

Report for



City of Oregon City

# Beavercreek Road Access Management Plan

Prepared by

***DKS Associates***  
TRANSPORTATION SOLUTIONS

In association with



**Adopted October 19, 2005  
Ordinance No. 05-1007**



# DKS Associates

TRANSPORTATION SOLUTIONS

October 31, 2005

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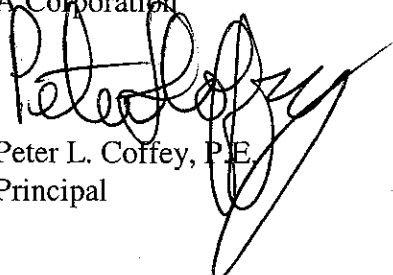
**Subject: Beavercreek Road Access Management Plan**

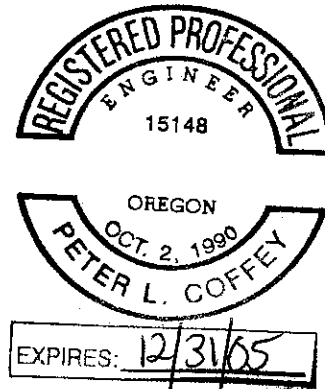
Dear Nancy:

DKS Associates is pleased to submit this Final Access Management Plan for Beavercreek Road between Fir Street and Molalla Avenue in the City of Oregon City. This final report includes the revisions to the earlier version of this plan as adopted by the City Commission on October 19, 2005 (Ordinance No. 05-1007). We have included 5 bound copies and one loose copy for future reproduction. Please feel free to call Scott Mansur or me if you have any questions or comments regarding this study.

Sincerely,

**DKS Associates**  
A Corporation

  
Peter L. Coffey, P.E.  
Principal



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# TABLE OF CONTENTS

<b>1.0</b>	<b>Introduction .....</b>	<b>1</b>
1.1	Project Objectives.....	2
<b>2.0</b>	<b>Study Area .....</b>	<b>2</b>
2.1	Roadway Network.....	4
<b>3.0</b>	<b>Plans, Policies, and Standards.....</b>	<b>5</b>
3.1	Oregon Laws and Rules.....	5
3.1.1	<b>OAR 660-012: Transportation Planning Rule (TPR) .....</b>	<b>5</b>
3.2	City of Oregon City Access Management Standards .....	5
3.2.1	<b>City of Oregon City Transportation System Plan (TSP).....</b>	<b>5</b>
3.3	Summary of Access Management Spacing Standards in Study Area.....	6
<b>4.0</b>	<b>Inventory of Existing Conditions.....</b>	<b>6</b>
4.1	Public and Private Approach Inventory .....	7
4.2	Traffic Characteristics .....	10
4.2.1	<b>Traffic Volumes.....</b>	<b>10</b>
4.2.2	<b>Existing Intersection Operations .....</b>	<b>11</b>
4.2.3	<b>Collision Data.....</b>	<b>14</b>
<b>5.0</b>	<b>Access Management Strategies.....</b>	<b>16</b>
5.1	Property Owner Meetings/Open Houses .....	16
5.2	Short-Term Access Management Plan .....	16
5.2.1	<b>Short-Term Access Management Plan by Driveway.....</b>	<b>17</b>
5.3	Long-Term Access Management Plan .....	22
5.3.1	<b>Long-Term Access Management Plan Signalized Intersection Analysis</b> <b>25</b>	
5.3.2	<b>Long-Term Access Management Plan by Driveway.....</b>	<b>25</b>
5.4	Access Management Plan by Property .....	29
5.4.1	<b>Property #1 (ABC Glass)-Tax lot #3-2E-05D-00800 .....</b>	<b>29</b>
5.4.2	<b>Property #2 (Union 76 Gas Station)- Tax lot #3-2E-05D-00900 .....</b>	<b>29</b>
5.4.3	<b>Property #3 (Save Store)- Tax lot #3-2E-05D-00700 .....</b>	<b>29</b>
5.4.4	<b>Property #4 (Sherwin Williams)- Tax lot #3-2E-05D-00702 .....</b>	<b>29</b>
5.4.5	<b>Property #5 (Southridge Center)- Tax lot #3-2E-05D-01211.....</b>	<b>30</b>
5.4.6	<b>Property #6 (Les Schwab)- Tax lot #3-2E-05D-00600 and #3-2E-05D-00602</b> <b>30</b>	
5.4.7	<b>Property #7 (Graham’s Stationery)- Tax lot #3-2E-05D-00503.....</b>	<b>30</b>
5.4.8	<b>Property #8 (Younger Property)- Tax lot #3-2E-05D-00500 and Tax lot</b> <b>#3-2E-05D-00401.....</b>	<b>31</b>
5.4.9	<b>Property #9 (Pioneer Carwash)- Tax lot #3-2E-05D-00402 .....</b>	<b>31</b>
5.4.10	<b>Property #10 (Milton Brown Property)- Tax lot #3-2E-05D-00202, #3-2E-</b> <b>05D-00204 and #3-2E-05D-00208 .....</b>	<b>31</b>
5.4.11	<b>Property #11 (Fred Meyer)- Tax lot #3-2E-05D-01204.....</b>	<b>32</b>
5.4.12	<b>Property #12 (Checkpoint Motors)- Tax lot #3-2E-05D-00209 .....</b>	<b>32</b>
5.4.13	<b>Property #13 (Oregon City Car Wash)- Tax lot #3-2E-05D-01204.....</b>	<b>32</b>
5.4.14	<b>Property #14 (Pan Pacific Properties)- Tax lot #3-2E-05D-01212 .....</b>	<b>32</b>

5.4.15 Property #15 (Rumbold Property)- Tax lot #3-2E-05D-00205 .....32  
5.4.16 Property #16 (Oregon City Auto Service)- Tax lot #3-2E-05D-00207.....32  
5.4.17 Property #17 (Jiffy Lube)- Tax lot #3-2E-05D-00214 .....32  
5.4.18 Property #18 (Del Mesa Farms)- Tax lot #3-2E-05D-01300 .....33  
5.4.19 Property #19 (Southridge Mini Storage)- Tax lot #3-2E-05D-00100 .....33  
5.4.20 Property #20 (Berryhill Apartments)- Tax lot #3-2E-04C-00803 .....33  
5.4.21 Property #21 (Hopkins Property)- Tax lot #3-2E-04C-00800 .....33  
5.4.22 Property #22 (Newell Creek Apartments)- Tax lot #3-2E-04C-00808 .....33  
5.4.23 Property #23 (Berryhill Townhomes)- Tax lot #3-2E-04C-90000 .....34

## **TABLES**

Table 1. Beaver Creek Road Roadway Designations.....4  
Table 2. Background Property Information.....9  
Table 3. Existing Level of Service Results.....13  
Table 4. Collision Rate Summary.....14  
Table 5. Short-Term Access Management Plan by Driveway.....18  
Table 6. Future 2020 Level of Service Results with Long-Term (AMP).....25  
Table 7. Long-Term Access Management Plan by Driveway.....27

## **FIGURES**

Figure 1. Vicinity Map.....2  
Figure 2. Existing Properties.....3  
Figure 3. Existing Driveway Inventory.....8  
Figure 4: Beaver Creek Road Hourly Traffic Volumes.....11  
Figure 5. Existing AM and PM Peak Hour Traffic Volumes.....12  
Figure 6. Collision Locations.....15  
Figure 7. Short-Term Access Management Plan.....20  
Figure 8. Long-Term Access Management Plan.....23  
Figure 9. 2020 Signalized Intersection Analysis.....26

## 1.0 INTRODUCTION

The City of Oregon City is in the process of designing improvements for Beaver Creek Road between Fir Street and Beaver Creek Way as identified in the City's Transportation System Plan (TSP). As part of this improvement project, the City was seeking to improve safety and capacity on Beaver Creek Road by modifying existing driveways to businesses. After the first public meeting for the Beaver Creek Road improvement project, it was determined that an access management plan was needed to evaluate the short-term and long-term access needs for businesses prior to construction of the improvements.

The goal of this access management plan (AMP) is to identify short-term and long-term strategies for access management along Beaver Creek Road from Fir Street to Molalla Avenue that promote safe and efficient operation. The study area for this access management plan is shown in Figure 1. The two main functions of Beaver Creek Road are to provide access to adjacent properties and to provide mobility to travelers. Balance must be attained between access to land development and safe and efficient operation based on a roadway's functional classification. For instance, arterials are designed to have fewer access points than local streets in order to increase long-distance mobility. Local streets are often designed with many closely spaced entry points in order to increase access to local properties.

### **Why is Access Management Important?**

- Improves safety for vehicles, pedestrians, and bicycles.
- Improves traffic flow and vehicle capacity.
- Improves freight mobility by getting goods and services to businesses more efficiently.
- Provides permanent, efficient, and safe business access using traffic signals at appropriate locations.

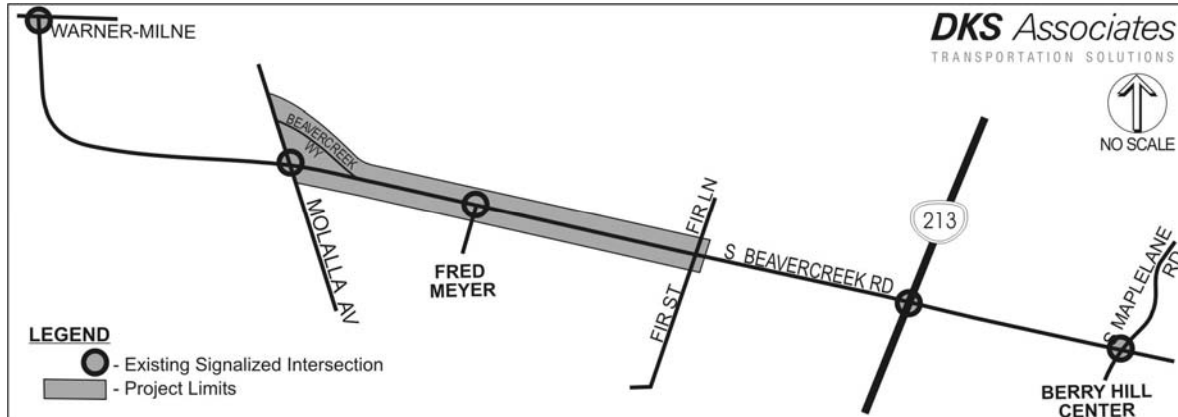
The Transportation Planning Rule provides the following access management definition:

*“Access Management” means measures regulating access to streets, roads and highways from public roads and private driveways. Measures may include but are not limited to restrictions on the siting of interchanges, restrictions on the type and amount of access to roadways, and use of physical controls, such as signals and channelization including raised medians, to reduce impacts of approach road traffic on the main facility.”<sup>1</sup>*

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<sup>1</sup> Oregon Administrative Rule 660-012-0005 (Division 12- Transportation Planning), Oregon Land Conservation and Development Department, July 15, 2004.

**Figure 1. Vicinity Map**



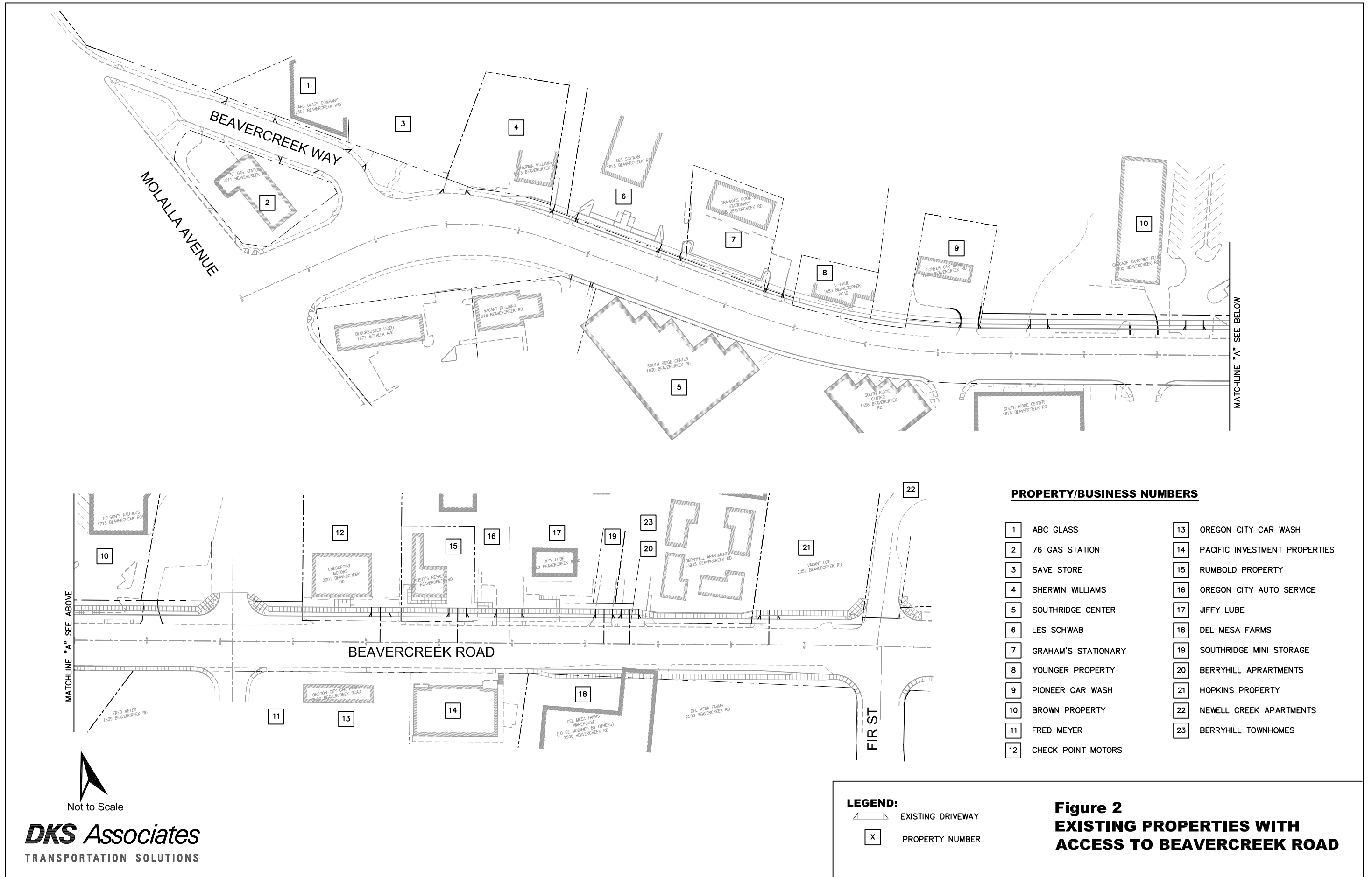
### 1.1 Project Objectives

The objectives of this Access Management Plan include the following:

- Comply with local standards, plans, and policies.
- Inventory the public and private approaches on Beaver Creek Road and Beaver Creek Way within the study area.
- Identify short-term and long-term access management strategies in the project area.
- Implement the short-term access management strategy in the Beaver Creek Road improvement project that is currently being designed.
- Coordinate with local governments and affected property/business owners during the access management plan development.
- Adopt this Access Management Plan into the *City of Oregon City Transportation System Plan (TSP)*.

### 2.0 STUDY AREA

The study area includes twenty-three properties adjacent to Beaver Creek Road and Beaver Creek Way as shown in Figure 2. The study area intersections, both existing and proposed, are located within the City of Oregon City. Traffic signals are located today at the intersection of Beaver Creek Road and the Fred Meyer access and Beaver Creek Road and Molalla Avenue. All private driveways are currently unsignalized two-way stop controlled intersections with Beaver Creek Road being the major street and the private driveways being the minor street stopped approach. The following sections include a description of the roadway network and jurisdictional responsibilities.



**PROPERTY/BUSINESS NUMBERS**

- |    |                     |    |                               |
|----|---------------------|----|-------------------------------|
| 1  | ABC GLASS           | 13 | OREGON CITY CAR WASH          |
| 2  | 76 GAS STATION      | 14 | PACIFIC INVESTMENT PROPERTIES |
| 3  | SAVE STORE          | 15 | RUMBOLD PROPERTY              |
| 4  | SHERWIN WILLIAMS    | 16 | OREGON CITY AUTO SERVICE      |
| 5  | SOUTHRIDGE CENTER   | 17 | JIFFY LUBE                    |
| 6  | LES SCHWAB          | 18 | DEL MESA FARMS                |
| 7  | GRAHAM'S STATIONARY | 19 | SOUTHRIDGE MINI STORAGE       |
| 8  | YOUNGER PROPERTY    | 20 | BERRYHILL APRARTMENTS         |
| 9  | PIONEER CAR WASH    | 21 | HOPKINS PROPERTY              |
| 10 | BROWN PROPERTY      | 22 | NEWELL CREEK APARTMENTS       |
| 11 | FRED MEYER          | 23 | BERRYHILL TOWNHOMES           |
| 12 | CHECK POINT MOTORS  |    |                               |

- LEGEND:**
- EXISTING DRIVEWAY
  - PROPERTY NUMBER

**Figure 2  
EXISTING PROPERTIES WITH  
ACCESS TO BEAVERCREEK ROAD**



Not to Scale

## 2.1 Roadway Network

Within the study area, Beaver Creek Road, Fir Street and Beaver Creek Way are all public streets owned and maintained by the City of Oregon City. Beaver Creek Road currently carries approximately 1,200 to 2,000 vehicles (two-way total) during the PM peak hour and has an average daily traffic volume ranging from 16,000 to 23,000 vehicles bi-directional<sup>2</sup>.

The TSP<sup>3</sup> classifies **Beaver Creek Road** as a major arterial and it has a posted speed of 35 mph. Regional Transportation Plan (RTP) and TSP designations for Beaver Creek Road are summarized in Table 1.<sup>4</sup>

**Table 1: Beaver Creek Road Roadway Designations as defined in the 2000 RTP (From Beaver Creek Way to Fir Street)**

	City TSP Designation	Metro RTP Designation
<b>Motor Vehicle Functional Classification</b>	Major Arterial	Minor Arterial
<b>Street Design</b>	No Designation	Regional Street
<b>Public Transportation</b>	TriMet Route #32	No Designation
<b>Bike</b>	Striped Bike Lanes	Community Connector
<b>Pedestrian</b>	Sidewalks on both sides	No Designation
<b>Freight</b>	No Designation	Road Connector

Beaver Creek Road is typically a three-lane section, one travel lane in each direction and a center turn lane, with wide paved shoulders and sporadic sidewalks. The south side shoulder, adjacent to the South Ridge Center, is used for parking and loading.

**Fir Street** (south of Beaver Creek Road) TSP classification is a Collector. It has sidewalks and bike lanes on both sides with no on-street parking.

**Beaver Creek Way** serves as an access roadway to three businesses between Molalla Avenue and Beaver Creek Road. The TSP classifies it as a Local Street.

<sup>2</sup> Based on 24-hour traffic volume counts conducted during April of 2004.

<sup>3</sup> *City of Oregon City Transportation System Plan*, Adopted April 2001.

<sup>4</sup> *2000 Regional Transportation Plan*, Metro, August 10, 2000 (Ordinance No. 00-869A and Resolution No. 00-2968B).



### 3.0 PLANS, POLICIES, AND STANDARDS

A primary goal of this *Access Management Plan* is to conform to state and local plans, policies, and standards already in place. This section includes a summary of relevant documents that were referred to during the plan development. Sections 3.1 through 3.3 describe the general access management strategies set forth in each applicable document and Section 3.4 summarizes the access management spacing standards from these documents that apply to the study area.

#### 3.1 Oregon Laws and Rules

Oregon state laws and regulations pertaining to transportation are included in the Oregon Revised Statutes (ORS's) and the Oregon Administrative Rules (OAR's). The ORS's consist of laws and the OAR's include rules that are standards or regulations that are meant to interpret or prescribe the laws. This section highlights the laws and rules that pertain to access management on Beaver Creek Road: OAR 660-012.

##### 3.1.1 OAR 660-012: Transportation Planning Rule (TPR)<sup>5</sup>

The Transportation Planning Rule requires that all transportation system plans include access control measures that are consistent with a roadway's functional classification.

#### 3.2 City of Oregon City Access Management Standards

Access management standards for the City of Oregon City are included in the City's Transportation System Plan.

##### 3.2.1 City of Oregon City Transportation System Plan (TSP)<sup>6</sup>

The *City of Oregon City Transportation System Plan* includes guidance for access management for public street intersections and private driveways as well as management techniques to implement access management standards as follows:

As part of Section 5- City Standards for Access Management:

*“The Oregon City Street Design Standards manual details the recommended City of Oregon City access spacing standards for traffic signal spacing, non-traversable median spacing, public intersections spacing, and private access driveway spacing. Table 5-7 summarizes the minimum public street intersection spacing standards for the City of Oregon City roadway network presented in the Street Design Standards manual, as they relate to new development and redevelopment.”*



<sup>5</sup> Oregon Administrative Rule 660-012 (Division 12- Transportation Planning), Oregon Land Development and Conservation Department, July 15, 2004.

<sup>6</sup> Transportation System Plan, City of Oregon City, adopted April 2001.

*Table 5-7. Minimum City Street Intersection Spacing Standards*

<b>Functional Classification</b>	<b>Major Arterial</b>	<b>Minor Arterial</b>	<b>Collector</b>	<b>Neighborhood Collector</b>	<b>Local Street</b>
<b>Major Arterial</b>	2 miles	1 mile	¼ mile	1,000 feet	500 feet
<b>Minor Arterial</b>	1 mile	½ mile	1,000 feet	800 feet	400 feet
<b>Collector</b>	¼ mile	1000 feet	800 feet	600 feet	300 feet
<b>Neighborhood Collector</b>	1000 feet	800 feet	600 feet	500 feet	200 feet
<b>Local Street</b>	500 feet	400 feet	300 feet	200 feet	100 feet

As part of Section 5- Management Techniques:

*From an operational perspective, the City of Oregon City will implement access management measures to limit the number of redundant access points along roadways. This will enhance roadway capacity and benefit circulation. Improvements to be considered include:*

- *Planning for and developing intersection improvement programs in order to regularly monitor intersection operations and safety problems;*
- *Purchasing right-of-way and closing driveways; and,*
- *Installing positive channelization and driveway access controls as necessary.*

*Enforcement of the access spacing standards will be complemented with the provision of alternative access points. Purchasing right-of-way and closing driveways without a parallel road system and/or other local access could seriously affect the viability of the impacted properties. Thus, if an access management approach is taken, alternative access should be developed prior to “land-locking” a given property.*

*As part of every land use action, the City of Oregon City will evaluate the potential need for conditioning a given development proposal with the following items, in order to maintain and/or improve traffic operations and safety along the arterial and collector roadways.”*

### **3.3 Summary of Access Management Spacing Standards in Study Area**

Access management spacing standards for Beaver Creek Road within the study area are governed by the *City of Oregon City Transportation System Plan*. Table 5-7 as shown above outlines the access spacing standards that apply to Beaver Creek Road based on the classification of roadway.

## **4.0 INVENTORY OF EXISTING CONDITIONS**

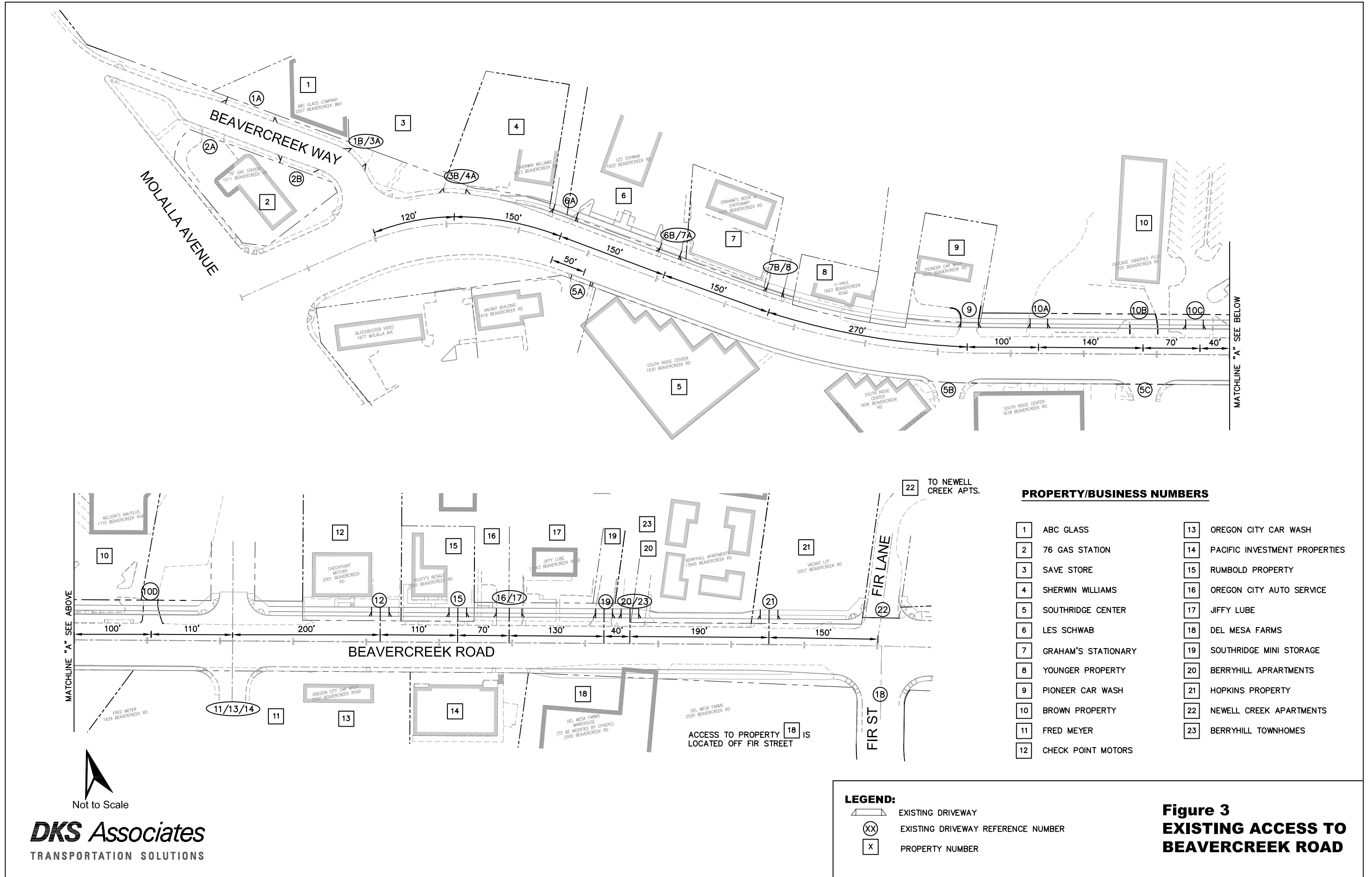
This section includes an inventory of existing conditions that summarizes the public and private approaches in existence today as well as the characteristics of the roadway, land uses, and traffic conditions.

#### **4.1 Public and Private Approach Inventory**

Numerous public and private approaches exist today along Beaver Creek Road and Beaver Creek Way within the study area. Figure 3 illustrates the existing public and private approaches in the study area. Photographs of each of these public and private approaches in the study area are attached in the appendix.

Existing access spacing along Beaver Creek Road varies greatly as shown in Figure 3. The distance between public and private intersections ranges from 50 feet to 300. None of these segments meet the City's current access spacing standards for a minor arterial roadway of 500 feet (for local street) or ¼ mile (for collectors). The existing private and public intersections were laid out long before access spacing standards were developed for the City of Oregon City and there are no plans to ensure that each approach meets these standards.

Table 2 summarizes the private approach inventory for each study area property.



Not to Scale

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**LEGEND:**

- EXISTING DRIVEWAY
- EXISTING DRIVEWAY REFERENCE NUMBER
- PROPERTY NUMBER

**PROPERTY/BUSINESS NUMBERS**

- |                       |                                  |
|-----------------------|----------------------------------|
| 1 ABC GLASS           | 13 OREGON CITY CAR WASH          |
| 2 76 GAS STATION      | 14 PACIFIC INVESTMENT PROPERTIES |
| 3 SAVE STORE          | 15 RUMBOLD PROPERTY              |
| 4 SHERWIN WILLIAMS    | 16 OREGON CITY AUTO SERVICE      |
| 5 SOUTHRIDGE CENTER   | 17 JIFFY LUBE                    |
| 6 LES SCHWAB          | 18 DEL MESA FARMS                |
| 7 GRAHAM'S STATIONARY | 19 SOUTHRIDGE MINI STORAGE       |
| 8 YOUNGER PROPERTY    | 20 BERRYHILL APARTMENTS          |
| 9 PIONEER CAR WASH    | 21 HOPKINS PROPERTY              |
| 10 BROWN PROPERTY     | 22 NEWELL CREEK APARTMENTS       |
| 11 FRED MEYER         | 23 BERRYHILL TOWNHOMES           |
| 12 CHECK POINT MOTORS |                                  |

**Figure 3**  
**EXISTING ACCESS TO**  
**BEAVERCREEK ROAD**

**Table 2. Background Property Information**

Property Number	Business/Tax Lot #	Driveway Number*	Roadway Frontage	Property Usage	Current Usage
1	ABC Glass/ 3-2E-05D-00800	1A	Beavercreek Way	Retail	Full Access
		1B/3A	Beavercreek Way		Full Access
2	Union 76 Gas Station/ 3-2E-05D-00900	2A	Beavercreek Way	Gas Station	Full Access
		2B	Beavercreek Way		Full Access
3	Save Stores/ 3-2E-05D-00700	1B/3A	Beavercreek Way	Retail	Full Access
		3B/4A	Beavercreek Road		Full Access
4	Sherwin Williams/ 3-2E-05D-00702	3B/4A	Beavercreek Road	Retail	Full Access
5	Southridge Center/ 3-2E-05D-01211	5A	Beavercreek Road	Retail	Full Access
		5B	Beavercreek Road		Full Access
		5C	Beavercreek Road		Full Access
6	Les Schwab/ 3-2E-05D-00600 3-2E-05D-00602	6A	Beavercreek Road	Retail	Full Access
		6B/7A	Beavercreek Road		Full Access
7	Graham's Stationary 3-2E-05D-00503	6B/7A	Beavercreek Road	Retail	Full Access
		7B/8	Beavercreek Road		Full Access
8	Younger Property- UHaul/3-2E-05D-00500 3-2E-05D-00401	7B/8	Beavercreek Road	Vacant	Full Access
9	Pioneer Car Wash/ 3-2E-05D-00402	9	Beavercreek Road	Retail	Full Access
10	Milton Brown Property Owner-Nelson's Nautilus, Clark's Lawn & Garden, Mobile Motor Medic, and Cascade Canopies/ 3-2E-05D-00202 3-2E-05D-00204 3-2E-05D-00208	10A	Beavercreek Road	Retail/ Automotive	Full Access
		10B	Beavercreek Road		Full Access
		10C	Beavercreek Road		Full Access
		10D	Beavercreek Road		Closed
11	Fred Meyer 3-2E-05D-01204	11/13/14	Beavercreek Road	Retail	Full Access (Signal)
12	Checkpoint Motors 3-2E-05D-00209	12	Beavercreek Road	Automotive	Full Access
13	Oregon City Car Wash 3-2E-05D-01204	11/13/14	Beavercreek Road	Retail	Full Access (Signal)
14	Pacific Investment Properties 3-2E-05D-01212	11/13/14	Beavercreek Road	Retail	Full Access (Signal)
15	Rumbold's Heating/Rusty's Resale 3-2E-05D-00205	15	Beavercreek Road	Retail	Full Access

**Table 2 (Cont). Background Property Information**

Property Number*	Business/Tax Lot #	Driveway Number*	Roadway Frontage	Property Usage	Current Usage
16	Oregon City Auto Service/ 3-2E-05D-00207	16/17	Beavercreek Road	Automotive	Full Access
17	Jiffy Lube 3-2E-05D-00214	16/17	Beavercreek Road	Automotive	Full Access
18	Del Mesa Farms 3-2E-05D-01300	18	Fir Street	Industrial	Full Access
19	Southridge Mini Storage/ 3-2E-05D-00100	19	Beavercreek Road	Industrial	Full Access
20	Berryhill Apartments/ 3-2E-04C-00803	20/23	Beavercreek Road	Multi-Family Residential	Full Access
21	Steve Hopkins Property/ 3-2E-04C-00800	21	Beavercreek Road	Vacant	Full Access
22	Newell Creek Apartments/ 3-2E-04C-00808	22	Beavercreek Road via Fir Lane	Multi-Family Residential	Full Access
23	Berryhill Townhomes/ 3-2E-04C-90000	20/23	Beavercreek Road	Single-Family Residential	Full Access

\*Note- See Figure 3 for property and driveway reference numbers.

## 4.2 Traffic Characteristics

Traffic volumes were collected and collision data were compiled to determine the traffic characteristics of the study area. These characteristics play a key role in evaluating access management strategies so that mobility and safety can be preserved and/or enhanced.

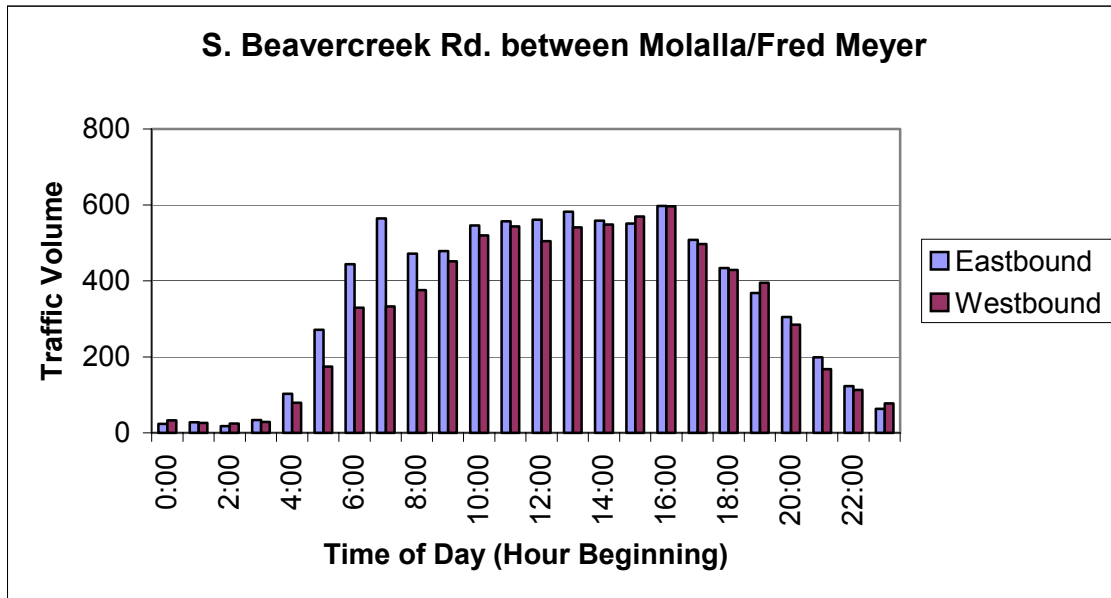
### 4.2.1 Traffic Volumes

In order to determine the traffic volumes present on Beavercreek Road, 24-hour bi-directional traffic volume counts were conducted on Beavercreek Road west of the Fred Meyer signalized access<sup>7</sup>. The daily bi-direction traffic volumes at this location were 16,000 vehicles. The hourly profile is shown in Figure 4.

Recent vehicle turn movement counts were conducted at the existing unsignalized private driveway and public street intersections during the PM peak period (4:00 p.m. to 6:00 p.m.) to determine the existing trip activity within the study area. The peak hour counts are shown in Figure 6 with the traffic counts attached in the appendix.

<sup>7</sup> 24-hour traffic volume/speed counts conducted in April 2004.

**Figure 4. Beavercreek Road Hourly Traffic Volumes (April, 2004)**



**4.2.2 Existing Intersection Operations**

Based on the intersection turn movement counts as previously discussed, intersection operations were evaluated based on the *2000 Highway Capacity Manual* methodology for signalized and unsignalized intersections<sup>8</sup>. The City of Oregon City identifies level of service “D” as their minimum performance standard<sup>9</sup>.

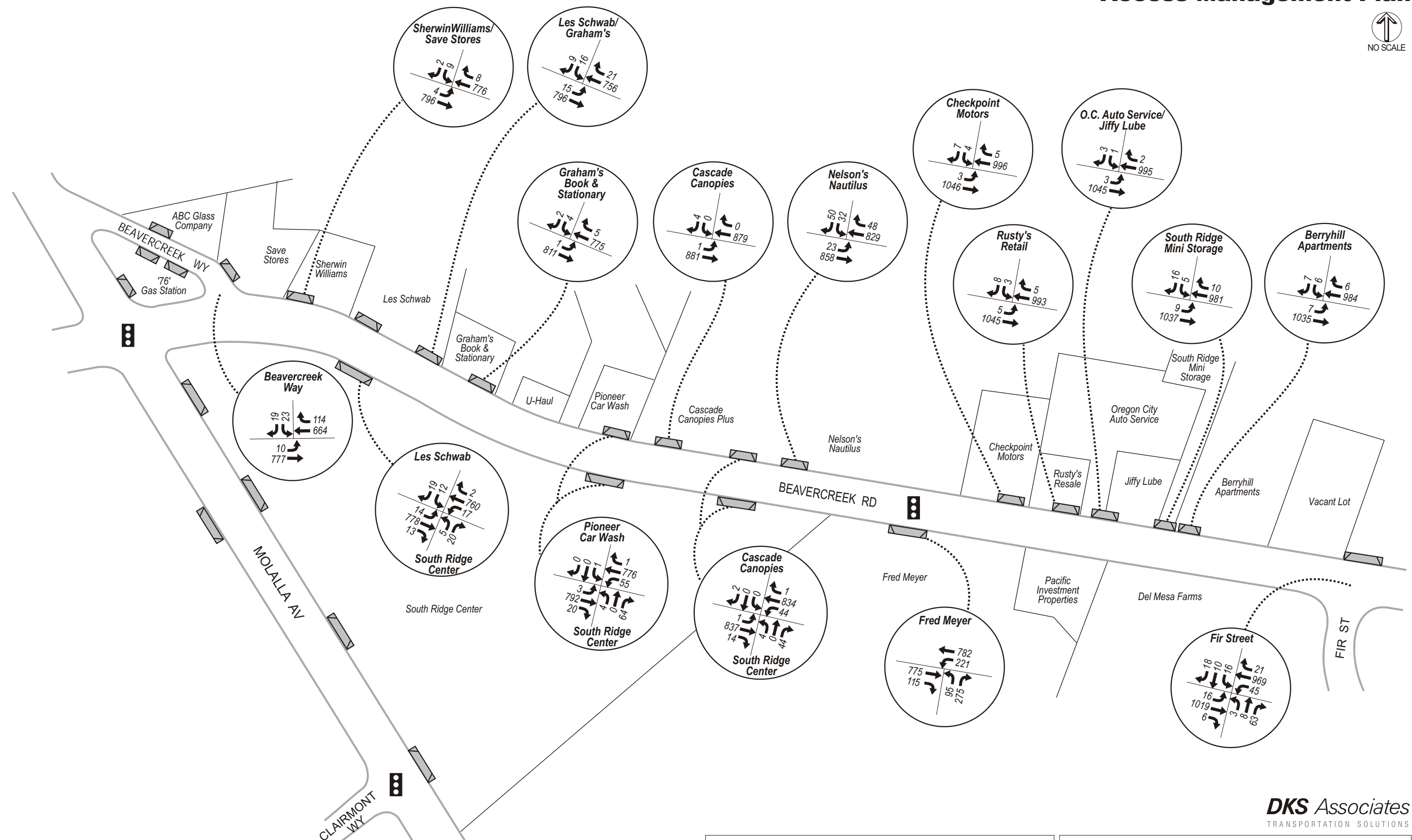
**Minimum Transportation Performance Standard.** The City of Oregon City identifies LOS D (average vehicle delay below 55.0 seconds for signalized intersections and 35.0 seconds for unsignalized intersections) as the minimum performance standard for both signalized and unsignalized intersections.

Table 3 represents the level of service analysis for existing conditions at study area intersections/driveways. The majority of the unsignalized intersections/driveways do not meet the City’s level of service standard due to the minor street approach to Beavercreek Road. Minor street left turn and through movements incur long delays due to the limited gaps created by heavy through volumes on Beavercreek Road. Only 1% to 5% of the total unsignalized intersection volume would experience unacceptable levels of service. But as the delays increase to minor street left turning traffic, drivers can become impatient and may try to take unacceptable gaps in through traffic thus increasing the potential for collisions along Beavercreek Road.

<sup>8</sup> *2000 Highway Capacity Manual*, Transportation Research Board, Washington D.C. Chapters 16 & 17, 2000.

<sup>9</sup> City of Oregon City Transportation System Plan, Adopted April 2001, p.2-56.

# Beavercreek Road Access Management Plan



**LEGEND**

- Study Driveway
- Signalized Intersection
- PM Peak Volumes

NOTE: Peak Hour of the Beavercreek Corridor Occurred Between 4:00-5:00 PM.

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**Figure 5**  
**PM PEAK HOUR**  
**STUDY AREA VOLUMES**



**Table 3. Existing Level of Service Results**

<i>Intersection/Driveways</i>	<b>PM Peak Hour</b>		
	<i>Delay (sec)</i>	<i>LOS</i>	<i>V/C</i>
<i>Signalized Intersection</i>			
Beavercreek Road/Fred Meyer Access	34.3	C	0.92
<i>Unsignalized Intersection</i>			
Beavercreek Road/Fir Street	>50	B/F	
Beavercreek Road/Berryhill Apts.	43.4	B/E	
Beavercreek Road/Southeridge Mini Storage	35.6	B/E	
Beavercreek Road/Jiffy Lube	32.5	B/D	
Beavercreek Road/Rusty's Resale	35.8	B/E	
Beavercreek Road/Checkpoint Motors	41.9	B/E	
Beavercreek Road/Nelson's Nautilus	56.7	B/F	
Beavercreek Road/Southeridge Center-Nelson's Nautilus	22.3	A/C	
Beavercreek Road/Cascade Canopies	16.1	A/C	
Beavercreek Road/Southeridge Center-Pioneer Car Wash	>50	A/F	
Beavercreek Road/Graham's Stationary	31.7	A/D	
Beavercreek Road/Graham's Stationary-Les Schwab	36.2	A/E	
Beavercreek Road/Les Schwab-Southeridge Center	36.1	A/E	
Beavercreek Road/Sherwin Williams	37.3	A/E	
Beavercreek Road/Beavercreek Way	30.3	A/D	

*Signalized intersection:*

Delay = Average intersection delay  
LOS = Level of service  
V/C = Volume-to-capacity ratio

*Unsignalized intersection:*

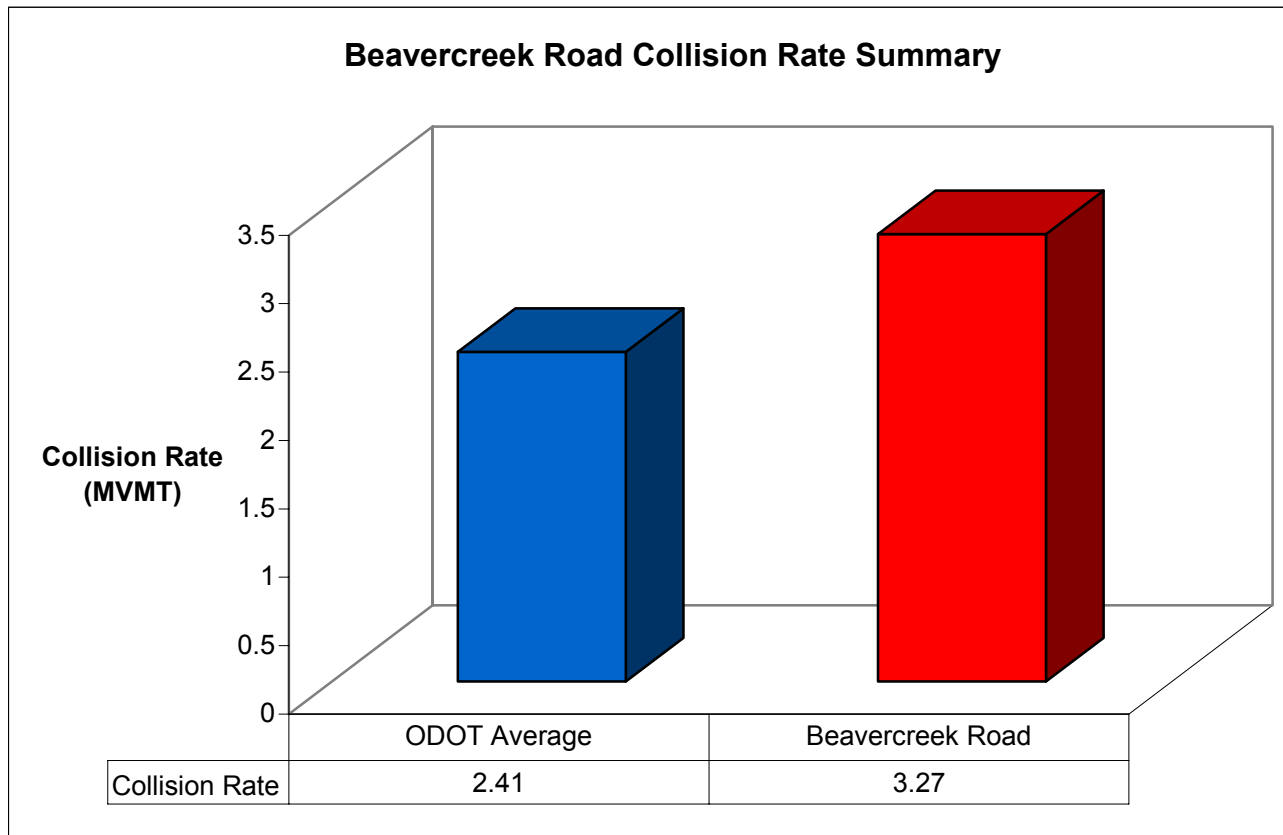
Delay = Average Critical Approach Delay (Minor St.)  
LOS = Major Street Left Turn/Minor Street Approach

**4.2.3 Collision Data**

Collision data for the study area corridor was collected from Clackamas County Sheriff's department and ODOT. There were 27 reported collisions over the last three years of data that resulted in 19 injuries and no fatalities<sup>10</sup>. The majority of these collisions were turning (9 collisions) and rear end (12 collisions) type collisions. It was determined that 12 of the 27 collisions occurred at private unsignalized driveways. The collision rate for this segment of Beaver Creek Road was 3.27 collisions per million vehicle miles traveled. The collision rate for Beaver Creek Road was compared to the statewide average collision rate of 2.41 collisions per million vehicle miles traveled for similar facilities<sup>11</sup> and was found to be 35% higher. The Beaver Creek Road collision rate comparison is summarized in Table 4.

Based on the details of the collision data, the specific driveway location of all of the collisions could not be identified. As the data allowed, collisions were separated into two Beaver Creek Road segments to show the approximate location and frequency of the collisions that occurred. The collision data is summarized in Figure 6.

**Table 4. Collision Rate Summary**



MVMT=Million Vehicle Miles Traveled

<sup>10</sup> Based on collision data provided by ODOT and Clackamas County Sheriff's Department from 2000 to 2002.

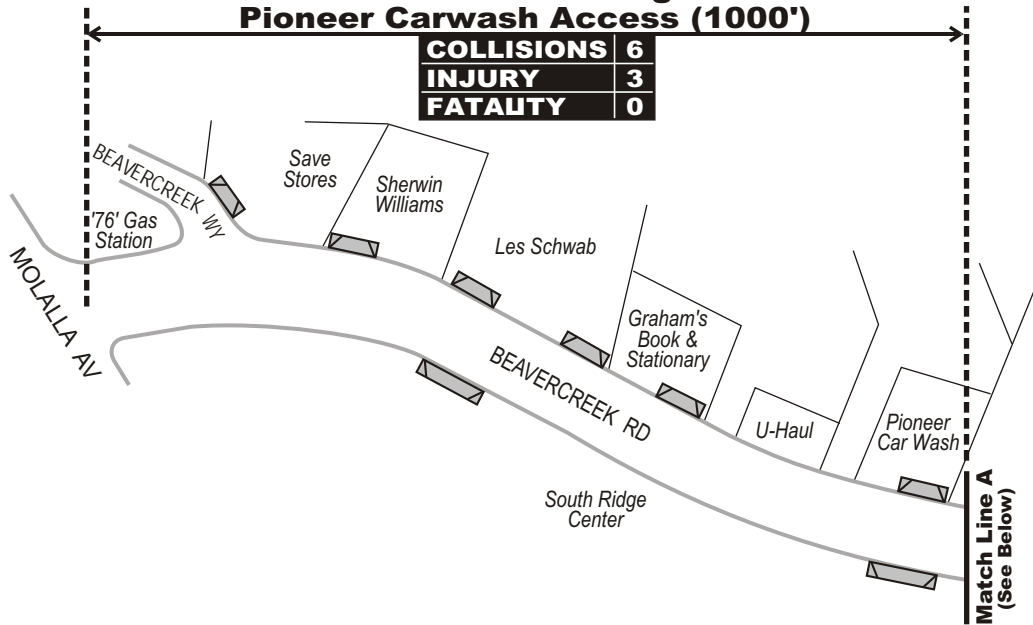
<sup>11</sup> 2003 State Highway Crash Rate Tables, ODOT, January 2005, urban minor arterial classification. This classification was considered most appropriate to Beaver Creek Road.

# Beavercreek Road Access Management Plan



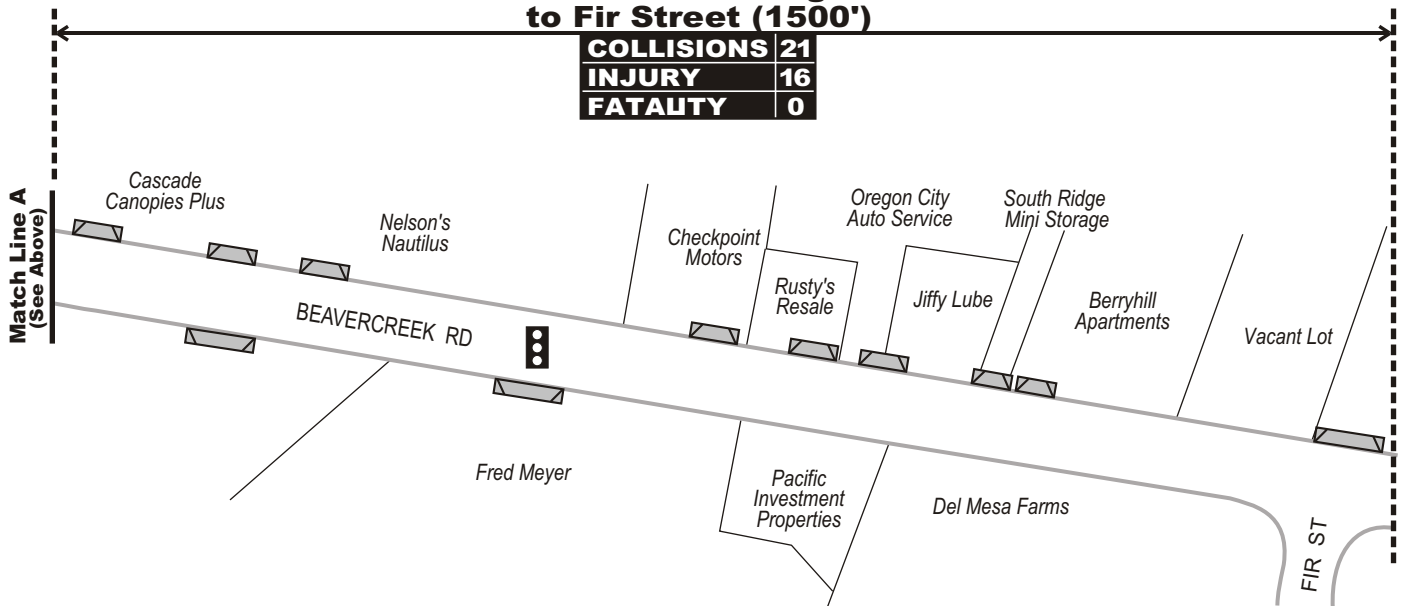
## From Molalla to Southridge Center/ Pioneer Carwash Access (1000')

<b>COLLISIONS</b>	<b>6</b>
<b>INJURY</b>	<b>3</b>
<b>FATALITY</b>	<b>0</b>



## From East of Southridge Center to Fir Street (1500')

<b>COLLISIONS</b>	<b>21</b>
<b>INJURY</b>	<b>16</b>
<b>FATALITY</b>	<b>0</b>



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**Figure 6**  
**THREE-YEAR**  
**COLLISION HISTORY**

### LEGEND

- Study Driveway
- Existing Traffic Signal

## **5.0 ACCESS MANAGEMENT STRATEGIES**

The recommended access management strategy for the study area consists of a short-term plan and a long-term plan. It is important to work with each parcel owner individually to meet their access needs, since significant access management changes implemented in the short-term may adversely affect or limit access to existing businesses and properties. Every effort has been made to ensure that property owners have, and continue to have, reasonable access to their properties.

### **5.1 Property Owner Meetings/Open Houses**

The project team has met individually with the majority of the property owners and business owners to discuss both the Beaver Creek Road improvement project and the access management plan. The feedback provided at these meetings and an initial open house<sup>12</sup> helped form the first iteration of the short-term and long-term access management plans. After a draft of the short-term and long-term access management plan figures were completed, the project team had two public open houses where additional feedback was provided<sup>13</sup>. The open house attendee's were also given the opportunity to set up individual meetings to discuss individual property needs. The project team followed up with these meetings providing detailed input in regards to the access management plans. The short-term and long-term plans as currently shown, have been modified numerous times to address comments received from local property owners.

### **5.2 Short-Term Access Management Plan**

The short-term access management plan involves modification to access that would occur as part of the planned Beaver Creek Road improvement project. These improvements would be constructed when funding is secured. The Beaver Creek Road improvement project was identified in the City's TSP to improve the safety for motorists, pedestrians, bicyclists, and to reduce vehicle congestion along the corridor. The TSP identified the following projects to be incorporated along the Beaver Creek Road corridor within the project study area (between Beaver Creek Way and Fir Street):

- Maintain a typical five-lane cross section with planted median, striped bike lanes, planter strip, as well as sidewalk with curb and gutter on both sides within the project limits (Beaver Creek Way to Fir Street) based on the major arterial functional classification.
- Modify Beaver Creek Road/Fred Meyer Access traffic signal to provide future signalized access to existing businesses to the north.
- Signalize and provide exclusive left turn lanes at the Beaver Creek Road/Fir Street intersection.
- Construct new signalized intersection on Beaver Creek Road adjacent to the Younger Property and Southridge Center.

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<sup>12</sup> Beaver Creek Road Improvement Project Open House, December 8, 2004, Oregon City Commission Chambers.

<sup>13</sup> Beaver Creek Road Access Management Plan Public Open House, March 8 and 17<sup>th</sup>, 2005, Oregon City Commission Chambers.

The short-term plan would include the improvements as identified above and would also modify the Beaver Creek Road/Fred Meyer driveway intersection that would allow for a fourth leg to the north. This new roadway (to be built by others) could provide signalized access to fronting business once the roadway to the north is built.

The short-term plan includes a new traffic signal adjacent to the Younger property (tax lot #3-2E-05D-00501) and Southridge Center (tax lot #3-2E-05D-01211). The purpose of this traffic signal is to provide signalized access to multiple businesses as shown on the short-term and long-term access management plans as well as the undeveloped commercial property to the north (this property is currently owned by WalMart). The intersection layout as shown on the short-term plan is a conceptual layout. The final location/geometry should be determined during final design but shall be aligned to provide safe signalized access to properties on the north and south side of Beaver Creek Road.



New Traffic Signal on Beaver Creek Road to the Younger Property and Southridge Center included as part of Short-Term Plan.

The short-term plan would install raised traffic separators and medians in selective locations to enhance operations and improve safety on Beaver Creek Road and would also provide an area for additional landscaping. The short-term access management plan is shown in Figure 7.

The short-term plan will improve the location of approaches and circulation of existing business traffic, while also working towards meeting access management standards, improving safety, and efficiency.

**5.2.1 Short-Term Access Management Plan by Driveway**

Table 5 describes and Figure 7 illustrates the recommended short-term access management plan that includes the proposed driveway modifications and enhancements that will be required under this plan.

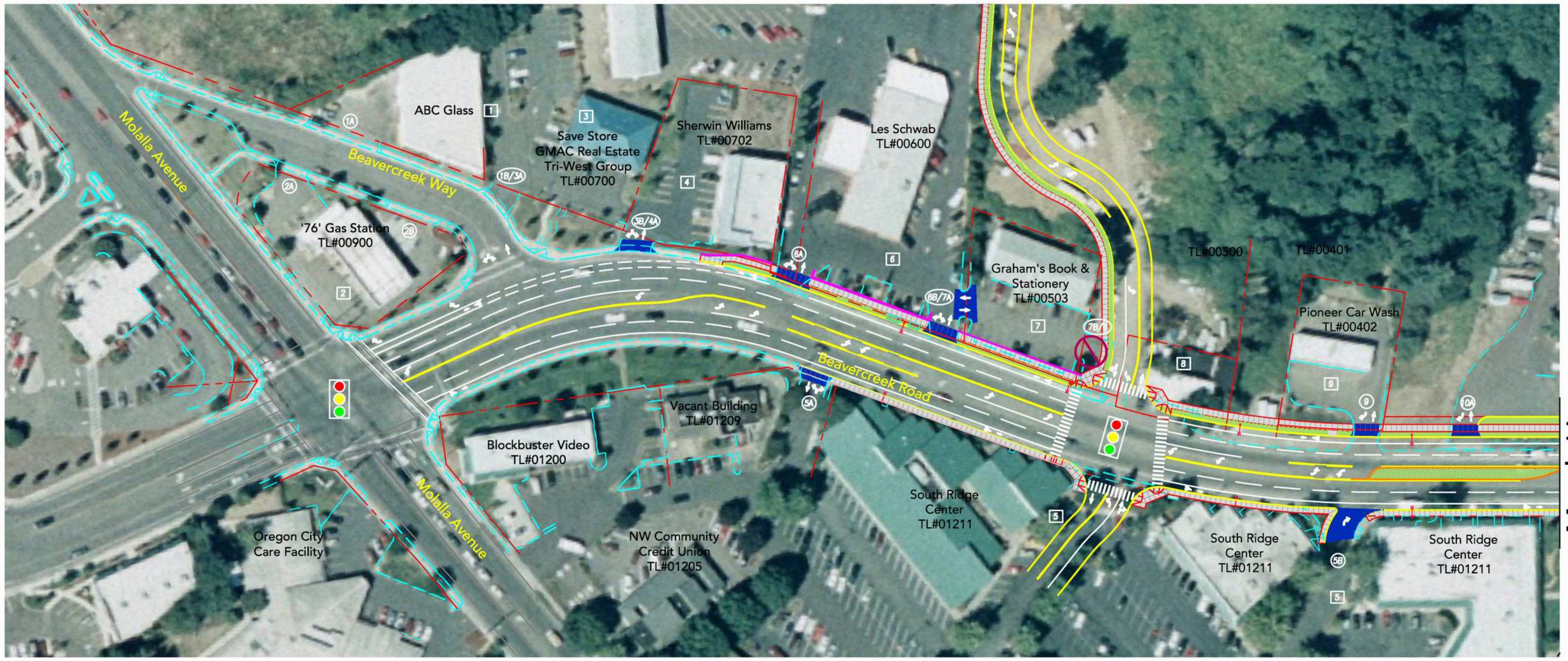
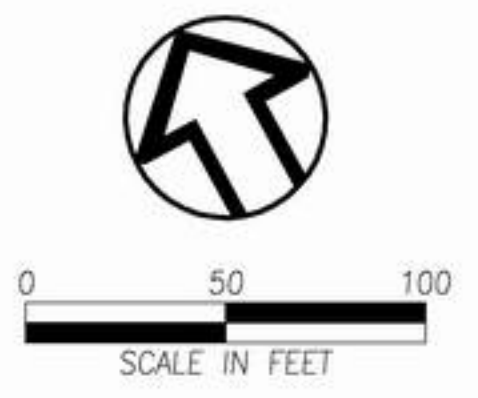
**Table 5. Short-Term Access Management Plan by Driveway**

<b>Driveway Reference Number*</b>	<b>Tax lot #'s</b>	<b>Roadway Frontage (Side)</b>	<b>Short-Term Plan Driveway Comments**</b>
1A	3-2E-05D-00800	Beavercreek Way (E)	No Change.
1B/3A	3-2E-05D-00800/ 3-2E-05D-00700	Beavercreek Way (E)	No Change.
2A	3-2E-05D-00900	Beavercreek Way (W)	No Change.
2B	3-2E-05D-00900	Beavercreek Way (W)	No Change.
3B/4A	3-2E-05D-00700/ 3-2E-05D-00702	Beavercreek Road (N)	No Change.
5A	3-2E-05D-01211	Beavercreek Road (S)	No Change.
5B	3-2E-05D-01211	Beavercreek Road (S)	Modify existing driveway to allow right out movements only. The right in, left in and left out movements shall be prohibited. The property owner has agreed to close access 5B completely if City staff determines that the right out access creates a safety problem.
5C	3-2E-05D-01211	Beavercreek Road (S)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited.
6A	3-2E-05D-00600 3-2E-05D-00602	Beavercreek Road (N)	No Change.
6B/7A	3-2E-05D-00600/ 3-2E-05D-00503	Beavercreek Road (N)	No Change.
7B/8	3-2E-05D-00401 3-2E-05D-00500	Beavercreek Road (N)	Close existing driveway to allow for adjacent traffic signal as shown on Figure 7.
9	3-2E-05D-00402	Beavercreek Road (N)	Relocate the existing access to the western property line (approximately station 19+53) to provide a 24-foot wide access. This driveway shall provide left in, right in and right out movements. The left out movement shall be prohibited per the "Assignment Agreement" SP 98-17 Design Review File #32E0500400.
10A	3-2E-05D-00202 3-2E-05D-00204 3-2E-05D-00208	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited. Modify internal circulation to provide connectivity to all project buildings as shown on the short-term plan (see Figure 7).
10B	3-2E-05D-00202 3-2E-05D-00204 3-2E-05D-00208	Beavercreek Road (N)	Remove existing driveway. Modify internal circulation to provide connectivity to all project buildings as shown on the short-term plan (see Figure 7).
10C	3-2E-05D-00202 3-2E-05D-00204 3-2E-05D-00208	Beavercreek Road (N)	Modify existing driveway to allow left in, right in and right out movements. The left out movement shall be prohibited.

**Table 5 (cont.). Short-Term Access Management Plan by Driveway**

<b>Driveway Reference Number*</b>	<b>Tax lot #'s</b>	<b>Roadway Frontage (Side)</b>	<b>Short-Term Plan Driveway Comments**</b>
10D	3-2E-05D-00202 3-2E-05D-00204 3-2E-05D-00208	Beavercreek Road (N)	No Change. Access is currently closed.
11/13/14	3-2E-05D-01204/ 3-2E-05D-01212	Beavercreek Road (S)	No Change.
12	3-2E-05D-00209	Beavercreek Road (N)	No Change.
15	3-2E-05D-00205	Beavercreek Road (N)	No Change.
16/17	3-2E-05D-00207/ 3-2E-05D-00214	Beavercreek Road (N)	No Change.
18	3-2E-05D-01300	Fir Street	Traffic signal would be constructed at Beavercreek Road/Fir Street.
19	3-2E-05D-00100	Beavercreek Road (N)	No Change.
20/23	3-2E-04C-00803	Beavercreek Road (N)	No Change.
21	3-2E-04C-00800	Beavercreek Road (N)	Property is currently vacant. When development occurs, this driveway should allow for right in and right out movements only. Obtain cross-access agreement with property 22 (tax lot #3-2E-04C-00808) to provide signalized access. Once property 21 has access to signal, access 21 should be removed.
22	3-2E-04C-00808	Beavercreek Road (N)	Traffic signal would be constructed at Beavercreek Road/Fir Street.
<p>Note- *See Figure 7 for driveway reference numbers.  **See Figure 7 for graphical representation of driveway description.</p>			





Match Line

**Legend**

- Landscaping Areas
- Cement Concrete Surfacing
- Driveway
- Street Lights
- Property Number
- Existing Driveway Reference Number
- Traffic Signals
- Driveway Closure

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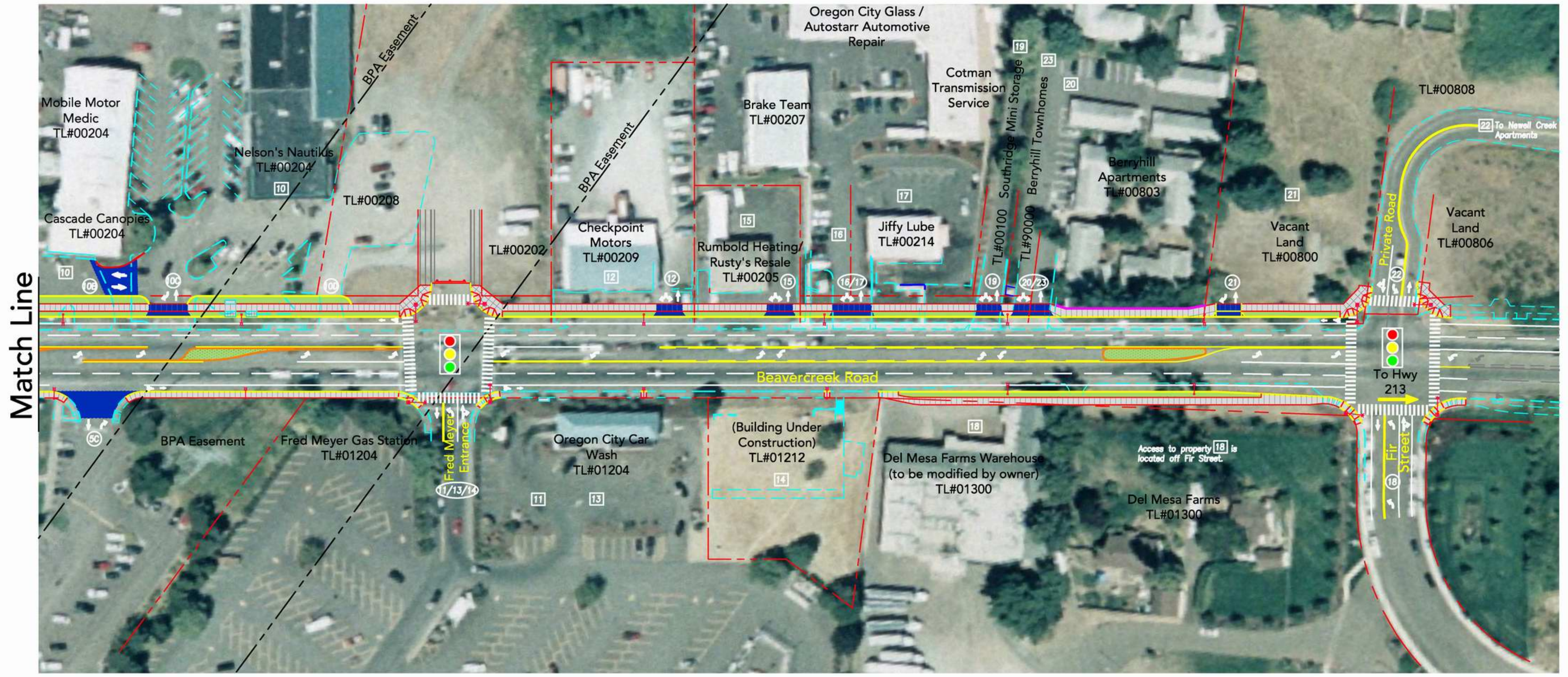


**Figure 7**  
**Short-Term Access Management Plan**  
Adopted October 19, 2005  
by Ordinance No. 05-1007  
Page 1 of 2





0 50 100  
SCALE IN FEET



### Legend

	Landscaping Areas
	Cement Concrete Surfacing
	Driveway
	Street Lights
	Property Number
	Existing Driveway Reference Number
	Traffic Signals
	Driveway Closure

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**Figure 7 (cont.)  
Short-Term Access  
Management Plan**

Adopted October 19, 2005  
by Ordinance No. 05-1007  
Page 2 of 2



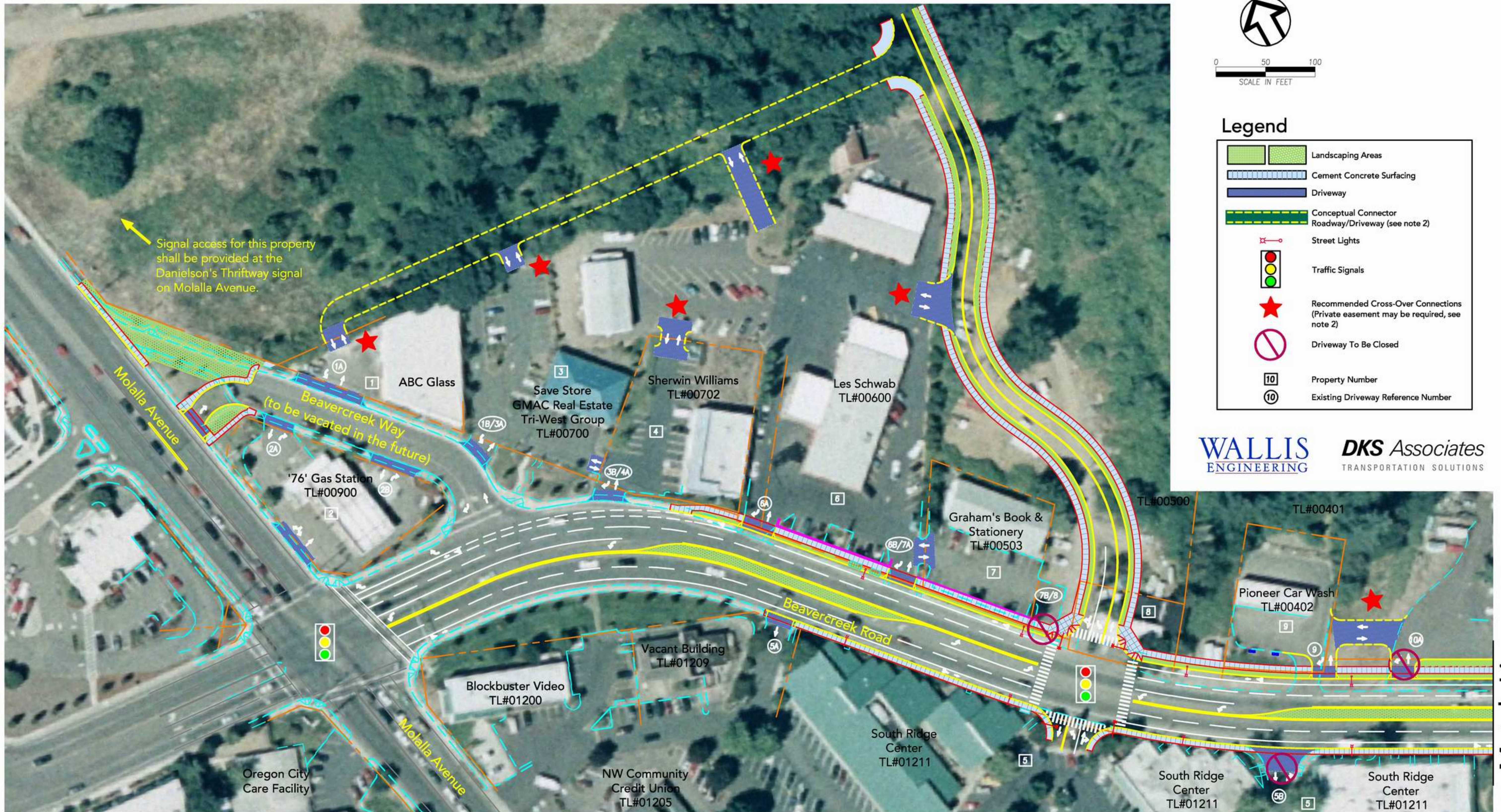
### **5.3 Long-Term Access Management Plan**

The long-term access management plan includes strategies for private approaches when and if new development or redevelopment occurs beyond the short-term plan. It is expected that the long-term plan could take numerous years to be implemented since it is dependant upon economic redevelopment. By identifying and adopting these long-term strategies now, it will help the City of Oregon City gradually improve roadway operation and safety through sound access management strategies in future years. The main goal of the long-term plan is to improve safety and operations on the corridor while maintaining reasonable access to each parcel through local access to traffic signals. The long-term plan is illustrated in Figure 8.

It is the intention of this plan that Beaver creek Way be vacated as part of the long-term access management plan. This roadway shall be vacated when both the Union 76 gas station (tax lot #3-2E-05D-00900) and ABC Glass (tax lot #3-2E-05D-00800) properties redevelop. The Beaver creek Way street vacation should preserve utility easements, giving the previous right-of-way to the adjacent property owners, and requiring cross access easements between fronting businesses.

The long-term plan includes a raised median for the entire length of Beaver creek Road from Molalla Avenue to Fir Street with the exception of median breaks at existing and planned traffic signals. Unsignalized driveways as shown in Figure 8 shall be consolidated on property lines as redevelopment occurs to the maximum extent as feasible.





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Notes:

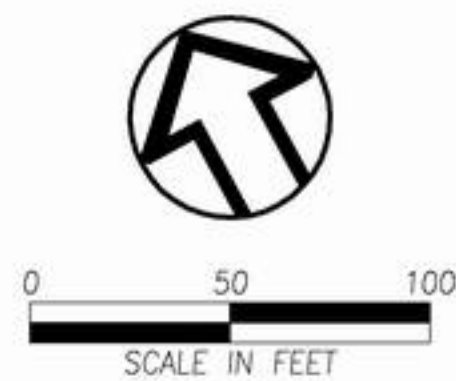
1. The goal of the Long Term Access Management Plan is to reduce conflict points, improve safety, and increase vehicle capacity of Beaver Creek Road. The specific objectives of the Long Term Access Management Plan are to provide all properties adjacent to Beaver Creek Road connectivity to a signalized intersection on Beaver Creek Road, and to close and/or consolidate driveways to reduce conflict points and improve overall safety.
2. Crossover agreements between properties shall be provided during redevelopment to meet the above goals and objectives. Locations of crossover connections have been shown conceptually. Final locations may be adjusted during the site plan process provided the goal of the Long Term Plan is met.
3. This plan shall be implemented as redevelopment and/or property consolidation occurs along Beaver Creek Road.



Figure 8  
Long-Term Access  
Management Plan

Adopted October 19, 2005  
by Ordinance No. 05-1007  
Page 1 of 2





Legend

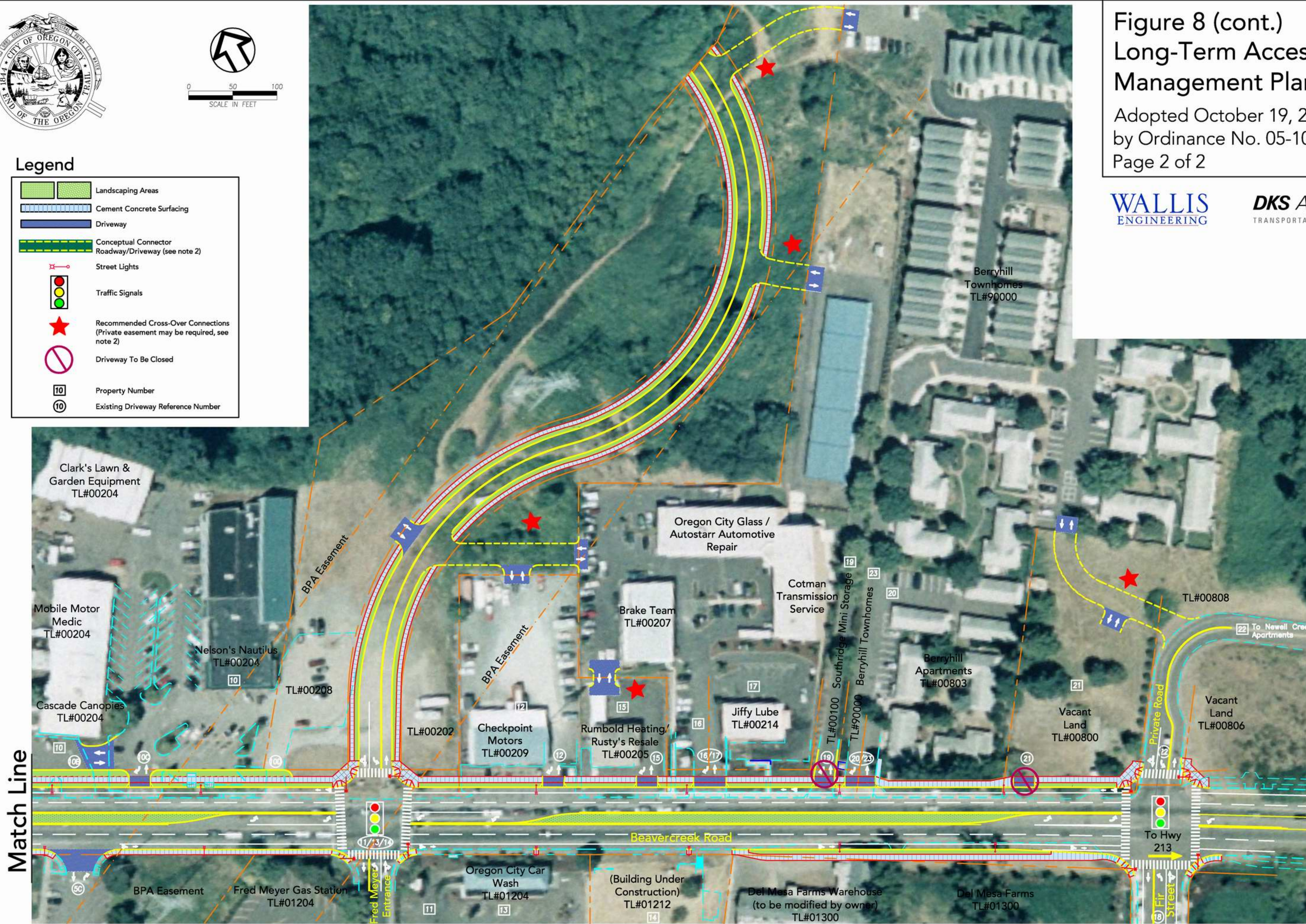
- Landscaping Areas
- Cement Concrete Surfacing
- Driveway
- Conceptual Connector Roadway/Driveway (see note 2)
- Street Lights
- Traffic Signals
- Recommended Cross-Over Connections (Private easement may be required, see note 2)
- Driveway To Be Closed
- Property Number
- Existing Driveway Reference Number

# Figure 8 (cont.) Long-Term Access Management Plan

Adopted October 19, 2005  
by Ordinance No. 05-1007  
Page 2 of 2

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Berryhill  
Townhomes  
TL#90000

TL#00808

Berryhill  
Apartments  
TL#00803

Vacant  
Land  
TL#00800

Vacant  
Land  
TL#00806

Beaver Creek Road

To Hwy  
213

Match Line

BPA Easement Fred Meyer Gas Station  
TL#01204

Oregon City Car  
Wash  
TL#01204

(Building Under  
Construction)  
TL#01212

Del Mesa Farms Warehouse  
(to be modified by owner)  
TL#01300

Del Mesa Farms  
TL#01300

Fir  
Street



**5.3.1 Long-Term Access Management Plan Signalized Intersection Analysis**

The long-term access management plan is dependant upon existing and future traffic signals to provide access to businesses. To assure capacity is provided, future 2020 analysis was conducted at the proposed signalized intersections as shown on the long-term access management plan. The 2020 scenario was selected since it is consistent with the horizon year in the City of Oregon City TSP. No analysis was conducted for the unsignalized study area driveways since medians are shown to restrict all unsignalized access to right-in/right out and would therefore operate acceptably. This scenario assumes that the long-term access management plan has been implemented in it's entirety within the next 15-years. The future traffic volumes are shown in Figure 9 and the intersection operations are summarized in Table 6.

**Table 6. Future 2020 Level of Service Results with Long-Term (AMP)**

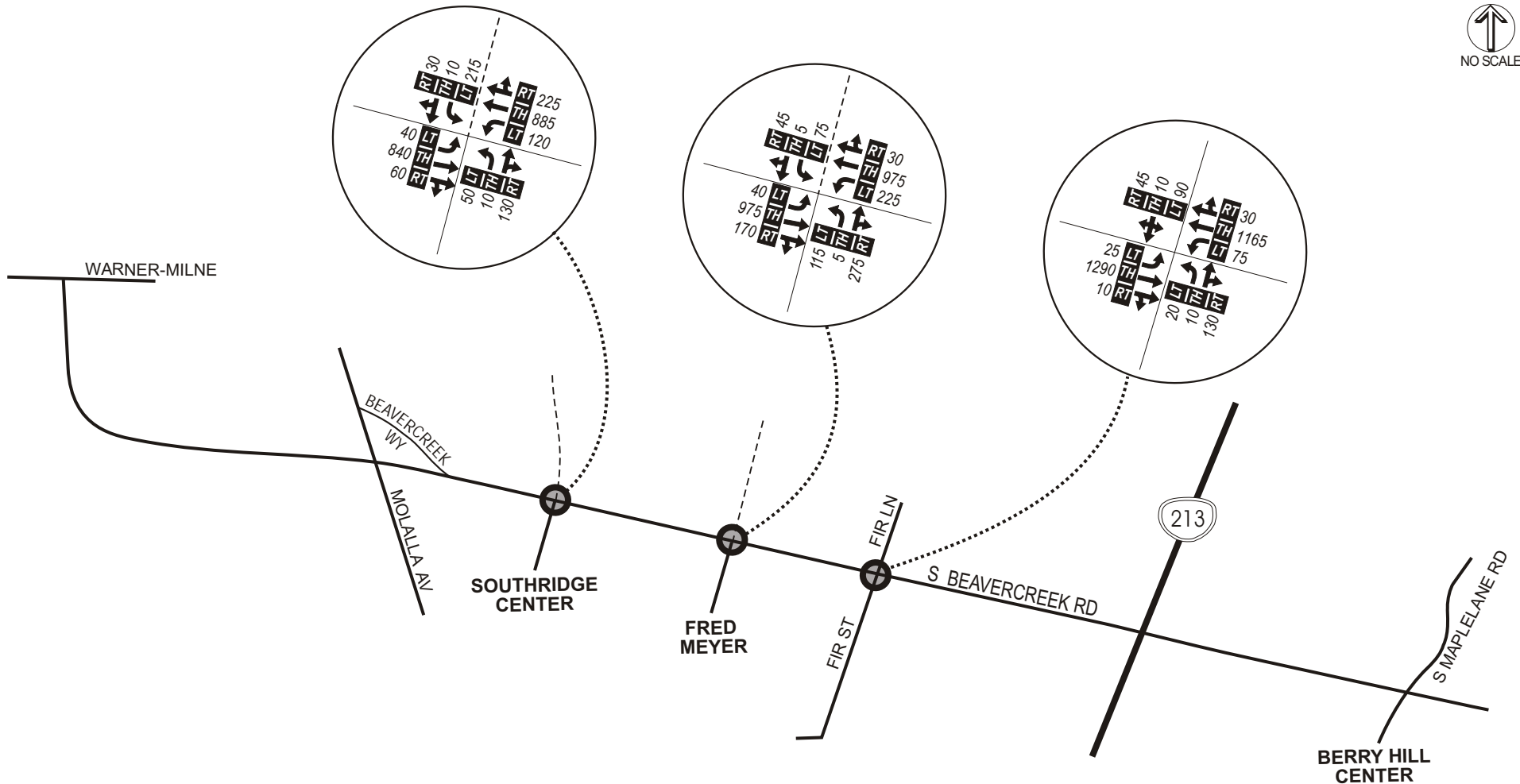
<i>Signalized Intersection</i>	<b>PM Peak Hour</b>		
	<i>Delay (sec)</i>	<i>LOS</i>	<i>V/C</i>
Beavercreek Road/Fir Street	14.2	B	0.59
Beavercreek Road/Fred Meyer Access	28.3	C	0.73
Beavercreek Road/Southridge Center-Younger Property	23.4	C	0.63

*Signalized intersection:*  
 Delay = Average intersection delay  
 LOS = Level of service  
 V/C = Volume-to-capacity ratio

**5.3.2 Long-Term Access Management Plan by Driveway**

The recommended long-term plan, as detailed in Table 7 and Figure 8 (shown previously), includes a strategy to improve safety and operations on the corridor while maintaining reasonable access to each parcel.

# Beavercreek Road Access Management Plan



LEGEND	
	- Study Intersection
	- Lane Configuration
	- Proposed Connection
XXX	- 2020 PM Peak Hour Traffic Volume
	- Right Turn Movement
	- Through Movement
	- Left Turn Movement

**Figure 9**  
**FUTURE 2020 PM PEAK HOUR TRAFFIC VOLUMES**  
**WITH LONG-TERM ACCESS MANAGEMENT**  
**PLAN IMPLEMENTED**

**Table 7. Long-Term Access Management Plan by Driveway**

<b>Driveway Reference Number*</b>	<b>Tax lot #'s</b>	<b>Roadway Frontage (Side)</b>	<b>Long-Term Plan Driveway Comments**</b>
1A	3-2E-05D-00800	Beavercreek Way (E)	Beavercreek Way to be vacated when tax lot parcels 3-2E-05D-00800, 3-2E-05D-00700 and 3-2E-05D-00900 redevelop. Obtain access to future signal by cross access easement to the north (WalMart property tax lot #3400).
1B/3A	3-2E-05D-00800/ 3-2E-05D-00700	Beavercreek Way (E)	Beavercreek Way to be vacated when tax lot parcels 3-2E-05D-00800, 3-2E-05D-00700 and 3-2E-05D-00900 redevelop. Obtain access to future signal by cross access easement to the north (WalMart property tax lot #3400).
2A	3-2E-05D-00900	Beavercreek Way (W)	Beavercreek Way to be vacated when tax lot parcels 3-2E-05D-00800, 3-2E-05D-00700 and 3-2E-05D-00900 redevelop. Obtain access to future signal by cross access easement to the north (WalMart property tax lot #3400).
2B	3-2E-05D-00900	Beavercreek Way (W)	Beavercreek Way to be vacated when tax lot parcels 3-2E-05D-00800, 3-2E-05D-00700 and 3-2E-05D-00900 redevelop. Obtain access to future signal by cross access easement to the north (WalMart property tax lot #3400).
3B/4A	3-2E-05D-00700/ 3-2E-05D-00702	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited. Obtain a cross access easement with property 6 (tax lot #3-2E-05D-00600).
5A	3-2E-05D-01211	Beavercreek Road (S)	Modify existing driveway to allow right in movements only. The right out, left in and left out movements shall be prohibited. Access to a future traffic signal is provided with this plan.
5B	3-2E-05D-01211	Beavercreek Road (S)	Close existing driveway. Access to a future traffic signal is provided with this plan.
5C	3-2E-05D-01211	Beavercreek Road (S)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited. Access to a future traffic signal is provided with this plan.
6A	3-2E-05D-00600 3-2E-05D-00602	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited. Obtain cross access easements to the north and east to provide signalized access.
6B/7A	3-2E-05D-00600/ 3-2E-05D-00503	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited. Obtain cross access easements to the north and east to provide signalized access.
7B/8	3-2E-05D-00401 3-2E-05D-00500	Beavercreek Road (N)	Same as short-term plan. Access to traffic signal via cross access agreement with Les Schwab.

**Table 7 (cont.). Long-Term Access Management Plan by Driveway**

<b>Driveway Reference Number*</b>	<b>Tax lot #'s</b>	<b>Roadway Frontage (Side)</b>	<b>Long-Term Plan Driveway Comments**</b>
9	3-2E-05D-00402	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited. Obtain cross access easement to the parcel to east (tax lot #3-2E-05D-00204).
10A	3-2E-05D-00204	Beavercreek Road (N)	Consolidate existing driveway with driveway 9.
10B	3-2E-05D-00204	Beavercreek Road (N)	No change from short-term plan.
10C	3-2E-05D-00204	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited.
10D	3-2E-05D-00204	Beavercreek Road (N)	Same as short-term plan.
11/13/14	3-2E-05D-01204/ 3-2E-05D-01212	Beavercreek Road (S)	No Change.
12	3-2E-05D-00209	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited. Obtain cross access easement to the parcel to the west (tax lot #3-2E-05D-00202) to allow access to traffic signal.
15	3-2E-05D-00205	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. The left in and left out movements shall be prohibited. Obtain cross access easements to the adjacent parcel to the north (tax lot #3-2E-05D-00207) and/or to the east (tax lot #3-2E-05D-00209) to allow access to traffic signal.
16/17	3-2E-05D-00207/ 3-2E-05D-00214	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. Obtain cross access easement to adjacent parcel to the west (tax lot #3-2E-05D-00202).
18	3-2E-05D-01300	Fir Street	Same as short-term plan.
19	3-2E-05D-00100	Beavercreek Road (N)	Remove existing driveway. Obtain a cross access easement to the parcel to the east (tax lot #3-2E-05D-00202) to provide access to the traffic signal.
20/23	3-2E-04C-00803	Beavercreek Road (N)	Modify existing driveway to allow right in and right out movements. Obtain a cross access easement to the east (tax lot #3-2E-04C-00800) to provide access to the Fir Lane traffic signal.
21	3-2E-04C-00800	Beavercreek Road (N)	Same as short-term plan.
22	3-2E-04C-00808	Beavercreek Road (N)	Same as short-term plan.
<p>Note- *See Figure 8 for driveway reference numbers.  **See Figure 8 for graphical representation of driveway description.</p>			



#### **5.4 Access Management Plan by Property**

The following section provides a detailed summary of how the short-term and long-term access management plans would affect each property.

##### **5.4.1 Property #1 (ABC Glass)-Tax lot #3-2E-05D-00800**

No short-term access changes are required.

In the long-term plan, the city would vacate Beaver Creek Way when properties #1, #2 (tax lot #3-2E-05D-00900) and #3 (tax lot #3-2E-05D-00700) redevelop. The City with the street vacation would preserve utility easements (as required) with the associated right-of-way being given to the adjacent property owners. The street vacation would require cross access easements between fronting businesses. An additional cross access easement to the north should be provided with the WalMart property (tax lot #3400) to provide this property with access to the new traffic signal as shown on the long-term plan when redevelopment occurs with either parcel. At the point properties #1, #2, and #3 redevelop, a traffic separator shall be installed on Beaver Creek Road as shown on the long-term plan.

##### **5.4.2 Property #2 (Union 76 Gas Station)- Tax lot #3-2E-05D-00900**

No short-term access changes are required.

In the long-term plan, the city would vacate Beaver Creek Way when properties #1 (tax lot #3-2E-05D-00800), #2 and #3 (tax lot #3-2E-05D-00700) redevelop. The City with the street vacation would preserve utility easements with the associated right-of-way being given to the adjacent property owners. The street vacation would require cross access easements between fronting businesses. At the point properties #1, #2, and #3 redevelop, a traffic separator shall be installed on Beaver Creek Road as shown on the long-term plan.

##### **5.4.3 Property #3 (Save Store)- Tax lot #3-2E-05D-00700**

No short-term access changes are required.

In the long-term plan, the city would vacate Beaver Creek Way when properties #1 (tax lot #3-2E-05D-00800), #2 (tax lot #3-2E-05D-00900) and #3 redevelop. The City with the street vacation would preserve utility easements with the associated right-of-way being given to the adjacent property owners. The street vacation would require cross access easements between fronting businesses. At the point properties #1, #2, and #3 redevelop, a traffic separator shall be installed on Beaver Creek Road as shown on the long-term plan.

In the long-term plan, a cross access easement will be required with the WalMart property (tax lot #3400) to the north to provide property #3 with access to the new traffic signal when redevelopment of either parcel occurs.

##### **5.4.4 Property #4 (Sherwin Williams)- Tax lot #3-2E-05D-00702**

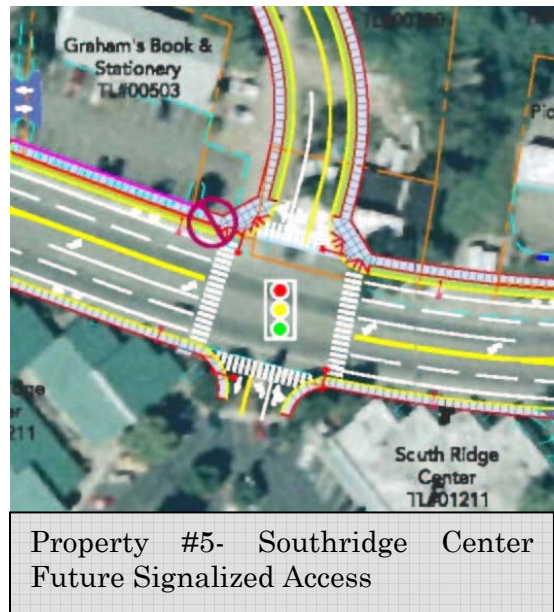
No short-term access changes are required.

The long-term plan would modify the existing access 3B/4A to allow right in and right out movements with a raised median located on Beaver Creek Road. A cross access easement with Les Schwab property #6 (tax lot #3-2E-05D-00600) shall be provided when redevelopment of either parcel occurs.

**5.4.5 Property #5 (Southridge Center)- Tax lot #3-2E-05D-01211**

The short-term plan would modify access 5B to allow for right out movements only. The right in, left in, and left out movements at access 5B shall be prohibited. The property owner has agreed to close access 5B completely if City staff determines that the right out access creates a safety problem. Access 5C would be modified in the short-term plan to allow right in and right out movements with a raised median located on Beaver Creek Road.

The short-term plan provides Southridge Center with a new signalized access. The intersection layout as shown on the short-term plan is a conceptual layout. The final location/geometry should be determined during final design but shall be aligned to provide safe signalized access to Southridge Center and properties on the north side of Beaver Creek Road. The construction of a traffic signal as shown on the long-term plan would require Southridge Center to make on-site circulation improvements to accommodate the traffic signal.



In the long-term plan, Southridge Center access 5A shall be modified for right in movements only, access 5B shall be removed, and access 5C shall be modified for right in and right out movements only.

**5.4.6 Property #6 (Les Schwab)- Tax lot #3-2E-05D-00600 and #3-2E-05D-00602**

No short-term access changes are required for this property.

As redevelopment occurs, the long-term plan would modify both accesses 6A and 6B/7A to allow for right in and right out movements only with a raised median located on Beaver Creek Road. Cross access agreements shall be obtained to the east from property #6 to property #8 (tax lot #3-2E-05D-00500), to the north from property #6 to the WalMart property (tax lot #3400), and to the west from property #6 to property #4 (tax lot #3-2E-05D-00702) to provide connectivity to the new traffic signal as shown on the long-term plan. Accesses 6A and 6B/7A shall be restricted by the raised median as shown on the long-term plan once access to the future traffic signal is provided.

**5.4.7 Property #7 (Graham's Stationery)- Tax lot #3-2E-05D-00503**

This property currently has a cross-access agreement with property #6 (tax lot #3-2E-05D-00600) and property #8 (tax lot #3-2E-05D-00500).

Access 7B/8 would be removed with the construction of the adjacent traffic signal as shown on the short-term plan.

The long-term plan would modify access 6B/7A to right in right out movements only with a raised median located on Beaver Creek Road. This property would have connectivity to the future traffic signal through the Les Schwab site.

5.4.8 Property #8 (Younger Property)- Tax lot #3-2E-05D-00500 and Tax lot #3-2E-05D-00401

This property is currently vacant (with the exception of UHaul). The short-term plan would provide this property with signalized access. A cross access agreement between this property and the Les Schwab Property #6 (tax lot #3-2E-05D-00600) to the west shall be provided when redevelopment of either parcel occurs.

5.4.9 Property #9 (Pioneer Carwash)- Tax lot #3-2E-05D-00402

The short-term plan would relocate the existing access 9 to the western property line to provide a 24-foot wide access. This driveway shall provide left in, right in and right out movements. The left out movement shall be prohibited per the “Assignment Agreement” SP 98-17 Design Review File #32E0500400.

The long-term plan would modify access 9 to right in right out movements only with a raised median located on Beaver Creek Road. A cross access easement shall be provided to the east between property #9 and property #10 (tax lot #3-2E-05D-00204).

5.4.10 Property #10 (Milton Brown Property)- Tax lot #3-2E-05D-00202, #3-2E-05D-00204 and #3-2E-05D-00208

The short-term plan shows this property being served with a new traffic signal when redevelopment occurs. The signalized access to property #10 would be provided opposite the existing Fred Meyer signalized access. The utilization of the traffic signal would require this property to construct a new roadway to the north as shown on the long-term plan.



Signalized access to property #10

The short-term plan would keep access 10D closed as is today. Access 10B would be removed. The internal circulation should be modified to provide connectivity to all project buildings as shown on the short-term plan. Access 10A would be modified to allow right in and right out movements with a raised traffic separator located on Beaver Creek Road. Access 10C would be modified to allow for left in, right in and right out movements. The left out movement shall be prohibited as shown on the short-term plan.

The long-term plan would consolidate access 10A with access 9 (property #9). Access 10C would be modified for right in and right out movements with a raised median located on Beaver Creek Road.

As redevelopment occurs, cross access easements shall be provided as shown on the long-term plan. These cross access easements are needed between property #10 and property #9 (tax lot #3-2E-05D-00402) to the west, and properties #12 (tax lot #3-2E-05D-00209), #16 (tax lot #3-2E-05D-00207), #19 (tax lot #3-2E-05D-00100), and #23 (tax lot #3-2E-04C-

90000) to the east. The overall site circulation of this property should be evaluated during redevelopment to make sure long-term access will accommodate all businesses (i.e. all businesses have access to traffic signal).

**5.4.11 Property #11 (Fred Meyer)- Tax lot #3-2E-05D-01204**

There are no short-term or long-term access changes with this property.

**5.4.12 Property #12 (Checkpoint Motors)- Tax lot #3-2E-05D-00209**

There are no short-term access changes with this property. The frontage of this property will be improved creating a formal driveway.

The long-term plan would modify access 12 for right in and right out movements with a raised median located on Beaver Creek Road. As redevelopment occurs, a cross access easement shall be provided between property #12 and property #10 (tax lot #3-2E-05D-00202) to provide future access to a traffic signal from this property. Access 12 shall be restricted by the raised median as shown on the long-term plan once access to the Fred Meyer traffic signal is provided.

**5.4.13 Property #13 (Oregon City Car Wash)- Tax lot #3-2E-05D-01204**

There are no short-term or long-term access changes with this property.

**5.4.14 Property #14 (Pan Pacific Properties)- Tax lot #3-2E-05D-01212**

There are no short-term or long-term access changes with this property.

**5.4.15 Property #15 (Rumbold Property)- Tax lot #3-2E-05D-00205**

There are no short-term access changes with this property.

The long-term plan would modify access 15 for right in and right out movements with a raised median located on Beaver Creek Road. As redevelopment occurs, a cross access easement shall be provided between property #15 and property #16 (tax lot #3-2E-05D-00207) to provide future access to a traffic signal from this property. Access 15 shall be restricted by the raised median as shown on the long-term plan once access to the Fred Meyer traffic signal is provided with cross access easements.

**5.4.16 Property #16 (Oregon City Auto Service)- Tax lot #3-2E-05D-00207**

There are no short-term access changes with this property.

The long-term plan would modify access 16/17 for right in and right out movements with a raised median located on Beaver Creek Road. As redevelopment occurs, a cross access easement shall be provided between property #16 and properties #15 (tax lot #3-2E-05D-00205) and #10 (tax lot #3-2E-05D-00202) to provide future access to a traffic signal from this property and adjacent properties. Access 16/17 shall be restricted by the raised median as shown on the long-term plan once access to the Fred Meyer traffic signal is provided with cross access easements.

**5.4.17 Property #17 (Jiffy Lube)- Tax lot #3-2E-05D-00214**

There are no short-term access changes with this property.

The long-term plan would modify access 16/17 for right in and right out movements with a raised median located on Beaver Creek Road. Access 16/17 shall be restricted by the raised median as shown on the long-term plan once access to the Fred Meyer traffic signal is provided with cross access easements.

**5.4.18 Property #18 (Del Mesa Farms)- Tax lot #3-2E-05D-01300**

The short-term plan would enhance access to this property with the construction of a traffic signal at the Beaver Creek Road/Fir Street-Fir Lane intersection.

There are no long-term access changes with this property.

**5.4.19 Property #19 (Southridge Mini Storage)- Tax lot #3-2E-05D-00100**

There are no short-term access changes with this property.

As redevelopment of this property occurs, the long-term plan would remove access 19. A cross access easement shall be provided to and from property #10 (tax lot #3-2E-05D-00202) to provide future access to a traffic signal from this property. Access 19 shall be removed once access to the Fred Meyer traffic signal is provided with cross access easements.

**5.4.20 Property #20 (Berryhill Apartments)- Tax lot #3-2E-04C-00803**

There are no short-term access changes with this property.

The long-term plan would modify access 20/23 for right in and right out movements with a raised median located on Beaver Creek Road. During redevelopment, a cross access easement with property #21 (tax lot #3-2E-04C-00800) and property #22 (tax lot #3-2E-04C-00808) to the east shall be obtained to provide access to and from the Fir Lane traffic signal. Access 20/23 shall be restricted by the raised median as shown on the long-term plan once access to the future Fir Street traffic signal is provided with cross access easements.

**5.4.21 Property #21 (Hopkins Property)- Tax lot #3-2E-04C-00800**

This parcel is currently vacant. When this property redevelops, access 21 would provide right in and right out access as shown on the short-term plan. A cross access agreement shall be obtained with property #22 (tax lot #3-2E-04C-00808) for shared access to the traffic signal. Once an agreement is in place that would provide signalized access to this property, access 21 shall be removed. A cross access easement shall be provided from this property during redevelopment to property #20 (tax lot #3-2E-04C-00803) and/or property #23 (tax lot #3-2E-04C-90000) to provide future access to the traffic signal.

**5.4.22 Property #22 (Newell Creek Apartments)- Tax lot #3-2E-04C-00808**

The short-term plan would enhance access to this property with the construction of a traffic signal at the Beaver Creek Road/Fir Street-Fir Lane intersection.

There are no long-term access changes with this property.

When this property redevelops, an agreement shall be provided with property #21 (tax lot #3-2E-04C-00800), property #20 (tax lot #3-2E-04C-00803) and property #23 (tax lot #3-2E-04C-90000) for shared access to the traffic signal via Fir Lane.

*5.4.23 Property #23 (Berryhill Townhomes)- Tax lot #3-2E-04C-90000*

There are no short-term access changes with this property.

The long-term plan would modify access 20/23 for right in and right out movements with a raised median located on Beavercreek Road. Access to the future traffic signal would be provided to this property with a cross access easement between either property #23 or property #20 (tax lot #3-2E-04C-00803) with property #21 (tax lot #3-2E-04C-00800). Access 20/23 shall be restricted by the raised median as shown on the long-term plan once access to the future Fir Street traffic signal is provided with cross access easements.

As redevelopment occurs, a cross access easement shall be provided between property #23 and property #10 (tax lot #3-2E-05D-00202) to provide future access to a traffic signal from this property.