

<b>SHEET 10</b> <b>LTPP TRAFFIC DATA</b>  <b>TRAFFIC VOLUME AND LOAD</b> <b>ESTIMATE UPDATE - NO SITE COUNT</b>	<table style="width: 100%;"> <tr> <td style="width: 60%;">State Assigned ID</td> <td style="width: 40%; border-bottom: 1px solid black;"></td> </tr> <tr> <td>State Code</td> <td style="border-bottom: 1px solid black; text-align: right;">81</td> </tr> <tr> <td>SHRP Section ID</td> <td style="border-bottom: 1px solid black; text-align: right;">A900</td> </tr> </table>	State Assigned ID		State Code	81	SHRP Section ID	A900
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)
2005	6490	1100	2640	460	293

## 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  
4 ☒ 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

- ☐ System distribution factors  
3 ☒ Other WIM on Site

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

- ☐ System distribution factors  
3 ☒ 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 \_\_\_\_\_

Name of Preparer: Peter Kilburn  
Date Prepared: 2007.03.07

Phone #: (780) 415-1359

File: D:\MY DOCUMENTS\SECA\WIM\SHRP\SHRP2005\SHRPLTPPSHEET102005.XLS

3/19/07  
B/K

800.12.13.9.12

<b>SHEET 10</b> <b>LTPP TRAFFIC DATA</b>  <b>TRAFFIC VOLUME AND LOAD</b> <b>ESTIMATE UPDATE - NO SITE COUNT</b>	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)
2005	6500	900	620	50	360

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

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

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

- 9 ☐ 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  
☒ 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

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

## 7. ESAL ESTIMATES - SOURCE OF DATA

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

## 8. WEIGHT SCALE TYPE

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

Name of Preparer:	Peter Kilburn	Phone #:	(780) 415-1359
Date Prepared	2006.04.07		

File: D:\MY DOCUMENTS\ECM\WIM\SHRP\SHRP2005\SHRPLTPPSHEET102005.XLS

ENTERED APR 17 2006  
 JYK

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) December 15, 2005
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM \_\_\_\_\_ CLASSIFIER \_\_\_\_\_ BOTH
- 3 \* REASON FOR CALIBRATION  
☒ 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  
☒ CHANNELIZED ROUND PIEZO \_\_\_\_\_ LOAD CELLS \_\_\_\_\_ QUARTZ PIEZO  
\_\_\_\_\_ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS \_\_\_\_\_ CAPACITANCE PADS  
\_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS\*\*

- 6 \*\* CALIBRATION TECHNIQUE USED:  
\_\_\_\_\_ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS  
\_\_\_\_\_ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- |       |      | 10 | PASSES PER TRUCK |
|-------|------|----|------------------|
| TRUCK | TYPE |    | SUSPENSION       |
| 1     | 9    |    | 1                |
| 2     |      |    |                  |
| 3     |      |    |                  |
- 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 0.38% STANDARD DEVIATION +/- 2.71%  
DYNAMIC AND STATIC SINGLE AXLES 2.88% STANDARD DEVIATION +/- 6.97%  
DYNAMIC AND STATIC DOUBLE AXLES -0.74% STANDARD DEVIATION +/- 4.42%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.4 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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 Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
581K

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) November 17, 2005
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM \_\_\_\_\_ CLASSIFIER \_\_\_\_\_ BOTH
- 3 \* REASON FOR CALIBRATION  
☒ 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  
☒ CHANNELIZED ROUND PIEZO \_\_\_\_\_ LOAD CELLS \_\_\_\_\_ QUARTZ PIEZO  
\_\_\_\_\_ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS \_\_\_\_\_ CAPACITANCE PADS  
\_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS\*\*

- 6 \*\* CALIBRATION TECHNIQUE USED:  
\_\_\_\_\_ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS  
\_\_\_\_\_ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | TYPE PER FHWA 13 BIN SYSTEM          | 10 PASSES PER TRUCK |            |
|--------------------------------------|---------------------|------------|
|                                      | TRUCK               | SUSPENSION |
| SUSPENSION: 1 - AIR; 2 - LEAF SPRING | 1 <u>9</u>          | <u>1</u>   |
| 3 - OTHER (DESCRIBE)                 | 2 _____             | _____      |
|                                      | 3 _____             | _____      |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
MEAN DIFFERENCE BETWEEN ---  
DYNAMIC AND STATIC GVW -3.92% STANDARD DEVIATION +/- 3.62%  
DYNAMIC AND STATIC SINGLE AXLES 10.46% STANDARD DEVIATION +/- 7.00%  
DYNAMIC AND STATIC DOUBLE AXLES -5.19% STANDARD DEVIATION +/- 6.36%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 67.9 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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 Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
SK

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) October 20, 2005
- 2 \* TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
- 3 \* REASON FOR CALIBRATION  
X REGULARLY SCHEDULED SITE VISIT  
EQUIPMENT REPLACEMENT  
DATA TRIGGERED SYSTEM REVISION  
OTHER (SPECIFY) \_\_\_\_\_  
RESEARCH  
TRAINING  
NEW EQUIPMENT INSTALLATION
- 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
- | TYPE PER FHWA 13 BIN SYSTEM<br>SUSPENSION: 1 - AIR; 2 - LEAF SPRING<br>3 - OTHER (DESCRIBE) | <u>10</u> PASSES PER TRUCK |            |
|---|----------------------------|------------|
|   | TRUCK                      | SUSPENSION |
|   | 1                          | <u>9</u>   |
|   | 2                          | <u>1</u>   |
|   | 3                          |            |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
MEAN DIFFERENCE BETWEEN ---  
DYNAMIC AND STATIC GVW 8.69% STANDARD DEVIATION +/- 5.41%  
DYNAMIC AND STATIC SINGLE AXLES 20.85% STANDARD DEVIATION +/- 11.49%  
DYNAMIC AND STATIC DOUBLE AXLES 7.54% STANDARD DEVIATION +/- 5.35%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.4 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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 Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
SK

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) September 22, 2005
- 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
- |       | 10       | 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 -30.97% STANDARD DEVIATION +/- 17.05%  
DYNAMIC AND STATIC SINGLE AXLES -2.23% STANDARD DEVIATION +/- 6.85%  
DYNAMIC AND STATIC DOUBLE AXLES -33.69% STANDARD DEVIATION +/- 18.58%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 67.7 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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    
FHWA CLASS    
\*\*\* PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/24/07  
SKC

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) August 25, 2005
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM \_\_\_\_\_ CLASSIFIER \_\_\_\_\_ BOTH
- 3 \* REASON FOR CALIBRATION  
☒ 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  
☒ CHANNELIZED ROUND PIEZO \_\_\_\_\_ LOAD CELLS \_\_\_\_\_ QUARTZ PIEZO  
\_\_\_\_\_ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS \_\_\_\_\_ CAPACITANCE PADS  
\_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS\*\*

- 6 \*\* CALIBRATION TECHNIQUE USED:  
\_\_\_\_\_ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS  
\_\_\_\_\_ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- |       |      | 10 | PASSES PER TRUCK |
|-------|------|----|------------------|
| TRUCK | TYPE |    | SUSPENSION       |
| 1     | 9    |    | 1                |
| 2     |      |    |                  |
| 3     |      |    |                  |
- 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 -64.78% STANDARD DEVIATION +/- 33.37%  
DYNAMIC AND STATIC SINGLE AXLES -61.15% STANDARD DEVIATION +/- 31.62%  
DYNAMIC AND STATIC DOUBLE AXLES -65.11% STANDARD DEVIATION +/- 33.66%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 66.5 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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 Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
58K

**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) July 28, 2005
- 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 -- X STATIC SCALE (Y/N) \_\_\_\_\_ X TEST TRUCKS  
 \_\_\_\_\_ NUMBER OF TRUCKS COMPARED \_\_\_\_\_ 1 NUMBER OF TEST TRUCKS USED
- |                                      |                            |          |
|--------------------------------------|----------------------------|----------|
|                                      | <u>10</u> PASSES PER TRUCK |          |
| TYPE PER FHWA 13 BIN SYSTEM          | TRUCK                      | TYPE     |
| SUSPENSION: 1 - AIR; 2 - LEAF SPRING | 1                          | <u>9</u> |
| 3 - OTHER (DESCRIBE)                 | 2                          | <u>1</u> |
|                                      | 3                          |          |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
 MEAN DIFFERENCE BETWEEN ---  
 DYNAMIC AND STATIC GVW 10.22% STANDARD DEVIATION +/- 16.93%  
 DYNAMIC AND STATIC SINGLE AXLES 36.41% STANDARD DEVIATION +/- 23.52%  
 DYNAMIC AND STATIC DOUBLE AXLES 12.07% STANDARD DEVIATION +/- 27.70%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.4 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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 Infrastructure & Transportation  
 CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/4/07  
SK



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) June 23, 2005
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM CLASSIFIER BOTH
- 3 \* REASON FOR CALIBRATION  
☒ 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  
☒ CHANNELIZED ROUND PIEZO ☐ LOAD CELLS ☐ QUARTZ PIEZO  
☐ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS ☐ CAPACITANCE PADS  
☐ OTHER (SPECIFY)
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS\*\*

- 6 \*\* CALIBRATION TECHNIQUE USED:  
☐ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS  
☐ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | TRUCK | TYPE | PASSES PER TRUCK | SUSPENSION |
|-------|------|------------------|------------|
| 1     | 9    | 1                |            |
| 2     |      |                  |            |
| 3     |      |                  |            |
- 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 23.50% STANDARD DEVIATION +/- 13.21%  
DYNAMIC AND STATIC SINGLE AXLES -2.38% STANDARD DEVIATION +/- 8.11%  
DYNAMIC AND STATIC DOUBLE AXLES 34.86% STANDARD DEVIATION +/- 19.53%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.4 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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 Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
88%

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) May 19, 2005
- 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
- | TYPE PER FHWA 13 BIN SYSTEM<br>SUSPENSION: 1 - AIR; 2 - LEAF SPRING<br>3 - OTHER (DESCRIBE) | 10 PASSES PER TRUCK |            |
|---|---------------------|------------|
|   | TRUCK               | SUSPENSION |
|   | 1                   | 9          |
|   | 2                   |            |
|   | 3                   |            |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
MEAN DIFFERENCE BETWEEN ---  
DYNAMIC AND STATIC GVW 24.17% STANDARD DEVIATION +/- 38.13%  
DYNAMIC AND STATIC SINGLE AXLES 10.22% STANDARD DEVIATION +/- 41.40%  
DYNAMIC AND STATIC DOUBLE AXLES 26.14% STANDARD DEVIATION +/- 42.89%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.4 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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    
FHWA CLASS    
\*\*\* PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
28

<b>SHEET 16</b> <b>LTPP MONITORED TRAFFIC DATA</b> <b>SITE CALIBRATION SUMMARY</b>	* State Assigned ID [     ] * State Code [ 81 ] * SHRP Section ID [ A 900 ]
--	---

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) April 21, 2005
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM CLASSIFIER ☐ BOTH
- 3 \* REASON FOR CALIBRATION
- |  |   |
|--|---|
| <input checked="" type="checkbox"/> REGULARLY SCHEDULED SITE VISIT | <input type="checkbox"/> RESEARCH                   |
| <input type="checkbox"/> EQUIPMENT REPLACEMENT                     | <input type="checkbox"/> TRAINING                   |
| <input type="checkbox"/> DATA TRIGGERED SYSTEM REVISION            | <input type="checkbox"/> NEW EQUIPMENT INSTALLATION |
| <input type="checkbox"/> OTHER (SPECIFY) _____                     |   |
- 4 \* SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY)
- |   |  |   |
|---|--|---|
| <input type="checkbox"/> BARE ROUND PIEZO CERAMIC           | <input type="checkbox"/> BARE FLAT PIEZO             | <input type="checkbox"/> BENDING PLATES   |
| <input checked="" type="checkbox"/> CHANNELIZED ROUND PIEZO | <input type="checkbox"/> LOAD CELLS                  | <input type="checkbox"/> QUARTZ PIEZO     |
| <input type="checkbox"/> CHANNELIZED FLAT PIEZO             | <input checked="" type="checkbox"/> INDUCTANCE LOOPS | <input type="checkbox"/> CAPACITANCE PADS |
| <input type="checkbox"/> OTHER (SPECIFY) _____              |  |   |
- 5 EQUIPMENT MANUFACTURER ECM

WIM SYSTEM CALIBRATION SPECIFICS\*\*

- 6 \*\* CALIBRATION TECHNIQUE USED:
- ☐ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS
- ☐ NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- | TYPE PER FHWA 13 BIN SYSTEM | 10    | PASSES PER TRUCK |
|-----------------------------|-------|------------------|
| SUSPENSION:                 | TRUCK | TYPE             |
| 1 - AIR; 2 - LEAF SPRING    | 1     | 9                |
| 3 - OTHER (DESCRIBE)        | 2     |                  |
|                             | 3     |                  |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
- |                                 |        |                               |
|---------------------------------|--------|-------------------------------|
| MEAN DIFFERENCE BETWEEN ---     |        |                               |
| DYNAMIC AND STATIC GVW          | 15.91% | STANDARD DEVIATION +/- 59.05% |
| DYNAMIC AND STATIC SINGLE AXLES | 22.49% | STANDARD DEVIATION +/- 52.51% |
| DYNAMIC AND STATIC DOUBLE AXLES | 21.18% | STANDARD DEVIATION +/- 62.16% |
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 67.7 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y
- IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:
- Alberta Infrastructure and 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 Infrastructure & Transportation  
 CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/14/07  
 28/c

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) March 17, 2005
- 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
- | 10 PASSES PER TRUCK |            |
|---------------------|------------|
| TRUCK               | SUSPENSION |
| 1                   | 9          |
| 2                   |            |
| 3                   |            |
- 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 -1.14% STANDARD DEVIATION +/- 4.01%  
DYNAMIC AND STATIC SINGLE AXLES -8.18% STANDARD DEVIATION +/- 6.55%  
DYNAMIC AND STATIC DOUBLE AXLES -0.30% STANDARD DEVIATION +/- 6.19%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 66.1 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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    
FHWA CLASS    
\*\*\* PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
SK

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): February 17, 2005
- 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
- |       | 10       | PASSES PER TRUCK |
|-------|----------|------------------|
| TRUCK | TYPE     | SUSPENSION       |
| 1     | <u>9</u> | <u>1</u>         |
| 2     | _____    | _____            |
| 3     | _____    | _____            |
- 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 22.62% STANDARD DEVIATION +/- 12.28%  
DYNAMIC AND STATIC SINGLE AXLES 1.44% STANDARD DEVIATION +/- 4.04%  
DYNAMIC AND STATIC DOUBLE AXLES 25.56% STANDARD DEVIATION +/- 14.64%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) \_\_\_\_\_ 68.4 MPH
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) \_\_\_\_\_ 1.00
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) Y  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
Alberta Infrastructure and 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 \_\_\_\_\_  
FHWA CLASS \_\_\_\_\_  
FHWA CLASS \_\_\_\_\_
- \*\*\* PERCENT "UNCLASSIFIED" VEHICLES: \_\_\_\_\_

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
DK

**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) **January 20, 2005**
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM ☐ CLASSIFIER ☐ BOTH
- 3 \* REASON FOR CALIBRATION  
☒ 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  
☒ CHANNELIZED ROUND PIEZO ☐ LOAD CELLS ☐ QUARTZ PIEZO  
☐ CHANNELIZED FLAT PIEZO ☒ INDUCTANCE LOOPS ☐ CAPACITANCE PADS  
☐ OTHER (SPECIFY) \_\_\_\_\_
- 5 EQUIPMENT MANUFACTURER **ECM**

WIM SYSTEM CALIBRATION SPECIFICS\*\*

- 6 \*\* CALIBRATION TECHNIQUE USED:  
☐ TRAFFIC STREAM -- ☒ STATIC SCALE (Y/N) ☒ TEST TRUCKS  
☐ NUMBER OF TRUCKS COMPARED ☐ 1 NUMBER OF TEST TRUCKS USED
- | TYPE PER FHWA 13 BIN SYSTEM |  | 10 PASSES PER TRUCK |      |            |
|-----------------------------|--|---------------------|------|------------|
| SUSPENSION:                 | 1 - AIR; 2 - LEAF SPRING<br>3 - OTHER (DESCRIBE) | TRUCK               | TYPE | SUSPENSION |
|                             |  | 1                   | 9    | 1          |
|                             |  | 2                   |      |            |
|                             |  | 3                   |      |            |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
MEAN DIFFERENCE BETWEEN ---  
DYNAMIC AND STATIC GVW **1.00%** STANDARD DEVIATION +/- **1.68%**  
DYNAMIC AND STATIC SINGLE AXLES **-17.07%** STANDARD DEVIATION +/- **9.45%**  
DYNAMIC AND STATIC DOUBLE AXLES **4.33%** STANDARD DEVIATION +/- **8.40%**
- 8 **1** NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) **69 MPH**
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) **1.00**
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) **Y**  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:  
**Alberta Infrastructure and 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 Infrastructure & Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. March 7, 2007

3/19/07  
AK