LEWIS COUNTY PUBLIC WORKS
ENGINEERING AND TRAFFIC INVESTIGATION REPORT

IN THE MATTER OF: Evaluation of the existing speed limit on Yates Road @ M.P. 0.000 to M.P. 1.979.

REASON FOR INVESTIGATION: Initiated by the County Engineer per a request by a Lewis County Resident.

COUNTY ROAD: Yates Road (#40029) M.P. 0.000 to M.P. 1.979

TO: Tim Elsea and Road File.

FINDINGS:

a.) Current Speed Limit : [50 MPH]
85% Prevailing Vehicle Speed: [42.8 MPH]
Average Daily Traffic: [202.2]

b.) Physical Features:

Yates road is an Urban Local Access through road that ties into Logan Hill Road with in the City of Chehalis Urban Growth. The un-posted speed limit is 50 mph. Yates Road is curved and has undulating grade. The geometrics of the roadway within this 1.979 mile portion includes horizontal and vertical curves.

Pavement Width/Surface: (0.000 - 0.516) 28' BST with 1' gravel shoulders.
(0.516 - 1.016) 22' BST with 1' gravel shoulders.
(1.016 - 1.623) 20' BST with .5' BST shoulders.
(1.623 - 1.979) 20' ACP with no shoulders.

Yates Roads services 30 approaches and 1 private road in conjunction with Logan Hill Road and Jackson Hwy.

c.) Accident Characteristics: There have been 8 reported accidents along Yates Road in the last 30 years. 5 of which involved injury and 3 were property damage only. None fatal. Please see the attach Collision Summary.

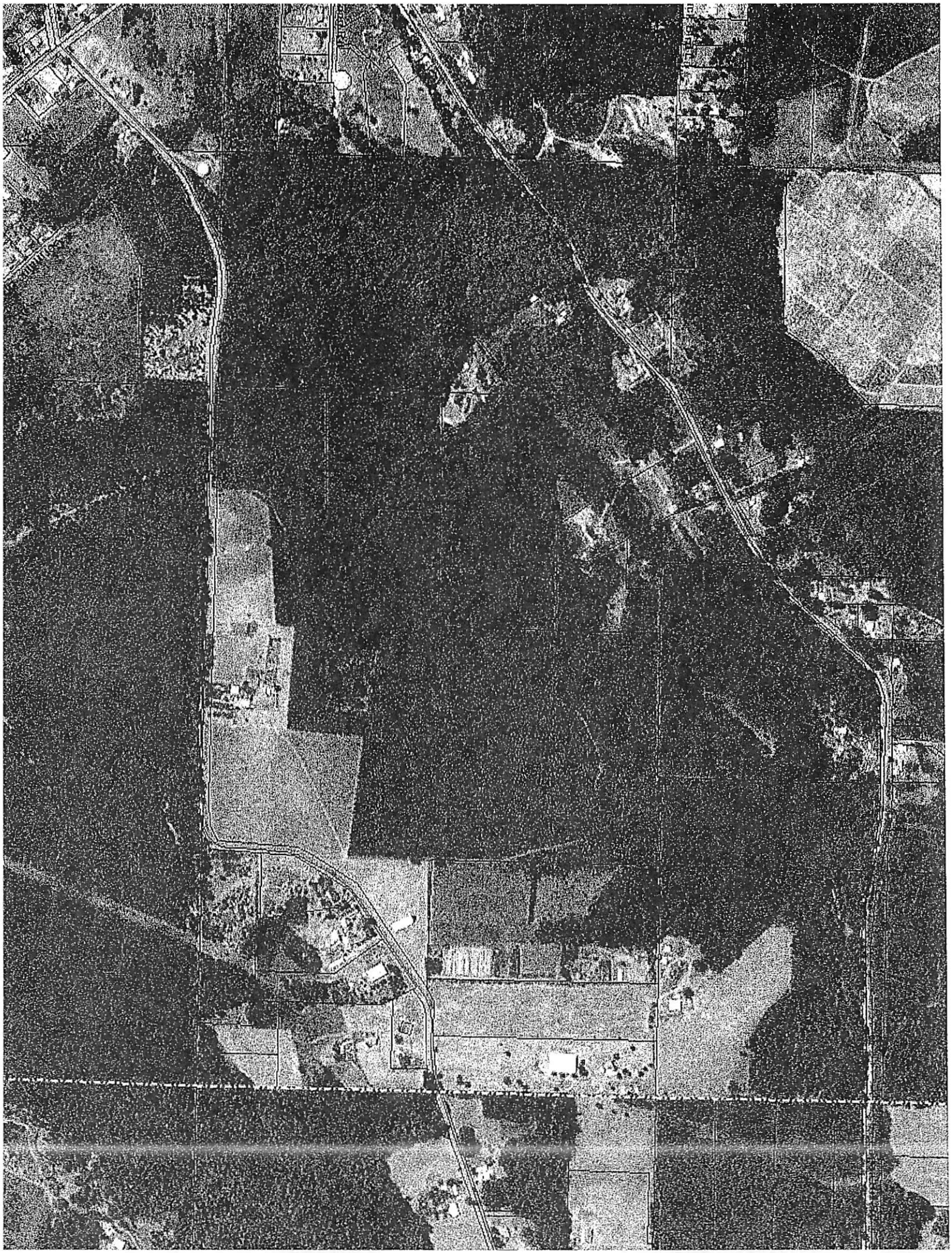
d.) Remarks / Recommendations:

a. With the analysis of Yates road having sections of adverse alignment, undulating curves, along with the USLIMITS2 Speed Zoning Report and the 85th percentile prevailing speed, it is my recommended that the speed limit on Yates road should be reduced from a non-posted 50 mph to 40 mph.

e.) Attachments:

a. 30 year Collision Summary from Lewis County Mobility Database
b. 2015 Yates road Traffic Study data
c. Yates Road GIS map
d. USLIMITS2 Speed Zoning Report

Tim Elsea P.E
Lewis County Traffic Engineer



A>B : East
B>A : West
MP. : 0.695

Site: Yates Rd
Tuesday, 05/26/2015 9:30 AM -
Thursday, 05/28/2015 11:45 AM

Volume Grand Totals

Average Hourly Volumes

	A>B	B>A	Combined
12:00 AM	0.0	0.0	0.0
1:00 AM	0.0	0.0	0.0
2:00 AM	0.0	1.0	1.0
3:00 AM	0.0	0.0	0.0
4:00 AM	1.0	0.0	1.0
5:00 AM	0.5	1.5	2.0
6:00 AM	1.0	6.0	7.0
7:00 AM	1.0	6.0	7.0
8:00 AM	8.5	10.0	18.5
9:00 AM	5.5	5.0	10.5
10:00 AM	5.0	4.7	9.7
11:00 AM	6.0	3.5	9.5
12:00 PM	9.5	6.5	16.0
1:00 PM	5.0	6.0	11.0
2:00 PM	7.5	8.0	15.5
3:00 PM	9.0	7.0	16.0
4:00 PM	11.5	6.5	18.0
5:00 PM	11.0	5.0	16.0
6:00 PM	10.0	6.0	16.0
7:00 PM	7.0	7.0	14.0
8:00 PM	4.0	2.5	6.5
9:00 PM	3.0	0.5	3.5
10:00 PM	3.0	0.0	3.0
11:00 PM	0.0	0.5	0.5
Average Daily Traffic (ADT)	109.0	93.2	202.2

Volume Totals

A>B	B>A	Combined
226	193	419
53.9 %	46.1 %	

A>B : East
B>A : West
MP. : 0.695

Site: Yates Rd
Tuesday, 05/26/2015 10:00 AM -
Thursday, 05/28/2015 11:00 AM

Classification Grand Totals

Hourly Averages

Combined

Interval Start	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 AM	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:00 AM	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:00 AM	2.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6:00 AM	7.0	0.0	5.0	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7:00 AM	8.0	0.0	3.5	1.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8:00 AM	18.5	0.0	10.0	7.0	0.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9:00 AM	10.5	0.0	3.5	5.0	0.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:00 AM	9.7	0.0	7.0	1.7	0.0	0.7	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:00 AM	9.5	0.0	2.5	3.0	0.0	2.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
12:00 PM	16.0	0.0	11.5	3.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 PM	11.0	0.0	5.0	5.0	0.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 PM	15.5	0.0	5.5	7.5	0.5	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 PM	16.0	0.5	9.5	3.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:00 PM	18.0	0.5	12.5	2.5	0.0	2.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
5:00 PM	16.0	0.0	8.0	6.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6:00 PM	16.0	0.0	8.0	5.5	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7:00 PM	14.0	0.0	9.5	3.5	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
8:00 PM	6.5	0.0	3.0	2.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9:00 PM	3.5	0.0	2.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:00 PM	3.0	0.0	2.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:00 PM	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Daily Average	202.2	1.0	114.5	59.7	1.5	22.2	1.8	0.5	1.0	0.0	0.0	0.0	0.0	0.0

Study Grand Totals

	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
Combined	414	2	236	121	3	45	4	1	2	0	0	0	0	0
		0.5 %	57.0 %	29.2 %	0.7 %	10.9 %	1.0 %	0.2 %	0.5 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
A>B	223	2	124	72	1	21	2	1	0	0	0	0	0	0
		0.9 %	55.6 %	32.3 %	0.4 %	9.4 %	0.9 %	0.4 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
B>A	191	0	112	49	2	24	2	0	2	0	0	0	0	0
		0.0 %	58.6 %	25.7 %	1.0 %	12.6 %	1.0 %	0.0 %	1.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %

A>B : East
B>A : West
MP. : 0.695

Site: Yates Rd
Tuesday, 05/26/2015 10:00 AM -
Thursday, 05/28/2015 11:00 AM

Speed Grand Totals

Hourly Averages Combined

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 AM	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:00 AM	1.0	0.0	0.0	0.0	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:00 AM	2.0	0.0	0.0	0.0	0.5	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6:00 AM	7.0	0.0	0.0	0.0	0.5	0.0	2.0	2.5	0.0	1.5	0.5	0.0	0.0	0.0
7:00 AM	7.0	0.0	0.0	0.0	0.0	2.5	2.0	1.5	0.5	0.5	0.0	0.0	0.0	0.0
8:00 AM	18.5	0.5	0.5	1.5	3.5	5.5	2.5	2.0	1.0	0.5	0.0	1.0	0.0	0.0
9:00 AM	10.5	0.0	0.0	0.0	4.5	1.5	2.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0
10:00 AM	9.7	0.0	0.0	0.7	2.0	2.0	1.7	3.0	0.3	0.0	0.0	0.0	0.0	0.0
11:00 AM	9.5	0.0	0.0	0.0	3.0	1.5	2.5	1.5	0.5	0.0	0.0	0.0	0.0	0.0
12:00 PM	16.0	0.0	0.0	1.5	3.5	5.0	4.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0
1:00 PM	12.0	0.0	0.5	0.0	2.5	4.5	2.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
2:00 PM	15.5	0.5	0.5	0.5	1.0	3.5	3.0	5.5	0.5	0.5	0.0	0.0	0.0	0.0
3:00 PM	16.0	0.0	0.0	0.0	2.0	3.5	4.0	6.0	0.0	0.5	0.5	0.0	0.0	0.0
4:00 PM	18.0	0.5	1.0	0.5	2.0	5.5	3.0	5.0	0.0	0.0	0.0	0.0	0.5	0.0
5:00 PM	16.0	0.5	0.0	0.5	2.0	5.5	1.5	2.5	1.5	1.0	0.0	0.0	0.0	0.0
6:00 PM	16.0	0.5	1.0	1.0	1.0	4.0	5.0	3.0	0.0	0.5	0.0	0.0	0.0	0.0
7:00 PM	14.5	0.0	0.0	0.0	3.0	4.0	3.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0
8:00 PM	6.5	0.0	0.0	0.5	0.5	1.0	1.5	2.0	1.0	0.0	0.0	0.0	0.0	0.0
9:00 PM	3.5	0.0	0.0	0.0	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:00 PM	3.0	0.0	0.0	0.0	0.0	0.5	2.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
11:00 PM	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
Daily Average	202.2	2.5	3.5	6.7	31.0	51.5	47.2	44.0	7.3	6.0	1.0	1.0	0.5	0.0

Average (Mean) 35.6 mph **Minimum** 10.1 mph **Maximum** 69.5 mph **Pace Range** 28.7 - 38.7 mph 217 vehicles (52.4 %)

Percentile Speeds (mph)	10%	15%	50%	85%	90%
	26.2	28.8	35.5	42.8	44.2

Speeds Exceeded	25 mph	35 mph	45 mph	55 mph	65 mph	75 mph
	93.7 % (388)	52.9 % (219)	7.7 % (32)	1.2 % (5)	0.2 % (1)	0.0 % (0)

Study Grand Totals

	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
Combined	414	5	7	14	64	105	96	91	15	12	2	2	1	0
		1.2 %	1.7 %	3.4 %	15.5 %	25.4 %	23.2 %	22.0 %	3.6 %	2.9 %	0.5 %	0.5 %	0.2 %	0.0 %
A>B	223	2	3	5	38	66	53	43	4	7	0	1	1	0
		0.9 %	1.3 %	2.2 %	17.0 %	29.6 %	23.8 %	19.3 %	1.8 %	3.1 %	0.0 %	0.4 %	0.4 %	0.0 %
B>A	191	3	4	9	26	39	43	48	11	5	2	1	0	0
		1.6 %	2.1 %	4.7 %	13.6 %	20.4 %	22.5 %	25.1 %	5.8 %	2.6 %	1.0 %	0.5 %	0.0 %	0.0 %

A>B : North
B>A : South
MP. : 1.700

Site: Yates Rd
Tuesday, 05/26/2015 8:30 AM -
Thursday, 05/28/2015 10:45 AM

Volume Grand Totals

Average Hourly Volumes

	A>B	B>A	Combined
12:00 AM	0.0	0.0	0.0
1:00 AM	0.0	1.0	1.0
2:00 AM	0.0	0.0	0.0
3:00 AM	1.0	0.0	1.0
4:00 AM	0.5	2.0	2.5
5:00 AM	2.0	2.5	4.5
6:00 AM	2.5	3.5	6.0
7:00 AM	3.0	3.5	6.5
8:00 AM	3.5	4.5	8.0
9:00 AM	4.3	2.3	6.7
10:00 AM	3.0	1.0	4.0
11:00 AM	5.0	4.5	9.5
12:00 PM	5.0	4.5	9.5
1:00 PM	6.0	5.5	11.5
2:00 PM	8.0	5.0	13.0
3:00 PM	7.0	5.5	12.5
4:00 PM	7.5	5.5	13.0
5:00 PM	5.5	2.0	7.5
6:00 PM	5.0	6.0	11.0
7:00 PM	3.5	2.0	5.5
8:00 PM	1.5	0.5	2.0
9:00 PM	1.0	0.0	1.0
10:00 PM	0.0	0.5	0.5
11:00 PM	0.0	0.0	0.0
Average Daily Traffic (ADT)	74.8	61.8	136.7

Volume Totals

A>B	B>A	Combined
155	128	283
54.8 %	45.2 %	

A>B : North
B>A : South
MP. : 1.700

Site: Yates Rd
Tuesday, 05/26/2015 9:00 AM -
Thursday, 05/28/2015 10:00 AM

Classification Grand Totals

Hourly Averages

Combined

Interval Start	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 AM	1.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 AM	1.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4:00 AM	2.5	0.0	1.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:00 AM	4.5	0.0	4.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6:00 AM	6.0	0.0	2.5	1.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7:00 AM	6.5	0.0	1.5	4.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8:00 AM	8.0	0.0	1.5	3.0	0.0	2.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9:00 AM	6.7	0.0	4.3	2.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:00 AM	4.0	0.0	1.0	1.0	0.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:00 AM	9.5	0.0	0.5	2.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12:00 PM	9.5	0.0	4.0	4.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 PM	11.5	0.0	3.0	5.5	0.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 PM	13.0	0.5	8.0	2.5	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 PM	12.5	0.5	9.0	2.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
4:00 PM	13.0	0.0	6.5	5.0	0.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5:00 PM	7.5	0.0	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6:00 PM	11.0	0.0	8.0	2.0	0.0	0.5	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
7:00 PM	5.5	0.0	2.0	2.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8:00 PM	2.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9:00 PM	11.0	0.0	9.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:00 PM	0.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Daily Average	136.7	1.0	72.3	42.5	2.0	16.3	1.5	0.0	1.0	0.0	0.0	0.0	0.0	0.0

Study Grand Totals

	Total	Motor Bikes	Cars & Trailers	2 Axle Long	Buses	2 Axle 6 Tire	3 Axle Single	4 Axle Single	<5 Axle Double	5 Axle Double	>6 Axle Double	<6 Axle Multi	6 Axle Multi	>6 Axle Multi
Combined	280	2	149	87	4	33	3	0	2	0	0	0	0	0
		0.7 %	53.2 %	31.1 %	1.4 %	11.8 %	1.1 %	0.0 %	0.7 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
A>B	154	2	78	55	2	15	2	0	0	0	0	0	0	0
		1.3 %	50.6 %	35.7 %	1.3 %	9.7 %	1.3 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
B>A	126	0	71	32	2	18	1	0	2	0	0	0	0	0
		0.0 %	56.3 %	25.4 %	1.6 %	14.3 %	0.8 %	0.0 %	1.6 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %

A>B : North
B>A : South
MP. : 1.700

Site: Yates Rd
Tuesday, 05/26/2015 9:00 AM -
Thursday, 05/28/2015 10:00 AM

Speed Grand Totals

Hourly Averages Combined

mph	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
12:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 AM	1.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2:00 AM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3:00 AM	1.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
4:00 AM	2.5	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5	0.5	0.0	0.0	0.0	0.0
5:00 AM	5.5	0.0	0.0	0.0	0.0	0.0	2.0	0.5	1.5	0.5	0.0	0.0	0.0	0.0
6:00 AM	6.0	0.0	0.5	1.0	0.0	2.0	1.0	0.5	1.0	0.0	0.0	0.0	0.0	0.0
7:00 AM	6.5	0.0	0.0	0.5	0.0	1.5	2.0	0.0	0.0	1.0	0.5	0.5	0.5	0.0
8:00 AM	8.0	0.0	0.5	0.5	2.0	1.5	1.5	1.0	0.5	0.0	0.5	0.0	0.0	0.0
9:00 AM	6.7	0.0	0.0	0.0	1.0	2.7	1.3	0.7	0.0	0.0	0.0	0.0	0.0	0.0
10:00 AM	4.0	0.5	0.0	0.5	0.5	0.0	1.5	0.5	0.5	0.0	0.0	0.0	0.0	0.0
11:00 AM	9.5	0.5	0.0	0.5	0.0	0.0	3.0	2.0	1.5	1.0	0.0	0.0	0.0	0.0
12:00 PM	9.5	0.0	1.0	2.0	0.5	1.5	3.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0
1:00 PM	11.5	0.0	0.5	0.5	0.5	2.0	2.5	3.5	1.5	0.0	0.5	0.0	0.0	0.0
2:00 PM	13.0	0.0	0.0	0.5	0.5	1.5	4.5	3.0	2.5	0.5	0.0	0.0	0.0	0.0
3:00 PM	12.5	0.0	0.0	0.5	2.0	0.0	2.5	3.5	2.0	0.0	1.0	0.0	0.0	0.0
4:00 PM	13.0	0.5	0.5	0.0	2.0	3.0	2.5	1.5	2.5	0.5	0.0	0.0	0.0	0.0
5:00 PM	7.5	0.0	0.0	1.5	0.0	0.0	2.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0
6:00 PM	11.0	0.0	0.0	0.0	0.5	1.0	5.5	1.5	1.5	0.5	0.5	0.0	0.0	0.0
7:00 PM	5.5	0.0	0.0	0.0	1.0	0.5	2.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
8:00 PM	2.0	0.0	0.0	0.0	0.0	0.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0
9:00 PM	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10:00 PM	0.5	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11:00 PM	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Daily Average	136.7	1.5	3.0	10.0	10.5	23.2	39.8	23.2	17.5	4.0	3.0	0.5	0.5	0.0

Average (Mean) 37.1 mph **Minimum** 12.9 mph **Maximum** 67.7 mph **Pace Range** 31.9 - 41.9 mph 139 vehicles (49.6 %)

Percentile Speeds (mph)	10%	15%	50%	85%	90%
	24.4	27.7	36.7	46.0	47.8

Speeds Exceeded	25 mph	35 mph	45 mph	55 mph	65 mph	75 mph
	89.3 % (250)	63.9 % (179)	18.2 % (51)	2.9 % (8)	0.4 % (1)	0.0 % (0)

Study Grand Totals

	Total	0 - < 15	15 - < 20	20 - < 25	25 - < 30	30 - < 35	35 - < 40	40 - < 45	45 - < 50	50 - < 55	55 - < 60	60 - < 65	65 - < 70	70 - < 200
Combined	280	3 1.1 %	6 2.1 %	21 7.5 %	22 7.9 %	49 17.5 %	81 28.9 %	47 16.8 %	35 12.5 %	8 2.9 %	6 2.1 %	1 0.4 %	1 0.4 %	0 0.0 %
A>B	154	2 1.3 %	2 1.3 %	11 7.1 %	11 7.1 %	28 18.2 %	44 28.6 %	32 20.8 %	16 10.4 %	3 1.9 %	4 2.6 %	1 0.6 %	0 0.0 %	0 0.0 %
B>A	126	1 0.8 %	4 3.2 %	10 7.9 %	11 8.7 %	21 16.7 %	37 29.4 %	15 11.9 %	19 15.1 %	5 4.0 %	2 1.6 %	0 0.0 %	1 0.8 %	0 0.0 %

USLIMITS2 Speed Zoning Report

Project Name: Yates Road

Analyst: Ray Shipman

Date: 02-02-2016

Basic Project Information
Project Number: 40029
Route Name: Yates Road
From: Jackson Hwy
To: Logan Hill
State: Washington
County: Lewis County
City: Chehalis city
Route Type: Road Section in Developed Area
Route Status: Existing

Roadway Information
Section Length: 1.979 mile(s)
Statutory Speed Limit: 50 mph
Adverse Alignment: Yes
One-Way Street: No
Divided/Undivided: Undivided
Number of Through Lanes: 2
Area Type: Residential-Collector
Number of Driveways: 31
Number of Signals: 0

Crash Data Information
Crash Data Years: 20.00
Crash AADT: 202 veh/day
Total Number of Crashes: 3
Total Number of Injury Crashes: 0
Section Crash Rate: 103 per 100 MVM
Section Injury Crash Rate: 0 per 100 MVM
Crash Rate Average for Similar Roads: 366
Injury Rate Average for Similar Roads: 101

Traffic Information
85th Percentile Speed: 43 mph
50th Percentile Speed: 36 mph
AADT: 202 veh/day
On Street Parking and Usage: Not High
Pedestrian / Bicyclist Activity: Not High

Recommended Speed Limit:

Note: Sections with adverse alignments may need specific 'advisory speed warnings' which may be different from the general speed limit for the section. See Procedures for Setting Advisory Speeds on Curves, Publication No. FHWA-SA-11-22, June 2011, for more guidance.

Collision List

40029 YATES RD			Jur	FFC
0.160	Crash	08/24/1990 - 421149 - Injury	5	9
0.400	Crash	01/13/1997 - 0086551 - Prop Dam Only	5	9
0.450	Crash	02/11/1994 - 042326 - Injury	5	9
1.000	Crash	04/17/1986 - 334903 - Prop Dam Only	5	9
1.000	Crash	08/20/2000 - 471536 - Injury	5	9
1.000	CLAS Collision	12/05/2007 - 2815696 - Injury	5	9
1.190	Crash	12/16/1994 - 511864 - Prop Dam Only	5	9
1.922	CLAS Collision	09/15/2014 - E357339 - Injury	5	9

02/02/2016