

ALBERTA HISTORICAL SUMMARY SHEET 10 LTPP TRAFFIC DATA TRAFFIC VOLUME AND LOAD ESTIMATE UPDATE - NO SITE COUNT	State Assigned ID	
	State Code	81
	SHRP Section ID	A900

1. ANNUAL TRAFFIC ESTIMATES

YEAR	ESTIMATED TOTAL VEHICLES AADT (TWO WAY)	ESTIMATED TOTAL TRUCK AADT (TWO WAY)	ESTIMATED TOTAL VEHICLES AADT GPS LANE	ESTIMATED TOTAL TRUCK AADT GPS LANE	ESTIMATED ESAL'S / YR GPS LANE (1000's)
1970					
1971					
1972					
1973					
1974					
1975					
1976					
1977					
1978					
1979					
1980					
1981					
1982					
1983					
1984					
1985					
1986					
1987					
1988					
1989					
1990					
1991					
1992					
1993					
1994					
1995					
1996	4160	640	1900	300	130 196
1997	4350	670	1990	310	170 204
1998	4520	700	2070	320	180 212
1999	6030	570	2530	270	180 283
2000	6070	1190	2550	560 530	262 247
2001	6040	1310	2590	560	324
2002	6270	680 1160	2630	320 550	200 286
2003	6270	1200	2670	570	301

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SHEET 10 LTPP TRAFFIC DATA TRAFFIC VOLUME AND LOAD ESTIMATE UPDATE - NO SITE COUNT	State Assigned ID _____ State Code _____ 81 SHRP Section ID _____ A900
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A 901 ✓
 A 902 ✓
 A 903 ✓

1. ANNUAL TRAFFIC ESTIMATES

YEAR	ESTIMATED TOTAL VEHICLES AADT (TWO WAY)	ESTIMATED TOTAL TRUCK AADT (TWO WAY)	ESTIMATED TOTAL VEHICLES AADT GPS LANE	ESTIMATED TOTAL TRUCK AADT GPS LANE	ESTIMATED ESAL'S / YR GPS LANE (1000's)
2003	6270	1200	2665	570	301

2. METHOD FOR ESTIMATING TOTAL VEHICLE AADT (TWO-WAY)

- ☐ Growth factored last year's estimates
☐ Estimated based on volume counts at nearby locations
☐ Used computerized network analysis
 8 ☒ Other _____
 WIM on Site _____

3. METHOD FOR ESTIMATING TOTAL TRUCK AADT (TWO-WAY)

- ☐ Used system average for counts taken this year
☐ Used count data from nearby sites
☐ Used count data from previous years at GPS site
☐ Used system averages from previous years counts
☐ Used computerized network analysis
 9 ☒ Other _____
 WIM on Site _____

4. METHOD FOR ESTIMATING TOTAL VEHICLES GPS LANE AADT

- 3 ☐ System distribution factors
☒ Other _____
 WIM on Site _____

5. METHOD FOR ESTIMATING TOTAL TRUCKS, GPS LANE, AADT

- 3 ☐ System distribution factors
☒ Other _____
 WIM on Site _____

6. METHOD FOR ESTIMATING ESAL / YEAR IN GPS LANE

- ☐ ESAL / Truck factor
☐ ESAL / vehicle class factors -
 Number of classes _____
 4 ☒ Other _____
 WIM on Site _____

7. ESAL ESTIMATES - SOURCE OF DATA

- ☐ Prior years data collected at GPS site
☐ Current year system average
☐ Prior year system average
☐ Historical W-4 tables
 6 ☒ Other _____
 WIM on Site _____

8. WEIGHT SCALE TYPE

- 1 ☒ WIM Scale
☐ Static scale used for enforcement
☐ Static scale not used for enforcement
☐ Other _____

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Date Prepared	2004.05.05		

File: D:\MY DOCUMENTS\ECM\WIM\SHRP\2003\HWY0308E.XLS

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[Signature]

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID	[]
	*STATE CODE	[81]
	*SHRP SECTION ID	[A 900]

SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [09/17/2003]
2. * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
3. * REASON FOR CALIBRATION
X REGULARLY SCHEDULED SITE VISIT RESEARCH
 EQUIPMENT REPLACEMENT TRAINING
 DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
 OTHER (SPECIFY)
4. * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY):
 BARE ROUND PIEZO CERAMIC BARE FLAT PIEZO BENDING PLATES
X CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY)
5. EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- Y STATIC SCALE (Y/N) X TEST TRUCKS
 NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED

5 PASSES PER TRUCK

TRUCK	TYPE	SUSPENSION
1	<u>9</u>	<u>1</u>
2	<u> </u>	<u> </u>
3	<u> </u>	<u> </u>

TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN --
DYNAMIC AND STATIC GVW + 12.3 % STANDARD DEVIATION 2.8 %
DYNAMIC AND STATIC SINGLE AXLES + 36.0 % STANDARD DEVIATION 3.8 %
DYNAMIC AND STATIC DOUBLE AXLES + 1.4 % STANDARD DEVIATION 3.3 %
8. 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 57 - 60 MPH
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 0.98
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: Alberta Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- 12.*** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
 VIDEO MANUAL PARALLEL CLASSIFIERS NOT DONE
13. METHOD TO DETERMINE LENGTH OF COUNT TIME NUMBER OF TRUCKS
14. MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:
*** FHWA CLASS 9 FHWA CLASS
*** FHWA CLASS 8 FHWA CLASS
FHWA CLASS
FHWA CLASS
*** PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Transportation
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. November 9, 1999

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	*STATE CODE	[81]
	*SHRP SECTION ID	[A 900]

SITE CALIBRATION INFORMATION

- * DATE OF CALIBRATION (MONTH/DAY/YEAR) [05/26/2003]
- * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
- * REASON FOR CALIBRATION
 X REGULARLY SCHEDULED SITE VISIT RESEARCH
 EQUIPMENT REPLACEMENT TRAINING
 DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
 OTHER (SPECIFY) _____
- * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY):
 BARE ROUND PIEZO CERAMIC BARE FLAT PIEZO BENDING PLATES
 X CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY) _____
- EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS**

- ** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- Y STATIC SCALE (Y/N) X TEST TRUCKS
 NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED

	<u> 5 </u> PASSES PER TRUCK
TYPE PER FHWA 13 BIN SYSTEM	TRUCK TYPE SUSPENSION
SUSPENSION: 1 - AIR; 2 - LEAF SPRING	1 <u> 9 </u> <u> 1 </u>
3 - OTHER (DESCRIBE)	2 <u> </u> <u> </u>
	3 <u> </u> <u> </u>
- SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
 MEAN DIFFERENCE BETWEEN ---
 DYNAMIC AND STATIC GVW - 27.4% STANDARD DEVIATION 3.2%
 DYNAMIC AND STATIC SINGLE AXLES + 0.6% STANDARD DEVIATION 17.3%
 DYNAMIC AND STATIC DOUBLE AXLES - 32.8% STANDARD DEVIATION 6.6%
- 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- DEFINE THE SPEED RANGES USED (MPH) 66 MPH
- CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.10
- ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: Alberta Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle as it is the only vehicle which occurs + 100 times daily

CLASSIFIER TEST SPECIFICS***

- *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
 VIDEO MANUAL PARALLEL CLASSIFIERS NOT DONE
- METHOD TO DETERMINE LENGTH OF COUNT TIME NUMBER OF TRUCKS
- MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:
 *** FHWA CLASS 9 FHWA CLASS
 *** FHWA CLASS 8 FHWA CLASS
 FHWA CLASS
 FHWA CLASS
 *** PERCENT "UNCLASSIFIED" VEHICLES:

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