

Appendix F

Level of Service Analysis, Thurston County Roads and Transportation Facility Expansion, prepared by Skillings Connolly, dated September 20, 2007 and revised September 9, 2008; and

Level 1 Trip Generation and Distribution Study, Thurston County Roads and Transportation Facility Expansion, prepared by Robert Connolly, Skillings Connolly, dated June 30, 2009

LEVEL OF SERVICE ANALYSIS

Thurston County Roads & Transportation Facility Expansion

Prepared for:
KMB Inc

September 20, 2007
(Revised September 9, 2008)

9/29/08



Robert G. Connolly

Prepared By:



Level of Service Analysis

Thurston County Roads & Transportation Facility Expansion

Prepared for
KMB, Inc.

Introduction

This report revises the September 20, 2007 Level Of Service (LOS) analysis conducted for the Tilley Road SW and 93rd Avenue SW intersection. The building size and number of employees situated at this site were revised. This analysis is to determine the impact of the construction of a 25,000 sq ft office building to accommodate 201 employees, of which 133 are existing employees and 68 are new. Completion to full build out for this analysis is expected to be late summer of 2010.

Figure 1 is a vicinity map showing the location of the project and the existing transportation facilities in the area.

Existing Conditions

The street system in the area of the project consists of Tilley Road SW and 93rd Avenue SW. The intersection of Tilley Road SW and 93rd Avenue SW is within the Urban Growth Management Boundary of the City of Tumwater. This intersection operates with single lane approaches on all legs. Existing PM peak hour traffic volumes were calculated by applying an average annual growth rate of 4% to the 2007 traffic counts provided in the appendix.

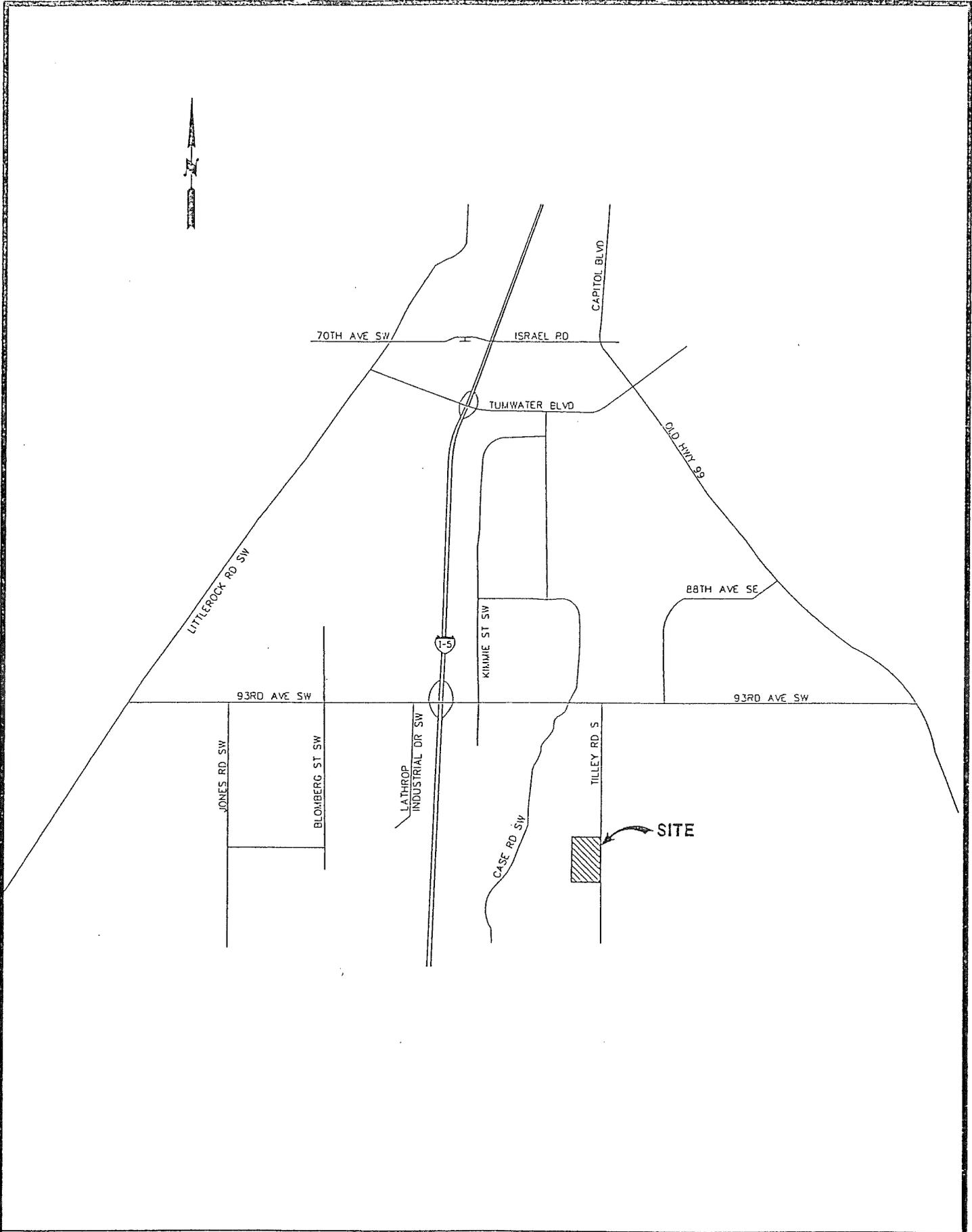
Figure 2 shows the existing 2008 PM peak hour traffic volumes.

Figure 3 shows the existing 2008 traffic controls and lane configurations

Existing Traffic Operations

The delay and level of service for the existing peak hour volumes were calculated utilizing the Highway Capacity Manual software and are shown in the following Table.

Intersection	Delay	LOS
Tilley Road SW & 93 rd Avenue SW	15.70	C

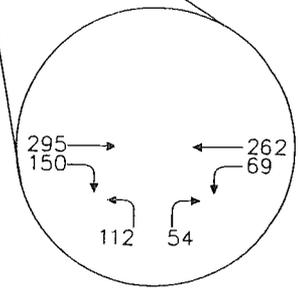
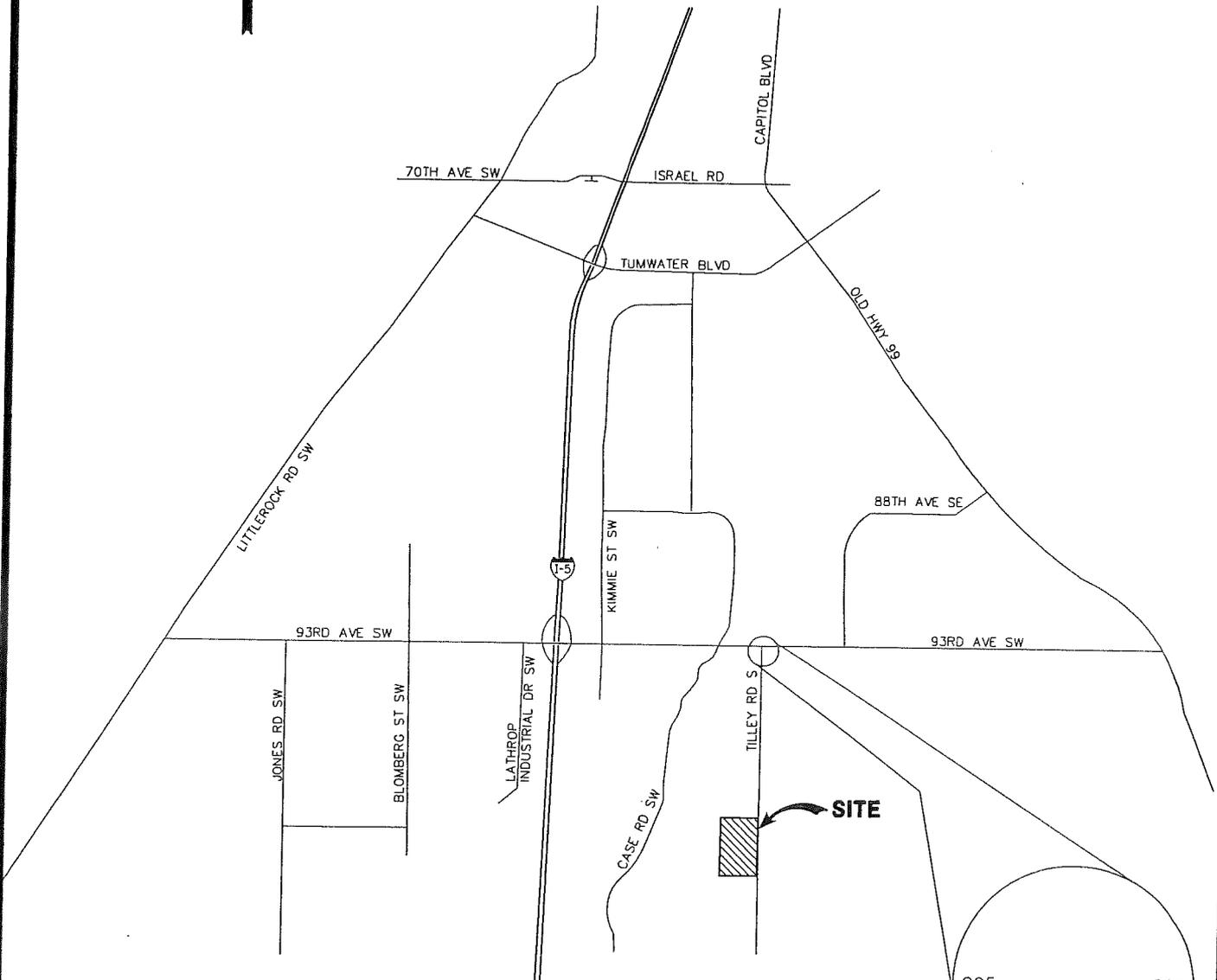


DWG# 07254-811 VICINITY MAP FIGURE 1.dwg 09/19/07 13:02 Anita

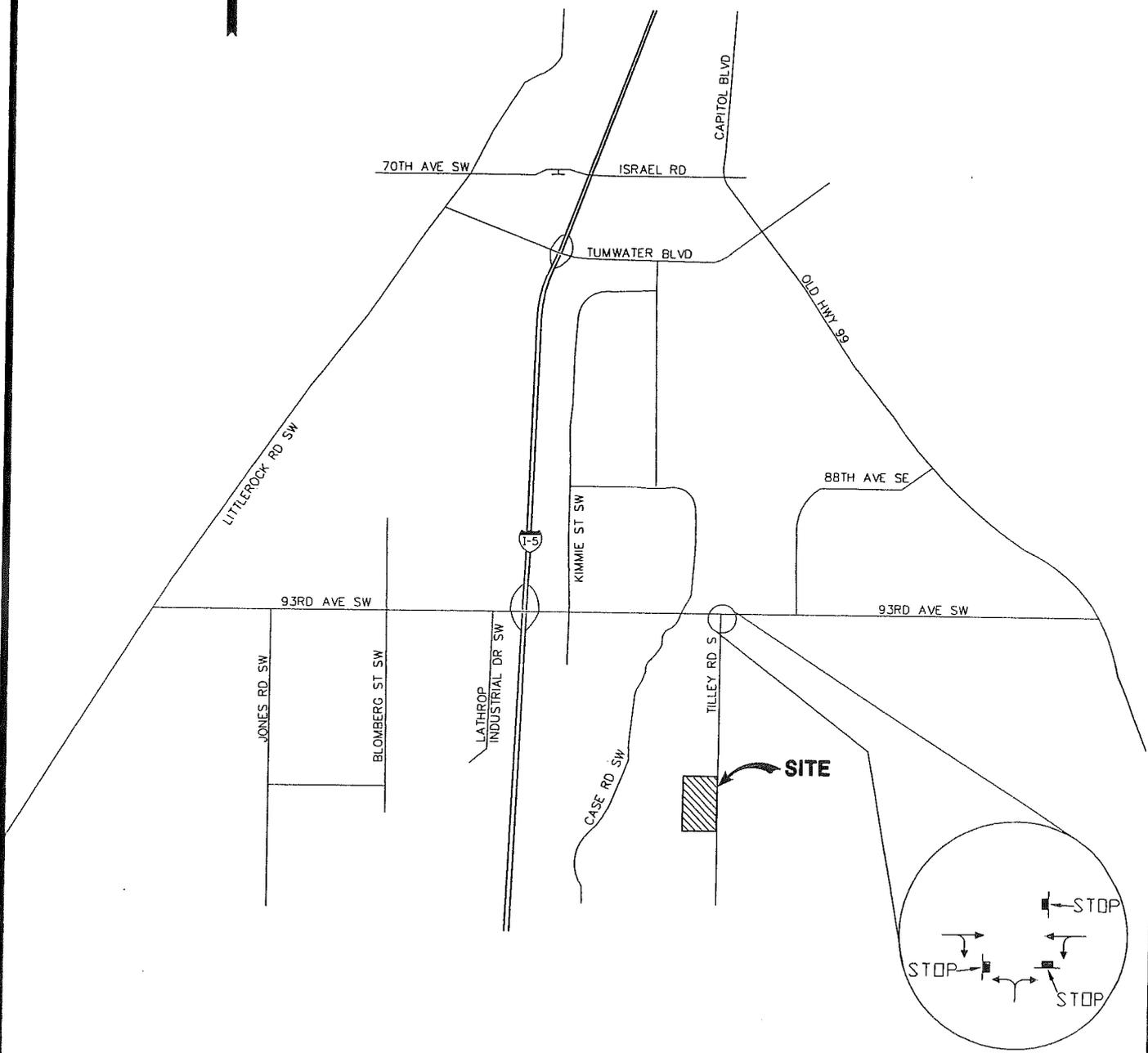


VICINITY MAP
FIGURE 1

07254



**EXISTING 2008
PM PEAK
TRAFFIC VOLUMES
FIGURE 2**



**2008 EXISTING TRAFFIC
CONTROLS AND LANE
CONFIGURATION
FIGURE 3**



07254

D:\CF-07254_8-11 2010_PEAK_PM_FIGURE_4.dwg 09/20/07 15:39 Antia

Trip Generation

The trip generation values for the project are based on the number of employees added to the existing complex. The average rate of 0.79 trips per employee for a Government Office Complex (land use code 733), taken from the Institute of Transportation Engineers' Trip Generation (7th Edition), was used to calculate the number of trips generated during the PM peak hour of adjacent street between 4 & 6 PM. The 68 additional employees were used to calculate the number of additional trips. **Table 2** reflects the average weekday calculation results.

TABLE 2: Trip Generation Summary

68 Employees	PM Peak Hour Volumes			AWDT
Site Entrance on Tilley Road SW	Entering	Exiting	Total	530
	17	37	54	

Trip Distribution

Trip distribution to and from the development based on Thurston Regional Travel Demand Model (attached) will be mostly from the north on Tilley Road SW to 93rd Avenue SW. At 93rd Avenue SW, 50% of the trips will be to and from the west and 40% of the trips will be to and from the east.

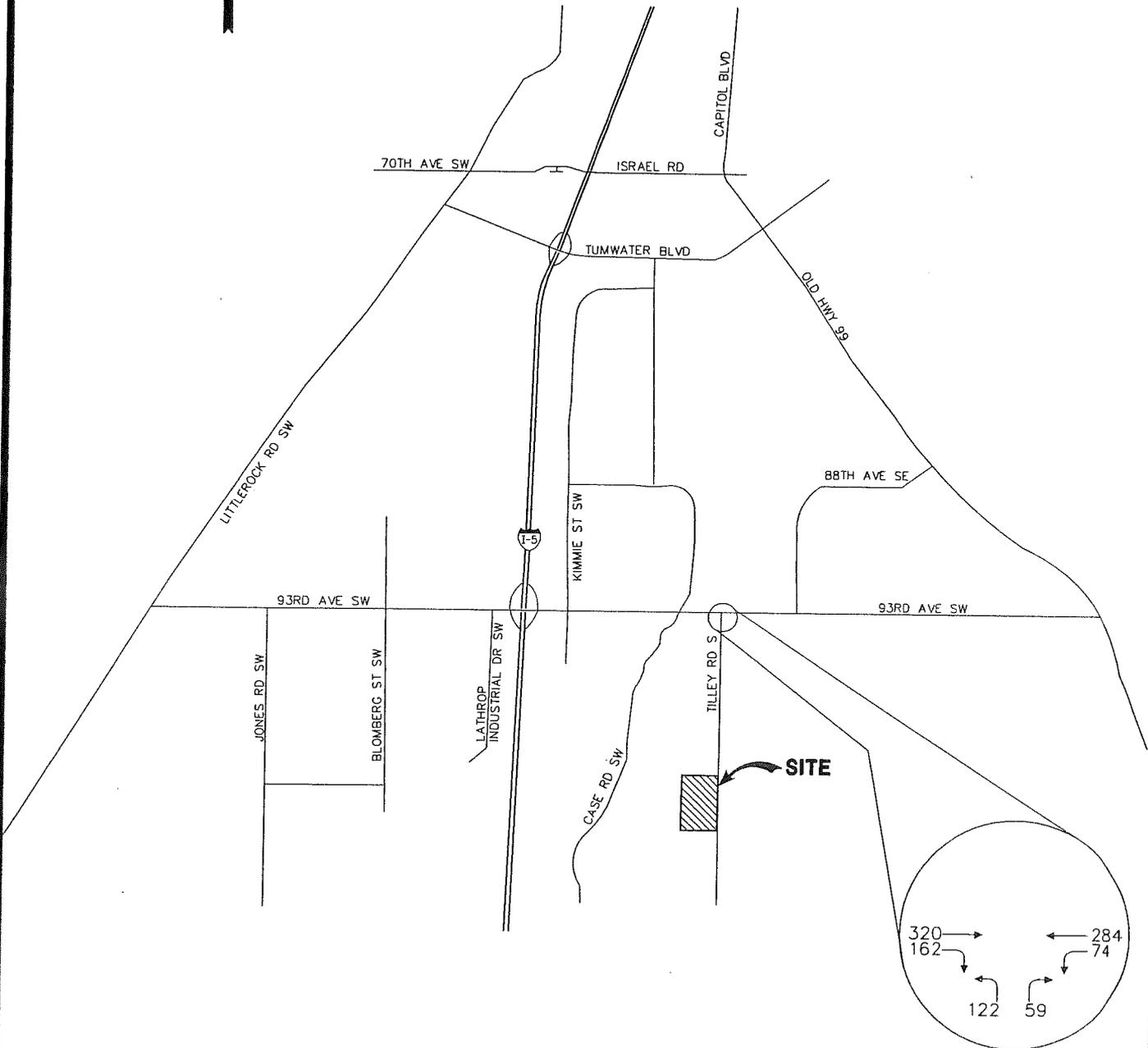
Future Traffic Conditions

The estimated non-site (base line) traffic volumes, expected at project completion (2010 for this analysis), were projected forward from 2007 traffic counts to 2010 using the 4% annual growth rate. The forecast traffic volumes both without and with site traffic are shown on **Figures 4 and 5**, respectively.

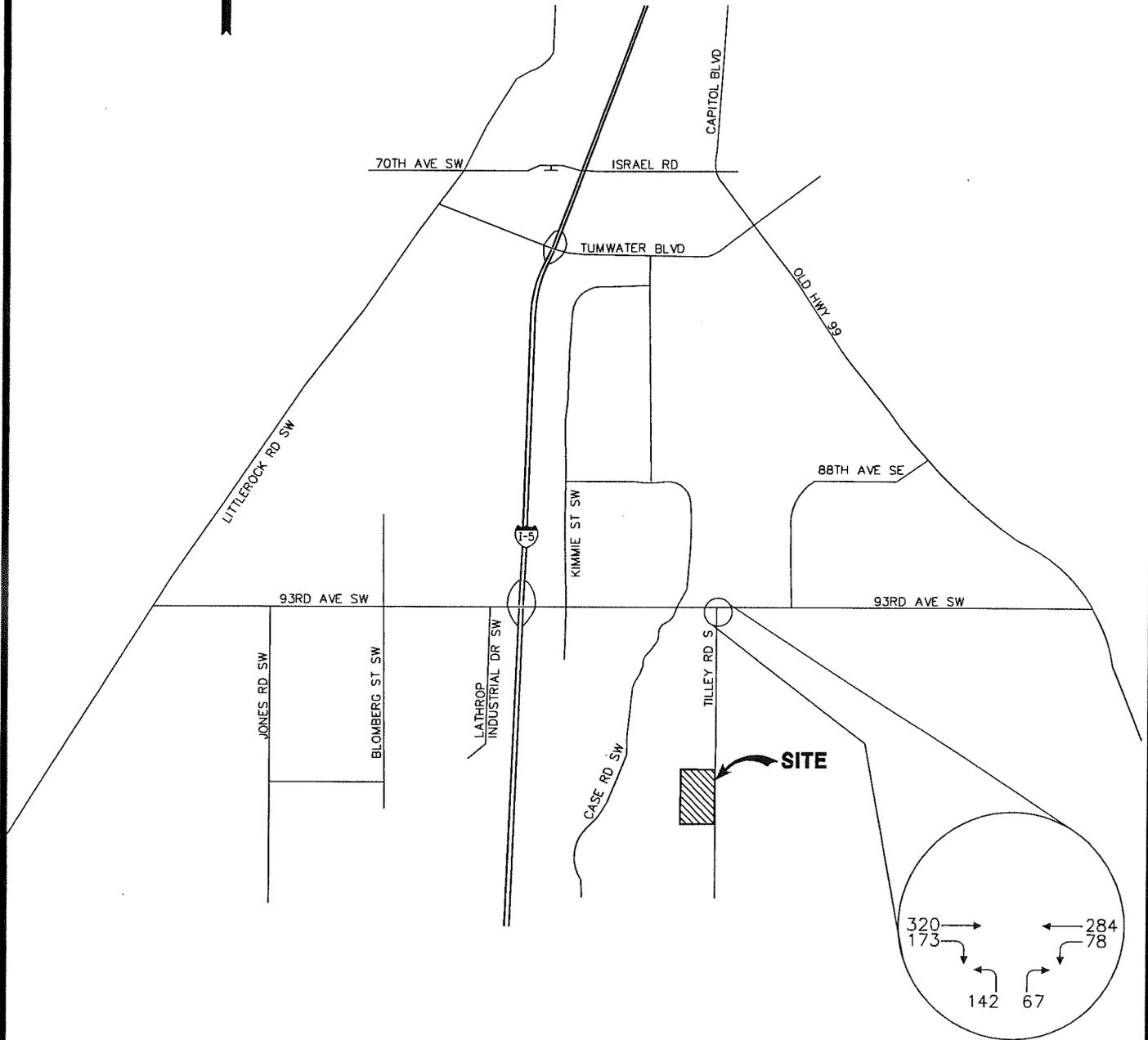
Future Traffic Operations

Weekday PM peak hour LOS analyses were conducted for the study intersection using the projected 2010 turning movement volumes both with and without the proposed project. These analyses were conducted using the Highway Capacity Software in accordance with the procedures outlined in the 2000 *Highway Capacity Manual*. The results are shown in **Table 3**.

TABLE 3: 2010 Peak Hour LOS				
Intersection	Without Site Traffic		With Site Traffic	
	Delay	LOS	Delay	LOS
Tilley Road SW & 93 rd Avenue SW	17.98	C	20.83	C



2010 PM PEAK TRAFFIC VOLUMES WITHOUT SITE TRAFFIC
FIGURE 4



**2010 PM PEAK TRAFFIC
VOLUMES WITH SITE
TRAFFIC INCLUDED
FIGURE 5**

Summary

The Intersection currently operates at LOS B in its current configuration of single lane approaches on all legs. By the year 2010 the intersection will operate at LOS C without the addition of the project site traffic. The intersection will continue to operate at LOS C with the addition of the site traffic with the same single lane approaches on all legs. This LOS exceeds the Thurston County Minimum LOS D for an Urban Road within the Urban Growth Management Boundary.

Level of Service Analysis

Level of Service Criteria

The concept of level of service is defined as a qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers. A level of service (LOS) definition generally describes these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruption, comfort and convenience, and safety.

Six levels of service are defined for each facility for which analysis procedures are available. They are given letter designations, from A to F, with LOS A representing the best operating conditions and LOS F the worst. The following condensed definitions generally define the various levels of service. Each level of service is not a discrete condition, but rather a range of conditions for which boundaries are established.

Level of service A represents free flow conditions. Individual users are virtually unaffected by the presence of others in the traffic stream.

Level of service B is in the range of stable flow, but the presence of other users in the traffic stream begins to be noticeable.

Level of service C is in the range of stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by the interactions with others in the traffic stream.

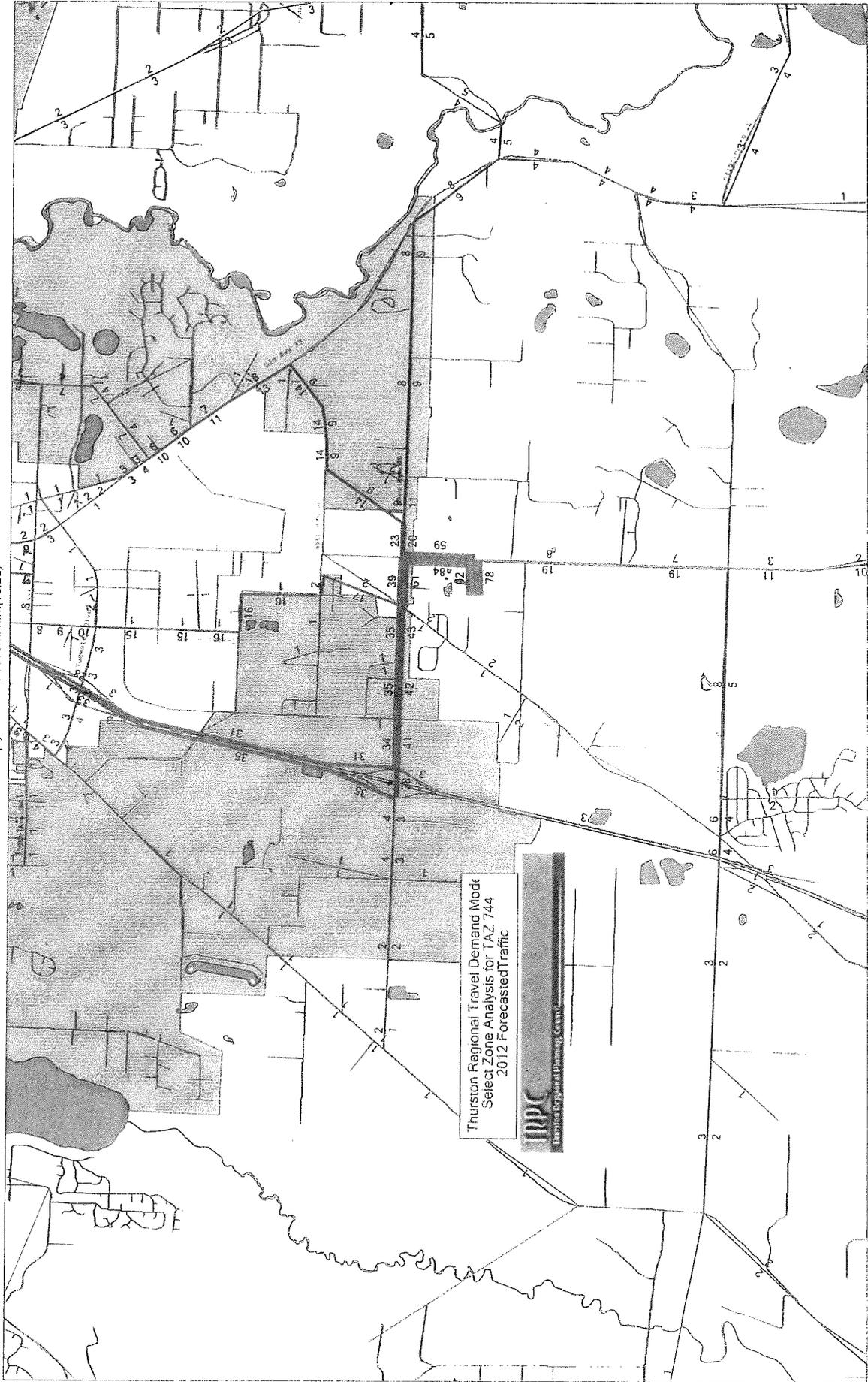
Level of service D represents high-density, but stable, flow conditions. Small increases in traffic flow will generally result in the occurrence of operational problems at this level.

Level of service E represents operating conditions at or near the capacity level of a given facility. Operations at this level are usually unstable, because small increases in flow or minor disturbances in the traffic stream lead to breakdown.

Level of service F is used to define forced or breakdown flow. This condition exists whenever the amount of traffic approaching a point exceeds the amount that can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable.

APPENDIX

Link value(s) on base network: min(max)

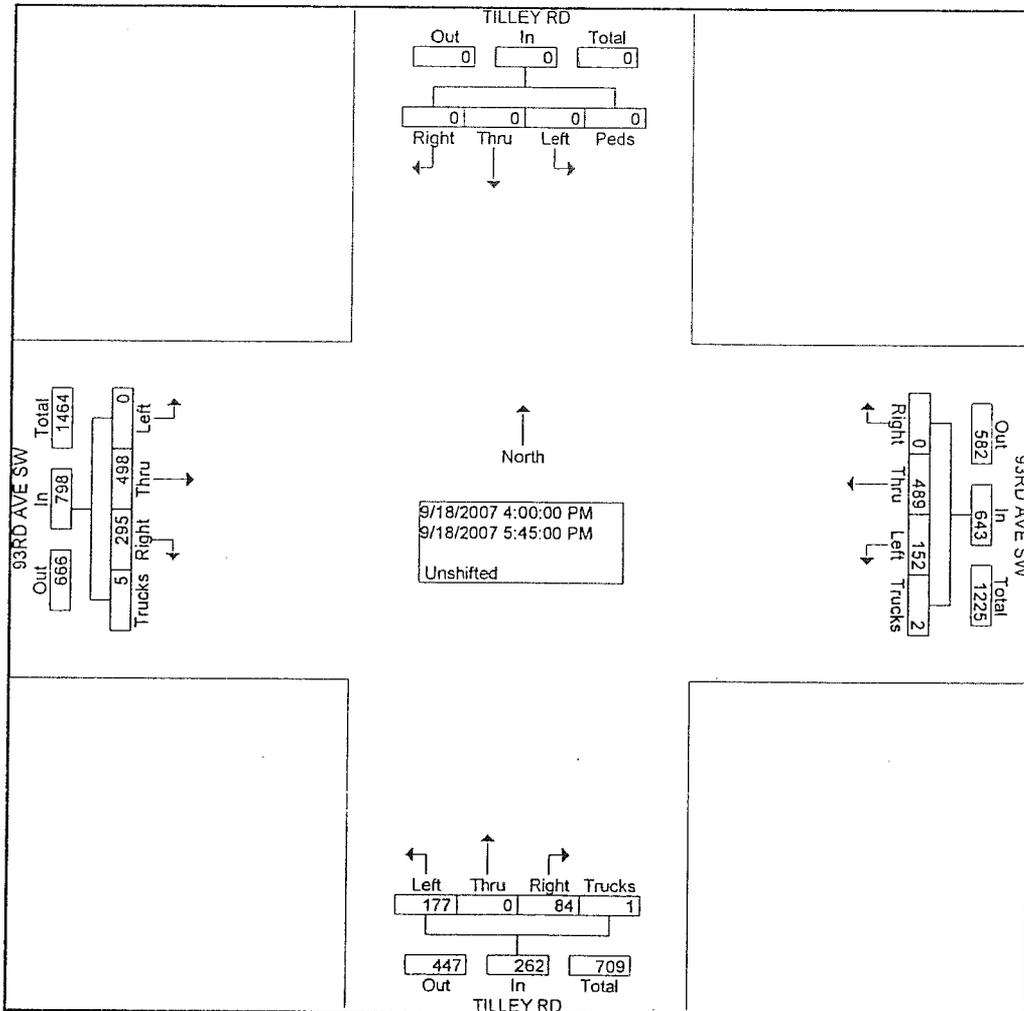


Skillings - Connolly, Inc.
 5016 Lacey blvd
 Lacey, WA 98503

File Name : 93rd & Tilley peak count
 Site Code : 00000000
 Start Date : 9/18/2007
 Page No : 1

Groups Printed- Unshifted

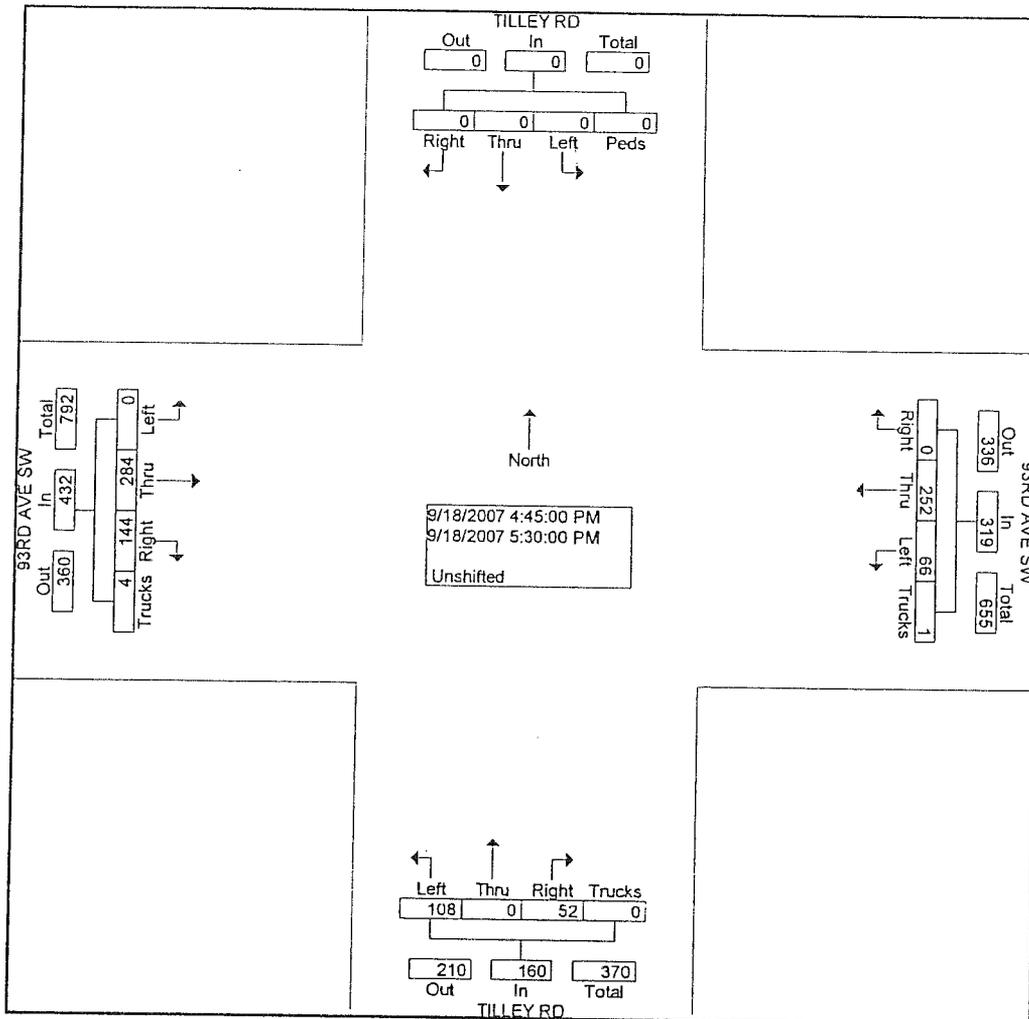
Start Time	TILLEY RD Southbound					93RD AVE SW Westbound					TILLEY RD Northbound					93RD AVE SW Eastbound					Int. Total				
	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total					
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	
04:00 PM	0	0	0	0	0	16	56	0	1	73	19	0	12	1	32	0	52	32	1	85	190				
04:15 PM	0	0	0	0	0	32	58	0	0	90	15	0	10	0	25	0	61	38	0	99	214				
04:30 PM	0	0	0	0	0	11	56	0	0	67	15	0	6	0	21	0	45	41	0	86	174				
04:45 PM	0	0	0	0	0	12	65	0	0	77	39	0	18	0	57	0	64	36	1	101	235				
Total	0	0	0	0	0	71	235	0	1	307	88	0	46	1	135	0	222	147	2	371	813				
05:00 PM	0	0	0	0	0	9	58	0	0	67	23	0	12	0	35	0	70	41	1	112	214				
05:15 PM	0	0	0	0	0	22	63	0	0	85	28	0	11	0	39	0	81	29	1	111	235				
05:30 PM	0	0	0	0	0	23	66	0	1	90	18	0	11	0	29	0	69	38	1	108	227				
05:45 PM	0	0	0	0	0	27	67	0	0	94	20	0	4	0	24	0	56	40	0	96	214				
Total	0	0	0	0	0	81	254	0	1	336	89	0	38	0	127	0	276	148	3	427	890				
Grand Total	0	0	0	0	0	152	489	0	2	643	177	0	84	1	262	0	498	295	5	798	1703				
Apprch %	0.0	0.0	0.0	0.0		23.6	76.0	0.0	0.3		67.6	0.0	32.1	0.4		0.0	62.4	37.0	0.6						
Total %	0.0	0.0	0.0	0.0	0.0	8.9	28.7	0.0	0.1	37.8	10.4	0.0	4.9	0.1	15.4	0.0	29.2	17.3	0.3	46.9					



Skillings - Connolly, Inc.
 5016 Lacey blvd
 Lacey, WA 98503

File Name : 93rd & Tilley peak count
 Site Code : 00000000
 Start Date : 9/18/2007
 Page No : 2

Start Time	TILLEY RD Southbound					93RD AVE SW Westbound					TILLEY RD Northbound					93RD AVE SW Eastbound					Int. Total
	Left	Thru	Rig ht	Ped s	App. Total	Left	Thru	Rig ht	Tru cks	App. Total	Left	Thru	Rig ht	Tru cks	App. Total	Left	Thru	Rig ht	Tru cks	App. Total	
Peak Hour From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Intersection	04:45 PM																				
Volume	0	0	0	0	0	66	252	0	1	319	108	0	52	0	160	0	284	144	4	432	911
Percent	0.0	0.0	0.0	0.0		20.7	79.0	0.0	0.3		67.5	0.0	32.5	0.0		0.0	65.7	33.3	0.9		
05:15 Volume Peak Factor	0	0	0	0	0	22	63	0	0	85	28	0	11	0	39	0	81	29	1	111	235
High Int. Volume Peak Factor	3:45:00 PM					05:30 PM					04:45 PM					05:00 PM					0.969
	0	0	0	0	0	23	66	0	1	90	39	0	18	0	57	0	70	41	1	112	
						0.886					0.702					0.964					



ALL-WAY STOP CONTROL ANALYSIS								
General Information				Site Information				
Analyst	RAS			Intersection	93rd Ave & Tilley Rd (SR-121)			
Agency/Co.	Skillings Connolly, Inc.			Jurisdiction	Thurston County			
Date Performed	8/8/2008			Analysis Year	2008 Existing			
Analysis Time Period	PM Peak			Project ID	Thurston county Roads Facility			
East/West Street: 93rd Avenue SW				North/South Street: Tilley Rd (SR-121)				
Volume Adjustments and Site Characteristics								
Approach	Eastbound				Westbound			
Movement	L	T	R	L	T	R		
Volume	0	295	150	69	262	0		
%Thrus Left Lane	50			50				
Approach	Northbound				Southbound			
Movement	L	T	R	L	T	R		
Volume	112	0	54	0	0	0		
%Thrus Left Lane	50			50				
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	TR		LT		LR			
PHF	0.96		0.88		0.70			
Flow Rate	463		375		237			
% Heavy Vehicles	0		0		0			
No. Lanes	1		1		1		0	
Geometry Group	1		1		1			
Duration, T								0.25
Saturation Headway Adjustment Worksheet								
Prop. Left-Turns	0.0		0.2		0.7			
Prop. Right-Turns	0.3		0.0		0.3			
Prop. Heavy Vehicle	0.0		0.0		0.0			
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2		
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6		
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7		
hadj, computed	5.02		5.02		5.02			
Departure Headway and Service Time								
hd, initial value	3.20		3.20		3.20			
x, initial	0.41		0.33		0.21			
hd, final value	5.02		5.02		5.02			
x, final value	0.65		0.56		0.39			
Move-up time, m	2.0		2.0		2.0			
Service Time	3.0		3.0		3.0		3.0	
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	699		625		487			
Delay	16.68		14.89		12.66			
LOS	C		B		B			
Approach: Delay	16.68		14.89		12.66			
LOS	C		B		B			
Intersection Delay								15.17
Intersection LOS								C

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst	RAS	Intersection	93rd Ave & Tilley Rd (SR-121)
Agency/Co.	Skilling's Connolly, Inc.	Jurisdiction	Thurston County
Date Performed	8/8/2008	Analysis Year	2010 without site traffic
Analysis Time Period	PM Peak	Project ID	Thurston county Roads Facility

East/West Street: 93rd Avenue SW	North/South Street: Tilley Rd (SR-121)
----------------------------------	--

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
	L	T	R	L	T	R
Movement						
Volume	0	320	162	74	284	0
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
	L	T	R	L	T	R
Movement						
Volume	122	0	59	0	0	0
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	TR		LT		LR			
PHF	0.96		0.88		0.70			
Flow Rate	501		406		258			
% Heavy Vehicles	0		0		0			
No. Lanes	1		1		1		0	
Geometry Group	1		1		1			
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.0		0.2		0.7			
Prop. Right-Turns	0.3		0.0		0.3			
Prop. Heavy Vehicle	0.0		0.0		0.0			
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2		
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6		
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7		
hadj, computed	5.20		5.20		5.20			

Departure Headway and Service Time

hd, initial value	3.20		3.20		3.20			
x, initial	0.45		0.36		0.23			
hd, final value	5.20		5.20		5.20			
x, final value	0.72		0.63		0.44			
Move-up time, m	2.0		2.0		2.0			
Service Time	3.2		3.2		3.2		3.2	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	677		629		508			
Delay	20.58		17.35		13.90			
LOS	C		C		B			
Approach: Delay	20.58		17.35		13.90			
LOS	C		C		B			
Intersection Delay	17.98							
Intersection LOS	C							

ALL-WAY STOP CONTROL ANALYSIS

General Information		Site Information	
Analyst Agency/Co. Date Performed Analysis Time Period	fs Skilling Connolly, Inc. 9/9/2008 2010 PM Peak	Intersection Jurisdiction Analysis Year	93rs Ave. & Tilley Rd Thurston County 2010 with site traffic

Project ID <i>Thurston County Roads Tilley Rd Facility</i>	
East/West Street: <i>93 rd Avenue</i>	North/South Street: <i>Tilley Road</i>

Volume Adjustments and Site Characteristics						
Approach	Eastbound			Westbound		
	L	T	R	L	T	R
Movement						
Volume	0	320	173	78	284	0
%Thrus Left Lane	50			50		

Approach	Northbound			Southbound		
	L	T	R	L	T	R
Movement						
Volume	142	0	67	0	0	0
%Thrus Left Lane	50			50		

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	TR		LT		LTR			
PHF	0.96		0.88		0.70			
Flow Rate	513		410		297			
% Heavy Vehicles	2		2		2			
No. Lanes	1		1		1		0	
Geometry Group	1		1		1			
Duration, T	0.25							

Saturation Headway Adjustment Worksheet						
Prop. Left-Turns	0.0		0.2		0.7	
Prop. Right-Turns	0.4		0.0		0.3	
Prop. Heavy Vehicle						
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	5.44		5.44		5.44	

Departure Headway and Service Time						
hd, initial value	3.20		3.20		3.20	
x, initial	0.46		0.36		0.26	
hd, final value	5.44		5.44		5.44	
x, final value	0.78		0.66		0.52	
Move-up time, m	2.0		2.0		2.0	
Service Time	3.4		3.4		3.4	3.4

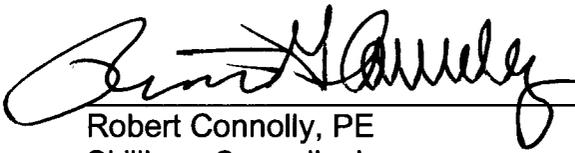
Capacity and Level of Service								
	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity	648		600		530			
Delay	24.68		19.53		15.99			
LOS	C		C		C			
Approach: Delay	24.68		19.53		15.99			
LOS	C		C		C			
Intersection Delay	20.83							
Intersection LOS	C							

**ENGINEER'S CERTIFICATE
FOR
Thurston County Roads Facility Expansion
LEVEL I - TRIP GENERATION AND DISTRIBUTION STUDY**

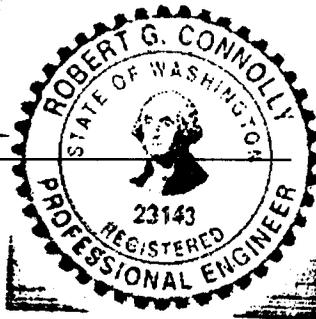
September 12, 2008

I hereby certify that this Trip Generation and Distribution Study for the Thurston County Roads and Transportation proposed facility expansion has been prepared by me and meets the minimum standards of Thurston County per the Traffic Impact Analysis Guidelines, dated January, 1999, and normal standards of engineering practice.

.Prepared By:



Robert Connolly, PE
Skillings-Connolly, Inc.



9/29/08
Date

LEVEL I - TRIP GENERATION AND DISTRIBUTION STUDY

Thurston County Roads and Transportation Facility Expansion

I Introduction and Summary

1. Purpose of Report and Study Objectives

This report revises the September 19, 2007 Level I Study to include the changes in building size and number of additional employees to be situated at the site. This report documents the additional traffic generated by the proposed expansion of the Roads and Transportation Facility on Tilley Road SW to accommodate the consolidation of Roads and Transportation and Emergency Management staff. Trip generation and distribution are included in the report. This report was prepared following Thurston County's *Traffic Impact Analysis Guidelines*.

II Proposed Development

1. Description

The proposed expansion of the facility is the addition of a 25,000 square foot office building that will accommodate 201 employees. 133 of these employees exist on site. 68 employees will be added to the site.

2. Location and Vicinity Map

The site is located at 9700 Tilley Road SW (State Route 121) Thurston County, Washington. Access to the site is from Tilley Road SW. **Figure 1** is a vicinity map showing the location of the site and the surrounding street network.

3. Site Plan

Figure 2 shows the preliminary site plan. The plan shows the proposed layout and how it is accessed from Tilley Road SW (SR-121).

4. Proposed Zoning

There will be no change to the existing zoning.

5. Proposed Land Use and Intensity

The proposed land use is a 25,000 square foot office building on the existing 40 acre Thurston County Roads and Transportation site.

6. Phasing and Timing of Project

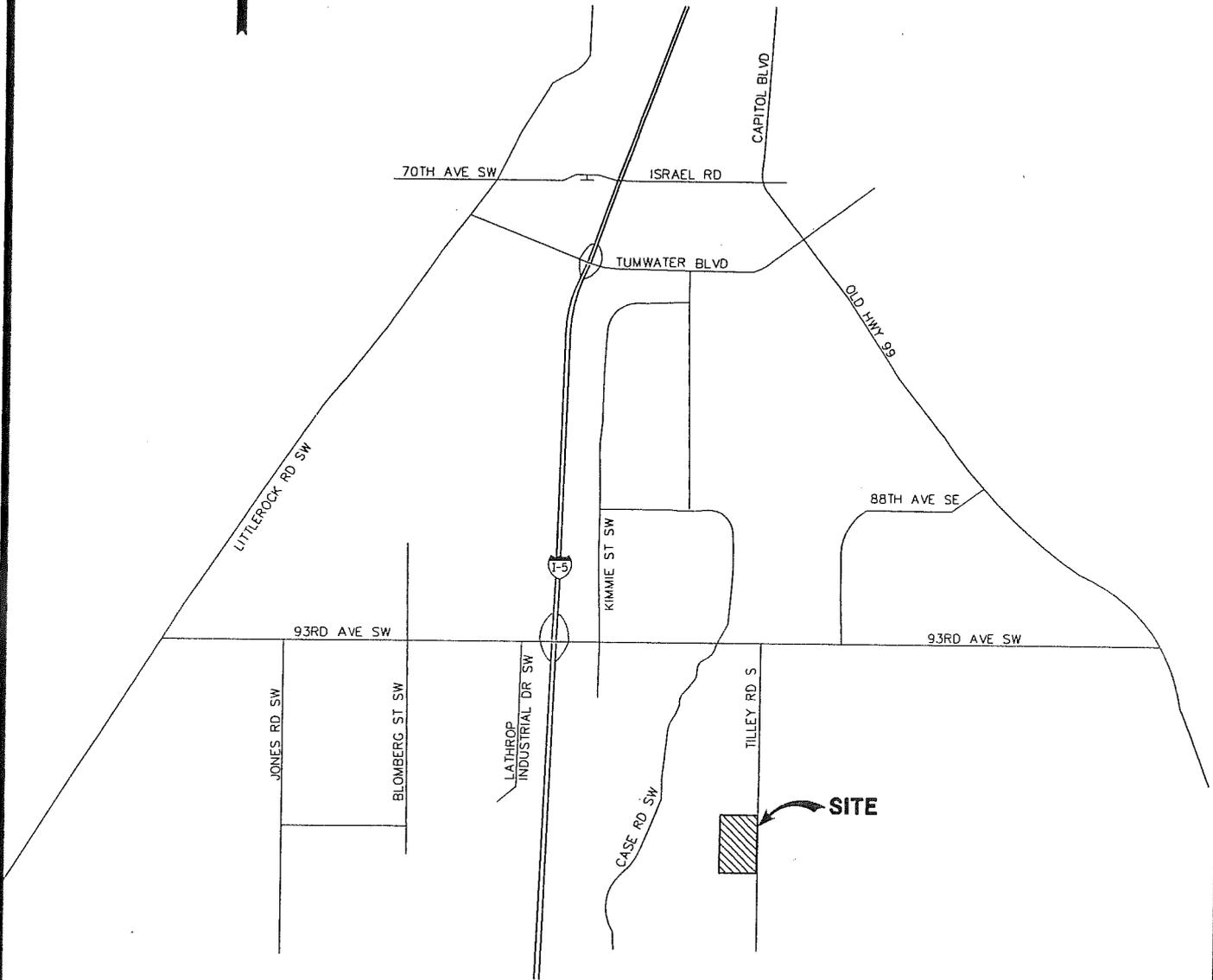
The project is scheduled for completion in late summer 2010.

III Existing Conditions

1. Study Area

a. Limits of traffic study

This traffic study is limited to providing trip generation and distribution of traffic along Tilley Road SW (SR-121), 93rd Avenue SW and on the



DWG# 07254_8x11 VICINITY MAP FIGURE 1.dwg 08/20/07 15:33 Anita



VICINITY MAP FIGURE 1

07254

KME
 Design Group, Inc.
 833-7th Avenue SE
 Olympia, WA 98501
 360.352.3883

PROJECT
 THURSTON COUNTY ROADS MAINTENANCE

TILLEY MASTER PLAN
 9605 TILLEY ROAD SOUTHWEST
 OLYMPIA, WASHINGTON 98502

DATE FOR REVISION: 07-14
 DRAWN BY: [unreadable]

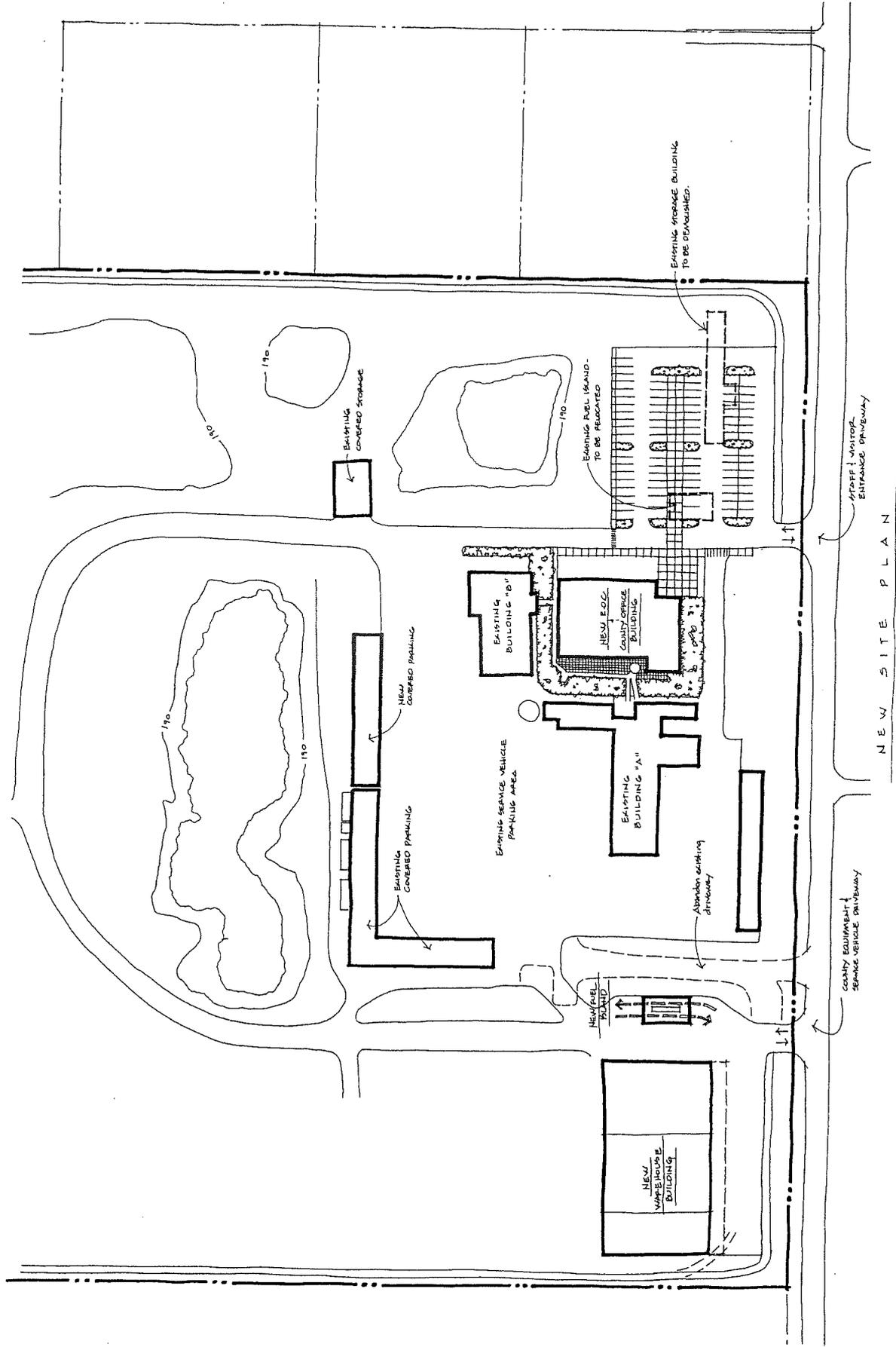


FIGURE 2

surrounding street network. County staff will determine further study requirements.

b. Existing zoning

The land surrounding the existing site is zoned at 1 per 10.

c. Existing land uses

The site is the existing Thurston County Roads and Transportation Facility.

2. Site Accessibility

a. Area roadway system

The site is accessed directly from Tilley Road SW by two existing driveways. The existing driveway at the southerly end of the site is to be relocated approximately 90 feet further south.

Figure 1 shows the major street system in the area.

b. Transit Service

There is no Intercity Transit service available.

c. Pedestrian and Bicycle Facilities

There are no bicycle facilities on Tilley Road SW.

IV Trip Generation and Distribution

1. Trip Generation

The trip generation values for the project are based on the number of employees added to the existing complex. The average rate of 0.79 trips per employee for a Government Office Complex (land use code 733), taken from the Institute of Transportation Engineers' *Trip Generation* (7th Edition), was used to calculate the number of trips generated during the PM peak hour of adjacent street between 4 & 6 PM. 68 additional employees were used to calculate the number of additional trips. Table 1 reflects the average weekday calculation results.

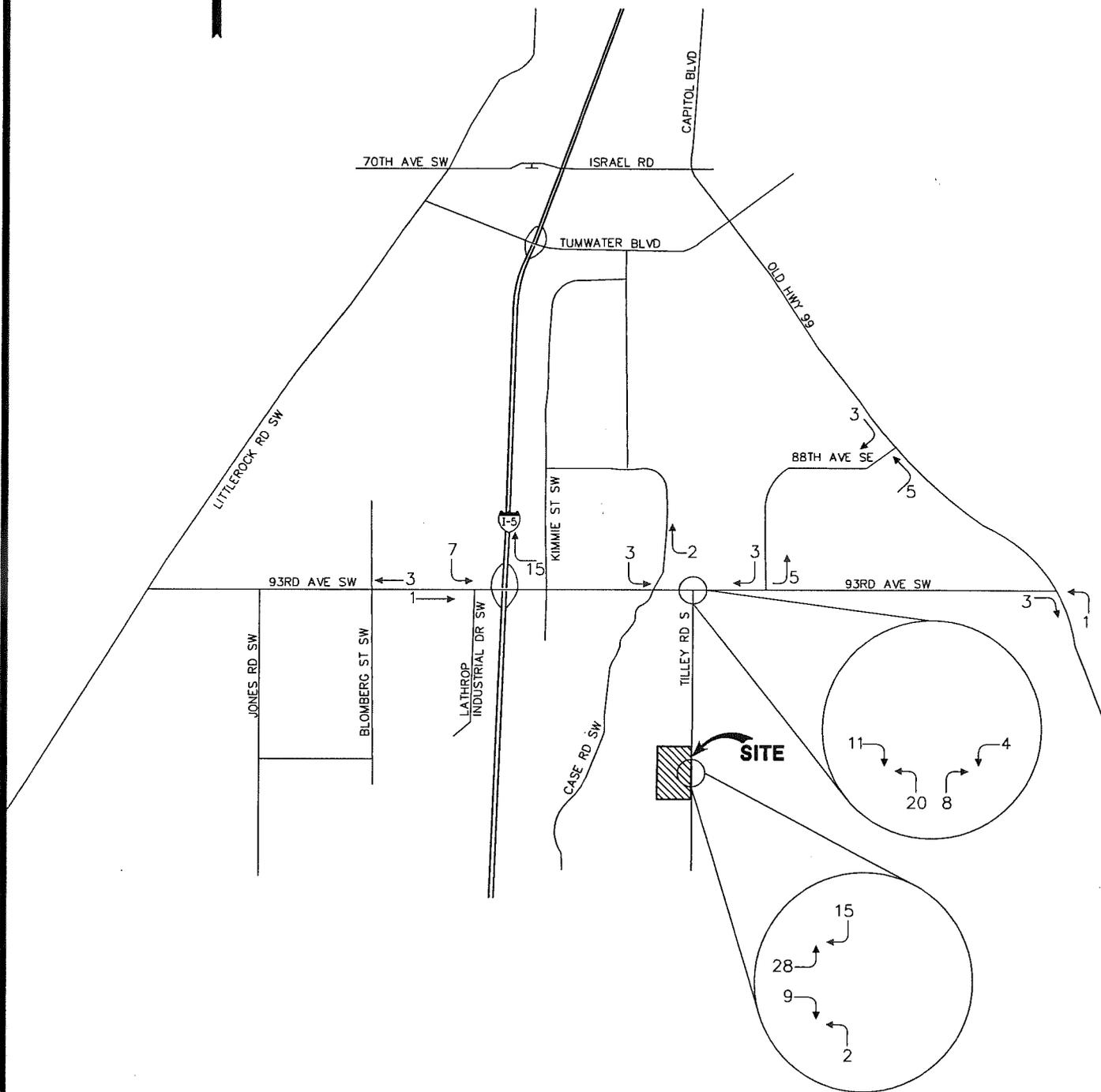
Table 1: Trip Generation Summary

68 Employees	PM Peak Hour Volumes			AWDT
	Entering	Exiting	Total	
Site Entrance on Tilley Road SW	17	37	54	530

2. Trip Distribution

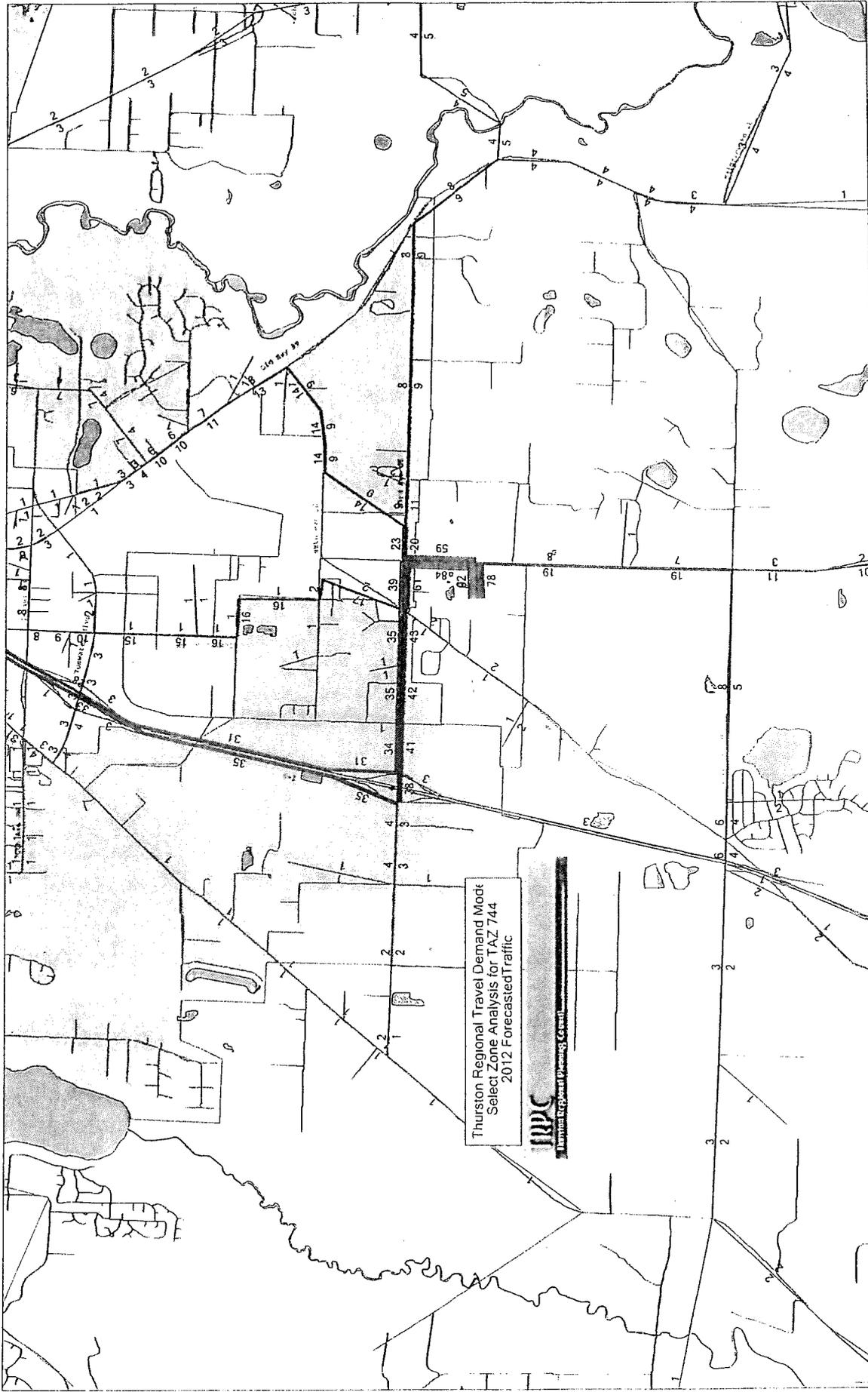
Trip distribution to and from the development based on Thurston Regional Travel Demand Model (attached) will be mostly from the north on Tilley Road SW to 93rd Avenue SW. At 93rd Avenue SW, 50% of the trips will be to and from the west and 40% of the trips will be to and from the east.

See **Figure 3** for the area distribution.



DWG# 07254_S&TTRIP_DISTRIBUTION_FIGURE_3.dwg 09/19/07 13:06 Anita

Link value(s) on base network: nini(voled)



Thurston Regional Travel Demand Model
Select Zone Analysis for TAZ 744
2012 Forecasted Traffic



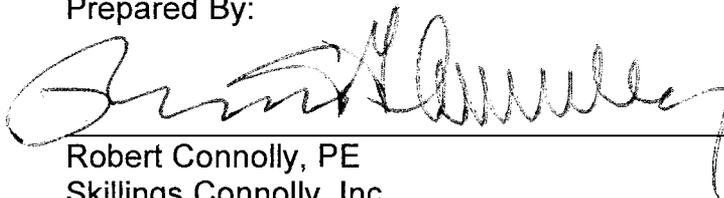
ENGINEER'S CERTIFICATE
FOR
Thurston County Roads Facility Expansion
LEVEL I - TRIP GENERATION AND DISTRIBUTION STUDY

June 30, 2009

I hereby certify that this Trip Generation and Distribution Study for the Thurston County Roads and Transportation proposed facility expansion has been prepared by me and meets the minimum standards of Thurston County per the Traffic Impact Analysis Guidelines, dated January, 1999, and normal standards of engineering practice.



Prepared By:



Robert Connolly, PE
Skillings Connolly, Inc.

7/6/9
Date

LEVEL I - TRIP GENERATION AND DISTRIBUTION STUDY

Thurston County Roads and Transportation Facility Expansion

I Introduction and Summary

1. Purpose of Report and Study Objectives

This report revises the September 9, 2008 Level I Study to include the changes in building size and number of additional employees to be situated at the site. This report documents the additional traffic generated by the proposed expansion of the Roads and Transportation Facility on Tilley Road SW, State Route 121 (SR-121) to accommodate the consolidation of Roads and Transportation and Emergency Management staff. Trip generation and distribution are included in the report. This report was prepared following Thurston County's *Traffic Impact Analysis Guidelines*.

II Proposed Development

1. Description

The proposed expansion of the facility is the addition of a 27,600 square foot of building space that will accommodate 213 employees. 133 of these employees exist on site. 80 employees will be added to the site.

2. Location and Vicinity Map

The site is located at 9700 Tilley Road SW (SR-121) Thurston County, Washington. Access to the site is from Tilley Road SW (SR-121). **Figure 1** is a vicinity map showing the location of the site and the surrounding street network.

3. Site Plan

Figure 2 shows the preliminary site plan. The plan shows the proposed layout and how it is accessed from Tilley Road SW (SR-121).

4. Proposed Zoning

There will be no change to the existing zoning.

5. Proposed Land Use and Intensity

The proposed land use is 27,600 square foot of office buildings on the existing 40 acre Thurston County Roads and Transportation site.

6. Phasing and Timing of Project

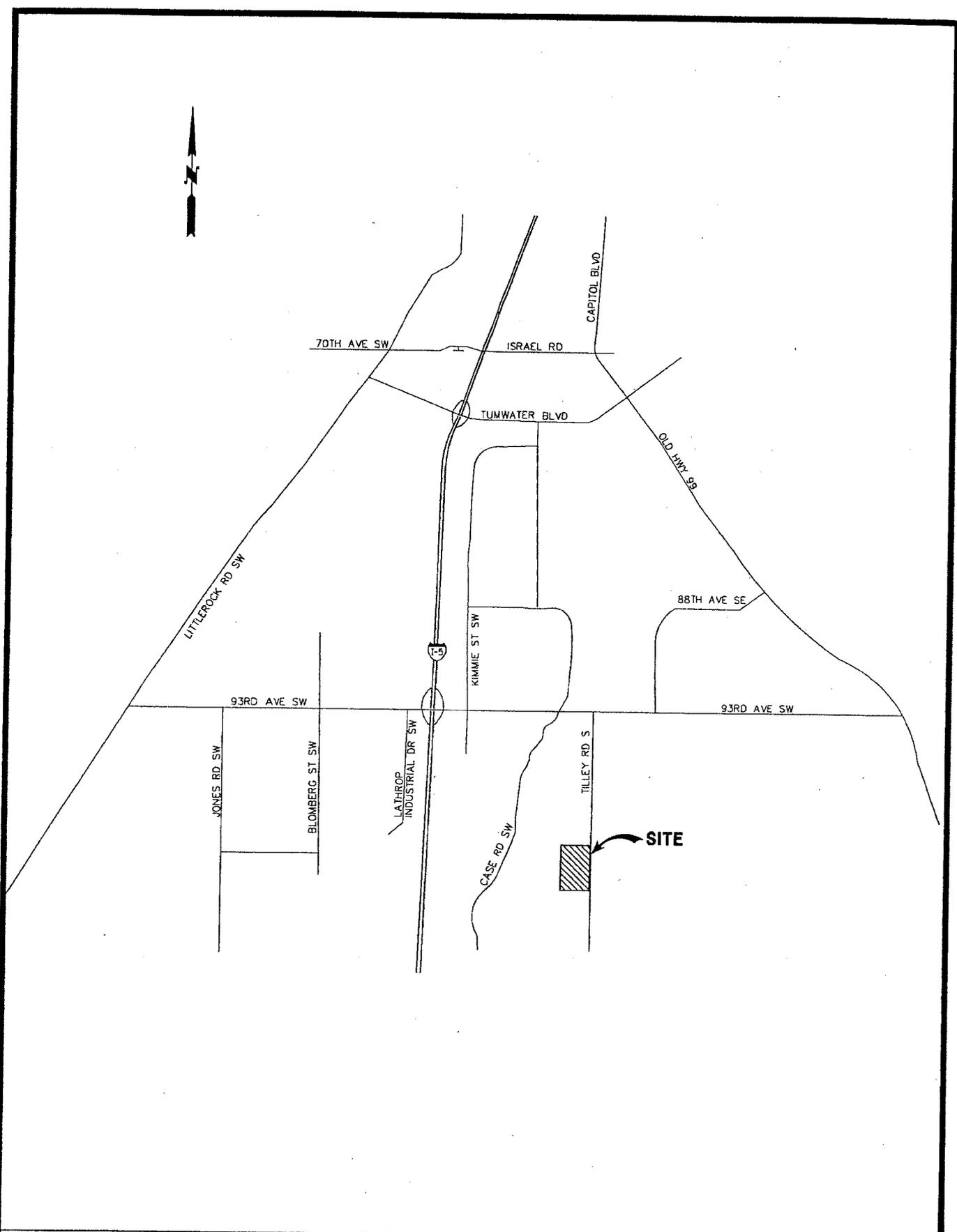
The project is scheduled for completion in late summer 2010.

III Existing Conditions

1. Study Area

a. Limits of traffic study

This traffic study is limited to providing trip generation and distribution of traffic along Tilley Road SW (SR-121), 93rd Avenue SW and on the



DWG:07254_Bat1 VICINITY MAP FIGURE 1.dwg 09/20/07 15:33 Auto



VICINITY MAP FIGURE 1

07254

surrounding street network. County staff will determine further study requirements.

b. Existing zoning

The land surrounding the existing site is zoned at 1 per 10.

c. Existing land uses

The site is the existing Thurston County Roads and Transportation Facility.

2. Site Accessibility

a. Area roadway system

The site will be accessed directly from Tilley Road SW (SR-121) by the existing main entrance, a one way roadway at the southern end of the site and at the north end of the site. **Figure 2** shows the entrances.

Figure 1 shows the major street system in the area.

b. Transit Service

There is no Intercity Transit service available.

c. Pedestrian and Bicycle Facilities

There are no bicycle facilities on Tilley Road SW (SR-121).

IV Trip Generation and Distribution

1. Trip Generation

The trip generation values for the project are based on the number of employees added to the existing complex. The average rate of 0.79 trips per employee for a Government Office Complex (land use code 733), taken from the Institute of Transportation Engineers' *Trip Generation* (8th Edition), was used to calculate the number of trips generated during the PM peak hour of adjacent street between 4 & 6 PM. 80 additional employees were used to calculate the number of additional trips. Table 1 reflects the average weekday calculation results.

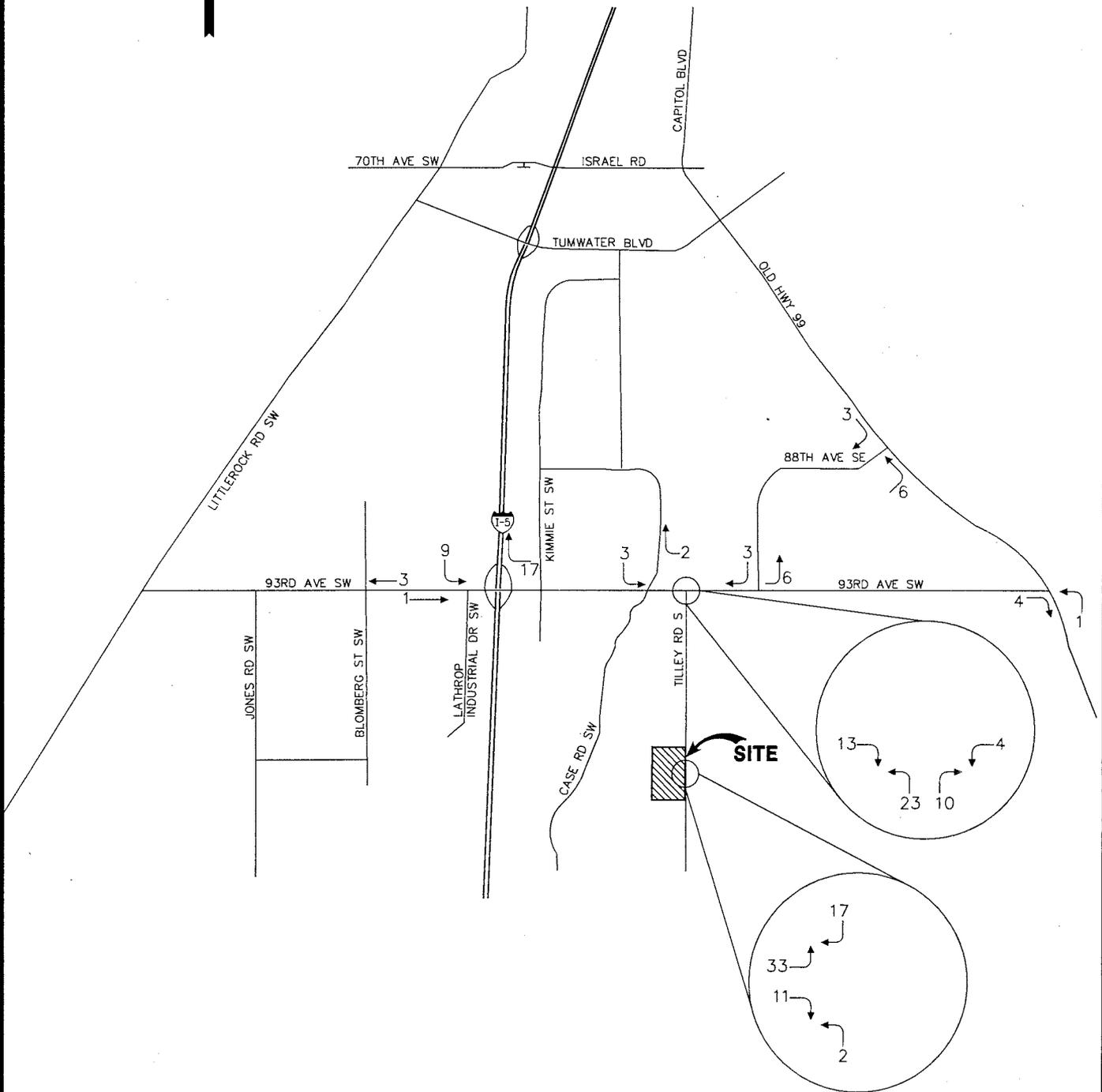
Table 1: Trip Generation Summary

80 Employees	PM Peak Hour Volumes			AWDT
Site Entrance on Tilley Road SW	Entering	Exiting	Total	623
	19	44	63	

2. Trip Distribution

Trip distribution to and from the development based on Thurston Regional Travel Demand Model (attached) will be mostly from the north on Tilley Road SW (SR-121) to 93rd Avenue SW. At 93rd Avenue SW, 50% of the trips will be to and from the west and 40% of the trips will be to and from the east.

See **Figure 3** for the area distribution.



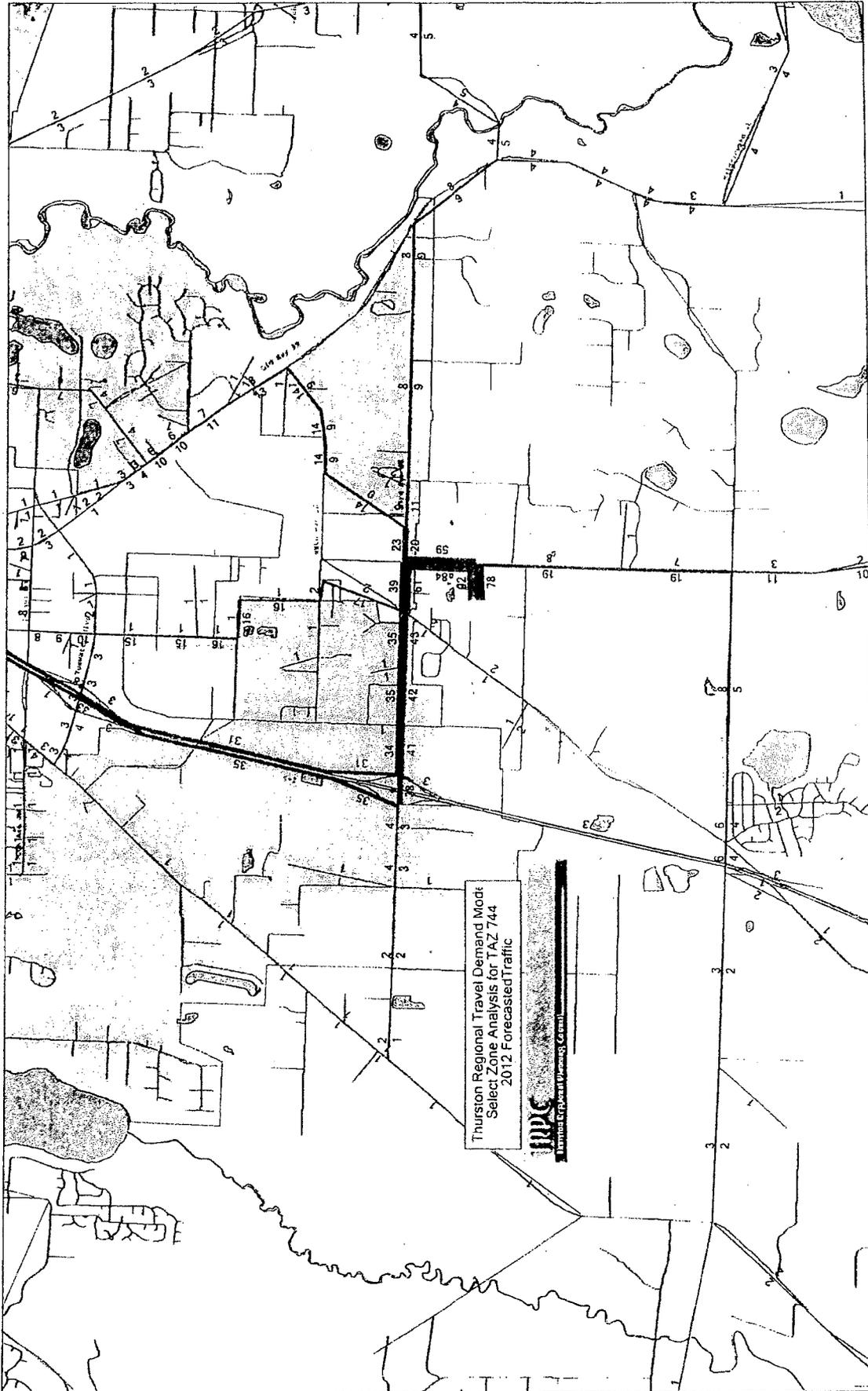
G:\Project\2007\07254_KMB_Tilley Maintenance Facility\Traffic\CAD\07254_8x11TRIP_DISTRIBUTION_FIGURE_3(revised).dwg Kristo 5/30/09 10:50 AM



TRIP DISTRIBUTION FIGURE 3

07254

Link value(s) on base network: null(void)



Appendix G

Draft Environmental Assessment Public Notice and publish affidavit

PUBLIC NOTICE
Federal Emergency Management Agency
Draft Environmental Assessment
Proposed Emergency Operations Center Construction

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide funding to Thurston County for an emergency operations center project in Thurston County, Washington. Funding would be provided through the Emergency Operations Center Grant Program as authorized by section 614 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 6196c) as amended by the Implementing Recommendations of the 9/11 Commission Act of 2007 (Public Law 110-53).

FEMA prepared a draft environmental assessment (EA) for the proposed project pursuant to the National Environmental Policy Act (NEPA) of 1969 and FEMA's implementing regulations found in 44 Code of Federal Regulations (CFR) Part 10. The EA evaluates alternatives for compliance with applicable environmental laws, including Executive Orders #11990 (Protection of Wetlands), #11988 (Floodplain Management), and #12898 (Environmental Justice). The alternatives evaluated in the EA are the (1) no action; (2) construct a new EOC as proposed; and (3) remodel the existing EOC.

The EA is available for review online at the FEMA environmental web site at: <http://www.fema.gov/plan/ehp/envdocuments> under Region X and Thurston County Emergency Management website at www.co.thurston.wa.us/em. If no significant issues are identified during the comment period, FEMA will finalize the EA, issue a Finding of No Significant Impact (FONSI), and fund the project. Unless substantive comments are received, FEMA will not publish another notice for this project. However, should a FONSI be issued, it will be available for public viewing at <http://www.fema.gov/plan/ehp/envdocuments> under Region X.

The draft EA is also available for review on April 19, 2010 at Thurston County Emergency Management at 2703 Pacific Avenue SE, Olympia, WA 98501, Monday-Friday from 9:00 a.m. to 4:00 p.m.

Written comments on the draft EA should be directed no later than 5 p.m. on May 16, 2010 to Mark G. Eberlein, Regional Environmental Officer, FEMA Region X, 130 228th Street SW, Bothell, WA 98021, or by e-mail at mark.eberlein@dhs.gov. Comments also can be faxed to 425-487-4613.

Legal # 8505

Affidavit of Publication

STATE OF WASHINGTON
County of Thurston

ss.

The undersigned being first duly sworn on oath deposed and says: That she is the Principal Clerk of The Olympian which is a legal newspaper printed and published in the city of Olympia, Thurston County, Washington: of general circulation in said City, County and State;

LEGAL # 8505

PUBLIC NOTICE

Federal Emergency Management Agency
Draft Environmental Assessment

Proposed Emergency Operations Center Construction

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide funding to Thurston County for an emergency operations center project in Thurston County, Washington. Funding would be provided through the Emergency Operations Center Grant Program as authorized by section 614 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 6196c) as amended by the Implementing Recommendations of the 9/11 Commission Act of 2007 (Public Law 110-53).

FEMA prepared a draft environmental assessment (EA) for the proposed project pursuant to the National Environmental Policy Act (NEPA) of 1969 and FEMA's implementing regulations found in 44 Code of Federal Regulations (CFR) Part 10. The EA evaluates alternatives for compliance with applicable environmental laws, including Executive Order #11990 (Protection of Wetlands), #11988 (Floodplain Management), and #12898 (Environmental Justice). The alternatives evaluated in the EA are the (1) no action; (2) construct a new EOC as proposed; and (3) remodel the existing EOC.

The EA is available for review online at the FEMA environmental web site at: <http://www.fema.gov/plan/ehp/envdocuments> under Region X and Thurston County Emergency Management website at www.co.thurston.wa.us/em. If no significant issues are identified during the comment period, FEMA will finalize the EA, issue a finding of No Significant Impact (FONSI), and fund the project. Unless substantive comments are received, FEMA will not publish another notice for this project. However, should a FONSI be issued, it will be available for public viewing at <http://www.fema.gov/plan/ehp/envdocuments> under Region X. The draft EA is also available for review between April 19 and May 14, 2010 at Thurston County Emergency Management at 2703 Pacific Avenue SE, Olympia, WA 98501, on Monday-Friday from 9:00 a.m. to 4:00 p.m., by appointment.

Written comments on the draft EA should be directed no later than 5 p.m. on May 16, 2010 to Mark G. Eberlein, Regional Environmental Officer, FEMA Region X, 130 228th Street SW, Bothell, WA 98021, or by e-mail at mark.eberlein@dhs.gov. Comments also can be faxed to 425-487-4613.

PUBLISHED APRIL 17 AND MAY 1, 2010

that the **Public Notice**
in the case of **Thurston County Emergency Management**

of which the attached is a printed copy, was published in said newspaper:

On the	17th	day of	April	2010
the		day of		2010
the		day of		2010
the		day of		2010
the		day of		2010
the		day of		2010

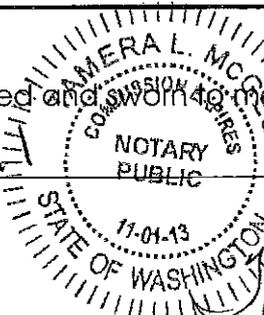
that the said newspaper was generally circulated during all of said time, and has been published for more than six months prior to the dates of the publication of this legal document, and that said notice was published in the newspaper proper and not in supplement form.

The amount of fee charged for this publication **\$445.18 -- PREPAID**

Suey Nelson
Principal Clerk

Subscribed and sworn to me this 17th day of

April 2010



Camera J. McGee

Notary Public in and for the State of Washington
Residing at Olympia, Thurston County, Washington

The Olympian has been appointed as a legal newspaper by order of the Superior Court of the State of Washington for Thurston County, dated July 10, 1941, in the county in which said newspaper is published in accordance with RCW 65.16.020 and RCW 63.16.040.

Note - The above affidavit and fee is in compliance with RCW 63.16.030 and Sec. 3, Chapter 34, Laws of 1977.

Affidavit of Publication

STATE OF WASHINGTON
County of Thurston

ss.

The undersigned being first duly sworn on oath deposed and says: That she is the Principal Clerk of The Olympian which is a legal newspaper printed and published in the city of Olympia, Thurston County, Washington: of general circulation in said City, County and State;

LEGAL # 8501

PUBLIC NOTICE
Federal Emergency Management Agency
Draft Environmental Assessment

Proposed Emergency Operations Center Construction
The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide funding to Thurston County for an emergency operations center project in Thurston County, Washington. Funding would be provided through the Emergency Operations Center Grant Program as authorized by section 614 of the Robert F. Stafford Disaster Relief and Emergency Assistance Act (42 U.S.C. 6196c) as amended by the Implementing Recommendations of the 9/11 Commission Act of 2007 (Public Law 110-53).

FEMA prepared a draft environmental assessment (EA) for the proposed project pursuant to the National Environmental Policy Act (NEPA) of 1969 and FEMA's implementing regulations found in 44 Code of Federal Regulations (CFR) Part 10. The EA evaluates alternatives for compliance with applicable environmental laws, including Executive Orders #11990 (Protection of Wetlands), #11988 (Floodplain Management), and #12898 (Environmental Justice). The alternatives evaluated in the EA are the (1) no action; (2) construct a new EOC as proposed; and (3) remodel the existing EOC.

The EA is available for review online at the FEMA environmental web site at: <http://www.fema.gov/plan/ehp/envdocuments> under Region X, and Thurston County Emergency Management website at www.co.thurston.wa.us/em. If no significant issues are identified during the comment period, FEMA will finalize the EA, issue a Finding of No Significant Impact (FONSI), and fund the project. Unless substantive comments are received, FEMA will not publish another notice for this project. However, should a FONSI be issued, it will be available for public viewing at <http://www.fema.gov/plan/ehp/envdocuments> under Region X.

The draft EA is also available for review between April 19 and May 14, 2010 at Thurston County Emergency Management at 2703 Pacific Avenue SE, Olympia, WA 98501, on Monday-Friday from 9:00 a.m. to 4:00 p.m., by appointment.

Written comments on the draft EA should be directed no later than 5 p.m. on May 16, 2010 to Mark G. Eberlein, Regional Environmental Officer, FEMA Region X, 130 228th Street SW, Bothell, WA 98021, or by e-mail at mark.eberlein@dhs.gov. Comments also can be faxed to 425-487-4613.

PUBLISHED APRIL 17 AND MAY 1, 2010

that the **Public Notice**
in the case of **Proposed Emergency Operations Center Construction -- Federal Emergency Management Agency**

of which the attached is a printed copy, was published in said newspaper:

On the	1st	day of	May	2010
the		day of		2010
the		day of		2010
the		day of		2010
the		day of		2010
the		day of		2010

that the said newspaper was generally circulated during all of said time, and has been published for more than six months prior to the dates of the publication of this legal document, and that said notice was published in the newspaper proper and not in supplement form.

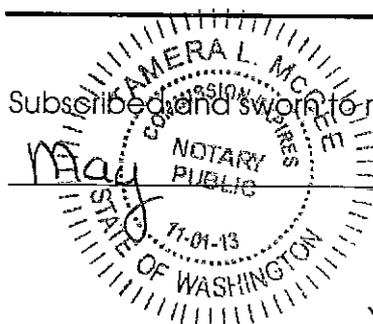
The amount of fee charged for this publication \$

Jenny Nelson

Principal Clerk

Subscribed and sworn to me this 1st day of

May 2010



Jamera L. McGuire

Notary Public in and for the State of Washington
Residing at Olympia, Thurston County, Washington

The Olympian has been appointed as a legal newspaper by order of the Superior Court of the State of Washington for Thurston County, dated July 10, 1941, in the county in which said newspaper is published in accordance with RCW 65.16.020 and RCW 63.16.040.

Note - The above affidavit and fee is in compliance with RCW 63.16.030 and Sec. 3, Chapter 34, Laws of 1977.



THURSTON COUNTY Emergency Management

Homeland Security National Threat
Advisory (5/11/10, 4:15 pm)

ELEVATED

LOCAL INCIDENT UPDATES

[Click here for the most up-to-date info](#)

Public Outreach & Education:

- [Map Your Neighborhood \(MYN\)](#)
- [Community Emergency Response Team \(CERT\)](#)
- [Personal Preparedness Training](#)
- [Faith Communities Disaster Preparedness](#)
- [Hazards & Preparedness Library](#)

Rivers and Flooding:

- [Chehalis River](#)
- [Deschutes River](#)
- [Nisqually River](#)
- [Skookumchuck River](#)

What's New?



Thurston County is StormReady!

On May 11, the National Weather Service recognized Thurston County as a StormReady® community.

Thurston County Emergency Management

Thurston County Water Resources Monitoring

Telephone Alert System

Sandbagging Information

Flood Insurance & Programs

Fall 2009 Thurston County Flood Bulletin*

*Requires Adobe®

Acrobat® Reader™

Plans and Reports:

Comprehensive Emergency Management Plan

Hazard Identification & Vulnerability Analysis

Natural Hazards Mitigation Plan

Organizations:

Emergency Management Council

Disaster Assistance Council

Local Emergency Planning Committee (LEPC)

Thurston County Search & Rescue

American Red Cross

Crisis Clinic Resource Network

Thurston County Public Health

The Volunteer Center

Miscellaneous:

RCW 38.52 - Emergency Management

(Via Washington State Office of the Code Reviser)

Thurston County Declarations List

Request for Proposals (RFP's)

No RFP's at this time

The StormReady program acknowledges communities that have developed communications and safety programs needed to save lives and property before and during storm events. StormReady communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness.

Learn more about what you can do to become storm ready, such as purchasing a NOAA Weather Radio, at our **LINKS** internet library of preparedness information. *Pictured above: Brad Colman, National Weather Service Seattle Forecast Office Meteorologist in Charge, Commissioner Cathy Wolfe, Andrew Kinney, Commissioner Sandra Romero, Joel Wragg, Commissioner Karen Valenzuela and Kathy Estes.*

Emergency Preparedness Expo 2010 - Take Winter by Storm!

This year's Emergency Preparedness Expo takes place on October 9, 2010. Please [click here](#) for more information. Additional information will be posted as it becomes available.

FEMA Environmental Assessment for Potential New Emergency Operations Center

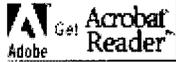
A condition for Thurston County to receive a FEMA Emergency Operations Center (EOC) construction grant award is to complete a FEMA Environmental and Historic Preservation program compliance review for the proposed EOC construction site. The draft environmental assessment document is available for download at the links below.

- [Draft Environmental Assessment](#)
- [Appendix A: DHS/FEMA Environmental and Historic Preservation Compliance Review Template](#)
- [Appendix B: Cultural Resources Survey for Thurston County Emergency Operations Center](#)
- [Appendix C: Wetlands Inventory](#)
- [Appendix D: Mazama Pocket Gopher Habitat Management Plan](#)
- [Appendix E: Subsurface Exploration, Infiltration Feasibility, Geological Hazard and Preliminary Geotechnical Report](#)
- [Appendix F: Level of Service Analysis, Trip Generation and Distribution Study](#)

A hard-copy is also available for review between April 19 and May 14, 2010 at Thurston County Emergency Management at 2703 Pacific Avenue SE, Olympia, WA 98501, on Monday-Friday from 9:00 a.m. to 4:00 p.m., **by appointment.**

Written comments on the draft environmental assessment should be directed no later than 5 p.m. on May 16, 2010 to Mark G. Eberlein, Regional Environmental Officer, FEMA Region X, 130 228th Street

[Thurston County Home Page](#)
[Website Use Disclaimer](#)
Updated 05/26/10



E C C Links

SW, Bothell, WA 98021, or by e-mail at mark.eberlein@dhs.gov. Comments also can be faxed to 425-487-4613.

☾ Neighborhood Preparedness Training

Thurston County Emergency Management is offering a [Map Your Neighborhood \(MYN\)](#) train-the-trainer course for residents who want to organize their neighborhoods for emergency preparedness.

Map Your Neighborhood (MYN)
Monday, June 28, 2010 6:30 - 8:30 pm
Thurston County Emergency Management
2703 Pacific Ave SE, Olympia

The MYN program teaches 9 steps to take immediately after a disaster, shows how to pre-identify skills and equipment available in the neighborhood, and provides information to help neighbors work together to evaluate their neighborhood after a disaster and take necessary action. Contact Vivian Eason at 360-786-5243 or easonv@co.thurston.wa.us for more information or see our [course announcement](#).

☾ Faith Communities Disaster Preparedness Meeting and Web Page

Local faith organizations meet quarterly to discuss disaster planning for their organizations and for the community. The next meeting location, date, and time will be posted here when it is scheduled. [For more information, click here.](#)

☾ Chehalis Basin Flood Hazard Management Plan

The Chehalis Basin Flood Authority has drafted a new Chehalis Basin Flood Hazard Management Plan. The plan and a comment form can be found on the Flood Authority's website at <http://lewiscountywa.gov/community-development/chehalis-river-basin-flood-authority>