	61	2	276	78	959
17:15-17:30	0	274	51	0	0	0	135	179	50	1	248	72	1010
17:30-17:45	0	250	60	0	0	0	126	157	94	0	317	98	1102
17:45-18:00	0	296	44	0	0	0	134	153	74	0	299	75	1075

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	0	1	0	0	0	0	5	6	0	0	2	0	14
17:00-17:15	0	1	0	0	0	0	5	6	0	0	2	0	14
17:15-17:30	0	1	0	0	0	0	1	3	0	0	2	0	7
17:30-17:45	0	1	0	0	0	0	2	3	1	0	3	0	10
17:45-18:00	0	3	0	0	0	0	8	1	1	0	1	0	14

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	1	0	0	0	0	1	0	0	0	0	2
17:30-17:45	0	0	0	0	0	0	0	1	0	0	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	0	0	0	0	0	0	0	0	1	0	0	0	1
17:00-17:15	0	0	0	0	0	0	0	0	1	0	0	0	1
17:15-17:30	0	1	0	0	0	0	0	1	0	0	0	0	2
17:30-17:45	0	1	0	0	0	0	1	2	0	0	0	0	4
17:45-18:00	0	0	0	0	0	0	0	0	2	0	1	1	4

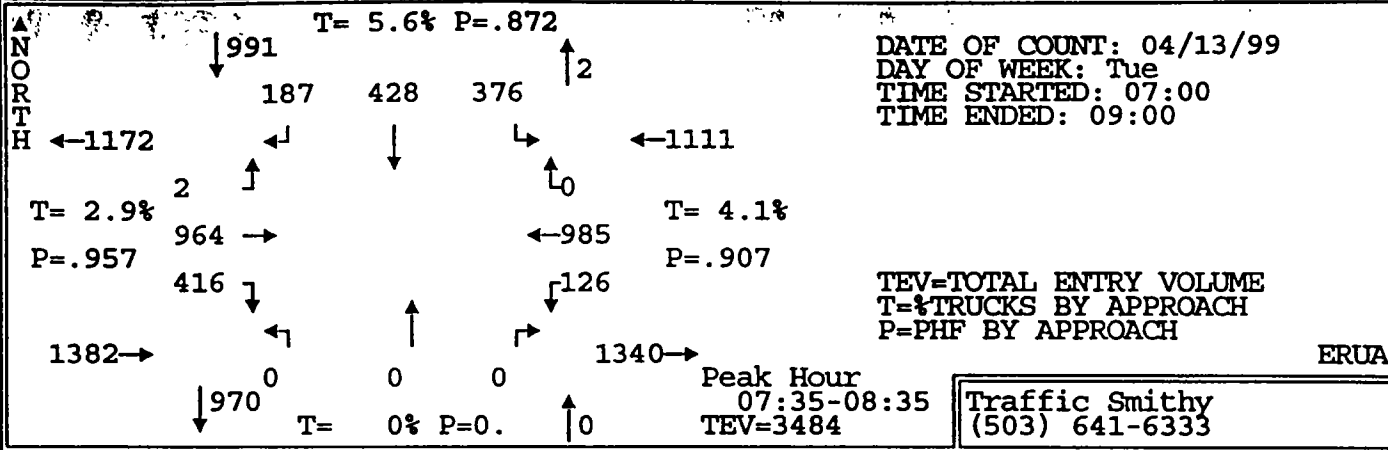
BICYCLES	0	0	0	0	0	0	0	0	0	0	1	0	1
17:00-17:15	0	0	0	0	0	0	0	0	0	0	1	0	1
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	1	0	0	0	0	0	0	0	0	1	0	2
17:45-18:00	0	0	0	0	0	0	0	0	0	0	1	0	1

PEDESTRIANS	CROSSWALK USEAGE				ALL
	SOUTH	WEST	EAST	NORTH	
17:00-17:15	0	0	0	1	1
17:15-17:30	2	0	0	0	2
17:30-17:45	0	0	0	0	0
17:45-18:00	0	0	0	2	2

Peak Hour by Movement	0	.89	.85	0	.25	0	.94	.88	.74	.38	.9	.82	.940
PHF	0	.89	.85	0	.25	0	.94	.88	.74	.38	.9	.82	.940
% Trucks (all)	0	.8	.5	0	0	0	3.3	2.9	1.8	0	.8	.3	1.4
% Trucks (M+H)	0	.2	.5	0	0	0	.2	.8	1.1	0	.1	.3	.3
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

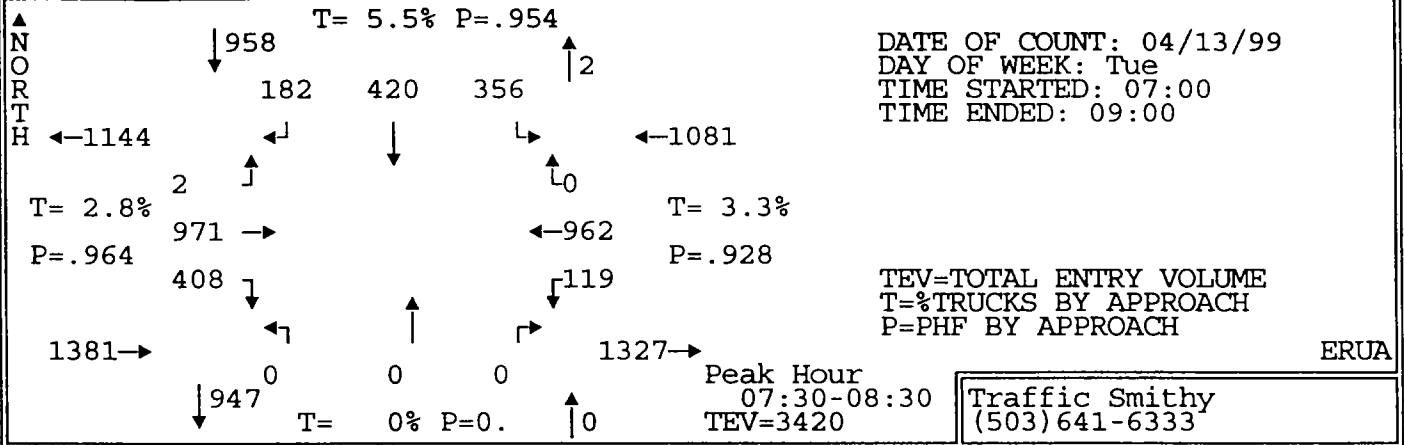
Hourly Totals	0	1102	188	0	8	0	504	595	262	1	1141	333	4126
16:00-17:00	0	1102	188	0	8	0	504	595	262	1	1141	333	4126
16:15-17:15	0	1064	210	0	8	0	502	587	260	3	1166	324	4124
16:30-17:30	0	1054	213	0	8	0	491	627	237	4	1119	332	4085
16:45-17:45	0	1039	212	0	8	0	497	624	277	4	1137	333	4131
17:00-18:00	0	1051	205	0	8	0	508	629	279	3	1140	323	4146

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
BEAVERTON-HILLSDALE HIGHWAY AT HIGHWAY 217 SOUTHBOUND ON RAMP 19250



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	31	76	0	6	25	23	0	0	0	7	41	0	209
07:05-07:10	39	68	0	7	25	14	0	0	0	9	45	0	207
07:10-07:15	34	66	0	8	33	12	0	0	0	8	54	0	215
07:15-07:20	29	59	0	13	32	13	0	0	0	5	91	0	242
07:20-07:25	29	74	0	9	36	22	0	0	0	8	67	0	245
07:25-07:30	33	81	0	14	31	24	0	0	0	11	69	0	263
07:30-07:35	27	101	0	11	30	22	0	0	0	8	63	0	262
07:35-07:40	32	84	2	11	34	20	0	0	0	8	67	0	258
07:40-07:45	44	68	0	11	46	41	0	0	0	6	84	0	300
07:45-07:50	40	69	0	17	25	24	0	0	0	14	73	0	262
07:50-07:55	36	98	0	23	48	24	0	0	0	12	107	0	348
07:55-08:00	40	72	0	23	36	31	0	0	0	7	78	0	287
08:00-08:05	31	84	0	19	23	28	0	0	0	9	93	0	287
08:05-08:10	29	70	0	13	31	28	0	0	0	13	86	0	270
08:10-08:15	22	80	0	20	37	33	0	0	0	11	58	0	261
08:15-08:20	49	90	0	7	30	24	0	0	0	7	91	0	298
08:20-08:25	31	76	0	14	41	39	0	0	0	17	84	0	302
08:25-08:30	27	79	0	13	39	42	0	0	0	7	78	0	285
08:30-08:35	35	94	0	16	38	42	0	0	0	15	86	0	326
08:35-08:40	31	72	0	17	19	26	0	0	0	33	46	0	244
08:40-08:45	29	61	0	17	30	27	0	0	0	13	71	0	248
08:45-08:50	31	82	0	11	22	21	0	0	0	17	72	0	256
08:50-08:55	31	68	0	17	40	19	0	0	0	17	55	0	247
08:55-09:00	35	62	0	14	37	26	0	0	0	11	84	0	269
Total Survey	795	1834	2	331	788	625	0	0	0	273	1743	0	6391
PHF	.87	.95	.25	.72	.9	.76	0	0	0	.81	.89	0	.944
% Trucks	3.5	2.7	0	1.5	7	5.9	0	0	0	4	4.1	0	4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	3	0	0	0	0	0	8	0	0
Hourly Totals													
07:00-08:00	414	916	2	153	401	270	0	0	0	103	839	0	3098
07:15-08:15	392	940	2	184	409	310	0	0	0	112	936	0	3285
07:30-08:30	408	971	2	182	420	356	0	0	0	119	962	0	3420
07:45-08:45	400	945	0	199	397	368	0	0	0	158	951	0	3418
08:00-09:00	381	918	0	178	387	355	0	0	0	170	904	0	3293

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
BEAVERTON-HILLSDALE HIGHWAY AT HIGHWAY 217 SOUTHBOUND ON RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	

ALL VEHICLES	103	253	2	33	110	83	0	0	0	22	214	0	820
07:30-07:45	103	253	2	33	110	83	0	0	0	22	214	0	820
07:45-08:00	116	239	0	63	109	79	0	0	0	33	258	0	897
08:00-08:15	82	234	0	52	91	89	0	0	0	33	237	0	818
08:15-08:30	107	245	0	34	110	105	0	0	0	31	253	0	885

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	4	6	0	0	3	6	0	0	0	0	4	0	23
07:30-07:45	4	6	0	0	3	6	0	0	0	0	4	0	23
07:45-08:00	0	4	0	1	2	2	0	0	0	1	8	0	18
08:00-08:15	1	5	0	1	2	3	0	0	0	0	1	0	13
08:15-08:30	3	3	0	0	6	2	0	0	0	2	10	0	26

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	2	0	0	0	6	1	0	0	0	0	1	0	10
07:30-07:45	2	0	0	0	6	1	0	0	0	0	1	0	10
07:45-08:00	0	0	0	0	1	0	0	0	0	0	0	0	1
08:00-08:15	0	1	0	0	2	1	0	0	0	2	1	0	7
08:15-08:30	2	0	0	0	1	2	0	0	0	0	1	0	6

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	1	1	0	0	1	1	0	0	0	0	1	0	5
07:30-07:45	1	1	0	0	1	1	0	0	0	0	1	0	5
07:45-08:00	1	0	0	0	1	0	0	0	0	0	2	0	4
08:00-08:15	1	1	0	0	2	2	0	0	0	1	0	0	7
08:15-08:30	2	0	0	1	2	1	0	0	0	1	0	0	7

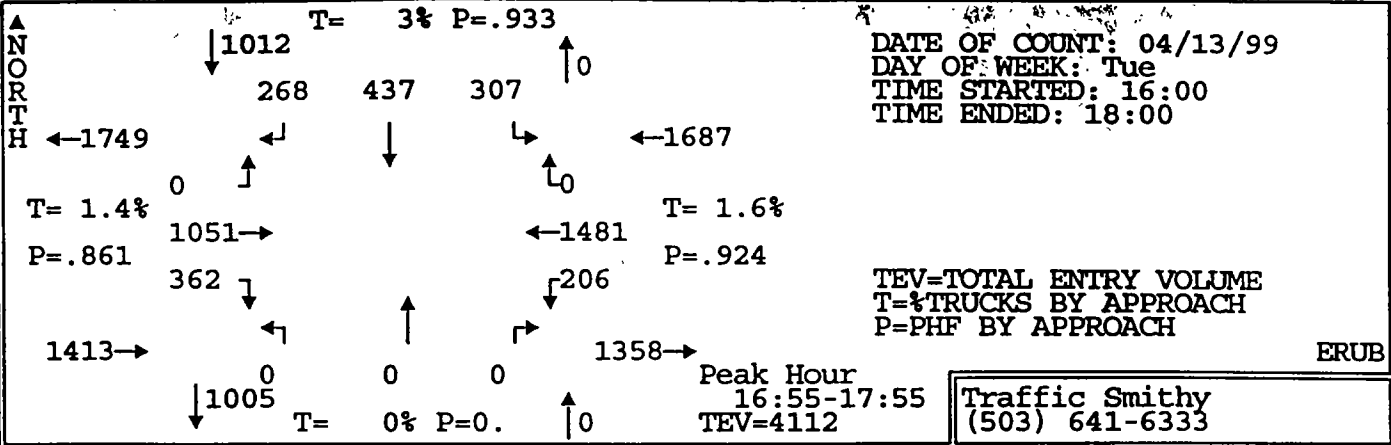
BICYCLES	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	1	0	1
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0

PEDESTRIANS	CROSSWALK USAGE				ALL
	SOUTH	WEST	EAST	NORTH	
07:30-07:45	0	0	0	0	0
07:45-08:00	0	1	0	2	3
08:00-08:15	1	1	0	0	2
08:15-08:30	0	0	0	3	3

Peak Hour by Movement	.88	.96	.25	.72	.95	.85	0	0	0	.9	.93	0	.953
PHF	.88	.96	.25	.72	.95	.85	0	0	0	.9	.93	0	.953
% Trucks (all)	4.2	2.2	0	1.6	6.9	5.9	0	0	0	5.9	3	0	3.7
% Trucks (M+H)	2.2	.3	0	.5	3.8	2.2	0	0	0	3.4	.6	0	1.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals	414	916	2	153	401	270	0	0	0	103	839	0	3098
07:00-08:00	414	916	2	153	401	270	0	0	0	103	839	0	3098
07:15-08:15	392	940	2	184	409	310	0	0	0	112	936	0	3285
07:30-08:30	408	971	2	182	420	356	0	0	0	119	962	0	3420
07:45-08:45	400	945	0	199	397	368	0	0	0	158	951	0	3418
08:00-09:00	381	918	0	178	387	355	0	0	0	170	904	0	3293

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
BEAVERTON-HILLSDALE HIGHWAY AT HIGHWAY 217 SOUTHBOUND ON RAMP 19251

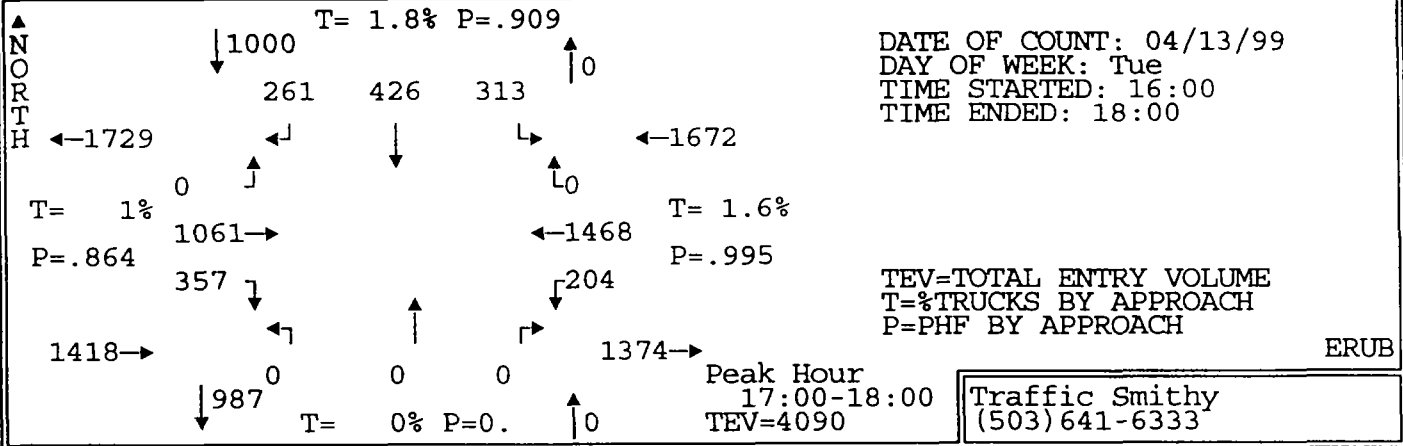


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
16:00-16:05	20	77	0	22	27	24	0	0	0	9	105	0	284
16:05-16:10	21	81	0	24	31	20	0	0	0	10	116	0	303
16:10-16:15	25	82	0	20	38	22	0	0	0	13	113	0	313
16:15-16:20	21	90	1	19	21	28	0	0	0	13	114	0	307
16:20-16:25	13	80	0	27	31	22	0	0	0	13	87	0	273
16:25-16:30	29	101	0	26	25	29	0	0	0	4	126	0	340
16:30-16:35	33	83	0	16	35	25	0	0	0	11	109	0	312
16:35-16:40	21	77	0	24	35	24	0	0	0	16	121	0	318
16:40-16:45	25	88	0	31	38	16	0	0	0	13	121	0	332
16:45-16:50	22	66	0	20	27	31	0	0	0	12	119	0	297
16:50-16:55	20	74	0	21	42	23	0	0	0	19	124	0	323
16:55-17:00	36	72	0	31	43	25	0	0	0	18	114	0	339
17:00-17:05	37	87	0	13	31	30	0	0	0	17	139	0	354
17:05-17:10	37	106	0	15	37	18	0	0	0	16	115	0	344
17:10-17:15	39	104	0	24	30	25	0	0	0	21	111	0	354
17:15-17:20	22	86	0	19	30	23	0	0	0	25	124	0	329
17:20-17:25	25	97	0	22	35	21	0	0	0	12	109	0	321
17:25-17:30	31	97	0	26	43	24	0	0	0	10	134	0	365
17:30-17:35	18	83	0	23	38	35	0	0	0	20	118	0	335
17:35-17:40	39	85	0	23	37	20	0	0	0	20	108	0	332
17:40-17:45	25	78	0	22	34	27	0	0	0	17	136	0	339
17:45-17:50	28	83	0	26	38	40	0	0	0	13	147	0	375
17:50-17:55	25	73	0	24	41	19	0	0	0	17	126	0	325
17:55-18:00	31	82	0	24	32	31	0	0	0	16	101	0	317

Total Survey	643	2032	1	542	819	602	0	0	0	355	2837	0	7831
PHF	.8	.88	0	.93	.93	.88	0	0	0	.83	.91	0	.977
% Trucks	1.1	1.5	0	.6	3.8	4.2	0	0	0	2.8	1.4	0	1.9
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	5	0	0	0	0	0	0	0	0

Hourly Totals													
16:00-17:00	286	971	1	281	393	289	0	0	0	151	1369	0	3741
16:15-17:15	333	1028	1	267	395	296	0	0	0	173	1400	0	3893
16:30-17:30	348	1037	0	262	426	285	0	0	0	190	1440	0	3988
16:45-17:45	351	1035	0	259	427	302	0	0	0	207	1451	0	4032
17:00-18:00	357	1061	0	261	426	313	0	0	0	204	1468	0	4090

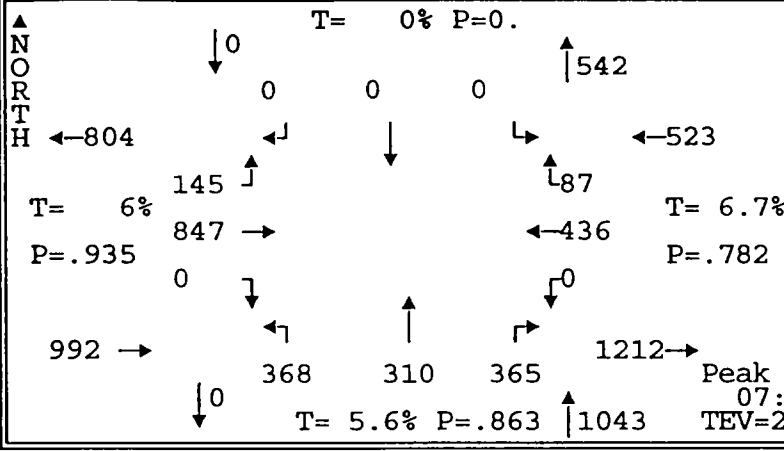
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
BEAVERTON-HILLSDALE HIGHWAY AT HIGHWAY 217 SOUTHBOUND ON RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
17:00-17:15	113	297	0	52	98	73	0	0	0	54	365	0	1052
17:15-17:30	78	280	0	67	108	68	0	0	0	47	367	0	1015
17:30-17:45	82	246	0	68	109	82	0	0	0	57	362	0	1006
17:45-18:00	84	238	0	74	111	90	0	0	0	46	374	0	1017
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
17:00-17:15	0	4	0	0	1	1	0	0	0	1	6	0	13
17:15-17:30	2	2	0	0	1	0	0	0	0	0	4	0	9
17:30-17:45	0	4	0	1	1	0	0	0	0	0	4	0	10
17:45-18:00	0	1	0	0	1	1	0	0	0	0	8	0	11
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
17:00-17:15	0	0	0	0	1	0	0	0	0	0	0	0	1
17:15-17:30	0	1	0	0	1	1	0	0	0	0	1	0	4
17:30-17:45	0	0	0	0	0	0	0	0	0	1	0	0	1
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
17:00-17:15	0	0	0	0	3	0	0	0	0	1	0	0	4
17:15-17:30	0	0	0	0	2	0	0	0	0	0	0	0	2
17:30-17:45	0	0	0	0	1	2	0	0	0	0	0	0	3
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
17:00-17:15	0			2			0			0			2
17:15-17:30	0			0			0			0			0
17:30-17:45	0			0			0			0			0
17:45-18:00	0			0			0			0			0
Peak Hour by Movement													
PHF	.79	.89	0	.88	.96	.87	0	0	0	.89	.98	0	.971
% Trucks (all)	.6	1.1	0	.4	2.8	1.6	0	0	0	1.5	1.6	0	1.4
% Trucks (M+H)	0	.1	0	0	1.9	1	0	0	0	1	.1	0	.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	286	971	1	281	393	289	0	0	0	151	1369	0	3741
16:15-17:15	333	1028	1	267	395	296	0	0	0	173	1400	0	3893
16:30-17:30	348	1037	0	262	426	285	0	0	0	190	1440	0	3988
16:45-17:45	351	1035	0	259	427	302	0	0	0	207	1451	0	4032
17:00-18:00	357	1061	0	261	426	313	0	0	0	204	1468	0	4090

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT HIGHWAY 217 NORTHBOUND RAMP

19407



TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

DLNJ

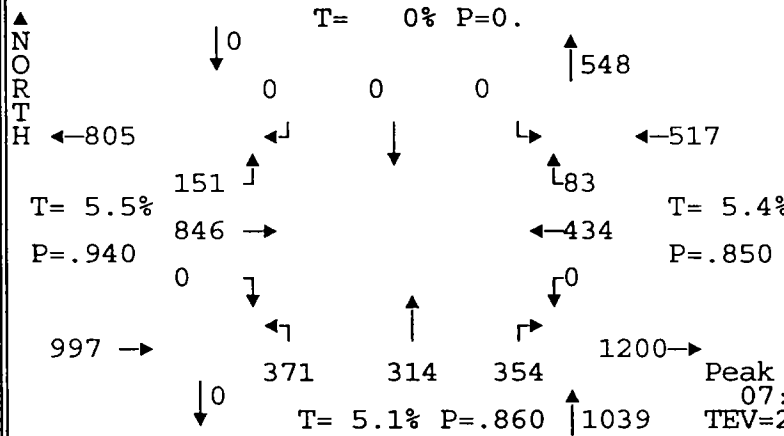
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
07:00-07:05	0	68	6	0	0	0	22	17	23	0	24	3	163
07:05-07:10	0	92	10	0	0	0	23	13	21	0	18	3	180
07:10-07:15	0	56	11	0	0	0	28	13	31	0	32	1	172
07:15-07:20	0	68	14	0	0	0	26	27	24	0	36	3	198
07:20-07:25	0	81	7	0	0	0	24	13	28	0	24	4	181
07:25-07:30	0	57	17	0	0	0	34	21	36	0	31	7	203
07:30-07:35	0	89	8	0	0	0	31	19	35	0	33	6	221
07:35-07:40	0	83	11	0	0	0	25	22	32	0	24	8	205
07:40-07:45	0	57	17	0	0	0	34	33	16	0	34	7	198
07:45-07:50	0	73	10	0	0	0	35	38	28	0	33	7	224
07:50-07:55	0	74	10	0	0	0	34	33	40	0	41	8	240
07:55-08:00	0	67	14	0	0	0	39	24	31	0	49	10	234
08:00-08:05	0	72	18	0	0	0	28	27	31	0	52	6	234
08:05-08:10	0	73	12	0	0	0	29	21	28	0	40	10	213
08:10-08:15	0	52	13	0	0	0	32	36	25	0	37	7	202
08:15-08:20	0	69	8	0	0	0	23	23	35	0	38	7	203
08:20-08:25	0	70	9	0	0	0	18	29	30	0	17	8	181
08:25-08:30	0	63	10	0	0	0	27	31	24	0	31	7	193
08:30-08:35	0	57	15	0	0	0	24	32	35	0	37	9	209
08:35-08:40	0	64	11	0	0	0	22	21	31	0	34	10	193
08:40-08:45	0	61	8	0	0	0	26	25	23	0	45	15	203
08:45-08:50	0	69	12	0	0	0	40	32	32	0	37	7	229
08:50-08:55	0	56	13	0	0	0	32	29	27	0	45	2	204
08:55-09:00	0	62	32	0	0	0	16	24	49	0	32	8	223

Total Survey	0	1633	296	0	0	0	672	603	715	0	824	163	4906
PHF	0	.92	.82	0	0	0	.85	.75	.89	0	.77	.84	.903
% Trucks	0	5.5	8.4	0	0	0	8.8	4.5	3.5	0	6.2	9.2	6
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	6	0	0	0	0	0	0	0	0

Hourly Totals													
07:00-08:00	0	865	135	0	0	0	355	273	345	0	379	67	2419
07:15-08:15	0	846	151	0	0	0	371	314	354	0	434	83	2553
07:30-08:30	0	842	140	0	0	0	355	336	355	0	429	91	2548
07:45-08:45	0	795	138	0	0	0	337	340	361	0	454	104	2529
08:00-09:00	0	768	161	0	0	0	317	330	370	0	445	96	2487

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CANYON ROAD AT HIGHWAY 217 NORTHBOUND RAMPS**



DATE OF COUNT: 04/22/99
DAY OF WEEK: Thu
TIME STARTED: 07:00
TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

DLNJ

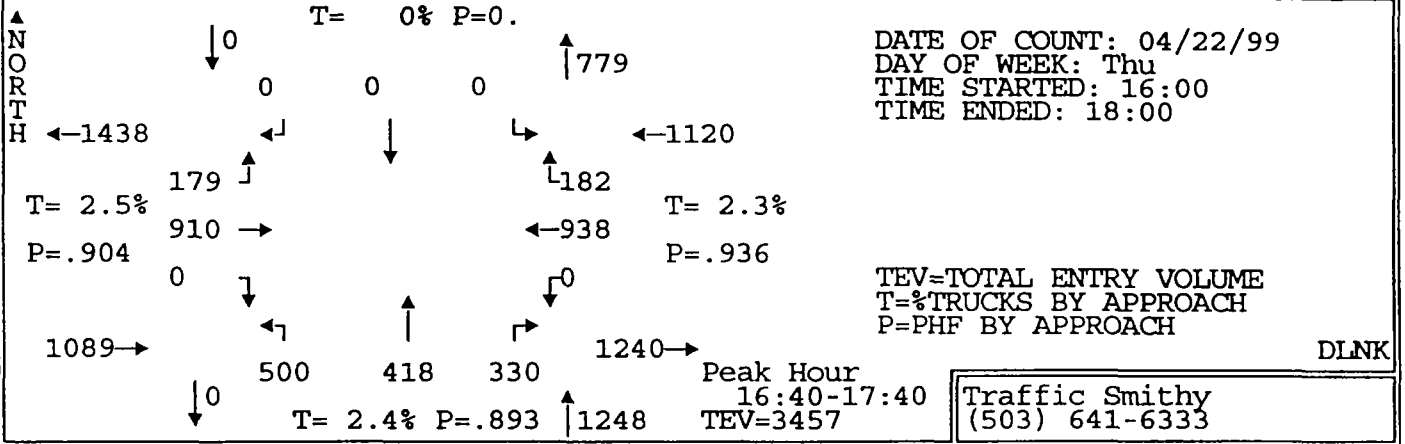
Peak Hour
07:15-08:15
TEV=2553

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	
ALL VEHICLES													
07:15-07:30	0	206	38	0	0	0	84	61	88	0	91	14	582
07:30-07:45	0	229	36	0	0	0	90	74	83	0	91	21	624
07:45-08:00	0	214	34	0	0	0	108	95	99	0	123	25	698
08:00-08:15	0	197	43	0	0	0	89	84	84	0	129	23	649
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:15-07:30	0	8	2	0	0	0	4	5	2	0	5	1	27
07:30-07:45	0	11	1	0	0	0	2	1	1	0	3	2	21
07:45-08:00	0	4	4	0	0	0	8	2	3	0	3	1	25
08:00-08:15	0	6	3	0	0	0	6	1	0	0	6	0	22
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:15-07:30	0	1	0	0	0	0	1	1	1	0	0	0	4
07:30-07:45	0	2	0	0	0	0	0	0	1	0	0	0	3
07:45-08:00	0	0	0	0	0	0	1	0	0	0	0	1	2
08:00-08:15	0	4	1	0	0	0	1	0	1	0	1	0	8
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:15-07:30	0	0	2	0	0	0	3	1	1	0	2	1	10
07:30-07:45	0	0	2	0	0	0	1	1	0	0	1	0	5
07:45-08:00	0	0	0	0	0	0	1	0	1	0	1	0	3
08:00-08:15	0	1	3	0	0	0	1	0	1	0	0	0	6
BICYCLES													
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
07:15-07:30	0			1			0			0			1
07:30-07:45	0			1			0			0			1
07:45-08:00	0			1			0			0			1
08:00-08:15	0			3			0			0			3
Peak Hour by Movement													
PHF	0	.92	.88	0	0	0	.86	.83	.89	0	.84	.83	.914
% Trucks (all)	0	4.4	11.9	0	0	0	7.8	3.8	3.4	0	5.1	7.2	5.3
% Trucks (M+H)	0	.9	5.3	0	0	0	2.4	1	1.7	0	1.2	2.4	1.6
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	0	865	135	0	0	0	355	273	345	0	379	67	2419
07:15-08:15	0	846	151	0	0	0	371	314	354	0	434	83	2553
07:30-08:30	0	842	140	0	0	0	355	336	355	0	429	91	2548
07:45-08:45	0	795	138	0	0	0	337	340	361	0	454	104	2529
08:00-09:00	0	768	161	0	0	0	317	330	370	0	445	96	2487

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT HIGHWAY 217 NORTHBOUND RAMPS

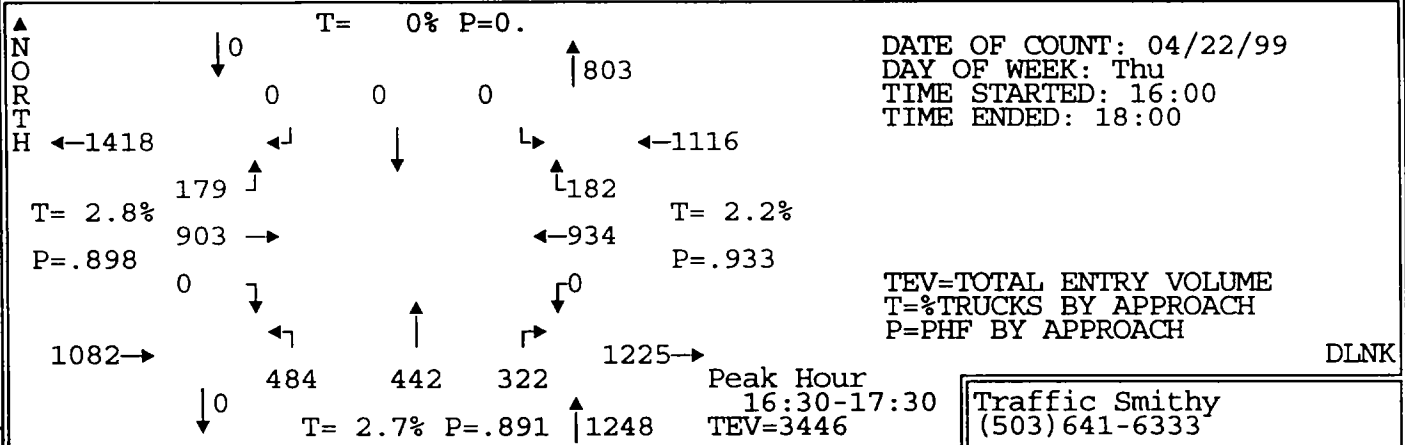
19408



DLNK

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
16:00-16:05	0	54	18	0	0	0	35	47	18	0	72	14	258
16:05-16:10	0	88	11	0	0	0	24	32	29	0	93	15	292
16:10-16:15	0	89	14	0	0	0	44	24	19	0	73	7	270
16:15-16:20	0	78	18	0	0	0	44	26	19	0	80	12	277
16:20-16:25	0	79	16	0	0	0	31	36	15	0	73	15	265
16:25-16:30	0	67	14	0	0	0	29	29	16	0	52	9	216
16:30-16:35	0	61	22	0	0	0	44	28	23	0	76	14	268
16:35-16:40	0	53	7	0	0	0	40	79	26	0	75	16	296
16:40-16:45	0	94	12	0	0	0	48	36	26	0	74	12	302
16:45-16:50	0	76	10	0	0	0	48	29	30	0	90	15	298
16:50-16:55	0	77	18	0	0	0	39	26	19	0	86	16	281
16:55-17:00	0	68	12	0	0	0	24	40	21	0	80	12	257
17:00-17:05	0	75	23	0	0	0	42	28	26	0	76	9	279
17:05-17:10	0	74	16	0	0	0	48	46	27	0	65	17	293
17:10-17:15	0	66	17	0	0	0	23	40	31	0	79	22	278
17:15-17:20	0	73	9	0	0	0	53	43	38	0	67	8	291
17:20-17:25	0	100	13	0	0	0	35	21	31	0	82	24	306
17:25-17:30	0	86	20	0	0	0	40	26	24	0	84	17	297
17:30-17:35	0	39	9	0	0	0	45	56	33	0	65	15	262
17:35-17:40	0	82	20	0	0	0	55	27	24	0	90	15	313
17:40-17:45	0	97	16	0	0	0	35	30	23	0	74	15	290
17:45-17:50	0	63	13	0	0	0	38	26	19	0	81	24	264
17:50-17:55	0	75	12	0	0	0	30	41	22	0	75	12	267
17:55-18:00	1	61	20	0	0	0	35	27	23	0	74	19	260
Total Survey	1	1775	360	0	0	0	929	843	582	0	1836	354	6680
PHF	0	.88	.8	0	0	0	.89	.81	.82	0	.92	.81	.966
% Trucks	0	2.4	3.1	0	0	0	3.6	.9	2.7	0	2.5	1.7	2.4
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	0	0	0	20	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	884	172	0	0	0	450	432	261	0	924	157	3280
16:15-17:15	0	868	185	0	0	0	460	443	279	0	906	169	3310
16:30-17:30	0	903	179	0	0	0	484	442	322	0	934	182	3446
16:45-17:45	0	913	183	0	0	0	487	412	327	0	938	185	3445
17:00-18:00	1	891	188	0	0	0	479	411	321	0	912	197	3400

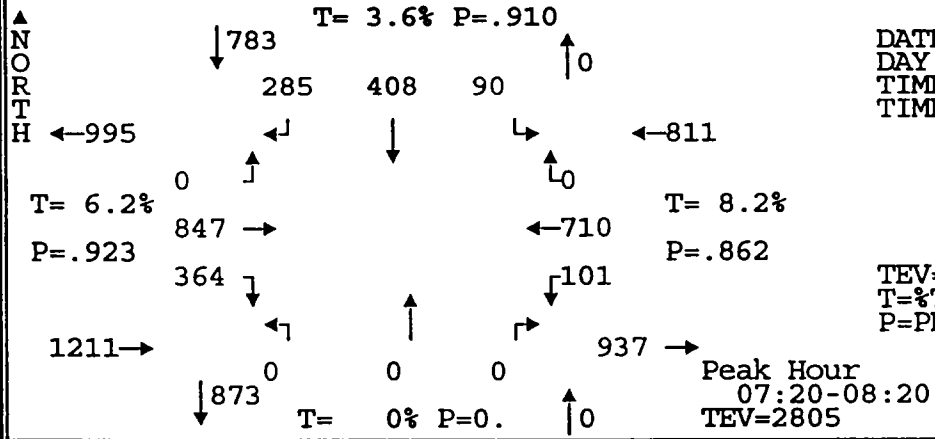
INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CANYON ROAD AT HIGHWAY 217 NORTHBOUND RAMPS



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
16:30-16:45	0	208	41	0	0	0	132	143	75	0	225	42	866
16:45-17:00	0	221	40	0	0	0	111	95	70	0	256	43	836
17:00-17:15	0	215	56	0	0	0	113	114	84	0	220	48	850
17:15-17:30	0	259	42	0	0	0	128	90	93	0	233	49	894
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:30-16:45	0	3	0	0	0	0	7	1	2	0	4	1	18
16:45-17:00	0	2	1	0	0	0	2	0	0	0	6	0	11
17:00-17:15	0	7	2	0	0	0	2	1	3	0	2	1	18
17:15-17:30	0	5	0	0	0	0	3	1	2	0	6	1	18
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	1	0	1
16:45-17:00	0	0	0	0	0	0	1	1	0	0	1	0	3
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	1	1
17:15-17:30	0	0	0	0	0	0	1	0	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:30-16:45	0	1	0	0	0	0	0	0	0	0	0	0	1
16:45-17:00	0	4	2	0	0	0	5	0	0	0	0	0	11
17:00-17:15	0	2	0	0	0	0	1	0	0	0	0	0	3
17:15-17:30	0	1	0	0	0	0	0	0	1	0	1	0	3
BICYCLES													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
16:30-16:45	0	0	0	3	0	0	0	0	0	0	0	0	3
16:45-17:00	0	0	0	4	0	0	0	0	0	0	0	0	4
17:00-17:15	0	0	0	1	0	0	0	0	0	0	0	0	1
17:15-17:30	0	0	0	3	0	0	0	0	0	0	0	0	3
Peak Hour by Movement													
PHF	0	.87	.8	0	0	0	.92	.77	.87	0	.91	.93	.963
% Trucks (all)	0	2.8	2.8	0	0	0	4.5	.9	2.5	0	2.2	2.2	2.6
% Trucks (M+H)	0	.9	1.1	0	0	0	1.7	.2	.3	0	.3	.5	.7
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	0	884	172	0	0	0	450	432	261	0	924	157	3280
16:15-17:15	0	868	185	0	0	0	460	443	279	0	906	169	3310
16:30-17:30	0	903	179	0	0	0	484	442	322	0	934	182	3446
16:45-17:45	0	913	183	0	0	0	487	412	327	0	938	185	3445
17:00-18:00	1	891	188	0	0	0	479	411	321	0	912	197	3400

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT HIGHWAY 217 SOUTHBOUND RAMP

19295



DATE OF COUNT: 04/15/99
DAY OF WEEK: Thu
TIME STARTED: 07:00
TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

GMZN

Peak Hour
07:20-08:20
TEV=2805

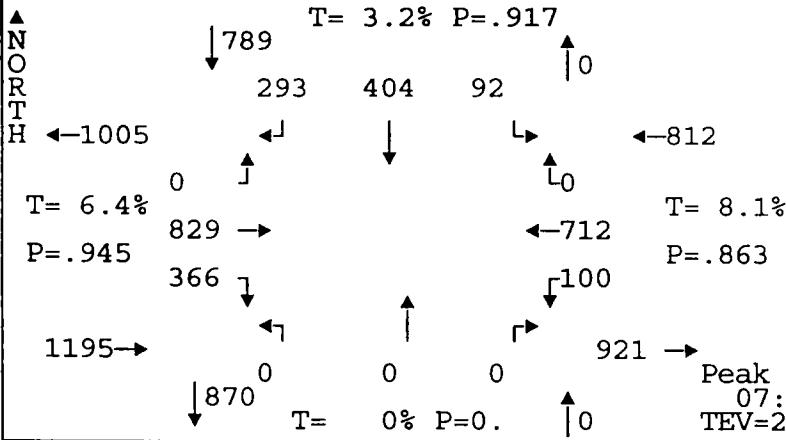
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	↙	↓	↘	↖	↑	↗	↓	←	↑	
07:00-07:05	15	64	0	20	16	4	0	0	0	3	47	0	169
07:05-07:10	40	77	0	18	17	2	0	0	0	4	45	0	203
07:10-07:15	26	84	0	32	22	4	0	0	0	2	56	0	226
07:15-07:20	27	56	0	26	28	4	0	0	0	9	59	0	209
07:20-07:25	35	77	0	32	32	13	0	0	0	7	45	0	241
07:25-07:30	31	84	0	13	31	6	0	0	0	6	57	0	228
07:30-07:35	25	76	0	23	32	11	0	0	0	10	65	0	242
07:35-07:40	30	82	0	25	20	6	0	0	0	10	63	0	236
07:40-07:45	37	61	0	22	27	2	0	0	0	9	78	0	236
07:45-07:50	24	52	0	22	42	7	0	0	0	6	55	0	208
07:50-07:55	33	65	0	24	37	9	0	0	0	2	68	0	238
07:55-08:00	32	83	0	28	37	3	0	0	0	10	53	0	246
08:00-08:05	25	62	0	24	44	8	0	0	0	16	59	0	238
08:05-08:10	33	69	0	25	37	9	0	0	0	7	55	0	235
08:10-08:15	27	63	0	27	32	9	0	0	0	13	57	0	228
08:15-08:20	32	73	0	20	37	7	0	0	0	5	55	0	229
08:20-08:25	35	67	0	20	36	14	0	0	0	4	53	0	229
08:25-08:30	33	76	0	33	23	7	0	0	0	8	51	0	231
08:30-08:35	26	61	0	22	30	8	0	0	0	8	51	1	207
08:35-08:40	24	58	0	14	31	16	0	0	0	12	41	0	196
08:40-08:45	32	84	0	20	27	11	0	0	0	9	67	0	250
08:45-08:50	39	67	0	21	31	14	0	0	0	15	52	0	239
08:50-08:55	27	65	0	27	35	13	0	0	0	11	66	0	244
08:55-09:00	25	57	0	22	30	8	0	0	0	15	56	0	213

Total Survey	713	1663	0	560	734	195	0	0	0	201	1354	1	5421
PHF	.97	.88	0	.93	.86	.75	0	0	0	.7	.86	0	.971
% Trucks	10.5	4.3	0	4.1	3.3	3.6	0	0	0	6	8.4	100	6.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	2	0	0	0	0	0	1	0	0	14	0	0

Hourly Totals													
07:00-08:00	355	861	0	285	341	71	0	0	0	78	691	0	2682
07:15-08:15	359	830	0	291	399	87	0	0	0	105	714	0	2785
07:30-08:30	366	829	0	293	404	92	0	0	0	100	712	0	2796
07:45-08:45	356	813	0	279	413	108	0	0	0	100	665	1	2735
08:00-09:00	358	802	0	275	393	124	0	0	0	123	663	1	2739

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CANYON ROAD AT HIGHWAY 217 SOUTHBOUND RAMP**



DATE OF COUNT: 04/15/99
DAY OF WEEK: Thu
TIME STARTED: 07:00
TIME ENDED: 09:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

GMZM

Peak Hour
07:30-08:30
TEV=2796
Traffic Smithy
(503)641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	

ALL VEHICLES	92	219	0	70	79	19	0	0	0	29	206	0	714
07:30-07:45	92	219	0	70	79	19	0	0	0	29	206	0	714
07:45-08:00	89	200	0	74	116	19	0	0	0	18	176	0	692
08:00-08:15	85	194	0	76	113	26	0	0	0	36	171	0	701
08:15-08:30	100	216	0	73	96	28	0	0	0	17	159	0	689

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	7	5	0	5	2	0	0	0	0	0	13	0	32
07:30-07:45	7	5	0	5	2	0	0	0	0	0	13	0	32
07:45-08:00	4	5	0	2	2	0	0	0	0	1	7	0	21
08:00-08:15	6	7	0	1	3	0	0	0	0	1	12	0	30
08:15-08:30	10	6	0	2	1	0	0	0	0	2	10	0	31

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	1	2	0	0	0	0	0	0	0	0	0	0	3
07:30-07:45	1	2	0	0	0	0	0	0	0	0	0	0	3
07:45-08:00	3	0	0	0	0	0	0	0	0	0	2	0	5
08:00-08:15	2	1	0	0	1	0	0	0	0	0	1	0	5
08:15-08:30	3	1	0	0	1	0	0	0	0	0	1	0	6

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	2	1	0	0	1	0	0	0	0	0	5	0	9
07:30-07:45	2	1	0	0	1	0	0	0	0	0	5	0	9
07:45-08:00	2	2	0	1	0	0	0	0	0	0	5	0	10
08:00-08:15	4	3	0	1	0	0	0	0	0	0	4	0	12
08:15-08:30	0	0	0	0	1	1	0	0	0	0	2	0	4

BICYCLES	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0

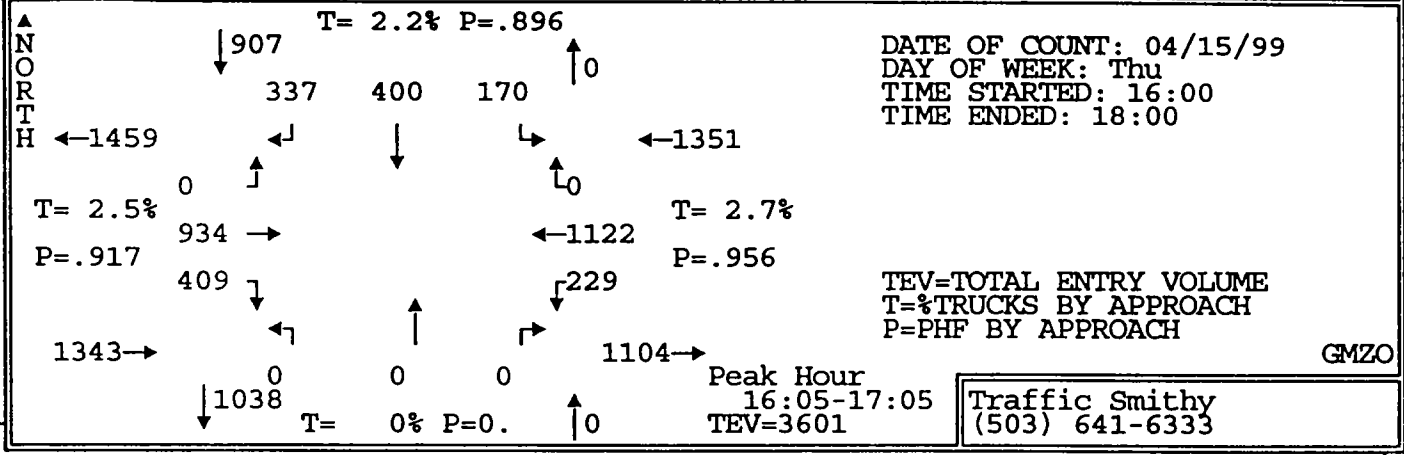
PEDESTRIANS	-----CROSSWALK USEAGE-----				ALL
	SOUTH	WEST	EAST	NORTH	
07:30-07:45	0	0	0	4	4
07:45-08:00	0	0	0	1	1
08:00-08:15	0	0	0	0	0
08:15-08:30	0	0	0	4	4

Peak Hour by Movement	.92	.95	0	.96	.87	.82	0	0	0	.69	.86	0	.978
PHF	.92	.95	0	.96	.87	.82	0	0	0	.69	.86	0	.978
% Trucks (all)	12	4	0	4.1	3	1.1	0	0	0	4	8.7	0	6
% Trucks (M+H)	4.6	1.2	0	.7	1	1.1	0	0	0	0	2.8	0	1.9
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals	355	861	0	285	341	71	0	0	0	78	691	0	2682
07:00-08:00	355	861	0	285	341	71	0	0	0	78	691	0	2682
07:15-08:15	359	830	0	291	399	87	0	0	0	105	714	0	2785
07:30-08:30	366	829	0	293	404	92	0	0	0	100	712	0	2796
07:45-08:45	356	813	0	279	413	108	0	0	0	100	665	1	2735
08:00-09:00	358	802	0	275	393	124	0	0	0	123	663	1	2739

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
CANYON ROAD AT HIGHWAY 217 SOUTHBOUND RAMPS

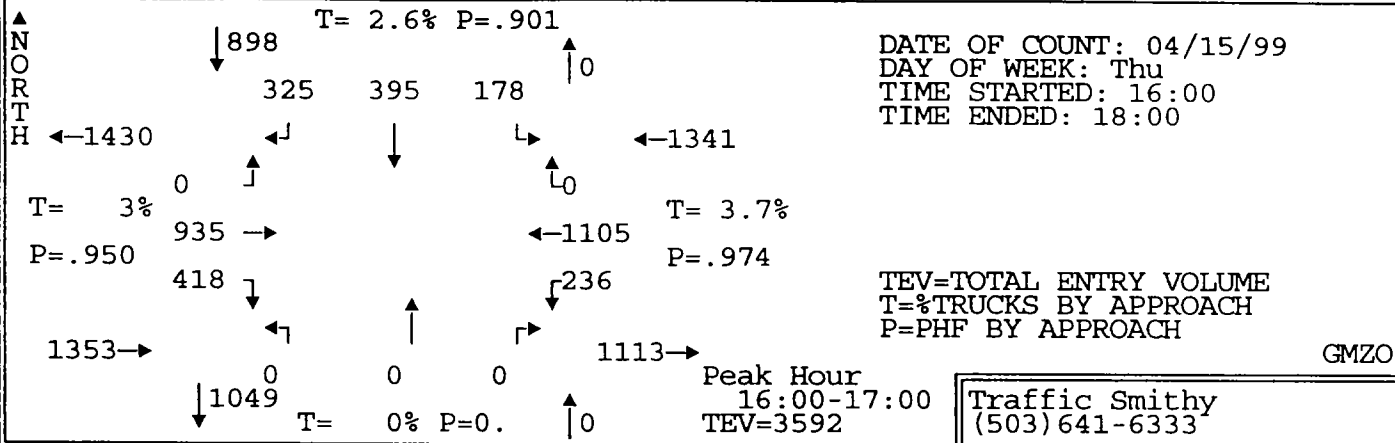
19296



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	46	71	0	20	22	23	0	0	0	30	84	0	296
16:05-16:10	35	75	0	21	38	8	0	0	0	22	93	0	292
16:10-16:15	42	87	0	24	32	17	0	0	0	17	95	0	314
16:15-16:20	39	86	0	24	28	20	0	0	0	18	87	0	302
16:20-16:25	34	78	0	27	27	13	0	0	0	28	96	0	303
16:25-16:30	34	67	0	25	31	15	0	0	0	17	92	0	281
16:30-16:35	33	86	0	29	37	14	0	0	0	28	84	0	311
16:35-16:40	38	91	0	36	32	13	0	0	0	14	81	0	305
16:40-16:45	33	73	0	41	29	18	0	0	0	12	99	0	305
16:45-16:50	36	77	0	32	41	11	0	0	0	17	98	0	312
16:50-16:55	27	83	0	23	37	9	0	0	0	21	101	0	301
16:55-17:00	21	61	0	23	41	17	0	0	0	12	95	0	270
17:00-17:05	37	70	0	32	27	15	0	0	0	23	101	0	305
17:05-17:10	35	88	0	29	25	16	0	0	0	14	74	0	281
17:10-17:15	33	87	0	31	23	15	0	0	0	14	87	0	290
17:15-17:20	17	68	0	25	40	11	0	0	0	7	91	0	259
17:20-17:25	45	95	0	31	40	11	0	0	0	10	111	0	343
17:25-17:30	26	79	0	30	23	13	0	0	0	21	79	0	271
17:30-17:35	28	67	0	34	33	19	0	0	0	17	103	0	301
17:35-17:40	44	102	0	26	26	8	0	0	0	12	92	0	310
17:40-17:45	42	73	0	28	28	11	0	0	0	17	81	0	280
17:45-17:50	42	67	0	29	31	14	0	0	0	17	89	0	289
17:50-17:55	44	76	0	24	31	11	0	0	0	14	101	0	301
17:55-18:00	39	66	0	22	32	11	0	0	0	19	110	0	299

Total Survey	850	1873	0	666	754	333	0	0	0	421	2224	0	7121
PHF	.88	.93	0	.77	.84	.85	0	0	0	.78	.94	0	.976
% Trucks	3.2	2.1	0	1.8	2.9	1.5	0	0	0	1.9	2.8	0	2.5
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Peds	0	15	0	0	0	0	0	0	0	0	18	0	0
Hourly Totals													
16:00-17:00	418	935	0	325	395	178	0	0	0	236	1105	0	3592
16:15-17:15	400	947	0	352	378	176	0	0	0	218	1095	0	3566
16:30-17:30	381	958	0	362	395	163	0	0	0	193	1101	0	3553
16:45-17:45	391	950	0	344	384	156	0	0	0	185	1113	0	3523
17:00-18:00	432	938	0	341	359	155	0	0	0	185	1119	0	3529

INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
CANYON ROAD AT HIGHWAY 217 SOUTHBOUND RAMP



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	

ALL VEHICLES	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-16:15	123	233	0	65	92	48	0	0	0	69	272	0	902
16:15-16:30	107	231	0	76	86	48	0	0	0	63	275	0	886
16:30-16:45	104	250	0	106	98	45	0	0	0	54	264	0	921
16:45-17:00	84	221	0	78	119	37	0	0	0	50	294	0	883

LIGHT TRUCKS (SINGLE UNIT 2 AXLES)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-16:15	3	2	0	1	3	2	0	0	0	1	8	0	20
16:15-16:30	4	3	0	0	4	0	0	0	0	0	11	0	22
16:30-16:45	1	6	0	1	8	0	0	0	0	1	6	0	23
16:45-17:00	2	5	0	0	1	0	0	0	0	1	8	0	17

MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-16:15	0	0	0	1	0	0	0	0	0	0	0	0	1
16:15-16:30	0	0	0	0	1	0	0	0	0	3	0	0	4
16:30-16:45	0	0	0	0	0	0	0	0	0	0	2	0	2
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0

HEAVY TRUCKS (SEMI-TRACTOR TRAILER)	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-16:15	0	0	0	0	0	0	0	0	0	1	1	0	2
16:15-16:30	3	3	0	0	0	0	0	0	0	0	1	0	7
16:30-16:45	2	2	0	1	0	0	0	0	0	0	2	0	7
16:45-17:00	1	3	0	0	0	0	0	0	0	0	4	0	8

BICYCLES	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-16:15	0	1	0	0	0	0	0	0	0	0	0	0	1
16:15-16:30	0	0	0	0	0	0	0	0	0	0	0	0	0
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0

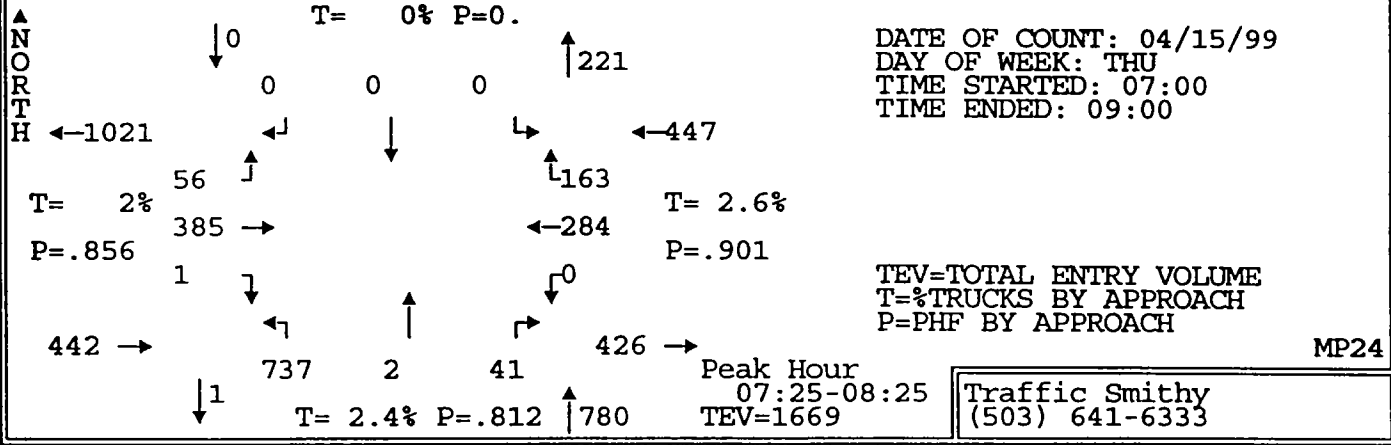
PEDESTRIANS	-----CROSSWALK USAGE-----												ALL
	SOUTH			WEST			EAST			NORTH			
16:00-16:15	2			0			0			2			4
16:15-16:30	1			0			0			6			7
16:30-16:45	2			0			0			1			3
16:45-17:00	2			0			0			3			5

Peak Hour by Movement	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
PHF	.85	.94	0	.77	.83	.93	0	0	0	.86	.94	0	.975
% Trucks (all)	3.8	2.6	0	1.2	4.3	1.1	0	0	0	3	3.9	0	3.1
% Trucks (M+H)	1.4	.9	0	.6	.3	0	0	0	0	1.7	.9	0	.9
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals	↓	→	↑	←	↓	↘	←	↑	↗	↓	←	↑	ALL
16:00-17:00	418	935	0	325	395	178	0	0	0	236	1105	0	3592
16:15-17:15	400	947	0	352	378	176	0	0	0	218	1095	0	3566
16:30-17:30	381	958	0	362	395	163	0	0	0	193	1101	0	3553
16:45-17:45	391	950	0	344	384	156	0	0	0	185	1113	0	3523
17:00-18:00	432	938	0	341	359	155	0	0	0	185	1119	0	3529

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
WALKER ROAD AT HIGHWAY 217 NORTHBOUND RAMP

19348

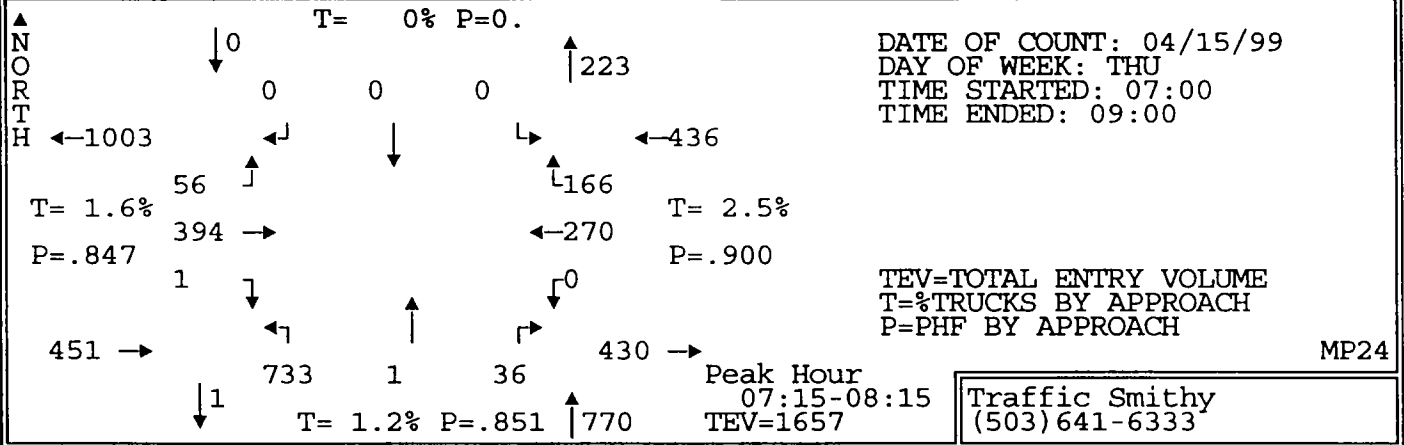


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↗	↖	↓	↘	↖	↑	↗	↓	←	↖	
07:00-07:05	0	29	9	0	0	0	41	0	0	0	10	7	96
07:05-07:10	0	35	7	0	0	0	44	0	4	0	17	9	116
07:10-07:15	0	41	8	0	0	0	45	0	2	0	13	10	119
07:15-07:20	0	27	6	0	0	0	56	0	1	0	8	15	113
07:20-07:25	0	45	3	0	0	0	41	0	3	0	21	14	127
07:25-07:30	0	40	12	0	0	0	65	0	3	0	21	10	151
07:30-07:35	0	39	6	0	0	0	47	1	1	0	28	17	139
07:35-07:40	0	30	2	0	0	0	70	0	1	0	13	12	128
07:40-07:45	0	27	5	0	0	0	75	0	4	0	31	19	161
07:45-07:50	1	23	2	0	0	0	78	0	4	0	26	14	148
07:50-07:55	0	29	3	0	0	0	77	0	2	0	20	14	145
07:55-08:00	0	44	5	0	0	0	61	0	4	0	21	11	146
08:00-08:05	0	33	4	0	0	0	58	0	5	0	27	10	137
08:05-08:10	0	26	5	0	0	0	56	0	3	0	29	15	134
08:10-08:15	0	31	3	0	0	0	49	0	5	0	25	15	128
08:15-08:20	0	21	2	0	0	0	48	0	6	0	16	13	106
08:20-08:25	0	42	7	0	0	0	53	1	3	0	27	13	146
08:25-08:30	0	26	7	0	0	0	49	0	2	2	19	13	118
08:30-08:35	0	42	5	0	0	0	51	1	7	0	24	9	139
08:35-08:40	0	24	6	0	0	0	34	1	6	0	14	14	99
08:40-08:45	0	24	7	0	0	0	40	0	5	0	20	8	104
08:45-08:50	1	21	2	0	0	0	46	0	2	1	9	12	94
08:50-08:55	0	26	12	0	0	0	39	0	4	0	15	10	106
08:55-09:00	0	25	1	0	0	0	45	0	5	0	18	9	103

Total Survey	2	750	129	0	0	0	1268	4	82	3	472	293	3003
PHF	.25	.88	.7	0	0	0	.8	.5	.73	0	.88	.85	.919
% Trucks	50	1.9	2.3	0	0	0	2.3	0	4.9	0	2.5	2.7	2.4
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	1	0	0

Hourly Totals	↓	→	↗	↖	↓	↘	↖	↑	↗	↓	←	↖	ALL
07:00-08:00	1	409	68	0	0	0	700	1	29	0	229	152	1589
07:15-08:15	1	394	56	0	0	0	733	1	36	0	270	166	1657
07:30-08:30	1	371	51	0	0	0	721	2	40	2	282	166	1636
07:45-08:45	1	365	56	0	0	0	654	3	52	2	268	149	1550
08:00-09:00	1	341	61	0	0	0	568	3	53	3	243	141	1414

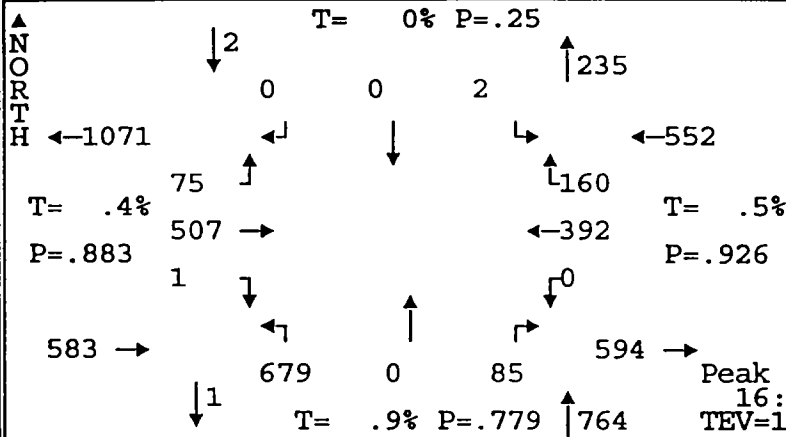
**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
WALKER ROAD AT HIGHWAY 217 NORTHBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
ALL VEHICLES													
07:15-07:30	0	112	21	0	0	0	162	0	7	0	50	39	391
07:30-07:45	0	96	13	0	0	0	192	1	6	0	72	48	428
07:45-08:00	1	96	10	0	0	0	216	0	10	0	67	39	439
08:00-08:15	0	90	12	0	0	0	163	0	13	0	81	40	399
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:15-07:30	0	3	0	0	0	0	3	0	0	0	1	1	8
07:30-07:45	0	1	0	0	0	0	2	0	0	0	2	1	6
07:45-08:00	0	2	0	0	0	0	1	0	0	0	1	2	6
08:00-08:15	0	1	0	0	0	0	1	0	1	0	3	0	6
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:15-07:30	0	0	0	0	0	0	1	0	0	0	0	0	1
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:15-07:30	0	0	0	0	0	0	0	0	0	0	0	0	0
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
07:15-07:30	0	0	0	0	0	0	0	0	0	0	1	0	1
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	3	0	3
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
07:15-07:30	0	0	0	0	0	0	0	0	0	0	1	0	1
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.25	.88	.67	0	0	0	.85	.25	.69	0	.83	.86	.943
% Trucks (all)	0	1.8	0	0	0	0	1.1	0	2.8	0	2.6	2.4	1.6
% Trucks (M+H)	0	0	0	0	0	0	.1	0	0	0	0	0	.1
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
07:00-08:00	1	409	68	0	0	0	700	1	29	0	229	152	1589
07:15-08:15	1	394	56	0	0	0	733	1	36	0	270	166	1657
07:30-08:30	1	371	51	0	0	0	721	2	40	2	282	166	1636
07:45-08:45	1	365	56	0	0	0	654	3	52	2	268	149	1550
08:00-09:00	1	341	61	0	0	0	568	3	53	3	243	141	1414

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
WALKER ROAD AT HIGHWAY 217 NORTHBOUND RAMP

19349



DATE OF COUNT: 04/13/99
DAY OF WEEK: TUE
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

MP23

Peak Hour
16:35-17:35
TEV=1901

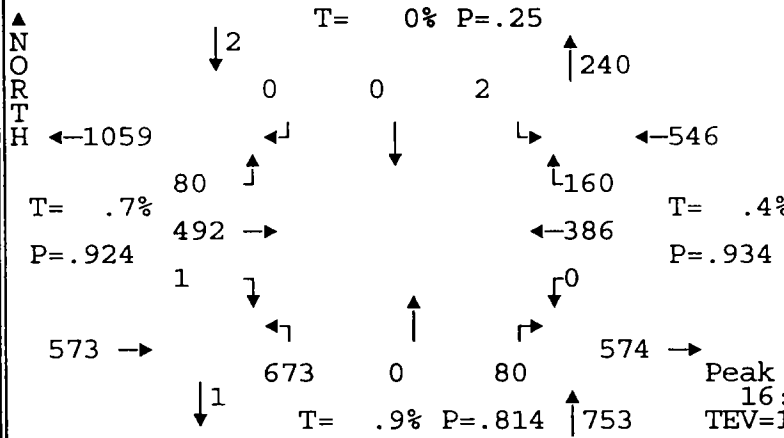
Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↗	↖	↑		
16:00-16:05	0	39	10	0	0	0	42	1	7	0	8	10	117
16:05-16:10	0	38	8	0	0	0	47	0	7	0	22	13	135
16:10-16:15	0	48	11	0	0	0	50	0	3	1	31	20	164
16:15-16:20	11	23	12	0	0	0	62	0	3	0	21	6	138
16:20-16:25	0	33	10	0	0	0	45	1	2	0	19	7	117
16:25-16:30	0	26	6	0	0	0	51	0	5	0	25	14	127
16:30-16:35	0	37	10	0	0	0	39	0	1	0	25	13	125
16:35-16:40	0	38	5	0	0	0	55	0	7	0	34	17	156
16:40-16:45	0	38	3	0	0	0	58	0	13	0	31	13	156
16:45-16:50	0	40	7	0	0	0	51	0	8	0	26	10	142
16:50-16:55	0	49	4	0	0	0	48	0	7	0	36	6	150
16:55-17:00	0	34	10	0	0	0	30	0	4	0	36	15	129
17:00-17:05	0	46	5	0	0	0	64	0	3	0	31	12	161
17:05-17:10	0	37	5	0	0	0	51	0	4	0	37	12	146
17:10-17:15	0	39	11	0	0	0	70	0	9	0	32	14	175
17:15-17:20	0	44	3	0	0	0	84	0	13	0	35	14	193
17:20-17:25	0	42	7	0	0	0	62	0	7	0	33	21	172
17:25-17:30	1	48	10	0	0	2	61	0	4	0	30	13	169
17:30-17:35	0	52	5	0	0	0	45	0	6	0	31	13	152
17:35-17:40	0	46	5	0	0	0	39	0	6	0	23	16	135
17:40-17:45	0	33	2	0	0	0	60	0	2	0	18	12	127
17:45-17:50	0	38	5	0	0	0	53	0	7	0	22	12	137
17:50-17:55	0	50	8	0	0	0	49	0	6	0	16	14	143
17:55-18:00	0	44	8	0	0	0	54	0	4	0	23	12	145

Total Survey	12	962	170	0	0	2	1270	2	138	1	645	309	3511
PHF	.25	.89	.85	0	0	.25	.79	0	.73	0	.94	.82	.880
% Trucks	0	.3	1.2	0	0	0	1	0	0	0	.6	.3	.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	5	0	0

Hourly Totals													
16:00-17:00	11	443	96	0	0	0	578	2	67	1	314	144	1656
16:15-17:15	11	440	88	0	0	0	624	1	66	0	353	139	1722
16:30-17:30	1	492	80	0	0	2	673	0	80	0	386	160	1874
16:45-17:45	1	510	74	0	0	2	665	0	73	0	368	158	1851
17:00-18:00	1	519	74	0	0	2	692	0	71	0	331	165	1855

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
WALKER ROAD AT HIGHWAY 217 NORTHBOUND RAMPS**



DATE OF COUNT: 04/13/99
DAY OF WEEK: TUE
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

MP23

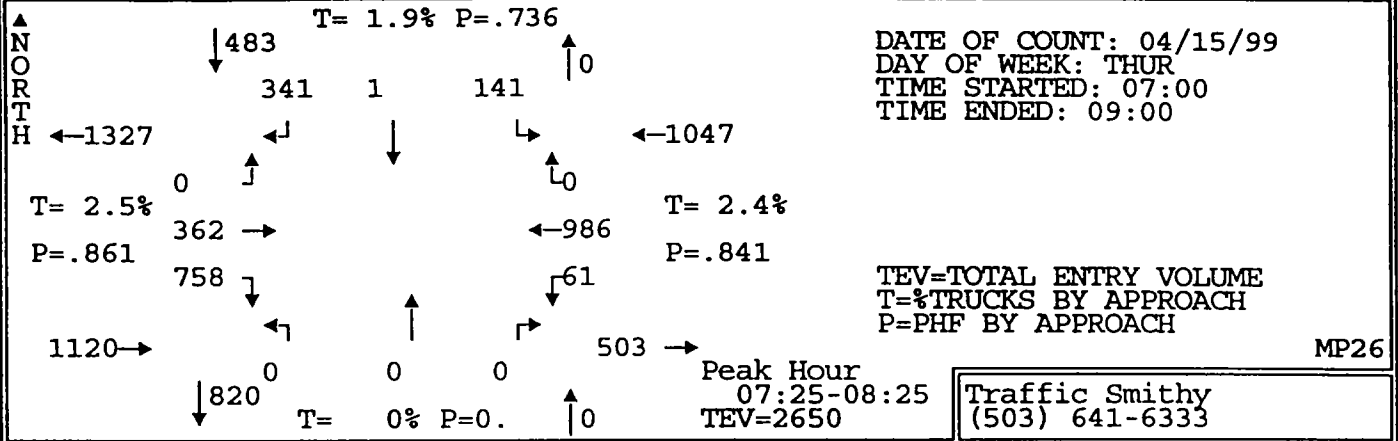
Peak Hour
16:30-17:30
TEV=1874

Traffic Smithy
(503) 641-6333

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	↙	↑	↘	←	↑		
ALL VEHICLES													
16:30-16:45	0	113	18	0	0	0	152	0	21	0	90	43	437
16:45-17:00	0	123	21	0	0	0	129	0	19	0	98	31	421
17:00-17:15	0	122	21	0	0	0	185	0	16	0	100	38	482
17:15-17:30	1	134	20	0	0	2	207	0	24	0	98	48	534
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
16:30-16:45	0	1	1	0	0	0	0	0	0	0	0	0	2
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	1	1
17:00-17:15	0	1	1	0	0	0	3	0	0	0	0	0	5
17:15-17:30	0	0	0	0	0	0	0	0	0	0	1	0	1
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	1	0	0	0	0	0	1
17:15-17:30	0	0	0	0	0	0	1	0	0	0	0	0	1
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
16:30-16:45	0	0	0	0	0	0	2	0	0	0	0	0	2
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	0	0	0	0
17:00-17:15	0	1	0	0	0	0	0	0	0	0	0	0	1
17:15-17:30	0	1	0	0	0	0	0	0	0	0	0	0	1
PEDESTRIANS	-----CROSSWALK USAGE-----											ALL	
	SOUTH			WEST			EAST			NORTH			
16:30-16:45	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45-17:00	0	0	0	0	0	0	0	0	0	2	0	0	2
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	2	0	0	2
Peak Hour by Movement													
PHF	.25	.92	.95	0	0	.25	.81	0	.83	0	.96	.83	.877
% Trucks (all)	0	.4	2.5	0	0	0	1	0	0	0	.3	.6	.7
% Trucks (M+H)	0	0	0	0	0	0	.6	0	0	0	0	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0
Hourly Totals													
16:00-17:00	11	443	96	0	0	0	578	2	67	1	314	144	1656
16:15-17:15	11	440	88	0	0	0	624	1	66	0	353	139	1722
16:30-17:30	1	492	80	0	0	2	673	0	80	0	386	160	1874
16:45-17:45	1	510	74	0	0	2	665	0	73	0	368	158	1851
17:00-18:00	1	519	74	0	0	2	692	0	71	0	331	165	1855

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
WALKER ROAD AT HIGHWAY 217 SOUTHBOUND RAMP

19350

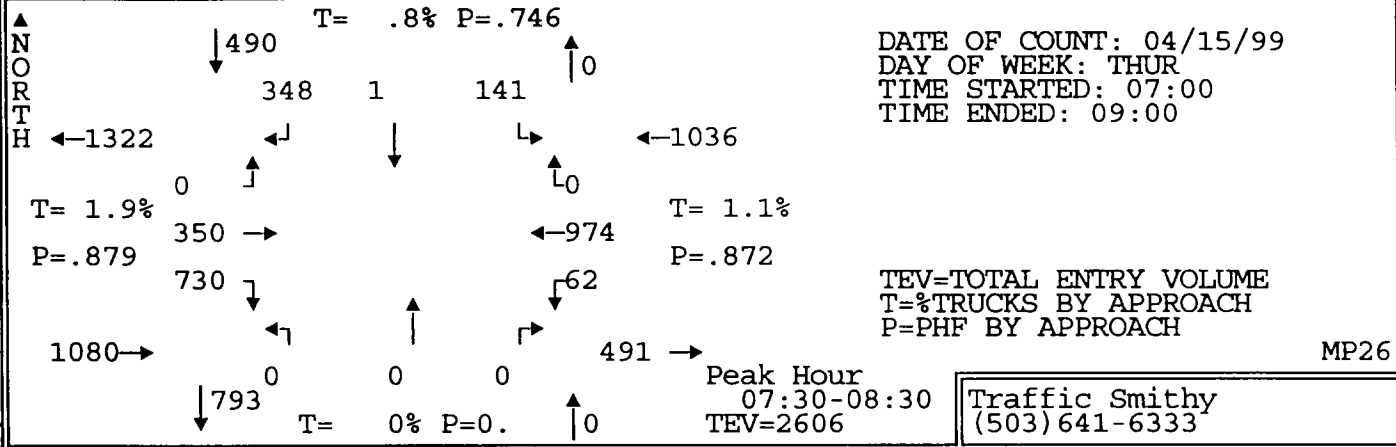


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↘	←	↑	↗	←	↑		
07:00-07:05	52	33	0	7	0	6	0	0	0	2	59	0	159
07:05-07:10	44	30	0	8	0	12	0	0	0	2	56	0	152
07:10-07:15	59	26	0	12	0	12	0	0	0	2	60	0	171
07:15-07:20	46	35	0	4	0	4	0	0	0	5	52	0	146
07:20-07:25	51	51	0	12	0	6	0	0	0	3	57	0	180
07:25-07:30	66	31	0	11	0	13	0	0	0	7	76	0	204
07:30-07:35	65	34	0	9	0	6	0	0	0	5	85	0	204
07:35-07:40	67	21	0	22	0	10	0	0	0	7	72	0	199
07:40-07:45	91	29	0	35	0	5	0	0	0	3	103	0	266
07:45-07:50	81	27	0	42	0	9	0	0	0	9	99	0	267
07:50-07:55	66	31	0	49	0	15	0	0	0	2	95	0	258
07:55-08:00	41	46	0	39	0	10	0	0	0	7	85	0	228
08:00-08:05	55	32	0	36	0	9	0	0	0	6	74	0	212
08:05-08:10	56	30	0	32	0	13	0	0	0	3	80	0	214
08:10-08:15	57	23	0	31	1	18	0	0	0	3	79	0	212
08:15-08:20	64	27	0	19	0	20	0	0	0	3	60	0	193
08:20-08:25	49	31	0	16	0	13	0	0	0	6	78	0	193
08:25-08:30	38	19	0	18	0	13	0	0	0	8	64	0	160
08:30-08:35	48	26	0	16	0	16	0	0	0	0	59	0	165
08:35-08:40	69	27	0	4	0	8	0	0	0	2	57	1	168
08:40-08:45	41	23	0	9	0	8	0	0	0	3	51	0	135
08:45-08:50	46	11	0	19	0	19	0	0	0	0	53	0	148
08:50-08:55	30	27	0	10	0	21	0	0	0	2	59	0	149
08:55-09:00	40	13	0	10	0	5	0	0	0	4	61	0	133

Total Survey	1322	683	0	470	1	271	0	0	0	94	1674	1	4516
PHF	.79	.83	0	.66	.25	.69	0	0	0	.8	.83	0	.837
% Trucks	2.8	2	0	1.5	0	2.6	0	0	0	0	2.6	0	2.4
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	729	394	0	250	0	108	0	0	0	54	899	0	2434
07:15-08:15	742	390	0	322	1	118	0	0	0	60	957	0	2590
07:30-08:30	730	350	0	348	1	141	0	0	0	62	974	0	2606
07:45-08:45	665	342	0	311	1	152	0	0	0	52	881	1	2405
08:00-09:00	593	289	0	220	1	163	0	0	0	40	775	1	2082

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
WALKER ROAD AT HIGHWAY 217 SOUTHBOUND RAMP**

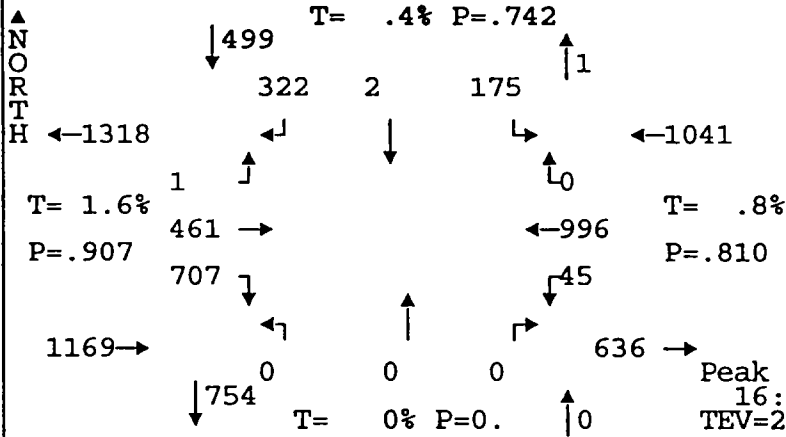


TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
ALL VEHICLES													
07:30-07:45	223	84	0	66	0	21	0	0	0	15	260	0	669
07:45-08:00	188	104	0	130	0	34	0	0	0	18	279	0	753
08:00-08:15	168	85	0	99	1	40	0	0	0	12	233	0	638
08:15-08:30	151	77	0	53	0	46	0	0	0	17	202	0	546
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)													
07:30-07:45	2	1	0	0	0	0	0	0	0	0	2	0	5
07:45-08:00	3	1	0	3	0	0	0	0	0	0	2	0	9
08:00-08:15	6	2	0	0	0	0	0	0	0	0	3	0	11
08:15-08:30	2	1	0	0	0	0	0	0	0	0	2	0	5
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)													
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	1	0	0	1
08:15-08:30	3	0	0	0	0	0	0	0	0	0	1	0	4
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)													
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	1	0	0	0	0	0	0	0	0	1
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES													
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS													
	SOUTH			WEST			EAST			NORTH			ALL
07:30-07:45	0	0	0	0	0	0	0	0	0	0	0	0	0
07:45-08:00	0	0	0	0	0	0	0	0	0	0	0	0	0
08:00-08:15	0	0	0	0	0	0	0	0	0	0	0	0	0
08:15-08:30	0	0	0	0	0	0	0	0	0	0	0	0	0
Peak Hour by Movement													
PHF	.82	.84	0	.67	.25	.77	0	0	0	.86	.87	0	.865
% Trucks (all)	2.2	1.4	0	1.1	0	0	0	0	0	0	1.1	0	1.4
% Trucks (M+H)	.4	0	0	.3	0	0	0	0	0	0	.2	0	.2
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0

Hourly Totals													
07:00-08:00	729	394	0	250	0	108	0	0	0	54	899	0	2434
07:15-08:15	742	390	0	322	1	118	0	0	0	60	957	0	2590
07:30-08:30	730	350	0	348	1	141	0	0	0	62	974	0	2606
07:45-08:45	665	342	0	311	1	152	0	0	0	52	881	1	2405
08:00-09:00	593	289	0	220	1	163	0	0	0	40	775	1	2082

INTERSECTION TURN MOVEMENT COUNT SUMMARY REPORT
WALKER ROAD AT HIGHWAY 217 SOUTHBOUND RAMP

19351



DATE OF COUNT: 04/13/99
DAY OF WEEK: TUE
TIME STARTED: 16:00
TIME ENDED: 18:00

TEV=TOTAL ENTRY VOLUME
T=%TRUCKS BY APPROACH
P=PHF BY APPROACH

Peak Hour
16:50-17:50
TEV=2709

Traffic Smithy
(503) 641-6333

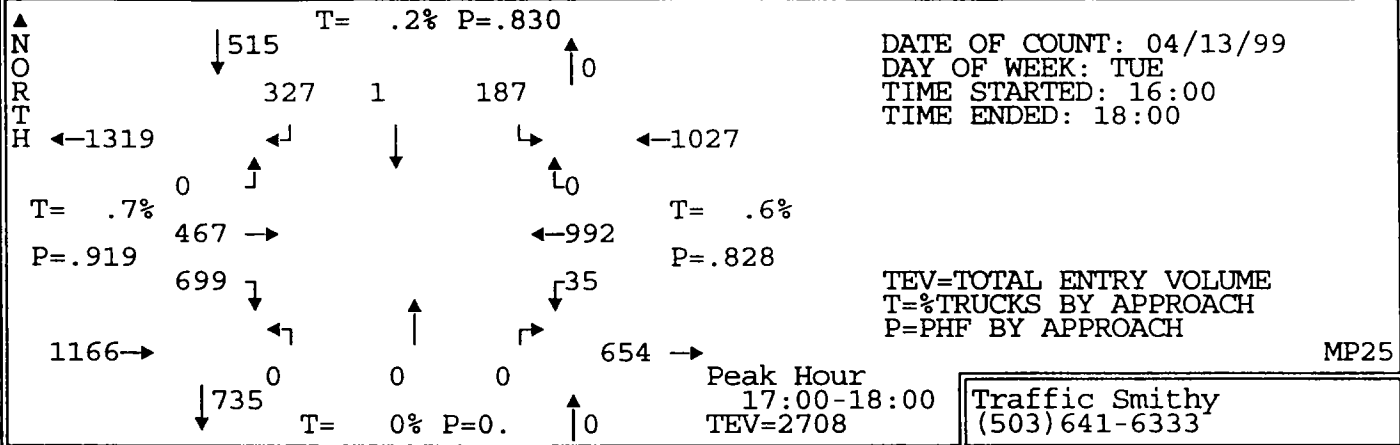
MP25

TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL
	↓	→	↑	←	↓	↳	←	↑	↳	↓	←	↑	
16:00-16:05	39	39	0	15	0	10	0	0	0	7	53	0	163
16:05-16:10	63	40	0	19	0	11	0	0	0	4	60	0	197
16:10-16:15	60	55	0	12	0	14	0	0	0	1	78	0	220
16:15-16:20	56	41	0	20	0	11	0	0	0	1	78	0	207
16:20-16:25	48	31	0	15	0	5	0	0	0	3	69	0	171
16:25-16:30	48	33	0	22	0	13	0	0	0	6	65	0	187
16:30-16:35	48	33	0	20	0	12	0	0	0	3	65	0	181
16:35-16:40	46	28	0	23	0	18	0	0	0	3	71	0	189
16:40-16:45	64	35	0	20	0	14	0	0	0	6	84	0	223
16:45-16:50	56	28	0	23	0	16	0	0	0	3	77	0	203
16:50-16:55	49	38	0	20	0	19	0	0	0	8	69	0	203
16:55-17:00	62	39	1	21	1	7	0	0	0	5	65	0	201
17:00-17:05	45	49	0	18	1	10	0	0	0	5	87	0	215
17:05-17:10	36	33	0	22	0	10	0	0	0	4	85	0	190
17:10-17:15	58	39	0	26	0	12	0	0	0	3	98	0	236
17:15-17:20	63	37	0	21	0	29	0	0	0	0	113	0	263
17:20-17:25	58	29	0	23	0	13	0	0	0	4	103	0	230
17:25-17:30	62	41	0	36	0	17	0	0	0	3	87	0	246
17:30-17:35	60	49	0	37	0	13	0	0	0	4	80	0	243
17:35-17:40	66	44	0	41	0	24	0	0	0	5	61	0	241
17:40-17:45	69	29	0	32	0	8	0	0	0	2	64	0	204
17:45-17:50	79	34	0	25	0	13	0	0	0	2	84	0	237
17:50-17:55	55	35	0	24	0	22	0	0	0	1	50	0	187
17:55-18:00	48	48	0	22	0	16	0	0	0	2	80	0	216

Total Survey	1338	907	1	557	2	337	0	0	0	85	1826	0	5053
PHF	.83	.86	.25	.71	.25	.74	0	0	0	.63	.79	0	.916
% Trucks	2.2	.8	0	.5	0	.3	0	0	0	1.2	.8	0	1.1
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	1	0	0

Hourly Totals													
16:00-17:00	639	440	1	230	1	150	0	0	0	50	834	0	2345
16:15-17:15	616	427	1	250	2	147	0	0	0	50	913	0	2406
16:30-17:30	647	429	1	273	2	177	0	0	0	47	1004	0	2580
16:45-17:45	684	455	1	320	2	178	0	0	0	46	989	0	2675
17:00-18:00	699	467	0	327	1	187	0	0	0	35	992	0	2708

**INTERSECTION TURN MOVEMENT COUNT PEAK HOUR REPORT
WALKER ROAD AT HIGHWAY 217 SOUTHBOUND RAMP**



TIME PERIOD FROM - TO	EAST BOUND			SOUTH BOUND			NORTH BOUND			WEST BOUND			ALL	
	↓	→	↑	←	↓	↘	↙	↑	↗	↘	←	↑		
ALL VEHICLES														
17:00-17:15	139	121	0	66	1	32	0	0	0	0	12	270	0	641
17:15-17:30	183	107	0	80	0	59	0	0	0	0	7	303	0	739
17:30-17:45	195	122	0	110	0	45	0	0	0	0	11	205	0	688
17:45-18:00	182	117	0	71	0	51	0	0	0	0	5	214	0	640
LIGHT TRUCKS (SINGLE UNIT 2 AXLES)														
17:00-17:15	1	2	0	0	0	0	0	0	0	0	0	3	0	6
17:15-17:30	3	0	0	1	0	0	0	0	0	0	0	1	0	5
17:30-17:45	1	0	0	0	0	0	0	0	0	0	0	0	0	1
17:45-18:00	1	0	0	0	0	0	0	0	0	0	0	0	0	1
MEDIUM TRUCKS (SINGLE UNIT > 2 AXLES)														
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	2	0	2
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
HEAVY TRUCKS (SEMI-TRACTOR TRAILER)														
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BICYCLES														
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30-17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEDESTRIANS														
	SOUTH			WEST			EAST			NORTH			ALL	
17:00-17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:15-17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	
17:30-17:45	0	0	0	0	0	0	0	0	0	1	0	0	1	
17:45-18:00	0	0	0	0	0	0	0	0	0	0	0	0	0	
Peak Hour by Movement														
PHF	.9	.96	0	.74	.25	.79	0	0	0	.73	.82	0	.916	
% Trucks (all)	.9	.4	0	.3	0	0	0	0	0	0	.6	0	.6	
% Trucks (M+H)	0	0	0	0	0	0	0	0	0	0	.2	0	.1	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	

Hourly Totals													
16:00-17:00	639	440	1	230	1	150	0	0	0	50	834	0	2345
16:15-17:15	616	427	1	250	2	147	0	0	0	50	913	0	2406
16:30-17:30	647	429	1	273	2	177	0	0	0	47	1004	0	2580
16:45-17:45	684	455	1	320	2	178	0	0	0	46	989	0	2675
17:00-18:00	699	467	0	327	1	187	0	0	0	35	992	0	2708

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D- Motor Vehicle Analysis



Appendix D

Motor Vehicle Alternatives

Analysis

Circulation and Capacity Needs

The motor vehicle capacity and circulation needs in Beaverton were determined for existing and future conditions. The process used for analysis is outlined below, followed by the findings and recommendations of the analysis. The extent and nature of the street improvements for Beaverton are significant. This section outlines the type of street improvements that would be necessary as part of a long-range master plan. Phasing of implementation will be necessary since all of the improvements cannot be done at once. This will require prioritization of projects and periodic updating to reflect current needs. Most importantly, it should be understood that the improvements outlined in the following sections are a guide to managing growth in Beaverton, defining types of right-of-way and street needs that will be required as development occurs over the next 20 years.

Approach

Existing conditions were identified in Chapter 3. The future 2020 conditions were forecast as noted in the Chapter 4. This 2020 forecast includes the Commuter Rail and the highest level of transit service given regional funding constraints¹. It assumes that Transportation Demand Management (TDM) will occur and that significant shifts to transit will occur. While numerous analysis scenarios were developed, the base 2020 conditions assumed a street network that included the RTP Priority System improvements and the improvements identified in the 2015 Beaverton TSP. This was done because the prior TSP and RTP both confirmed that this level of motor vehicle transportation investment would be necessary to minimally address the future 2020 needs of the Beaverton area. RTP Priority System motor vehicle projects within the Beaverton

¹ This system assumes the commuter rail and all the feeder bus system that supports it. Other westside bus service is provided also.

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TSP Study area are shown in Figure D-1 and are listed in Table D-1. Beaverton 2015 TSP improvements are shown in Figures D-2 and D-3 and are listed in Table D-2 to D-3. Table D-4 lists the 2015 TSP projects that have been constructed or have received committed funding for design/construction since the 2015 TSP was adopted. Performance was evaluated using a three-tiered assessment of capacity and operations.

- Demand to capacity (D/C) ratios² were evaluated on roadway segments and conditions where the demand to capacity ratio exceeded 1.0 were studied for potential improvements (based on a 1-hour and 2-hour D/C ratio). Areas within a 2040 design type of Regional Center, Town Center, Main Street, or Station Communities were studied if the 1-hour D/C ratio exceeded 1.1 or the second hour exceeded 1.0.
- Intersection level data were developed for about 95 intersections in Beaverton (based upon staff input, for primarily arterial and collector intersections). While this is a broad sampling of intersections, it does not represent every intersection in the City. Therefore, there may be other locations that may require some mitigation. Alternative improvements were considered where D/C ratios exceeded 1.0 or Level of Service (LOS) was at F or worse. Mitigated levels of service were generally brought to the D/C ratio 1.0 or LOS of E/F range for the 20-year planning assessment.
- New roadway alignments were considered if connectivity was needed to reduce traffic volumes on congested roadways. The goal of new road alignments was to achieve a roadway that would carry a daily volume of at least 5,000 to 10,000 vehicles per day or would significantly reduce the volume on other congested roadway facilities. Additionally, new road connections/alignments were considered if they would reduce neighborhood traffic volumes by 2,000 to 4,000 vehicles per day.

² Demand to capacity ratio is similar to volume to capacity (V/C) ratio. The difference is that in the future demand is being estimated and therefore the term demand is utilized. For existing conditions, volume refers to the actual traffic on the roadway. While a demand to capacity ratio can exceed 1.0, a volume to capacity ratio would never exceed 1.0.

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**Table D-1
Beaverton Motor Vehicle System Improvements included in the RTP Priority System***

RTP #	Location	Improvement	Jurisdiction	Time-Line	Cost
1184	BH Highway/Scholls Ferry Road	Redesign the intersection to improve safety for all modes of travel.	ODOT/WACO	2006-2010	\$13,000,000
6013	Hall: Scholls Ferry to Locust	Widen to 5 lanes. Includes sidewalk and bike lanes	ODOT	2006-2010	\$4,700,000
6017	Taylor's Ferry: Washington to Oleson	Construct a 3 lanes extension with sidewalks and bike lanes	WACO	2011-2020	\$1,900,000
6025	Scholls Ferry: 217 to 125th	Implement system management strategies	WACO	2000-2005	\$500,000
6052	Highway 217 Overcrossing: Nimbus to Mall Area	Construct a 2 lane crossing including sidewalks and bike lanes	Tigard	2011-2020	\$25,000,000
6119	Murray/Scholls Town Center	Construct 2 lane Teal Road collector extension to Town Center Loop and Barrows, transit collectors from Murray to Town Center Loop, and new neighborhood route connections	WACO/Beaverton	2011-2020	\$11,000,000
6121	Murray: Scholls Ferry to Barrows	Construct a 4 lane extension to Walnut at Barrows including sidewalks and bike lanes	Beaverton/Tigard/WACO	2000-2005	\$7,120,000
6122	Davies Road: Scholls Ferry to Barrows	Construct a 3 lane extension to Barrows including sidewalks and bike lanes	Beaverton	2006-2010	\$1,500,000
3000	ORE 217	Add capacity based on recommendations from the ORE 217 corridor study	ODOT	2011-2020	\$70,000,000
3001	ORE 217: TV Hwy to US 26	Widen the northbound to 3 lanes with ramp improvements	ODOT	2006-2010	\$21,000,000
3002	ORE 217 and US 26	Reconfigure the interchange with braided ramps	ODOT	2006-2010	\$50,000,000
3006	US 26: Camelot Court to Sylvan	Add 3 rd through lane and collector distributor system	ODOT	2000-2005	\$22,000,000
3007	US 26: ORE 217 to Camelot Court	Widen eastbound to 3 lanes	ODOT	2006-2010	\$12,000,000
3009	US 26: Murray to 185th	Widen freeway to 6 lanes with possible HOV lane	ODOT	2011-2020	\$26,000,000
3019	Beaverton Connectivity	Complete several downtown street connections	Beaverton	2000-2005	\$13,200,000
3020	Beaverton Connectivity	Complete several downtown street connections	Beaverton	2006-2010	\$13,300,000
3022	Jenkins: Murray to 158th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006-2010	\$1,870,000
3023	ORE 217: Allen to Walker	Interchange improvements	ODOT/WACO/Beaverton	2000-2005	\$3,600,000
3025	TV Hwy: Cedar Hills to 10th	Add capacity based on recommendation from refinement planning	ODOT/WACO	2011-2020	\$33,200,000
3031	Allen: ORE 217 to Murray	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$8,500,000
3032	Cedar Hills: Farmington to Walker	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2006-2010	\$3,700,000
3033	125 th : Brockman to Hall	Construct a 2 lane extension with turn lanes including sidewalks and bike lanes	Beaverton	2000-2005	\$9,800,000
3034	Hall: Cedar Hills to Hocken	Construct a 3 lane extension with sidewalks and bike lanes	Beaverton	2000-2005	\$4,600,000
3036	158 th /Merlo: 170 th to Walker	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011-2020	\$4,000,000
3038	Center: Hall to 113th	Widen to 3 lanes including sidewalks and bike lanes	Beaverton	2011-2020	\$3,200,000
3060	TV Hwy: 117 th to Hillsboro	Implement access management strategies	ODOT/WACO	2006-	\$15,000,000

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			O	2010	
3061	TV Hwy: 209 th to ORE 217	Interconnect Traffic Signals	ODOT/WAC O	2006- 2010	\$1,500,000
3063	Murray: TV Hwy to Allen	Interconnect Traffic Signals	WACO	2000- 2005	\$50,000
3069	Scholls Ferry: Hamilton to Garden Home	Widen to 3 lanes including sidewalks and bike lanes	WACO	2011- 2020	\$8,000,000
3076	Allen: ORE 217 to Western	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011- 2020	\$1,000,000
3084	170 th : Alexander to Merlo	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011- 2020	\$8,000,000
3085	170 th : Rigert to Blanton to Alexander	Widen to 3 lanes from Rigert to Blanton and 5 lanes from Blanton to Alexander including sidewalks and bike lanes	WACO	2000- 2005	\$26,700,000
3086	158 th : Walker to Jenkins	Widen to 5 lanes including bike lanes	WACO	2011- 2020	\$450,000
3087	Millikan: TV Hwy to 141 st	Widen to 5 lanes including sidewalks and bike lanes	Beaverton	2011- 2020	\$4,000,000
3088	Millikan: 141 st to Hocken	Widen to 3 lanes including sidewalks and bike lanes	WACO	2011- 2020	\$3,400,000
3121	TV Hwy: Cedar Hills to Minter Bridge	Refinement Planning to identify phased strategy to implement a limited-access facility	ODOT	2000- 2005	N/A
3141	170 th /173 rd : Baseline to Walker	Widen the street to 3 lanes including sidewalks and bike lanes	WACO	2006- 2010	\$5,500,000
3143	Walker: Cedar Hills to 158th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006- 2010	\$20,000,000
3144	Walker: 158 th to Amberglen	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006- 2010	\$10,000,000
3148	Walker: Cedar Hills to ORE 217	Widen to 3 lanes including sidewalks and bike lanes	WACO	2006- 2010	\$8,000,000
3175	Barnes: ORE 217 to 119th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006- 2010	\$6,200,000
3177	Cedar Hills/Barnes	Reconstruct intersection and approaches to add travel lanes, turn lanes, and traffic signal upgrades	WACO	2000- 2005	\$1,800,000
3181	Cornell: US 26 to 143rd	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011- 2020	\$3,000,000
3183	Cornell: 143 rd to Saltzman	Widen to 3 lanes including sidewalks and bike lanes	WACO	2000- 2005	\$4,600,000
3185	Barnes: Saltzman to 119th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2000- 2005	\$5,300,000
3186	Murray: Science Park to Cornell	Widen to 5 lanes including sidewalks and bike lanes	WACO	2000- 2005	\$3,100,000
3191	Cornell	Modify intersections at Saltzman, Barnes, Murray, and Trail	WACO	2011- 2020	\$500,000
3204	Cornell: Bethany to 179th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2006- 2010	\$4,000,000
3205	173rd/174th	Construct a new 2 lane undercrossing of US 26 from Cornell to Bronson including sidewalks and bike lanes	WACO	2011- 2020	\$14,800,000
3214	Farmington: 172 nd to 185th	Widen to 5 lanes including sidewalks and bike lanes	WACO	2011- 2020	\$10,000,000
			TOTAL		\$529,590,000

*This project list is based on the August 10th, 2000, 2000 Regional Transportation Plan, and includes projects in the Financially Constrained and Priority Motor Vehicle System

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**Table D-2
Beaverton 2015 TSP Motor Vehicle Improvements not identified in the RTP Priority Scenario**

Location	Description	Jurisdiction	Cost
Hocken at TV and Farmington	Widen Hocken to accommodate 2 additional lanes between TV and Farmington to allow turn lanes, Widen TV from 141 st to Hocken to allow 3 through lanes and additional turn lanes	ODOT/Beaverton	\$6,100,000
ORE 217: Walker/Cabot/Canyon Ramps	Braid ramps between Canyon and Walker/Cabot split diamond	ODOT	\$20,800,000
Bany/Hart: 170 th to 160th	Improve to 2-3 lanes including sidewalks and bike lanes	WACO	\$1,000,000
170 th : Merlo to Baseline	Widen to 3 lanes including sidewalks and bike lanes	WACO	\$2,100,000
170 th : Division to Blanton	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$2,500,000
Hyland Extension: Carr to Hart	Extend Roadway	Beaverton	\$115,000
ORE 217: Denney/Allen	Collector/Distributor connection	ODOT	\$8,600,000
Cedar Hills: Walker to US 26	Complete 5 lane roadway with access control including sidewalks and bike lanes	WACO	\$2,100,000
143 rd /Meadow: Science Park - Walker	Construct a new 2 lane road connections including a grade separation of US 26 including sidewalks and bike lanes	WACO	\$16,000,000
Walker Road: Murray to ORE 217	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$26,500,000
Jenkins: Murray to Cedar Hills	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$3,800,000
Scholls Ferry: Hall to 125th	Widen to 7 lanes including sidewalks and bike lanes	WACO/ODOT	\$15,760,000
Scholls Ferry: Teal to 175th	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$4,000,000
Beard/Nora: Murray to 170th	Improve to 2-3 lanes including sidewalks and bike lanes	WACO	\$6,600,000
Weir: Murray to 175th	Improve to 3 lanes including sidewalks and bike lanes	Beaverton	\$3,700,000
Hall north of Center	Extend new 5 lane roadway north of Center to connect with Jenkins at Cedar Hills including sidewalks and bike lanes	Beaverton	\$11,000,000
Center: Cedar Hills to Hocken via Westgate	Extend public roadway with 3 lanes including sidewalks and bike lanes from Center to Westgate and from Westgate to Hocken	Beaverton	\$1,500,000
141 st : Tek to Farmington	Realign and extend 2/3 lane roadway including sidewalks and bike lanes	Beaverton	\$2,800,000
Nimbus: Hall to Denney	Extend 2/3 lane roadway including sidewalks and bike lanes	Beaverton	\$8,300,000
Local Streets	Add local and collector connectivity	Beaverton	\$41,900,000
Traffic Signals	Addition of 50 traffic signals per plan	Beaverton/ WACO/ODOT	\$12,500,000
Intersection Improvements	Listed in Table D-3	Beaverton/ WACO/ODOT	\$60,325,000
		TOTAL	\$258,000,000

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**Table D-3
2015 TSP Intersection Improvements**

#	Location	Improvement	Cost
1	Kinnaman/Farmington	Widen Farmington to 5 lanes; add WB left turn lane; add NB/SB left turn lane; signal phasing modifications to NB/SB permitted/protected phasing	\$1,250,000
2	Walker/173 rd	Widen Walker Road to 5 lanes; add EB/WB right turn lanes; NB/SB double left turn lanes	\$2,000,000
3	Baseline/170 th	SB double left turn lanes; signal phasing modification of NB/SB to protected phasing; add WB right turn lane	\$1,250,000
4	Merlo/170 th	Signal phase change to permitted/protected for NB/SB approaches and to protected phasing for EB/WB approaches; add NB right turn lane; add NB, SB, and EB left turn lanes	\$1,500,000
5	TV Highway/170 th	Widen TV Highway to 7 lanes (3 through lanes each way); widen 170 th to 5 lanes; add SB right turn lane; WB double left turn lanes	\$1,000,000
6	Farmington/170 th	Widen Farmington to 5 lanes; add NB left turn lane; add NB through lane and restripe SB for additional through lane (widen 170 th to 5 lanes)	Cost included in roadway project
7	Hart-Bany/170 th	Install traffic signal; add NB and SB left turn lanes	\$1,250,000
8	Walker/167 th	Install traffic signal; add NB and SB left turn lanes	\$250,000
9	Cornell/158 th	Add EB right turn lane	\$500,000
10	Walker/158 th	NB/SB double left turn lanes; add EB right turn lane; NB right turn lane; WB through lane (2 through lanes in each direction); signal phasing change to EB/WB permitted/protected phasing	\$2,250,000
11	Jenkins/158 th	Add NB right turn lane; add SB through lane and restripe SB approach; WB double left turn lanes; WB through lane (5 lanes on Jenkins)	\$1,000,000
12	TV Highway/Millikan	Widen TV to 7 lanes; add SB and NB lane across intersection	\$1,625,000
13	Hart/155 th	Add WB left turn lane	\$500,000
14	Jenkins/153 rd	Widen Jenkins to 5 lanes (2 through lanes each way)	Cost included in roadway project
15	TV Highway/153 rd	Widen TV Highway to 7 lanes (3 through lanes each way)	Cost included in roadway project
16	Farmington/149 th	Widen Farmington to 5 lanes	Cost included in roadway project
17	Walker/Murray	Add double left turn lanes on all approaches; add right turn lanes on all approaches	\$4,000,000
18	Murray/Jenkins	Add NB and SB right turn lanes; NB and SB double left turn lanes; widen Jenkins to 5 lanes	\$2,000,000
19	TV Highway/Murray	Double left turn lanes on all approaches; add NB/SB through lane (3 through lanes each way) DCP; install median at TV/Railroad tracks/Farmington to restrict driveways to right in, right out	\$1,500,000
20	Murray/Farmington	Double left turn lanes on all approaches; SB, EB, and WB right turn lanes	\$2,500,000
21	Murray/6 th	Install traffic signal; add EB and WB left turn lanes	\$250,000
22	Murray/Allen	Widen Allen to 5 lanes to Murray (drop additional WB through lane after Murray); add SB right turn lane	\$600,000
23	Murray/Hart	Signal phase change to permitted/protected phasing for all approaches	\$125,000
24	Murray/Scholls Ferry	Restripe NB, SB, and EB approaches; signal phase change to protected phasing on all approaches	\$125,000
25	Murray/Barrows/Walnut	Install traffic signal; add EB left turn lane; restripe NB approach; construct SB approach left turn lane	\$750,000
26	Scholls Ferry/Barrows (west)	Install traffic signal; restripe SB approach for separate left turn and right turn lanes	\$250,000
27	Scholls Ferry/Davies	Install traffic signal; restripe WB approach; add NB right turn lane; add NB left turn lane	\$250,000
28	Scholls Ferry/Barrows (east)	Close Barrows at Scholls Ferry	\$150,000
29	TV Highway/Hocken	Add EB right turn lane; restripe SB approach; widen Hocken to 2 SB through lanes	\$3,100,000
30	Farmington/Hocken	Add WB right turn lanes; SB double left turn lanes (Hocken carries 2 SB lanes from TV Highway)	\$3,000,000

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31	Cedar Hills/Walker	Double left turn lanes on all approaches; add EB right turn lane	\$2,500,000
32	Cedar Hills/Jenkins	SB and EB double left turn lanes; add SB right turn lane; widen Jenkins to 5 lanes; WB right turn channel; signal modifications to EB/WB protected phasing	\$1,750,000
33	Cedar Hills/Hall	Add NB right turn lane	\$500,000
34	Cedar Hills/Westgate	Add NB left turn lane	\$1,300,000
35	Canyon/Cedar Hills	Widen Canyon to 7 lanes on west leg; add NB left turn lane; add SB left turn lane; add SB right turn lane; add EB/WB left turn lane	\$5,000,000
36	Farmington/Cedar Hills	SB double left turn lanes (construct SB right turn lane and restripe SB lanes as side-by-side left turn lanes)	\$1,000,000
37	Hall/Westgate-Center	Realign intersection; signal modification to EB/WB protected/permitted phasing	\$250,000
38	Canyon/Watson	Restripe SB approach (add a SB receiving lane)	\$700,000
39	Farmington/Watson	Add SB through lane	\$500,000
40	Farmington/Hall	Restripe NB approach (add NB receiving lane)	\$500,000
41	Hall/Allen	Add EB and WB right turn lanes; NB and SB double left turn lanes	\$1,700,000
42	Hall/Denney	NB/SB signal phasing change to permitted/protected	\$150,000
43	Hall/Greenway	Signal phase change to permitted/protected phasing for EB and WB approaches, overlap NB right turn	\$125,000
44	Hall/Nimbus	Signal phase change to protected/permitted phasing for NB and SB approaches	\$125,000
45	Scholls Ferry/Hall	Add double left turn lanes on all approaches; add right turn lane on all approaches	\$3,000,000
46	Brockman/125 th	Signal phase change to protected/permitted phasing for all approaches; add WB left turn lane; restripe NB and EB approaches; construct SB left turn lane, right turn lane, and through lane	Cost included in roadway project
47	Scholls Ferry/125 th	Widen Scholls Ferry Road to 7 lanes (3 through lanes each way); add SB right turn lane	\$500,000
48	Scholls Ferry/Nimbus	Widen Scholls Ferry to 7 lanes (3 through lanes in each direction); add NB left turn lane; SB double left turn lanes	\$1,000,000
49	Scholls Ferry/ORE 217 SB ramps	Channel EB right turn onto ramp and modify signal to allow free movement of EB right turns	\$500,000
50	Scholls Ferry/ORE 217 NB on-ramp	Channel SB right turn onto ramp and modify signal to allow free movement of SB right turns; add WB through lane onto ramp	\$500,000
51	Farmington/Lombard	Add NB right turn lane	\$500,000
52	Canyon/Broadway	Add WB right turn lane; signal modification to NB/SB protected phasing	\$200,000
53	Canyon/Fred Meyer	Add SB left turn lane; signal modification to NB/SB split phasing	\$125,000
54	BH Highway/Griffith	Signal phasing modification to NB/SB protected/permitted phasing	\$150,000
55	BH Highway/Western	Add EB right turn lane; add WB double left turn lanes; add NB through lane	\$1,500,000
56	Allen/Western	Add EB left turn lane; EB/WB signal phasing change to permitted/protected phasing	\$125,000
57	Allen/Scholls Ferry	Widen Allen to 5 lanes; restripe WB approach; signal phase change for all approaches to permitted/protected phasing	\$125,000
58	Walker/ORE 217 SB	Bridge deck widening; EB double right turn lanes (add right turn lane); WB through lane	\$750,000
59	Walker/ORE 217 NB	Add NB double left turn lanes	\$250,000
60	Canyon/ORE 217 SB	Add SB left turn lane and restripe SB lanes	\$500,000
61	BH Highway/ORE 217 SB	Add SB left turn lane	\$500,000
62	BH Highway/ORE 217 NB	NB double left turn lanes	\$600,000
63	Allen/ORE 217 SB	Add SB right turn lane (double right lanes); EB right turn lane (channel onto ramp; signal modification to allow EB right turn to go with SB left)	\$2,000,000
64	Allen/ORE 217 NB	Add WB right turn lane; signal modifications to NB/SB split phasing	\$500,000
65	Denney/ORE 217 SB	Install traffic signal	\$250,000
66	Denney/ORE 217 NB	Install traffic signal	\$250,000
67	Denney/Lombard	Install traffic signal and EB and WB left turn lanes	\$1,125,000
			\$64,025,000

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**Table D-4
Committed/Completed Beaverton 2015 TSP Motor Vehicle Improvements**

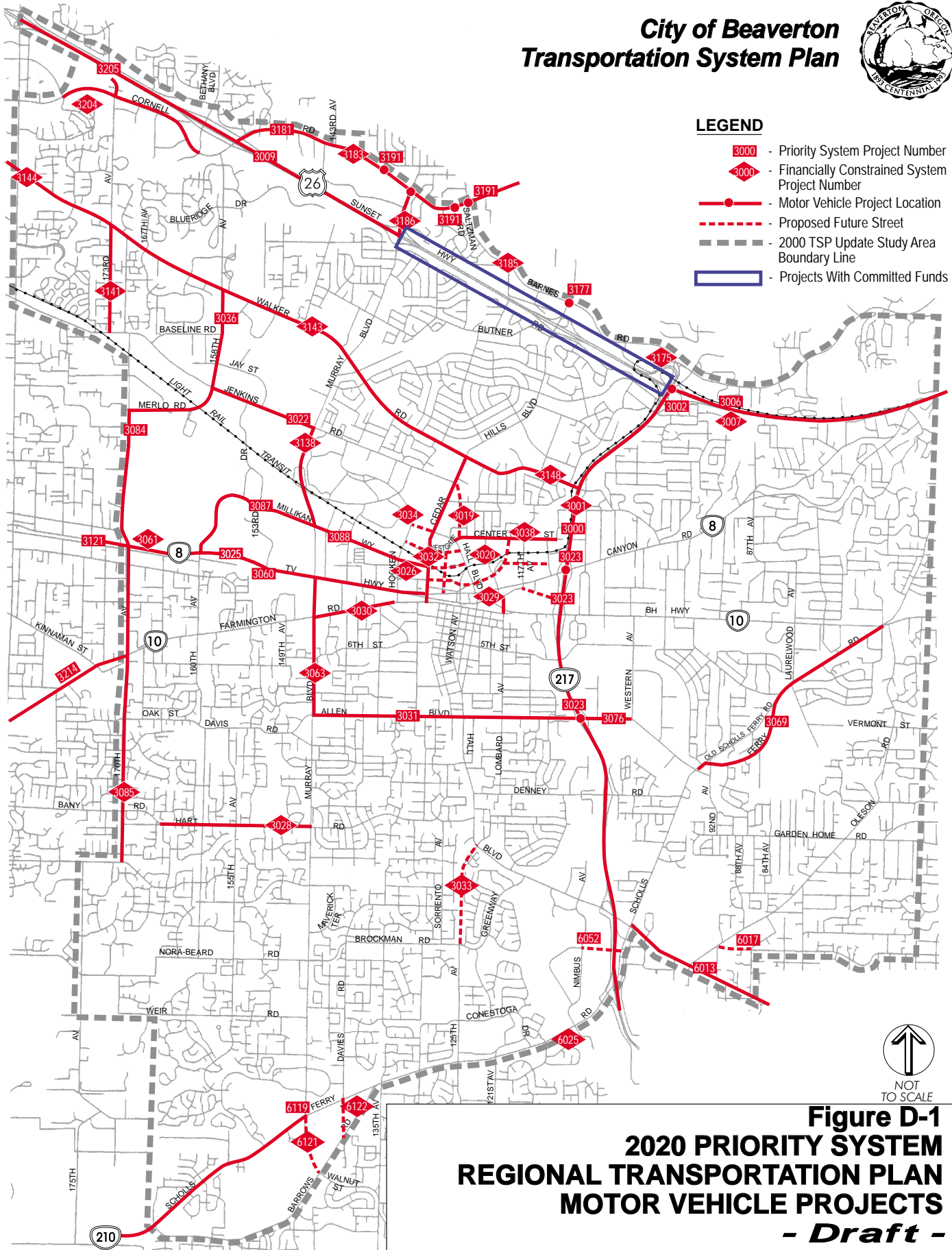
Location	Description	Jurisdiction	Cost
Farmington: Murray to 172nd	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$15,200,000
Oak: 160 th to 170 th	Widen roadway including sidewalks and bike lanes	WACO	\$1,600,000
US 26: ORE 217 to Murray	Widen to 6 lanes and add braided ramps	ODOT	\$13,000,000
Jenkins: Cedar Hills to Murray	Widen to 3 lanes including sidewalks and bike lanes	WACO	\$3,100,000
170 th : Rigert to Alexander	Widen to 5 lanes including sidewalks and bike lanes	WACO	\$8,000,000
Millikan: Hocken to Cedar Hills	Construct new 3 lane extension with sidewalks and bike lanes	Beaverton	\$4,300,000
Hart: Murray to 165 th	Widen to 3 lanes including sidewalks and bike lanes	Beaverton	\$7,100,000
Lombard: Broadway to Farmington	Realign and add turn lanes including sidewalks	Beaverton	\$1,600,000
Hall Boulevard at Scholls Ferry	Provide southbound right turn lane	ODOT	\$250,000
Hall: 12 th St to 500 feet south of Allen	Retrofit to include bike lanes; intersection turn lanes at Allen	Beaverton	\$1,438,000
Farmington: Murray to Hocken	Widen to 5 lanes including turn lanes, sidewalks, and bike lanes	Beaverton	\$9,300,000
		TOTAL	\$64,888,000

**City of Beaverton
Transportation System Plan**



LEGEND

- 3000 - Priority System Project Number
- ◆ - Financially Constrained System Project Number
- - Motor Vehicle Project Location
- - - - Proposed Future Street
- 2000 TSP Update Study Area Boundary Line
- Projects With Committed Funds



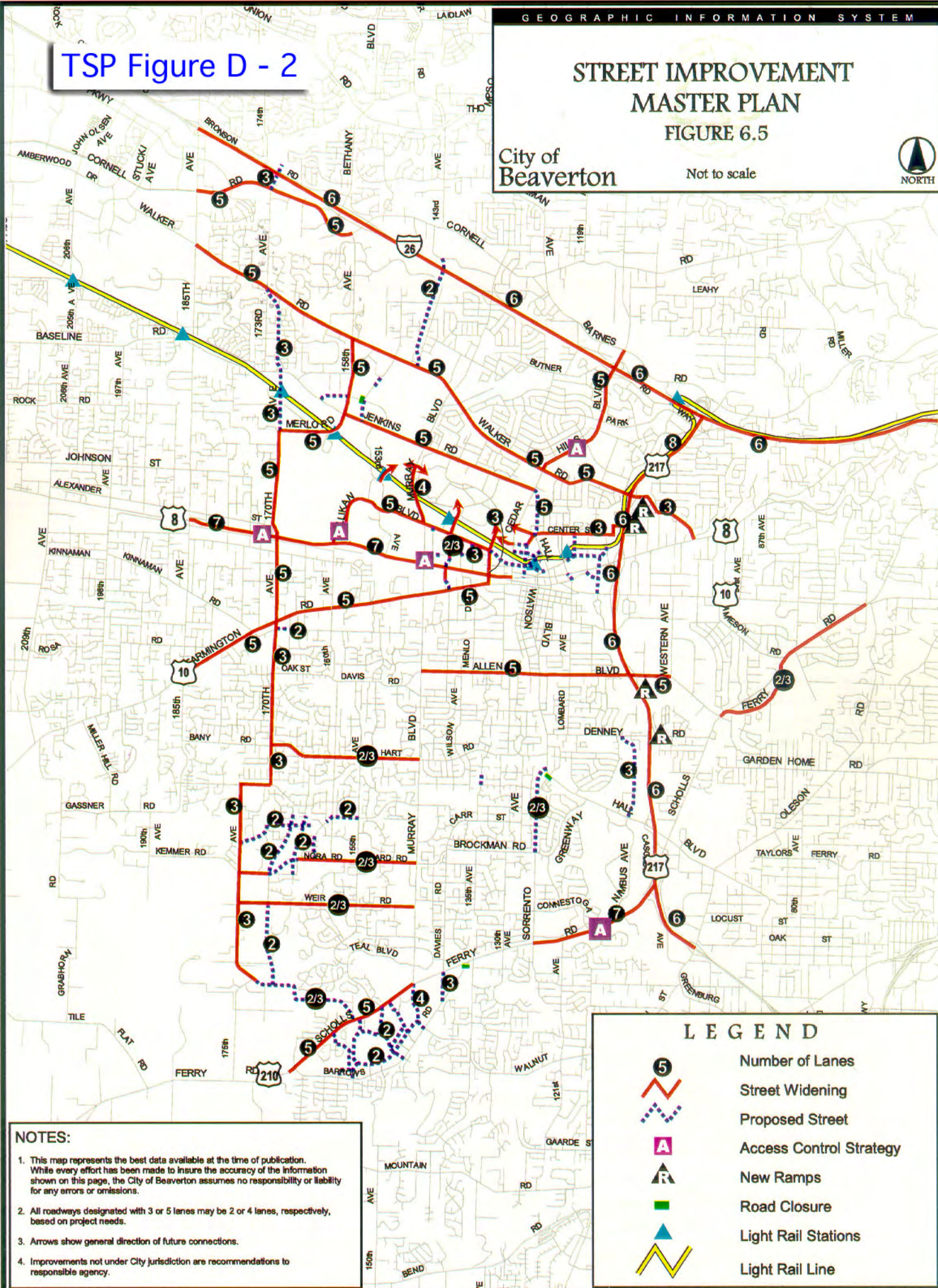
**Figure D-1
2020 PRIORITY SYSTEM
REGIONAL TRANSPORTATION PLAN
MOTOR VEHICLE PROJECTS
- Draft -**

TSP Figure D - 2

STREET IMPROVEMENT MASTER PLAN FIGURE 6.5

City of
Beaverton

Not to scale



- NOTES:**
1. This map represents the best data available at the time of publication. While every effort has been made to insure the accuracy of the information shown on this page, the City of Beaverton assumes no responsibility or liability for any errors or omissions.
 2. All roadways designated with 3 or 5 lanes may be 2 or 4 lanes, respectively, based on project needs.
 3. Arrows show general direction of future connections.
 4. Improvements not under City jurisdiction are recommendations to responsible agency.

LEGEND

-  Number of Lanes
-  Street Widening
-  Proposed Street
-  Access Control Strategy
-  New Ramps
-  Road Closure
-  Light Rail Stations
- Light Rail Line

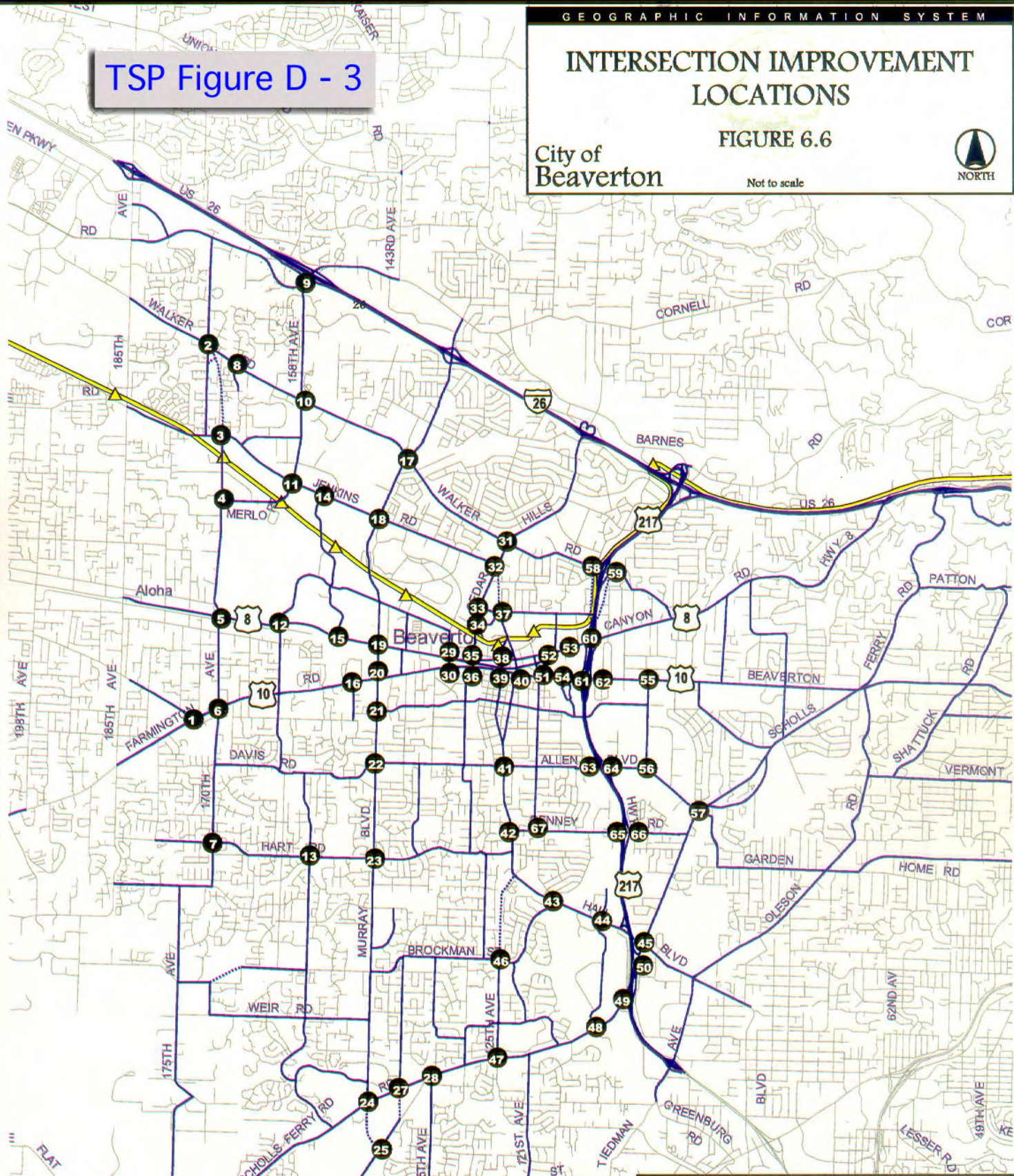
TSP Figure D - 3

INTERSECTION IMPROVEMENT LOCATIONS

FIGURE 6.6

City of Beaverton






Not to scale



NOTES:

1. This map represents the best data available at the time of publication. While every effort has been made to insure that accuracy of the information shown on this page, the City of Beaverton assumes no responsibility or liability for any errors or omissions.
2. Improvements outside the City Limits are recommendations to the responsible agency.

LEGEND

-  Intersection Improvement Number
-  Proposed Streets
-  Existing Streets
-  Light Rail Stations
-  Light Rail Line

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Assessment of Need

Based upon the evaluation of intersection level of service, 32 of the study intersections would operate at or worse than D/C ratio 1.0 or Level of Service (LOS) E in the 2020 evening peak hour with no improvements beyond the RTP Priority System or 2015 Beaverton TSP improvements. Intersection operation for the existing and base 2020 scenarios are shown in Table D-5. The impact of future growth would be severe without significant investment in transportation improvements. Corridors would become unmanageably congested, resulting in travel speeds below 5 MPH over long stretches of road. Poor performance on arterials and collectors would result in substantial impacts (added through traffic) to other collectors and neighborhood routes. The greatest problem areas can be grouped into the following areas:

- **Lack of east-west capacity.** Three of the key east-west routes (TV Highway, Walker, Cornell and Farmington) all experience significant congestion problems if improvements are not made.
- **Lack of connectivity.** Areas near ORE 217 between Walker and Hall are the best examples, where all north-south movements must use local streets or divert to neighboring arterials.
- **Lack of intersection turning capacity.** Many intersections experience congested conditions, not the need for through capacity, but the need for additional right or left turning capacity.

Figure D-4 shows the major alternatives that were modeled and analyzed for the 2020 TSP Update. These alternatives are improvements that were not assumed in the base 2020 network (which includes the RTP Priority Scenario improvements).

**Table D-5
Existing and 2020 Base Intersection Operation (PM Peak Hour)**

Study Intersections Along Scholls Ferry Road

Intersection	Existing (2000)			Forecasted Priority Base (2020)		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand/Capacity
Murray/Scholls Ferry	C	32.0	0.70	D	54.2	0.97
Scholls Ferry/121 st	D	40.4	0.96	D	37.3	0.93
Scholls Ferry/125 th	D	41.6	0.92	E	63.3	1.05
Scholls Ferry/135 th	B	18.4	0.70	B	13.4	0.66
Scholls Ferry/Allen	E	64.5	0.98	D	50.2	0.95
Scholls Ferry/Barrows	B	17.3	0.69	Road Closure		
Scholls Ferry/Cascade	C	23.8	0.76	C	32.9	0.93
Scholls Ferry/Conestoga	B	10.3	0.72	B	12.7	0.78
Scholls Ferry/Davies	C/F			B	18.2	0.70
Scholls Ferry/Denney	C	24.6	0.75	C	24.7	0.77

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Intersection	Existing (2000)			Forecasted Priority Base (2020)		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand/Capacity
Scholls Ferry/Hall	E	65.9	0.99	D	40.9	0.75
Scholls Ferry/Nimbus	D	53.6	0.99	E	65.4	1.07
Scholls Ferry/Laurelwood	B/F			B/F		
Scholls Ferry/ORE 217 northbound off ramp	C	22.2	0.71	B	19.6	0.64
Scholls Ferry/ORE 217 northbound on ramp	C	30.3	0.78	F	>100.0	1.43
Scholls Ferry/ORE 217 southbound ramp	C	31.6	0.76	C	32.3	0.74

Study Intersections Along TV Highway/Canyon Road

Intersection	Existing (2000)			Forecasted Priority Base (2020)		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand / Capacity
170 th /TV Hwy	E	63.1	1.00	F	89.3	1.15
160 th /TV Hwy	D	49.6	0.97	E	73.8	1.14
Canyon/117 th	C	22.9	0.66	C	25.9	0.76
Canyon/87 th	B	18.7	0.68	C	25.0	0.85
Canyon/Cedar Hills	C	34.1	0.85	D	37.9	0.95
Canyon/Hall	C	22.9	0.80	C	25.3	0.84
Canyon/Watson	B	16.8	0.68	C	22.7	0.84
Canyon/Lombard	C	21.2	0.66	D	44.7	0.95
Canyon/Hocken	D	38.3	0.90	D	49.5	1.03
Canyon/ORE 217 northbound ramp	C	24.9	0.66	C	28.5	0.81
Canyon/ORE 217 southbound ramp	C	24.3	0.67	C	28.4	0.84
TV Hwy/Murray	E	65.1	1.00	F	>100.0	1.10

Study Intersections Along Farmington Road/Beaverton-Hillsdale Highway

Intersection	Existing (2000)			Forecasted Priority Base (2020)		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand / Capacity
170 th /Farmington	C	26.1	0.60	F	88.3	1.14
BH Hwy/Griffith	C	31.0	0.81	C	30.8	0.76
BH Hwy/Laurelwood	C	26.2	0.80	E	66.7	1.09
BH Hwy/Western	C	33.7	0.87	C	29.4	0.72
Farmington/Cedar Hills	C	27.2	0.90	D	53.2	1.08
Farmington/Hall	C	25.4	0.85	C	28.7	0.90
Farmington/Hocken	C	22.6	0.84	C	22.4	0.74

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Intersection	Existing (2000)			Forecasted Priority Base (2020)		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand / Capacity
Farmington/Lombard	C	30.7	0.78	D	51.6	0.97
Farmington/ORE 217 northbound ramp	C	34.9	0.94	C	28.4	0.80
Farmington/ORE 217 southbound ramp	C	25.6	0.73	C	33.5	0.89
Farmington/Watson	C	24.2	0.77	C	23.4	0.85
Murray/Farmington	F	89.4	1.00	F	>100.0	1.16

Remaining Study Intersections

Intersection	Existing (2000)			Forecasted Priority Base (2020)		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand / Capacity
158 th /Blueridge	C	26.3	0.71	D	40.7	0.99
158 th /Cornell	C	27.1	0.78	D	39.2	0.97
158 th /Jay	C	26.4	0.60	C	32.9	0.92
158 th /Jenkins	D	38.2	0.86	E	78.6	1.10
158 th /Walker	E	61.3	1.00	E	58.9	1.01
170 th /Baseline	C	21.2	0.58	D	43.5	0.95
170 th /Oak	A/F			B	12.6	0.75
170 th /Merlo	C	22.4	0.63	C	27.8	0.72
170 th /Hart/Bany	C/F/C/F			C	33.6	0.71
173 rd /Walker	E	63.4	0.98	D	36.0	0.86
Allen/ORE 217 northbound ramp	C	25.5	0.81	C	32.4	0.90
Allen/ORE 217 southbound ramp	C	34.2	0.88	C	35.0	0.90
Allen/Western	C	28.7	0.73	D	37.2	0.92
Cedar Hills/Barnes	E	68.8	1.00	F	>100.0	1.22
Cedar Hills/Butner	C	34.7	0.83	D	40.2	0.95
Cedar Hills/Hall	C	30.9	0.74	D	35.5	0.90
Cedar Hills/Jenkins	D	40.0	0.88	D	41.8	0.92
Cedar Hills/US 26 eastbound ramps	C/F			C	29.5	0.90
Cedar Hills/US 26 westbound ramps	B	12.8	0.63	C	29.9	0.97
Cedar Hills/Walker	E	58.2	1.00	F	>100.0	1.34
Cornell/143rd	C	25.5	0.80	E	55.3	0.90
Cornell/173 rd	D	43.5	0.93	F	>100.0	1.24
Cornell/Barnes/Saltzman	E	57.3	0.94	F	>100.0	1.42
Cornell/Bethany	C	30.4	0.76	E	54.3	1.02
Denney/ORE 217	B/F			D	37.0	0.85

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Intersection	Existing (2000)			Forecasted Priority Base (2020)		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand / Capacity
northbound ramp						
Denney/ORE 217	A/F			D	42.7	0.96
southbound ramp						
Garden Home/84 th	A/D			A/D		
Garden Home/88 th	A/C			A/C		
Greenway/125 th	B	17.5	0.52	D	36.5	0.77
Hall/Allen	D	44.4	0.91	D	48.6	0.97
Hall/Cascade/ORE 217	D	51.3	0.96	E	76.0	1.11
southbound ramp						
Hall/Center	C	23.8	0.48	C	25.7	0.68
Hall/Denney	C	32.4	0.85	E	57.9	1.02
Hall/Greenway	E	61.9	1.00	D	49.9	1.01
Hall/Nimbus	C	34.3	0.84	D	43.9	0.95
Hart/155 th	B	18.2	0.77	B	15.8	0.52
Murray/6 th	C/F			C	34.2	0.98
Murray/Allen	D	51.0	0.95	F	>100.0	1.27
Murray/Brockman/Beard	C	31.4	0.74	F	98.7	1.19
Murray/Cornell	E	62.3	0.98	F	>100.0	1.39
Murray/Hart	D	37.2	0.86	D	52.6	1.01
Murray/Jenkins	D	44.5	0.89	E	75.4	1.15
Murray/US 26	B	15.2	0.55	B	14.6	0.68
eastbound ramps						
Murray/US 26	C	28.1	0.79	E	65.1	1.10
westbound ramps						
Murray/Walker	D	54.2	0.98	E	60.9	1.06
Oleson/Garden Home	D	42.8	0.95	D	49.7	1.00
Oleson/Vermont	C	25.1	0.76	C	25.4	0.78
US 26 eastbound	C	22.2	0.66	D	53.8	1.01
ramp/Bethany						
US 26 eastbound	B	17.1	0.66	C	23.5	0.86
ramp/Cornell						
US 26 westbound	D	44.1	0.95	F	85.9	1.19
ramp/Bethany						
US 26 westbound	C	28.4	0.78	D	53.2	1.01
ramp/Cornell						
Walker/ORE 217	C	21.1	0.68	C	24.1	0.76
northbound ramp						
Walker/ORE 217	B	19.4	0.84	B	15.9	0.64
southbound ramp						

**City of Beaverton
Transportation System Plan**



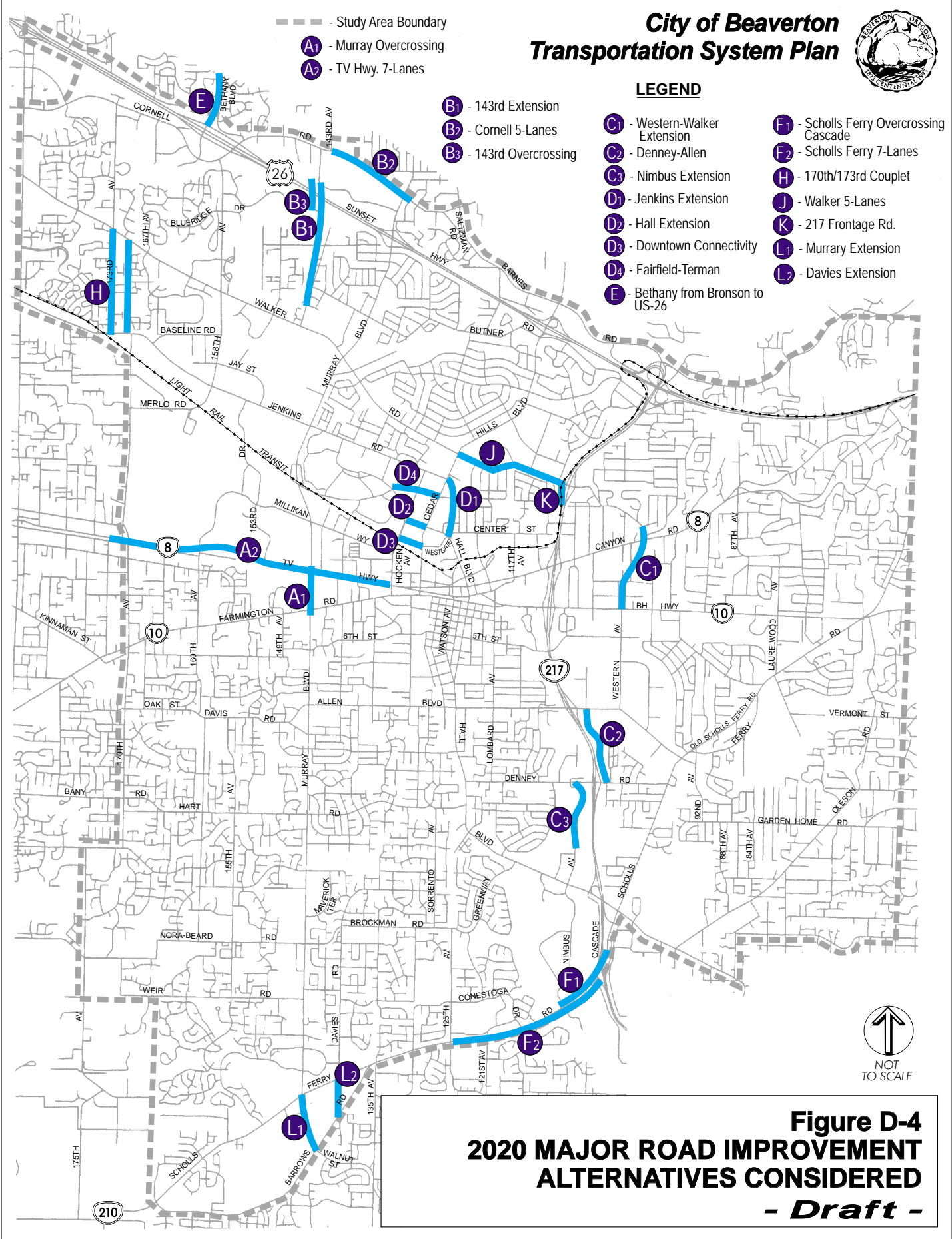
LEGEND

- Study Area Boundary
- A1** - Murray Overcrossing
- A2** - TV Hwy. 7-Lanes

- B1** - 143rd Extension
- B2** - Cornell 5-Lanes
- B3** - 143rd Overcrossing

- C1** - Western-Walker Extension
- C2** - Denney-Allen
- C3** - Nimbus Extension
- D1** - Jenkins Extension
- D2** - Hall Extension
- D3** - Downtown Connectivity
- D4** - Fairfield-Terman
- E** - Bethany from Bronson to US-26

- F1** - Scholls Ferry Overcrossing Cascade
- F2** - Scholls Ferry 7-Lanes
- H** - 170th/173rd Couplet
- J** - Walker 5-Lanes
- K** - 217 Frontage Rd.
- L1** - Murray Extension
- L2** - Davies Extension



**Figure D-4
2020 MAJOR ROAD IMPROVEMENT
ALTERNATIVES CONSIDERED
- Draft -**

Recommended Improvement Plan

To address these deficiencies, a series of alternatives and strategies were considered. The range of strategies includes:

- **Do nothing.** This would result in severe impacts to circulation in Beaverton with delays that would not be tolerable. Extreme land use controls would be required to protect livability.
- **Assume that alternative modes can serve excess demand.** The TSP analysis assumed that these would be developed to their optimal levels to achieve mode-split targets. The order of magnitude of trips to be served by 2020 goes well beyond the capacity of the alternative mode system by themselves, even at their optimal levels. The estimated growth in PM peak period trips far exceeded the capacity of the alternative modes by themselves to support this demand.
- **Build all the road capacity necessary to achieve level of service D conditions at the intersections.** This strategy would result in nearly doubling the cost of the improvements identified in this plan. For example, many five lane cross sections would need to become seven lanes, substantial freeway widening beyond those currently foreseen and very large intersection configurations.
- **Pragmatically add capacity to all modes, developing a balanced system. Outline the long-term configuration of streets to allow development to best accommodate needs. Allow LOS E or D/C ratios of 1.0 at intersections and maintain system performance measures at a 2-hour D/C ratio of 1.0.** This is the strategy that was pursued. It involves significant system improvements, but attempts to balance performance between modes by not only adding additional capacity, but by also providing additional connectivity to serve multi-modal trips.

The mitigation measures for the street system are outlined in a graphic and a table. Figure D-5 outlines the street and intersection improvements, which are summarized in Table D-6. Figure D-6 shows the future streets where right of way is planned for more than two lanes. Each of the following problem areas noted previously have been addressed in the following manner:

East-West Capacity. Capacity improvements were considered in the following areas:

- **Cornell (B1-B3).** Capacity problems were identified from Saltzman to 143rd and further to the west at US 26. The majority of the problems are the result of a lack of route choices from the north of Cornell to the south of US 26 for both east-west and north-south circulation. Several improvement scenarios were tested that included variations and combinations of widening Cornell to 5 lanes, creating a new US 26 crossing from Science Park to Cornell Oaks or Walker, and widening Walker to 7 lanes. The new US 26 overcrossing was found to attract significant volume from Murray/Cornell as well as 158th/Cornell (in addition to providing additional multi-model connectivity), but it did not completely mitigate the capacity problems on Cornell from Murray to 143rd by itself. Possible combinations of alignments that would extend from Trail to Science Park, over US 26 to Greenbrier and the

powerlines right-of-way south to Walker were tested. The maximum benefit accrued when the alignment of this new roadway extended south to Walker (approximately 12,000 vehicles per day (vpd)). Connections that did not continue south of Greenbrier had substantially lower benefits to the surrounding street system (only attracting about 4,000 vpd). There were no feasible alignments for overcrossings of US 26 to the east of Murray that could be identified without extensive wetland, neighborhood and property impacts. Extending the 5-lane cross section on Cornell to the east of Murray (to Dale Avenue) addressed the capacity deficiency on Cornell from Murray - without the 143rd-Walker US 26 overcrossing. This project improvement is also identified in the RTP Preferred Scenario. Unfortunately, there would be no remaining capacity in this sub-area should further urban growth boundary expansions be considered than those identified in the 2020 Metro land use forecast. Further to the east, the Cedar Mill Town Center Plan identified Cornell as a 3-lane section from Murray to Saltzman Road. Forecasted volumes in the section exceed thresholds for link volumes and intersection capacity at Cornell/Saltzman. Other parallel routes and connections were considered in the Cedar Mill Town Center Plan, but none were approved or adopted. Walker was tested as a 7-lane facility from ORE 217 to 158th, but it did not attract significant volume from Cornell (less than 500 vpd). Therefore, Cornell will be identified in this TSP as needing five lanes to just east of Murray (Dale Avenue). Further study and refinement in this sub-area will be required in the next twenty years to address deficiencies at the Barnes-Saltzman/Cornell intersection and the need for additional east/west and north/south capacity beyond 2020 (including refining the limits of the 5-lane section of Cornell), which may include the need for the 143rd overcrossing corridor (from Trail to Walker). Based on input from the Traffic Commission, the 143rd extension from Cornell to Walker (including the US 26 overcrossing) should be identified for ROW reservation to ensure that as development occurs, the possibility remains that a multi-modal project could be considered in the future³. The Traffic Commission agreed that this area would need additional capacity and connectivity in the future.

- **TV Highway (A2).** TV Highway was identified in the RTP for capacity improvements. An expressway facility was identified in the RTP west of Hocken to Hillsboro. The prior TSP has recommended a 7-lane cross section and an access managed high-volume facility, consistent with the Washington County Transportation Plan from 1988. Both options would satisfy the need for east-west capacity. Further corridor study refinement should be conducted to determine the ultimate design (this study should outline some initial basic options, alignment and right-of-way issues as well as the access and frontage road needs). For this TSP, a placeholder project of seven lanes was assumed (consistent with prior adopted

³ City of Beaverton Traffic Commission Meeting, May 17, 2001.

plans), which would be superceded by any future corridor study findings.

- **Walker Road (J1).** Walker Road between Cedar Hills and ORE 217 is identified for improvement to a 3-lane section in the RTP (5-lanes in the RTP Preferred Scenario). Forecasted volumes indicate that a 3-lane section would not be adequate to carry future 2020 traffic volumes. The two-hour peak period performance as well as the key intersection capacity would both be exceeded. Alternative modeled scenarios included downtown capacity improvements, ORE 217 frontage road improvements, and Cornell Road improvements in addition to five lanes on Walker Road. None of the alternatives would relieve the need for 5 lanes from ORE 217 to Cedar Hills Boulevard. Therefore, for this TSP a five lane Walker Road from ORE 217 west to Hillsboro is included in the plan (similar to the prior TSP and consistent with the RTP Preferred Scenario).

- **Downtown (D1-D4).** Improvements to east-west capacity in the downtown area were examined to attempt relief to the congested major routes serving Beaverton (TV Highway, Murray, Farmington, Jenkins, and Walker). The downtown connectivity improvements were included in the base improvement scenario (from the RTP Priority system and prior TSP) including the extension of Millikan eastward through the downtown via Henry Street, Rose Biggi and 120th. Each of these connections improve circulation in the downtown area for the future scenario. The existing Short Avenue was assumed to be replaced (closed) with the future opening of Rose Biggi between Canyon and Broadway, having no significant traffic impact. One of the most significant connections in the downtown area in the prior TSP was the extension of Hall to Jenkins. Cedar Hills north of Canyon would experience several segments above the 1.0 and 1.1 D/C ratio in 2020 and options for improvements in this area were evaluated. Different connection opportunities were tested both individually (Hall to Hocken, Hall to Jenkins, Dawson to Hocken, Fairfield to Hocken) and in groups. Key findings of the alternatives tested were:
 - Connecting Hall to Hocken without other parallel connections would overload the Hall section from Hocken to Cedar Hills and would create intersection capacity problems.
 - Connecting Hall to Jenkins and improving Jenkins to 5 lanes from Murray to Hall would attract significant volume, but would not allow traffic to disperse through several parallel roadways. This concentration would result in the need for several turn lane improvements.
 - Connecting Hall, Dawson, and Fairfield to Hocken would overload the Cedar Hills/Hall area. Combined, these connections/extensions would remove a significant volume of traffic from Farmington, TV Highway, and Murray. It would also create enough connectivity to carry significant volume though the downtown area without creating intersection capacity

problems.

- Connecting all streets in this sub-area (Hall to Jenkins, Hall to Hocken, Dawson to Hocken and Fairfield to Terman) would have significant benefit to surrounding arterials (reduce traffic on Murray by 4,000 to 6,000 vpd, TV Highway by 3,000 vpd, Walker by 2,000 vpd and Millikan by 2,000 vpd). Each of the connections when considered together would attract volumes that would be significant (Hall to Jenkins – 15,000 vpd, Hall to Hocken – 7,000 vpd, Dawson to Hocken and Fairfield to Terman – 4,000 to 6,000 vpd).

Based upon these findings, it is recommended that each of the connections be pursued in the future, progressively over time. Collectively the connections have significant mitigating effects on critical intersections that are over capacity in the future and cannot easily be mitigated by intersection widenings, grade separations or other new routes. The first connections might be the Hall extension to Hocken and the Dawson extension to Hocken since both require the least right-of-way or impacts. The Hall extension to Jenkins and the Fairfield extension to Terman should be planned in the next 20 years and implemented as performance standards in the area are exceeded. The value of the collective set of connections in this area are the far reaching benefits that they have as a group, reducing traffic at critical locations away from Cedar Hills Boulevard, such as TV Highway and Murray. Additionally, if all of the connections are made, the traffic volumes on Jenkins from Hall/Center to Cedar Hills and on Hall from Center to Cedar Hills would be reduced to a level that could allow for three travel lanes (allowing the potential to revise these streets to a boulevard style with the same paved width from curb to curb).

Lack of North-South Connectivity east of ORE 217. The issue of circulation on the east side of ORE 217 was raised at technical advisory and public meetings. This issue was studied to determine the benefits of improved connectivity in this area. Improvements were considered in three segments:

- **Walker to Western (C1).** A new road alignment was modeled that connected Walker Road at Canyon to Western Avenue at BH Highway. The new roadway would attract roughly 5,000 to 7,000 vpd but would not mitigate any capacity deficiencies in the surrounding area. Additionally, the net benefit to local/neighborhood through routes (connections between and including 91st to 107th) is a reduction of about 1,000 vpd (not more than 2,000 vehicles per day). Connections east of 91st and west of 107th would not experience significant volume reductions. The new connection would not divert traffic from areas with congestion problems. The arterial/collector intersections and links east of ORE 217 would not generally experience an improvement in performance and there were no deficiencies corrected by this new connector. Since the alignment would have significant

property, wetland and business impacts would likely outweigh the benefits of the traffic reductions, the existing connectivity between Canyon and BH was determined to adequately serve future traffic demand. An alternative alignment of alternative C1 was considered that would utilize the 103rd Avenue existing alignments to reach from Western to Walker. This connection would serve the greatest benefit as a bike system connection, as well as providing additional connectivity for motor vehicle traffic. Based on input from the Traffic Commission, the 103rd extension alignment is the recommended improvement project for the C1 alternative and should be constructed as development occurs along the proposed alignment⁴. The Traffic Commission agreed that this connection would be an important bicycle connection and that additional north/south motor vehicle connectivity would be a valuable result.

- **Allen to Denney (C2).** A new road alignment was modeled that connected Allen to Denney just east of ORE 217. The new roadway did not prove to carry/attract volumes above 5,000 vehicles per day or divert significant volumes from congested roadways. In addition, the placement of new intersections for this connection would be in the vicinity of interchanges on ORE 217 and not meet ODOT's prescribed access spacing standards (1,320 feet). Based upon these findings, this option was not pursued in the TSP.
- **Nimbus from Hall to Denney (C3).** A new road alignment was modeled that extended Nimbus from Hall north to Denney. This connection was included in the 2015 Beaverton TSP, but was not adopted in the RTP Priority System. The Nimbus extension shows the ability to attract/carry over 5,000 vehicles per day (approximately 7,000). In addition, it would divert traffic from Hall Boulevard near Cascade, Greenway, and the proposed 125th connection, which all experience capacity deficiencies in the PM peak and would reduce the potential for cut-through traffic in the Vose neighborhood. Therefore, this new road alignment was determined to have significant benefits to the transportation system and retained in the TSP. Wetland issues and alignment issues through private property will need to be addressed in further consideration of this alternative.

Intersection Capacity. One of the lower cost means of improving motor vehicle performance is increasing capacity at intersections through addition of turn lanes and signal phasing modifications. These improvements can many times be made in advance of a major street improvement to increase capacity until more expensive street modifications can be made (for example the intersection improvements at Murray/Jenkins preceded the Murray overcrossing widening by several years). There are few alternatives to these improvements that do not have greater impacts or are not as effective at mitigating capacity deficiencies. While intersection

⁴ Based on Beaverton Traffic Commission special meeting, May 17, 2001.

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improvements can be lower cost improvements that improve motor vehicle capacity, they can add to the width of intersections which impacts pedestrian crossing by increasing exposure and lengthening crossing times. A series of 35 intersection improvements were identified which primarily add turning movement capacity.

Other issues. Beyond these capacity and circulation issues noted above, public input provided direction to investigate several other issues as options to roadways already identified in the RTP or TSP for future improvements. Alternatives were analyzed at the following locations:

- **Bethany Boulevard (E).** The RTP identifies Bethany Boulevard to be improved to 5 lanes from Bronson to West Union Road. Analysis was done to determine the benefits of extending the 5-lane section south to the US 26 westbound ramp as well as all the way to Cornell (including a widening of the US 26 overcrossing). The results showed that the full improvement (5 lanes from Cornell to Bronson) would be needed to satisfy traffic volume demand. Capacity deficiencies on Bethany could not be mitigated without the extension of the 5-lane section of Bethany south to Cornell in 2020.
- **Scholls Ferry Road (F1-F2).** The RTP identifies Scholls Ferry Road to be improved with system management from ORE 217 to 125th. Alternative improvements were analyzed that included increasing the section to 7 lanes and constructing Scholls Ferry overcrossing of Cascade to Nimbus. Results indicated that these alternatives would not be necessary to further improve the transportation system in 2020 due to additional connections in the Washington Square area (proposed in the priority RTP). The proposed street performance standards could be met (marginally) in 2020 without widening to seven lanes. However, the corridor is on the fringe of acceptable operating performance and for future planning the Scholls Ferry corridor from Hall to Murray should be anticipated that at some time further widening to seven lanes will be necessary. Therefore, reservation of right of way to seven lanes should be considered, consistent with the 1988 Washington County Transportation Plan, prior TSP and preferred RTP. In particular, when the ORE 217 corridor study is conducted, the reconstruction of the Scholls Ferry Road overcrossing of ORE 217 should consider the potential to extend the grade separation beyond the railroad tracks southwest of ORE 217 to provide for access spacing consistent with standards in the Oregon Highway Plan (1,320 feet to the first signal at Nimbus).
- **170th/173rd (H).** The existing traffic count on 173rd to the south of Walker indicates that the daily traffic volume on 173rd is approximately 9,000 vehicles per day (vpd). Currently, 170th is a dead-end north of Baseline. The existing through movement between Baseline and Walker must travel on 173rd today. The existing peak hour level of service (LOS) at 173rd/Walker is LOS E, with a volume to capacity (V/C) ratio of 0.98. The existing peak hour operation at 170th/Baseline is LOS C with a V/C of 0.58.

Forecasted base 2020 volumes (RTP Priority Scenario without the 170th/173rd improvement project where 173rd is the only north-south route and 170th is a dead-end) indicate that approximately 13,000 vpd would use 173rd between Walker and Baseline. The corresponding LOS at 173rd/Walker is LOS D with a demand to capacity ratio (D/C) of 1.01 (due to Walker becoming 5 lanes in the priority scenario). The operation at 170th/Baseline would be LOS F with a D/C ratio of 1.06 due to heavy turning traffic to get to 173rd. Previous transportation plans in the area have identified the need for a corridor improvement to handle this traffic growth. Plans including the 1988 Washington County Transportation System Plan (TSP), the 2015 Beaverton TSP, and the 2000 Metro Regional Transportation Plan (RTP) have all identified a new road alignment that extends 170th north of Baseline to create a through route linking to 173rd south of Walker Road. As part of the MSTIP program, voters approved the funding for the 170th/173rd project as part of a larger list of specific projects. Additional options proposed at public forums for this 2020 Beaverton TSP update have been analyzed and information is summarized below.

TSP/RTP/MSTIP Project. This option would extend 170th north of Baseline as a 3 lane roadway and would curve to the west near Walker to connect to the existing 173rd/Walker intersection. The alignment of 173rd would be changed to intersect the new through roadway to the south of Walker. Land development along the planned 170th alignment has been coordinated with the improvement project, including preservation of right of way and restriction of residential fronting access. Intersection improvements associated with the planned projects and redirection of turning movements to through movements would improve the intersection operation at 173rd/Walker to LOS D with a D/C of 0.97 and improve 170th/Baseline to LOS D with a D/C of 0.91 (2020 PM peak hour). This through route would also provide the capacity to relieve congestion from corridors including 158th and 185th by keeping sub-area traffic in 170th/173rd rather than impacting other arterial corridors with out of direction travel. The forecasted volume on the proposed though roadway to the south of Walker and to the north of the 173rd connection is approximately 18,000 vpd (approximately 11,000 vpd near Baseline). The remaining piece of 173rd north of Baseline would become a neighborhood route with lower volume.

170th/173 couplet and 173rd extension. An alternative improvement option was proposed at the public forum that includes maintaining 173rd as a 2 lane road, extending 173rd south over the LRT line and connecting it at 170th/Merlo, and extending 170th directly north to Walker as a 2 lane road parallel to 173rd. The goal of this alternative was to spread the through traffic between the two roadways (170th and 173rd). Traffic forecasts indicate that the traffic would spread between the two roadways as expected, with forecasted volumes on 173rd at 9,000 vpd and on 170th

at 4,000 vpd. However, there were several impacts to the transportation system resulting from this alternative. First, creating a couplet road system from Baseline to Walker removes the single through route on the 170th/173rd corridor, which would force traffic to use Baseline, Walker, and the neighborhoods streets that connect the two (resulting in neighborhood impacts of 2,000 to 5,000 vpd). Second, the increase of turn volumes at the intersection of 173rd/Walker and 170th/Baseline would decrease their operation to a LOS of E with a D/C of 1.04 and a LOS of D with a D/C of 0.94, respectively. Third, the queue lengths on Baseline and 173rd were analyzed to determine storage capacity, as traffic would potentially back up towards the intersection of 173rd/Baseline from the LRT gated crossings. It was determined that with the forecasted 2020 volumes, queue lengths could exceed the available storage and potentially cross at the intersection of 173rd/Baseline, creating potential for a traffic gridlock condition. Fourth, the new rail crossing would need significant study, as required by ODOT, that proves it would be of significant benefit to the transportation system (as explained above, it would not). Finally, removing the through route on the 170th/173rd corridor would force traffic onto nearby congested corridors. This would decrease intersection operation to a D/C of larger than one at the study intersections including 158th/Walker, 158th/Cornell, 158th/Jenkins, Cornell/173rd, 158th/Blueridge, 158th/Jay, and 170th/TV Highway. Based upon these findings this option was rejected.

TSP/MSTIP/RTP project alternative alignment. An alternative alignment of the 170th extension from Baseline to Walker was proposed at a public forum. The proposed alignment would curve 170th to the west closer to Baseline (just south of Elmonica School). The goal of this alignment change would be to re-route through traffic away from Elmonica School changing the crossover point between 173rd and 170th further south. Operationally speaking, this alignment change results in similar intersection operations as the original 170th/173rd alignment since the 173rd/Walker and 170th/Baseline intersections are unchanged. The only issues that would arise are the right of way impacts along the new road alignment both in terms of the fronting properties and the impact of the reversing curves to make the 170th/173rd transition. The curve transition from 170th to 173rd, although it was originally proposed to pass through undeveloped land, would impact potentially 6 to 12 homes with this option as the curve reverses just south of Elmonica Elementary School. Additionally, 173rd from Walker to the curve would have right of way impacts to widen to 3 lanes. There are also a few residential units that would have fronting access onto the new through route on 173rd with the proposed alignment alternative (generally there are none on the original alignment).

Based on the above finding, the planned 2015 TSP/MSTIP/RTP project is continued to be recommended for this 2020 Beaverton TSP update. Additionally, it is recommended that the alternative curve alignment and Elmonica School circulation

and access issues be reviewed in the project design process⁵.

- **ORE 217 frontage road (K).** The 2015 TSP included a frontage roadway linking Walker to Canyon Road and Cabot/Center Street, combined with braiding of ORE 217 freeway ramps. An option would be simply to braid the Walker/Canyon freeway ramps to ORE 217. Based upon testing both options, in 2020 the benefits of the frontage road connection on adjacent streets were not as significant as the benefits of extra connectivity on the Hall/Jenkins/Cedar Hills area. The frontage road would reduce the volumes on Walker by less than 500 vpd and would decrease volumes on Canyon by less than 2,000 vpd. The extra connectivity on the Hall/Jenkins/Cedar Hills area, as described previously, would reduce traffic volume in the range of 2,000 to 4,000 vpd on several congested arterials, including TV Highway and Walker. Therefore, the TSP should include the braiding of ramps as part of the ORE 217 improvements between Canyon and Walker, but the frontage road improvements would not need to be part of the TSP (see appendix N for a photo-simulation of the interchange from the 2015 TSP, which included the frontage road).

- **Murray/Davies Extensions (L1-L2).** This area was analyzed to determine the impact of the planned improvements on the local street network of extending Murray Boulevard to Walnut at Barrows and extending Davies Road south to Barrows disconnecting Barrows at Scholls Ferry Road. Tests were run extending both Murray and Davies, extending each individually and looking at turn restrictions at Davies/Barrows/Scholls Ferry. The need for the Davies/Barrows realignment is two fold: 1) the existing spacing between 135th and Barrows on Scholls does not meet access spacing standards; 2) the short spacing has resulted in a significant number of collisions that can be mitigated by realigning Barrows with Davies. The realignment of Barrows with Davies would not significantly increase traffic on Davies as long as the extension of Murray to Walnut is in place. The majority of Barrows traffic is destined for Scholls Ferry Road and would not be benefited by using Davies based upon results from travel forecast testing. Building the Murray extension after the Davies extension shows that additional though traffic would be diverted onto Davies north of Scholls Ferry. Turn restrictions were modeled at Davies/Scholls Ferry that eliminated northbound cut-through traffic on Davies after the Murray extension was built and Scholls Ferry/Barrows was closed. These turn restrictions indicate that traffic from Davies would be diverted to adjoining neighboring local streets (Weir/Haystack/130th all would experience a significant increase in traffic compared to existing volume – about 1,000 vpd). Therefore, the extension of Murray Boulevard to Walnut should be complete before the Davies extension to Barrows is complete and the intersection of Davies/Scholls Ferry

⁵ City of Beaverton Traffic Commission Meetings, May 17th and June 14th, 2001.

should be a non-turn-restricted intersection.

- **Murray/TV Hwy and Murray/Farmington (A1).** These intersections were further examined for possible improvements to handle the large north-south and east-west (as well as turning) volumes. In the prior TSP, the maximum numbers of turning lanes were assumed at these locations to achieve marginally acceptable operating performance. Improving each approach with turn lanes and signal controls would greatly improve the intersection operation and increase the intersection capacity, but it would not ultimately handle the projected 2020 volumes. Additionally, if TV Hwy were identified for improvement to an access-controlled facility by the corridor study, there would be a grade separation at Murray Boulevard. With the railroad crossing immediately to the south of TV Highway, a grade separation of Murray over TV Highway and the railroad tracks would be a future alternative for safety and operational performance. To solve both issues at once, raising Murray as four through lanes over TV Highway and Farmington would solve the intersection capacity problems at both intersections. Furthermore, the Murray overcrossing would eliminate the at-grade railroad crossing on Murray, which could benefit a potential future Commuter Rail extension to south Hillsboro. Turn volumes from TV Highway and Farmington to Murray would be handled by an interchange design to be identified in further review and design. Therefore, to mitigate the intersection capacities at these major intersections, turn lane improvements would be a 10-15 year solution (which would solve existing capacity problems) and the Murray overcrossing would be the ultimate 15-30 year improvement.

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Table D-6

Beaverton 2020 TSP Preferred Additional Motor Vehicle Improvement Plan

Note: Location #'s listed as “_b” indicate that the improvement is in addition to an intersection improvement at that location from the 2015 TSP, intersections that were not included in the 2015 TSP improvement plan are numbered starting with 101

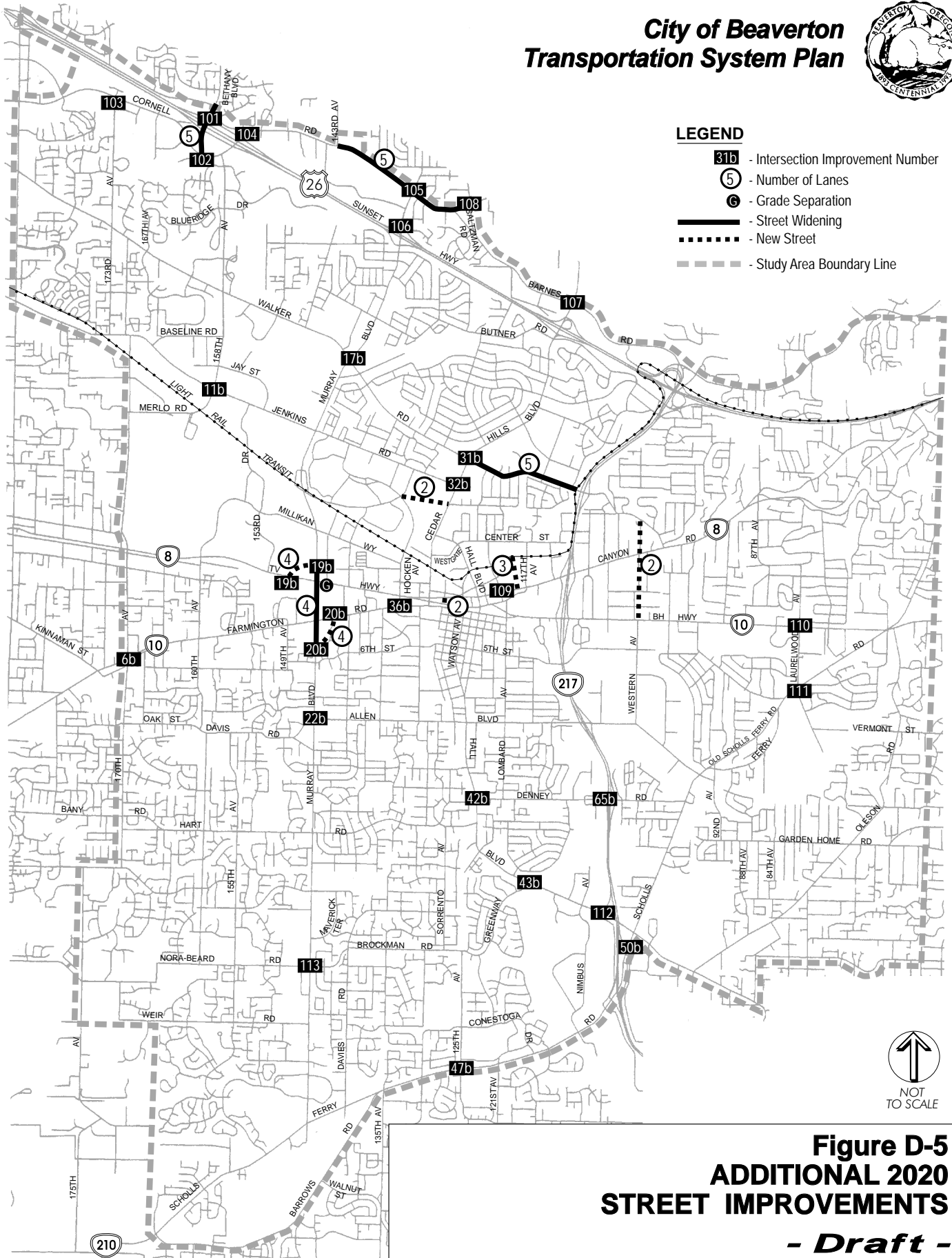
Location #	Location	Description	Cost
	Bethany Boulevard: Cornell to Bronson	Widen street to 5 lanes including sidewalks and bike lanes (this includes the widening of the US 26 overcrossing and intersection improvements).	\$3,424,000
	Cornell: 143 rd to Dale	Widen street to 5 lanes including sidewalks and bike lanes.	\$5,197,500
	Cornell: Dale to Saltzman	Future capacity improvement based on additional study and coordination with Washington County	\$8,620,000
	Walker: Cedar Hills to ORE 217	Widen street to 5 lanes including sidewalks and bike lane.	\$8,970,000
	Murray: TV Hwy to Farmington	Construct an 4 lane overpass (Murray over TV Highway and Farmington), including sidewalks, bike lanes, and interchange connections	\$28,517,500
	103 rd : Western to Walker	Improve existing roadway and construct new connections and intersection alignments to provide connectivity from Walker to Western. This project includes sidewalks and bike lanes and should be built as development occurs.	\$5,500,000
	120 th Avenue: Henry to Canyon Road	Construct a 2 lane collector road, including sidewalks and bike lanes	\$3,900,000
	Fairfield: Cedar Hills to Hocken	Construct a 2 lane roadway, including sidewalks and bike lanes	\$5,500,000
	Rose Biggi: Canyon to Broadway	Construct a 2 lane collector road, including sidewalks and bike lanes	\$1,200,000
101	Bethany/US 26 WB	add 2nd WB RT Lane, NB LT Lane	N/A
102	Bethany/Cornell	overlap SB RT	N/A
103	Cornell/173 rd	add WB RT lane, 2nd NB LT lane, NB RT lane, SB RT lane	\$2,200,000
6b	170th/Farmington	add EB RT lane, WB RT lane (signal modification)	\$750,000
11b	158th/Jenkins	overlap NB RT	\$125,000
104	Cornell/US 26 WB	add 2nd WB LT lane (structure work)	\$1,000,000
105	Murray/Cornell	overlap NB RT, add 2nd NB LT lane (Cornell 5 lanes)	\$1,000,000
106	Murray/US 26 WB	add 2nd WB RT Lane	\$500,000
17b	Murray/Walker	increase cycle length by 20 seconds (to 120)	\$125,000
19b	Murray/TV Highway	2 new signals, 2 RT Lanes, 2 Double LT Lanes	N/A
20b	Murray/Farmington	2 new signals, 2 RT Lanes, 2 Double LT Lanes	N/A
22b	Murray/Allen	add 2nd WB LT lane, 2nd WB RT lane, overlap WB RT lane (signal modification)	\$1,250,000
107	Cedar Hills/Barnes	add 2nd NB lane and SB LT lane	\$1,000,000
108	Cornell/Saltzman	add 2nd NB lane and SB LT lane (Cornell to 5 lanes)	\$2,000,000
109	Canyon/Lombard	add EB RT lane	\$500,000
65b	Denney/ORE 217 SB	add EB RT lane (structure work)	\$1,100,000
110	BH Highway/Laurelwood	add SB LT lane (signal modification and ROW)	\$2,000,000
111	Scholls Ferry/Laurelwood	install traffic signal, align with Nicol, ROW, 2 LT lane modifications	\$1,750,000
112	Hall/ORE 217 SB/Cascade	add SB RT lane	\$250,000
43b	Hall/Greenway	add EB RT lane	\$500,000
42b	Hall/Denney	add 2nd WB LT lane	\$500,000
36b	Farmington/Cedar Hills	add 2nd EB LT lane, ROW	\$1,250,000
32b	Cedar Hills/Jenkins	Jenkins to 5 lanes, overlap WB RT	\$125,000
31b	Cedar Hills/Walker	add 40 seconds cycle length to 140	\$125,000
113	Murray/Brockman	add WB RT lane, SB RT lane, add 20 seconds cycle to 120 seconds, ROW	\$100,000
47b	Scholls Ferry/125th	overlap SB RT	\$125,000
50b	Scholls Ferry/ORE 217 NB on ramp	add 2nd NB LT lane and a 2nd WB LT lane	\$1,000,000
		TOTAL	\$90,104,000

**City of Beaverton
Transportation System Plan**



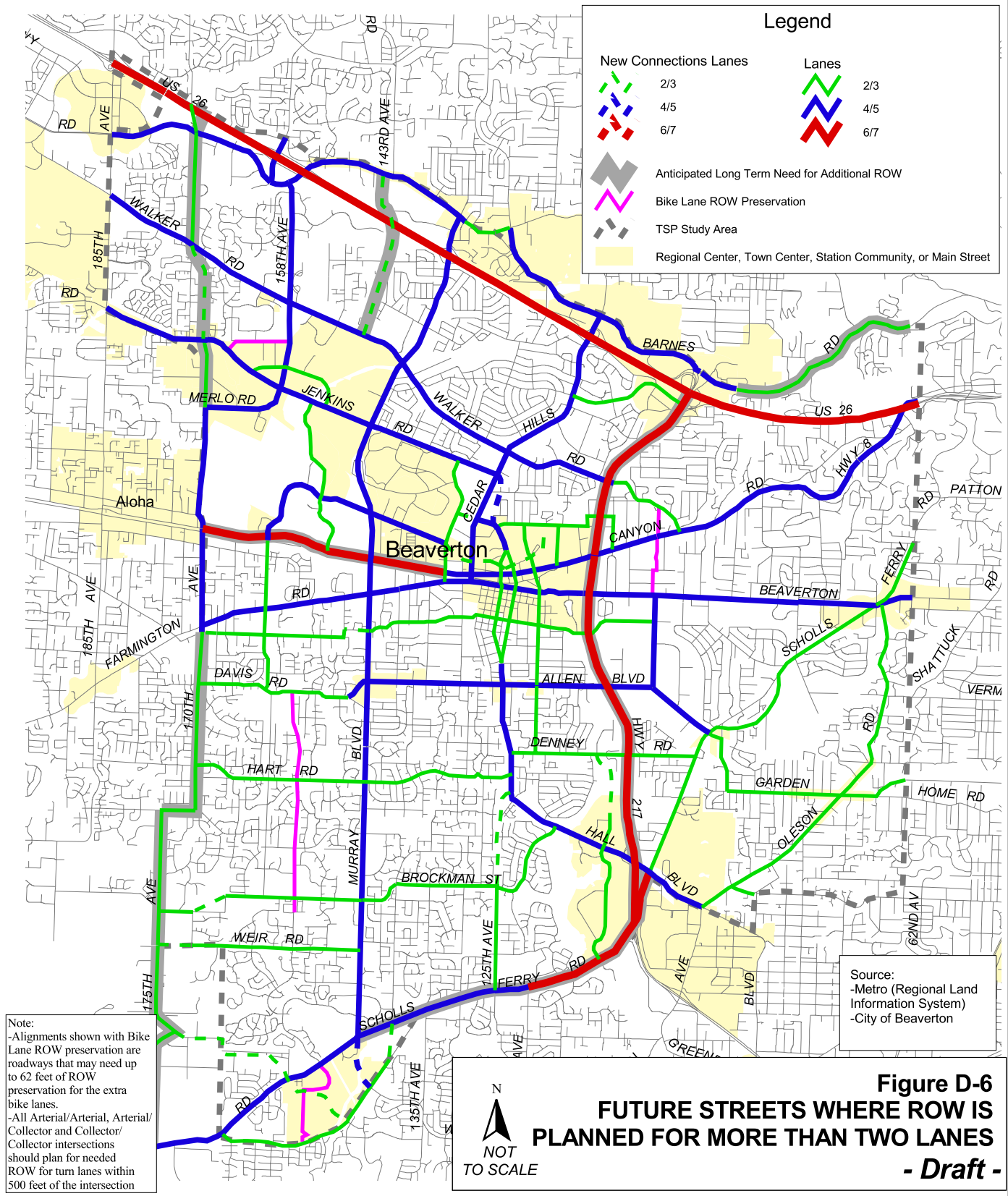
LEGEND

- 31b** - Intersection Improvement Number
- 5** - Number of Lanes
- G** - Grade Separation
- - Street Widening
- ⋯** - New Street
- - -** - Study Area Boundary Line



**Figure D-5
ADDITIONAL 2020
STREET IMPROVEMENTS
- Draft -**

City of Beaverton Transportation System Plan



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Results

The result of these improvements is significant. While a D/C ratio of nearly 1.0 and LOS E still exist for the most part, the 2020 traffic conditions can be mitigated to the point that mobility can be preserved in Beaverton and congestion is manageable. Table D-7 lists the intersection operation for the base 2020 and the TSP mitigated 2020 scenarios. Figure D-7 shows the forecasted 2020 PM peak hour volumes in Beaverton for the TSP mitigated scenario.

Table D-7
PM Peak Hour Intersection Level of Service
Study Intersections Along Scholls Ferry Road

Intersection	Base 2020			Mitigated 2020		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand/Capacity
Murray/Scholls Ferry	D	54.2	0.97	D	49.2	0.93
Scholls Ferry/121 st	D	37.3	0.93	D	37.0	0.92
Scholls Ferry/125 th	E	63.3	1.05	D	51.4	0.98
Scholls Ferry/135 th	B	13.4	0.66	B	13.0	0.64
Scholls Ferry/Allen	D	50.2	0.95	D	52.3	0.96
Scholls Ferry/Barrows	Road Closure			Road Closure		
Scholls Ferry/Cascade	C	32.9	0.93	C	32.7	0.93
Scholls Ferry/Conestoga	B	12.7	0.78	B	12.5	0.77
Scholls Ferry/Davies	B	18.2	0.70	B	18.1	0.70
Scholls Ferry/Denney	C	24.7	0.77	C	24.6	0.77
Scholls Ferry/Hall	D	40.9	0.75	D	38.8	0.77
Scholls Ferry/Nimbus	E	65.4	1.07	D	41.8	0.92
Scholls Ferry/Laurelwood	B/F			A	9.0	0.62
Scholls Ferry/ORE 217 northbound off ramp	B	19.6	0.64	C	20.1	0.68
Scholls Ferry/ORE 217 northbound on ramp	F	>100.0	1.43	D	42.7	0.96
Scholls Ferry/ORE 217 southbound ramp	C	32.3	0.74	C	34.0	0.78

Study Intersections Along TV Highway/Canyon Road

Intersection	Base 2020			Mitigated 2020		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand / Capacity
170 th /TV Hwy	F	89.3	1.15	D	47.7	0.96
160 th /TV Hwy	E	73.8	1.14	C	34.8	0.90
Canyon/117 th	C	25.9	0.76	C	24.5	0.74
Canyon/87 th	C	25.0	0.85	C	25.1	0.85
Canyon/Cedar Hills	D	37.9	0.95	D	54.5	0.99

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Intersection	Base 2020			Mitigated 2020		
	Level of Service	Average Delay	Demand/ Capacity	Level of Service	Average Delay	Demand / Capacity
Canyon/Hall	C	25.3	0.84	C	26.7	0.85
Canyon/Watson	C	22.7	0.84	C	30.4	0.91
Canyon/Lombard	D	44.7	0.95	D	44.1	0.94
Canyon/Hocken	D	49.5	1.03	C	34.2	0.84
Canyon/ORE 217 northbound ramp	C	28.5	0.81	C	26.2	0.74
Canyon/ORE 217 southbound ramp	C	28.4	0.84	C	25.6	0.77
TV Hwy/Murray	F	>100.0	1.10	C	22.2	0.71

Study Intersections Along Farmington Road/Beaverton-Hillsdale Highway

Intersection	Base 2020			Mitigated 2020		
	Level of Service	Average Delay	Demand/ Capacity	Level of Service	Average Delay	Demand / Capacity
170 th /Farmington	F	88.3	1.14	D	54.1	0.98
BH Hwy/Griffith	C	30.8	0.76	C	30.5	0.74
BH Hwy/Laurelwood	E	66.7	1.09	C	34.4	0.94
BH Hwy/Western	C	29.4	0.72	D	43.9	0.93
Farmington/Cedar Hills	D	53.2	1.08	C	21.1	0.72
Farmington/Hall	C	28.7	0.90	C	30.4	0.92
Farmington/Hocken	C	22.4	0.74	C	31.4	0.88
Farmington/Lombard	D	51.6	0.97	D	50.9	0.97
Farmington/ORE 217 northbound ramp	C	28.4	0.80	C	27.4	0.78
Farmington/ORE 217 southbound ramp	C	33.5	0.89	C	29.9	0.85
Farmington/Watson	C	23.4	0.85	C	27.6	0.88
Murray/Farmington	F	>100.0	1.16	C	30.1	0.77

Remaining Study Intersections

Intersection	Base 2020			Mitigated 2020		
	Level of Service	Average Delay	Demand/ Capacity	Level of Service	Average Delay	Demand / Capacity
158 th /Blueridge	D	40.7	0.99	D	38.8	0.98
158 th /Cornell	D	39.2	0.97	D	41.5	0.98
158 th /Jay	C	32.9	0.92	D	44.1	0.99
158 th /Jenkins	E	78.6	1.10	D	46.5	0.94
158 th /Walker	E	58.9	1.01	D	52.4	0.98
170 th /Baseline	D	43.5	0.95	D	53.3	0.99
170 th /Oak	B	12.6	0.75	B	13.3	0.78
170 th /Merlo	C	27.8	0.72	C	27.8	0.72

DKS Associates

Intersection	Base 2020			Mitigated 2020		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand / Capacity
170 th /Hart/Bany	C	33.6	0.71	C	34.8	0.75
173 rd /Walker	D	36.0	0.86	D	36.1	0.87
Allen/ORE 217 northbound ramp	C	32.4	0.90	D	37.2	0.95
Allen/ORE 217 southbound ramp	C	35.0	0.90	D	37.1	0.93
Allen/Western	D	37.2	0.92	D	47.2	0.98
Cedar Hills/Barnes	F	>100.0	1.22	E	59.2	0.96
Cedar Hills/Butner	D	40.2	0.95	D	41.7	0.97
Cedar Hills/Hall	D	35.5	0.90	D	42.6	0.90
Cedar Hills/Jenkins	D	41.8	0.92	D	48.6	0.92
Cedar Hills/US 26 eastbound ramps	C	29.5	0.90	C	24.9	0.85
Cedar Hills/US 26 westbound ramps	C	29.9	0.97	C	25.1	0.93
Cedar Hills/Walker	F	>100.0	1.34	E	53.9	0.98
Cornell/143rd	E	55.3	0.90	E	56.2	0.74
Cornell/173 rd	F	>100.0	1.24	E	56.5	0.98
Cornell/Barnes/Saltzman	F	>100.0	1.42	E	63.3	0.97
Cornell/Bethany	E	54.3	1.02	D	38.6	0.91
Denney/ORE 217 northbound ramp	D	37.0	0.85	D	42.1	0.88
Denney/ORE 217 southbound ramp	D	42.7	0.96	D	40.1	0.94
Garden Home/84 th	A/D			A/D		
Garden Home/88 th	A/C			A/C		
Greenway/125 th	D	36.5	0.77	D	38.9	0.81
Hall/Allen	D	48.6	0.97	D	46.3	0.95
Hall/Cascade/ORE 217 southbound ramp	E	76.0	1.11	D	41.0	0.88
Hall/Center	C	25.7	0.68	C	25.4	0.72
Hall/Denney	E	57.9	1.02	C	26.9	0.88
Hall/Greenway	D	49.9	1.01	D	35.6	0.97
Hall/Nimbus	D	43.9	0.95	C	31.5	0.83
Hart/155 th	B	15.8	0.52	B	15.9	0.52
Murray/6 th	C	34.2	0.98	C	28.8	0.90
Murray/Allen	F	>100.0	1.27	D	44.7	0.88
Murray/Brockman/Beard	F	98.7	1.19	D	48.6	0.95
Murray/Cornell	F	>100.0	1.39	E	56.3	0.98
Murray/Hart	D	52.6	1.01	D	40.4	0.98
Murray/Jenkins	E	75.4	1.15	D	38.8	0.89

DKS Associates

Intersection	Base 2020			Mitigated 2020		
	Level of Service	Average Delay	Demand/Capacity	Level of Service	Average Delay	Demand / Capacity
Murray/US 26 eastbound ramps	B	14.6	0.68	B	16.5	0.64
Murray/US 26 westbound ramps	E	65.1	1.10	C	30.3	0.87
Murray/Walker	E	60.9	1.06	D	49.4	0.96
Oleson/Garden Home	D	49.7	1.00	D	49.6	1.00
Oleson/Vermont	C	25.4	0.78	C	25.4	0.78
US 26 eastbound ramp/Bethany	D	53.8	1.01	C	31.9	0.86
US 26 eastbound ramp/Cornell	C	23.5	0.86	C	25.7	0.90
US 26 westbound ramp/Bethany	F	85.9	1.19	D	37.3	0.95
US 26 westbound ramp/Cornell	D	53.2	1.01	D	37.3	0.91
Walker/ORE 217 northbound ramp	C	24.1	0.76	C	27.4	0.83
Walker/ORE 217 southbound ramp	B	15.9	0.64	B	18.6	0.80

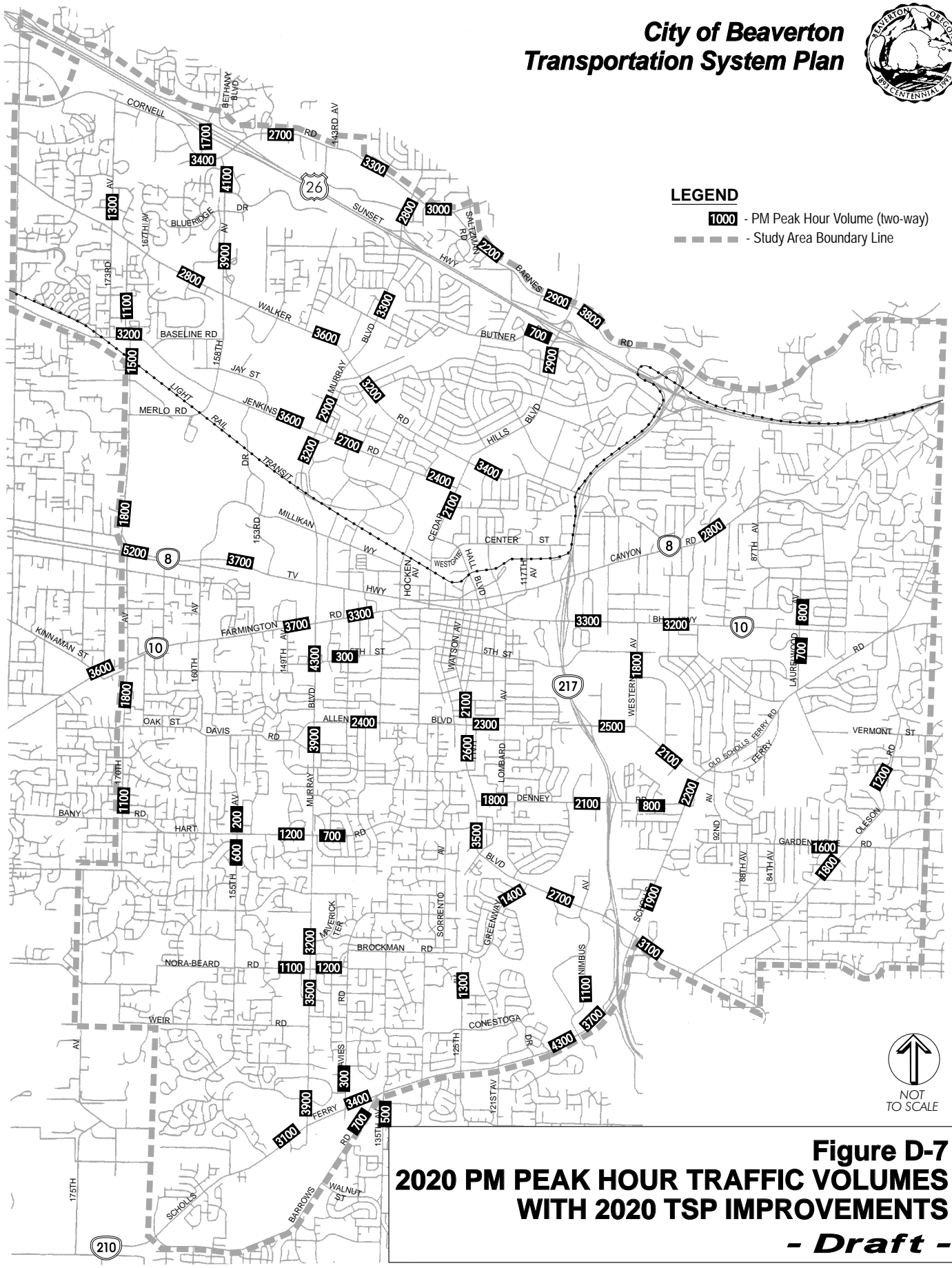
**City of Beaverton
Transportation System Plan**



LEGEND

1000 - PM Peak Hour Volume (two-way)

--- - Study Area Boundary Line



**Figure D-7
2020 PM PEAK HOUR TRAFFIC VOLUMES
WITH 2020 TSP IMPROVEMENTS
- Draft -**

E- Local Connectivity Maps

LOCAL CONNECTIVITY MAP



Legend

- Potential Connection
- ▲ Required - Wash. Co. Street Connection (Source: Wash. Co. Ord. 552)
- Potential - Wash. Co. Street Connection (Source: Wash. Co. Ord. 552)
(If practical. If not, a Required Accessway)
- ↑ Potential Connection within Beaverton 2020 TSP Study Area
- 99 Street Stub Location Number

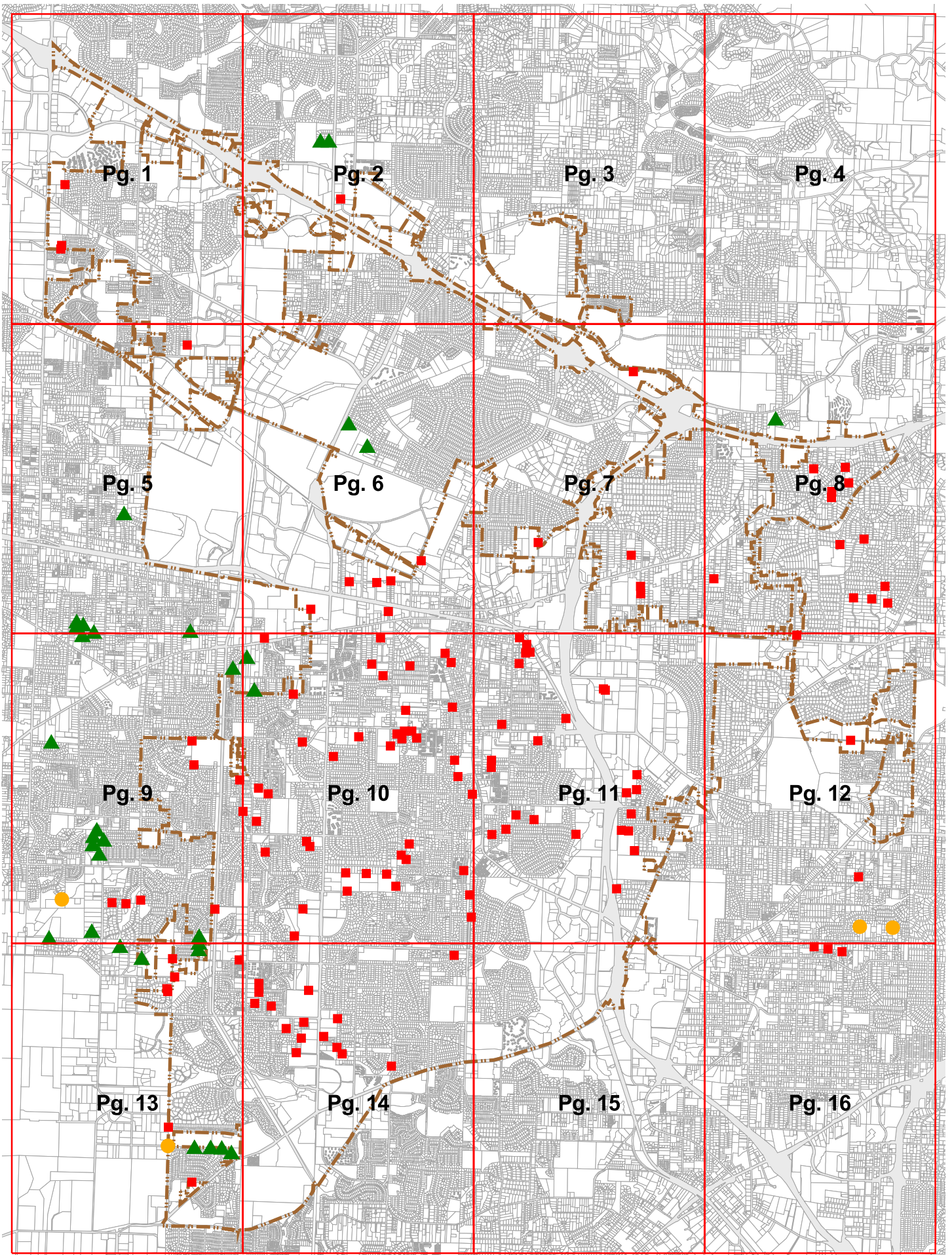
City of
Beaverton

May, 2001



Notes:

This map represents the best data available at the time of publication. While every effort has been made to insure the accuracy of the information shown on this page, the City of Beaverton assumes no responsibility or liability for any errors or omissions.



Local Connectivity Datasheet

Potential Connection

P = Potential or Definite Problems

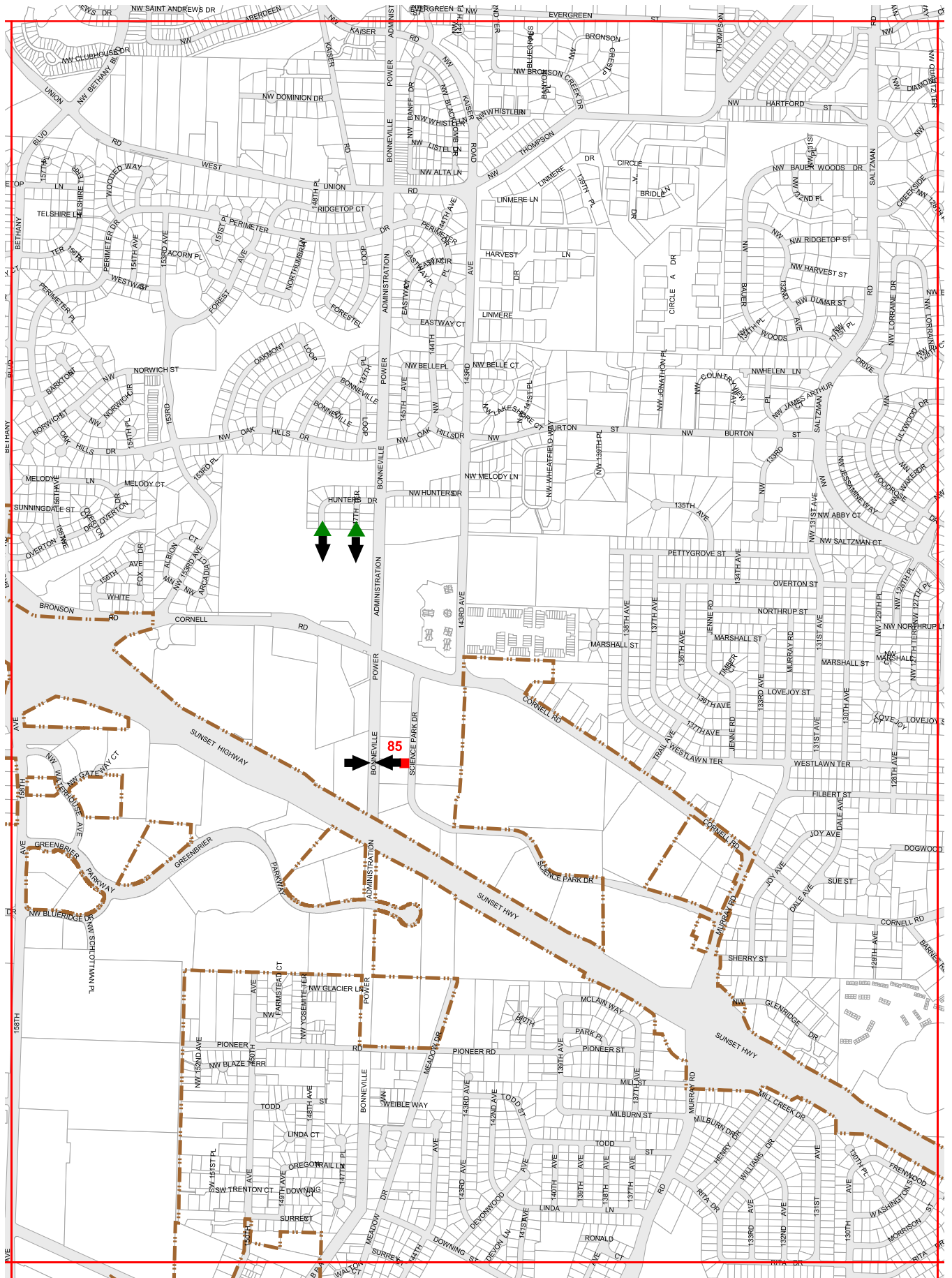
M = Minimal Problems

A = Adopted

Location	Rating	Recommendation
1	P	Feasibility Constraints
2	M	Pursue Multi-modal
3	M	Pursue Multi-modal
5	P	Pursue Multi-modal
7	P	Pursue Non-auto
8	P	Pursue Multi-modal
9	P	Pursue Multi-modal
10	P	Pursue Multi-modal
11	P	Pursue Multi-modal
12	P	Pursue Multi-modal
13	P	Pursue Multi-modal
14	P	Pursue Multi-modal
17	P	Feasibility Constraints
18	P	Consider Non-auto
19	P	Feasibility Constraints
20	P	Feasibility Constraints
21	P	Pursue Non-auto
22	P	Feasibility Constraints
23	P	Consider Multi-modal
24	P	Consider Multi-modal
25	P	Consider Multi-modal
26	P	Feasibility Constraints
27	P	Pursue Multi-modal
29	P	Consider Multi-modal
31	P	Consider Multi-modal
33	P	Consider Multi-modal
34	P	Pursue Multi-modal
35	P	Feasibility Constraints
36	P	Consider Non-auto
37	P	Consider Non-auto
38	M	Pursue Multi-modal
39	M	Consider Multi-modal
40	M	Feasibility Constraints
41	P	Pursue Non-auto
42	P	Pursue Multi-modal
43	P	Pursue Multi-modal
44	P	Pursue Multi-modal
45	P	Feasibility Constraints
46	P	Consider Multi-modal
47	P	Consider Non-auto
48	P	Feasibility Constraints
49	P	Pursue Multi-modal
50	M	Consider Future Cul-de-sac, Pursue Non-auto
51	P	Pursue Non-auto
52	P	Feasibility Constraints
54	P	Pursue Non-auto

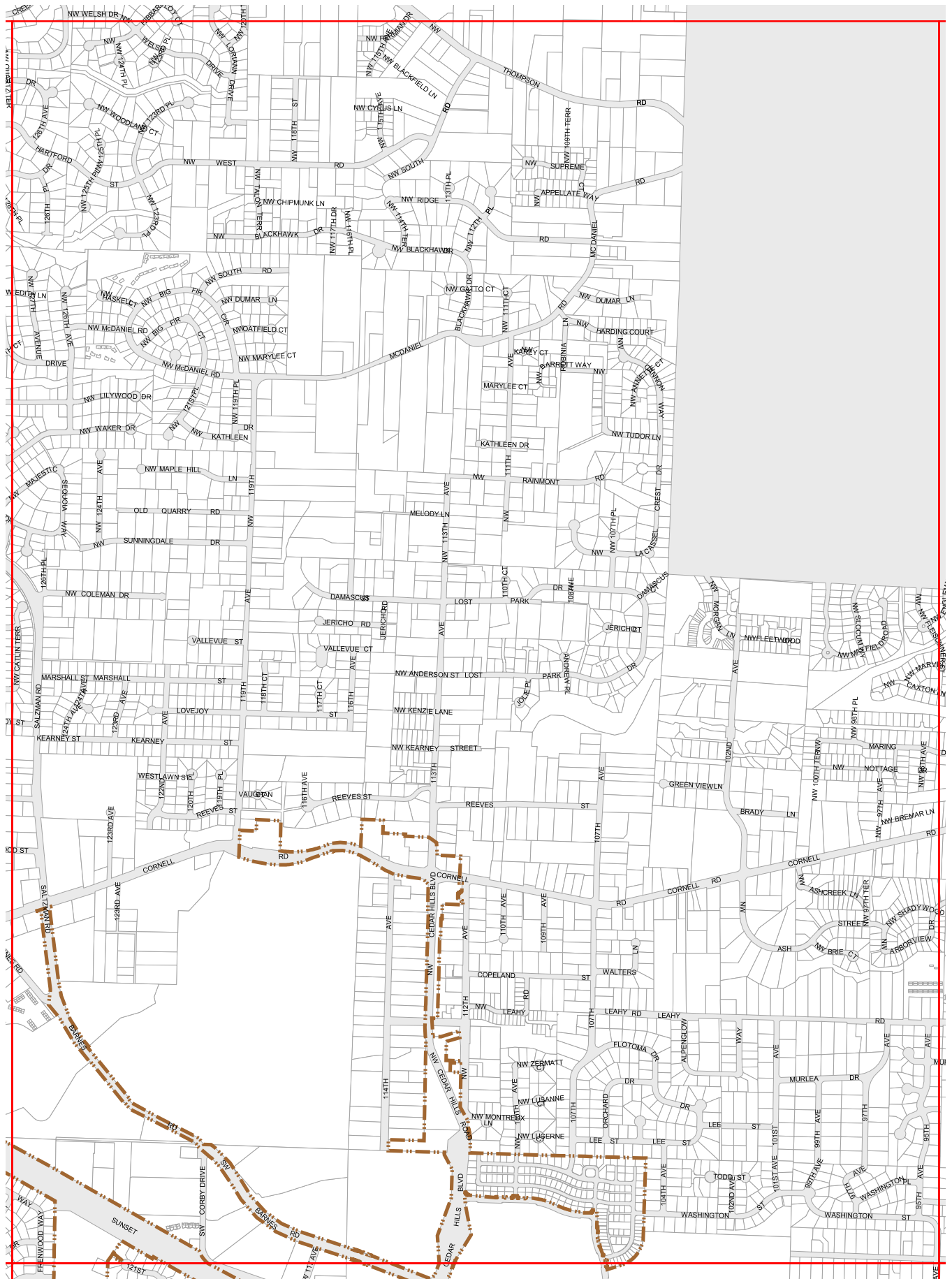
55	P	Feasibility Constraints
56	P	Consider Non-auto
58	P	Consider Non-auto
59	P	Feasibility Constraints
60	P	Feasibility Constraints
61	P	Consider Non-auto
62	P	Consider Non-auto
63	P	Consider Non-auto
64	P	Consider Multi-modal
65	P	Pursue Multi-modal
66	P	Consider Multi-modal
67	M	Pursue Multi-modal
68	P	Pursue Multi-modal
70	P	Pursue Multi-modal
71	P	Pursue Multi-modal
74	P	Pursue Multi-modal
75	M	Pursue Multi-modal
76	P	Pursue Multi-modal
77	P	Pursue Multi-modal
78	P	Pursue Multi-modal
79	P	Pursue Non-auto
80	P	Pursue Non-auto
81	M	Pursue Multi-modal (into Transit Center)
82	P	Pursue Multi-modal
83	P	Pursue Multi-modal
84	P	Consider Multi-modal
85	M	Pursue Non-auto
86	M	Pursue Non-auto
87	M	Pursue Non-auto
88	M	Pursue Non-auto
89	P	Pursue Non-auto
90	M	Pursue Non-auto
91	M	Pursue Multi-modal east of 125, Non-auto west
92	P	Consider Multi-modal
93	P	Consider Non-auto
94	P	Consider Non-auto
95	County	Pursue Non-auto
96	County	Feasibility Constraints
97	County	Feasibility Constraints
98	M	Consider Multi-modal
99	County	Consider Non-auto
100	County	Feasibility Constraints
101	County	Consider Non-auto
102	P	Pursue Non-auto
103	M	Pursue Non-auto
105	P	Consider Multi-modal
106	P	Consider Non-auto
107	P	Consider Non-auto
108	P	Consider Non-auto
109	P	Pursue Multi-modal
110	P	Pursue Non-auto
111	P	Pursue Non-auto

112	P	Pursue Non-auto
113	County	Potential Connection
114	P	Consider Non-auto
115	P	Pursue Multi-modal
116	P	Pursue Multi-modal, avoid cut thru to Cambray
117	M	Pursue Multi-modal
118	M	Pursue Non-auto
119	M	Pursue Multi-modal
120	M	Pursue Multi-modal
121	M	Pursue Multi-modal
122	M	Pursue Multi-modal
123	M	Pursue Multi-modal
125	P	Pursue Multi-modal
126	P	Consider Multi-modal
127	P	Pursue Multi-modal
129	M	Pursue Multi-modal
130	M	Pursue Multi-modal
131	M	Pursue Multi-modal
132	M	Pursue Multi-modal
133	M	Pursue Multi-modal
134	M	Pursue Multi-modal
135	M	Pursue Multi-modal
136	M	Pursue Multi-modal
137	A	Adopted Street Connection
138	A	Adopted Street Connection
139	A	Adopted Street Connection
140	M	Consider Non-auto
141	A	Adopted Street Connection
142	M	Consider Non-auto
143	M	Pursue Multi-modal
146	M	Pursue Multi-modal
147	M	Pursue Multi-modal



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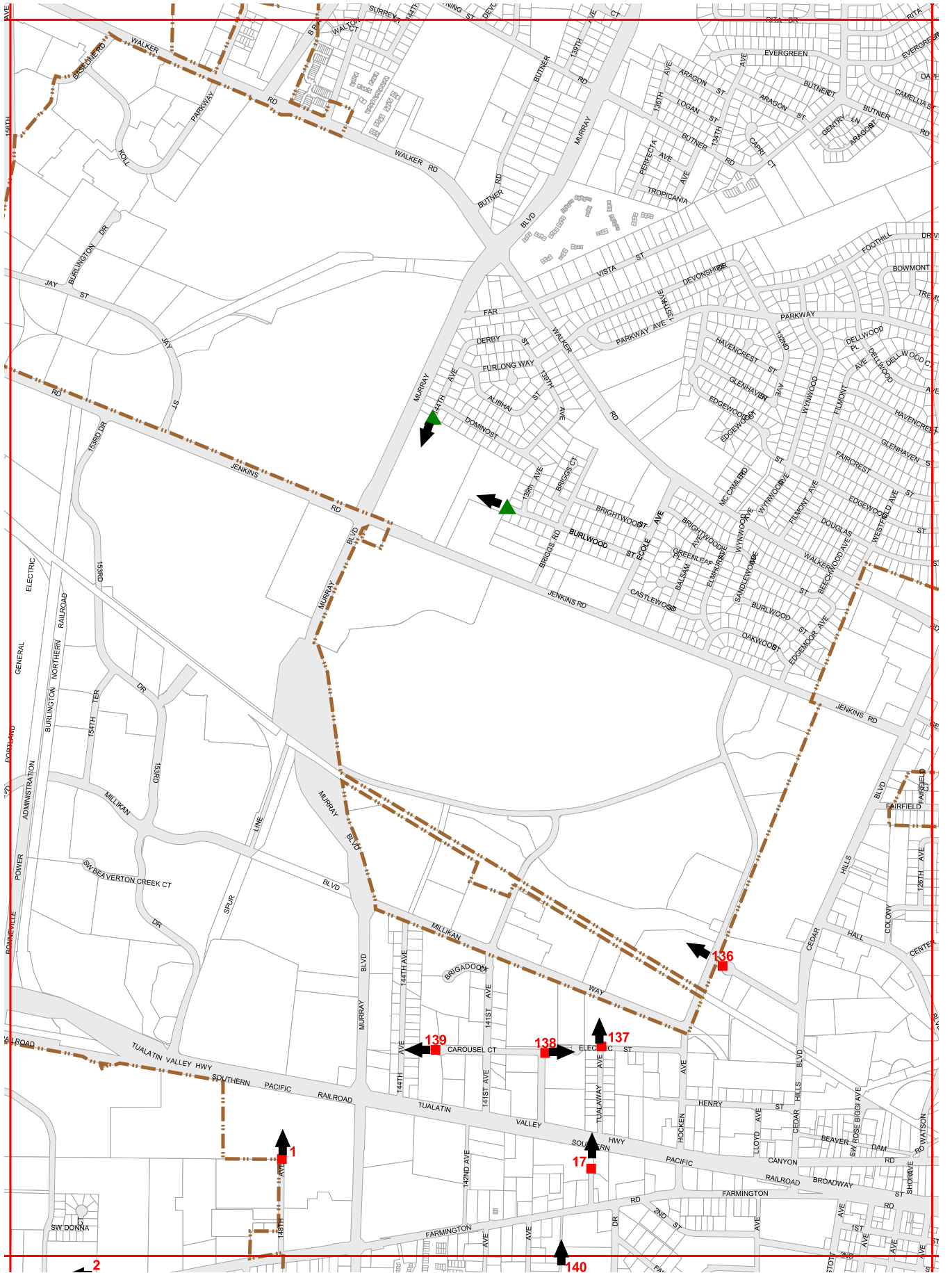
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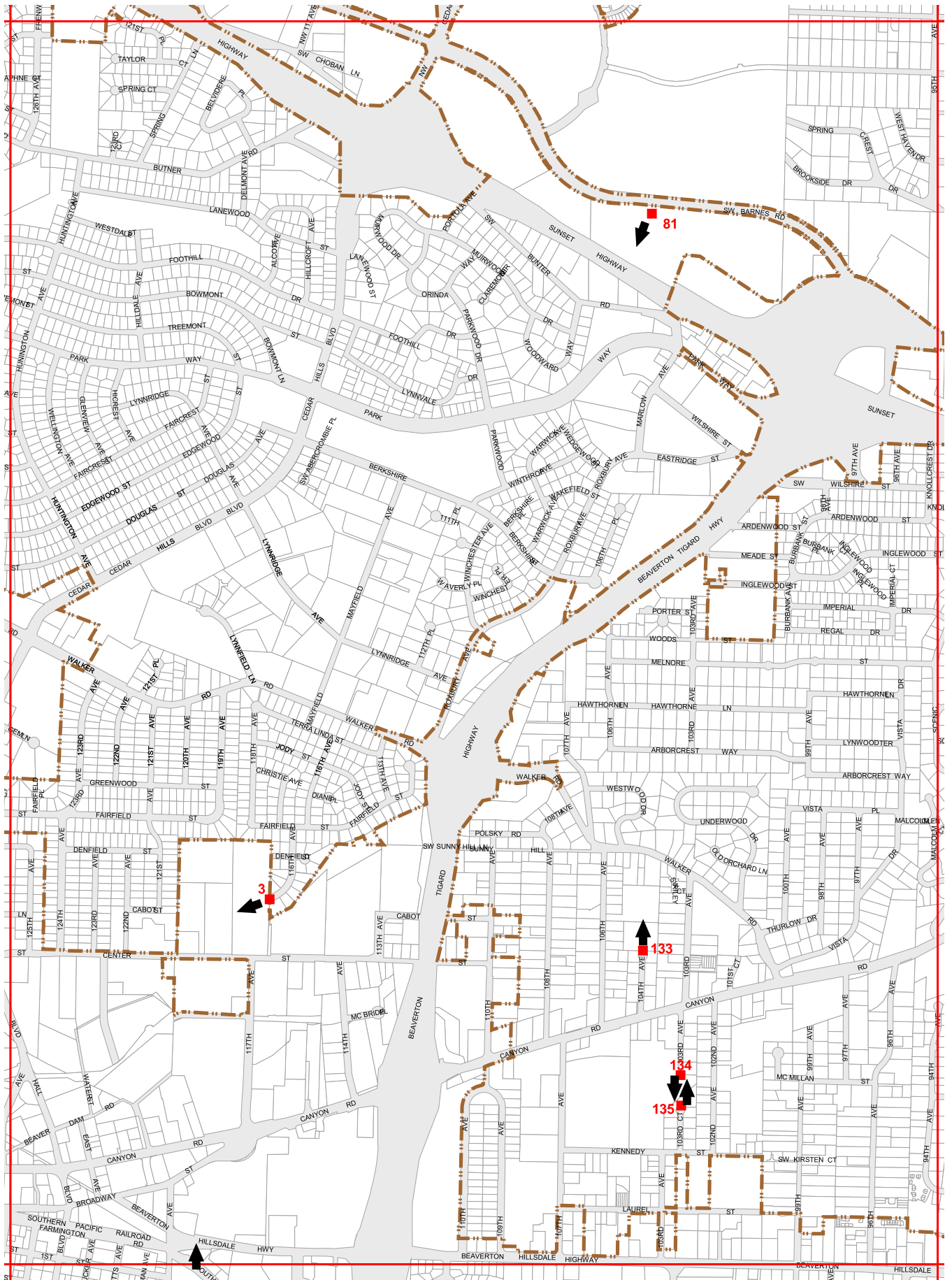


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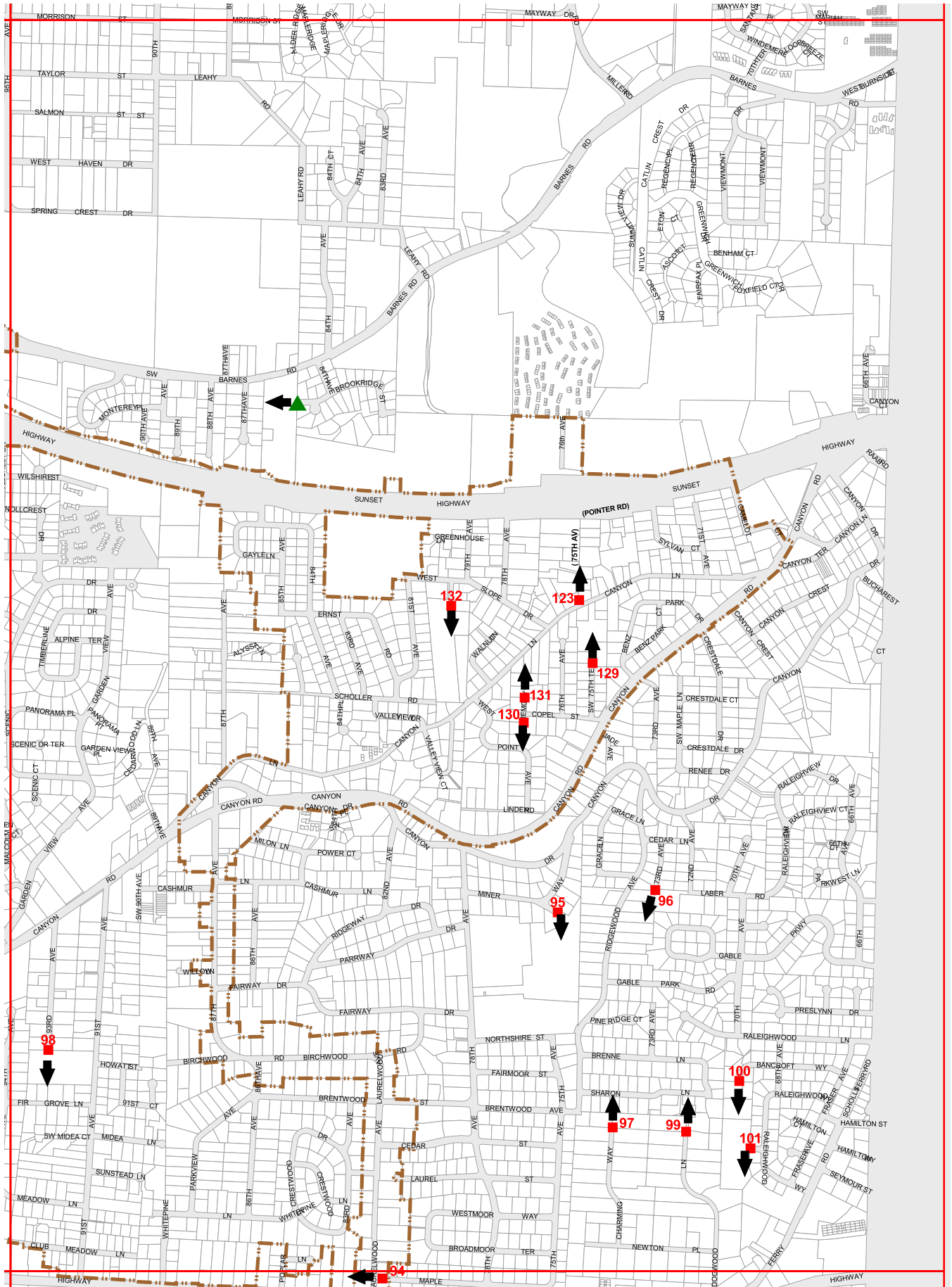
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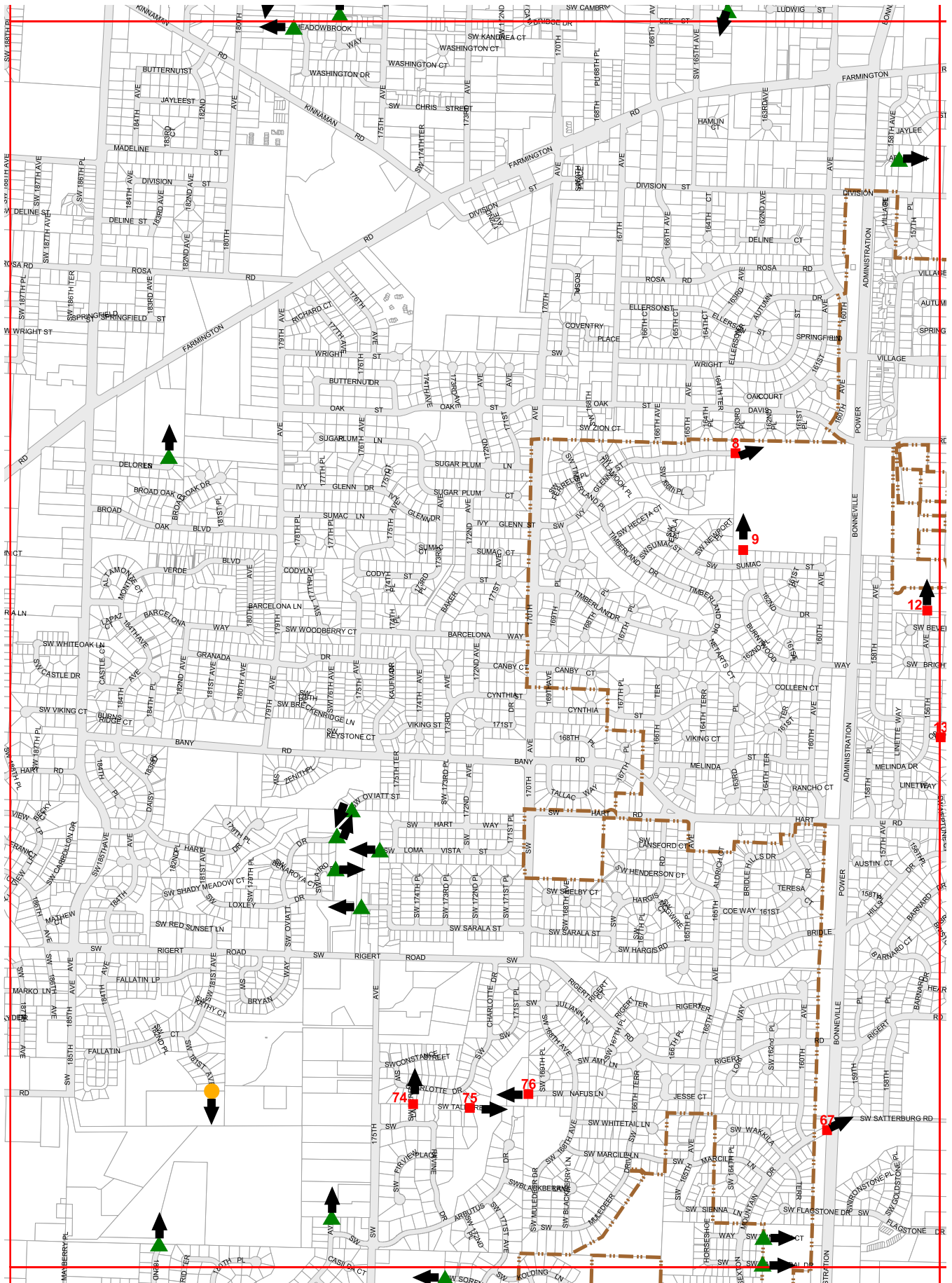


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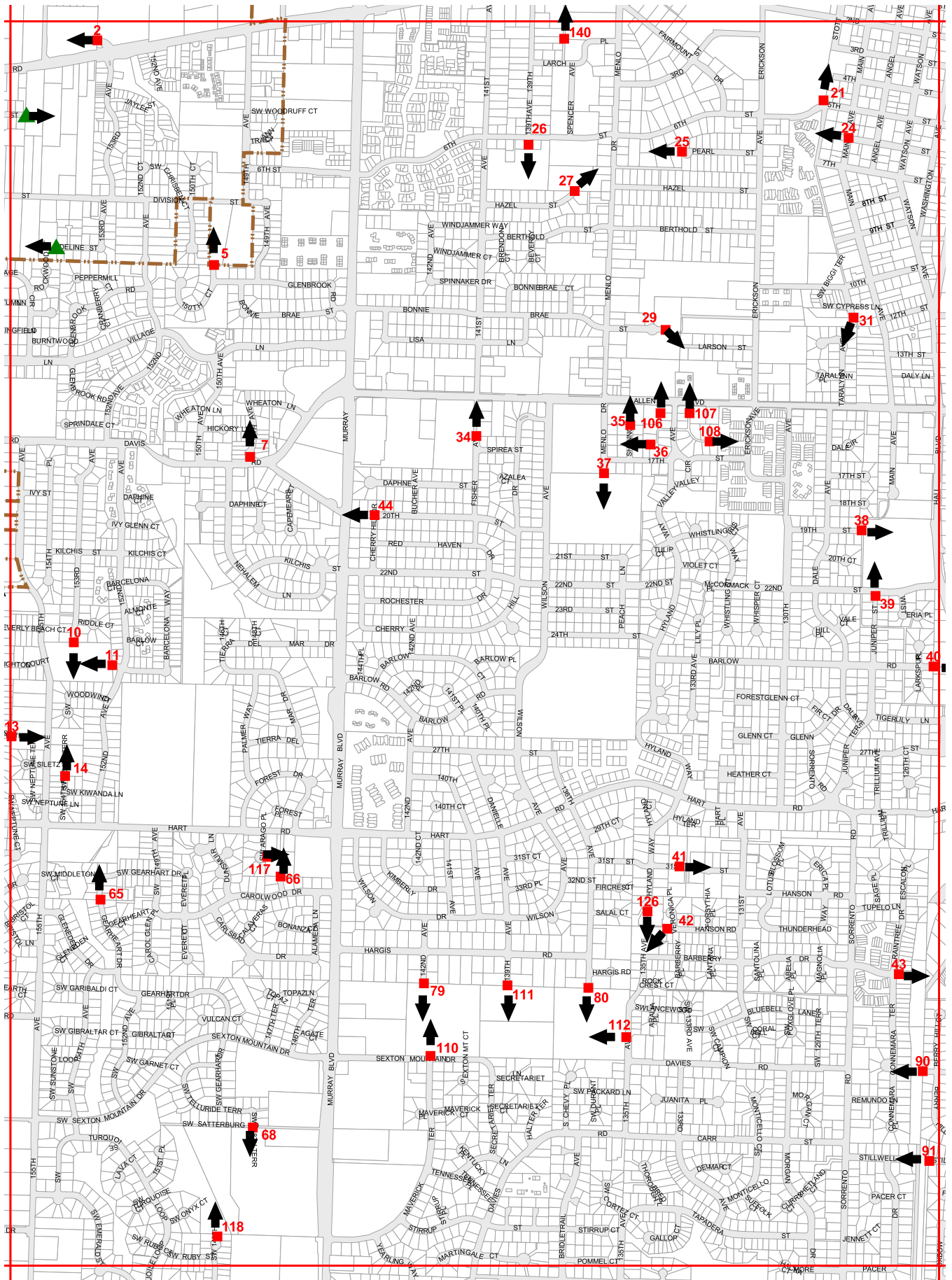
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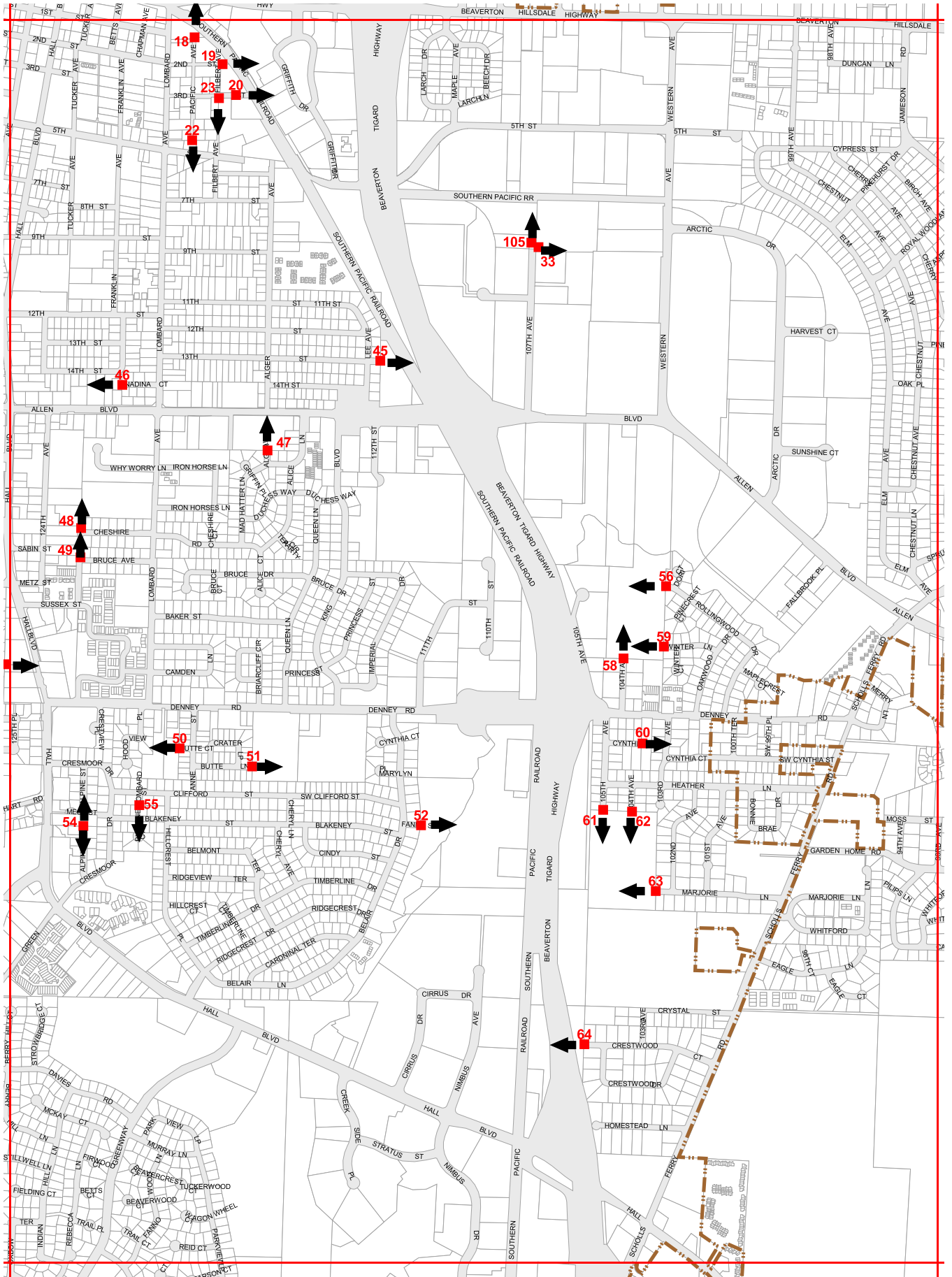


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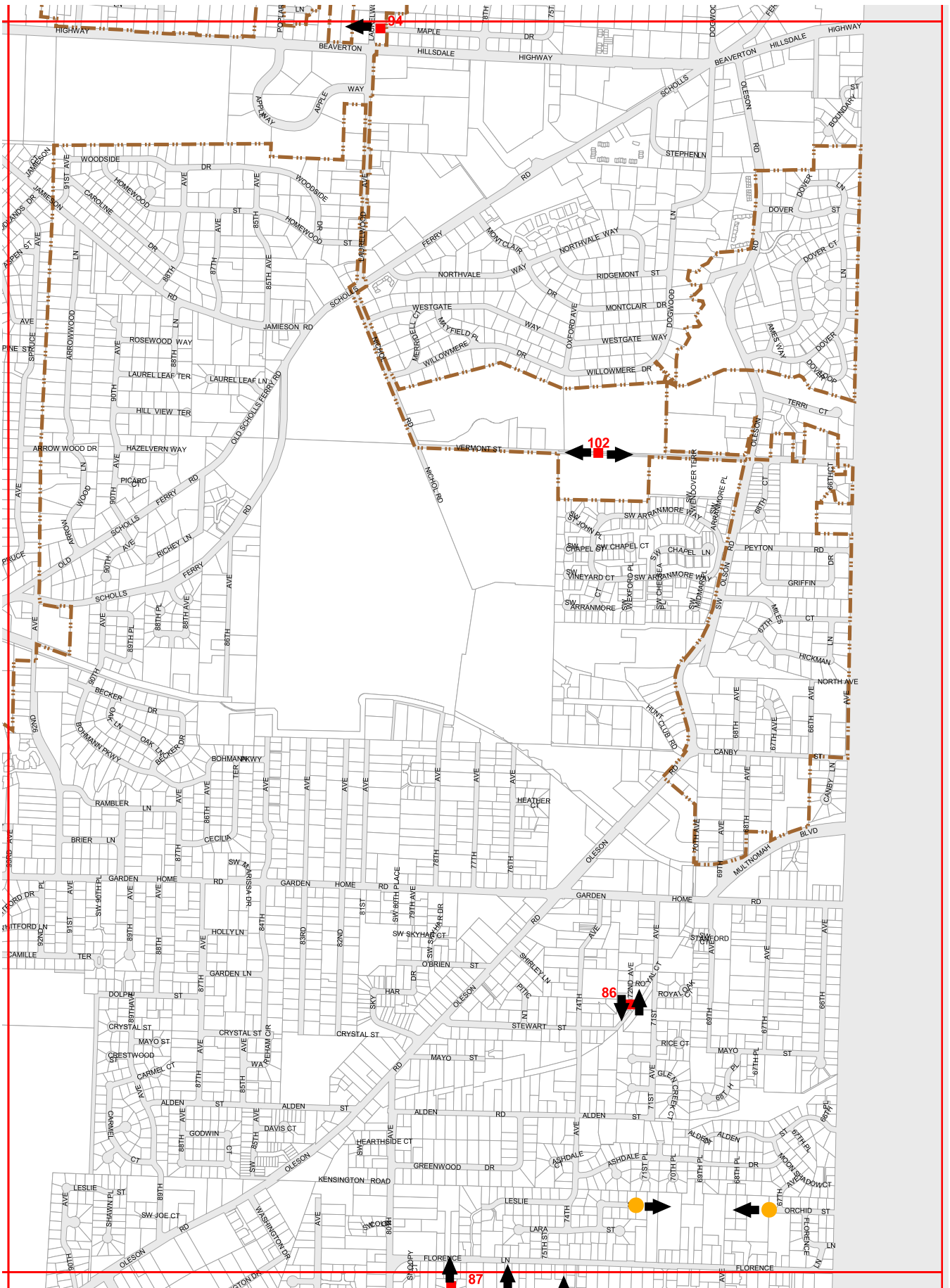
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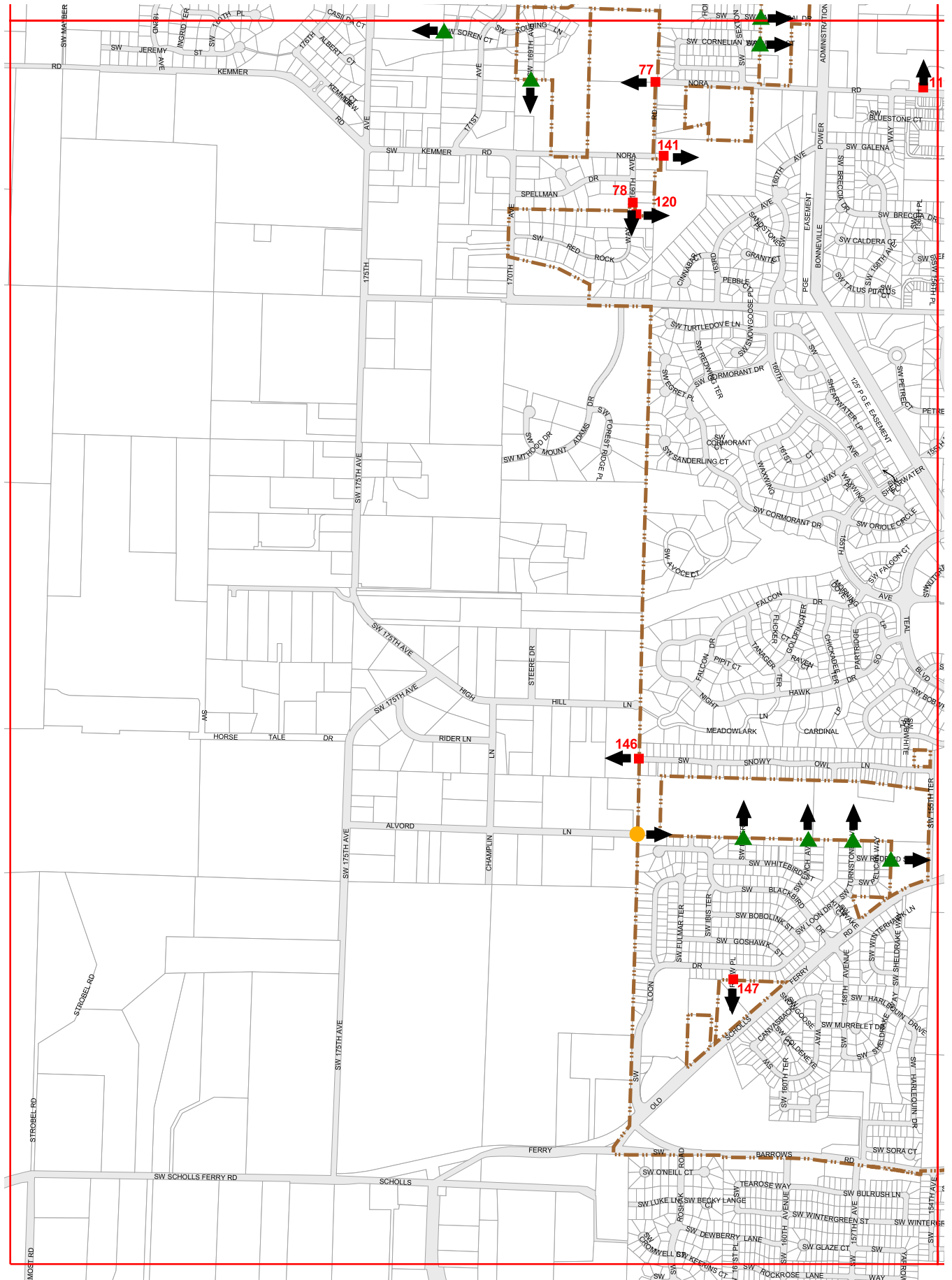


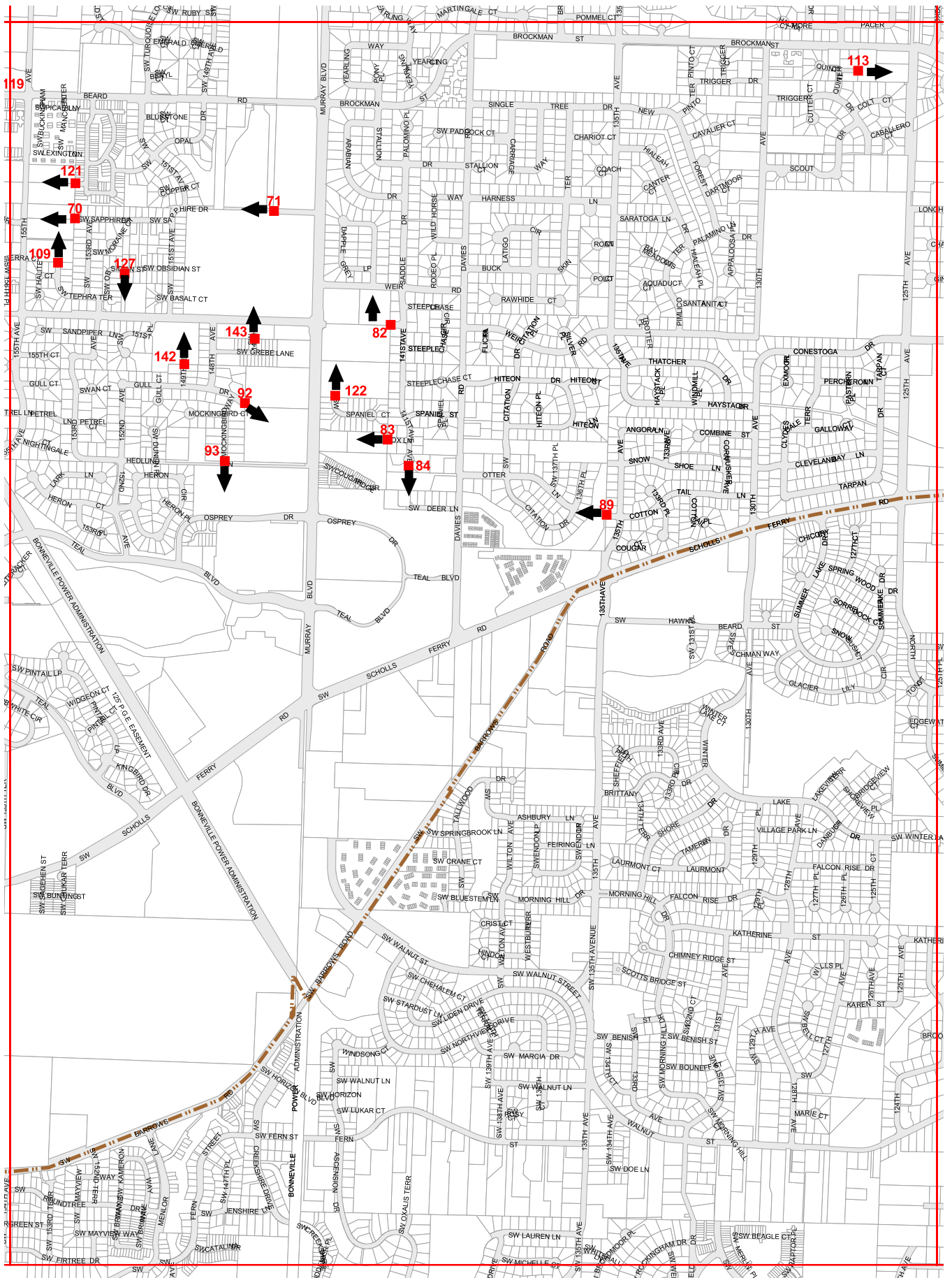
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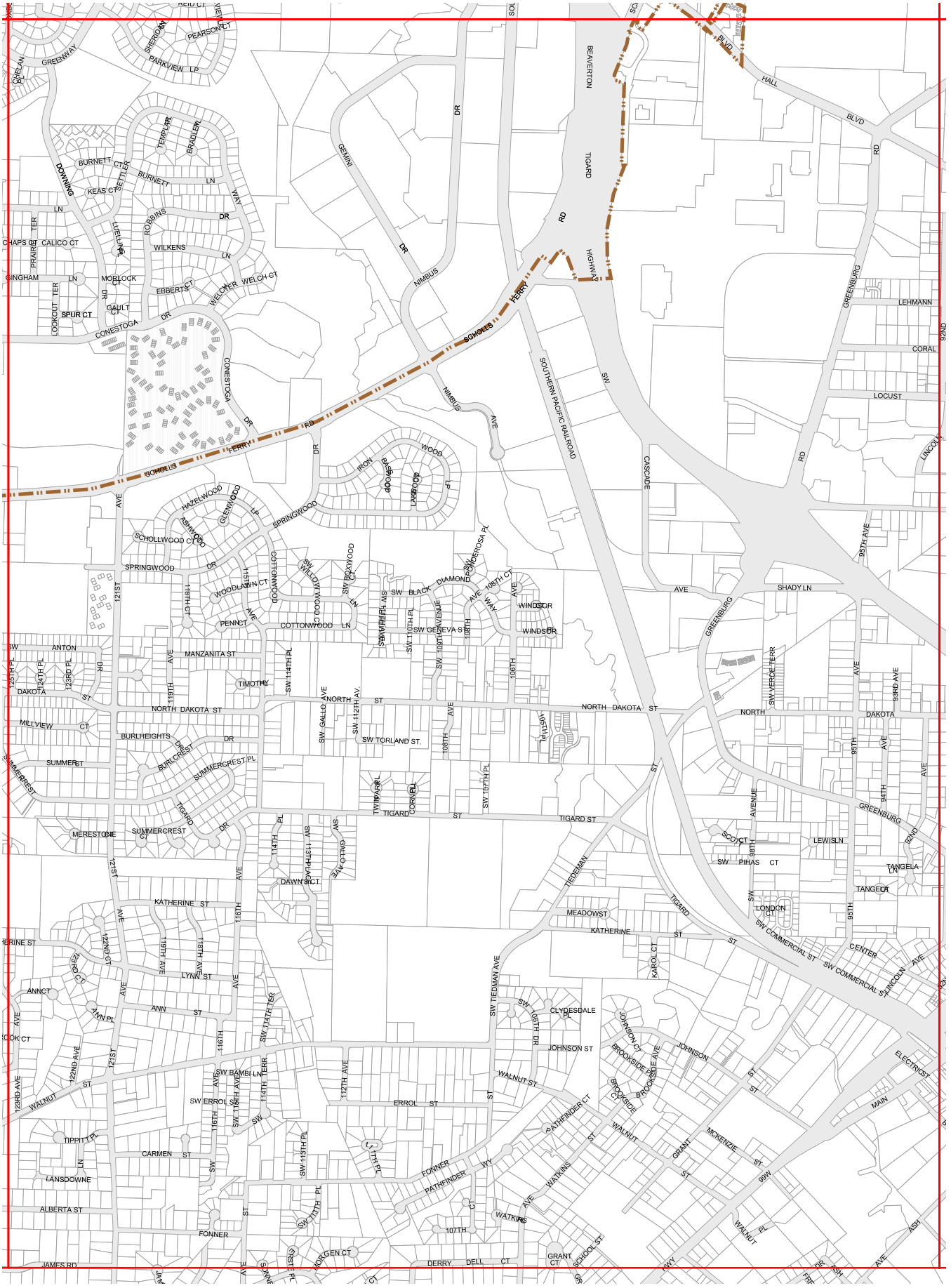


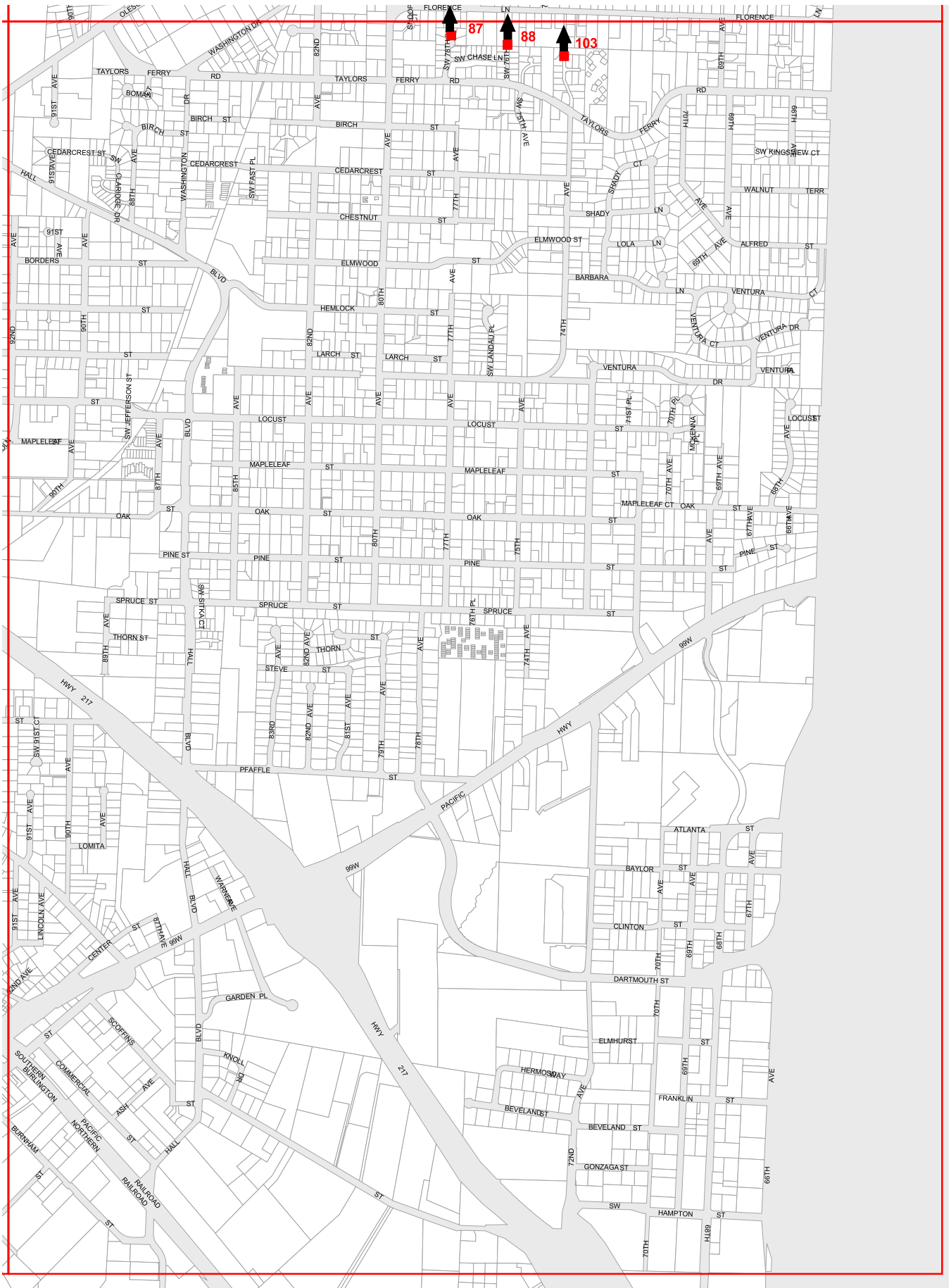
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F- Functional Class Matrix

Roadway (Jurisdiction)	Adopted Beaverton Classification (as of 5/01)	Washington County Classification(s)	Metro RTP Classifications within Beaverton's Designated 2020 TSP Study Area					
			Motor Vehicle Classification	Street Design Classification(s)	Freight Classification	Public Transportation Classification	Pedestrian System Classification(s)	Bicycle System Classification(s)
Cornell Road (County)	Arterial	Major/Minor Arterial	Major/Minor Arterial	Regional Street/Regional Boulevard/Community Street/Community Boulevard	No Classification	Regional bus/major bus stops	Transit/mixed-use corridor and pedestrian district	Regional corridor on-Street bikeway/Regional access bikeway
Barnes Road (County)	No Classification	Minor Arterial	Major/Minor Arterial	Community Street/Community Boulevard	No Classification	Rapid bus/Regional bus/major bus stops	Transit/mixed-use corridor and pedestrian district	Regional corridor on-Street bikeway/Regional access bikeway
Walker Road (County)	Arterial	Minor Arterial	Minor Arterial	Community Street	No Classification	Regional bus/major bus stops	Transit/mixed-use corridor	Community Connector
Jenkins Road (County/City)	Arterial	Minor Arterial	Minor Arterial	Community Street/Community Boulevard	Road Connector	No Classification	No Classification	Regional access bikeway
Baseline Road (County)	Collector/Arterial	Minor Arterial	Minor Arterial	Community Street/Community Boulevard	No Classification	No Classification	No Classification	Regional Access Bikeway
Center Street/113th/Cabot/110 th (City/County)	Collector	Collector	Collector of Regional Significance	No Classification	No Classification	No Classification	No Classification	No Classification
Tualatin Valley Highway (ODOT)	Principal Arterial	Principal Arterial	Principal Arterial	Urban road	Road Connector	Frequent bus	Transit/mixed-use corridor	Regional corridor on-Street bikeway
Canyon Road (ODOT)	Arterial	Major Arterial	Major Arterial	Regional Street	Road Connector	Regional bus	Transit/mixed-use corridor	Regional corridor on-Street bikeway
Farmington Road (City/County)	Arterial	Major Arterial	Major Arterial	Regional Street/Regional Boulevard	No Classification	Regional bus	Transit/mixed-use corridor	Regional corridor on-Street bikeway
Beaverton-Hillsdale Highway (ODOT)	Arterial	Major Arterial	Major Arterial	Regional Street/Regional Boulevard	Road Connector	Frequent bus/major bus stops	Transit/mixed-use corridor	Regional corridor on-Street bikeway
Millikan Way (City/County)	Collector	Minor Arterial	Collector of Regional Significance	Community Street	No Classification	No Classification	No Classification	No Classification
Henry Street (City)	Collector	No Classification	Collector of Regional Significance	No Classification	No Classification	No Classification	No Classification	No Classification
Allen Boulevard (City)	Arterial	Minor Arterial	Minor Arterial	Community Street/Community Boulevard	Road Connector	Regional bus	Transit/mixed-use corridor	Community Connector

Roadway (Jurisdiction)	Adopted Beaverton Classification (as of 5/01)	Washington County Classification(s)	Metro RTP Classifications within Beaverton's Designated 2020 TSP Study Area					
			Motor Vehicle Classification	Street Design Classification(s)	Freight Classification	Public Transportation Classification	Pedestrian System Classification(s)	Bicycle System Classification(s)
Oak-Davis (City)	Arterial*	Major Collector	Collector of Regional Significance	Community Street	No Classification	No Classification	No Classification	No Classification
Hart Road (City)	Collector**	Major Collector	Collector of Regional Significance	Community Street	No Classification	No Classification	No Classification	Community Connector
Denney Road (City)	Collector	Minor Arterial	Collector of Regional Significance	Community Street	Road Connector	No Classification	No Classification	Community Connector
92 nd Avenue (County)	Arterial	Minor Arterial	Minor Arterial	Community Street	No Classification	Regional bus	No Classification	Community Connector
Garden Home Road (County)	Arterial	Minor Arterial	Minor Arterial	Community Street/Community Boulevard	No Classification	Regional bus/major bus stops	Transit/mixed-use corridor	Community Connector
Greenway Drive (City)	Arterial	Minor Arterial	Minor Arterial	Community Street	No Classification	No Classification	No Classification	Community Connector
Brockman Road (City)	Arterial	Minor Arterial	Minor Arterial	Community Street	No Classification	No Classification	No Classification	Community Connector
Scholls Ferry Road (County)	Arterial	Major/Minor Arterial	Major/Minor Arterial	Community Street/Community Boulevard/ Regional Street/Regional Boulevard	Road Connector	Regional bus/major bus stops	Pedestrian district/Transit/mixed-use corridor	Regional corridor on-Street bikeway
185 th Avenue (County)	No Classification	Major arterial	Major arterial	Regional Street/community Street	Road Connector	Regional bus/major bus stops	Pedestrian district/Transit/mixed-use corridor	Regional access bikeway/Regional corridor on-Street bikeway
170 th Avenue (County)	Arterial	Minor Arterial	Minor Arterial	Community Street	No Classification	No Classification	No Classification	Community Connector/ Regional access bikeway
175 th Avenue (County)	Arterial	Minor Arterial	Rural Arterial	Rural Road	No Classification	No Classification	No Classification	No Classification
Merlo Road (County)	Arterial	Minor Arterial	Minor Arterial	Community Street/Community Boulevard	No Classification	No Classification	No Classification	Regional access bikeway
158 th Avenue (County)	Arterial	Minor Arterial	Minor Arterial	Community Street/Community Boulevard	Road Connector	No Classification	No Classification	Community Connector/ Regional access bikeway

Roadway (Jurisdiction)	Adopted Beaverton Classification (as of 5/01)	Washington County Classification	Metro RTP Classifications within Beaverton's Designated 2020 TSP Study Area					
			Motor Vehicle Classification	Street Design Classification(s)	Freight Classification	Public Transportation Classification	Pedestrian System Classification(s)	Bicycle System Classification(s)
Murray Boulevard (County)	Arterial	Major Arterial	Major Arterial	Regional Street	Road Connector	Regional bus/major bus stops	Pedestrian district/Transit/mixed-use corridor	Regional access bikeway/Regional corridor on-Street bikeway
Cedar Hills Boulevard (City)	Arterial	Minor Arterial	Minor Arterial	Community Street	No Classification	Frequent bus/major bus stops	Pedestrian district/Transit/mixed-use corridor	Regional access bikeway/Community Connector
Hall Boulevard (City/County)	Arterial	Minor Arterial	Major Arterial	Regional Street/Regional Boulevard	No Classification	Frequent bus/major bus stops	Pedestrian district/Transit/mixed-use corridor	Regional access bikeway/Regional corridor on-Street bikeway
125 th Avenue (City)	Arterial	Minor Arterial	Minor Arterial	Community Street	No Classification	No Classification	No Classification	Community Connector
Western Avenue (City)	Arterial	Minor Arterial	Minor Arterial	Community Street	No Classification	No Classification	No Classification	Community Connector
Oleson Road (County)	No Classification	Minor Arterial	Minor Arterial	Community Street/Community Boulevard	No Classification	Regional bus/major bus stops	Pedestrian district/Transit/mixed-use corridor	Regional corridor on-Street bikeway

- NOTES:
1. Design Regional Streets with a modal orientation that reflects the function and character of surrounding land uses consistent with the Regional classifications.
 2. Refer to adopted RTP for definitions of classifications.
 3. Streets that intersection or cross/over/under ODOT facilities are under ODOT jurisdiction within ODOT right-of-way.
 4. The Beaverton classifications correspond to Beaverton's 2020 Study Area and RTP classifications as shown in this table.
- *Proposed as a collector in 2020 TSP Update
**Proposed as an arterial (west of Murray) in 2020 TSP Update

G- Meto Regional Model Transit Headway Data

Metro 2020 Regional Demand Model Transit Headways
PM Peak Hour

Route	Headway (minutes)	
	Committed	Priority
MAX	10	10
01COMR	0	30
20	30	8
43	60	8
45	30	10
47	30	10
48	30	10
50	0	0
52	15	10
53	0	15
54	30	8
55	0	15
56	30	10
57	15	10
58	30	15
59	30	0
60	0	10
61	0	15
62	30	10
67	30	15
76	30	0
78	30	8
88	30	0
89	60	0
92	0	30

H- Existing (2000) LOS Calculations

Scenario Report

Scenario: Existing (2000)

Command: Existing (2000)
 Volume: Existing (2000)
 Geometry: Existing (2000)
 Impact Fee: Default Impact Fee
 Trip Generation: pm peak
 Trip Distribution: dist
 Paths: Default Paths
 Routes: Default Routes
 Configuration: Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/ LOS Veh	V/ C	Del/ LOS Veh	V/ C	
# 1 170th/TV Highway	E 63.1	1.008	E 63.1	1.008	+ 0.000 D/V
# 2 170th/Farmington	C 26.1	0.605	C 26.1	0.605	+ 0.000 D/V
# 3 170th/Oak	F 174.0	0.000	F 174.0	0.000	+ 0.000 V/C
# 5 170th/Bany	F 77.3	1.170	F 77.3	1.170	+ 0.000 V/C
# 6 Bethany/US 26 west ramp	D 44.1	0.952	D 44.1	0.952	+ 0.000 D/V
# 7 Bethany/US 26 east ramp	C 22.2	0.663	C 22.2	0.663	+ 0.000 D/V
# 8 Bethany/Cornell	C 30.4	0.757	C 30.4	0.757	+ 0.000 D/V
# 9 Cornell/US 26 east ramp	B 17.1	0.656	B 17.1	0.656	+ 0.000 D/V
# 10 Cornell/US 26 west ramp	C 28.4	0.785	C 28.4	0.785	+ 0.000 D/V
# 11 158th/Cornell	C 27.1	0.783	C 27.1	0.783	+ 0.000 D/V
# 12 158th/Walker	E 61.3	0.995	E 61.3	0.995	+ 0.000 D/V
# 13 143rd/Cornell	C 25.5	0.803	C 25.5	0.803	+ 0.000 D/V
# 14 Murray/Cornell	E 62.3	0.980	E 62.3	0.980	+ 0.000 D/V
# 15 Barnes/Saltzman/Cornell	E 57.3	0.937	E 57.3	0.937	+ 0.000 D/V
# 16 Murray/US 26 west ramp	C 28.1	0.787	C 28.1	0.787	+ 0.000 D/V
# 17 Murray/US 26 east ramps	B 15.2	0.547	B 15.2	0.547	+ 0.000 D/V
# 18 Murray/Walker	D 54.2	0.983	D 54.2	0.983	+ 0.000 D/V
# 19 Murray/Jenkins	D 44.5	0.889	D 44.5	0.889	+ 0.000 D/V
# 20 Murray/Farmington	F 89.4	1.070	F 89.4	1.070	+ 0.000 D/V
# 21 Murray/6th	F OVRFL	0.000	F OVRFL	0.000	+ 0.000 V/C
# 22 Murray/Allen	D 51.0	0.951	D 51.0	0.951	+ 0.000 D/V
# 23 Murray/Brockman/Beard	C 31.4	0.739	C 31.4	0.739	+ 0.000 D/V
# 24 Nimbus/Scholls Ferry	D 53.6	0.994	D 53.6	0.994	+ 0.000 D/V
# 25 Hall/Scholls Ferry	E 65.9	0.989	E 65.9	0.989	+ 0.000 D/V
# 26 Allen/Schools Ferry	E 64.5	0.980	E 64.5	0.980	+ 0.000 D/V

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 27 Oleson/Vermont	C	25.1 0.761	C	25.1 0.761	+ 0.000	D/V
# 28 Oleson/Garden Home	D	42.8 0.950	D	42.8 0.950	+ 0.000	D/V
# 29 Cedar Hills/Barnes	E	68.8 1.002	E	68.8 1.002	+ 0.000	D/V
# 30 Cedar Hills/US 26 west ramps	B	12.8 0.628	B	12.8 0.628	+ 0.000	D/V
# 31 Cedar Hills/US 26 east ramps	F	690.9 0.000	F	690.9 0.000	+ 0.000	V/C
# 32 Cedar Hills/Butner	C	34.7 0.828	C	34.7 0.828	+ 0.000	D/V
# 33 Cedar Hills/Walker	E	58.2 1.006	E	58.2 1.006	+ 0.000	D/V
# 34 Cedar Hills/Jenkins	D	40.0 0.876	D	40.0 0.876	+ 0.000	D/V
# 35 Cedar Hills/Hall	C	30.9 0.745	C	30.9 0.745	+ 0.000	D/V
# 36 Cedar Hills/Canyon	C	34.1 0.848	C	34.1 0.848	+ 0.000	D/V
# 37 Cedar Hills/Farmington	C	27.2 0.905	C	27.2 0.905	+ 0.000	D/V
# 38 Hall/Center	C	23.8 0.477	C	23.8 0.477	+ 0.000	D/V
# 39 Hall/Allen	D	44.4 0.914	D	44.4 0.914	+ 0.000	D/V
# 40 Hall/Denney	C	32.4 0.852	C	32.4 0.852	+ 0.000	D/V
# 41 Hall/Greenway	E	61.9 1.029	E	61.9 1.029	+ 0.000	D/V
# 42 Hall/Nimbus	C	34.3 0.841	C	34.3 0.841	+ 0.000	D/V
# 43 125th/Greenway	B	17.5 0.515	B	17.5 0.515	+ 0.000	D/V
# 44 Western/Beaverton Hillsdale	C	33.7 0.868	C	33.7 0.868	+ 0.000	D/V
# 45 Western/Allen	C	28.7 0.726	C	28.7 0.726	+ 0.000	D/V
# 46 Laurelwood/Beaverton Hillsdale	C	26.2 0.795	C	26.2 0.795	+ 0.000	D/V
# 47 Lombard/Farmington	C	30.7 0.775	C	30.7 0.775	+ 0.000	D/V
# 48 114th/Canyon	C	15.7 0.000	C	15.7 0.000	+ 0.000	V/C
# 49 Griffith/Beaverton Hillsdale	C	31.0 0.808	C	31.0 0.808	+ 0.000	D/V
# 50 87th/Canyon	B	18.7 0.676	B	18.7 0.676	+ 0.000	D/V
# 51 Garden Home/84th	D	32.6 0.000	D	32.6 0.000	+ 0.000	V/C
# 52 Garden Home/88th	C	23.5 0.000	C	23.5 0.000	+ 0.000	V/C

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
# 53 158th/Jenkins	D	38.2 0.857	D	38.2 0.857	+ 0.000	D/V
# 54 170th/Merlo	C	22.4 0.631	C	22.4 0.631	+ 0.000	D/V
# 56 TV Highway/Murray	E	65.1 0.999	E	65.1 0.999	+ 0.000	D/V
# 57 Farmington/Hall	C	25.4 0.847	C	25.4 0.847	+ 0.000	D/V
# 58 Canyon/Hall	C	22.9 0.796	C	22.9 0.796	+ 0.000	D/V
# 59 Walker/173rd	E	63.4 0.984	E	63.4 0.984	+ 0.000	D/V
# 60 170th/Baseline	C	21.2 0.582	C	21.2 0.582	+ 0.000	D/V
# 64 Cornell/173rd	D	43.5 0.933	D	43.5 0.933	+ 0.000	D/V
# 66 Scholls Ferry/Cascade	C	23.8 0.762	C	23.8 0.762	+ 0.000	D/V
# 72 Canyon/Watson	B	16.8 0.676	B	16.8 0.676	+ 0.000	D/V
# 73 Farmington/Watson	C	24.2 0.770	C	24.2 0.770	+ 0.000	D/V
# 76 Scholls Ferry/Denney	C	24.6 0.754	C	24.6 0.754	+ 0.000	D/V
# 77 Farmington/Hocken	C	22.6 0.844	C	22.6 0.844	+ 0.000	D/V
# 78 TV Highway/Hocken	D	38.3 0.896	D	38.3 0.896	+ 0.000	D/V
# 81 158th/Blueridge	C	26.3 0.708	C	26.3 0.708	+ 0.000	D/V
# 83 158th/Jay	C	26.4 0.600	C	26.4 0.600	+ 0.000	D/V
# 85 TV Highway/160th	D	49.6 0.974	D	49.6 0.974	+ 0.000	D/V
# 87 Hart/155th	B	18.2 0.766	B	18.2 0.766	+ 0.000	D/V
# 88 Murray/Hart	D	37.2 0.855	D	37.2 0.855	+ 0.000	D/V
# 89 Murray/Scholls Ferry	C	32.0 0.697	C	32.0 0.697	+ 0.000	D/V
# 90 Scholls Ferry/Davies	F	OVRFL 0.000	F	OVRFL 0.000	+ 0.000	V/C
# 91 Scholls Ferry/Barrows	B	17.3 0.686	B	17.3 0.686	+ 0.000	D/V
# 92 Scholls Ferry/135th	B	18.4 0.697	B	18.4 0.697	+ 0.000	D/V
# 93 Scholls Ferry/125th	D	41.6 0.916	D	41.6 0.916	+ 0.000	D/V
# 94 Scholls Ferry/121st	D	40.4 0.961	D	40.4 0.961	+ 0.000	D/V
# 95 Scholls Ferry/Conestoga	B	10.3 0.717	B	10.3 0.717	+ 0.000	D/V

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
#102 Scholls Ferry/Laurelwood	F	239.6	0.000	F 239.6	0.000	+ 0.000 V/C
#103 Canyon/Lombard	C	21.2	0.663	C 21.2	0.663	+ 0.000 D/V
#105 Canyon/117th	C	22.9	0.658	C 22.9	0.658	+ 0.000 D/V
#114 ORE 217 SB Ramp/Canyon	C	24.3	0.668	C 24.3	0.668	+ 0.000 D/V
#115 ORE 217 NB Ramp/Canyon	C	24.9	0.663	C 24.9	0.663	+ 0.000 D/V
#116 ORE 217 SB Ramp/Farmington	C	25.6	0.729	C 25.6	0.729	+ 0.000 D/V
#117 ORE 217 NB Ramp/Farmington	C	34.9	0.938	C 34.9	0.938	+ 0.000 D/V
#118 ORE 217 SB Ramp/Allen	C	34.2	0.877	C 34.2	0.877	+ 0.000 D/V
#119 ORE 217 NB Ramp/Allen	C	25.5	0.809	C 25.5	0.809	+ 0.000 D/V
#120 ORE 217 SB Ramp/Denney	F	50.5	0.000	F 50.5	0.000	+ 0.000 V/C
#121 ORE 217 NB Ramp/Denney	F	597.2	0.000	F 597.2	0.000	+ 0.000 V/C
#122 ORE 217 SB off Ramp/Hall/Casca	D	51.3	0.964	D 51.3	0.964	+ 0.000 D/V
#123 ORE 217 NB on Ramp/Scholls Fer	C	30.3	0.781	C 30.3	0.781	+ 0.000 D/V
#125 ORE 217 NB off Ramp/Scholls Fe	C	22.2	0.708	C 22.2	0.708	+ 0.000 D/V
#129 ORE 217 NB Ramp/Walker	C	21.1	0.675	C 21.1	0.675	+ 0.000 D/V
#130 ORE 217 SB Ramp/Walker	B	19.4	0.841	B 19.4	0.841	+ 0.000 D/V
#131 Scholls Ferry/ORE 217 SB on Ra	C	31.6	0.757	C 31.6	0.757	+ 0.000 D/V

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 170th/TV Highway

Cycle (sec): 120 Critical Vol./Cap. (X): 1.008
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 63.1
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			Ovl			Ovl		
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:

Base Vol:	93	235	63	195	394	6	103	1375	168	308	1834	287
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:	93	235	63	195	394	6	103	1375	168	308	1834	287
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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	97	246	66	204	412	6	108	1437	176	322	1916	300
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	97	246	66	204	412	6	108	1437	176	322	1916	300
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.:	97	246	66	204	412	6	108	1437	176	322	1916	300

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.97	0.95	1.00	1.00	0.95	0.95	0.85	0.95	0.95	0.85
Lanes:	1.00	0.79	0.21	1.00	0.99	0.01	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1805	1450	389	1805	1869	27	1805	3610	1615	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.05	0.17	0.17	0.11	0.22	0.22	0.06	0.40	0.11	0.18	0.53	0.19
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.17	0.17	0.11	0.23	0.23	0.06	0.40	0.46	0.18	0.53	0.64
Volume/Cap:	0.98	1.01	1.01	1.01	0.98	0.98	1.01	0.98	0.24	0.98	1.01	0.29
Uniform Del:	56.6	49.9	49.9	53.3	46.2	46.2	56.4	35.3	19.7	48.9	28.4	9.6
IncrementDel:	82.7	53.1	53.1	65.2	37.5	37.5	89.0	19.6	0.2	45.1	22.5	0.2
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
Delay/Veh:	139.4	103	103.0	118.5	83.6	83.6	145.4	54.9	19.8	94.0	50.9	9.8
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:	139.4	103	103.0	118.5	83.6	83.6	145.4	54.9	19.8	94.0	50.9	9.8
DesignQueue:	6	14	4	12	23	0	7	63	6	18	70	8

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 170th/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.605
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 26.1
Optimal Cycle: 58 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 1 1 0	1 0 1 1 0	1 0 2 0 1	1 0 2 0 1

Volume Module:

Base Vol:	155 252 71	78 341 80	49 633 310	173 848 162
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:	155 252 71	78 341 80	49 633 310	173 848 162
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:	164 266 75	82 360 84	52 668 327	182 895 171
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	164 266 75	82 360 84	52 668 327	182 895 171
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.:	164 266 75	82 360 84	52 668 327	182 895 171

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.42 0.92 0.92	0.51 0.92 0.92	0.95 0.95 0.85	0.95 0.95 0.85
Lanes:	1.00 1.56 0.44	1.00 1.62 0.38	1.00 2.00 1.00	1.00 2.00 1.00
Final Sat.:	800 2723 768	963 2845 664	1805 3610 1615	1805 3610 1615

Capacity Analysis Module:

Vol/Sat:	0.21 0.10 0.10	0.09 0.13 0.13	0.03 0.19 0.20	0.10 0.25 0.11
Crit Moves:	****	****	****	****
Green/Cycle:	0.34 0.34 0.34	0.34 0.34 0.34	0.05 0.33 0.33	0.17 0.45 0.45
Volume/Cap:	0.61 0.29 0.29	0.25 0.37 0.37	0.55 0.55 0.61	0.61 0.55 0.24
Uniform Del:	27.5 24.2 24.2	23.9 25.0 25.0	46.3 27.2 27.8	38.6 20.2 17.0
IncrementDel:	3.9 0.1 0.1	0.4 0.2 0.2	6.9 0.6 2.0	3.5 0.4 0.2
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
Delay/Veh:	31.4 24.4 24.4	24.3 25.2 25.2	53.2 27.7 29.7	42.1 20.6 17.1
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 24.4 24.4	24.3 25.2 25.2	53.2 27.7 29.7	42.1 20.6 17.1
DesignQueue:	6 10 3	3 14 3	3 26 13	9 29 5

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #3 170th/Oak

Average Delay (sec/veh): 174.0 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 1 0 0 0	1 0 0 1 0	0 0 1! 0 0	0 0 1! 0 0

Volume Module:

Base Vol:	20 334 0	69 684 55	12 13 11	33 89 69
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:	20 334 0	69 684 55	12 13 11	33 89 69
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:	0.91 0.91 0.91	0.91 0.91 0.91	0.91 0.91 0.91	0.91 0.91 0.91
PHF Volume:	22 366 0	76 749 60	13 14 12	36 97 76
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Final Vol.:	22 366 0	76 749 60	13 14 12	36 97 76

Critical Gap Module:

Critical Gp:	4.1 xxxx xxxxx	4.1 xxxx xxxxx	7.1 6.5 6.2	7.1 6.5 6.2
FollowUpTim:	2.2 xxxx xxxxx	2.2 xxxx xxxxx	3.5 4.0 3.3	3.5 4.0 3.3

Capacity Module:

Cnflct Vol:	809 xxxx xxxxx	366 xxxx xxxxx	1427 1340 779	1353 1370 366
Potent Cap.:	825 xxxx xxxxx	1204 xxxx xxxxx	114 154 399	128 148 684
Move Cap.:	825 xxxx xxxxx	1204 xxxx xxxxx	39 140 399	107 135 684

Level Of Service Module:

Stopped Del:	9.4 xxxx xxxxx	8.2 xxxx xxxxx	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx
LOS by Move:	A * *	A * *	* * *	* * *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx xxxxx xxxxx	xxxxx xxxxx xxxxx	xxxxx 85 xxxxx	xxxxx 179 xxxxx
Shrd StpDel:	9.5 xxxx xxxxx	xxxxx xxxxx xxxxx	xxxxx 80.2 xxxxx	xxxxx 174 xxxxx
Shared LOS:	A * *	* * *	* * F	* * F
ApproachDel:	xxxxxxx	xxxxxxx	80.2	174.0
ApproachLOS:	*	*	F	F

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #5 170th/Bany

Cycle (sec): 100 Critical Vol./Cap. (X): 1.170
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 77.3
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		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	0	1	1	0	0	1	0	0

Volume Module:

Base Vol:	59	159	31	206	281	35	12	193	65	74	313	164
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:	59	159	31	206	281	35	12	193	65	74	313	164
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:	62	168	33	218	297	37	13	204	69	78	331	174
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	62	168	33	218	297	37	13	204	69	78	331	174
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.:	62	168	33	218	297	37	13	204	69	78	331	174

Saturation Flow Module:

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:	0.24	0.64	0.12	0.39	0.54	0.07	1.00	0.75	0.25	1.00	0.66	0.34
Final Sat.:	101	273	54	186	254	32	392	316	107	422	304	160

Capacity Analysis Module:

Vol/Sat:	0.61	0.61	0.61	1.17	1.17	1.17	0.03	0.64	0.64	0.18	1.09	1.09
Crit Moves:	****			****			****			****		
Delay/Veh:	23.2	23.2	23.2	122.8	123	122.8	12.1	24.7	24.7	13.1	95.9	95.9
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:	23.2	23.2	23.2	122.8	123	122.8	12.1	24.7	24.7	13.1	95.9	95.9
LOS by Move:	C	C	C	F	F	F	B	C	C	B	F	F
ApproachDel:	23.2			122.8			24.1			84.8		
Delay Adj:	1.00			1.00			1.00			1.00		
ApprAdjDel:	23.2			122.8			24.1			84.8		
LOS by Appr:	C			F			C			F		

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Bethany/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.952
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 44.1
Optimal Cycle: 140 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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	0	1	0	0	0	0	1	0

Volume Module:

Base Vol:	111	572	0	0	710	65	0	0	0	58	308	801
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:	111	572	0	0	710	65	0	0	0	58	308	801
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:	117	601	0	0	747	68	0	0	0	61	324	842
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	117	601	0	0	747	68	0	0	0	61	324	842
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.:	117	601	0	0	747	68	0	0	0	61	324	842

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	1.00	1.00	0.94	0.94	1.00	1.00	1.00	0.85	0.85	0.85
Lanes:	1.00	1.00	0.00	0.00	1.83	0.17	0.00	0.00	0.00	0.16	0.84	1.00
Final Sat.:	1805	1900	0	0	3269	298	0	0	0	256	1359	1615

Capacity Analysis Module:

Vol/Sat:	0.06	0.32	0.00	0.00	0.23	0.23	0.00	0.00	0.00	0.24	0.24	0.52
Crit Moves:	****			****			****			****		
Green/Cycle:	0.07	0.33	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.55	0.55	0.55
Volume/Cap:	0.88	0.95	0.00	0.00	0.88	0.88	0.00	0.00	0.00	0.44	0.44	0.95
Uniform Del:	45.9	32.6	0.0	0.0	35.6	35.6	0.0	0.0	0.0	13.4	13.4	21.4
IncrementDel:	44.9	24.5	0.0	0.0	10.0	10.0	0.0	0.0	0.0	0.3	0.3	19.5
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	90.8	57.1	0.0	0.0	45.6	45.6	0.0	0.0	0.0	13.8	13.8	40.9
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:	90.8	57.1	0.0	0.0	45.6	45.6	0.0	0.0	0.0	13.8	13.8	40.9
DesignQueue:	6	24	0	0	33	3	0	0	0	2	9	24

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Bethany/US 26 east ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.663
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 55 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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	1	0	2	0	0	1	0	0	0	0

Volume Module:

Base Vol:	0	604	12	305	437	0	72	67	76	0	0	0
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	604	12	305	437	0	72	67	76	0	0	0
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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	0	629	12	317	455	0	75	70	79	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	629	12	317	455	0	75	70	79	0	0	0
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.:	0	629	12	317	455	0	75	70	79	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	0.95	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Lanes:	0.00	0.98	0.02	1.00	2.00	0.00	0.67	0.62	0.71	0.00	0.00	0.00
Final Sat.:	0	1859	35	1805	3610	0	1084	1012	1142	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.34	0.34	0.18	0.13	0.00	0.07	0.07	0.07	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.51	0.51	0.27	0.78	0.00	0.10	0.10	0.10	0.00	0.00	0.00
Volume/Cap:	0.00	0.66	0.66	0.66	0.16	0.00	0.66	0.66	0.66	0.00	0.00	0.00
Uniform Del:	0.0	18.1	18.1	32.8	2.9	0.0	43.1	43.1	43.1	0.0	0.0	0.0
IncrementDel:	0.0	1.7	1.7	3.5	0.0	0.0	4.9	4.9	4.9	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	19.8	19.8	36.2	2.9	0.0	48.0	48.0	48.0	0.0	0.0	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:	0.0	19.8	19.8	36.2	2.9	0.0	48.0	48.0	48.0	0.0	0.0	0.0
DesignQueue:	0	19	0	14	6	0	4	4	4	0	0	0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Bethany/Cornell

Cycle (sec): 100 Critical Vol./Cap. (X): 0.757
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.4
Optimal Cycle: 78 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:	Split Phase			Split Phase			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	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	34	36	100	327	18	183	173	812	14	48	611	386
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:	34	36	100	327	18	183	173	812	14	48	611	386
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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	35	37	104	340	19	190	180	845	15	50	636	402
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	37	104	340	19	190	180	845	15	50	636	402
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.:	35	37	104	340	19	190	180	845	15	50	636	402

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.89	0.89	0.96	0.96	0.85	0.95	0.95	0.95	0.95	1.00	0.85
Lanes:	1.00	0.26	0.74	1.89	0.11	1.00	1.00	1.97	0.03	1.00	1.00	1.00
Final Sat.:	1805	443	1246	3437	192	1615	1805	3536	63	1805	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.02	0.08	0.08	0.10	0.10	0.12	0.10	0.24	0.24	0.03	0.33	0.25
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.11	0.11	0.16	0.16	0.16	0.13	0.51	0.51	0.06	0.44	0.44
Volume/Cap:	0.18	0.76	0.76	0.64	0.64	0.76	0.76	0.46	0.46	0.46	0.76	0.56
Uniform Del:	40.4	43.2	43.2	39.6	39.6	40.4	41.9	15.5	15.5	45.5	23.4	20.7
IncrementDel:	0.4	16.2	16.2	2.4	2.4	12.4	13.0	0.2	0.2	3.1	4.0	1.0
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
Delay/Veh:	40.8	59.4	59.4	42.0	42.0	52.8	54.9	15.7	15.7	48.6	27.3	21.7
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:	40.8	59.4	59.4	42.0	42.0	52.8	54.9	15.7	15.7	48.6	27.3	21.7
DesignQueue:	2	2	5	16	1	9	9	24	0	3	22	13

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Cornell/US 26 east ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.656
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 17.1
Optimal Cycle: 54 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:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	1	0	0	1	0	0	0	0

Volume Module:

Base Vol:	0	1104	572	27	1033	0	304	110	73	0	0	0
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	1104	572	27	1033	0	304	110	73	0	0	0
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:	0	1163	603	28	1089	0	320	116	77	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1163	603	28	1089	0	320	116	77	0	0	0
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.:	0	1163	603	28	1089	0	320	116	77	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.95	0.95	1.00	0.89	0.89	0.89	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.60	0.40	0.00	0.00	0.00
Final Sat.:	0	3610	1615	1805	3610	0	1697	1020	677	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.32	0.37	0.02	0.30	0.00	0.19	0.11	0.11	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.57	0.57	0.02	0.59	0.00	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	0.57	0.66	0.66	0.51	0.00	0.66	0.40	0.40	0.00	0.00	0.00
Uniform Del:	0.0	13.7	14.8	48.4	11.9	0.0	31.3	28.6	28.6	0.0	0.0	0.0
IncrementDel:	0.0	0.4	1.7	31.5	0.2	0.0	2.0	0.2	0.2	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	14.1	16.6	79.9	12.1	0.0	33.3	28.8	28.8	0.0	0.0	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:	0.0	14.1	16.6	79.9	12.1	0.0	33.3	28.8	28.8	0.0	0.0	0.0
DesignQueue:	0	30	16	2	27	0	13	5	3	0	0	0

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Cornell/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.785
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.4
Optimal Cycle: 74 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			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ignore		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	0	2	0	0	0	1	1	0

Volume Module:

Base Vol:	291	904	0	0	498	319	0	0	0	424	463	85
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:	291	904	0	0	498	319	0	0	0	424	463	85
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.00
PHF Volume:	302	940	0	0	518	332	0	0	0	441	481	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	302	940	0	0	518	332	0	0	0	441	481	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Vol.:	302	940	0	0	518	332	0	0	0	441	481	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.91	0.77	1.00	1.00	1.00	0.85	0.85	1.00
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Final Sat.:	1805	3610	0	0	3458	1470	0	0	0	1615	1615	1900

Capacity Analysis Module:

Vol/Sat:	0.17	0.26	0.00	0.00	0.15	0.23	0.00	0.00	0.00	0.27	0.30	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.21	0.50	0.00	0.00	0.29	0.29	0.00	0.00	0.00	0.38	0.38	0.00
Volume/Cap:	0.79	0.52	0.00	0.00	0.52	0.79	0.00	0.00	0.00	0.72	0.79	0.00
Uniform Del:	37.2	16.9	0.0	0.0	29.8	32.8	0.0	0.0	0.0	26.5	27.4	0.0
IncrementDel:	10.2	0.3	0.0	0.0	0.3	3.9	0.0	0.0	0.0	2.0	3.6	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00
Delay/Veh:	47.4	17.1	0.0	0.0	30.1	36.6	0.0	0.0	0.0	28.5	31.0	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:	47.4	17.1	0.0	0.0	30.1	36.6	0.0	0.0	0.0	28.5	31.0	0.0
DesignQueue:	14	28	0	0	21	14	0	0	0	16	18	0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 158th/Cornell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.783
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 27.1
Optimal Cycle: 71 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	0	0	0	0	0	0	1	2	0	1

Volume Module:

Base Vol:	604	0	889	0	0	0	0	604	557	443	349	0
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:	604	0	889	0	0	0	0	604	557	443	349	0
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:	621	0	915	0	0	0	0	621	573	456	359	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	621	0	915	0	0	0	0	621	573	456	359	0
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.:	621	0	915	0	0	0	0	621	573	456	359	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.75	1.00	1.00	1.00	1.00	0.88	0.88	0.92	1.00	1.00
Lanes:	2.00	0.00	2.00	0.00	0.00	0.00	0.00	1.04	0.96	2.00	1.00	0.00
Final Sat.:	3502	0	2842	0	0	0	0	1742	1608	3502	1900	0

Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.32	0.00	0.00	0.00	0.00	0.36	0.36	0.13	0.19	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.24	0.00	0.41	0.00	0.00	0.00	0.00	0.46	0.46	0.17	0.62	0.00
Volume/Cap:	0.72	0.00	0.78	0.00	0.00	0.00	0.00	0.78	0.78	0.78	0.30	0.00
Uniform Del:	31.2	0.0	23.0	0.0	0.0	0.0	0.0	20.7	20.7	36.0	7.9	0.0
IncrementDel:	3.1	0.0	3.5	0.0	0.0	0.0	0.0	2.7	2.7	6.8	0.1	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	34.3	0.0	26.5	0.0	0.0	0.0	0.0	23.5	23.5	42.8	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:	34.3	0.0	26.5	0.0	0.0	0.0	0.0	23.5	23.5	42.8	8.1	0.0
DesignQueue:	25	0	29	0	0	0	0	18	17	20	7	0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 158th/Walker

Cycle (sec): 120 Critical Vol./Cap. (X): 0.995
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 61.3
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			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	228	795	145	306	611	98	76	664	141	108	550	190
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:	228	795	145	306	611	98	76	664	141	108	550	190
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:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	233	811	148	312	623	100	78	678	144	110	561	194
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	233	811	148	312	623	100	78	678	144	110	561	194
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.:	233	811	148	312	623	100	78	678	144	110	561	194

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.93	0.93	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	1.00	1.69	0.31	1.00	1.72	0.28	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1805	2983	544	1805	3045	489	1805	1900	1615	1805	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.13	0.27	0.27	0.17	0.20	0.20	0.04	0.36	0.09	0.06	0.30	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.17	0.27	0.27	0.17	0.27	0.27	0.05	0.36	0.36	0.06	0.37	0.54
Volume/Cap:	0.75	1.00	1.00	1.00	0.75	0.75	0.81	1.00	0.25	1.00	0.81	0.22
Uniform Del:	47.1	43.5	43.5	49.5	39.8	39.8	56.2	38.4	27.1	56.3	34.2	14.4
IncrementDel:	9.5	27.8	27.8	49.5	3.2	3.2	37.4	33.2	0.2	84.0	6.9	0.1
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
Delay/Veh:	56.6	71.3	71.3	99.0	43.0	43.0	93.6	71.6	27.3	140.3	41.1	14.6
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:	56.6	71.3	71.3	99.0	43.0	43.0	93.6	71.6	27.3	140.3	41.1	14.6
DesignQueue:	13	42	8	18	32	5	5	32	6	7	26	6

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 I43rd/Cornell

Cycle (sec): 100 Critical Vol./Cap. (X): 0.803
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 25.5
Optimal Cycle: 66 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:	Split Phase			Split Phase			Prot+Permit			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	1	0	0	1	0	0	0	0	1

Volume Module:

Base Vol:	0	0	0	331	0	178	316	685	0	0	623	448
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	331	0	178	316	685	0	0	623	448
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:	0	0	0	356	0	192	340	737	0	0	671	482
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	356	0	192	340	737	0	0	671	482
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.:	0	0	0	356	0	192	340	737	0	0	671	482

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.39	1.00	1.00	1.00	1.00	0.85
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Final Sat.:	0	0	0	1805	0	1615	749	1900	0	0	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.20	0.00	0.12	0.45	0.39	0.00	0.00	0.35	0.30
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.25	0.00	0.25	0.67	0.67	0.00	0.00	0.44	0.44
Volume/Cap:	0.00	0.00	0.00	0.80	0.00	0.48	0.67	0.58	0.00	0.00	0.80	0.68
Uniform Del:	0.0	0.0	0.0	35.4	0.0	32.3	23.3	8.7	0.0	0.0	24.3	22.4
IncrementDel:	0.0	0.0	0.0	10.2	0.0	0.9	3.5	0.6	0.0	0.0	5.7	2.7
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	45.6	0.0	33.2	26.9	9.3	0.0	0.0	29.9	25.0
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:	0.0	0.0	0.0	45.6	0.0	33.2	26.9	9.3	0.0	0.0	29.9	25.0
DesignQueue:	0	0	0	16	0	8	15	15	0	0	23	16

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 Murray/Cornell

Cycle (sec): 120 Critical Vol./Cap. (X): 0.980
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 62.3
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			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	246	251	424	125	209	43	228	544	227	230	626	60
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:	246	251	424	125	209	43	228	544	227	230	626	60
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:	253	258	437	129	215	44	235	560	234	237	645	62
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	253	258	437	129	215	44	235	560	234	237	645	62
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.:	253	258	437	129	215	44	235	560	234	237	645	62

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.98	0.98	0.95	1.00	0.85	0.95	0.99	0.99
Lanes:	1.00	1.00	1.00	1.00	0.83	0.17	1.00	1.00	1.00	1.00	0.91	0.09
Final Sat.:	1805	1900	1615	1805	1538	315	1805	1900	1615	1805	1711	164

Capacity Analysis Module:

Vol/Sat:	0.14	0.14	0.27	0.07	0.14	0.14	0.13	0.29	0.14	0.13	0.38	0.38
Crit Moves:	****			****			****			****		
Green/Cycle:	0.17	0.28	0.28	0.07	0.17	0.17	0.13	0.36	0.53	0.16	0.38	0.38
Volume/Cap:	0.80	0.49	0.98	0.98	0.80	0.80	0.98	0.82	0.27	0.82	0.98	0.98
Uniform Del:	47.5	36.4	43.1	55.5	47.6	47.6	51.9	35.1	15.3	48.8	36.5	36.5
IncrementDel:	13.7	0.7	37.2	72.0	13.4	13.4	52.3	8.0	0.2	17.2	28.4	28.4
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
Delay/Veh:	61.2	37.1	80.3	127.5	61.0	61.0	104.1	43.1	15.5	65.9	64.9	64.9
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:	61.2	37.1	80.3	127.5	61.0	61.0	104.1	43.1	15.5	65.9	64.9	64.9
DesignQueue:	14	13	22	8	12	3	14	26	8	14	29	3

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Barnes/Saltzman/Cornell

Cycle (sec): 100 Critical Vol./Cap. (X): 0.937
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 57.3
Optimal Cycle: 134 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			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	393	508	50	209	290	67	123	573	69	64	504	206
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:	393	508	50	209	290	67	123	573	69	64	504	206
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:	414	535	53	220	305	71	129	603	73	67	531	217
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	414	535	53	220	305	71	129	603	73	67	531	217
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.:	414	535	53	220	305	71	129	603	73	67	531	217

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	0.97	0.97	0.95	1.00	0.85	0.95	1.00	0.85
Lanes:	1.00	1.00	1.00	1.00	0.81	0.19	1.00	1.00	1.00	1.00	1.00	1.00
Final Sat.:	1805	1900	1615	1805	1498	349	1805	1900	1615	1805	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.23	0.28	0.03	0.12	0.20	0.20	0.07	0.32	0.05	0.04	0.28	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.24	0.32	0.32	0.14	0.22	0.22	0.08	0.34	0.34	0.04	0.30	0.30
Volume/Cap:	0.94	0.87	0.10	0.87	0.94	0.94	0.93	0.94	0.13	0.94	0.93	0.45
Uniform Del:	37.0	32.0	23.7	42.2	38.5	38.5	45.9	32.0	22.9	47.9	33.9	28.2
IncrementDel:	27.7	13.2	0.1	26.8	29.5	29.5	54.9	21.4	0.1	84.7	21.6	0.7
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
Delay/Veh:	64.7	45.1	23.8	68.9	68.0	68.0	100.7	53.5	23.0	132.6	55.4	28.9
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:	64.7	45.1	23.8	68.9	68.0	68.0	100.7	53.5	23.0	132.6	55.4	28.9
DesignQueue:	18	22	2	11	14	3	7	24	3	4	22	9

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #16 Murray/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.787
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 28.1
Optimal Cycle: 62 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			Permitted			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	2	0	0	0	0	1	1	0

Volume Module:

Base Vol:	271	896	0	0	893	183	0	0	0	339	19	507
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:	271	896	0	0	893	183	0	0	0	339	19	507
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.00	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	276	912	0	0	909	0	0	0	0	345	19	516
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	276	912	0	0	909	0	0	0	0	345	19	516
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	276	912	0	0	909	0	0	0	0	345	19	516

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.95	1.00	1.00	1.00	1.00	0.85	0.85	0.85
Lanes:	1.00	2.00	0.00	0.00	2.00	1.00	0.00	0.00	0.00	1.90	0.10	1.00
Final Sat.:	1805	3610	0	0	3610	1900	0	0	0	3061	169	1615

Capacity Analysis Module:

Vol/Sat:	0.15	0.25	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.11	0.11	0.32
Crit Moves:	****			****						****		
Green/Cycle:	0.19	0.51	0.00	0.00	0.32	0.00	0.00	0.00	0.00	0.41	0.41	0.41
Volume/Cap:	0.79	0.49	0.00	0.00	0.79	0.00	0.00	0.00	0.00	0.28	0.28	0.79
Uniform Del:	38.3	15.8	0.0	0.0	30.9	0.0	0.0	0.0	0.0	19.9	19.9	25.9
IncrementDel:	11.3	0.2	0.0	0.0	3.7	0.0	0.0	0.0	0.0	0.1	0.1	6.3
Delay Adj:	1.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	49.6	16.0	0.0	0.0	34.6	0.0	0.0	0.0	0.0	20.0	20.0	32.2
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:	49.6	16.0	0.0	0.0	34.6	0.0	0.0	0.0	0.0	20.0	20.0	32.2
DesignQueue:	13	26	0	0	37	0	0	0	0	12	1	18

Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #17 Murray/US 26 east ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.547
 Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 15.2
 Optimal Cycle: 35 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			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	1	0	0	1	0	0	0	0

Volume Module:

Base Vol:	0	979	317	209	1038	0	104	0	141	0	0	0
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	979	317	209	1038	0	104	0	141	0	0	0
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.94	0.94	0.00	0.94	0.94	0.00	0.94	0.94	0.94	0.94	0.94	0.94
PHF Volume:	0	1038	0	222	1101	0	110	0	150	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1038	0	222	1101	0	110	0	150	0	0	0
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	1038	0	222	1101	0	110	0	150	0	0	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	0.95	0.95	1.00	0.95	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Final Sat.:	0	3610	1900	1805	3610	0	1809	0	1615	0	0	0

Capacity Analysis Module:

Vol/Sat:	0.00	0.29	0.00	0.12	0.30	0.00	0.06	0.00	0.09	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.53	0.00	0.22	0.75	0.00	0.17	0.00	0.17	0.00	0.00	0.00
Volume/Cap:	0.00	0.55	0.00	0.55	0.41	0.00	0.36	0.00	0.55	0.00	0.00	0.00
Uniform Del:	0.0	15.8	0.0	34.3	4.5	0.0	36.7	0.0	38.0	0.0	0.0	0.0
IncrementDel:	0.0	0.3	0.0	1.6	0.1	0.0	0.7	0.0	2.3	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	16.1	0.0	35.8	4.6	0.0	37.4	0.0	40.3	0.0	0.0	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:	0.0	16.1	0.0	35.8	4.6	0.0	37.4	0.0	40.3	0.0	0.0	0.0
DesignQueue:	0	29	0	10	17	0	5	0	7	0	0	0

Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #18 Murray/Walker

Cycle (sec): 100 Critical Vol./Cap. (X): 0.983
 Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 54.2
 Optimal Cycle: 163 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			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	2	0	1	1	0	1

Volume Module:

Base Vol:	159	938	175	112	664	97	316	863	200	161	641	161
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:	159	938	175	112	664	97	316	863	200	161	641	161
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:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	163	962	179	115	681	99	324	885	205	165	657	165
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	163	962	179	115	681	99	324	885	205	165	657	165
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.:	163	962	179	115	681	99	324	885	205	165	657	165

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.93	0.93	0.92	0.92	0.92	0.95	1.00	0.85
Lanes:	1.00	1.69	0.31	1.00	1.75	0.25	2.00	1.62	0.38	1.00	1.00	1.00
Final Sat.:	1805	2971	553	1805	3092	449	3502	2849	660	1805	1900	1615

Capacity Analysis Module:

Vol/Sat:	0.09	0.32	0.32	0.06	0.22	0.22	0.09	0.31	0.31	0.09	0.35	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.11	0.33	0.33	0.06	0.28	0.28	0.09	0.34	0.34	0.10	0.35	0.35
Volume/Cap:	0.79	0.98	0.98	0.98	0.79	0.79	0.98	0.90	0.90	0.90	0.98	0.29
Uniform Del:	43.1	33.3	33.3	46.7	33.3	33.3	45.2	31.2	31.2	44.4	32.1	23.4
IncrementDel:	18.0	22.3	22.3	77.7	4.3	4.3	44.9	9.5	9.5	40.0	30.5	0.3
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
Delay/Veh:	61.1	55.6	55.6	124.4	37.6	37.6	90.1	40.7	40.7	84.4	62.6	23.7
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:	61.1	55.6	55.6	124.4	37.6	37.6	90.1	40.7	40.7	84.4	62.6	23.7
DesignQueue:	8	39	7	6	29	4	17	35	8	8	26	6

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Murray/Jenkins

Cycle (sec): 100 Critical Vol./Cap. (X): 0.889
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 44.5
Optimal Cycle: 112 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			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	2	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	293	694	86	193	729	186	117	521	303	86	431	126
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:	293	694	86	193	729	186	117	521	303	86	431	126
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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	306	726	90	202	763	195	122	545	317	90	451	132
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	306	726	90	202	763	195	122	545	317	90	451	132
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.:	306	726	90	202	763	195	122	545	317	90	451	132

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	0.93	0.93	0.95	0.92	0.92	0.95	1.00	0.85	0.95	0.97	0.97
Lanes:	2.00	1.78	0.22	1.00	1.59	0.41	1.00	1.00	1.00	1.00	0.77	0.23
Final Sat.:	3502	3160	392	1805	2786	712	1805	1900	1615	1805	1420	416

Capacity Analysis Module:

Vol/Sat:	0.09	0.23	0.23	0.11	0.27	0.27	0.07	0.29	0.20	0.05	0.32	0.32
Crit Moves:	****			****			****			****		
Green/Cycle:	0.10	0.27	0.27	0.13	0.31	0.31	0.08	0.37	0.47	0.06	0.36	0.36
Volume/Cap:	0.89	0.84	0.84	0.84	0.89	0.89	0.89	0.78	0.42	0.78	0.89	0.89
Uniform Del:	44.5	34.3	34.3	42.3	33.0	33.0	45.8	27.9	17.6	46.1	30.3	30.3
IncrementDel:	23.4	6.7	6.7	22.4	9.2	9.2	45.2	5.5	0.4	27.5	14.1	14.1
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
Delay/Veh:	67.9	40.9	40.9	64.7	42.2	42.2	91.0	33.4	18.0	73.6	44.3	44.3
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:	67.9	40.9	40.9	64.7	42.2	42.2	91.0	33.4	18.0	73.6	44.3	44.3
DesignQueue:	16	31	4	10	31	8	6	21	10	5	18	5

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Murray/Farmington

Cycle (sec): 160 Critical Vol./Cap. (X): 1.070
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 89.4
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			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	296	799	144	227	1176	87	78	605	323	280	1020	145
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:	296	799	144	227	1176	87	78	605	323	280	1020	145
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:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	302	815	147	232	1200	89	80	617	330	286	1041	148
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	302	815	147	232	1200	89	80	617	330	286	1041	148
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.:	302	815	147	232	1200	89	80	617	330	286	1041	148

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.94	0.94	0.95	0.90	0.90	0.95	0.93	0.93
Lanes:	1.00	1.69	0.31	1.00	1.86	0.14	1.00	1.30	0.70	1.00	1.75	0.25
Final Sat.:	1805	2988	539	1805	3327	247	1805	2230	1193	1805	3101	441

Capacity Analysis Module:

Vol/Sat:	0.17	0.27	0.27	0.13	0.36	0.36	0.04	0.28	0.28	0.16	0.34	0.34
Crit Moves:	****			****			****			****		
Green/Cycle:	0.16	0.34	0.34	0.16	0.34	0.34	0.05	0.26	0.26	0.15	0.36	0.36
Volume/Cap:	1.07	0.81	0.81	0.81	1.07	1.07	0.93	1.07	1.07	1.07	0.93	0.93
Uniform Del:	67.5	48.6	48.6	65.1	53.0	53.0	76.0	59.3	59.3	68.2	49.5	49.5
IncrementDel:	73.4	4.4	4.4	16.2	46.9	46.9	75.5	50.8	50.8	74.9	12.7	12.7
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
Delay/Veh:	140.9	53.0	53.0	81.3	xxxx	100.0	151.5	110	110.2	143.0	62.1	62.1
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:	140.9	53.0	53.0	81.3	xxxx	100.0	151.5	110	110.2	143.0	62.1	62.1
DesignQueue:	24	52	9	18	78	6	7	44	23	23	65	9

Level Of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #21 Murray/6th

Average Delay (sec/veh): 1727.9 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:	1 0 1 1 0	1 0 1 1 0	0 0 1! 0 0	0 0 1! 0 0

Volume Module:

Base Vol:	57 1148 33	17 1585 19	1 0 27	62 8 88
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:	57 1148 33	17 1585 19	1 0 27	62 8 88
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:	60 1206 35	18 1665 20	1 0 28	65 8 92
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Final Vol.:	60 1206 35	18 1665 20	1 0 28	65 8 92

Critical Gap Module:

Critical Gp:	4.1 xxxxx xxxxxx	4.1 xxxxx xxxxxx	7.5 xxxxx	6.9	7.5	6.5	6.9
FollowUpTim:	2.2 xxxxx xxxxxx	2.2 xxxxx xxxxxx	3.5 xxxxx	3.3	3.5	4.0	3.3

Capacity Module:

Cnflct Vol:	1685 xxxxx xxxxxx	1241 xxxxx xxxxxx	2438 xxxxx	842	2211	3064	620
Potent Cap.:	385 xxxxx xxxxxx	568 xxxxx xxxxxx	17 xxxxx	312	25	13	436
Move Cap.:	385 xxxxx xxxxxx	568 xxxxx xxxxxx	4 xxxxx	312	20	10	436

Level Of Service Module:

Stopped Del:	16.1 xxxxx xxxxxx	11.5 xxxxx xxxxxx	xxxxx xxxxx	xxxxx xxxxx	xxxxx xxxxx	xxxxx xxxxx	xxxxx xxxxx
LOS by Move:	C * *	B * *	* *	* *	* *	* *	* *
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxxx xxxxx xxxxxx	xxxxx xxxxx xxxxxx	xxxxx xxxxx	78 xxxxxx	xxxxx xxxxx	38 xxxxxx	xxxxx xxxxx
Shrd StpDel:	xxxxxx xxxxx xxxxxx	xxxxxx xxxxx xxxxxx	xxxxxx xxxxx	76.2 xxxxxx	xxxxxx xxxxxx	1728 xxxxxx	xxxxxx xxxxx
Shared LOS:	* * *	* * *	* * *	F	* * *	F	* * *
ApproachDel:	xxxxxxx	xxxxxxx	76.2		1727.9		
ApproachLOS:	*	*	F		F		

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #22 Murray/Allen

Cycle (sec): 120 Critical Vol./Cap. (X): 0.951
 Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 51.0
 Optimal Cycle: 162 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	Split Phase	Split Phase
Rights:	Ovl	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	1 0 2 0 1	2 0 1 1 0	1 0 1 1 0	1 0 1 0 1

Volume Module:

Base Vol:	128 708 222	442 1156 111	83 165 41	390 259 510
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:	128 708 222	442 1156 111	83 165 41	390 259 510
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:	132 728 228	455 1189 114	85 170 42	401 266 525
Reduct Vol:	0 0 0	0 0 0	0 0 0	0 0 0
Reduced Vol:	132 728 228	455 1189 114	85 170 42	401 266 525
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.:	132 728 228	455 1189 114	85 170 42	401 266 525

Saturation Flow Module:

Sat/Lane:	1900 1900 1900	1900 1900 1900	1900 1900 1900	1900 1900 1900
Adjustment:	0.95 0.95 0.85	0.92 0.94 0.94	0.95 0.92 0.92	0.95 1.00 0.85
Lanes:	1.00 2.00 1.00	2.00 1.83 0.17	1.00 1.60 0.40	1.00 1.00 1.00
Final Sat.:	1805 3610 1615	3502 3251 312	1805 2808 694	1805 1900 1615

Capacity Analysis Module:

Vol/Sat:	0.07 0.20 0.14	0.13 0.37 0.37	0.05 0.06 0.06	0.22 0.14 0.33
Crit Moves:	****	****	****	****
Green/Cycle:	0.08 0.28 0.62	0.18 0.38 0.38	0.06 0.06 0.06	0.34 0.34 0.34
Volume/Cap:	0.95 0.72 0.23	0.72 0.95 0.95	0.74 0.95 0.95	0.65 0.41 0.95
Uniform Del:	55.2 38.9 10.0	46.3 35.8 35.8	55.2 56.0 56.0	33.4 30.2 38.5
IncrementDel:	61.4 2.5 0.1	4.0 14.3 14.3	22.3 46.6 46.6	2.5 0.4 26.6
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
Delay/Veh:	116.6 41.4 10.1	50.3 50.2 50.2	77.5 103 102.6	35.9 30.7 65.1
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:	116.6 41.4 10.1	50.3 50.2 50.2	77.5 103 102.6	35.9 30.7 65.1
DesignQueue:	8 37 6	26 54 5	5 11 3	19 12 25

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Murray/Brockman/Beard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.739
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 31.4
Optimal Cycle: 75 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing traffic volumes. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns representing saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Nimbus/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.994
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 53.6
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing traffic volumes. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns representing saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Hall/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.989
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 65.9
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			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	319	508	288	250	440	115	171	736	245	286	712	207
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:	319	508	288	250	440	115	171	736	245	286	712	207
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:	336	536	304	264	464	121	180	776	258	302	751	218
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	336	536	304	264	464	121	180	776	258	302	751	218
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.:	336	536	304	264	464	121	180	776	258	302	751	218

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.90	0.90	0.95	0.92	0.92	0.95	0.91	0.91	0.95	0.92	0.92
Lanes:	1.00	1.28	0.72	1.00	1.59	0.41	1.00	1.50	0.50	1.00	1.55	0.45
Final Sat.:	1805	2179	1236	1805	2775	724	1805	2609	867	1805	2703	785

Capacity Analysis Module:

Vol/Sat:	0.19	0.25	0.25	0.15	0.17	0.17	0.10	0.30	0.30	0.17	0.28	0.28
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.21	0.25	0.25	0.15	0.19	0.19	0.12	0.30	0.30	0.17	0.35	0.35
Volume/Cap:	0.89	0.99	0.99	0.99	0.89	0.89	0.80	0.99	0.99	0.99	0.80	0.80
Uniform Del:	46.1	44.9	44.9	51.0	47.5	47.5	51.1	41.8	41.8	49.7	35.6	35.6
IncrementDel:	22.2	28.0	28.0	51.8	14.3	14.3	18.6	25.0	25.0	48.3	4.0	4.0
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
Delay/Veh:	68.3	72.9	72.9	102.8	61.8	61.8	69.7	66.8	66.8	98.0	39.6	39.6
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:	68.3	72.9	72.9	102.8	61.8	61.8	69.7	66.8	66.8	98.0	39.6	39.6
DesignQueue:	19	29	16	16	26	7	11	39	13	17	35	10

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Allen/Schools Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.980
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 64.5
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			Ovl			Ovl			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	1	0	1	1	0	0

Volume Module:

Base Vol:	123	565	121	43	624	156	223	581	299	173	362	29
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:	123	565	121	43	624	156	223	581	299	173	362	29
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:	131	601	129	46	664	166	237	618	318	184	385	31
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	131	601	129	46	664	166	237	618	318	184	385	31
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.:	131	601	129	46	664	166	237	618	318	184	385	31

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.97	0.97	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.99	0.99
Lanes:	1.00	0.82	0.18	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.07
Final Sat.:	1805	1522	327	1805	1900	1615	1805	1900	1615	1805	1739	140

Capacity Analysis Module:

Vol/Sat:	0.07	0.39	0.39	0.03	0.35	0.10	0.13	0.33	0.20	0.10	0.22	0.22
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.07	0.40	0.40	0.03	0.36	0.52	0.16	0.33	0.41	0.10	0.27	0.27
Volume/Cap:	0.98	0.98	0.98	0.98	0.98	0.20	0.81	0.98	0.48	0.98	0.81	0.81
Uniform Del:	55.5	35.2	35.2	58.4	38.2	15.5	48.5	39.7	26.4	53.6	40.7	40.7
IncrementDel:	71.4	26.9	26.9	121.7	29.5	0.1	15.3	30.7	0.6	59.6	9.3	9.3
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
Delay/Veh:	126.9	62.1	62.1	180.1	67.6	15.6	63.8	70.4	26.9	113.2	49.9	49.9
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:	126.9	62.1	62.1	180.1	67.6	15.6	63.8	70.4	26.9	113.2	49.9	49.9
DesignQueue:	8	27	6	3	31	5	14	30	13	11	20	2

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #27 Oleson/Vermont

Cycle (sec): 100 Critical Vol./Cap. (X): 0.761
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.1
Optimal Cycle: 69 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:	Prot+Permit			Prot+Permit			Permitted			Permitted		
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	0	1	0	0

Volume Module:

Base Vol:	18	304	247	174	387	20	13	6	20	325	17	167
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:	18	304	247	174	387	20	13	6	20	325	17	167
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:	19	320	260	183	407	21	14	6	21	342	18	176
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	19	320	260	183	407	21	14	6	21	342	18	176
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.:	19	320	260	183	407	21	14	6	21	342	18	176

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.42	0.93	0.93	0.36	0.99	0.99	0.54	0.88	0.88	0.75	0.86	0.86
Lanes:	1.00	0.55	0.45	1.00	0.95	0.05	1.00	0.22	0.78	1.00	0.09	0.91
Final Sat.:	795	978	795	676	1794	93	1034	373	1305	1417	152	1489

Capacity Analysis Module:

Vol/Sat:	0.02	0.33	0.33	0.27	0.23	0.23	0.01	0.02	0.02	0.24	0.12	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.45	0.43	0.43	0.60	0.54	0.54	0.32	0.32	0.32	0.32	0.32	0.32
Volume/Cap:	0.05	0.76	0.76	0.45	0.42	0.42	0.04	0.05	0.05	0.76	0.37	0.37
Uniform Del:	15.6	24.2	24.2	13.5	13.8	13.8	23.6	23.7	23.7	30.7	26.5	26.5
IncrementDel:	0.1	4.5	4.5	0.8	0.3	0.3	0.1	0.0	0.0	7.5	0.5	0.5
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
Delay/Veh:	15.6	28.7	28.7	14.3	14.1	14.1	23.7	23.7	23.7	38.2	26.9	26.9
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:	15.6	28.7	28.7	14.3	14.1	14.1	23.7	23.7	23.7	38.2	26.9	26.9
DesignQueue:	1	11	9	9	11	1	1	0	1	14	1	7

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Oleson/Garden Home

Cycle (sec): 100 Critical Vol./Cap. (X): 0.950
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 42.8
Optimal Cycle: 140 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:	Prot+Permit			Prot+Permit			Prot+Permit			Prot+Permit		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	0

Volume Module:

Base Vol:	212	369	94	147	462	139	132	386	295	112	330	120
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:	212	369	94	147	462	139	132	386	295	112	330	120
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.70
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:	228	396	101	158	496	149	142	415	317	120	354	90
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	228	396	101	158	496	149	142	415	317	120	354	90
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.:	228	396	101	158	496	149	142	415	317	120	354	90

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.34	1.00	0.85	0.47	0.97	0.97	0.32	1.00	0.85	0.34	0.97	0.97
Lanes:	1.00	1.00	1.00	1.00	0.77	0.23	1.00	1.00	1.00	1.00	0.80	0.20
Final Sat.:	648	1900	1615	887	1410	424	599	1900	1615	655	1469	374

Capacity Analysis Module:

Vol/Sat:	0.35	0.21	0.06	0.18	0.35	0.35	0.24	0.22	0.20	0.18	0.24	0.24
Crit Moves:	****			****			****			****		
Green/Cycle:	0.49	0.35	0.35	0.54	0.37	0.37	0.38	0.26	0.26	0.33	0.25	0.25
Volume/Cap:	0.72	0.59	0.18	0.33	0.95	0.95	0.63	0.85	0.76	0.55	0.95	0.95
Uniform Del:	21.8	26.3	22.2	13.4	30.6	30.6	24.4	35.2	34.3	25.8	36.7	36.7
IncrementDel:	7.9	1.4	0.1	0.4	22.9	22.9	5.6	12.9	8.0	3.0	29.2	29.2
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
Delay/Veh:	29.7	27.7	22.4	13.8	53.4	53.4	30.0	48.1	42.2	28.8	65.9	65.9
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:	29.7	27.7	22.4	13.8	53.4	53.4	30.0	48.1	42.2	28.8	65.9	65.9
DesignQueue:	11	15	4	8	19	6	7	18	14	6	16	4

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Cedar Hills/Barnes

Cycle (sec): 140 Critical Vol./Cap. (X): 1.002
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 68.8
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing different traffic movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #30 Cedar Hills/US 26 west ramps

Cycle (sec): 60 Critical Vol./Cap. (X): 0.628
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 12.8
Optimal Cycle: 38 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing different traffic movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #31 Cedar Hills/US 26 east ramps

Average Delay (sec/veh): 690.9 Worst Case Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Uncontrolled, Stop Sign), Rights (Include), and Lanes (0 0 2 0 1).

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, and Final Vol.

Critical Gap Module:

Table with 11 columns for gap values and 2 rows for Critical Gp and FollowUpTim.

Capacity Module:

Table with 11 columns for capacity values and 3 rows for Cnflct Vol, Potent Cap., and Move Cap.

Level Of Service Module:

Table with 11 columns for LOS values and 7 rows for Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #32 Cedar Hills/Butner

Cycle (sec): 100 Critical Vol./Cap. (X): 0.828

Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.7

Optimal Cycle: 93 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Protected, Permitted), Rights (Include), and Lanes (1 0 2 0 1).

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 11 columns for saturation flow values and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis values and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #33 Cedar Hills/Walker

Cycle (sec): 100 Critical Vol./Cap. (X): 1.006
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 58.2
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #34 Cedar Hills/Jenkins

Cycle (sec): 120 Critical Vol./Cap. (X): 0.876
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 40.0
Optimal Cycle: 118 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #35 Cedar Hills/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.745
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.9
Optimal Cycle: 76 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements and 10 rows of volume-related metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 12 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns and 12 rows showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #36 Cedar Hills/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.848
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.1
Optimal Cycle: 99 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements and 10 rows of volume-related metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 12 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns and 12 rows showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #37 Cedar Hills/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.905
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 27.2
Optimal Cycle: 112 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing different traffic movements. Rows include Volume Module (Base Vol, Growth Adj, etc.), PHF Volume, Reduct Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, etc.)

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #38 Hall/Center

Cycle (sec): 100 Critical Vol./Cap. (X): 0.477
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 23.8
Optimal Cycle: 39 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing different traffic movements. Rows include Volume Module (Base Vol, Growth Adj, etc.), PHF Volume, Reduct Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, etc.)

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #39 Hall/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.914
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 44.4
Optimal Cycle: 122 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			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	255	607	56	154	733	71	100	603	144	147	1032	87
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:	255	607	56	154	733	71	100	603	144	147	1032	87
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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	266	633	58	161	764	74	104	629	150	153	1076	91
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	266	633	58	161	764	74	104	629	150	153	1076	91
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.:	266	633	58	161	764	74	104	629	150	153	1076	91

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.94	0.94	0.95	0.92	0.92	0.95	0.94	0.94
Lanes:	1.00	1.83	0.17	1.00	1.82	0.18	1.00	1.61	0.39	1.00	1.84	0.16
Final Sat.:	1805	3264	299	1805	3248	315	1805	2830	675	1805	3289	278

Capacity Analysis Module:

Vol/Sat:	0.15	0.19	0.19	0.09	0.24	0.24	0.06	0.22	0.22	0.08	0.33	0.33
Crit Moves:	****			****			****			****		
Green/Cycle:	0.16	0.29	0.29	0.13	0.26	0.26	0.06	0.30	0.30	0.12	0.36	0.36
Volume/Cap:	0.91	0.68	0.68	0.68	0.91	0.91	0.91	0.73	0.73	0.73	0.91	0.91
Uniform Del:	41.2	31.5	31.5	41.4	36.0	36.0	46.6	31.1	31.1	42.7	30.6	30.6
IncrementDel:	31.2	1.8	1.8	7.5	13.3	13.3	57.9	2.6	2.6	12.2	10.2	10.2
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
Delay/Veh:	72.5	33.4	33.4	48.9	49.4	49.4	104.4	33.6	33.6	54.8	40.8	40.8
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:	72.5	33.4	33.4	48.9	49.4	49.4	104.4	33.6	33.6	54.8	40.8	40.8
DesignQueue:	13	26	2	8	33	3	5	26	6	8	42	4

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #40 Hall/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.852
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.4
Optimal Cycle: 91 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			Split Phase			Split Phase		
Rights:	Ignore			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	2	0	2	0	0	0	0	1	0	0

Volume Module:

Base Vol:	0	936	401	147	818	0	0	0	0	676	0	231
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	936	401	147	818	0	0	0	0	676	0	231
User Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	981	0	154	857	0	0	0	0	709	0	242
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	981	0	154	857	0	0	0	0	709	0	242
PCE Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	981	0	154	857	0	0	0	0	709	0	242

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	1.00	0.85
Lanes:	0.00	2.00	1.00	1.00	2.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Final Sat.:	0	3610	1900	1805	3610	0	0	0	0	1805	0	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.27	0.00	0.09	0.24	0.00	0.00	0.00	0.00	0.39	0.00	0.15
Crit Moves:	****			****						****		
Green/Cycle:	0.00	0.32	0.00	0.10	0.42	0.00	0.00	0.00	0.00	0.46	0.00	0.46
Volume/Cap:	0.00	0.85	0.00	0.85	0.57	0.00	0.00	0.00	0.00	0.85	0.00	0.33
Uniform Del:	0.0	31.8	0.0	44.3	22.1	0.0	0.0	0.0	0.0	23.9	0.0	17.1
IncrementDel:	0.0	6.3	0.0	30.1	0.5	0.0	0.0	0.0	0.0	8.4	0.0	0.3
Delay Adj:	0.00	1.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	1.00	0.00	1.00
Delay/Veh:	0.0	38.1	0.0	74.4	22.6	0.0	0.0	0.0	0.0	32.4	0.0	17.3
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:	0.0	38.1	0.0	74.4	22.6	0.0	0.0	0.0	0.0	32.4	0.0	17.3
DesignQueue:	0	40	0	8	29	0	0	0	0	24	0	7

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 Hall/Greenway

Cycle (sec): 120 Critical Vol./Cap. (X): 1.029
 Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 61.9
 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	1	0	0	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	281	17	285	26	27	4	7	551	469	655	1111	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:	281	17	285	26	27	4	7	551	469	655	1111	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:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	287	17	291	27	28	4	7	562	479	668	1134	27
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	287	17	291	27	28	4	7	562	479	668	1134	27
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.:	287	17	291	27	28	4	7	562	479	668	1134	27

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.96	0.96	0.85	0.97	0.97	0.97	0.95	0.88	0.88	0.95	0.95	0.95
Lanes:	0.94	0.06	1.00	0.46	0.47	0.07	1.00	1.08	0.92	1.00	1.95	0.05
Final Sat.:	1713	101	1615	843	874	125	1805	1814	1546	1805	3515	84

Capacity Analysis Module:

Vol/Sat:	0.17	0.17	0.18	0.03	0.03	0.03	0.00	0.31	0.31	0.37	0.32	0.32
Crit Moves:	****			****			****			****		
Green/Cycle:	0.18	0.18	0.18	0.03	0.03	0.03	0.01	0.30	0.30	0.36	0.65	0.65
Volume/Cap:	0.96	0.96	1.03	1.03	1.03	1.03	0.49	1.03	1.03	1.03	0.49	0.49
Uniform Del:	49.0	49.0	49.5	58.1	58.1	58.1	59.3	41.9	41.9	38.4	10.7	10.7
IncrementDel:	39.0	39.0	61.3	127.4	127	127.4	24.7	36.0	36.0	43.0	0.2	0.2
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
Delay/Veh:	88.0	88.0	110.8	185.5	186	185.5	83.9	78.0	78.0	81.5	10.9	10.9
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:	88.0	88.0	110.8	185.5	186	185.5	83.9	78.0	78.0	81.5	10.9	10.9
DesignQueue:	16	1	17	2	2	0	0	28	24	31	29	1

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 Hall/Nimbus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.841
 Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.3
 Optimal Cycle: 97 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	1	1	0	2

Volume Module:

Base Vol:	366	36	350	173	49	88	18	712	150	249	1240	59
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:	366	36	350	173	49	88	18	712	150	249	1240	59
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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	381	38	365	180	51	92	19	742	156	259	1292	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	381	38	365	180	51	92	19	742	156	259	1292	61
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.:	381	38	365	180	51	92	19	742	156	259	1292	61

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.65	0.86	0.86	0.33	0.90	0.90	0.95	0.93	0.93	0.95	0.95	0.85
Lanes:	1.00	0.09	0.91	1.00	0.36	0.64	1.00	1.65	0.35	1.00	2.00	1.00
Final Sat.:	1239	155	1487	635	613	1105	1805	2905	611	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.31	0.25	0.25	0.28	0.08	0.08	0.01	0.26	0.26	0.14	0.36	0.04
Crit Moves:	****			****			****			****		
Green/Cycle:	0.37	0.37	0.37	0.37	0.37	0.37	0.01	0.30	0.30	0.17	0.46	0.46
Volume/Cap:	0.84	0.67	0.67	0.78	0.23	0.23	0.78	0.84	0.84	0.84	0.78	0.08
Uniform Del:	29.1	26.7	26.7	28.1	21.9	21.9	49.2	32.6	32.6	40.2	22.6	15.1
IncrementDel:	13.2	3.0	3.0	15.1	0.2	0.2	88.3	6.1	6.1	18.3	2.4	0.0
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
Delay/Veh:	42.3	29.6	29.6	43.1	22.1	22.1	137.4	38.7	38.7	58.5	25.0	15.2
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:	42.3	29.6	29.6	43.1	22.1	22.1	137.4	38.7	38.7	58.5	25.0	15.2
DesignQueue:	14	1	14	7	2	3	1	31	6	12	43	2

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 125th/Greenway

Cycle (sec): 100 Critical Vol./Cap. (X): 0.515
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 17.5
 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:	Split Phase			Split Phase			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	0	0	0	0	0	1	0	1	0

Volume Module:

Base Vol:	316	0	144	0	0	0	0	238	225	266	493	0
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:	316	0	144	0	0	0	0	238	225	266	493	0
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:	325	0	148	0	0	0	0	245	232	274	508	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	325	0	148	0	0	0	0	245	232	274	508	0
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.:	325	0	148	0	0	0	0	245	232	274	508	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	1.00	0.85	0.54	0.95	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	0.97	1.03	0.00
Final Sat.:	1805	0	1615	0	0	0	0	1900	1615	1002	1858	0

Capacity Analysis Module:

Vol/Sat:	0.18	0.00	0.09	0.00	0.00	0.00	0.00	0.13	0.14	0.27	0.27	0.00
Crit Moves:	****									****		
Green/Cycle:	0.35	0.00	0.35	0.00	0.00	0.00	0.00	0.53	0.53	0.53	0.53	0.00
Volume/Cap:	0.52	0.00	0.26	0.00	0.00	0.00	0.00	0.24	0.27	0.52	0.52	0.00
Uniform Del:	25.8	0.0	23.3	0.0	0.0	0.0	0.0	12.6	12.9	15.2	15.2	0.0
IncrementDel:	0.7	0.0	0.2	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	26.5	0.0	23.5	0.0	0.0	0.0	0.0	12.8	13.0	15.5	15.5	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:	26.5	0.0	23.5	0.0	0.0	0.0	0.0	12.8	13.0	15.5	15.5	0.0
DesignQueue:	12	0	5	0	0	0	0	7	6	7	14	0

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 Western/Beaverton Hillsdale

Cycle (sec): 120 Critical Vol./Cap. (X): 0.868
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 33.7
 Optimal Cycle: 104 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:	Split Phase			Split Phase			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	0	0	0	0	0	1	0	2	0

Volume Module:

Base Vol:	331	0	315	0	0	0	0	994	339	250	1001	0
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:	331	0	315	0	0	0	0	994	339	250	1001	0
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:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	361	0	343	0	0	0	0	1083	369	272	1090	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	361	0	343	0	0	0	0	1083	369	272	1090	0
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.:	361	0	343	0	0	0	0	1083	369	272	1090	0

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.91	0.91	0.95	0.95	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.49	0.51	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	2590	883	1805	3610	0

Capacity Analysis Module:

Vol/Sat:	0.20	0.00	0.21	0.00	0.00	0.00	0.00	0.42	0.42	0.15	0.30	0.00
Crit Moves:	****									****		
Green/Cycle:	0.24	0.00	0.24	0.00	0.00	0.00	0.00	0.48	0.48	0.17	0.66	0.00
Volume/Cap:	0.82	0.00	0.87	0.00	0.00	0.00	0.00	0.87	0.87	0.87	0.46	0.00
Uniform Del:	42.8	0.0	43.5	0.0	0.0	0.0	0.0	27.7	27.7	48.2	10.2	0.0
IncrementDel:	11.3	0.0	18.1	0.0	0.0	0.0	0.0	5.1	5.1	21.8	0.1	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	54.1	0.0	61.6	0.0	0.0	0.0	0.0	32.8	32.8	70.0	10.4	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:	54.1	0.0	61.6	0.0	0.0	0.0	0.0	32.8	32.8	70.0	10.4	0.0
DesignQueue:	19	0	18	0	0	0	0	42	14	16	27	0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #45 Western/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.726
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.7
Optimal Cycle: 63 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #46 Laurelwood/Beaverton Hillsdale

Cycle (sec): 100 Critical Vol./Cap. (X): 0.795
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 26.2
Optimal Cycle: 76 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #47 Lombard/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.775
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.7
Optimal Cycle: 81 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 0 1 0 1 0 2 0 1 1 0 2 0 1

Volume Module:
Base Vol: 69 153 73 137 185 101 69 1030 84 143 1431 204
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: 69 153 73 137 185 101 69 1030 84 143 1431 204
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: 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.98 0.00 0.98 0.98 0.00
PHF Volume: 71 157 75 140 189 103 71 1054 0 146 1465 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 71 157 75 140 189 103 71 1054 0 146 1465 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 1.00 0.00 1.00 1.00 0.00
Final Vol.: 71 157 75 140 189 103 71 1054 0 146 1465 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 1.00 0.95 0.95 1.00
Lanes: 1.00 0.68 0.32 1.00 0.65 0.35 1.00 2.00 1.00 1.00 2.00 1.00
Final Sat.: 1805 1224 585 1805 1165 635 1805 3610 1900 1805 3610 1900

Capacity Analysis Module:
Vol/Sat: 0.04 0.13 0.13 0.08 0.16 0.16 0.04 0.29 0.00 0.08 0.41 0.00
Crit Moves: ****
Green/Cycle: 0.05 0.17 0.17 0.10 0.21 0.21 0.05 0.45 0.00 0.12 0.52 0.00
Volume/Cap: 0.76 0.77 0.77 0.77 0.76 0.76 0.77 0.65 0.00 0.65 0.77 0.00
Uniform Del: 46.8 39.9 39.9 43.9 36.9 36.9 46.9 21.4 0.0 41.7 19.1 0.0
IncrementDel: 29.7 11.9 11.9 18.7 8.5 8.5 32.9 0.9 0.0 6.5 2.1 0.0
Delay 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
Delay/Veh: 76.5 51.9 51.9 62.6 45.4 45.4 79.8 22.3 0.0 48.2 21.2 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: 76.5 51.9 51.9 62.6 45.4 45.4 79.8 22.3 0.0 48.2 21.2 0.0
DesignQueue: 4 8 4 7 9 5 4 35 0 7 43 0

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #48 114th/Canyon

Average Delay (sec/veh): 15.7 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: Stop Sign Stop Sign Uncontrolled Uncontrolled
Rights: Include Include Include Include
Lanes: 0 0 0 0 0 0 0 0 1 0 0 0 0 0 0 0 1 1 0

Volume Module:
Base Vol: 0 0 0 0 0 27 0 0 0 0 1581 71
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 0 0 27 0 0 0 0 1581 71
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: 0 0 0 0 0 28 0 0 0 0 1625 73
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Final Vol.: 0 0 0 0 0 28 0 0 0 0 1625 73

Critical Gap Module:
Critical Gp:xxxxx xxxx xxxxx xxxxx xxxxx 6.2 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx
FollowUpTim:xxxxx xxxx xxxxx xxxxx xxxxx 3.3 xxxxx xxxx xxxxx xxxxx xxxxx xxxxx

Capacity Module:
Conflict Vol: xxxxx xxxxx xxxxx xxxxx xxxxx 849 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Potent Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx 364 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Move Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx 364 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx

Level Of Service Module:
Stopped Del:xxxxxx xxxxx xxxxx xxxxx xxxxx 15.7 xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
LOS by Move: * * * * * C * * * * *
Movement: LT - LTR - RT LT - LTR - RT LT - LTR - RT LT - LTR - RT
Shared Cap.: xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shrd StpDel:xxxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx xxxxx
Shared LOS: * * * * * * * * * * * * * * *
ApproachDel: xxxxxxx 15.7 xxxxxxx xxxxxxx
ApproachLOS: * C * *

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #49 Griffith/Beaverton Hillsdale

Cycle (sec): 100 Critical Vol./Cap. (X): 0.808
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 31.0
Optimal Cycle: 88 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	0	1	0	1	0	1	1	0	1

Volume Module:

Base Vol:	140	81	175	180	106	140	89	971	84	145	1407	237
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:	140	81	175	180	106	140	89	971	84	145	1407	237
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:	147	85	184	189	111	147	93	1019	88	152	1476	249
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	85	184	189	111	147	93	1019	88	152	1476	249
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.:	147	85	184	189	111	147	93	1019	88	152	1476	249

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	0.95	1.00	0.85	0.95	0.94	0.94	0.95	0.95	0.85
Lanes:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.84	0.16	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	1805	1900	1615	1805	3283	284	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.08	0.04	0.11	0.10	0.06	0.09	0.05	0.31	0.31	0.08	0.41	0.15
Crit Moves:	****			****			****			****		
Green/Cycle:	0.14	0.14	0.14	0.13	0.13	0.13	0.06	0.45	0.45	0.12	0.51	0.64
Volume/Cap:	0.58	0.32	0.81	0.81	0.45	0.70	0.81	0.69	0.69	0.69	0.81	0.24
Uniform Del:	40.2	38.6	41.6	42.3	40.2	41.7	46.2	22.1	22.1	42.1	20.7	7.9
IncrementDel:	3.3	0.7	19.0	18.5	1.3	10.3	33.1	1.3	1.3	9.2	2.8	0.1
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
Delay/Veh:	43.5	39.3	60.6	60.9	41.6	52.0	79.3	23.4	23.4	51.3	23.5	8.0
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:	43.5	39.3	60.6	60.9	41.6	52.0	79.3	23.4	23.4	51.3	23.5	8.0
DesignQueue:	7	4	9	9	5	7	5	34	3	8	45	5

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #50 87th/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.676
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 18.7
Optimal Cycle: 46 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	0	0	0	1	0	0	0

Volume Module:

Base Vol:	215	64	55	46	105	3	0	1221	184	0	989	13
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:	215	64	55	46	105	3	0	1221	184	0	989	13
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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	224	67	57	48	110	3	0	1275	192	0	1032	14
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	224	67	57	48	110	3	0	1275	192	0	1032	14
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.:	224	67	57	48	110	3	0	1275	192	0	1032	14

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.68	0.68	0.68	0.84	0.84	0.84	1.00	0.95	0.85	1.00	0.95	0.95
Lanes:	0.65	0.19	0.16	0.30	0.68	0.02	0.00	2.00	1.00	0.00	1.97	0.03
Final Sat.:	832	249	212	475	1088	30	0	3610	1615	0	3555	48

Capacity Analysis Module:

Vol/Sat:	0.27	0.27	0.27	0.10	0.10	0.10	0.00	0.35	0.12	0.00	0.29	0.29
Crit Moves:	****			****			****			****		
Green/Cycle:	0.40	0.40	0.40	0.40	0.40	0.40	0.00	0.52	0.52	0.00	0.52	0.52
Volume/Cap:	0.68	0.68	0.68	0.25	0.25	0.25	0.00	0.68	0.23	0.00	0.56	0.56
Uniform Del:	24.8	24.8	24.8	20.2	20.2	20.2	0.0	17.6	13.0	0.0	16.1	16.1
IncrementDel:	3.6	3.6	3.6	0.2	0.2	0.2	0.0	1.0	0.1	0.0	0.4	0.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00
Delay/Veh:	28.4	28.4	28.4	20.4	20.4	20.4	0.0	18.6	13.1	0.0	16.5	16.5
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:	28.4	28.4	28.4	20.4	20.4	20.4	0.0	18.6	13.1	0.0	16.5	16.5
DesignQueue:	8	2	2	2	4	0	0	37	5	0	30	0

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #51 Garden Home/84th

Average Delay (sec/veh): 32.6 Worst Case Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound), Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), Lanes (0 0 1! 0 0).

Volume Module:

Table with 12 columns for traffic volume and delay metrics: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module:

Table with 12 columns for critical gap and follow-up time metrics: Critical Gp, FollowUpTim.

Capacity Module:

Table with 12 columns for capacity metrics: Cnflct Vol, Potent Cap., Move Cap.

Level Of Service Module:

Table with 12 columns for level of service metrics: Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #52 Garden Home/88th

Average Delay (sec/veh): 23.5 Worst Case Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound), Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), Lanes (0 0 1! 0 0).

Volume Module:

Table with 12 columns for traffic volume and delay metrics: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol.

Critical Gap Module:

Table with 12 columns for critical gap and follow-up time metrics: Critical Gp, FollowUpTim.

Capacity Module:

Table with 12 columns for capacity metrics: Cnflct Vol, Potent Cap., Move Cap.

Level Of Service Module:

Table with 12 columns for level of service metrics: Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS.

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #53 158th/Jenkins

Cycle (sec): 100 Critical Vol./Cap. (X): 0.857
 Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 38.2
 Optimal Cycle: 101 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			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	1	0	1

Volume Module:

Base Vol:	37	134	118	301	232	90	55	499	28	121	611	144
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:	37	134	118	301	232	90	55	499	28	121	611	144
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:	39	142	125	318	245	95	58	527	30	128	646	152
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	39	142	125	318	245	95	58	527	30	128	646	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.:	39	142	125	318	245	95	58	527	30	128	646	152

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.88	0.88	0.95	1.00	0.85	0.95	0.94	0.94	0.95	0.97	0.97
Lanes:	1.00	1.06	0.94	1.00	1.00	1.00	1.00	1.89	0.11	1.00	0.81	0.19
Final Sat.:	1805	1786	1572	1805	1900	1615	1805	3388	193	1805	1495	352

Capacity Analysis Module:

Vol/Sat:	0.02	0.08	0.08	0.18	0.13	0.06	0.03	0.16	0.16	0.07	0.43	0.43
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.04	0.09	0.09	0.21	0.26	0.29	0.04	0.37	0.37	0.17	0.50	0.50
Volume/Cap:	0.50	0.86	0.86	0.86	0.50	0.20	0.86	0.42	0.42	0.42	0.86	0.86
Uniform Del:	46.8	44.7	44.7	38.3	31.8	26.6	47.9	23.3	23.3	37.1	21.6	21.6
IncrementDel:	5.3	20.3	20.3	17.6	0.9	0.2	62.4	0.2	0.2	0.9	8.0	8.0
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
Delay/Veh:	52.1	65.0	65.0	55.9	32.7	26.8	110.3	23.6	23.6	38.0	29.6	29.6
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:	52.1	65.0	65.0	55.9	32.7	26.8	110.3	23.6	23.6	38.0	29.6	29.6
DesignQueue:	2	7	6	15	10	4	3	19	1	6	20	5

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #54 170th/Merlo

Cycle (sec): 100 Critical Vol./Cap. (X): 0.631
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.4
 Optimal Cycle: 51 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			Split Phase			Split Phase		
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	1	0	0

Volume Module:

Base Vol:	22	329	175	6	330	15	10	12	15	340	22	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:	22	329	175	6	330	15	10	12	15	340	22	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:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	24	361	192	7	362	16	11	13	16	373	24	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	24	361	192	7	362	16	11	13	16	373	24	22
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.:	24	361	192	7	362	16	11	13	16	373	24	22

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.93	0.93	0.99	0.99	0.99	0.93	0.93	0.93	0.95	0.93	0.93
Lanes:	0.04	0.63	0.33	0.02	0.94	0.04	0.27	0.33	0.40	1.00	0.52	0.48
Final Sat.:	74	1108	589	34	1760	78	487	576	709	1805	920	843

Capacity Analysis Module:

Vol/Sat:	0.33	0.33	0.33	0.21	0.21	0.21	0.02	0.02	0.02	0.21	0.03	0.03
Crit Moves:	****	****	****	****	****	****	****	****	****	****	****	****
Green/Cycle:	0.52	0.52	0.52	0.52	0.52	0.52	0.04	0.04	0.04	0.33	0.33	0.33
Volume/Cap:	0.63	0.63	0.63	0.40	0.40	0.40	0.63	0.63	0.63	0.63	0.08	0.08
Uniform Del:	17.3	17.3	17.3	14.7	14.7	14.7	47.6	47.6	47.6	28.5	23.2	23.2
IncrementDel:	1.4	1.4	1.4	0.3	0.3	0.3	18.7	18.7	18.7	2.2	0.1	0.1
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
Delay/Veh:	18.8	18.8	18.8	15.0	15.0	15.0	66.3	66.3	66.3	30.7	23.3	23.3
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:	18.8	18.8	18.8	15.0	15.0	15.0	66.3	66.3	66.3	30.7	23.3	23.3
DesignQueue:	1	11	6	0	10	0	1	1	1	15	1	1

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #56 TV Highway/Murray

Cycle (sec): 120 Critical Vol./Cap. (X): 0.999
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 65.1
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Includes Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 traffic flow metrics.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #57 Farmington/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.847
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 90 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow metrics. Includes Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns: Saturation Flow Module, Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 traffic flow metrics.

Table with 12 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #58 Canyon/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.796
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 76 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 4 columns (Count, Date, etc.) and 12 rows of traffic volume and adjustment data.

Saturation Flow Module: Table with 12 columns and 4 rows of saturation flow and adjustment data.

Capacity Analysis Module: Table with 12 columns and 12 rows of capacity analysis data.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #59 Walker/173rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.984
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 63.4
Optimal Cycle: 164 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module: Table with 4 columns (Count, Date, etc.) and 12 rows of traffic volume and adjustment data.

Saturation Flow Module: Table with 12 columns and 4 rows of saturation flow and adjustment data.

Capacity Analysis Module: Table with 12 columns and 12 rows of capacity analysis data.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #60 170th/Baseline

Cycle (sec): 90 Critical Vol./Cap. (X): 0.582
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 21.2
Optimal Cycle: 46 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	1	1	0	1

Volume Module:

Base Vol:	299	12	66	4	10	19	21	585	209	77	951	4
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:	299	12	66	4	10	19	21	585	209	77	951	4
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:	309	12	68	4	10	20	22	604	216	79	981	4
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	309	12	68	4	10	20	22	604	216	79	981	4
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.:	309	12	68	4	10	20	22	604	216	79	981	4

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.74	0.87	0.87	0.70	0.90	0.90	0.95	0.91	0.91	0.95	0.95	0.95
Lanes:	1.00	0.15	0.85	1.00	0.33	0.67	1.00	1.47	0.53	1.00	1.99	0.01
Final Sat.:	1412	249	1410	1338	570	1140	1805	2555	914	1805	3592	15

Capacity Analysis Module:

Vol/Sat:	0.22	0.05	0.05	0.00	0.02	0.02	0.01	0.24	0.24	0.04	0.27	0.27
Crit Moves:	****						****			****		
Green/Cycle:	0.38	0.38	0.38	0.38	0.38	0.38	0.02	0.41	0.41	0.08	0.47	0.47
Volume/Cap:	0.58	0.13	0.13	0.01	0.05	0.05	0.58	0.57	0.57	0.57	0.58	0.58
Uniform Del:	22.4	18.4	18.4	17.6	17.8	17.8	43.7	20.2	20.2	40.1	17.4	17.4
IncrementDel:	1.6	0.1	0.1	0.0	0.0	0.0	20.9	0.6	0.6	5.6	0.5	0.5
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
Delay/Veh:	24.1	18.5	18.5	17.6	17.9	17.9	64.6	20.8	20.8	45.7	17.9	17.9
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:	24.1	18.5	18.5	17.6	17.9	17.9	64.6	20.8	20.8	45.7	17.9	17.9
DesignQueue:	10	0	2	0	0	1	1	19	7	4	28	0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #64 Cornell/173rd

Cycle (sec): 110 Critical Vol./Cap. (X): 0.933
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 43.5
Optimal Cycle: 140 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			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	1	1	0	0

Volume Module:

Base Vol:	337	10	156	26	15	23	14	753	283	267	712	21
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:	337	10	156	26	15	23	14	753	283	267	712	21
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:	357	11	165	28	16	24	15	798	300	283	754	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	357	11	165	28	16	24	15	798	300	283	754	22
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.:	357	11	165	28	16	24	15	798	300	283	754	22

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.86	0.86	0.95	0.91	0.91	0.95	1.00	0.85	0.95	1.00	1.00
Lanes:	1.00	0.06	0.94	1.00	0.40	0.60	1.00	1.00	1.00	1.00	0.97	0.03
Final Sat.:	1805	102	1530	1805	692	1037	1805	1900	1615	1805	1839	54

Capacity Analysis Module:

Vol/Sat:	0.20	0.11	0.11	0.02	0.02	0.02	0.01	0.42	0.19	0.16	0.41	0.41
Crit Moves:	****			****			****			****		
Green/Cycle:	0.21	0.21	0.21	0.03	0.02	0.02	0.01	0.45	0.45	0.17	0.61	0.61
Volume/Cap:	0.93	0.52	0.52	0.52	0.93	0.93	0.68	0.93	0.41	0.93	0.68	0.68
Uniform Del:	42.6	38.8	38.8	52.6	53.5	53.5	54.1	28.7	20.4	45.2	14.5	14.5
IncrementDel:	29.7	1.5	1.5	8.9	111	111.5	60.5	16.9	0.4	34.6	1.6	1.6
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
Delay/Veh:	72.2	40.2	40.2	61.5	165	165.0	114.6	45.6	20.8	79.7	16.1	16.1
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:	72.2	40.2	40.2	61.5	165	165.0	114.6	45.6	20.8	79.7	16.1	16.1
DesignQueue:	18	1	8	2	1	1	1	30	11	15	20	1

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #66 Scholls Ferry/Cascade

Cycle (sec): 100 Critical Vol./Cap. (X): 0.762
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 23.8
Optimal Cycle: 69 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	1	0	2

Volume Module: >> Count Date: 20 May 1999 <<
 Base Vol: 213 86 102 71 103 74 31 1630 238 114 1501 46
 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: 213 86 102 71 103 74 31 1630 238 114 1501 46
 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: 224 90 107 75 108 78 33 1714 250 120 1578 48
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 224 90 107 75 108 78 33 1714 250 120 1578 48
 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.: 224 90 107 75 108 78 33 1714 250 120 1578 48

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.54 0.92 0.92 0.52 0.94 0.94 0.95 0.89 0.89 0.95 0.95 0.85
 Lanes: 1.00 0.46 0.54 1.00 0.58 0.42 1.00 2.62 0.38 1.00 2.00 1.00
 Final Sat.: 1026 798 948 992 1034 747 1805 4441 648 1805 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.22 0.11 0.11 0.08 0.10 0.10 0.02 0.39 0.39 0.07 0.44 0.03
 Crit Moves: ****
 Green/Cycle: 0.29 0.29 0.29 0.29 0.29 0.29 0.02 0.51 0.51 0.09 0.57 0.57
 Volume/Cap: 0.76 0.39 0.39 0.26 0.36 0.36 0.77 0.76 0.76 0.76 0.77 0.05
 Uniform Del: 32.6 28.7 28.7 27.5 28.4 28.4 48.5 19.8 19.8 44.6 16.4 9.5
 IncremntDel: 11.2 0.5 0.5 0.5 0.4 0.4 56.7 1.4 1.4 19.5 1.8 0.0
 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
 Delay/Veh: 43.7 29.2 29.2 28.0 28.9 28.9 105.3 21.2 21.2 64.1 18.2 9.6
 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: 43.7 29.2 29.2 28.0 28.9 28.9 105.3 21.2 21.2 64.1 18.2 9.6
 DesignQueue: 9 4 4 3 4 3 2 52 8 6 42 1

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #72 Canyon/Watson

Cycle (sec): 100 Critical Vol./Cap. (X): 0.676
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 16.8
Optimal Cycle: 56 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	1	1	0	0	0	1	1	0	2

Volume Module: >> Count Date: 7 Aug 1996 <<
 Base Vol: 0 0 0 156 345 45 0 1282 104 110 1358 0
 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 0 156 345 45 0 1282 104 110 1358 0
 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: 0 0 0 166 367 48 0 1362 111 117 1443 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 166 367 48 0 1362 111 117 1443 0
 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.: 0 0 0 166 367 48 0 1362 111 117 1443 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.93 0.93 0.93 1.00 0.94 0.94 0.95 0.95 1.00
 Lanes: 0.00 0.00 0.00 1.00 1.77 0.23 0.00 1.85 0.15 1.00 2.00 0.00
 Final Sat.: 0 0 0 1762 3116 408 0 3301 269 1805 3610 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.09 0.12 0.12 0.00 0.41 0.41 0.06 0.40 0.00
 Crit Moves: ****
 Green/Cycle: 0.00 0.00 0.00 0.17 0.17 0.17 0.00 0.61 0.61 0.10 0.71 0.00
 Volume/Cap: 0.00 0.00 0.00 0.54 0.68 0.68 0.00 0.68 0.68 0.68 0.57 0.00
 Uniform Del: 0.0 0.0 0.0 37.7 38.7 38.7 0.0 12.9 12.9 43.7 7.2 0.0
 IncremntDel: 0.0 0.0 0.0 0.6 2.2 2.2 0.0 0.9 0.9 10.2 0.3 0.0
 Delay Adj: 0.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 0.0 0.0 0.0 38.2 40.8 40.8 0.0 13.8 13.8 53.9 7.5 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: 0.0 0.0 0.0 38.2 40.8 40.8 0.0 13.8 13.8 53.9 7.5 0.0
 DesignQueue: 0 0 0 8 17 2 0 33 3 6 26 0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #73 Farmington/Watson

Cycle (sec): 100 Critical Vol./Cap. (X): 0.770
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.2
Optimal Cycle: 71 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: Split Phase Split Phase Protected Protected
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 0 0 0 0 1 0 1 0 0 0 1 1 0 1 0 2 0 0

Volume Module: >> Count Date: 13 May 1999 <<
Base Vol: 0 0 0 119 505 116 0 1022 266 106 1539 0
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 0 119 505 116 0 1022 266 106 1539 0
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: 0 0 0 126 533 122 0 1079 281 112 1625 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 0 0 0 126 533 122 0 1079 281 112 1625 0
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.: 0 0 0 126 533 122 0 1079 281 112 1625 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 1.00 1.00 1.00 0.91 0.91 0.91 1.00 0.92 0.92 0.95 0.95 1.00
Lanes: 0.00 0.00 0.00 0.32 1.37 0.31 0.00 1.59 0.41 1.00 2.00 0.00
Final Sat.: 0 0 0 556 2352 538 0 2775 723 1805 3610 0

Capacity Analysis Module:
Vol/Sat: 0.00 0.00 0.00 0.23 0.23 0.23 0.00 0.39 0.39 0.06 0.45 0.00
Crit Moves: ****
Green/Cycle: 0.00 0.00 0.00 0.29 0.29 0.29 0.00 0.51 0.51 0.08 0.59 0.00
Volume/Cap: 0.00 0.00 0.00 0.77 0.77 0.77 0.00 0.77 0.77 0.77 0.77 0.00
Uniform Del: 0.0 0.0 0.0 32.2 32.2 32.2 0.0 20.0 20.0 45.1 15.6 0.0
IncrementDel: 0.0 0.0 0.0 3.7 3.7 3.7 0.0 2.1 2.1 21.8 1.8 0.0
Delay Adj: 0.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 0.0 0.0 0.0 35.8 35.8 35.8 0.0 22.2 22.2 66.9 17.4 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: 0.0 0.0 0.0 35.8 35.8 35.8 0.0 22.2 22.2 66.9 17.4 0.0
DesignQueue: 0 0 0 5 22 5 0 33 9 6 42 0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #76 Scholls Ferry/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.754
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.6
Optimal Cycle: 68 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 Permitted Permitted
Rights: Include 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 1 0 1 0 0 1 0 0 0

Volume Module:
Base Vol: 103 643 2 5 653 367 214 3 79 2 1 0
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: 103 643 2 5 653 367 214 3 79 2 1 0
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: 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92
PHF Volume: 112 700 2 5 711 400 233 3 86 2 1 0
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 112 700 2 5 711 400 233 3 86 2 1 0
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.: 112 700 2 5 711 400 233 3 86 2 1 0

Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment: 0.95 1.00 1.00 0.95 1.00 0.85 0.75 0.75 0.75 0.90 0.90 1.00
Lanes: 1.00 0.99 0.01 1.00 1.00 1.00 0.72 0.01 0.27 0.67 0.33 0.00
Final Sat.: 1805 1895 5 1805 1900 1615 1024 13 378 1137 569 0

Capacity Analysis Module:
Vol/Sat: 0.06 0.37 0.37 0.00 0.37 0.25 0.23 0.23 0.23 0.00 0.00 0.00
Crit Moves: ****
Green/Cycle: 0.08 0.57 0.57 0.00 0.50 0.50 0.30 0.30 0.30 0.30 0.30 0.00
Volume/Cap: 0.75 0.64 0.64 0.64 0.75 0.50 0.75 0.75 0.75 0.01 0.01 0.00
Uniform Del: 44.9 14.4 14.4 49.7 20.3 16.9 31.6 31.6 31.6 24.4 24.4 0.0
IncrementDel: 19.5 1.3 1.3 111.1 3.5 0.5 7.5 7.5 7.5 0.0 0.0 0.0
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00
Delay/Veh: 64.4 15.7 15.7 160.8 23.8 17.4 39.0 39.0 39.0 24.4 24.4 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: 64.4 15.7 15.7 160.8 23.8 17.4 39.0 39.0 39.0 24.4 24.4 0.0
DesignQueue: 6 18 0 0 22 12 9 0 3 0 0 0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #77 Farmington/Hocken

Cycle (sec): 100 Critical Vol./Cap. (X): 0.844
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.6
Optimal Cycle: 88 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	1	0	1	0	2	0	0	1	1

Volume Module:	>>	Count	Date:	11 Jan 2000	<<							
Base Vol:	0	0	0	385	0	183	60	764	0	0	1340	312
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	385	0	183	60	764	0	0	1340	312
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:	0	0	0	398	0	189	62	789	0	0	1384	322
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	398	0	189	62	789	0	0	1384	322
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.:	0	0	0	398	0	189	62	789	0	0	1384	322

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	1.00	1.00	1.00	0.92	1.00	0.92	0.95	0.95	1.00	1.00	0.92	0.92
Lanes:	0.00	0.00	0.00	1.51	0.00	0.49	1.00	2.00	0.00	0.00	1.62	0.38
Final Sat.:	0	0	0	2646	0	852	1805	3610	0	0	2847	662

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.00	0.15	0.00	0.22	0.03	0.22	0.00	0.00	0.49	0.49
Crit Moves:					****		****				****		
Green/Cycle:	0.00	0.00	0.00	0.26	0.00	0.26	0.04	0.62	0.00	0.00	0.58	0.58	
Volume/Cap:	0.00	0.00	0.00	0.57	0.00	0.84	0.84	0.35	0.00	0.00	0.84	0.84	
Uniform Del:	0.0	0.0	0.0	32.0	0.0	34.9	47.6	9.4	0.0	0.0	17.5	17.5	
IncrementDel:	0.0	0.0	0.0	0.8	0.0	9.2	55.4	0.1	0.0	0.0	3.4	3.4	
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0	32.8	0.0	44.2	103.1	9.5	0.0	0.0	20.9	20.9	
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:	0.0	0.0	0.0	32.8	0.0	44.2	103.1	9.5	0.0	0.0	20.9	20.9	
DesignQueue:	0	0	0	17	0	8	3	18	0	0	37	9	

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #78 TV Highway/Hocken

Cycle (sec): 100 Critical Vol./Cap. (X): 0.896
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 38.3
Optimal Cycle: 115 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			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	1	0	1	1	0	1	1	0	1

Volume Module:	>>	Count	Date:	14 Dec 1999	<<							
Base Vol:	190	115	22	190	309	121	100	1167	249	72	1435	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:	190	115	22	190	309	121	100	1167	249	72	1435	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:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	196	118	23	196	318	125	103	1202	256	74	1478	32
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	196	118	23	196	318	125	103	1202	256	74	1478	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	1.00	1.00	1.00	1.00	1.00
Final Vol.:	196	118	23	196	318	125	103	1202	256	74	1478	32

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.95	0.98	0.98	0.95	1.00	0.85	0.95	0.93	0.93	0.95	0.95	0.95
Lanes:	1.00	0.84	0.16	1.00	1.00	1.00	1.00	1.65	0.35	1.00	1.96	0.04
Final Sat.:	1805	1552	302	1805	1900	1615	1805	2899	617	1805	3523	76

Capacity Analysis Module:	Vol/Sat:	0.11	0.08	0.08	0.11	0.17	0.08	0.06	0.41	0.41	0.04	0.42	0.42
Crit Moves:		****			****			****			****		
Green/Cycle:	0.12	0.13	0.13	0.18	0.19	0.25	0.06	0.48	0.48	0.05	0.47	0.47	
Volume/Cap:	0.90	0.60	0.60	0.60	0.90	0.31	0.90	0.86	0.86	0.86	0.90	0.90	
Uniform Del:	43.3	41.3	41.3	37.6	39.7	30.4	46.5	22.7	22.7	47.3	24.4	24.4	
IncrementDel:	34.1	4.2	4.2	3.1	24.0	0.4	52.8	4.5	4.5	52.7	6.7	6.7	
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	
Delay/Veh:	77.5	45.5	45.5	40.7	63.7	30.9	99.3	27.3	27.3	100.0	31.1	31.1	
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:	77.5	45.5	45.5	40.7	63.7	30.9	99.3	27.3	27.3	100.0	31.1	31.1	
DesignQueue:	10	6	1	9	15	5	5	38	8	4	49	1	

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #81 158th/Blueridge

Cycle (sec): 100 Critical Vol./Cap. (X): 0.708
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 26.3
 Optimal Cycle: 60 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			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	1	1	0	0	1	0	1	0

Volume Module:

Base Vol:	86	980	64	33	929	45	44	5	33	332	9	57
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:	86	980	64	33	929	45	44	5	33	332	9	57
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:	91	1043	68	35	988	48	47	5	35	353	10	61
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	91	1043	68	35	988	48	47	5	35	353	10	61
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.:	91	1043	68	35	988	48	47	5	35	353	10	61

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.95	0.94	0.94	0.69	0.69	0.69	0.67	0.67	0.85
Lanes:	1.00	2.00	1.00	1.00	1.91	0.09	0.54	0.06	0.40	0.97	0.03	1.00
Final Sat.:	1805	3610	1615	1805	3419	166	705	75	525	1245	35	1615

Capacity Analysis Module:

Vol/Sat:	0.05	0.29	0.04	0.02	0.29	0.29	0.07	0.07	0.07	0.28	0.28	0.04
Crit Moves:	****			****						****		
Green/Cycle:	0.07	0.45	0.45	0.03	0.41	0.41	0.40	0.40	0.40	0.40	0.40	0.40
Volume/Cap:	0.71	0.64	0.09	0.64	0.71	0.71	0.17	0.17	0.17	0.71	0.71	0.09
Uniform Del:	45.4	21.3	15.8	48.0	24.6	24.6	19.3	19.3	19.3	25.1	25.1	18.7
IncrementDel:	16.6	0.9	0.1	23.3	1.6	1.6	0.2	0.2	0.2	4.5	4.5	0.1
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
Delay/Veh:	62.0	22.2	15.9	71.3	26.2	26.2	19.4	19.4	19.4	29.6	29.6	18.7
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:	62.0	22.2	15.9	71.3	26.2	26.2	19.4	19.4	19.4	29.6	29.6	18.7
DesignQueue:	5	34	2	2	35	2	2	0	1	12	0	2

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

Intersection #83 158th/Jay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.600
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 26.4
 Optimal Cycle: 73 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:	Prot+Permit			Prot+Permit			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	2	348	9	101	557	45	92	13	33	136	104	510
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:	2	348	9	101	557	45	92	13	33	136	104	510
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:	2	375	10	109	600	48	99	14	36	147	112	550
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	375	10	109	600	48	99	14	36	147	112	550
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.:	2	375	10	109	600	48	99	14	36	147	112	550

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.15	0.95	0.95	0.58	0.99	0.99	0.65	0.65	0.65	0.75	0.75	0.85
Lanes:	1.00	1.95	0.05	1.00	0.93	0.07	0.67	0.09	0.24	0.57	0.43	1.00
Final Sat.:	276	3502	93	1095	1740	139	822	116	299	806	614	1615

Capacity Analysis Module:

Vol/Sat:	0.01	0.11	0.11	0.10	0.34	0.34	0.12	0.12	0.12	0.18	0.18	0.34
Crit Moves:	****			****						****		
Green/Cycle:	0.28	0.28	0.28	0.48	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Volume/Cap:	0.03	0.38	0.38	0.21	0.78	0.78	0.28	0.28	0.28	0.42	0.42	0.78
Uniform Del:	29.6	28.7	28.7	14.6	23.8	23.8	18.0	18.0	18.0	19.4	19.4	24.1
IncrementDel:	0.1	0.2	0.2	0.2	4.8	4.8	0.3	0.3	0.3	0.5	0.5	5.6
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
Delay/Veh:	29.7	29.0	29.0	14.8	28.5	28.5	18.3	18.3	18.3	19.9	19.9	29.7
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:	29.7	29.0	29.0	14.8	28.5	28.5	18.3	18.3	18.3	19.9	19.9	29.7
DesignQueue:	0	15	0	5	20	2	3	0	1	5	4	19

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #85 TV Highway/160th

Cycle (sec): 120 Critical Vol./Cap. (X): 0.974
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.6
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 16 Nov 1900 <<. Table with 12 columns for volume counts and 12 rows for various adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 12 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #87 Hart/155th

Cycle (sec): 110 Critical Vol./Cap. (X): 0.766
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 18.2
Optimal Cycle: 59 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 6 Oct 1999 <<. Table with 12 columns for volume counts and 12 rows for various adjustment factors.

Saturation Flow Module: Table with 12 columns for Sat/Lane and 12 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #88 Murray/Hart

Cycle (sec): 120 Critical Vol./Cap. (X): 0.855
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 37.2
Optimal Cycle: 110 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns: Volume Module, Count, Date, and 10 lanes. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 lanes.

Table with 11 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #89 Murray/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.697
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 32.0
Optimal Cycle: 72 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns: Volume Module, Count, Date, and 10 lanes. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 lanes.

Table with 11 columns: Capacity Analysis Module, Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #90 Scholls Ferry/Davies

Average Delay (sec/veh): 1421.8 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	1	0	0	1	0	1	1

Volume Module: >> Count Date: 16 Dec 1999 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	7	1	19	75	6	26	29	1122	27	31	1419	149
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	19	75	6	26	29	1122	27	31	1419	149
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:	8	1	20	81	6	28	31	1208	29	33	1527	160
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	8	1	20	81	6	28	31	1208	29	33	1527	160

Critical Gap Module:

Critical Gp:	North Bound			South Bound			East Bound			West Bound		
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflict Vol:	North Bound			South Bound			East Bound			West Bound		
Potent Cap.:	29	13	437	23	16	351	384	xxxx	xxxxxx	570	xxxx	xxxxxx
Move Cap.:	16	11	437	18	14	351	384	xxxx	xxxxxx	570	xxxx	xxxxxx

Level Of Service Module:

Stopped Del:	North Bound			South Bound			East Bound			West Bound		
LOS by Move:	*	*	*	F	*	*	C	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	47	xxxxxx	xxxx	xxxx	64	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
Shrd StpDel:	xxxxx	168	xxxxxx	xxxxxx	xxxx	114.4	xxxxxx	xxxx	xxxxxx	11.7	xxxx	xxxxxx
Shared LOS:	*	F	*	*	*	F	*	*	*	B	*	*
ApproachDel:	167.6			1421.8			xxxxxxx			xxxxxxx		
ApproachLOS:	F			F			*			*		

Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #91 Scholls Ferry/Barrows

Cycle (sec): 120 Critical Vol./Cap. (X): 0.686
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 17.3
 Optimal Cycle: 60 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	0	0	0	0	0	0	1	1	0	2

Volume Module: >> Count Date: 7 Dec 1999 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	97	0	191	0	0	0	0	1096	108	308	1443	0
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:	97	0	191	0	0	0	0	1096	108	308	1443	0
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:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	107	0	210	0	0	0	0	1204	119	338	1586	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	107	0	210	0	0	0	0	1204	119	338	1586	0
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.:	107	0	210	0	0	0	0	1204	119	338	1586	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	1.00	0.94	0.94	0.95	0.95	1.00
Lanes:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.82	0.18	1.00	2.00	0.00
Final Sat.:	1805	0	1615	0	0	0	0	3243	320	1805	3610	0

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.06	0.00	0.13	0.00	0.00	0.00	0.00	0.37	0.37	0.19	0.44	0.00
Green/Cycle:	0.09	0.00	0.36	0.00	0.00	0.00	0.00	0.54	0.54	0.27	0.81	0.00
Volume/Cap:	0.69	0.00	0.36	0.00	0.00	0.00	0.00	0.69	0.69	0.69	0.54	0.00
Uniform Del:	53.2	0.0	28.3	0.0	0.0	0.0	0.0	20.1	20.1	39.0	3.7	0.0
IncrementDel:	12.1	0.0	0.4	0.0	0.0	0.0	0.0	1.1	1.1	4.0	0.2	0.0
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	65.3	0.0	28.7	0.0	0.0	0.0	0.0	21.2	21.2	43.1	3.9	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:	65.3	0.0	28.7	0.0	0.0	0.0	0.0	21.2	21.2	43.1	3.9	0.0
DesignQueue:	7	0	9	0	0	0	0	41	4	17	22	0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #92 Scholls Ferry/135th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.697
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 18.4
Optimal Cycle: 59 Level Of Service: B

Table with 5 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Dec 1999 <<. Grid of traffic volume data for various approaches and movements.

Saturation Flow Module: Grid of saturation flow data for various approaches and movements.

Capacity Analysis Module: Grid of capacity analysis data including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #93 Scholls Ferry/125th

Cycle (sec): 120 Critical Vol./Cap. (X): 0.916
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.6
Optimal Cycle: 138 Level Of Service: D

Table with 5 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module: >> Count Date: 7 Dec 1999 <<. Grid of traffic volume data for various approaches and movements.

Saturation Flow Module: Grid of saturation flow data for various approaches and movements.

Capacity Analysis Module: Grid of capacity analysis data including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #94 Scholls Ferry/121st

Cycle (sec): 140 Critical Vol./Cap. (X): 0.961
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 40.4
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:	0	1	0	0	0	1	1	0	2	1	0	2

Volume Module: >> Count Date: 7 Dec 1999 <<

Base Vol:	271	32	141	15	11	3	12	969	335	282	2066	6
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:	271	32	141	15	11	3	12	969	335	282	2066	6
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:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	297	35	155	16	12	3	13	1062	367	309	2265	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	297	35	155	16	12	3	13	1062	367	309	2265	7
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.:	297	35	155	16	12	3	13	1062	367	309	2265	7

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.72	0.72	0.85	0.71	0.71	0.71	0.95	0.95	0.85	0.95	0.95	0.85
Lanes:	0.89	0.11	1.00	0.51	0.39	0.10	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1215	143	1615	692	519	130	1805	3610	1615	1805	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.24	0.24	0.10	0.02	0.02	0.02	0.01	0.29	0.23	0.17	0.63	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.25	0.25	0.25	0.25	0.25	0.25	0.01	0.42	0.42	0.24	0.65	0.65
Volume/Cap:	0.96	0.96	0.38	0.09	0.09	0.09	0.96	0.71	0.54	0.71	0.96	0.01
Uniform Del:	51.5	51.5	43.1	39.9	39.9	39.9	69.5	33.7	30.8	48.4	22.7	8.5
IncrementDel:	38.1	38.1	0.6	0.1	0.1	0.1	223.9	1.5	0.9	5.2	11.0	0.0
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
Delay/Veh:	89.7	89.7	43.7	40.0	40.0	40.0	293.4	35.2	31.7	53.6	33.6	8.5
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:	89.7	89.7	43.7	40.0	40.0	40.0	293.4	35.2	31.7	53.6	33.6	8.5
DesignQueue:	18	2	9	1	1	0	1	52	18	19	73	0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #95 Scholls Ferry/Conestoga

Cycle (sec): 120 Critical Vol./Cap. (X): 0.717
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 10.3
Optimal Cycle: 75 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	1	0	0	1	0	2	0	0	2

Volume Module: >> Count Date: 7 Dec 1999 <<

Base Vol:	0	0	0	106	0	23	38	1106	0	0	1870	206
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	106	0	23	38	1106	0	0	1870	206
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:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	0	0	0	110	0	24	40	1150	0	0	1944	214
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	110	0	24	40	1150	0	0	1944	214
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.:	0	0	0	110	0	24	40	1150	0	0	1944	214

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.95	0.85
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	2.00	1.00
Final Sat.:	0	0	0	1805	0	1615	1805	3610	0	0	3610	1615

Capacity Analysis Module:

Vol/Sat:	0.00	0.00	0.00	0.06	0.00	0.01	0.02	0.32	0.00	0.00	0.54	0.13
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.00	0.00	0.08	0.00	0.08	0.03	0.78	0.00	0.00	0.75	0.75
Volume/Cap:	0.00	0.00	0.00	0.72	0.00	0.17	0.72	0.41	0.00	0.00	0.72	0.18
Uniform Del:	0.0	0.0	0.0	53.5	0.0	51.0	57.6	4.2	0.0	0.0	8.1	4.3
IncrementDel:	0.0	0.0	0.0	15.0	0.0	0.6	36.0	0.1	0.0	0.0	0.9	0.1
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	68.5	0.0	51.6	93.6	4.3	0.0	0.0	9.0	4.4
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:	0.0	0.0	0.0	68.5	0.0	51.6	93.6	4.3	0.0	0.0	9.0	4.4
DesignQueue:	0	0	0	7	0	1	3	18	0	0	37	4

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #102 Scholls Ferry/Laurelwood

Average Delay (sec/veh): 239.6 Worst Case Level Of Service: F

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control, Rights, and Lanes.

Volume Module: >> Count Date: 15 Nov 1900 <<. Table with 12 columns for volume counts and 12 rows for various metrics like Base Vol, Growth Adj, etc.

Critical Gap Module: Table with 4 columns for gaps and 2 rows for Critical Gp and FollowUpTim.

Capacity Module: Table with 4 columns for capacity and 3 rows for Cnflct Vol, Potent Cap., and Move Cap..

Level of Service Module: Table with 4 columns for LOS and 12 rows for various delay and LOS metrics.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #103 Canyon/Lombard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.663

Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 21.2
Optimal Cycle: 64 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control, Rights, and Lanes.

Volume Module: >> Count Date: 21 Oct 1999 <<. Table with 12 columns for volume counts and 12 rows for various metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 3 rows for Sat/Lane, Adjustment, and Lanes.

Capacity Analysis Module: Table with 12 columns for capacity analysis and 12 rows for various metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #105 Canyon/117th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.658
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 22.9
Optimal Cycle: 64 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow categories. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 traffic flow categories.

Table with 12 columns: Capacity Analysis Module metrics including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #114 ORE 217 SB Ramp/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.668
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.3
Optimal Cycle: 55 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow categories. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 traffic flow categories.

Table with 12 columns: Capacity Analysis Module metrics including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #115 ORE 217 NB Ramp/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.663
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.9
Optimal Cycle: 55 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	1	1	0	0	0	1	0	2	0	0	2

Volume Module:	>>	Count	Date:	22 Apr 1999	<<
Base Vol:	500	418	330	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00
Initial Bse:	500	418	330	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97
PHF Volume:	518	433	342	0	0
Reduct Vol:	0	0	0	0	0
Reduced Vol:	518	433	342	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00
Final Vol.:	518	433	342	0	0

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.81	0.81	0.85	1.00	1.00	1.00	0.95	0.95	1.00	
Lanes:	1.63	1.37	1.00	0.00	0.00	0.00	1.00	2.00	0.00	
Final Sat.:	2507	2096	1615	0	0	0	1805	3610	0	

Capacity Analysis Module:	Vol/Sat:	0.21	0.21	0.21	0.00	0.00	0.00	0.10	0.26	0.00
Crit Moves:	****	****	****	****	****	****	****	****	****	
Green/Cycle:	0.32	0.32	0.32	0.00	0.00	0.00	0.15	0.56	0.00	
Volume/Cap:	0.65	0.65	0.66	0.00	0.00	0.00	0.66	0.47	0.00	
Uniform Del:	29.2	29.2	29.4	0.0	0.0	0.0	39.8	13.1	0.0	
IncrementDel:	1.0	1.0	3.2	0.0	0.0	0.0	5.9	0.2	0.0	
Delay Adj:	1.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	
Delay/Veh:	30.2	30.2	32.6	0.0	0.0	0.0	45.7	13.2	0.0	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	30.2	30.2	32.6	0.0	0.0	0.0	45.7	13.2	0.0	
DesignQueue:	20	17	14	0	0	0	9	25	0	

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #116 ORE 217 SB Ramp/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.729
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 64 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	0	1	1	0	0	2	1	0	2

Volume Module:	>>	Count	Date:	13 Apr 1999	<<
Base Vol:	0	0	0	307	437
Growth Adj:	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	307	437
User Adj:	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98
PHF Volume:	0	0	0	314	447
Reduct Vol:	0	0	0	0	0
Reduced Vol:	0	0	0	314	447
PCE Adj:	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00
Final Vol.:	0	0	0	314	447

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.81	0.95	0.85	1.00	0.95	0.85	
Lanes:	0.00	0.00	0.00	0.90	1.10	1.00	0.00	2.00	1.00	
Final Sat.:	0	0	0	1388	1977	1615	0	3610	1615	

Capacity Analysis Module:	Vol/Sat:	0.00	0.00	0.00	0.23	0.23	0.17	0.00	0.30	0.23
Crit Moves:	****	****	****	****	****	****	****	****	****	
Green/Cycle:	0.00	0.00	0.00	0.31	0.31	0.31	0.00	0.41	0.41	
Volume/Cap:	0.00	0.00	0.00	0.73	0.73	0.55	0.00	0.73	0.56	
Uniform Del:	0.0	0.0	0.0	30.7	30.7	28.6	0.0	24.9	22.7	
IncrementDel:	0.0	0.0	0.0	2.6	2.6	1.3	0.0	1.9	1.1	
Delay Adj:	0.00	0.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	
Delay/Veh:	0.0	0.0	0.0	33.3	33.3	29.9	0.0	26.7	23.8	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	0.0	0.0	0.0	33.3	33.3	29.9	0.0	26.7	23.8	
DesignQueue:	0	0	0	13	18	11	0	38	13	

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #117 ORE 217 NB Ramp/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.938
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 34.9
 Optimal Cycle: 131 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	2	0	0	0	1	0	2	0	0	2

Volume Module: >> Count Date: 22 Apr 1999 <<
 Base Vol: 509 625 283 0 0 0 214 1040 0 0 1149 328
 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: 509 625 283 0 0 0 214 1040 0 0 1149 328
 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: 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91 0.91
 PHF Volume: 559 686 311 0 0 0 235 1142 0 0 1261 360
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 559 686 311 0 0 0 235 1142 0 0 1261 360
 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.: 559 686 311 0 0 0 235 1142 0 0 1261 360

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 0.85 0.95 0.85 1.00 1.00 1.00 0.95 0.95 1.00 1.00 0.95 0.85
 Lanes: 1.00 2.00 1.00 0.00 0.00 0.00 1.00 2.00 0.00 0.00 2.00 1.00
 Final Sat.: 1615 3610 1615 0 0 0 1805 3610 0 0 3610 1615

Capacity Analysis Module:
 Vol/Sat: 0.35 0.19 0.19 0.00 0.00 0.00 0.13 0.32 0.00 0.00 0.35 0.22
 Crit Moves: **** ****
 Green/Cycle: 0.37 0.37 0.37 0.00 0.00 0.00 0.14 0.51 0.00 0.00 0.37 0.37
 Volume/Cap: 0.94 0.52 0.52 0.00 0.00 0.00 0.94 0.62 0.00 0.00 0.94 0.60
 Uniform Del: 30.5 24.6 24.7 0.0 0.0 0.0 42.6 17.5 0.0 0.0 30.3 25.4
 IncremntDel: 22.7 0.3 0.8 0.0 0.0 0.0 40.2 0.6 0.0 0.0 12.6 1.7
 Delay Adj: 1.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 0.00 0.00 1.00 1.00
 Delay/Veh: 53.2 24.9 25.5 0.0 0.0 0.0 82.8 18.1 0.0 0.0 42.9 27.0
 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: 53.2 24.9 25.5 0.0 0.0 0.0 82.8 18.1 0.0 0.0 42.9 27.0
 DesignQueue: 21 25 11 0 0 0 12 34 0 0 48 13

Level Of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #118 ORE 217 SB Ramp/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.877
 Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 34.2
 Optimal Cycle: 100 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:	Split Phase			Split Phase			Protected			Protected		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0	0	0	0	1	0	0	0	1	0	0	1

Volume Module: >> Count Date: 21 Apr 1999 <<
 Base Vol: 0 0 0 327 1 403 0 627 251 405 908 0
 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 0 327 1 403 0 627 251 405 908 0
 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: 0 0 0 347 1 427 0 665 266 429 963 0
 Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
 Reduced Vol: 0 0 0 347 1 427 0 665 266 429 963 0
 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.: 0 0 0 347 1 427 0 665 266 429 963 0

Saturation Flow Module:
 Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
 Adjustment: 1.00 1.00 1.00 0.85 0.85 0.85 1.00 0.91 0.91 0.95 0.95 1.00
 Lanes: 0.00 0.00 0.00 0.99 0.01 1.00 0.00 1.43 0.57 1.00 2.00 0.00
 Final Sat.: 0 0 0 1610 5 1615 0 2468 987 1805 3610 0

Capacity Analysis Module:
 Vol/Sat: 0.00 0.00 0.00 0.22 0.22 0.26 0.00 0.27 0.27 0.24 0.27 0.00
 Crit Moves: **** ****
 Green/Cycle: 0.00 0.00 0.00 0.30 0.30 0.30 0.00 0.31 0.31 0.27 0.58 0.00
 Volume/Cap: 0.00 0.00 0.00 0.71 0.71 0.88 0.00 0.88 0.88 0.88 0.46 0.00
 Uniform Del: 0.0 0.0 0.0 31.1 31.1 33.2 0.0 32.8 32.8 34.8 12.1 0.0
 IncremntDel: 0.0 0.0 0.0 5.0 5.0 16.3 0.0 8.4 8.4 16.3 0.2 0.0
 Delay Adj: 0.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00 1.00 0.00
 Delay/Veh: 0.0 0.0 0.0 36.1 36.1 49.5 0.0 41.2 41.2 51.1 12.3 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: 0.0 0.0 0.0 36.1 36.1 49.5 0.0 41.2 41.2 51.1 12.3 0.0
 DesignQueue: 0 0 0 14 0 18 0 27 11 18 24 0

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #119 ORE 217 NB Ramp/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.809
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.5
Optimal Cycle: 79 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:	Split Phase	Split Phase	Protected	Protected
Rights:	Ovl	Include	Include	Include
Min. Green:	0 0 0	0 0 0	0 0 0	0 0 0
Lanes:	1 1 0 0 1	0 0 0 0 0	1 0 2 0 0	0 0 1 1 0

Volume Module:	>>	Count	Date:	15 Apr 1999	<<
Base Vol:	336	0	227	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00
Initial Bse:	336	0	227	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96
PHF Volume:	349	0	236	0	0
Reduct Vol:	0	0	0	0	0
Reduced Vol:	349	0	236	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00
Final Vol.:	349	0	236	0	0

Saturation Flow Module:	Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	1.00	0.85	1.00	1.00	1.00	0.95	0.95	1.00	1.00
Lanes:	2.00	0.00	1.00	0.00	0.00	0.00	1.00	2.00	0.00	0.00
Final Sat.:	3618	0	1615	0	0	0	1805	3610	0	0

Capacity Analysis Module:	Vol/Sat:	0.10	0.00	0.15	0.00	0.00	0.00	0.14	0.19	0.00	0.00	0.43	0.43
Crit Moves:				****				****				****	
Green/Cycle:	0.18	0.00	0.18	0.00	0.00	0.00	0.17	0.70	0.00	0.00	0.53	0.53	
Volume/Cap:	0.53	0.00	0.81	0.00	0.00	0.00	0.81	0.28	0.00	0.00	0.81	0.81	
Uniform Del:	37.2	0.0	39.3	0.0	0.0	0.0	39.7	5.6	0.0	0.0	19.6	19.6	
IncrementDel:	0.9	0.0	15.4	0.0	0.0	0.0	14.4	0.1	0.0	0.0	2.8	2.8	
Delay Adj:	1.00	0.00	1.00	0.00	0.00	0.00	1.00	1.00	0.00	0.00	1.00	1.00	
Delay/Veh:	38.0	0.0	54.7	0.0	0.0	0.0	54.2	5.7	0.0	0.0	22.4	22.4	
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:	38.0	0.0	54.7	0.0	0.0	0.0	54.2	5.7	0.0	0.0	22.4	22.4	
DesignQueue:	16	0	11	0	0	0	12	12	0	0	29	14	

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #120 ORE 217 SB Ramp/Denney

Average Delay (sec/veh): 50.5 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 0 0 0	0 1 0 0 1	0 0 0 1 0	1 0 1 0 0

Volume Module:	>>	Count	Date:	13 Apr 1999	<<
Base Vol:	0	0	0	93	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	93	3
User Adj:	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97
PHF Volume:	0	0	0	95	3
Reduct Vol:	0	0	0	0	0
Final Vol.:	0	0	0	95	3

Critical Gap Module:	Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	

Capacity Module:	Cnflct Vol:	xxxx	xxxx	xxxxx	1550	1627	641	xxxx	xxxx	xxxxx	724	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	127	103	479	xxxx	xxxx	xxxxx	888	xxxx	xxxxx	
Move Cap.:	xxxx	xxxx	xxxxx	112	88	479	xxxx	xxxx	xxxxx	888	xxxx	xxxxx	

Level Of Service Module:	Stopped Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	21.3	xxxxx	xxxx	xxxxx	9.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	C	*	*	*	A	*	*
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
Shared Cap.:	xxxx	xxxx	xxxxx	111	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx
Shrd StpDel:	xxxxx	xxxx	xxxxx	128.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	F	*	*	*	*	*	*	*	*	*
ApproachDel:	xxxxxx					50.5		xxxxxx			xxxxxx		
ApproachLOS:	*					F		*			*		

Level of Service Computation Report
 2000 HCM Unsignalized Method (Base Volume Alternative)

 Intersection #121 ORE 217 NB Ramp/Denney

Average Delay (sec/veh): 597.2 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	1	0	0	1	0	1	0	0	0	0	1	0

Volume Module: >> Count Date: 14 Apr 1999 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	252	1	155	0	0	0	301	322	0	0	489	107
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:	252	1	155	0	0	0	301	322	0	0	489	107
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:	268	1	165	0	0	0	320	342	0	0	520	114
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Final Vol.:	268	1	165	0	0	0	320	342	0	0	520	114

Critical Gap Module:

Critical Gp:	North Bound			South Bound			East Bound			West Bound		
FollowUpTim:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx

Capacity Module:

Cnflict Vol:	North Bound			South Bound			East Bound			West Bound		
Potent Cap.:	1558	1615	342	xxxx	xxxx	xxxxx	633	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	125	105	705	xxxx	xxxx	xxxxx	959	xxxx	xxxxx	xxxx	xxxx	xxxxx
	93	70	705	xxxx	xxxx	xxxxx	959	xxxx	xxxxx	xxxx	xxxx	xxxxx

Level Of Service Module:

Stopped Del:	North Bound			South Bound			East Bound			West Bound		
LOS by Move:	*	*	B	*	*	*	B	*	*	*	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	93	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shrd StpDel:	955.9	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Shared LOS:	F	*	*	*	*	*	*	*	*	*	*	*
ApproachDel:	597.2			xxxxxxx			xxxxxxx			xxxxxxx		
ApproachLOS:	F			*			*			*		

Level of Service Computation Report
 2000 HCM Operations Method (Base Volume Alternative)

 Intersection #122 ORE 217 SB off Ramp/Hall/Cascade

Cycle (sec): 120 Critical Vol./Cap. (X): 0.964
 Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 51.3
 Optimal Cycle: 172 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:	Split Phase			Split Phase			Protected			Protected				
Rights:	Ovl			Include			Include			Ignore				
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0		
Lanes:	1	0	1	0	1	0	1	0	1	1	0	2	0	1

Volume Module: >> Count Date: 15 Apr 1999 <<

	North Bound			South Bound			East Bound			West Bound		
Base Vol:	96	10	51	248	62	334	154	909	85	35	1139	24
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:	96	10	51	248	62	334	154	909	85	35	1139	24
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.00
PHF Volume:	106	11	56	274	68	369	170	1003	94	39	1257	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	106	11	56	274	68	369	170	1003	94	39	1257	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Final Vol.:	106	11	56	274	68	369	170	1003	94	39	1257	0

Saturation Flow Module:

Sat/Lane:	North Bound			South Bound			East Bound			West Bound		
Adjustment:	0.95	1.00	0.85	0.90	0.90	0.90	0.95	0.94	0.94	0.95	0.95	1.00
Lanes:	1.00	1.00	1.00	1.24	0.12	0.64	1.00	1.83	0.17	1.00	2.00	1.00
Final Sat.:	1805	1900	1615	2129	204	1105	1805	3258	305	1805	3610	1900

Capacity Analysis Module:

Vol/Sat:	North Bound			South Bound			East Bound			West Bound		
Crit Moves:	0.06	0.01	0.03	0.13	0.33	0.33	0.09	0.31	0.31	0.02	0.35	0.00
Green/Cycle:	0.06	0.06	0.09	0.35	0.35	0.35	0.10	0.43	0.43	0.03	0.36	0.00
Volume/Cap:	0.96	0.09	0.38	0.37	0.96	0.96	0.96	0.72	0.72	0.72	0.96	0.00
Uniform Del:	56.2	53.2	51.4	29.4	38.5	38.5	53.9	28.3	28.3	57.7	37.5	0.0
IncrementDel:	74.0	0.4	1.6	0.1	24.4	24.4	56.9	1.7	1.7	36.9	16.9	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	130.2	53.6	53.0	29.5	62.9	62.9	110.8	29.9	29.9	94.5	54.5	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:	130.2	53.6	53.0	29.5	62.9	62.9	110.8	29.9	29.9	94.5	54.5	0.0
DesignQueue:	7	1	3	12	3	17	10	41	4	3	59	0

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #123 ORE 217 NB on Ramp/Scholls Ferry

Cycle (sec): 100 Critical Vol./Cap. (X): 0.781
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 30.3
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Protected, Split Phase), Rights (Include), Min. Green, and Lanes.

Volume Module: >> Count Date: 14 Apr 1999 <<. Grid of traffic volume data for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module. Grid of saturation flow data for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module. Grid of capacity analysis data for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #125 ORE 217 NB off Ramp/Scholls Ferry

Cycle (sec): 100 Critical Vol./Cap. (X): 0.708
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 49 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control (Permitted, Split Phase), Rights (Include), Min. Green, and Lanes.

Volume Module: >> Count Date: 14 Apr 1999 <<. Grid of traffic volume data for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module. Grid of saturation flow data for Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module. Grid of capacity analysis data for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #129 ORE 217 NB Ramp/Walker

Cycle (sec): 80 Critical Vol./Cap. (X): 0.675
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 21.1
Optimal Cycle: 53 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow categories. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 traffic flow categories.

Table with 12 columns: Capacity Analysis Module metrics for 10 traffic flow categories, including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #130 ORE 217 SB Ramp/Walker

Cycle (sec): 80 Critical Vol./Cap. (X): 0.841
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 19.4
Optimal Cycle: 80 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns: Volume Module, Count, Date, and 10 traffic flow categories. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns: Sat/Lane, Adjustment, Lanes, and Final Sat. for 10 traffic flow categories.

Table with 12 columns: Capacity Analysis Module metrics for 10 traffic flow categories, including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #131 Scholls Ferry/ORE 217 SB on Ramp

Cycle (sec): 120 Critical Vol./Cap. (X): 0.757

Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 31.6

Optimal Cycle: 83 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

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Control: Split Phase Split Phase Protected Protected

Rights: Include Include Ignore Include

Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Lanes: 0 0 0 0 0 0 1 0 0 1 0 0 1 1 1 1 0 2 0 0

-----|-----|-----|-----|

Volume Module: >> Count Date: 14 Apr 1999 <<

Base Vol: 0 0 0 90 8 381 0 951 602 202 1128 0

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 90 8 381 0 951 602 202 1128 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 1.00

PHF Adj: 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.93 0.00 0.93 0.93 0.93

PHF Volume: 0 0 0 97 9 409 0 1020 0 217 1210 0

Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0

Reduced Vol: 0 0 0 97 9 409 0 1020 0 217 1210 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 1.00

MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 0.00 1.00 1.00 1.00

Final Vol.: 0 0 0 97 9 409 0 1020 0 217 1210 0

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Saturation Flow Module:

Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900

Adjustment: 1.00 1.00 1.00 0.85 0.85 0.85 1.00 0.95 0.95 0.95 0.95 1.00

Lanes: 0.00 0.00 0.00 0.92 0.08 1.00 0.00 2.00 1.00 1.00 2.00 0.00

Final Sat.: 0 0 0 1478 137 1615 0 3610 1805 1805 3610 0

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Capacity Analysis Module:

Vol/Sat: 0.00 0.00 0.00 0.07 0.07 0.25 0.00 0.28 0.00 0.12 0.34 0.00

Crit Moves: **** **** ****

Green/Cycle: 0.00 0.00 0.00 0.33 0.33 0.33 0.00 0.37 0.00 0.16 0.53 0.00

Volume/Cap: 0.00 0.00 0.00 0.20 0.20 0.76 0.00 0.76 0.00 0.76 0.63 0.00

Uniform Del: 0.0 0.0 0.0 28.4 28.4 35.6 0.0 32.8 0.0 48.3 19.8 0.0

IncrmntDel: 0.0 0.0 0.0 0.2 0.2 6.1 0.0 2.5 0.0 11.0 0.7 0.0

Delay Adj: 0.00 0.00 0.00 1.00 1.00 1.00 0.00 1.00 0.00 1.00 1.00 0.00

Delay/Veh: 0.0 0.0 0.0 28.6 28.6 41.7 0.0 35.4 0.0 59.3 20.4 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: 0.0 0.0 0.0 28.6 28.6 41.7 0.0 35.4 0.0 59.3 20.4 0.0

DesignQueue: 0 0 0 4 0 19 0 46 0 13 41 0

I – 2020 RTP Priority Network Base LOS Calculations

Scenario Report

Scenario: Base 2020

Command: Base 2020
 Volume: Base 2020
 Geometry: Base 2020
 Impact Fee: Default Impact Fee
 Trip Generation: pm peak
 Trip Distribution: dist
 Paths: Default Paths
 Routes: Default Routes
 Configuration: Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS	Veh	LOS	Veh	
# 1 170th/TV Highway	F	89.3 1.154	F	89.3 1.154	+ 0.000 D/V
# 2 170th/Farmington	F	88.3 1.139	F	88.3 1.139	+ 0.000 D/V
# 3 170th/Oak	B	12.6 0.749	B	12.6 0.749	+ 0.000 D/V
# 5 170th/Bany	C	33.6 0.713	C	33.6 0.713	+ 0.000 D/V
# 6 Bethany/US 26 west ramp	F	85.9 1.187	F	85.9 1.187	+ 0.000 D/V
# 7 Bethany/US 26 east ramp	D	53.8 1.010	D	53.8 1.010	+ 0.000 D/V
# 8 Bethany/Cornell	D	54.3 1.016	D	54.3 1.016	+ 0.000 D/V
# 9 Cornell/US 26 east ramp	C	23.5 0.857	C	23.5 0.857	+ 0.000 D/V
# 10 Cornell/US 26 west ramp	D	53.2 1.012	D	53.2 1.012	+ 0.000 D/V
# 11 158th/Cornell	D	39.2 0.968	D	39.2 0.968	+ 0.000 D/V
# 12 158th/Walker	E	58.9 1.010	E	58.9 1.010	+ 0.000 D/V
# 13 143rd/Cornell	E	55.3 0.901	E	55.3 0.901	+ 0.000 D/V
# 14 Murray/Cornell	F	160.8 1.387	F	160.8 1.387	+ 0.000 D/V
# 15 Barnes/Saltzman/Cornell	F	193.3 1.420	F	193.3 1.420	+ 0.000 D/V
# 16 Murray/US 26 west ramp	E	65.1 1.104	E	65.1 1.104	+ 0.000 D/V
# 17 Murray/US 26 east ramps	B	14.6 0.675	B	14.6 0.675	+ 0.000 D/V
# 18 Murray/Walker	E	60.9 1.065	E	60.9 1.065	+ 0.000 D/V
# 19 Murray/Jenkins	E	75.4 1.153	E	75.4 1.153	+ 0.000 D/V
# 20 Murray/Farmington	F	103.6 1.161	F	103.6 1.161	+ 0.000 D/V
# 21 Murray/6th	C	34.2 0.984	C	34.2 0.984	+ 0.000 D/V
# 22 Murray/Allen	F	120.1 1.274	F	120.1 1.274	+ 0.000 D/V
# 23 Murray/Brockman/Beard	F	98.7 1.194	F	98.7 1.194	+ 0.000 D/V
# 24 Nimbus/Scholls Ferry	E	65.4 1.071	E	65.4 1.071	+ 0.000 D/V
# 25 Hall/Scholls Ferry	D	40.9 0.746	D	40.9 0.746	+ 0.000 D/V
# 26 Allen/Schools Ferry	D	50.2 0.950	D	50.2 0.950	+ 0.000 D/V

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 27 Oleson/Vermont	C	25.4 0.778	C	25.4 0.778	+ 0.000	D/V
# 28 Oleson/Garden Home	D	49.7 0.999	D	49.7 0.999	+ 0.000	D/V
# 29 Cedar Hills/Barnes	F	105.6 1.224	F	105.6 1.224	+ 0.000	D/V
# 30 Cedar Hills/US 26 west ramps	C	29.9 0.967	C	29.9 0.967	+ 0.000	D/V
# 31 Cedar Hills/US 26 east ramps	C	29.5 0.903	C	29.5 0.903	+ 0.000	D/V
# 32 Cedar Hills/Butner	D	40.2 0.952	D	40.2 0.952	+ 0.000	D/V
# 33 Cedar Hills/Walker	F	134.9 1.337	F	134.9 1.337	+ 0.000	D/V
# 34 Cedar Hills/Jenkins	D	41.8 0.916	D	41.8 0.916	+ 0.000	D/V
# 35 Cedar Hills/Hall	D	35.5 0.895	D	35.5 0.895	+ 0.000	D/V
# 36 Cedar Hills/Canyon	D	37.9 0.947	D	37.9 0.947	+ 0.000	D/V
# 37 Cedar Hills/Farmington	D	53.2 1.077	D	53.2 1.077	+ 0.000	D/V
# 38 Hall/Center	C	25.7 0.682	C	25.7 0.682	+ 0.000	D/V
# 39 Hall/Allen	D	48.6 0.971	D	48.6 0.971	+ 0.000	D/V
# 40 Hall/Denney	E	57.9 1.019	E	57.9 1.019	+ 0.000	D/V
# 41 Hall/Greenway	D	49.9 1.010	D	49.9 1.010	+ 0.000	D/V
# 42 Hall/Nimbus	D	43.9 0.952	D	43.9 0.952	+ 0.000	D/V
# 43 125th/Greenway	D	36.5 0.771	D	36.5 0.771	+ 0.000	D/V
# 44 Western/Beaverton Hillsdale	C	29.4 0.723	C	29.4 0.723	+ 0.000	D/V
# 45 Western/Allen	D	37.2 0.922	D	37.2 0.922	+ 0.000	D/V
# 46 Laurelwood/Beaverton Hillsdale	E	66.7 1.090	E	66.7 1.090	+ 0.000	D/V
# 47 Lombard/Farmington	D	51.6 0.967	D	51.6 0.967	+ 0.000	D/V
# 48 114th/Canyon	C	26.1 0.843	C	26.1 0.843	+ 0.000	D/V
# 49 Griffith/Beaverton Hillsdale	C	30.8 0.756	C	30.8 0.756	+ 0.000	D/V
# 50 87th/Canyon	C	25.0 0.846	C	25.0 0.846	+ 0.000	D/V
# 51 Garden Home/84th	D	33.1 0.000	D	33.1 0.000	+ 0.000	V/C
# 52 Garden Home/88th	C	23.3 0.000	C	23.3 0.000	+ 0.000	V/C

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 53 158th/Jenkins	E	78.6 1.102	E	78.6 1.102	+ 0.000	D/V
# 54 170th/Merlo	C	27.8 0.722	C	27.8 0.722	+ 0.000	D/V
# 56 TV Highway/Murray	E	76.0 1.096	E	76.0 1.096	+ 0.000	D/V
# 57 Farmington/Hall	C	28.7 0.905	C	28.7 0.905	+ 0.000	D/V
# 58 Canyon/Hall	C	25.3 0.836	C	25.3 0.836	+ 0.000	D/V
# 59 Walker/173rd	D	36.0 0.862	D	36.0 0.862	+ 0.000	D/V
# 60 170th/Baseline	D	43.5 0.953	D	43.5 0.953	+ 0.000	D/V
# 64 Cornell/173rd	F	119.6 1.241	F	119.6 1.241	+ 0.000	D/V
# 66 Scholls Ferry/Cascade	C	32.9 0.932	C	32.9 0.932	+ 0.000	D/V
# 72 Canyon/Watson	C	22.7 0.842	C	22.7 0.842	+ 0.000	D/V
# 73 Farmington/Watson	C	23.4 0.852	C	23.4 0.852	+ 0.000	D/V
# 76 Scholls Ferry/Denney	C	24.7 0.767	C	24.7 0.767	+ 0.000	D/V
# 77 Farmington/Hocken	C	22.4 0.745	C	22.4 0.745	+ 0.000	D/V
# 78 TV Highway/Hocken	D	49.5 1.026	D	49.5 1.026	+ 0.000	D/V
# 81 158th/Blueridge	D	40.7 0.987	D	40.7 0.987	+ 0.000	D/V
# 83 158th/Jay	C	32.9 0.917	C	32.9 0.917	+ 0.000	D/V
# 85 TV Highway/160th	E	73.8 1.136	E	73.8 1.136	+ 0.000	D/V
# 87 Hart/155th	B	15.8 0.520	B	15.8 0.520	+ 0.000	D/V
# 88 Murray/Hart	D	52.6 1.011	D	52.6 1.011	+ 0.000	D/V
# 89 Murray/Scholls Ferry	D	54.2 0.974	D	54.2 0.974	+ 0.000	D/V
# 90 Scholls Ferry/Davies	B	18.2 0.701	B	18.2 0.701	+ 0.000	D/V
# 92 Scholls Ferry/135th	B	13.4 0.660	B	13.4 0.660	+ 0.000	D/V
# 93 Scholls Ferry/125th	E	63.3 1.051	E	63.3 1.051	+ 0.000	D/V
# 94 Scholls Ferry/121st	D	37.3 0.932	D	37.3 0.932	+ 0.000	D/V
# 95 Scholls Ferry/Conestoga	B	12.7 0.779	B	12.7 0.779	+ 0.000	D/V
#102 Scholls Ferry/Laurelwood	F	129.0 0.000	F	129.0 0.000	+ 0.000	V/C

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh		
#103 Canyon/Lombard	D	44.7 0.950	D	44.7 0.950	+ 0.000	D/V
#105 Canyon/117th	C	25.9 0.762	C	25.9 0.762	+ 0.000	D/V
#114 ORE 217 SB Ramp/Canyon	C	28.4 0.835	C	28.4 0.835	+ 0.000	D/V
#115 ORE 217 NB Ramp/Canyon	C	28.5 0.811	C	28.5 0.811	+ 0.000	D/V
#116 ORE 217 SB Ramp/Farmington	C	33.5 0.891	C	33.5 0.891	+ 0.000	D/V
#117 ORE 217 NB Ramp/Farmington	C	28.5 0.809	C	28.5 0.809	+ 0.000	D/V
#118 ORE 217 SB Ramp/Allen	C	35.0 0.900	C	35.0 0.900	+ 0.000	D/V
#119 ORE 217 NB Ramp/Allen	C	32.4 0.900	C	32.4 0.900	+ 0.000	D/V
#120 ORE 217 SB Ramp/Denney	D	42.7 0.957	D	42.7 0.957	+ 0.000	D/V
#121 ORE 217 NB Ramp/Denney	D	37.0 0.848	D	37.0 0.848	+ 0.000	D/V
#122 ORE 217 SB off Ramp/Hall/Casca	E	76.0 1.106	E	76.0 1.106	+ 0.000	D/V
#123 ORE 217 NB on Ramp/Scholls Fer	F	148.9 1.429	F	148.9 1.429	+ 0.000	D/V
#125 ORE 217 NB off Ramp/Scholls Fe	B	19.6 0.645	B	19.6 0.645	+ 0.000	D/V
#129 ORE 217 NB Ramp/Walker	C	24.1 0.756	C	24.1 0.756	+ 0.000	D/V
#130 ORE 217 SB Ramp/Walker	B	15.9 0.643	B	15.9 0.643	+ 0.000	D/V
#131 Scholls Ferry/ORE 217 SB on Ra	C	32.3 0.741	C	32.3 0.741	+ 0.000	D/V

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 170th/TV Highway

Cycle (sec): 120 Critical Vol./Cap. (X): 1.154
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 89.3
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			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	1	2	0	1

Volume Module:

Base Vol:	136	342	66	343	615	5	112	1911	222	521	1992	372
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:	136	342	66	343	615	5	112	1911	222	521	1992	372
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:	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 Volume:	136	342	66	343	615	5	112	1911	222	521	1992	372
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	136	342	66	343	615	5	112	1911	222	521	1992	372
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.:	136	342	66	343	615	5	112	1911	222	521	1992	372

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.91	0.91	0.94	0.94	0.84	0.93	0.93	0.83	0.91	0.94	0.84
Lanes:	1.00	1.68	0.32	1.00	2.00	1.00	1.00	2.00	1.00	2.00	2.00	1.00
Final Sat.:	1769	2894	559	1787	3574	1599	1769	3538	1583	3467	3574	1599

Capacity Analysis Module:

Vol/Sat:	0.08	0.12	0.12	0.19	0.17	0.00	0.06	0.54	0.14	0.15	0.56	0.23
Crit Moves:	****			****			****			****		
Green/Cycle:	0.08	0.10	0.10	0.17	0.19	0.19	0.06	0.47	0.55	0.13	0.54	0.70
Volume/Cap:	0.93	1.15	1.15	1.15	0.93	0.02	1.04	1.15	0.25	1.15	1.04	0.33
Uniform Del:	54.7	53.9	53.9	50.0	48.1	39.9	56.3	31.9	14.1	52.2	27.8	6.9
IncrementDel:	52.7	96.8	96.8	100.8	19.2	0.0	97.2	76.9	0.2	92.0	31.1	0.2
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
Delay/Veh:	107.4	151	150.7	150.8	67.2	39.9	153.5	109	14.2	144.2	58.9	7.1
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:	107.4	151	150.7	150.8	67.2	39.9	153.5	109	14.2	144.2	58.9	7.1
DesignQueue:	8	21	4	20	35	0	7	78	7	31	71	8

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 170th/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 1.139
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 88.3
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 170th/Oak

Cycle (sec): 100 Critical Vol./Cap. (X): 0.749
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 12.6
Optimal Cycle: 57 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 170th/Bany

Cycle (sec): 100 Critical Vol./Cap. (X): 0.713
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 33.6
Optimal Cycle: 71 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Bethany/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 1.187
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 85.9
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Bethany/US 26 east ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 1.010
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 53.8
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Bethany/Cornell

Cycle (sec): 120 Critical Vol./Cap. (X): 1.016
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 54.3
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Cornell/US 26 east ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.857
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 23.5
Optimal Cycle: 93 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic movements and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for movements and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Cornell/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 1.012
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 53.2
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic movements and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for movements and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 158th/Cornell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.968
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 39.2
Optimal Cycle: 142 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module:

Table with 12 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module:

Table with 12 columns and 12 rows showing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 158th/Walker

Cycle (sec): 120 Critical Vol./Cap. (X): 1.010
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 58.9
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module:

Table with 12 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module:

Table with 12 columns and 12 rows showing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 I43rd/Cornell

Cycle (sec): 100 Critical Vol./Cap. (X): 0.901
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 55.3
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 Murray/Cornell

Cycle (sec): 120 Critical Vol./Cap. (X): 1.387
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 160.8
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Barnes/Saltzman/Cornell

Cycle (sec): 100 Critical Vol./Cap. (X): 1.420
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 193.3
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic flows and 10 rows of metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns and 5 rows of metrics like Sat/Lane, Adjustment, Lanes, etc.

Capacity Analysis Module table with 12 columns and 10 rows of metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #16 Murray/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 1.104
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 65.1
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic flows and 10 rows of metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns and 5 rows of metrics like Sat/Lane, Adjustment, Lanes, etc.

Capacity Analysis Module table with 12 columns and 10 rows of metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Murray/US 26 east ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.675
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 14.6
Optimal Cycle: 45 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns and 11 rows showing traffic volume and adjustment factors.

Saturation Flow Module table with 11 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module table with 11 columns and 11 rows showing capacity and delay metrics.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Murray/Walker

Cycle (sec): 100 Critical Vol./Cap. (X): 1.065
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 60.9
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns and 11 rows showing traffic volume and adjustment factors.

Saturation Flow Module table with 11 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module table with 11 columns and 11 rows showing capacity and delay metrics.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Murray/Jenkins

Cycle (sec): 100 Critical Vol./Cap. (X): 1.153
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 75.4
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for traffic flows and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for traffic flows and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Murray/Farmington

Cycle (sec): 160 Critical Vol./Cap. (X): 1.161
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 103.6
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for traffic flows and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for traffic flows and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Murray/6th

Cycle (sec): 120 Critical Vol./Cap. (X): 0.984
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.2
Optimal Cycle: 180 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Murray/Allen

Cycle (sec): 120 Critical Vol./Cap. (X): 1.274
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 120.1
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Murray/Brockman/Beard

Cycle (sec): 100 Critical Vol./Cap. (X): 1.194
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 98.7
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Nimbus/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 1.071
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 65.4
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Hall/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.746
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 40.9
Optimal Cycle: 80 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Allen/Schools Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.950
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 50.2
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #27 Oleson/Vermont

Cycle (sec): 100 Critical Vol./Cap. (X): 0.778
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 72 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, etc.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 12 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Oleson/Garden Home

Cycle (sec): 100 Critical Vol./Cap. (X): 0.999
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.7
Optimal Cycle: 177 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, etc.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 12 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Cedar Hills/Barnes

Cycle (sec): 140 Critical Vol./Cap. (X): 1.224
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 105.6
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing traffic volumes and 10 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #30 Cedar Hills/US 26 west ramps

Cycle (sec): 60 Critical Vol./Cap. (X): 0.967
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 29.9
Optimal Cycle: 106 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing traffic volumes and 10 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #31 Cedar Hills/US 26 east ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.903
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 29.5
Optimal Cycle: 111 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic movements and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for movements and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for movements and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #32 Cedar Hills/Butner

Cycle (sec): 100 Critical Vol./Cap. (X): 0.952
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 40.2
Optimal Cycle: 142 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic movements and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for movements and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for movements and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #33 Cedar Hills/Walker

Cycle (sec): 100 Critical Vol./Cap. (X): 1.337
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 134.9
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic flows and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for different traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for different traffic flows and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #34 Cedar Hills/Jenkins

Cycle (sec): 120 Critical Vol./Cap. (X): 0.916
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.8
Optimal Cycle: 138 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic flows and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for different traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for different traffic flows and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #35 Cedar Hills/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.895
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 35.5
Optimal Cycle: 114 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module:

Table with 12 columns and 5 rows showing saturation flow and adjustment factors.

Capacity Analysis Module:

Table with 12 columns and 12 rows showing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #36 Cedar Hills/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.947
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 37.9
Optimal Cycle: 139 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module:

Table with 12 columns and 5 rows showing saturation flow and adjustment factors.

Capacity Analysis Module:

Table with 12 columns and 12 rows showing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #37 Cedar Hills/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 1.077
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 53.2
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #38 Hall/Center

Cycle (sec): 100 Critical Vol./Cap. (X): 0.682
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 57 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #39 Hall/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.971
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 48.6
Optimal Cycle: 154 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing traffic flows and 10 rows of adjustment factors (Base Vol, Growth Adj, etc.).

Saturation Flow Module:

Table with 12 columns and 4 rows showing saturation flow adjustments.

Capacity Analysis Module:

Table with 12 columns and 13 rows showing capacity analysis metrics like Vol/Sat, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #40 Hall/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 1.019
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 57.9
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing traffic flows and 10 rows of adjustment factors (Base Vol, Growth Adj, etc.).

Saturation Flow Module:

Table with 12 columns and 4 rows showing saturation flow adjustments.

Capacity Analysis Module:

Table with 12 columns and 13 rows showing capacity analysis metrics like Vol/Sat, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 Hall/Greenway

Cycle (sec): 120 Critical Vol./Cap. (X): 1.010
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.9
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 Hall/Nimbus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.952
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 43.9
Optimal Cycle: 142 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 125th/Greenway

Cycle (sec): 100 Critical Vol./Cap. (X): 0.771
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 36.5
Optimal Cycle: 71 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements and 10 rows of adjustment factors (Base Vol, Growth Adj, etc.).

Saturation Flow Module:

Table with 12 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns and 10 rows showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 Western/Beaverton Hillsdale

Cycle (sec): 120 Critical Vol./Cap. (X): 0.723
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 29.4
Optimal Cycle: 65 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements and 10 rows of adjustment factors (Base Vol, Growth Adj, etc.).

Saturation Flow Module:

Table with 12 columns and 4 rows showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns and 10 rows showing Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #45 Western/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.922
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.2
Optimal Cycle: 128 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 12 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #46 Laurelwood/Beaverton Hillsdale

Cycle (sec): 100 Critical Vol./Cap. (X): 1.090
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 66.7
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 12 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #47 Lombard/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.967
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 51.6
Optimal Cycle: 151 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #48 114th/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.843
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 26.1
Optimal Cycle: 97 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #49 Griffith/Beaverton Hillsdale

Cycle (sec): 100 Critical Vol./Cap. (X): 0.756
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.8
Optimal Cycle: 96 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of volume data including Base Vol, Growth Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 13 rows showing Vol/Sat, Crit Moves, Green/Cycle, and other performance metrics.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #50 87th/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.846
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 25.0
Optimal Cycle: 78 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic movements and 10 rows of volume data including Base Vol, Growth Adj, and Final Vol.

Saturation Flow Module table with 12 columns and 5 rows showing Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 13 rows showing Vol/Sat, Crit Moves, Green/Cycle, and other performance metrics.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #51 Garden Home/84th

Average Delay (sec/veh): 33.1 Worst Case Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), Lanes (0 0 1! 0 0).

Volume Module:

Table with 11 columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol. for each approach.

Critical Gap Module:

Table with 11 columns: Critical Gp, FollowUpTim for each approach.

Capacity Module:

Table with 11 columns: Cnflct Vol, Potent Cap., Move Cap. for each approach.

Level Of Service Module:

Table with 11 columns: Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS for each approach.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #52 Garden Home/88th

Average Delay (sec/veh): 23.3 Worst Case Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), Lanes (0 0 1! 0 0).

Volume Module:

Table with 11 columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol. for each approach.

Critical Gap Module:

Table with 11 columns: Critical Gp, FollowUpTim for each approach.

Capacity Module:

Table with 11 columns: Cnflct Vol, Potent Cap., Move Cap. for each approach.

Level Of Service Module:

Table with 11 columns: Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS for each approach.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #53 158th/Jenkins

Cycle (sec): 100 Critical Vol./Cap. (X): 1.102
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 78.6
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #54 170th/Merlo

Cycle (sec): 100 Critical Vol./Cap. (X): 0.722
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 27.8
Optimal Cycle: 74 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #56 TV Highway/Murray

Cycle (sec): 120 Critical Vol./Cap. (X): 1.096
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 76.0
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 10 columns for traffic volumes and 10 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 10 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 10 columns for capacity analysis and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #57 Farmington/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.905
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.7
Optimal Cycle: 112 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 10 columns for traffic volumes and 10 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 10 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 10 columns for capacity analysis and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #58 Canyon/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.836
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.3
Optimal Cycle: 86 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #59 Walker/173rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.862
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 36.0
Optimal Cycle: 103 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #60 170th/Baseline

Cycle (sec): 90 Critical Vol./Cap. (X): 0.953
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 43.5
Optimal Cycle: 131 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #64 Cornell/173rd

Cycle (sec): 110 Critical Vol./Cap. (X): 1.241
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 119.6
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #66 Scholls Ferry/Cascade

Cycle (sec): 100 Critical Vol./Cap. (X): 0.932
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 127 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic flows and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 10 columns for flow types and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for flow types and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #72 Canyon/Watson

Cycle (sec): 100 Critical Vol./Cap. (X): 0.842
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.7
Optimal Cycle: 88 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic flows and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 10 columns for flow types and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for flow types and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #73 Farmington/Watson

Cycle (sec): 100 Critical Vol./Cap. (X): 0.852
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 23.4
Optimal Cycle: 91 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #76 Scholls Ferry/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.767
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.7
Optimal Cycle: 70 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #77 Farmington/Hocken

Cycle (sec): 100 Critical Vol./Cap. (X): 0.745
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 22.4
Optimal Cycle: 66 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #78 TV Highway/Hocken

Cycle (sec): 100 Critical Vol./Cap. (X): 1.026
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.5
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #81 158th/Blueridge

Cycle (sec): 100 Critical Vol./Cap. (X): 0.987
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 40.7
Optimal Cycle: 173 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic flows and 10 rows of adjustment factors (Base Vol, Growth Adj, etc.).

Saturation Flow Module:

Table with 10 columns representing different traffic flows and 4 rows of saturation flow data (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module:

Table with 11 columns representing different traffic flows and 10 rows of capacity analysis data (Vol/Sat, Crit Moves, Green/Cycle, etc.).

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #83 158th/Jay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.917
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.9
Optimal Cycle: 118 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic flows and 10 rows of adjustment factors (Base Vol, Growth Adj, etc.).

Saturation Flow Module:

Table with 10 columns representing different traffic flows and 4 rows of saturation flow data (Sat/Lane, Adjustment, Lanes, Final Sat.).

Capacity Analysis Module:

Table with 11 columns representing different traffic flows and 10 rows of capacity analysis data (Vol/Sat, Crit Moves, Green/Cycle, etc.).

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #85 TV Highway/160th

Cycle (sec): 120 Critical Vol./Cap. (X): 1.136
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 73.8
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns and 11 rows showing traffic volume and adjustment factors.

Saturation Flow Module table with 11 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module table with 11 columns and 11 rows showing capacity and delay metrics.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #87 Hart/155th

Cycle (sec): 110 Critical Vol./Cap. (X): 0.520
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 15.8
Optimal Cycle: 33 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns and 11 rows showing traffic volume and adjustment factors.

Saturation Flow Module table with 11 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module table with 11 columns and 11 rows showing capacity and delay metrics.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #88 Murray/Hart

Cycle (sec): 120 Critical Vol./Cap. (X): 1.011
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 52.6
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #89 Murray/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.974
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 54.2
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #90 Scholls Ferry/Davies

Cycle (sec): 100 Critical Vol./Cap. (X): 0.701
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 18.2
Optimal Cycle: 76 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 12 rows for various adjustment factors like Growth Adj, User Adj, PHF Adj, etc.

Saturation Flow Module table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for traffic flows and 12 rows for Vol/Sat, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #92 Scholls Ferry/135th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.660
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 13.4
Optimal Cycle: 54 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 12 rows for various adjustment factors like Growth Adj, User Adj, PHF Adj, etc.

Saturation Flow Module table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for traffic flows and 12 rows for Vol/Sat, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #93 Scholls Ferry/125th

Cycle (sec): 120 Critical Vol./Cap. (X): 1.051
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 63.3
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #94 Scholls Ferry/121st

Cycle (sec): 140 Critical Vol./Cap. (X): 0.932
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.3
Optimal Cycle: 154 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #95 Scholls Ferry/Conestoga

Cycle (sec): 120 Critical Vol./Cap. (X): 0.779
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 12.7
Optimal Cycle: 87 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Lanes, and Volume Module.

Table with 12 columns representing traffic flow directions. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns representing traffic flow directions. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing traffic flow directions. Rows include Capacity Analysis Module metrics like Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncrementDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #102 Scholls Ferry/Laurelwood

Average Delay (sec/veh): 129.0 Worst Case Level Of Service: F

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Lanes, and Volume Module.

Table with 12 columns representing traffic flow directions. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, Reduct Vol, and Final Vol.

Table with 12 columns representing traffic flow directions. Rows include Critical Gap Module metrics like Critical Gp and FollowUpTim.

Table with 12 columns representing traffic flow directions. Rows include Capacity Module metrics like Cnflct Vol, Potent Cap., and Move Cap.

Table with 12 columns representing traffic flow directions. Rows include Level of Service Module metrics like Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, and ApproachLOS.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #103 Canyon/Lombard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.950
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 44.7
Optimal Cycle: 140 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #105 Canyon/117th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.762
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 25.9
Optimal Cycle: 79 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #114 ORE 217 SB Ramp/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.835
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.4
Optimal Cycle: 86 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #115 ORE 217 NB Ramp/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.811
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.5
Optimal Cycle: 80 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #116 ORE 217 SB Ramp/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.891
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 33.5
Optimal Cycle: 106 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #117 ORE 217 NB Ramp/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.809
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 28.5
Optimal Cycle: 79 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #118 ORE 217 SB Ramp/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.900
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 35.0
Optimal Cycle: 110 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Growth, Initial, User, PHF, Reduct, PCE, MLF, Final).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #119 ORE 217 NB Ramp/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.900
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.4
Optimal Cycle: 110 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Growth, Initial, User, PHF, Reduct, PCE, MLF, Final).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #120 ORE 217 SB Ramp/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.957
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 42.7
Optimal Cycle: 145 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #121 ORE 217 NB Ramp/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.848
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.0
Optimal Cycle: 90 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #122 ORE 217 SB off Ramp/Hall/Cascade

Cycle (sec): 120 Critical Vol./Cap. (X): 1.106
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 76.0
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module:

Table with 11 columns representing different traffic movements and 4 rows of saturation flow and adjustment factors.

Capacity Analysis Module:

Table with 11 columns representing different traffic movements and 10 rows of capacity analysis metrics.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #123 ORE 217 NB on Ramp/Scholls Ferry

Cycle (sec): 100 Critical Vol./Cap. (X): 1.429
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 148.9
Optimal Cycle: 180 Level Of Service: F

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic movements and 10 rows of volume and adjustment factors.

Saturation Flow Module:

Table with 11 columns representing different traffic movements and 4 rows of saturation flow and adjustment factors.

Capacity Analysis Module:

Table with 11 columns representing different traffic movements and 10 rows of capacity analysis metrics.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #125 ORE 217 NB off Ramp/Scholls Ferry

Cycle (sec): 100 Critical Vol./Cap. (X): 0.645
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 19.6
Optimal Cycle: 42 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #129 ORE 217 NB Ramp/Walker

Cycle (sec): 80 Critical Vol./Cap. (X): 0.756
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.1
Optimal Cycle: 64 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #130 ORE 217 SB Ramp/Walker

Cycle (sec): 80 Critical Vol./Cap. (X): 0.643
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 50 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 10 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 10 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 10 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #131 Scholls Ferry/ORE 217 SB on Ramp

Cycle (sec): 120 Critical Vol./Cap. (X): 0.741
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 32.3
Optimal Cycle: 79 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 10 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 10 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 10 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

J – 2020 TSP Mitigated LOS Calculations

Scenario Report

Scenario: 2020 MIT
 Command: 2020 MIT
 Volume: Base 2020
 Geometry: Base 2020
 Impact Fee: Default Impact Fee
 Trip Generation: pm peak
 Trip Distribution: dist
 Paths: Default Paths
 Routes: Default Routes
 Configuration: Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base		Future		Change in
	Del/	V/	Del/	V/	
	LOS	Veh C	LOS	Veh C	
# 1 170th/TV Highway	D	47.7 0.958	D	47.7 0.958	+ 0.000 D/V
# 2 170th/Farmington	D	54.1 0.982	D	54.1 0.982	+ 0.000 D/V
# 3 170th/Oak	B	13.3 0.775	B	13.3 0.775	+ 0.000 D/V
# 5 170th/Bany	C	34.8 0.750	C	34.8 0.750	+ 0.000 D/V
# 6 Bethany/US 26 west ramp	D	37.3 0.952	D	37.3 0.952	+ 0.000 D/V
# 7 Bethany/US 26 east ramp	C	31.9 0.862	C	31.9 0.862	+ 0.000 D/V
# 8 Bethany/Cornell	D	38.6 0.906	D	38.6 0.906	+ 0.000 D/V
# 9 Cornell/US 26 east ramp	C	25.7 0.895	C	25.7 0.895	+ 0.000 D/V
# 10 Cornell/US 26 west ramp	D	37.3 0.913	D	37.3 0.913	+ 0.000 D/V
# 11 158th/Cornell	D	41.5 0.977	D	41.5 0.977	+ 0.000 D/V
# 12 158th/Walker	D	52.4 0.984	D	52.4 0.984	+ 0.000 D/V
# 13 143rd/Cornell	E	56.2 0.742	E	56.2 0.742	+ 0.000 D/V
# 14 Murray/Cornell	E	56.3 0.981	E	56.3 0.981	+ 0.000 D/V
# 15 Barnes/Saltzman/Cornell	E	63.3 0.971	E	63.3 0.971	+ 0.000 D/V
# 16 Murray/US 26 west ramp	C	30.3 0.866	C	30.3 0.866	+ 0.000 D/V
# 17 Murray/US 26 east ramps	B	16.5 0.645	B	16.5 0.645	+ 0.000 D/V
# 18 Murray/Walker	D	49.4 0.964	D	49.4 0.964	+ 0.000 D/V
# 19 Murray/Jenkins	D	38.8 0.886	D	38.8 0.886	+ 0.000 D/V
# 20 Murray/Farmington	C	30.1 0.773	C	30.1 0.773	+ 0.000 D/V
# 21 Murray/6th	C	28.8 0.898	C	28.8 0.898	+ 0.000 D/V
# 22 Murray/Allen	D	44.7 0.883	D	44.7 0.883	+ 0.000 D/V
# 23 Murray/Brockman/Beard	D	48.6 0.950	D	48.6 0.950	+ 0.000 D/V
# 24 Nimbus/Scholls Ferry	D	41.8 0.918	D	41.8 0.918	+ 0.000 D/V
# 25 Hall/Scholls Ferry	D	38.8 0.772	D	38.8 0.772	+ 0.000 D/V
# 26 Allen/Schools Ferry	D	52.3 0.965	D	52.3 0.965	+ 0.000 D/V

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 27 Oleson/Vermont	C	25.4 0.778	C	25.4 0.778	+ 0.000	D/V
# 28 Oleson/Garden Home	D	49.6 0.998	D	49.6 0.998	+ 0.000	D/V
# 29 Cedar Hills/Barnes	E	59.2 0.956	E	59.2 0.956	+ 0.000	D/V
# 30 Cedar Hills/US 26 west ramps	C	25.1 0.933	C	25.1 0.933	+ 0.000	D/V
# 31 Cedar Hills/US 26 east ramps	C	24.9 0.853	C	24.9 0.853	+ 0.000	D/V
# 32 Cedar Hills/Butner	D	41.7 0.968	D	41.7 0.968	+ 0.000	D/V
# 33 Cedar Hills/Walker	D	53.9 0.981	D	53.9 0.981	+ 0.000	D/V
# 34 Cedar Hills/Jenkins	D	48.6 0.918	D	48.6 0.918	+ 0.000	D/V
# 35 Cedar Hills/Hall	D	42.6 0.897	D	42.6 0.897	+ 0.000	D/V
# 36 Cedar Hills/Canyon	D	54.5 0.989	D	54.5 0.989	+ 0.000	D/V
# 37 Cedar Hills/Farmington	C	21.1 0.719	C	21.1 0.719	+ 0.000	D/V
# 38 Hall/Center	C	25.4 0.723	C	25.4 0.723	+ 0.000	D/V
# 39 Hall/Allen	D	46.3 0.953	D	46.3 0.953	+ 0.000	D/V
# 40 Hall/Denney	C	26.9 0.876	C	26.9 0.876	+ 0.000	D/V
# 41 Hall/Greenway	D	35.6 0.968	D	35.6 0.968	+ 0.000	D/V
# 42 Hall/Nimbus	C	31.5 0.832	C	31.5 0.832	+ 0.000	D/V
# 43 125th/Greenway	D	38.9 0.812	D	38.9 0.812	+ 0.000	D/V
# 44 Western/Beaverton Hillsdale	D	43.9 0.930	D	43.9 0.930	+ 0.000	D/V
# 45 Western/Allen	D	47.2 0.982	D	47.2 0.982	+ 0.000	D/V
# 46 Laurelwood/Beaverton Hillsdale	C	34.4 0.936	C	34.4 0.936	+ 0.000	D/V
# 47 Lombard/Farmington	D	50.9 0.965	D	50.9 0.965	+ 0.000	D/V
# 48 114th/Canyon	C	24.7 0.839	C	24.7 0.839	+ 0.000	D/V
# 49 Griffith/Beaverton Hillsdale	C	30.5 0.738	C	30.5 0.738	+ 0.000	D/V
# 50 87th/Canyon	C	25.1 0.853	C	25.1 0.853	+ 0.000	D/V
# 51 Garden Home/84th	D	33.5 0.000	D	33.5 0.000	+ 0.000	V/C
# 52 Garden Home/88th	C	23.5 0.000	C	23.5 0.000	+ 0.000	V/C

Intersection	Base		Future		Change in	
	Del/ LOS	V/ Veh C	Del/ LOS	V/ Veh C		
# 53 158th/Jenkins	D	46.5 0.942	D	46.5 0.942	+ 0.000	D/V
# 54 170th/Merlo	C	27.8 0.718	C	27.8 0.718	+ 0.000	D/V
# 56 TV Highway/Murray	C	22.2 0.714	C	22.2 0.714	+ 0.000	D/V
# 57 Farmington/Hall	C	30.4 0.919	C	30.4 0.919	+ 0.000	D/V
# 58 Canyon/Hall	C	26.7 0.850	C	26.7 0.850	+ 0.000	D/V
# 59 Walker/173rd	D	36.1 0.871	D	36.1 0.871	+ 0.000	D/V
# 60 170th/Baseline	D	53.3 0.987	D	53.3 0.987	+ 0.000	D/V
# 64 Cornell/173rd	E	56.5 0.983	E	56.5 0.983	+ 0.000	D/V
# 66 Scholls Ferry/Cascade	C	32.7 0.934	C	32.7 0.934	+ 0.000	D/V
# 72 Canyon/Watson	C	30.4 0.909	C	30.4 0.909	+ 0.000	D/V
# 73 Farmington/Watson	C	27.6 0.878	C	27.6 0.878	+ 0.000	D/V
# 76 Scholls Ferry/Denney	C	24.6 0.765	C	24.6 0.765	+ 0.000	D/V
# 77 Farmington/Hocken	C	31.4 0.883	C	31.4 0.883	+ 0.000	D/V
# 78 TV Highway/Hocken	C	34.2 0.839	C	34.2 0.839	+ 0.000	D/V
# 81 158th/Blueridge	D	38.8 0.977	D	38.8 0.977	+ 0.000	D/V
# 83 158th/Jay	D	44.1 0.991	D	44.1 0.991	+ 0.000	D/V
# 85 TV Highway/160th	C	34.8 0.902	C	34.8 0.902	+ 0.000	D/V
# 87 Hart/155th	B	15.9 0.515	B	15.9 0.515	+ 0.000	D/V
# 88 Murray/Hart	D	40.4 0.978	D	40.4 0.978	+ 0.000	D/V
# 89 Murray/Scholls Ferry	D	49.2 0.927	D	49.2 0.927	+ 0.000	D/V
# 90 Scholls Ferry/Davies	B	18.1 0.698	B	18.1 0.698	+ 0.000	D/V
# 92 Scholls Ferry/135th	B	13.0 0.643	B	13.0 0.643	+ 0.000	D/V
# 93 Scholls Ferry/125th	D	51.4 0.981	D	51.4 0.981	+ 0.000	D/V
# 94 Scholls Ferry/121st	D	37.0 0.919	D	37.0 0.919	+ 0.000	D/V
# 95 Scholls Ferry/Conestoga	B	12.5 0.774	B	12.5 0.774	+ 0.000	D/V
#102 Scholls Ferry/Laurelwood	A	9.0 0.620	A	9.0 0.620	+ 0.000	D/V

Intersection	Base		Future		Change in		
	Del/ LOS	V/ Veh	Del/ LOS	V/ Veh			
#103 Canyon/Lombard	D	44.1 0.945	D	44.1 0.945	+ 0.000	D/V	
#105 Canyon/117th	C	24.5 0.745	C	24.5 0.745	+ 0.000	D/V	
#114 ORE 217 SB Ramp/Canyon	C	25.6 0.772	C	25.6 0.772	+ 0.000	D/V	
#115 ORE 217 NB Ramp/Canyon	C	26.2 0.745	C	26.2 0.745	+ 0.000	D/V	
#116 ORE 217 SB Ramp/Farmington	C	29.9 0.848	C	29.9 0.848	+ 0.000	D/V	
#117 ORE 217 NB Ramp/Farmington	C	27.4 0.781	C	27.4 0.781	+ 0.000	D/V	
#118 ORE 217 SB Ramp/Allen	D	37.1 0.929	D	37.1 0.929	+ 0.000	D/V	
#119 ORE 217 NB Ramp/Allen	D	37.2 0.950	D	37.2 0.950	+ 0.000	D/V	
#120 ORE 217 SB Ramp/Denney	D	40.1 0.938	D	40.1 0.938	+ 0.000	D/V	
#121 ORE 217 NB Ramp/Denney	D	42.1 0.881	D	42.1 0.881	+ 0.000	D/V	
#122 ORE 217 SB off Ramp/Hall/Casca	D	41.0 0.884	D	41.0 0.884	+ 0.000	D/V	
#123 ORE 217 NB on Ramp/Scholls Fer	D	42.7 0.965	D	42.7 0.965	+ 0.000	D/V	
#125 ORE 217 NB off Ramp/Scholls Fe	C	20.1 0.678	C	20.1 0.678	+ 0.000	D/V	
#129 ORE 217 NB Ramp/Walker	C	27.4 0.828	C	27.4 0.828	+ 0.000	D/V	
#130 ORE 217 SB Ramp/Walker	B	18.6 0.798	B	18.6 0.798	+ 0.000	D/V	
#131 Scholls Ferry/ORE 217 SB on Ra	C	34.0 0.784	C	34.0 0.784	+ 0.000	D/V	

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 170th/TV Highway

Cycle (sec): 120 Critical Vol./Cap. (X): 0.958
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 47.7
Optimal Cycle: 168 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			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1	0	1	1	0	1	1	0	3	2	0	3

Volume Module:

Base Vol:	142	344	75	331	628	18	123	1898	221	521	1983	352
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:	142	344	75	331	628	18	123	1898	221	521	1983	352
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:	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 Volume:	142	344	75	331	628	18	123	1898	221	521	1983	352
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	142	344	75	331	628	18	123	1898	221	521	1983	352
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.:	142	344	75	331	628	18	123	1898	221	521	1983	352

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.93	0.91	0.91	0.94	0.94	0.84	0.93	0.89	0.83	0.91	0.90	0.84
Lanes:	1.00	1.64	0.36	1.00	2.00	1.00	1.00	3.00	1.00	2.00	3.00	1.00
Final Sat.:	1769	2826	616	1787	3574	1599	1769	5083	1583	3467	5135	1599

Capacity Analysis Module:

Vol/Sat:	0.08	0.12	0.12	0.19	0.18	0.01	0.07	0.37	0.14	0.15	0.39	0.22
Crit Moves:	****			****			****			****		
Green/Cycle:	0.10	0.13	0.13	0.19	0.22	0.22	0.08	0.39	0.49	0.16	0.46	0.66
Volume/Cap:	0.80	0.96	0.96	0.96	0.80	0.05	0.83	0.96	0.28	0.96	0.83	0.34
Uniform Del:	52.8	52.1	52.1	47.9	44.3	36.9	54.2	35.7	18.1	50.2	28.2	9.1
IncrementDel:	22.0	32.4	32.4	37.4	5.8	0.1	31.6	11.9	0.2	28.3	2.7	0.2
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
Delay/Veh:	74.8	84.5	84.5	85.3	50.1	37.0	85.8	47.6	18.3	78.5	30.9	9.3
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:	74.8	84.5	84.5	85.3	50.1	37.0	85.8	47.6	18.3	78.5	30.9	9.3
DesignQueue:	9	21	4	19	34	1	8	85	8	30	78	8

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 170th/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.982
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 54.1
Optimal Cycle: 162 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing different traffic movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 170th/Oak

Cycle (sec): 100 Critical Vol./Cap. (X): 0.775
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 13.3
Optimal Cycle: 64 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing different traffic movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 170th/Bany

Cycle (sec): 100 Critical Vol./Cap. (X): 0.750
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.8
Optimal Cycle: 77 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for traffic flows and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 Bethany/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.952
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.3
Optimal Cycle: 140 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for traffic flows and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Bethany/US 26 east ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.862
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 31.9
Optimal Cycle: 94 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #8 Bethany/Cornell

Cycle (sec): 120 Critical Vol./Cap. (X): 0.906
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 38.6
Optimal Cycle: 132 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #9 Cornell/US 26 east ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.895
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.7
Optimal Cycle: 107 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 10 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 10 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 10 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #10 Cornell/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.913
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.3
Optimal Cycle: 116 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 10 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 10 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 10 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #11 158th/Cornell

Cycle (sec): 90 Critical Vol./Cap. (X): 0.977
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 41.5
Optimal Cycle: 149 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing different traffic movements. Rows include Volume Module (Base Vol, Growth Adj, etc.) and Saturation Flow Module (Sat/Lane, Adjustment, etc.).

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, etc.).

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, etc.).

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 158th/Walker

Cycle (sec): 120 Critical Vol./Cap. (X): 0.984
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 52.4
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing different traffic movements. Rows include Volume Module (Base Vol, Growth Adj, etc.) and Saturation Flow Module (Sat/Lane, Adjustment, etc.).

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, etc.).

Table with 12 columns representing different traffic movements. Rows include Capacity Analysis Module (Vol/Sat, Crit Moves, Green/Cycle, etc.).

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #13 I43rd/Cornell

Cycle (sec): 100 Critical Vol./Cap. (X): 0.742
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 56.2
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for movements and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 13 rows for various performance metrics like Vol/Sat, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #14 Murray/Cornell

Cycle (sec): 120 Critical Vol./Cap. (X): 0.981
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 56.3
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for movements and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 13 rows for various performance metrics like Vol/Sat, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #15 Barnes/Saltzman/Cornell

Cycle (sec): 100 Critical Vol./Cap. (X): 0.971
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 63.3
Optimal Cycle: 154 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #16 Murray/US 26 west ramp

Cycle (sec): 100 Critical Vol./Cap. (X): 0.866
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 30.3
Optimal Cycle: 85 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #17 Murray/US 26 east ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.645
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 16.5
Optimal Cycle: 42 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 10 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 10 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 10 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #18 Murray/Walker

Cycle (sec): 120 Critical Vol./Cap. (X): 0.964
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.4
Optimal Cycle: 173 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 10 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 10 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 10 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Murray/Jenkins

Cycle (sec): 100 Critical Vol./Cap. (X): 0.886
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 38.8
Optimal Cycle: 111 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for Sat/Lane and 12 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Murray/Farmington

Cycle (sec): 120 Critical Vol./Cap. (X): 0.773
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 30.1
Optimal Cycle: 75 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 12 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for Sat/Lane and 12 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #21 Murray/6th

Cycle (sec): 120 Critical Vol./Cap. (X): 0.898
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 28.8
Optimal Cycle: 128 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #22 Murray/Allen

Cycle (sec): 120 Critical Vol./Cap. (X): 0.883
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 44.7
Optimal Cycle: 121 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #23 Murray/Brockman/Beard

Cycle (sec): 120 Critical Vol./Cap. (X): 0.950
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 48.6
Optimal Cycle: 161 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #24 Nimbus/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.918
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.8
Optimal Cycle: 139 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #25 Hall/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.772
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 38.8
Optimal Cycle: 86 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #26 Allen/Schools Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.965
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 52.3
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #27 Oleson/Vermont

Cycle (sec): 100 Critical Vol./Cap. (X): 0.778
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 72 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #28 Oleson/Garden Home

Cycle (sec): 100 Critical Vol./Cap. (X): 0.998
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.6
Optimal Cycle: 176 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module: Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module: Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module: Table with 12 columns for capacity and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #29 Cedar Hills/Barnes

Cycle (sec): 140 Critical Vol./Cap. (X): 0.956
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 59.2
Optimal Cycle: 180 Level Of Service: E

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for volume and delay metrics. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #30 Cedar Hills/US 26 west ramps

Cycle (sec): 60 Critical Vol./Cap. (X): 0.933
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 25.1
Optimal Cycle: 90 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for volume and delay metrics. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns for saturation flow metrics. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis metrics. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #31 Cedar Hills/US 26 east ramps

Cycle (sec): 100 Critical Vol./Cap. (X): 0.853
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.9
Optimal Cycle: 91 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 13 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #32 Cedar Hills/Butner

Cycle (sec): 100 Critical Vol./Cap. (X): 0.968
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.7
Optimal Cycle: 152 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and 3 rows: Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 10 columns and 13 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 10 columns and 5 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 10 columns and 13 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #33 Cedar Hills/Walker

Cycle (sec): 120 Critical Vol./Cap. (X): 0.981
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 53.9
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 11 columns for Sat/Lane and 11 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for Vol/Sat and 11 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #34 Cedar Hills/Jenkins

Cycle (sec): 120 Critical Vol./Cap. (X): 0.918
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 48.6
Optimal Cycle: 139 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 11 columns for Sat/Lane and 11 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for Vol/Sat and 11 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #35 Cedar Hills/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.897
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 42.6
Optimal Cycle: 115 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #36 Cedar Hills/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.989
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 54.5
Optimal Cycle: 167 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #37 Cedar Hills/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.719
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 21.1
Optimal Cycle: 62 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows showing traffic volume and adjustment factors.

Saturation Flow Module table with 12 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module table with 12 columns and 12 rows showing capacity and delay metrics.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #38 Hall/Center

Cycle (sec): 100 Critical Vol./Cap. (X): 0.723
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 25.4
Optimal Cycle: 72 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns and 12 rows showing traffic volume and adjustment factors.

Saturation Flow Module table with 12 columns and 4 rows showing saturation flow and adjustment factors.

Capacity Analysis Module table with 12 columns and 12 rows showing capacity and delay metrics.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #39 Hall/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.953
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 46.3
Optimal Cycle: 142 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #40 Hall/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.876
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 26.9
Optimal Cycle: 81 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns for traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module:

Table with 11 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 11 columns for capacity analysis and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #41 Hall/Greenway

Cycle (sec): 120 Critical Vol./Cap. (X): 0.968
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 35.6
Optimal Cycle: 171 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #42 Hall/Nimbus

Cycle (sec): 100 Critical Vol./Cap. (X): 0.832
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 31.5
Optimal Cycle: 94 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volumes and 12 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 12 columns for saturation flow and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis and 12 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #43 125th/Greenway

Cycle (sec): 100 Critical Vol./Cap. (X): 0.812
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 38.9
Optimal Cycle: 80 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing different traffic movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #44 Western/Beaverton Hillsdale

Cycle (sec): 120 Critical Vol./Cap. (X): 0.930
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 43.9
Optimal Cycle: 140 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing different traffic movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns representing different traffic movements. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns representing different traffic movements. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #45 Western/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.982
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 47.2
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 12 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #46 Laurelwood/Beaverton Hillsdale

Cycle (sec): 100 Critical Vol./Cap. (X): 0.936
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 34.4
Optimal Cycle: 129 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, Lanes.

Volume Module table with 12 columns and 12 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, Final Vol.

Saturation Flow Module table with 12 columns and 4 rows including Sat/Lane, Adjustment, Lanes, Final Sat.

Capacity Analysis Module table with 12 columns and 12 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #47 Lombard/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.965
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 50.9
Optimal Cycle: 150 Level Of Service: D

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Protected), Rights (Include), Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing traffic volumes and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for Sat/Lane and 12 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #48 114th/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.839
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 24.7
Optimal Cycle: 96 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Split Phase), Rights (Include), Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing traffic volumes and 12 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 12 columns for Sat/Lane and 12 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for Vol/Sat and 12 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #49 Griffith/Beaverton Hillsdale

Cycle (sec): 100 Critical Vol./Cap. (X): 0.738
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 30.5
Optimal Cycle: 90 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 10 rows for various volume and adjustment factors.

Saturation Flow Module table with 12 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, and other performance metrics.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #50 87th/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.853
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 25.1
Optimal Cycle: 80 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 10 rows for various volume and adjustment factors.

Saturation Flow Module table with 12 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, and other performance metrics.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #51 Garden Home/84th

Average Delay (sec/veh): 33.5 Worst Case Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), Lanes (0 0 1! 0 0).

Volume Module:

Table with 11 columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol. for each approach.

Critical Gap Module:

Table with 11 columns: Critical Gp, FollowUpTim for each approach.

Capacity Module:

Table with 11 columns: Cnflct Vol, Potent Cap., Move Cap. for each approach.

Level Of Service Module:

Table with 11 columns: Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS for each approach.

Level Of Service Computation Report
2000 HCM Unsignalized Method (Base Volume Alternative)

Intersection #52 Garden Home/88th

Average Delay (sec/veh): 23.5 Worst Case Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound), Movement (L-T-R), Control (Stop Sign, Uncontrolled), Rights (Include), Lanes (0 0 1! 0 0).

Volume Module:

Table with 11 columns: Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Final Vol. for each approach.

Critical Gap Module:

Table with 11 columns: Critical Gp, FollowUpTim for each approach.

Capacity Module:

Table with 11 columns: Cnflct Vol, Potent Cap., Move Cap. for each approach.

Level Of Service Module:

Table with 11 columns: Stopped Del, LOS by Move, Movement, Shared Cap., Shrd StpDel, Shared LOS, ApproachDel, ApproachLOS for each approach.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #53 158th/Jenkins

Cycle (sec): 100 Critical Vol./Cap. (X): 0.942
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 46.5
Optimal Cycle: 136 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 11 rows for various volume and adjustment factors.

Saturation Flow Module table with 12 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #54 170th/Merlo

Cycle (sec): 100 Critical Vol./Cap. (X): 0.718
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 27.8
Optimal Cycle: 74 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 11 rows for various volume and adjustment factors.

Saturation Flow Module table with 12 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #56 TV Highway/Murray

Cycle (sec): 120 Critical Vol./Cap. (X): 0.714
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 22.2
Optimal Cycle: 74 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #57 Farmington/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.919
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 30.4
Optimal Cycle: 119 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #58 Canyon/Hall

Cycle (sec): 100 Critical Vol./Cap. (X): 0.850
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 26.7
Optimal Cycle: 91 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume and 12 columns for adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns for saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #59 Walker/173rd

Cycle (sec): 100 Critical Vol./Cap. (X): 0.871
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 36.1
Optimal Cycle: 106 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns for traffic volume and 12 columns for adjustment factors. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module:

Table with 12 columns for saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module:

Table with 12 columns for capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #60 170th/Baseline

Cycle (sec): 100 Critical Vol./Cap. (X): 0.987
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 53.3
Optimal Cycle: 166 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic volumes and 11 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 11 columns for Sat/Lane and Adjustment, and 11 rows for Lanes and Final Sat.

Capacity Analysis Module:

Table with 11 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #64 Cornell/173rd

Cycle (sec): 110 Critical Vol./Cap. (X): 0.983
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 56.5
Optimal Cycle: 178 Level Of Service: E

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing different traffic volumes and 11 rows for various adjustment factors like Growth Adj, Initial Bse, User Adj, etc.

Saturation Flow Module:

Table with 11 columns for Sat/Lane and Adjustment, and 11 rows for Lanes and Final Sat.

Capacity Analysis Module:

Table with 11 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #66 Scholls Ferry/Cascade

Cycle (sec): 100 Critical Vol./Cap. (X): 0.934
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 32.7
Optimal Cycle: 128 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic flows and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for different traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for different traffic flows and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #72 Canyon/Watson

Cycle (sec): 100 Critical Vol./Cap. (X): 0.909
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 30.4
Optimal Cycle: 114 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic flows and 11 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for different traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for different traffic flows and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #73 Farmington/Watson

Cycle (sec): 100 Critical Vol./Cap. (X): 0.878
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 27.6
Optimal Cycle: 100 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic flows and 10 rows of metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns and 4 rows of metrics like Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows of metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #76 Scholls Ferry/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.765
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 24.6
Optimal Cycle: 70 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic flows and 10 rows of metrics like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module table with 12 columns and 4 rows of metrics like Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns and 10 rows of metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #77 Farmington/Hocken

Cycle (sec): 100 Critical Vol./Cap. (X): 0.883
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 31.4
Optimal Cycle: 102 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #78 TV Highway/Hocken

Cycle (sec): 100 Critical Vol./Cap. (X): 0.839
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.2
Optimal Cycle: 96 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #81 158th/Blueridge

Cycle (sec): 100 Critical Vol./Cap. (X): 0.977
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 38.8
Optimal Cycle: 162 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #83 158th/Jay

Cycle (sec): 100 Critical Vol./Cap. (X): 0.991
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 44.1
Optimal Cycle: 179 Level Of Service: D

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for different traffic movements and 10 rows for various adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for movements and 5 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for movements and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #85 TV Highway/160th

Cycle (sec): 120 Critical Vol./Cap. (X): 0.902
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.8
Optimal Cycle: 130 Level Of Service: C

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #87 Hart/155th

Cycle (sec): 110 Critical Vol./Cap. (X): 0.515
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 15.9
Optimal Cycle: 33 Level Of Service: B

Table with 4 columns: Approach (North, South, East, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #88 Murray/Hart

Cycle (sec): 120 Critical Vol./Cap. (X): 0.978
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 40.4
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 11 columns for Sat/Lane and Adjustment, and 11 rows for Lanes and Final Sat.

Capacity Analysis Module:

Table with 11 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #89 Murray/Scholls Ferry

Cycle (sec): 120 Critical Vol./Cap. (X): 0.927
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 49.2
Optimal Cycle: 145 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 11 columns representing traffic volumes and 11 rows for various adjustment factors like Base Vol, Growth Adj, Initial Bse, etc.

Saturation Flow Module:

Table with 11 columns for Sat/Lane and Adjustment, and 11 rows for Lanes and Final Sat.

Capacity Analysis Module:

Table with 11 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #90 Scholls Ferry/Davies

Cycle (sec): 100 Critical Vol./Cap. (X): 0.698
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 18.1
Optimal Cycle: 75 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 11 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns and 13 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #92 Scholls Ferry/135th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.643
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 13.0
Optimal Cycle: 53 Level Of Service: B

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement, Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns and 14 rows including Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 11 columns and 5 rows including Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns and 13 rows including Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #93 Scholls Ferry/125th

Cycle (sec): 120 Critical Vol./Cap. (X): 0.981
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 51.4
Optimal Cycle: 180 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic volumes and 10 rows for various metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for Sat/Lane and 5 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat and 10 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #94 Scholls Ferry/121st

Cycle (sec): 140 Critical Vol./Cap. (X): 0.919
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.0
Optimal Cycle: 143 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns representing different traffic volumes and 10 rows for various metrics like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 12 columns for Sat/Lane and 5 rows for Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat and 10 rows for Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #95 Scholls Ferry/Conestoga

Cycle (sec): 120 Critical Vol./Cap. (X): 0.774
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 12.5
Optimal Cycle: 86 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #102 Scholls Ferry/Laurelwood

Cycle (sec): 100 Critical Vol./Cap. (X): 0.620
Loss Time (sec): 0 (Y+R = 4 sec) Average Delay (sec/veh): 9.0
Optimal Cycle: 49 Level Of Service: A

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #103 Canyon/Lombard

Cycle (sec): 100 Critical Vol./Cap. (X): 0.945
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 44.1
Optimal Cycle: 138 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic movements and 11 rows for various volume and adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for movements and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for movements and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #105 Canyon/117th

Cycle (sec): 100 Critical Vol./Cap. (X): 0.745
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 24.5
Optimal Cycle: 76 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 11 columns for different traffic movements and 11 rows for various volume and adjustment factors like Base Vol, Growth Adj, etc.

Saturation Flow Module table with 11 columns for movements and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 11 columns for movements and 11 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #114 ORE 217 SB Ramp/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.772
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 25.6
Optimal Cycle: 71 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns representing traffic volumes for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns representing saturation flow rates. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns representing capacity analysis metrics. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #115 ORE 217 NB Ramp/Canyon

Cycle (sec): 100 Critical Vol./Cap. (X): 0.745
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 26.2
Optimal Cycle: 66 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns representing traffic volumes for different approaches and movements. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns representing saturation flow rates. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns representing capacity analysis metrics. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #116 ORE 217 SB Ramp/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.848
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 29.9
Optimal Cycle: 90 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #117 ORE 217 NB Ramp/Farmington

Cycle (sec): 100 Critical Vol./Cap. (X): 0.781
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 73 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 11 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 11 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 11 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #118 ORE 217 SB Ramp/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.929
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.1
Optimal Cycle: 125 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Growth Adj, Initial Bse, User Adj, PHF Adj, Reduct Vol, etc.).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #119 ORE 217 NB Ramp/Allen

Cycle (sec): 100 Critical Vol./Cap. (X): 0.950
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 37.2
Optimal Cycle: 139 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module table with 12 columns for volume and 12 columns for adjustment factors (Growth Adj, Initial Bse, User Adj, PHF Adj, Reduct Vol, etc.).

Saturation Flow Module table with 12 columns for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #120 ORE 217 SB Ramp/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.938
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 40.1
Optimal Cycle: 130 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing traffic volumes. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns representing saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #121 ORE 217 NB Ramp/Denney

Cycle (sec): 100 Critical Vol./Cap. (X): 0.881
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 42.1
Optimal Cycle: 101 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 12 columns representing traffic volumes. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 12 columns representing saturation flow. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 12 columns representing capacity analysis. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #122 ORE 217 SB off Ramp/Hall/Cascade

Cycle (sec): 120 Critical Vol./Cap. (X): 0.884
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 41.0
Optimal Cycle: 121 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing traffic volumes and adjustments for different approaches and movements.

Saturation Flow Module:

Table with 12 columns representing saturation flow rates and adjustments.

Capacity Analysis Module:

Table with 12 columns representing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #123 ORE 217 NB on Ramp/Scholls Ferry

Cycle (sec): 100 Critical Vol./Cap. (X): 0.965
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 42.7
Optimal Cycle: 151 Level Of Service: D

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L-T-R). Rows include Control, Rights, Min. Green, and Lanes.

Volume Module:

Table with 12 columns representing traffic volumes and adjustments for different approaches and movements.

Saturation Flow Module:

Table with 12 columns representing saturation flow rates and adjustments.

Capacity Analysis Module:

Table with 12 columns representing capacity analysis metrics like Vol/Sat, Crit Moves, Green/Cycle, etc.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #125 ORE 217 NB off Ramp/Scholls Ferry

Cycle (sec): 100 Critical Vol./Cap. (X): 0.678
Loss Time (sec): 8 (Y+R = 4 sec) Average Delay (sec/veh): 20.1
Optimal Cycle: 46 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Permitted, Split Phase), Rights (Include), Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 10 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for traffic flows and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #129 ORE 217 NB Ramp/Walker

Cycle (sec): 80 Critical Vol./Cap. (X): 0.828
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 27.4
Optimal Cycle: 77 Level Of Service: C

Table with 4 columns: North Bound, South Bound, East Bound, West Bound. Rows include Movement (L-T-R), Control (Split Phase, Protected), Rights (Include), Min. Green, and Lanes.

Volume Module table with 12 columns for traffic flows and 10 rows for Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Saturation Flow Module table with 12 columns for traffic flows and 4 rows for Sat/Lane, Adjustment, Lanes, and Final Sat.

Capacity Analysis Module table with 12 columns for traffic flows and 10 rows for Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #130 ORE 217 SB Ramp/Walker

Cycle (sec): 80 Critical Vol./Cap. (X): 0.798
Loss Time (sec): 12 (Y+R = 4 sec) Average Delay (sec/veh): 18.6
Optimal Cycle: 71 Level Of Service: B

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 10 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 10 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 10 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #131 Scholls Ferry/ORE 217 SB on Ramp

Cycle (sec): 120 Critical Vol./Cap. (X): 0.784
Loss Time (sec): 16 (Y+R = 4 sec) Average Delay (sec/veh): 34.0
Optimal Cycle: 89 Level Of Service: C

Table with 4 columns: Approach (North Bound, South Bound, East Bound, West Bound) and Movement (L, T, R). Rows include Control, Rights, Min. Green, and Lanes.

Table with 10 columns for Volume Module. Rows include Base Vol, Growth Adj, Initial Bse, User Adj, PHF Adj, PHF Volume, Reduct Vol, Reduced Vol, PCE Adj, MLF Adj, and Final Vol.

Table with 10 columns for Saturation Flow Module. Rows include Sat/Lane, Adjustment, Lanes, and Final Sat.

Table with 10 columns for Capacity Analysis Module. Rows include Vol/Sat, Crit Moves, Green/Cycle, Volume/Cap, Uniform Del, IncremntDel, Delay Adj, Delay/Veh, User DelAdj, AdjDel/Veh, and DesignQueue.

K- LOS Interpretation (HCM 2000 Methodology)

TRAFFIC LEVELS OF SERVICE

Analysis of traffic volumes is useful in understanding the general nature of traffic in an area, but by itself indicates neither the ability of the street network to carry additional traffic nor the quality of service afforded by the street facilities. For this, the concept of *level of service* has been developed to subjectively describe traffic performance. Level of service can be measured at intersections and along key roadway segments.

Level of service categories are similar to report card ratings for traffic performance. Intersections are typically the controlling bottlenecks of traffic flow and the ability of a roadway system to carry traffic efficiently is generally diminished in their vicinities. Levels of Service A, B and C indicate conditions where traffic moves without significant delays over periods of peak travel demand. Level of service D and E are progressively worse peak hour operating conditions and F conditions represent where demand exceeds the capacity of an intersection. Most urban communities set level of service D as the minimum acceptable level of service for peak hour operation and plan for level of service C or better for all other times of the day. The *Highway Capacity Manual* provides level of service calculation methodology for both intersections and arterials.¹ The following three sections provide interpretations of the analysis approaches.

¹ 2000 *Highway Capacity Manual*, Transportation Research Board, Washington D.C., 2000, Chapters 16 and 17.

ALL-WAY STOP CONTROLLED INTERSECTIONS

Unsignalized intersections and all-way stop controlled intersections are each subject to a separate capacity analysis methodology. All-way stop controlled intersection operations are reported by leg of the intersection.

This method calculates a delay value for each approach to the intersection. The *2000 Highway Capacity Manual* describes the detailed methodology. The following table describes the amount of delay associated with each level of service.

Delay (Seconds)	Level of Service
0 - 10	A
10 - 15	B
15 - 25	C
25 - 35	D
35 - 50	E
> 50	F

Source: *2000 Highway Capacity Manual*, Transportation Research Board, Washington, D.C.

UNSIGNALIZED INTERSECTIONS (Two-Way Stop Controlled)

Unsignalized intersection level of service is reported for the major street and minor street (generally, left turn movements). The method assesses available and critical gaps in the traffic stream which make it possible for side street traffic to enter the main street flow. The *2000 Highway Capacity Manual* describes the detailed methodology. It is not unusual for an intersection to experience level of service E or F conditions for the minor street left turn movement. It should be understood that, often, a poor level of service is experienced by only a few vehicles and the intersection as a whole operates acceptably.

Unsignalized intersection levels of service are described in the following table.

Level of Service	Expected Delay	(Sec/Veh)
A	Little or no delay	0-10.0
B	Short traffic delay	>10.1-15.0
C	Average traffic delays	>15.1-25.0
D	Long traffic delays	>25.1-35.0
E	Very long traffic delays	>35.1-50.0
F	Extreme delays potentially affecting other traffic movements in the intersection	> 50

Source: 2000 *Highway Capacity Manual*, Transportation Research Board Washington, D.C.

SIGNALIZED INTERSECTIONS

For signalized intersections, level of service is evaluated based upon average vehicle delay experienced by vehicles entering an intersection. Control delay (or signal delay) includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. In previous versions of this chapter of the HCM (1994 and earlier), delay included only stopped delay. As delay increases, the level of service decreases. Calculations for signalized and unsignalized intersections are different due to the variation in traffic control. The *2000 Highway Capacity Manual* provides the basis for these calculations.

Level of Service	Delay (secs.)	Description
A	≤10.00	Free Flow/Insignificant Delays: No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication. Most vehicles do not stop at all. Progression is extremely favorable and most vehicles arrive during the green phase.
B	10.1-20.0	Stable Operation/Minimal Delays: An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles. This level generally occurs with good progression, short cycle lengths, or both.
C	20.1-35.0	Stable Operation/Acceptable Delays: Major approach phases fully utilized. Most drivers feel somewhat restricted. Higher delays may result from fair progression, longer cycle lengths, or both. Individual cycle failures may begin to appear at this level, and the number of vehicles stopping is significant.
D	35.1-55.0	Approaching Unstable/Tolerable Delays: The influence of congestion becomes more noticeable. Drivers may have to wait through more than one red signal indication. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. The proportion of vehicles not stopping declines, and individual cycle failures are noticeable.
E	55.1-80.0	Unstable Operation/Significant Delays: Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are a frequent occurrence.
F	≥80.0	Forced Flow/Excessive Delays: Represents jammed conditions. Queues may block upstream intersections. This level occurs when arrival flow rates exceed intersection capacity, and is considered to be unacceptable to most drivers. Poor progression, long cycle lengths, and v/c ratios approaching 1.0 may contribute to these high delay levels.

Source: *2000 Highway Capacity Manual*, Transportation Research Board, Washington D.C.

ARTERIAL LEVEL OF SERVICE

Arterial level of service is based on the average travel speed for the segment, section, or entire arterial under consideration. The average travel speed is computed from the running time on the arterial segment(s) and the intersection approach delay. It is strongly influenced by the number of signals per mile and the average intersection delay. On a given facility, factors such as inappropriate signal timing, poor progression, and increasing traffic flow can substantially degrade the arterial LOS.²

Arterial levels of service are summarized in the following table.

Arterial Levels of Service

Arterial Class	I	II	III
Range of Free Flow Speeds (mph)	45 to 35	35 to 30	35 to 25
Typical Free Flow Speed (mph)	40 mph	33 mph	27 mph
Level of Service	Average Travel Speed (mph)		
A	35	30	25
B	28	24	19
C	22	18	13
D	17	14	9
E	13	10	7
F	< 13	< 10	< 7

² 1994 Highway Capacity Manual, Special Report 209, Transportation Research Board, Washington D.C., 1994, Chapter 11.

The three arterial classes (I, II, and III) used to find the appropriate level of service are based on design and functional characteristics shown in the table below.

Definition of functional categories

Functional Category	Characteristics
Principal Arterial	<ul style="list-style-type: none"> ! Mobility very important ! Heavily restricted access ! Connected to freeways, important activity centers, major traffic generators ! Relatively long trips between above points and through trips entering, leaving, and going through the city.
Minor Arterial	<ul style="list-style-type: none"> ! Mobility important ! Substantially restricted access ! Connected to principal arterials ! Trips of moderate lengths within relatively small geographical area

Design Category	Characteristics
Suburban	<ul style="list-style-type: none"> ! Low access density ! Multilane divided; undivided or two-lane with shoulders arterial ! No parking ! Separate left turn lanes ! 1 to 5 signals per mile ! 40 to 45 mph speed limits ! Little Pedestrian activity ! Low to medium roadside development density
Intermediate	<ul style="list-style-type: none"> ! Moderate access density ! Multilane divided or undivided; one way or two lane arterial ! Some parking ! Usually separate left turn lanes ! 4 to 10 signals per mile ! 30 to 40 mph speed limits ! Some pedestrian activity ! Medium to moderate roadside development density
Urban	<ul style="list-style-type: none"> ! High access density ! Undivided one way; two way, two or more lanes arterial ! Much parking ! Some separate left-turn lanes ! 6 to 12 signals per mile ! 25 to 35 mph speed limits ! Usually pedestrian activity ! High density roadside development

Once the arterial is classified using the functional and design categories, the table below can be used to find the associated arterial class.

Arterial Class According to Design and Functional Categories

DESIGN CATEGORY	FUNCTIONAL CATEGORY	
	PRINCIPAL ARTERIAL	MINOR ARTERIAL
TYPICAL SUBURBAN	I	II
INTERMEDIATE	II	II OR III
TYPICAL URBAN	II OR III	III

L – Metro Street Design Policies/Designations

CHAPTER 1

1.3.5 Designing the Transportation System

The design and function of individual transportation facilities and entire systems have a significant impact on adjacent land uses and the character of the communities they serve. As a result, transportation systems planning must consider larger regional and community goals and values, such as protection of the environment, the regional economy and the quality of life that area residents presently enjoy.

The Regional Transportation Plan measures economic and quality-of-life impacts of the proposed system by evaluating key indicators, such as access to jobs and retail services, mode share, vehicle miles traveled, travel times, travel speeds, level of congestion and air quality impacts. Other key indicators include economic benefits to the community, access to transportation by the traditionally underserved, including low-income and minority households and the disabled, energy costs and protection of natural resources. The Regional Transportation Plan defines a transportation system that balances all of the policies in this plan. Sometimes these policies are in conflict – so each transportation project or program must be evaluated in terms of financial constraints, associated social, economic and environmental impacts, and how it best achieves an overall balance between those conflicting goals.

The following policy guides planning and implementation of the region's transportation system.

Policy 11.0. Regional Street Design

Design regional streets with a modal orientation that reflects the function and character of surrounding land uses, consistent with regional street design concepts.

- a. Objective: Support local implementation of regional street design concepts in local transportation system plans.

Regional street design policies address federal, state and regional transportation planning mandates with street design concepts intended to support local implementation of the 2040 Growth Concept. The design concepts reflect the fact that streets perform many, often conflicting functions, and the need to reconcile conflicts among travel modes to make the transportation system safer for all modes of travel. Implementation of the design concepts is intended to promote community livability by balancing all modes of travel and address the function and character of surrounding land uses when designing streets of regional significance.

Regional street design concepts

Regional street design concepts are intended to serve multiple modes of travel in a manner that supports the specific needs of the 2040 land-use components. The street design concepts fall into five broad classifications:

- **Throughways** – emphasize motor vehicle travel and connect major activity centers, industrial areas and intermodal facilities
- **Boulevards** – serve major centers of urban activity and emphasize public transportation, bicycle and pedestrian travel while balancing the many travel demands of intensely developed areas
- **Streets** – serve transit corridors, main streets and neighborhoods with designs that integrate many modes of travel and provide easy pedestrian, bicycle and public transportation travel

- **Roads** – are traffic-oriented with designs that integrate all modes but primarily serve motor vehicles
- **Local streets** – complement the regional system by serving neighborhoods and carrying local traffic.

These design concepts apply to the regional system as they relate to specific 2040 Growth Concept land-use components. Figure 1.3 provides a chart of regional street design classifications for roadways that serve a given 2040 land use. The most appropriate street design classification for roadways that serve a given land use is indicated with a solid circle(s). Separate regional street design guidelines were developed to guide local implementation of the design concepts. A detailed discussion of these guidelines can be found in *Creating Livable Streets: Street Design for 2040*. The regional street design map, Figure 1.4, applies the regional street design concepts to streets of regional significance. Following Figure 1.4 is a detailed description of the purpose and design emphasis of each design concept.

**Figure 1.3
Regional Street Design Classifications
and the 2040 Growth Concept**

		Primary Components			Secondary Components				Other Urban Components				
		Central City	Regional Centers	Industrial Areas	Station Communities	Town Centers	Main Streets**	Corridors	Employment Areas	Inner Neighborhood	Outer Neighborhood	Exurban Areas	
Regional Street Design Classifications	Throughways	Freeway	<i>Throughways are not included in this chart because Freeway and Highway designs do not reflect adjacent land use.</i>										
	Highway												
	Boulevards	Regional Boulevard	●	●	○	●	●	●	○	○	○	○	
	Community Boulevard	●	●	○	●	●	●	○	○	○	○		
	Streets	Regional Street	○	○	○	○	○	●	●	○	●	●	
	Community Street	○	○	○	○	○	●	●	○	●	●		
	Roads	Urban Road			●					●			
Rural Road											●		

● Most appropriate street design classification

○ Appropriate street design classification in transition areas

** Main Streets feature Boulevard designs along key segments and at major intersections

Throughways

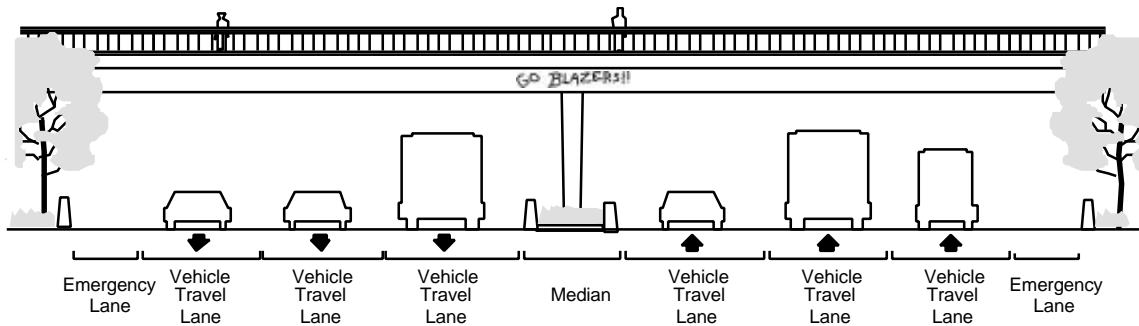
The purpose of throughways is to connect major activity centers within the region, including the central city, regional centers, industrial areas and intermodal facilities to one another and to points outside the region. Throughways are divided into limited access freeway designs where all intersections have separated grades, and highways that include a mix of separate and at-grade intersections.

Both freeways and highways are designed to provide high-speed travel for longer motor vehicle trips throughout the region, are primary freight routes and serve all 2040 Growth Concept land-use components. In addition to facility designs that promote mobility, throughways may also benefit from access management and advanced traffic management system techniques. These facilities may carry transit through-service, with supporting amenities limited to transit stations. These facilities may also incorporate transit-priority design treatment where appropriate, and may incorporate light rail or other high-capacity transit.

Freeways

Freeways usually consist of four to six vehicle travel lanes, with additional lanes in some situations. They are completely divided, with no left-turn lanes. Freeway designs have few street connections, and always occur at separated grades with access controlled by ramps. There is no driveway access to freeways or buildings oriented toward these facilities – only emergency parking is allowed. Freeway designs do not include pedestrian amenities, with the exception of improved crossings on overpasses and access ramps. Bikeways designed in conjunction with freeway improvements usually are separated facilities. Figure 1.5 illustrates a typical cross-section of a freeway.

Figure 1.5
Freeway Design Elements



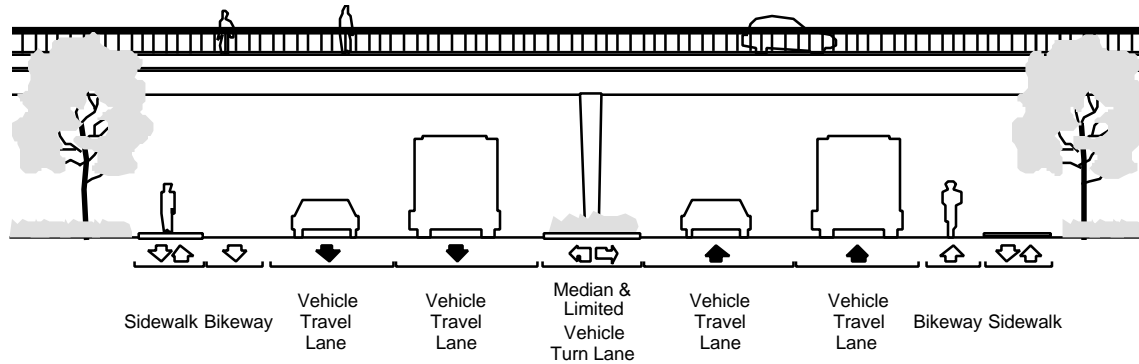
Source: Metro

Highways

Highways usually consist of four to six vehicle travel lanes, with additional lanes in some situations. Highway designs have few street connections, and they may occur at same-grade or on separate grades. Highways are usually divided with a median, but also have left-turn lanes where at-grade intersections exist. There are few driveways on highways, and buildings are not usually oriented toward these facilities. On-street parking is usually prohibited in highway designs, but may exist in some locations.

Highway designs include striped bikeways and sidewalks with optional buffering. Improved pedestrian crossings are located on overpasses, underpasses and at same-grade intersections. Figure 1.6 illustrates a typical cross-section of a highway.

Figure 1.6
Highway Design Elements



Source: Metro

Boulevards

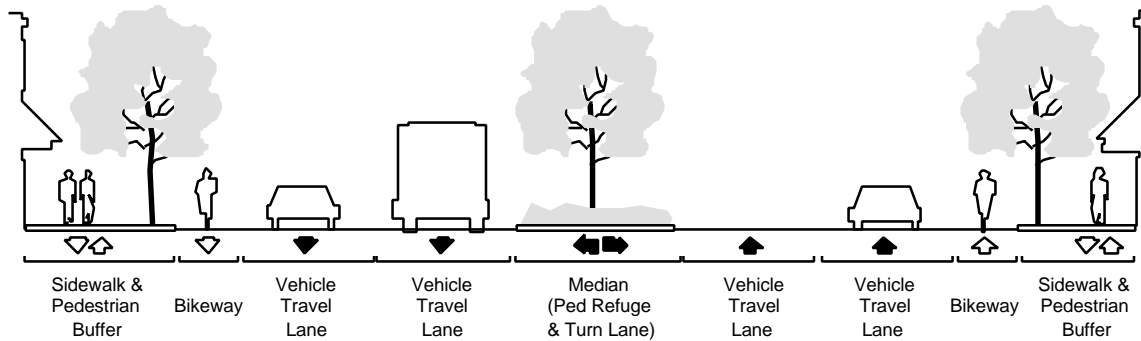
Boulevards are designed with special amenities that promote pedestrian, bicycle and public transportation travel in the districts they serve. Boulevards serve the multi-modal needs of the region's most intensely developed activity centers, including the central city, regional centers, station communities, town centers and some main streets. As such, these facilities may benefit from access management, traffic calming and ATMS techniques that reinforce pedestrian, bicycle and public transportation travel. Boulevards are divided into regional and community-scale designs.

Regional boulevards

Regional boulevards mix a significant amount of motor vehicle traffic with public transportation, bicycle and pedestrian travel where dense development is oriented toward the street. These designs feature low to moderate vehicle speeds and usually include four vehicle lanes. Additional lanes or one-way couplets may be included in some situations. Regional boulevards have many street connections and some driveways, although combined driveways are preferable. These facilities may include on-street parking when possible. The center median serves as a pedestrian refuge and allows for left-turn movements at intersections.

Regional boulevards are designed to be transit-oriented, with high-quality service and substantial transit amenities at stops and station areas. Pedestrian improvements are substantial on boulevards, including broad sidewalks, pedestrian buffering, special street lighting and crossings at all intersections with special crossing amenities at major intersections. These facilities have bike lanes or wide outside lanes where bike lanes are not physically possible, or are shared roadways where motor vehicle speeds are low. They also serve as primary freight routes and may include loading facilities within the street design. Loading facilities should occur on side streets, where feasible. Figure 1.7 illustrates a typical cross-section of a regional boulevard.

Figure 1.7
Regional Boulevard Design Elements

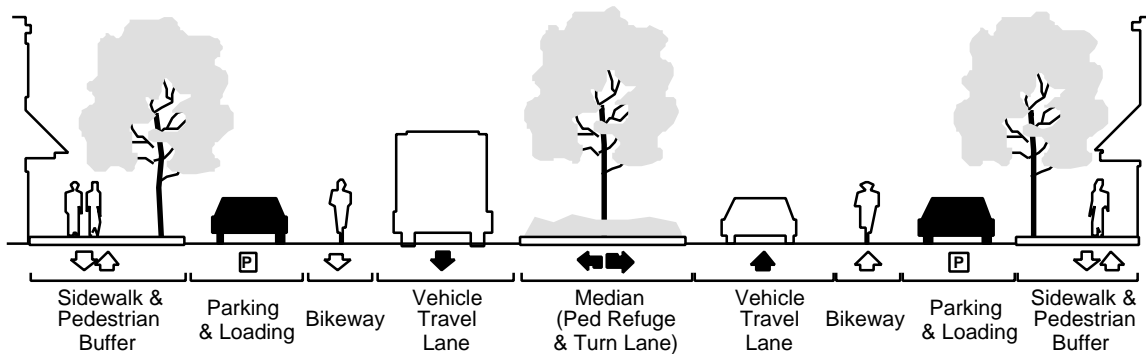


Source: Metro

Community boulevards

Community boulevards mix motor vehicle traffic with public transportation, bicycle and pedestrian travel where dense development is oriented toward the street. These facilities are designed for low motor vehicle speeds and usually include four vehicle lanes and on-street parking. Fewer vehicle lanes may be appropriate in some situations, particularly when necessary to provide on-street parking. Community boulevards have many street connections and some driveways, although combined driveways are preferable. Where appropriate, center medians offer a pedestrian refuge and allow for left turn movements at intersections. Figure 1.8 illustrates a typical cross-section of a community boulevard.

Figure 1.8
Community Boulevard Design Elements



Source: Metro

Community boulevards are designed to be transit-oriented, with high-quality service supported by substantial transit amenities at stops and station areas. Pedestrian improvements are also substantial,

including broad sidewalks, pedestrian buffering, special street lighting and crossings at all intersections with special crossing amenities at major intersections. Community boulevards have striped or shared bikeways and some on-street parking. These facilities also serve as secondary freight routes, and may include loading facilities within the street design. Loading facilities should occur on side streets, where feasible.

Boulevard intersections

Boulevard design classifications are usually focused on centers and some main streets where a pedestrian and transit-oriented street design can best complement higher density, mixed-use development patterns. However, there are many locations where corridors and some main streets intersect along major streets. At these intersections, motor vehicle traffic must be managed to limit negative impacts on other modes and adjacent land uses. While boulevard intersections accommodate a significant amount of motor vehicle traffic, they are designed with special amenities that promote pedestrian, bicycle and public transportation travel. Pedestrian improvements are substantial, including broad sidewalks, special lighting, crossings on all streets and special crossing features where unusually heavy motor vehicle traffic is present.

Streets

Streets are designed with amenities that promote pedestrian, bicycle and public transportation travel in the districts they serve, particularly where development densities warrant special transit and pedestrian design consideration. Streets serve the multi-modal needs of the region's corridors, neighborhoods and some main streets. As such, these facilities may benefit from access management, traffic calming and ATMS techniques that enhance pedestrian, bicycle and public transportation travel, while providing appropriate vehicle mobility. Streets are divided into regional and community scale designs.

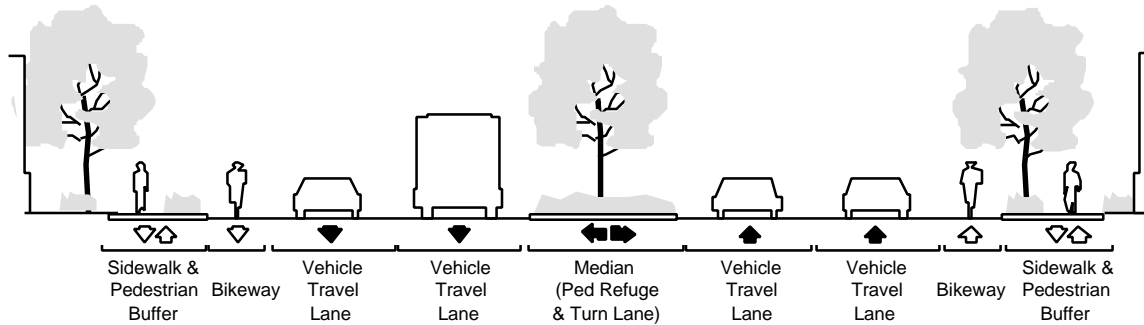
Regional streets

Regional streets are designed to carry significant vehicle traffic while also providing for public transportation, bicycle and pedestrian travel. These facilities serve a development pattern that ranges from low-density residential neighborhoods to more densely developed corridors and main streets, where buildings are often oriented toward the street at major intersections and transit stops. Regional street designs accommodate moderate motor vehicle speeds and usually include four vehicle lanes. Additional motor vehicle lanes may be appropriate in some situations. These facilities have some to many street connections, depending on the district they are serving. Regional streets have few driveways that are combined whenever possible. On-street parking may be included, and a center median serves as a pedestrian refuge and allows for left turn movements at intersections.

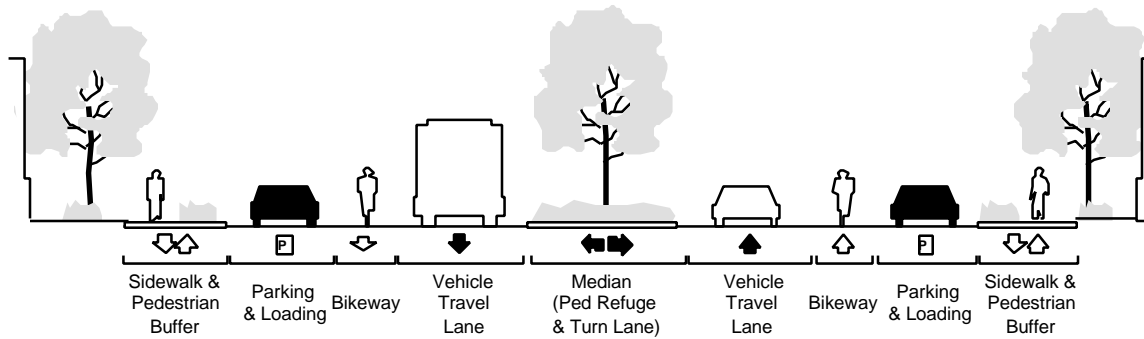
These facilities are designed to be transit-oriented, with high-quality service and substantial transit amenities at stops and station areas. Although less substantial than in boulevard designs, pedestrian improvements are important along regional streets, including sidewalks that are buffered from motor vehicle travel, crossings at all intersections and special crossing amenities at major intersections. Regional streets have bike lanes or wide outside lanes where bike lanes are not physically possible, or are shared roadways where motor vehicle speeds are low. They also serve as primary freight routes and may include loading facilities within the street design, where appropriate. Figure 1.9 illustrates a typical cross-section of a regional and community street.

Figure 1.9
Regional and Community Street Design Elements

Regional Street Design Elements



Community Street Design Elements



Source: Metro

Community streets

Community streets are designed to carry vehicle traffic while providing for public transportation, bicycle and pedestrian travel. These facilities serve lower-density residential neighborhoods as well as more densely developed corridors and main streets, where buildings are often oriented toward the street at main intersections and transit stops. Community street designs allow for moderate motor vehicle speeds and usually include four motor vehicle lanes and on-street parking. However, fewer travel lanes may be appropriate when necessary to provide for on-street parking. These facilities have some to many street connections, depending on the 2040 Growth Concept land-use components they serve. Community streets have few driveways that are shared when possible. A center median serves as a pedestrian refuge and allows for left-turn movements at intersections.

Community streets are transit-oriented in design, with transit amenities at stops and station areas. Although less substantial than in boulevard designs, pedestrian improvements are important on community streets, including sidewalks that are buffered from motor vehicle travel, crossings at all

intersections and special crossing features at major intersections. Community streets have striped or shared bikeways. These facilities also serve as secondary freight routes and may include loading facilities within the street design, where appropriate. Loading facilities should occur on side streets, where feasible.

Roads

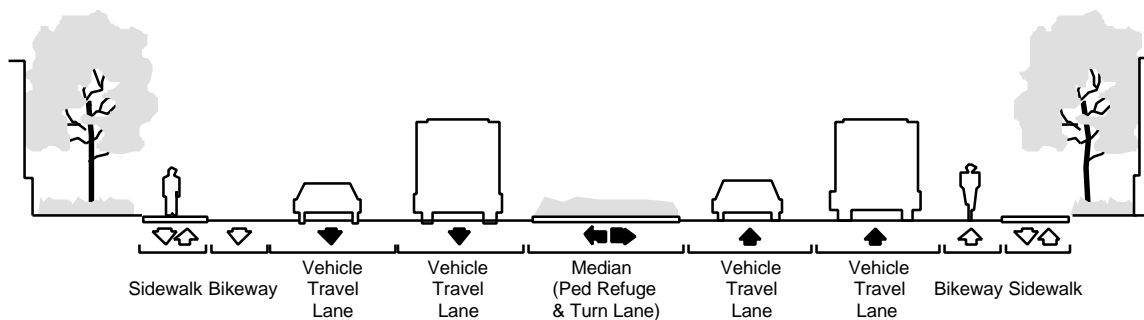
Roads are traffic-oriented designs that provide motor vehicle mobility in the 2040 Growth Concept land-use components they serve and accommodate a minimal amount of pedestrian and public transportation travel. These facilities may benefit from access management and ATMS techniques. Roads serve the travel needs of the region’s lower density industrial and employment areas as well as rural areas located outside the urban growth boundary. Roads are, therefore, divided into urban and rural designs.

Urban roads

These facilities are designed to carry significant motor vehicle traffic while providing for some public transportation, bicycle and pedestrian travel. Urban roads serve industrial areas, intermodal facilities and employment centers where buildings are less oriented toward the street. These facilities also serve new urban areas (UGB additions) where plans for urban land use and infrastructure are not complete. Urban roads are designed to accommodate moderate vehicle speeds and usually include four motor vehicle lanes, although additional lanes may be appropriate in some situations. These designs have some street connections, but few driveways. Urban roads rarely include on-street parking, and a center median primarily serves to optimize motor vehicle travel and to allow for left-turn movements at intersections.

Urban roads serve as primary freight routes and often include special design treatments to improve freight mobility. These facilities are designed for transit through-service, with limited amenities at transit stops. Sidewalks are included in urban road designs, although buffering is optional. Pedestrian crossings are included at intersections. Urban roads have striped bikeways. Figure 1.10 illustrates a typical cross-section of an urban road.

**Figure 1.10
Urban Road Design Elements**



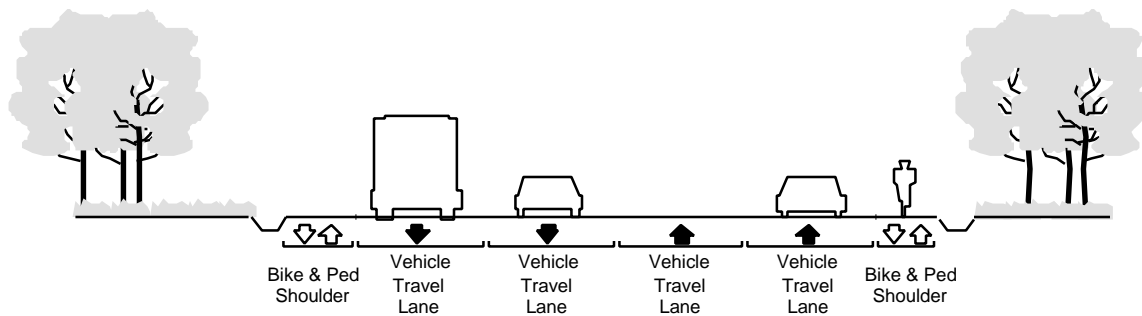
Source: Metro

Rural roads

Rural roads are designed to carry rural traffic while accommodating limited public transportation, bicycle and pedestrian travel. In some cases rural roads serve to connect urban traffic to throughways. Rural

roads serve urban reserves, rural reserves and green corridors, where development is widely scattered and usually located away from the road. These facilities are designed to allow moderate motor vehicle speeds and usually consist of two to four motor vehicle lanes, with occasional auxiliary lanes appropriate in some situations. Rural roads have some street connections and few driveways. On-street parking occurs on an unimproved shoulder, and is usually discouraged. These facilities may include center turn lanes, where appropriate. Figure 1.11 illustrates a typical cross-section of a rural road.

**Figure 1.11
Rural Road Design Elements**



Source: Metro

Rural roads serve as primary freight routes and often provide important farm-to-market connections. Special design treatments to improve freight mobility are therefore important in these designs. Rural roads rarely serve public transportation, but may include limited amenities at rural transit stops where transit service does exist. Bicycles and pedestrians share a common striped shoulder on these facilities, and improved pedestrian crossings occur only in unique situations (such as rural schools or commercial districts).

Policy 12.0. Local Street Design

Design local street systems to complement planned land uses and to reduce dependence on major streets for local circulation, consistent with Section 6.4.5 in Chapter 6 of this plan.

Local streets include all facilities not identified on the regional motor vehicle system map in Figure 1.11 of this plan. Local streets serve the immediate travel needs of the region at the neighborhood level. These facilities are multi-modal and are designed to serve most short automobile, bicycle and pedestrian trips. They generally do not carry freight in residential areas, but are important to freight movement in industrial and commercial areas. Local streets may serve as transit routes in some situations. Local street designs include many connections with other streets, and bicycle and pedestrian accessways where topography or existing development patterns prevent full street extensions.

Policy 13.0. Regional Motor Vehicle System

Provide a regional motor vehicle system of arterials and collectors that connect the central city, regional centers, industrial areas and intermodal facilities, and other regional destinations, and provide mobility within and through the region.

- a. Objective: Provide for statewide, national and international connections to and from the region, consistent with the Oregon Transportation Plan.
- b. Objective: Provide a system of principal arterials for long-distance, high-speed, interstate, inter-region and intra-region travel.
- c. Objective: Provide an adequate system of arterials that supports local and regional travel.
- d. Objective: Provide an adequate system of local streets that supports localized travel, thereby reducing dependence on the regional system for local travel.
- e. Objective: Maintain an acceptable level of service on the regional motor vehicle system during peak and off-peak periods of demand, as defined in Table 1.2.
- f. Objective: Minimize the effect of improved regional access outside the urban area.
- g. Objective: Minimize the impact of urban travel on rural land uses. Limit access to and minimize urban development pressure on rural land uses and resource lands by maintaining appropriate levels of access to support rural activities, while discouraging urban traffic.
- h. Objective: Implement a congestion management system to identify and evaluate low cost strategies to mitigate and limit congestion in the region.

These policies and objectives direct the region's planning and investment in the regional motor vehicle system. The regional motor vehicle system is designed to provide access to the central city, regional centers, industrial areas and intermodal facilities with an emphasis on mobility between these destinations. The regional motor vehicle system is shown in Figure 1.12 of this plan.

This plan recognizes the need to accommodate a variety of trip types on the regional motor vehicle system that include personal errands, commuting to work or school, commerce, freight movement and public transportation. In general, this plan recognizes there would be a higher degree of mobility during the mid-day compared to the peak-hour. Although focused on motor vehicle travel, the system described in this section is multi-modal, with design criteria intended to serve motor vehicle mobility needs while reinforcing the urban form of the 2040 Growth Concept. While the motor vehicle system usually serves bicycle and pedestrian travel, the system is designed to limit impacts of motor vehicles on pedestrian and transit-oriented districts.

Finally, the Regional Transportation Plan must demonstrate that it defines an adequate transportation system to serve planned land uses. The motor vehicle performance measures identified in Table 1.2 serve as the basis for making this determination.

In areas of special concern, substitute performance measures identified in Chapter 6 will be used to make a determination of whether the transportation system is adequate to serve planned land uses. Areas with this designation are planned for mixed used development, but are also characterized by physical, environmental or other constraints that limit the range of acceptable transportation solutions for addressing a level-of-service need, but where alternative routes for regional through-traffic are provided. Figure 1.13 in this chapter defines areas where this designation applies. In these areas, substitute performance measures are allowed by OAR.660.012.0060(1)(d). Provisions for determining the alternative performance measures are included in Section 6.7.7 of this plan. Adopted performance measures for these areas are detailed in Appendix 3.6.

Table 1.2
Regional Motor Vehicle Performance Measures
 Deficiency Thresholds and Operating Standards¹

Location	Mid-Day One-Hour Peak			A.M./P.M. Two-Hour Peak					
	Preferred Operating Standard	Acceptable Operating Standard	Exceeds Deficiency Threshold	Preferred Operating Standard		Acceptable Operating Standard		Exceeds Deficiency Threshold	
				1st Hour	2nd Hour	1st Hour	2nd Hour	1st Hour	2nd Hour
Central City Regional Centers Town Centers Main Streets Station Communities	C	E	F	E	E	F	E	F	F
Corridors Industrial Areas Intermodal Facilities Employment Areas Inner Neighborhoods Outer Neighborhoods	C	D	E	E	D	E	E	F	E
Banfield Freeway¹ <i>(from I-5 to I-205)</i>	C	E	F	E	E	F	E	F	F
I-5 North* <i>(from Marquam Bridge to Interstate Bridge)</i>	C	E	F	E	E	F	E	F	F
Highway 99E¹ <i>(from the Central City to Highway 224 interchange)</i>	C	E	F	E	E	F	E	F	F
Sunset Highway¹ <i>(from I-405 to Sylvan interchange)</i>	C	E	F	E	E	F	E	F	F
Stadium Freeway¹ <i>(I-5 South to I-5 North)</i>	C	E	F	E	E	F	E	F	F
Other Principal Arterial Routes	C	D	E	E	D	E	E	F	E
Areas of Special Concern	<p>Areas with this designation are planned for mixed used development, but are also characterized by physical, environmental or other constraints that limit the range of acceptable transportation solutions for addressing a level-of-service need, but where alternative routes for regional through-traffic are provided. Figures 1.13.a-e in this chapter define areas where this designation applies. In these areas, substitute performance measures are allowed by OAR.660.012.0060(1)(d). Provisions for determining the alternative performance measures are included in Section 6.7.7 of this plan. Adopted performance measures for these areas are detailed in Appendix 3.3.</p>								

Level-of-service is determined by using either the latest edition of the Highway Capacity Manual (Transportation Research Board) or through volume to capacity ratio equivalencies as follows: LOS C = .8 or better; LOS D = .8 to .9; LOS E = .9 to 1.0; and LOS F = 1.0 to 1.1. A copy of the level of service tables from the Highway Capacity Manual is shown in Appendix 1.6.

¹ Thresholds shown are for interim purposes only; refinement plans for these corridors are required in Chapter 6 of this plan, and will include a recommended motor vehicle performance policy for each corridor.

Source: Metro

Figure 1.13.a
Portland Central City
Area of Special Concern



The Portland central city area east of the Willamette River and generally within the I-405 freeway ring has an extensive grid of well-connected arterial, collector and local streets. The Willamette River bridges are a key part of the transportation system, connecting the central city and adjacent neighborhoods to the region. The hilly topography has constrained much of the transportation system in the Northwest and Southwest portions of the central city. Despite these limitations, this area is expected to continue to be served by high-quality transit and be conducive to bicycle and pedestrian travel. Refer to Appendix 3.3 for detail on alternative performance measures identified for this area of special concern.

Figure 1.13.b
Gateway Regional Center
Area of Special Concern



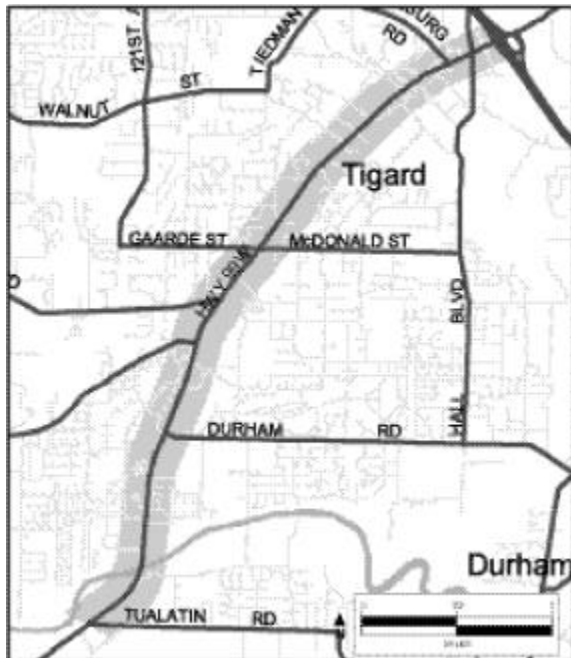
Gateway regional center is defined as a major crossroads of transportation that is impacted by through traffic that is not destined for the regional center such and which presents barriers to local circulation where congested through-streets isolate some parts of the regional center. Refer to Chapter 6 for detail on refinement planning identified for this area of special concern.

Figure 1.13.c
Beaverton Regional Center
Area of Special Concern



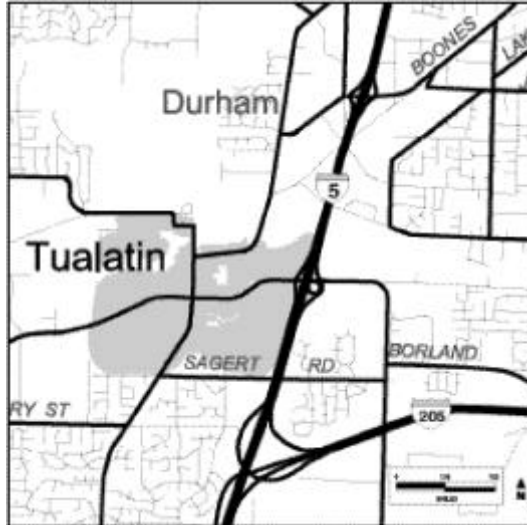
Beaverton has historically been defined as a crossroads of transportation, with both the advantages and limitations that heavy through traffic brings. While the level of access has helped make the Beaverton regional center a focus of commerce in Washington County, it also presents barriers to local circulation where congested through-streets isolate some parts of the area. Refer to Appendix 3.3 for detail on alternative performance measures identified for this area of special concern.

Figure 1.13.d
Highway 99W
Area of Special Concern



The Highway 99W corridor between Highway 217 and Tualatin Road is designated as a mixed-use corridor in the 2040 Growth Concept and connects the Tigard and Tualatin town centers. This corridor is also designated as an area of special concern due to existing development patterns and economic constraints that limit adding capacity to address heavy travel demand in this corridor. Local planning studies have found that approximately 50 percent of the traffic using this corridor is local. The Regional Transportation Plan establishes the proposed I-5 to 99W connector as the principal route connecting the Metro region to the 99W corridor outside of the region as an alternative to 99W. Refer to Chapter 6 for detail on refinement planning identified for this area of special concern.

Figure 1.13.e
Tualatin Town Center
Area of Special Concern



Tualatin town center is adjacent to an important industrial area and employment center. New street connections and capacity improvements to streets parallel to 99W and I-5 help improve local circulation and maintain adequate access to the industrial and employment area in Tualatin. However, the analysis of travel demand on regional streets shows that several streets continue to exceed the LOS policy established in Table 1.2, including Hall Boulevard and Boones Ferry Road. Refer to Chapter 6 for detail on refinement planning identified for this area of special concern.

Regional Motor Vehicle Functional Classification System

The regional motor vehicle system includes principal arterials, major and minor arterials, rural arterials and collectors of regional significance. These routes are designated on the motor vehicle system map, Figure 1.12. Local comprehensive plans also include additional minor arterials, collectors and local streets. Figure 1.14 provides a chart of the regional motor vehicle functional classifications and their relationship to the regional street design classifications. The most appropriate street design classification for roadways that serve a given functional classification is indicated with a solid circle(s). Following Figure 1.14 is a detailed description of the regional motor vehicle functional classification categories.

Figure 1.14
Relationship Between Regional Street Design
and Motor Vehicle Classifications

		Regional Street Design Classifications				
		Throughways	Boulevards	Streets	Roads	Local Streets
		Freeway Highway	Regional Boulevard Community Boulevard	Regional Street Community Street	Urban Road Rural Road	Local Street Design
Regional Motor Vehicle Functional Classifications	Principal Arterial	● ●			● ●	
	Major Arterial		●	●	● ●	
	Minor Arterial			●	● ●	
	Collector		●	●	● ●	●
	Local Street					●

● Most appropriate street design classification

Source: Metro

The following are the regional functional classification categories:

Principal arterials: These facilities form the backbone of the motor vehicle network. Motor vehicle trips entering and leaving the urban area follow these routes, as well as those destined for the central city, regional centers, industrial areas or intermodal facilities. These routes also form the primary connection between neighbor cities and the urban area. Principal arterials serve as major freight routes, with an emphasis on mobility. These routes fall within regional freeway, highway and road designs, as defined in the regional street design concepts.

Principal arterial system design criteria:

- Principal arterials should provide an integrated system that is continuous throughout the urbanized area and should also provide for statewide continuity of the rural arterial system.
- The principal arterial system should serve the central city, regional centers, industrial areas and intermodal facilities, and should connect key freight routes within the region to points outside the region.

- A principal arterial should provide direct service: from each entry point to each exit point or from each entry point to the central city. If more than one route is available, the most direct route will be designated as the principal arterial when it supports the planned urban form.

Major arterials: These facilities serve as primary links to the principal arterial system. Major arterials, in combination with principal arterials, are intended to provide general mobility for travel within the region. Motor vehicle trips between the central city, regional centers, industrial areas and intermodal facilities should occur on these routes. Major arterials serve as freight routes, with an emphasis on mobility. These routes fall within regional boulevard, regional street, urban road and rural road designs, as defined in the regional street design concepts.

Major arterial system design criteria:

- Major arterials should provide motor vehicle connections between the central city, regional centers, industrial areas and intermodal facilities and connect to the principal arterial system. If more than one route is available, the more direct route will be designated when it supports the planned urban form.
- Major arterials should serve as primary connections to principal arterials, and should also connect to other arterials, collectors and local streets, where appropriate.
- Freight movement should not be restricted on the principal arterial network.
- The principal and major arterial systems in total should comprise 5-10 percent of the motor vehicle system and carry 40-65 percent of the total vehicle miles traveled.

Minor arterials: The minor arterial system complements and supports the principal and major arterial systems, but is primarily oriented toward motor vehicle travel at the community level connecting town centers, corridors, main streets and neighborhoods. As such, minor arterials usually serve shorter trips than principal and major arterials, and therefore must balance mobility and accessibility demands. Minor arterials may serve as freight routes, providing both access and mobility. These routes fall within community boulevard, community street, urban road and rural road designs, as defined in the regional street design concepts.

Minor arterial system design criteria:

- Minor arterials generally connect town centers, corridors, main streets and neighborhoods to the nearby regional centers or other major destinations.
- Minor arterials should connect to major arterials, collectors, local streets and some principal arterials, where appropriate.
- The principal, major and minor arterial system should comprise 15-25 percent of the motor vehicle system and carry 65-80 percent of the total vehicle miles traveled.

Rural arterials: The rural arterial system serves urban reserve areas, rural reserve areas and green corridors. There are two functional categories of rural arterial – urban-to-urban and farm-to-market. Urban-to-urban rural arterials provide key connections to the regional motor vehicle system and 2040 land-use components inside the urban growth boundary. While principal arterials provide primary connections from the Metro region to neighboring cities, urban-to-urban rural arterials also function as secondary connections to neighboring cities. Farm-to-market rural arterials provide farm-to-market access between urban and rural areas.

Collectors: While some collectors are of regional significance, most of the collector system operates at the community level to provide local connections to the minor and major arterial systems. As such, collectors

carry fewer motor vehicles than arterials, with reduced travel speeds. However, an adequate collector system is needed to serve these local motor vehicle travel needs. Collectors may serve as freight access routes, providing local connections to the arterial network. Collectors fall within the plan's local street design principles.

Collectors of regional significance connect the regional arterial system and the local collector system by collecting and distributing neighborhood traffic to arterials. Collectors of regional significance have three purposes. First, these facilities ensure adequate access to the primary and secondary land-use components of the 2040 Growth Concept. Second, collectors of regional significance allow dispersion of arterial level traffic over a number of lesser facilities where an adequate local street network exists. Third, collectors of regional significance help define appropriate collector level movement between jurisdictions.

Collector system design criteria:

- Collectors should connect neighborhoods to nearby centers, corridors, station areas, main streets and other nearby destinations.
- Collectors should connect to minor and major arterials and other collectors, as well as local streets.
- The collector system should comprise 5-10 percent of the motor vehicle system and carry 5-10 percent of the total vehicle miles traveled.

Local streets: The local street system is used throughout the region to provide for local circulation and access. However, arterials in the region's newest neighborhoods are often the most congested due to a lack of local street connections. The lack of local street connections forces local auto trips onto the principal and major arterial network, resulting in significant congestion on many suburban arterials. These routes fall within the plan's local street design principles.

Local Street System Design Criteria:

- Local streets should connect neighborhoods, provide local circulation and give access to adjacent centers, corridors, station areas and main streets.
- The local street system should be designed to serve local, low-speed motor vehicle travel with closely interconnected local streets intersecting at no more than 530-foot intervals. Closed local street systems are appropriate only where topography, environmental or infill limitations exist. Local streets should connect to major and minor arterials and collectors at a density of 10 to 16 street intersections per mile.
- Local streets should comprise 65-80 percent of the motor vehicle system and carry 10-30 percent of the total vehicle miles traveled.

Policy 14.0. Regional Public Transportation System

Provide an appropriate level, quality and range of public transportation options to serve this region and support implementation of the 2040 Growth Concept, consistent with Figures 1.15 and 1.16.

- a. Objective: Serve this region with appropriate public transportation service as defined in Figures 1.15 and 1.16.
- b. Objective: Continue to work with local jurisdictions and Tri-Met to implement Tri-Met's Transit Choices for Livability community transit plan.
- c. Objective: Provide transit service that is accessible to the mobility impaired and provide para-transit to the portions of the region without adequate fixed-route service to comply with the Americans with Disabilities Act of 1990.
- d. Objective: Develop a long-term strategy for potential use of freight railroad lines for passenger use and work with jurisdictions inside and outside of the Metro area to explore other commuter rail opportunities.

Policy 14.1. Public Transportation Awareness and Education

Expand the amount of information available about public transportation to allow more people to use the system.

- a. Objective: Increase awareness of public transportation and how to use it through expanded education and public information media and easy to understand schedule information and format.
- b. Objective: Improve mechanisms for receiving and responding to feedback from public transportation users.
- c. Objective: Explore new technologies to improve the availability of schedule, route, transfer and other service information.

Policy 14.2. Public Transportation Safety and Environmental Impacts

Continue efforts to make public transportation an environmentally-friendly and safe form of motorized transportation.

- a. Objective: Continue to reduce the amount of air pollutants and noise generated by public transportation vehicles.
- b. Objective: Support efforts by the region's transit providers to improve the existing level of passenger safety and security on public transportation and reduce the number of avoidable accidents involving transit vehicles.

Policy 14.3. Regional Public Transportation Performance

Provide transit service that is fast, reliable and has competitive travel times compared to the automobile.

- a. Objective: Transit travel time (in-vehicle) for trips on light rail transit and rapid bus routes during the peak hours of service should be no slower than 150 percent of the auto travel time during the off-peak hours. Exceeding this threshold would result in considering preferential treatment to the road system for transit and express operation.
- b. Objective: Total transit travel time (in-vehicle + non-weighted wait time) for trips on regional bus routes should be no slower than 200 percent of the total auto travel time.

These policies and objectives direct the region's planning and investment in the regional public transportation system. Public transportation has been an increasingly important component of our region's transportation system during the past 25 years. In the next 20 years, public transportation will play a critical role in linking people to activity centers throughout the region and getting them around their local communities. On an average weekday in 1998, approximately 186,000 riders used the bus and rail systems in this region. By 2020 that number is expected to increase to 500,000 riders as a result of expected growth and transit improvements identified in this plan.

**Figure 1.15
Relationship Between 2040 Growth Concept
and Public Transportation System**

Service Type		Primary Components					Secondary Components				Other Urban Components		
		Central City	Regional Centers	Industrial Areas	Intermodal Facilities		Station Communities	Town Centers	Main Streets	Corridors	Employment Areas	Inner Neighborhood	Outer Neighborhood
					PDX	Union Station							
Regional Transit Network	LRT	●	●		○	○	●	○					
	Commuter Rail	●	●			●		○					
	Rapid Bus	●	●			○	○			○			
	Streetcar & Frequent Bus	●	●			○	○	○	●	○		○	
	Regional Bus	●	●	○		○	○	●	○	●	○	○	
Community Transit Network	Community Bus	○	○	●	●		○	○	○	○	●	●	○
	Mini-Bus	○	○	○			○	○	○	○	●	○	●
	Paratransit	○	○	○			○	○	○	○	○	○	○
	Park-and-Ride		●				○	○		○		○	●
Inter-Urban Transit	Inter-urban Rail	●	○			●		○					
	Inter-city Bus	●	●			○	●		○				

● Best public transportation mode(s) designed to serve growth concept land use components
 ○ Additional public transportation mode(s) that may serve growth concept land use components

Figure 1.15 provides a hierarchy of public transportation service for 2040 Growth Concept land-use components. "Core service" is defined as the most efficient level of public transportation service planned for a given land use and is indicated with a solid circle(s). A description of each type of core service follows the public transportation policies.

Source: Metro

Regional public transportation system components

Metro's role is to establish a 20-year plan for regional transit improvements, such as major bus or rail service, through the Regional Transportation Plan. Tri-Met is the primary public transportation provider for the metropolitan region and is committed to providing the appropriate level of transit service to achieve regional 2040 Growth Concept objectives. Tri-Met implements transit improvements identified in the Regional Transportation Plan through annual updates and expansions to their service plan. In addition, Tri-Met plans for improvements to community-level transit service, such as local bus lines or lift

services. Annual growth trends, ridership and traffic congestion are all considerations in where expanded transit service is most needed each year.

However, this plan recognizes that providers other than Tri-Met are needed to serve special transportation needs. Other public transit operators in region include SMART, which serves the Wilsonville area, and C-Tran, which serves Clark County and includes bus service to points in Portland. Metro works with these operators, as well, to ensure that planned transit service is adequate to meet our 20-year needs. While this is not required in this plan, Metro is committed to helping coordinate agreements to address special needs as they arise. Such special needs may be served by private service providers, public/private partnerships, or public actions, as appropriate.

Public transportation should serve the entire urban area, and the hierarchy of service types described in this section defines what level and type of service is appropriate for specific areas of the region. The public transportation system is divided in three categories based on frequency of service and the areas of the region each network serves – the regional transit network, or RTN; the community transit network, or CTN; and interurban public transportation. The regional public transportation system map, Figure 1.16, depicts the regional transit network and interurban public transportation components.

The following section describes:

- the types of transit service each network provides;
- the principal 2040 Growth Concept land-use components (primary and secondary) served by each service type; and
- facility design guidelines to provide an appropriate operating environment and level of pedestrian and bicycle accessibility.

Regional transit network

The regional transit network is a fast and frequent transit system designed to serve the primary land-use components identified in the 2040 Growth Concept, including central city, regional centers, industrial areas and intermodal facilities such as the Portland International Airport. This system serves as the framework for consistency among plans of local jurisdictions and Tri-Met and consists of six major transit modes that operate at frequencies of 15 minutes or less all day. The six primary transit modes included in this plan are light rail transit, commuter rail, rapid bus, streetcar, frequent bus and regional bus service. The regional transit network is designed to provide convenient transit access and improve connections between transit modes. Any transit trip between two points located in a primary or secondary 2040 Growth Concept land-use component could be completed on the regional transit network. This includes the central city, regional centers, town centers, main streets, stations areas or corridors. The following is a description of the functional and operational characteristics of the regional transit network's major transit modes.

Light rail transit. Light rail transit (LRT) is a frequent and high-capacity service that operates on a fixed guideway within an exclusive right-of-way to the extent possible, connecting the central city with regional centers. LRT also serves existing regional public attractions such as Civic Stadium, the Oregon Convention Center and the Rose Garden, and station communities. LRT service runs at least every 10 minutes during the weekday and weekend midday base periods with limited stops and operates at higher speed outside of downtown Portland. A high level of passenger amenities are provided at transit stations and station communities including schedule information, ticket machines, special lighting,

benches, shelters, bicycle parking and commercial services. The speed and schedule reliability of LRT can be maintained by the provision of signal preemption at-grade crossings and/or intersections.

Commuter rail. Commuter rail is the use of existing freight railroad tracks either exclusively or shared with freight use, for passenger service. The service is typically focused on peak commute periods but can be offered other times of the day when demand exists and where rail capacity is available. The stations are typically located one or more miles apart, depending on the overall route length. Stations offer basic amenities for passengers, bus and LRT transfer opportunities and parking if supported by adjacent land uses.

Rapid bus. Regional rapid bus service emulates LRT service in speed, frequency and comfort, serving major transit routes with limited stops. This service runs at least every 15 minutes during the weekday and weekend mid-day base periods. Passenger amenities are concentrated at transit centers. Regional rapid bus passenger amenities include schedule information, ticket machines, special lighting, benches, covered bus shelters and bicycle parking.

Street cars. Street cars provide fixed-route transit service for more locally oriented trips in higher density mixed-use centers. This service runs at least every 15 minutes and includes transit preferential treatments such as signal preemption and enhanced passenger amenities along the corridor such as covered bus shelters, curb extensions and special lighting.

Frequent bus. Frequent bus service provides slightly slower, but more frequent, local bus service than rapid bus along selected transit corridors. This service runs at least every 10 minutes and includes transit preferential treatments such as reserved bus lanes and signal preemption and enhanced passenger amenities along the corridor and at major bus stops such as covered bus shelters, curb extensions, special lighting and median stations.

Regional bus. Regional bus service is provided on most major urban streets. This type of bus service operates with maximum frequencies of 15 minutes with conventional stop spacing along the route. Transit preferential treatments and passenger amenities such as covered bus shelters, special lighting, signal preemption and curb extensions are appropriate at high ridership locations.

Major transit stops. Major transit stops are intended to provide a high degree of transit passenger comfort and access. Major transit stops are located at stops on light rail, commuter rail, rapid bus, frequent bus or streetcar lines in the central city, regional and town centers, main streets and corridors. Major transit stops may also be located where bus lines intersect or serve intermodal facilities, major hospitals, colleges and universities. Major transit stops shall provide schedule information, lighting, benches, shelters and trash cans. Other features may include real time information, special lighting or shelter design, public art and bicycle parking.

Pedestrian district. A pedestrian district is a comprehensive plan designation or implementing land use regulations designed to provide safe and convenient pedestrian circulation, with a mix of uses, density, and design that support high levels of pedestrian activity and transit use. The pedestrian district can be a concentrated area of pedestrian activity or a corridor. Pedestrian districts can be designated within the 2040 Design types of Central City, Regional and Town Centers, Corridors and Main Streets, as designated in local plans. Pedestrian districts emphasize a safe and convenient pedestrian environment, and facilities to support and integrate efficient use of several modes within one area (e.g., pedestrian, auto, transit, and bike).

Community transit network (CTN)

Underlying the primary transit network of fast and frequent service is a community network of transit service that provides more locally-oriented public transportation. Tri-Met and local jurisdictions will develop specific elements of the community transit network. The community transit network is comprised of community bus, mini-bus, para-transit and park-and-ride service. This service is focused more on accessibility, frequency of service along the route and coverage to a wide range of land use options rather than on speed between two points. Community transit is designed as an alternative to the single-occupant vehicle by providing frequent reliable service. Community bus service generally is designed to serve travel with one trip end occurring within a secondary land use component, including town centers, main streets, station communities and corridors.

Community bus. Community bus lines provide coverage and access to primary and secondary land-use components. Community bus service runs as often as every 30 minutes on weekdays. Weekend service is provided as demand warrants.

Mini-bus. Mini-bus service provides coverage in lower density areas by providing transit connections to primary and secondary land-use components. Mini-bus services, which may range from fixed route to purely demand responsive including dial-a-ride, employer shuttles and bus pools, provide at least a 60-minute response time on weekdays. Weekend service is provided as demand warrants.

Para-transit. Para-transit service is defined as non-fixed route service that serves special transit markets, including “ADA” service throughout the greater metro region.

Park-and-ride. Park-and-ride facilities provide convenient auto access to regional trunk route service for areas not directly served by transit. Bicycle and pedestrian access as well as parking and storage accommodations for bicyclists are considered in the siting process of new park-and-ride facilities. In addition, the need for a complementary relationship between park-and-ride facilities and regional and local land use goals exists and requires periodic evaluation over time for continued appropriateness.

Interurban public transportation

The federal ISTEA has identified interurban travel and passenger “intermodal” facilities (e.g., bus and train stations) as a new element of regional transportation planning. The following interurban components are important to the regional transportation system:

Passenger rail. Inter-city high-speed rail (up to 79 miles per hour) is part of the state transportation system and extends from the Willamette Valley north to British Columbia. Amtrak already provides service south to California, east to the rest of the continental United States and north to Canada. These systems should be integrated with other public transportation services within the metropolitan region with connections to passenger intermodal facilities. High-speed rail needs to be complemented by urban transit systems within the region.

Inter-city bus. Inter-city bus connects points within the region to nearby destinations, including neighboring cities, recreational activities and tourist destinations. Several private inter-city bus services are currently provided in the region.

Passenger intermodal facilities. Passenger intermodal facilities serve as the hub for various passenger modes and the transfer point between modes. These facilities are closely interconnected with urban

public transportation service and highly accessible by all modes. They include Portland International Airport, Union Station and inter-city bus stations.

Transit service for special needs populations

Public transportation service often provides the only available transportation service to many people in the region, including students, the elderly, the economically disadvantaged, the mobility impaired and others with special needs. It is important that the region's transportation service providers consider the special needs of those people who rely on their services as their primary transportation option for access to jobs, job training and services. Section 6.8.12 describes a collaborative effort that is underway for special transportation planning in the tri-county area. As sponsors of this plan, the Areas Agencies on Aging and Disabilities of Washington, Multnomah and Clackamas counties, Tri-Met and the Special Transportation Fund Advisory Committee are coordinating a broad-based effort to create an elderly and disabled transportation services plan. The plan will develop special needs transportation options for both the urban and rural portions of the tri-county area and will be included in the Regional Transportation Plan. In anticipation of completing this program, interim policies and objectives have been included in the RTP. These policies will be updated during the next RTP update, reflecting the recommendations from the special needs transit plan.

Policy 15.0. Regional Freight System

Provide efficient, cost-effective and safe movement of freight in and through the region.

- a. Objective: Provide high-quality access between freight transportation corridors and the region's freight intermodal facilities and industrial sanctuaries.
- b. Objective: Maintain a reasonable and reliable travel time for moving freight through the region in freight transportation corridors that enhances the region's economic competitive advantage.
 - Freight operation (such as weigh-in-motion, automated truck counts, enhanced signal timing on freight connectors).
 - Where appropriate, consider improvements that are dedicated to freight travel only.
- c. Objective: Consider the movement of freight when conducting multi-modal transportation studies.
- d. Objective: Work with the private sector, local jurisdictions, ODOT and other public agencies to:
 - develop the regional Intermodal Management System (IMS) and Congestion Management System (CMS)
 - monitor the efficiency of freight movements on the regional transportation network
 - identify existing and future freight mobility problems and opportunities
 - reduce inefficiencies or conflicts on the freight network
 - maximize use of ship, rail, air and truck for a multi-modal freight system
 - address safety concerns related to freight.
- e. Objective: Coordinate public policies to reduce or eliminate conflicts between current and future land uses, transportation uses and freight mobility needs, including those relating to:
 - land use changes/encroachments on industrial lands; and
 - transportation and/or land use actions or policies that reduce accessibility to terminal facilities or reduce the efficiency of the freight system.
- f. Objective: Ensure that jurisdictions develop local strategies that provide adequate freight loading and parking strategies in the central city, regional centers, town centers and main streets.
- g. Objective: Develop improved measures of freight movement as defined in the 2040 Growth Concept.
- h. Objective: Correct existing safety deficiencies on the freight network relating to:
 - roadway geometry and traffic controls;
 - bridges and overpasses;
 - at-grade railroad crossings;
 - truck infiltration in neighborhoods; and
 - congestion on interchanges and hill climbs.

Policy 15.1. Regional Freight System Investments

Protect and enhance public and private investments in the freight network.

- a. Objective: Improve opportunities for partnerships between the private freight transportation industry and public agencies to improve and maintain the region's integrated multi-modal freight network:
 - work with the private transportation industry, Oregon Economic Development Department, Portland Development Commission, Port of Portland and others to identify and realize investment opportunities that enhance freight mobility and support the state and regional economy
- b. Objective: Analyze market demand and linkages in estimating and expanding the life of public investments in the freight network.
- c. Objective: Encourage efforts to provide flexible public funding for freight mobility investments.

These policies and objectives direct the region's planning and investment in the regional freight system. Freight mobility is the movement of goods and services. National and international freight movement contributes significantly to our regional economy, and will likely play an even larger role in the future. The region's relative number of jobs in transportation and wholesale trade exceeds the national average. The regional economy has historically, and continues to be, closely tied to the transportation and distribution sectors. This trend is projected to continue. A study of goods movement in the region, the 2040 Commodity Flow analysis, predicts freight volume to more than double by 2040 – a rate higher than projected population growth.

The significant growth in freight projected by the 2040 Commodity Flow Analysis indicates the need to make available adequate land for expansion of intermodal facilities, manufacturing, wholesale and distribution activities, and to continue maintaining and enhancing the freight transportation network. The 2040 Growth Concept identifies industrial sanctuaries for distribution and manufacturing activities. Figure 1.17 identifies the transportation infrastructure and intermodal facilities that serve these land uses and commodities that flow through the region to national and international markets.

Regional freight system functional classification system

The following definitions reflect the regional freight system functional classification categories shown in Figure 1.17.

Main roadway route. Main roadway routes connect major activity centers in the region to other areas in Oregon or other states throughout the U.S., Mexico and Canada.

Road connectors. A road that connects freight facilities or freight generation areas to the main roadway route.

Main railroad line. Class I rail lines (e.g., Union Pacific and Burlington Northern/Sante Fe).

Branch railroad lines. Non-Class I rail lines, including shortline or branch lines.

Marine facility. A facility where freight is transferred between water-based and land-based modes.

Reload facility. A facility that serves as the primary gateway for freight entering and leaving the region by truck.

Air cargo facility. A facility that has direct access to an airport runway and transfers commodities between airplanes and land-based modes.

Distribution facility. A facility where freight is reloaded from one land-based mode to another for further distribution.

Truck terminal. A facility that serves as a primary gateway for commodities entering/leaving the region by truck. A truck terminal operates only truck to truck transfers of commodities.

Intermodal facility. An intermodal facility is a transportation element that accommodates and interconnects different modes of transportation and serves the statewide, interstate and international movement of people and goods.

Intermodal railyard. An intermodal railyard is a railyard that facilitates the transfer of containers or trailers between truck and rail.

Policy 16.0. Regional Bicycle System Connectivity

Provide a continuous regional network of safe and convenient bikeways connected to other transportation modes and local bikeway systems, consistent with regional street design guidelines.

- a. Objective: Integrate the efforts of the state, counties and cities in the region to develop a convenient, safe, accessible and appealing regional system of bikeways.
- b. Objective: Design the regional bikeway system to function as part of the overall transportation system and include appropriate bicycle facilities in all transportation projects.
- c. Objective: Integrate multi-use paths with on-street bikeways, consistent with established design standards.
- d. Objective: Work with local jurisdictions, ODOT and other public agencies to identify high-frequency bicycle-related crash locations and improvements to address safety concerns in these locations.

Policy 16.1. Regional Bicycle System Mode Share and Accessibility

Increase the bicycle mode share throughout the region and improve bicycle access to the region's public transportation system.

- a. Objective: Promote increased bicycle use for all travel purposes.
- b. Objective: Coordinate with Tri-Met to improve bicycle access and parking facilities at existing and future light rail stations, transit centers and park-and-ride locations.
- c. Objective: Work with local jurisdictions, ODOT and other public agencies to provide appropriate short and long-term bicycle parking and other end-of-trip facilities at regional activity centers through the use of established design standards.
- d. Objective: Develop travel-demand forecasting for bicycle use and integrate with regional transportation planning efforts.

These policies and objectives direct the region's planning and investment in the regional bicycle system. The bicycle is an important component in the region's strategy to provide a multi-modal transportation system. The 2040 Growth Concept focuses growth in the central city and regional centers, station communities, town centers and main streets. One way to meet the region's travel needs is to provide more opportunities to use bicycles for shorter trips.

The regional bikeway system identifies a network of bikeways throughout the region that provide for bicyclist mobility between and accessibility to and within the central city, regional centers and town centers. A complementary system of on-street and off-street regional bikeway corridors, regional multi-use trails and local bikeways is proposed to provide a continuous network. In addition to major bikeway corridors that create a network of regional through-routes, the system provides accessibility to and within regional and town centers.

Regional bicycle functional classification system

The following are the regional bicycle system functional classification categories as identified in Figure 1.18. These classifications, including regional access bikeways, regional corridor bikeways and community connector bikeways, are on-street bikeways that would be designed using a flexible "toolbox" of bikeway designs, including bike lanes, shoulder bikeways, bicycle boulevards and shared roadway/wide outside lanes. The appropriateness of each design is based on adjacent motor vehicle speeds and volumes. The most appropriate bikeway design is defined in the regional street design concepts and in *Creating Livable Streets: Street Design Guidelines for 2040*. Regional streets provide the

primary network for bicycle travel in the region, and require features that support bicycle traffic. Bicycle lanes are the preferred bikeway design for throughway (highway), boulevard, street and road design classification concepts.

Regional access bikeway: The function of regional access bikeways is to focus on accessibility to and within the central city, regional centers and some of the larger town centers. Bicyclist travel time to and from activity centers is an important consideration on regional access bikeways. Regional access bikeways generally have higher bicyclist volumes because they serve areas with higher population and employment density.

Regional corridor bikeway: Regional corridor bikeways function as longer routes that provide point-to-point connectivity between the central city, regional centers and larger town centers. Regional corridor bikeways are generally of longer distance than regional access bikeways and community connector bikeways. Regional corridor bikeways generally have higher automobile speeds and volumes than community connector bikeways.

Community connector bikeway: These bikeways connect smaller town centers, main streets, station areas, industrial areas and other regional attractions to the regional bikeway system.

Multi-use paths with bicycle transportation function: Multi-use paths with a bicycle transportation function are connections that are likely to be used by people bicycling to work or school, to access transit or to travel to a store, library or other local destination. Multi-use paths that support both utilitarian and recreational bicycle functions are included as part of the bicycle transportation system. Bicycle/pedestrian sidewalks on bridges are also included in this functional classification. In terms of design, multi-use paths are physically separated from motor vehicle traffic by open space or a barrier, and are either within the highway right-of-way or within an independent right-of-way. In addition to bicyclists, pedestrians, joggers, skaters and other non-motorized travelers use multi-use paths.

Policy 17.0. Regional Pedestrian System

Design the pedestrian environment to be safe, direct, convenient, attractive and accessible for all users.

- a. Objective: Work with local, regional and state jurisdictions to complete pedestrian facilities (i.e., sidewalks, street crossings, curb ramps) needed to provide safe, direct and convenient pedestrian access to and within the central city, regional centers, town centers, main streets, corridors and to the region's public transportation system.
- b. Objective: Work with local, regional and state jurisdictions to provide landscaping, pedestrian-scale street lighting, benches and shelters affecting the pedestrian and transit user near and within the central city, regional centers, town centers, main streets, corridors and along the regional transit network.

Policy 17.1. Regional Pedestrian Mode Share

Increase walking for short trips and improve pedestrian access to the region's public transportation system through pedestrian improvements and changes in land use patterns, designs and densities.

- a. Objective: Increase the walk mode share for short trips, including walking to public transportation, near and within the central city, regional centers, town centers, main streets, corridors and LRT station communities.
- b. Objective: Work with local, regional and state jurisdictions to improve walkway networks serving transit centers, stations and stops.

Policy 17.2. Regional Pedestrian Access and Connectivity

Provide direct pedestrian access, appropriate to existing and planned land uses, street design classification and public transportation, as a part of all transportation projects.

- a. Objective: Among regional pedestrian projects, give funding priority to those projects which are most likely to increase pedestrian travel, improve the quality of the pedestrian system and help complete pedestrian networks near and within the central city, regional centers, town centers, main streets, corridors and LRT station communities.
- b. Objective: Integrate pedestrian access needs into planning, programming, design and construction of all transportation projects.

These policies and objectives direct the region's planning and investment in the regional pedestrian system as defined in Figure 1.19. By providing dedicated space for those on foot or using mobility devices, pedestrian facilities are recognized as an important incentive that promotes walking as a mode of travel. Throughout this plan, the term "walking" should be interpreted to include traveling on foot as well as those pedestrians using mobility aids, such as wheelchairs. Walking for short distances is an attractive option for most people when safe and convenient pedestrian facilities are available. Combined with adequate sidewalks and curb ramps, pedestrian elements such as benches, curb extensions, marked street crossings, landscaping and wide planting strips make walking an attractive, convenient and safe mode of travel. The focus of the regional pedestrian system is identifying areas of high, or potentially high, pedestrian activity in order to target infrastructure improvements that can be made with regional funds.

A well-connected high-quality pedestrian environment facilitates walking trips by providing safe and convenient access to pedestrian destinations within a short distance. Public transportation use is enhanced by pedestrian improvements, especially those facilities that connect stations or bus stops to surrounding areas or that provide safe and attractive waiting areas. Improving walkway connections between office and commercial districts and surrounding neighborhoods provides opportunities for

residents to walk to work, shopping or to run personal errands. This reduces the need to bring an automobile to work and enhances public transportation and carpooling as commute options.

Regional pedestrian system functional classification

An integrated pedestrian system supports and links every other element of the regional transportation system and complements the region's land-use goals. The following definitions reflect the regional pedestrian system functional classification categories shown in Figure 1.19.

Pedestrian district: Pedestrian districts are areas of high, or potentially high, pedestrian activity where the region places priority on creating a walkable environment. Specifically, the central city, regional and town centers and light rail station communities are areas planned for the levels of compact mixed-use development served by transit needed to generate substantial walking. These areas are defined as pedestrian districts. Pedestrian districts should be designed to reflect an urban development and design pattern where walking is a safe, convenient and interesting travel mode. These areas will be characterized by buildings oriented to the street and boulevard-type street design features such as wide sidewalks with buffering from adjacent motor vehicle traffic, marked street crossings at all intersections with special crossing amenities at some locations, special lighting, benches, bus shelters, awnings and street trees. All streets within pedestrian districts are important pedestrian connections.

Transit/mixed-use corridor: Transit/mixed-use corridors (referred to only as corridors in the 2040 Growth Concept) are also priority areas for pedestrian improvements. They are located along good-quality transit lines and will be redeveloped at densities that are somewhat more than today. These corridors will generate substantial pedestrian traffic near neighborhood-oriented retail development, schools, parks and bus stops. These corridors should be designed to promote pedestrian travel with such features as wide sidewalks with buffering from adjacent motor vehicle traffic, street crossings at least every 530 feet (unless there are no intersections, bus stops or other pedestrian attractions), special crossing amenities at some locations, special lighting, benches, bus shelters, awnings and street trees. This designation includes multi-modal bridges.

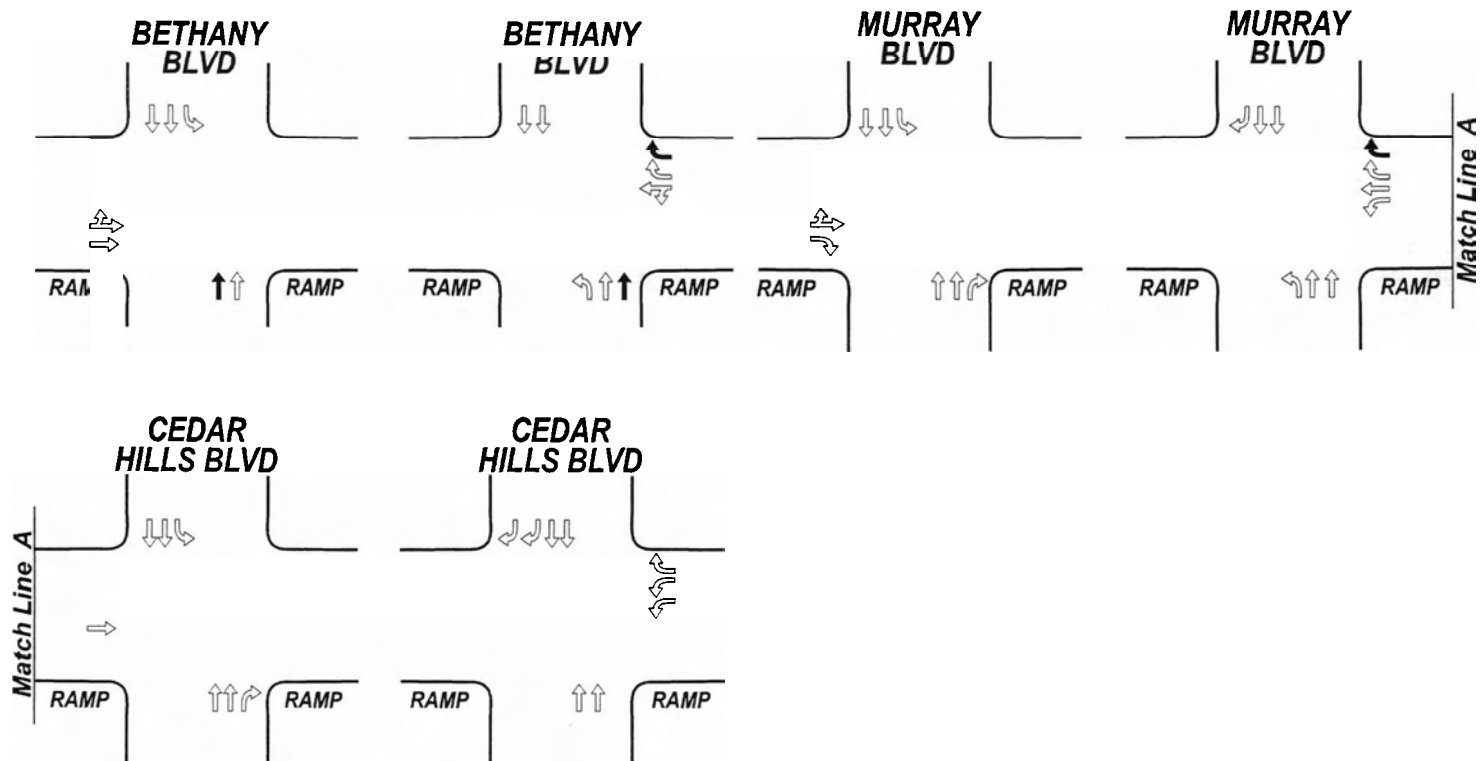
Multi-use path with pedestrian transportation function: These paths are paved off-street regional facilities that accommodate pedestrian and bicycle travel and meet the requirements of the Americans with Disabilities Act. Multi-use paths with a pedestrian transportation function are connections that are likely to be used by people walking to work or school, to access transit or to travel to a store or library. These paths are generally located near or in residential areas or near mixed-use centers. Paths that support purely recreational uses are not considered part of this transportation network, although they are important components of the regional parks and greenspaces map. Pedestrian/bicycle-only bridges also are included in this designation.

M- City of Beaverton SPIS

Approx. Rank	type	LOCATION	INTERSECTING ROAD	ADT	SPI S	#ACC	Fatal	F&A	B&C	PDO	COMMENTS
59th	ci/ci	Hall Blvd	Allen Blvd	42647	57.09	28	0	1	9	18	STIP funded project
76th	ci/ci	Farmington Rd	Hall Blvd	47405	49.75	18	0	1	8	9	
114th	ci/ci	Griffith Dr	BH/Farmington	51925	40.28	26	0	0	10	16	red-light photo enforcement added in 2001
159th	ci/ci	Hall Blvd	Greenway/Brockman	32215	34.24	8	0	1	2	5	125th extension project programmed
178th	ci/ci	Hall Blvd	Nimbus Ave	43992	30.95	12	0	0	9	3	STIP funded project
179th	ci/ci	Farmington Rd	Lombard Ave	32189	30.78	24	0	0	3	21	commuter rail project planned for 2004
198th	ci/ci	Farmington Rd	Watson Ave	48316	28.96	16	0	0	6	10	
232nd	ci/ci	Lombard Ave	Allen Blvd	32597	25.81	14	0	0	4	10	red-light photo enforcement added in 2001
242nd	ci/ci	Cedar Hills Blvd	Hall Blvd	38587	24.54	13	0	0	4	9	
NA	ci/ci	Farmington Rd	Cedar Hills Blvd	50509	18.41	8	0	0	3	5	
NA	ci/ci	Western Ave	Allen Blvd	33022	18.16	7	0	0	3	4	
NA	ci/ci	Hall Blvd	Hart Rd	29672	15.73	6	0	0	2	4	
NA	ci/ci	Hall Blvd	Denney Road	38681	14.27	4	0	0	3	1	
NA	ci/ci	Farmington Rd	Hocken Ave	29453	12.99	5	0	0	1	4	STIP funded project (PE)

NA= too low to be ranked

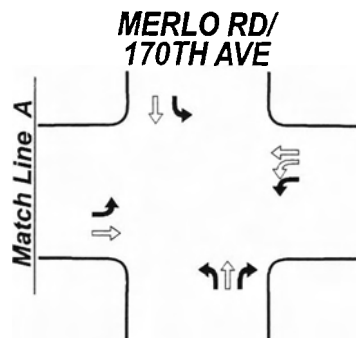
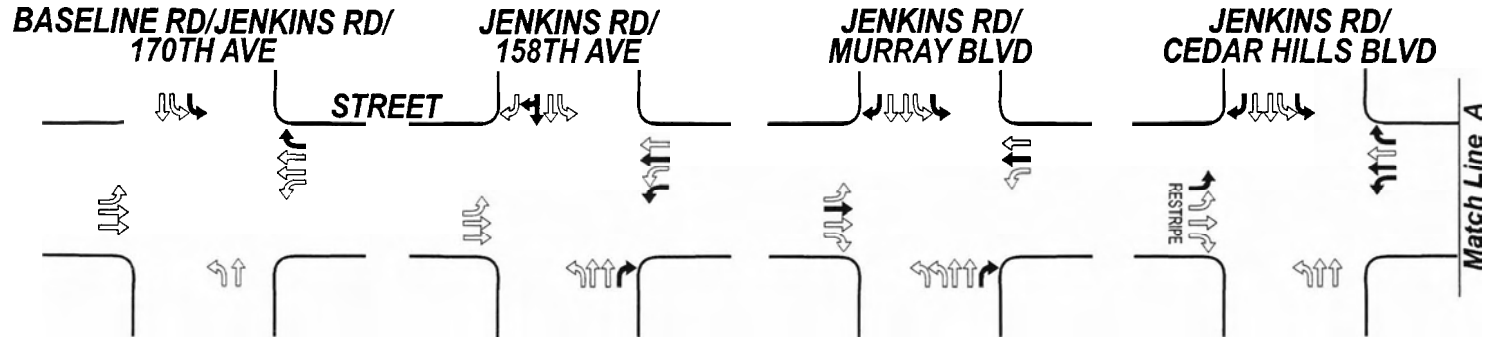
Rankings do not go below 241



LEGEND

- ⇌ - Existing Lane Configuration
- ⇝ - Proposed Lane Configuration

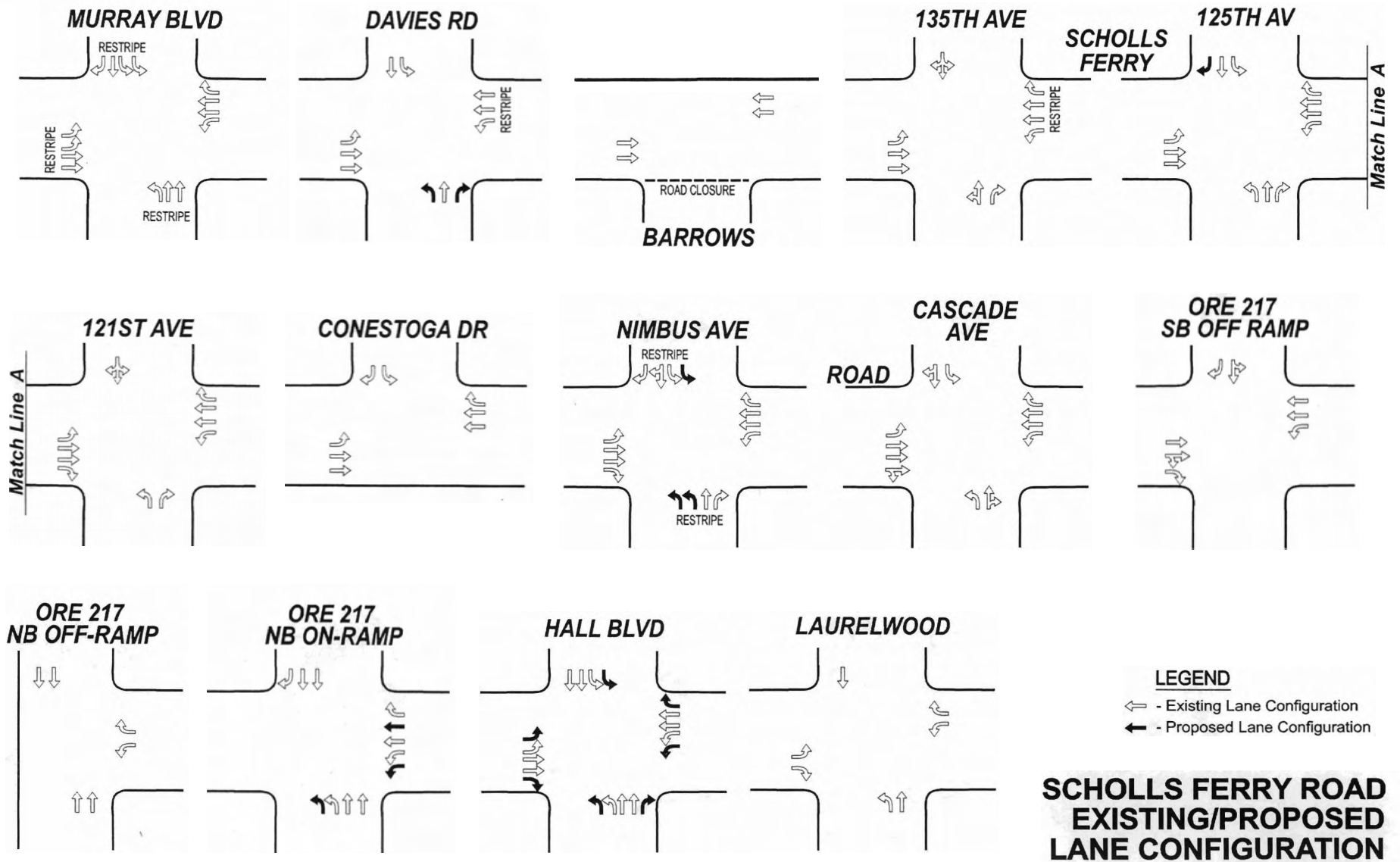
**US 26 INTERCHANGES
EXISTING/PROPOSED LANE CONFIGURATION**

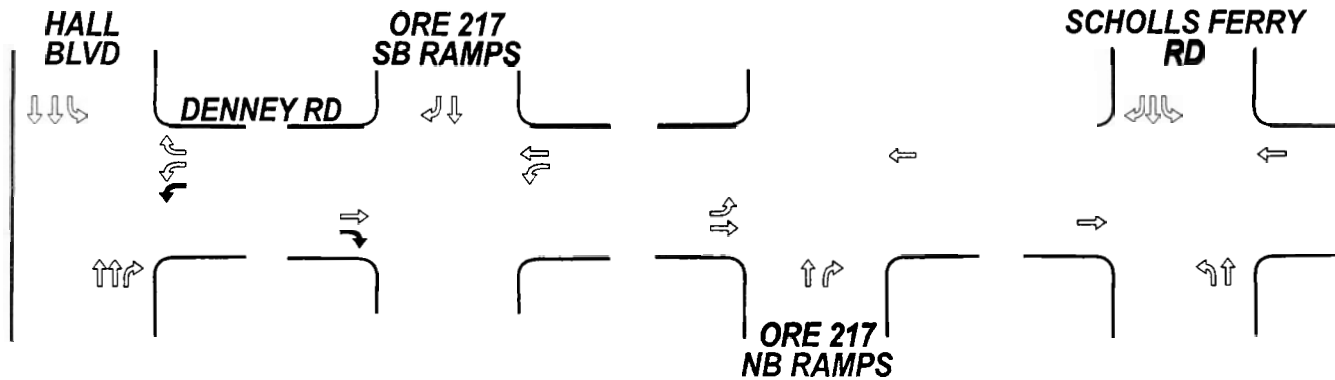
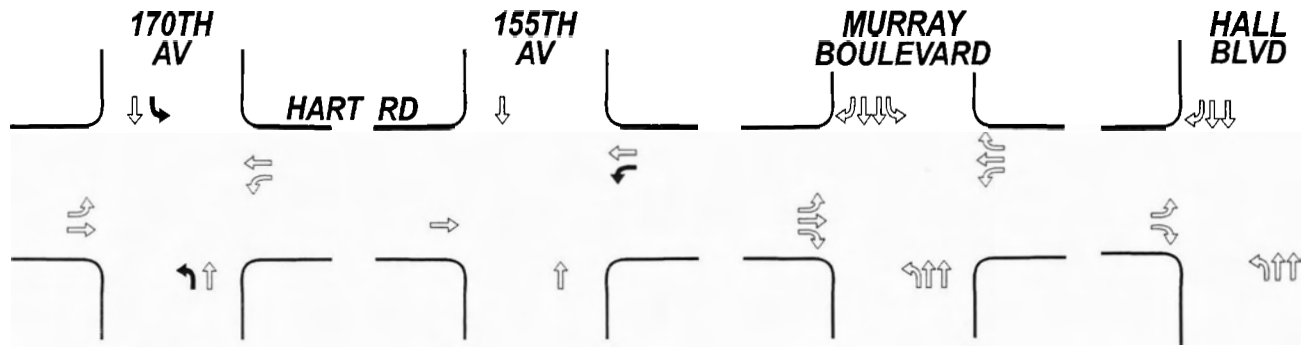


LEGEND

- ⇐ - Existing Lane Configuration
- ➡ - Proposed Lane Configuration

**JENKINS ROAD/MERLO ROAD
EXISTING/PROPOSED LANE CONFIGURATION**

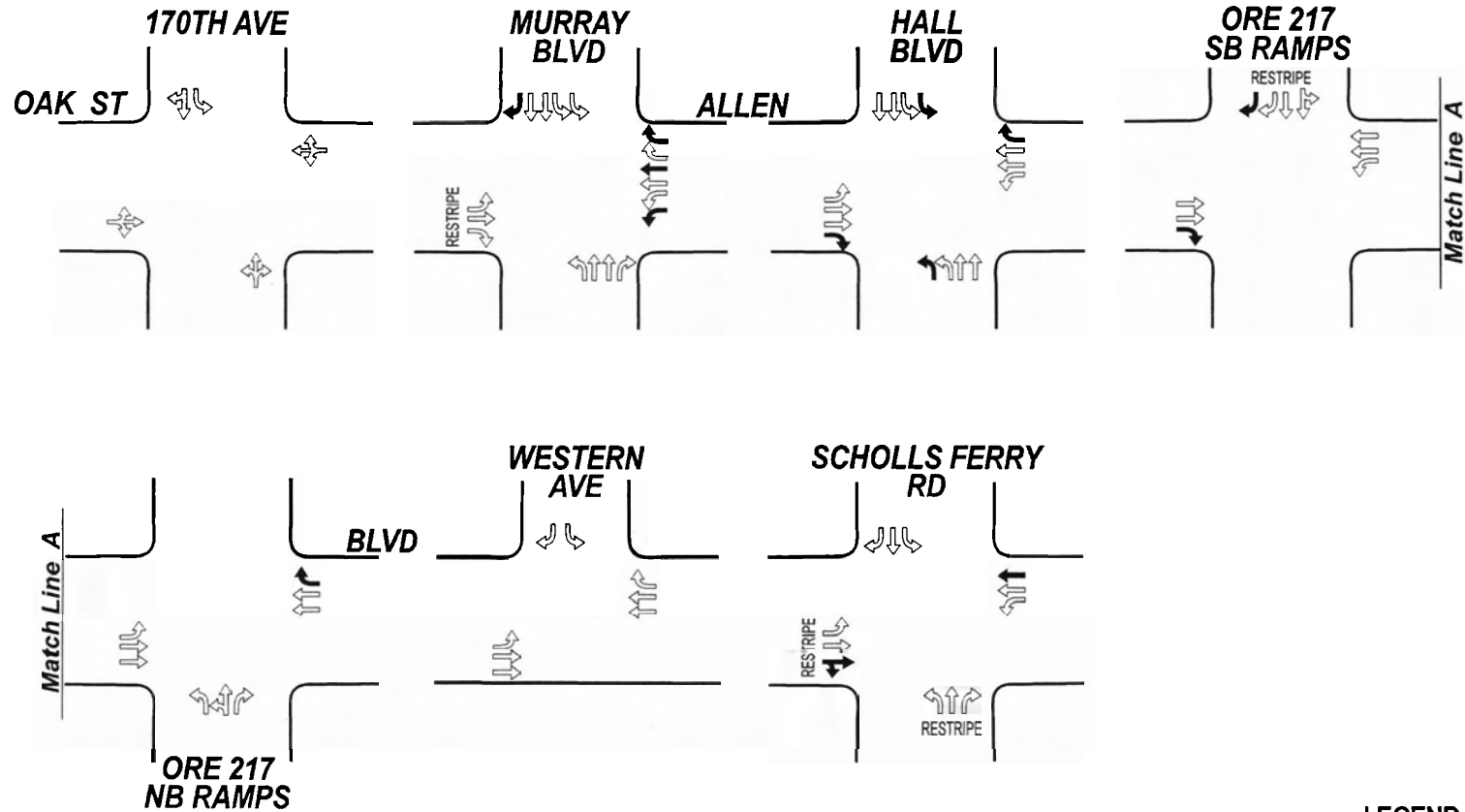




LEGEND

- ⇐ - Existing Lane Configuration
- ➡ - Proposed Lane Configuration

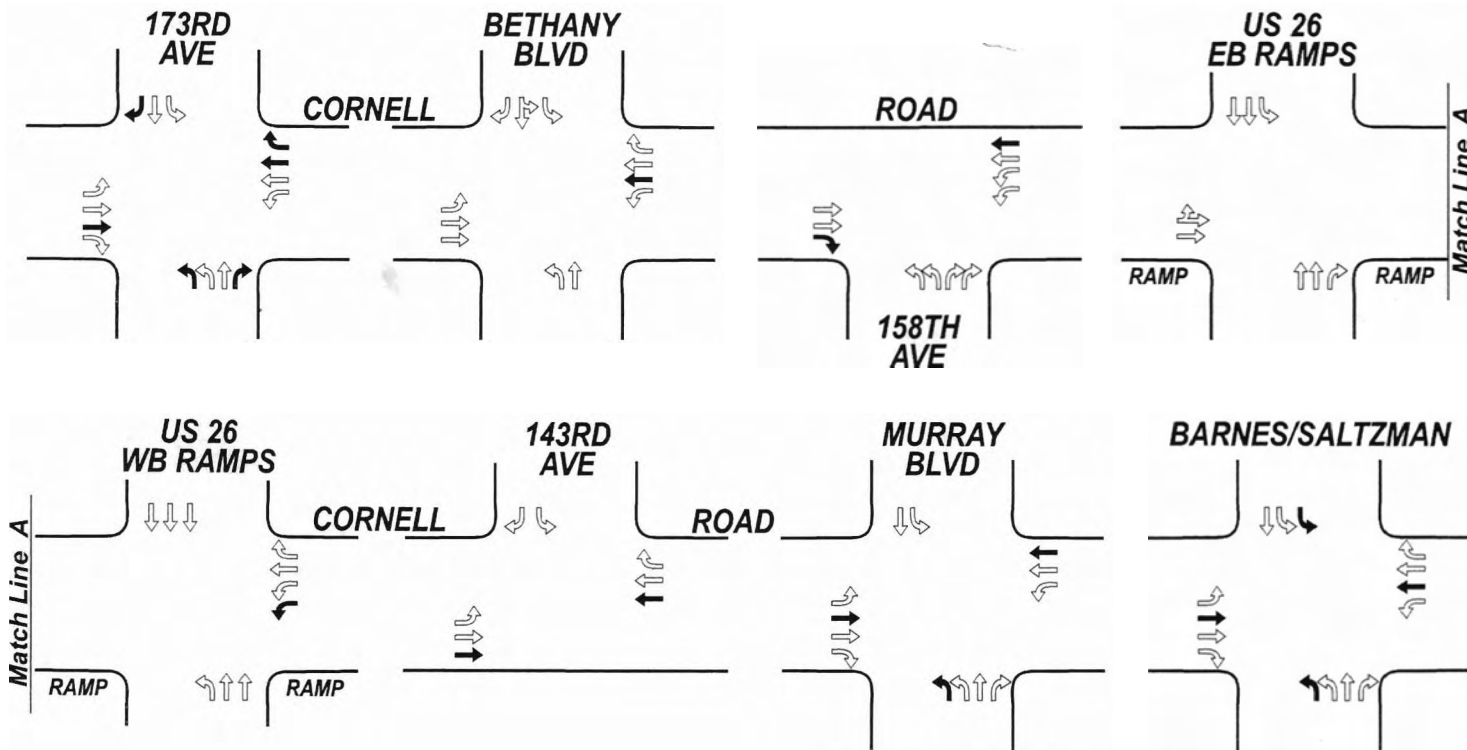
**HART/DENNEY ROAD
EXISTING/PROPOSED LANE CONFIGURATION**



LEGEND

- ↔ - Existing Lane Configuration
- ➡ - Proposed Lane Configuration

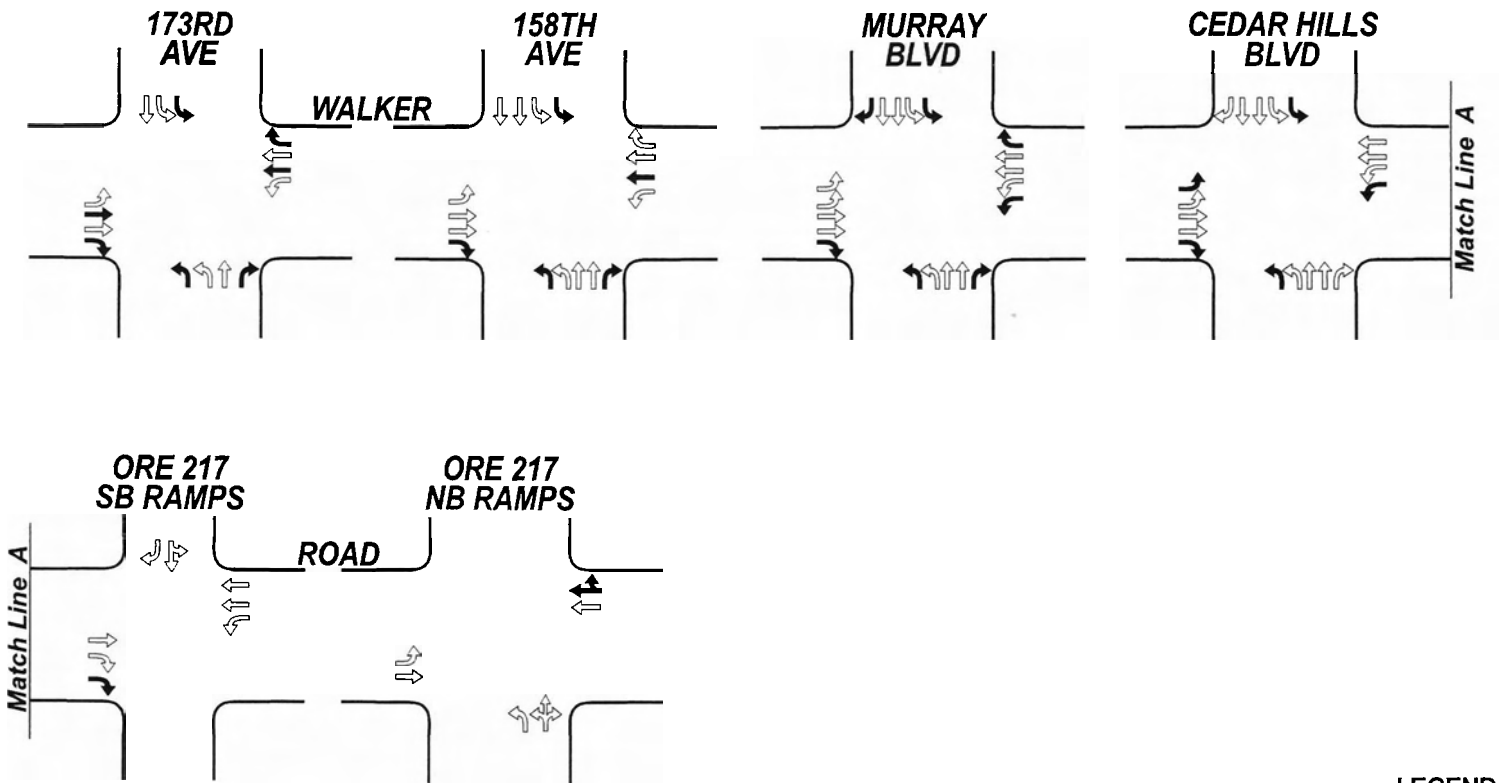
**ALLEN BOULEVARD
EXISTING/PROPOSED LANE CONFIGURATION**



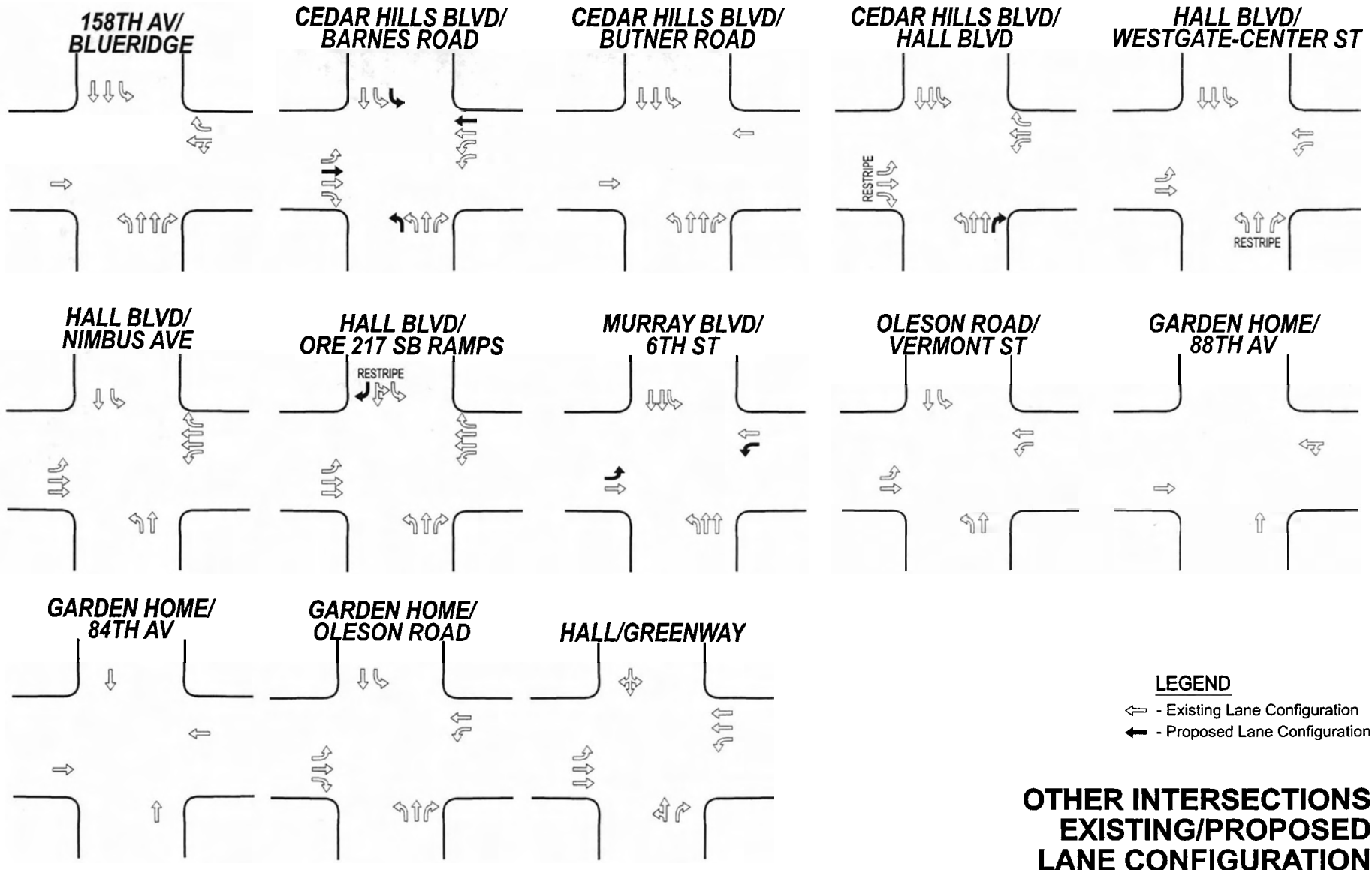
LEGEND

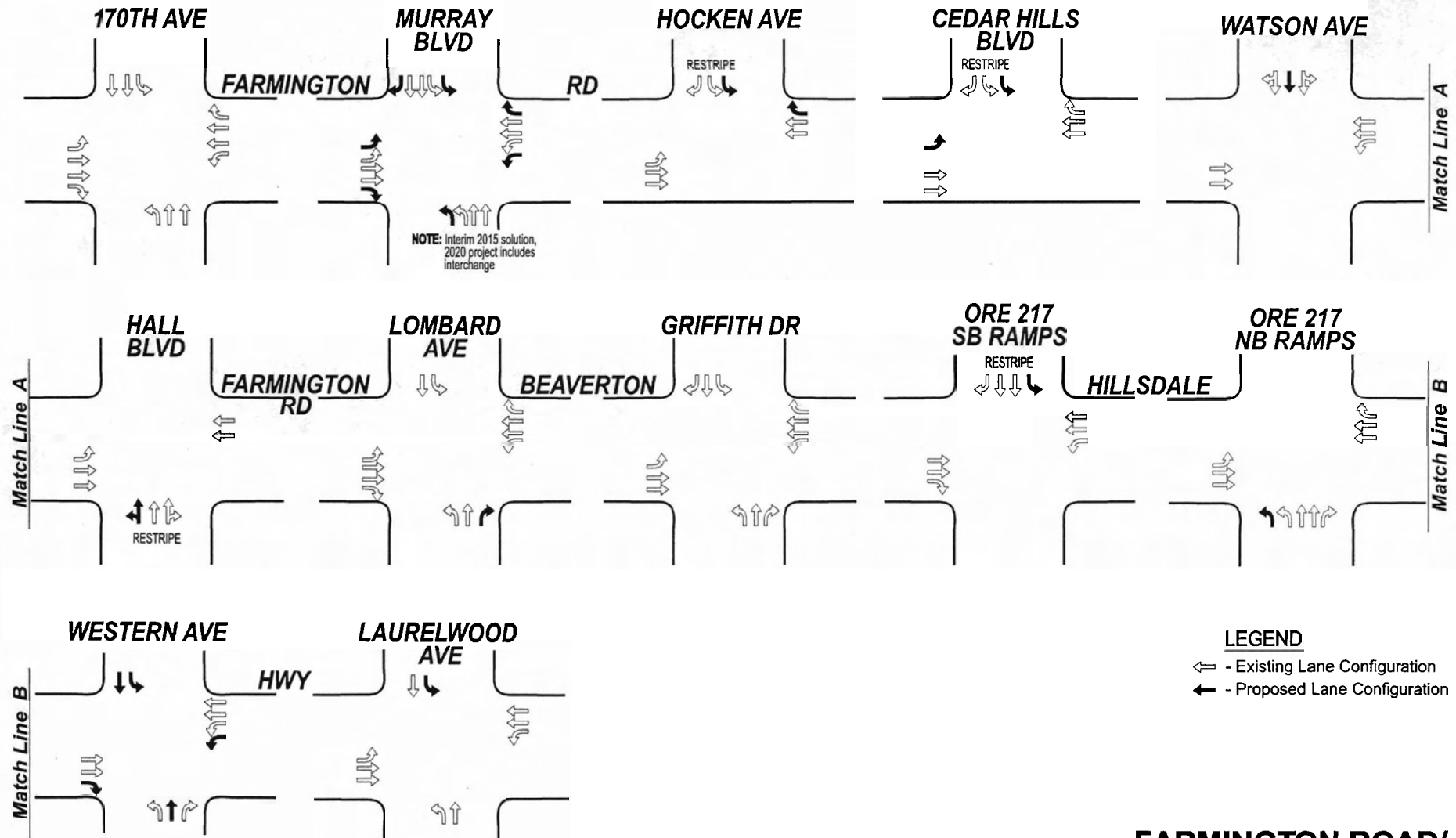
- ⇐ - Existing Lane Configuration
- ⇐ - Proposed Lane Configuration

**CORNELL ROAD
EXISTING/PROPOSED LANE CONFIGURATION**



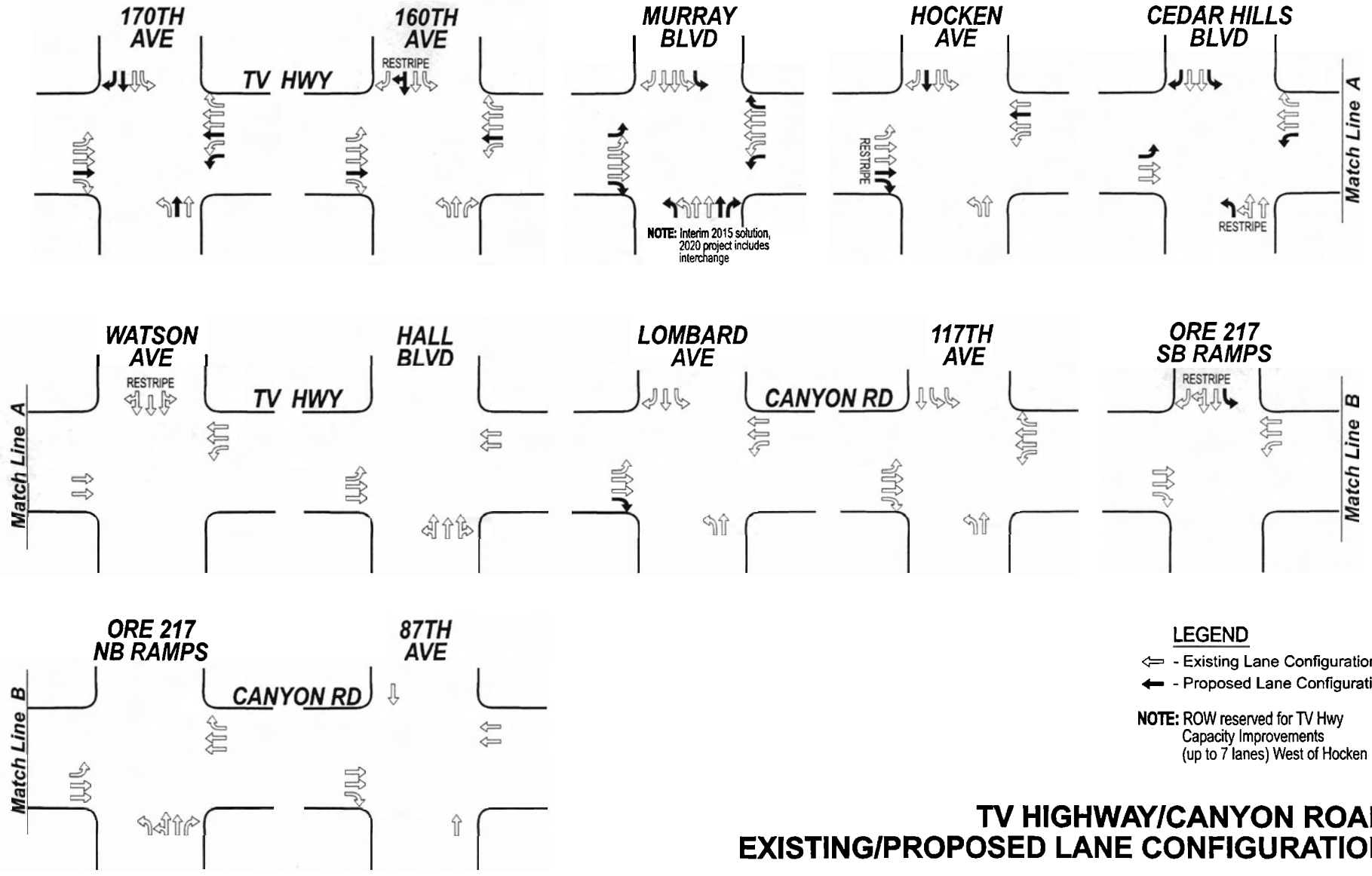
**WALKER ROAD
EXISTING/PROPOSED LANE CONFIGURATION**





LEGEND
 ⇐ - Existing Lane Configuration
 ⇐ - Proposed Lane Configuration

**FARMINGTON ROAD/
BEAVERTON HILLSDALE HWY.
EXISTING/PROPOSED LANE CONFIGURATION**



LEGEND

- ⇐ - Existing Lane Configuration
- ⇐ - Proposed Lane Configuration

NOTE: ROW reserved for TV Hwy Capacity Improvements (up to 7 lanes) West of Hocken

**TV HIGHWAY/CANYON ROAD
EXISTING/PROPOSED LANE CONFIGURATION**