

File: 800.12.13.9.12

<p><b>SHEET 10</b> <b>LTPP TRAFFIC DATA</b></p> <p><b>TRAFFIC VOLUME AND LOAD</b> <b>ESTIMATE UPDATE - NO SITE COUNT</b></p>	<p>State Assigned ID _____</p> <p>State Code _____ 81</p> <p>SHRP Section ID _____ 500</p>
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**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)
2009	6970	1530	2833	850	656

**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  
☐ 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  
☐ Other \_\_\_\_\_  
**WIM on Site** \_\_\_\_\_

**4. METHOD FOR ESTIMATING TOTAL VEHICLES GPS LANE AADT**

☐ System distribution factors  
☒ Other \_\_\_\_\_  
**WIM on Site** \_\_\_\_\_

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

☒ 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 \_\_\_\_\_  
☒ 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  
☒ Other \_\_\_\_\_  
**WIM on Site** \_\_\_\_\_

**8. WEIGHT SCALE TYPE**

☒ 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: 2010.04.09

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**ENTERED**  
4-13-10

File: 800.12.13.9.12

**SHEET 16**  
**LTPP MONITORED TRAFFIC DATA**  
**SITE CALIBRATION SUMMARY**

\* State Assigned ID [ ]  
\* State Code [ 81 ]  
\* SHRP Section ID [ 500 ]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) **November 30, 2009**
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM ☐ CLASSIFIER ☐ BOTH
- 3 \* REASON FOR CALIBRATION  
☒ 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  
☒ 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 9.58% STANDARD DEVIATION +/- 17.33%  
 DYNAMIC AND STATIC SINGLE AXLES 18.02% STANDARD DEVIATION +/- 19.33%  
 DYNAMIC AND STATIC DOUBLE AXLES 8.01% STANDARD DEVIATION +/- 18.08%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 62.3 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 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. April 12, 2010

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4-13-10

SHEET 16  
LTPP MONITORED TRAFFIC DATA  
SITE CALIBRATION SUMMARY

\* State Assigned ID [ ]  
\* State Code [ 81 ]  
\* SHRP Section ID [ 500 ]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) **October 19, 2009**
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM ☐ CLASSIFIER ☐ BOTH
- 3 \* REASON FOR CALIBRATION  
☒ 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  
☒ 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 **2.86%** STANDARD DEVIATION +/- **2.50%**  
DYNAMIC AND STATIC SINGLE AXLES **10.50%** STANDARD DEVIATION +/- **7.13%**  
DYNAMIC AND STATIC DOUBLE AXLES **1.98%** STANDARD DEVIATION +/- **3.32%**
- 8 **1** NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) **68.2 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 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 Transportation  
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\* State Assigned ID [ ]  
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SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) August 17, 2009
- 2 \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM \_\_\_\_\_ CLASSIFIER \_\_\_\_\_ BOTH
- 3 \* REASON FOR CALIBRATION  
☒ 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  
☒ CHANNELIZED ROUND PIEZO  
\_\_\_\_\_ CHANNELIZED FLAT PIEZO  
\_\_\_\_\_ OTHER (SPECIFY) \_\_\_\_\_  
\_\_\_\_\_ BARE FLAT PIEZO  
\_\_\_\_\_ LOAD CELLS  
☒ INDUCTANCE LOOPS  
\_\_\_\_\_ BENDING PLATES  
\_\_\_\_\_ QUARTZ PIEZO  
\_\_\_\_\_ CAPACITANCE PADS
- 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 |
| TYPE PER FHWA 13 BIN SYSTEM<br>SUSPENSION: 1 - AIR; 2 - LEAF SPRING<br>3 - OTHER (DESCRIBE) | 1 |       | 9                | 1          |
|   | 2 |       |                  |            |
|   | 3 |       |                  |            |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
MEAN DIFFERENCE BETWEEN ---  
DYNAMIC AND STATIC GVW -0.49% STANDARD DEVIATION +/- 2.51%  
DYNAMIC AND STATIC SINGLE AXLES -1.74% STANDARD DEVIATION +/- 2.34%  
DYNAMIC AND STATIC DOUBLE AXLES -0.78% STANDARD DEVIATION +/- 3.27%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.2 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 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. April 12, 2010

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**SHEET 16**  
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\* State Assigned ID [ ]  
\* State Code [ 81]  
\* SHRP Section ID [ 500]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) **June 22, 2009**
- 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 11.02% STANDARD DEVIATION +/- 6.52%  
 DYNAMIC AND STATIC SINGLE AXLES 14.29% STANDARD DEVIATION +/- 8.20%  
 DYNAMIC AND STATIC DOUBLE AXLES 10.59% STANDARD DEVIATION +/- 7.36%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.2 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 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. April 12, 2010

**ENTERED**  
**4-15-10**

SHEET 16  
LTPP MONITORED TRAFFIC DATA  
SITE CALIBRATION SUMMARY

\* State Assigned ID [ ]  
\* State Code [ 81 ]  
\* SHRP Section ID [ 500 ]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) April 20, 2009
- 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     | <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 15.83% STANDARD DEVIATION +/- 8.59%  
DYNAMIC AND STATIC SINGLE AXLES 23.98% STANDARD DEVIATION +/- 12.73%  
DYNAMIC AND STATIC DOUBLE AXLES 14.67% STANDARD DEVIATION +/- 8.98%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68 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 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
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\*\*\* 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  
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ENTERED  
4-16-10

**SHEET 16**  
**LTPP MONITORED TRAFFIC DATA**  
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\* State Assigned ID [ ]  
\* State Code [ 81]  
\* SHRP Section ID [ 500]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) **March 16, 2009**
- 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               | SUSPENSION |
| 1                   | <u>9</u>   |
| 2                   | <u>1</u>   |
| 3                   | <u>1</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 3.18% STANDARD DEVIATION +/- 3.64%  
DYNAMIC AND STATIC SINGLE AXLES 8.70% STANDARD DEVIATION +/- 6.50%  
DYNAMIC AND STATIC DOUBLE AXLES 1.88% STANDARD DEVIATION +/- 3.71%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.5 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 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 Transportation  
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\* SHRP Section ID [ 500]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) February 9, 2009
- 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:                 |  | TRUCK               | SUSPENSION |
| 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 -9.64% STANDARD DEVIATION +/- 5.26%  
DYNAMIC AND STATIC SINGLE AXLES -4.83% STANDARD DEVIATION +/- 3.35%  
DYNAMIC AND STATIC DOUBLE AXLES -10.32% STANDARD DEVIATION +/- 6.24%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68.1 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 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. April 12, 2010

ENTERED  
4-13-10



File: 800.12.13.9.12

<b>SHEET 16</b> <b>LTPP MONITORED TRAFFIC DATA</b> <b>SITE CALIBRATION SUMMARY</b>	* State Assigned ID	[ ]
	* State Code	[ 81 ]
	* SHRP Section ID	[ 500 ]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) January 19, 2009
- 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<br>SUSPENSION: 1 - AIR; 2 - LEAF SPRING<br>3 - OTHER (DESCRIBE) | <u>10</u> PASSES PER TRUCK |            |
|   | TRUCK                      | SUSPENSION |
|   | 1 <u>9</u>                 | 1          |
|   | 2 _____                    | _____      |
|   | 3 _____                    | _____      |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
- |                                 |                |                                     |
|---------------------------------|----------------|-------------------------------------|
| MEAN DIFFERENCE BETWEEN ---     |                |                                     |
| DYNAMIC AND STATIC GVW          | <u>-10.66%</u> | STANDARD DEVIATION +/- <u>6.21%</u> |
| DYNAMIC AND STATIC SINGLE AXLES | <u>-3.63%</u>  | STANDARD DEVIATION +/- <u>3.68%</u> |
| DYNAMIC AND STATIC DOUBLE AXLES | <u>-11.88%</u> | STANDARD DEVIATION +/- <u>8.11%</u> |
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 68 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 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  
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