

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><b>State Assigned ID</b> _____</p> <p><b>State Code</b> _____ <b>81</b></p> <p><b>SHRP Section ID</b> _____ <b>A800</b></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	7060	1020	2814	477	268

**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**

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

<p><b>Name of Preparer:</b> _____</p> <p><b>Date Prepared</b> _____</p>	<p>_____</p> <p>_____</p>	<p><b>Phone #:</b> _____ (780) 415-1359</p>
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4-13-10

File: 800.12.13.9.12

<b>SHEET 16</b> <b>LTPP MONITORED TRAFFIC DATA</b> <b>SITE CALIBRATION SUMMARY</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%;">* State Assigned ID</td> <td style="width: 30%; border: 1px solid black; text-align: center;">[ ]</td> </tr> <tr> <td>* State Code</td> <td style="border: 1px solid black; text-align: center;">[ 81 ]</td> </tr> <tr> <td>* SHRP Section ID</td> <td style="border: 1px solid black; text-align: center;">[ A 900 ]</td> </tr> </table>	* State Assigned ID	[ ]	* State Code	[ 81 ]	* SHRP Section ID	[ A 900 ]
* State Assigned ID	[ ]						
* State Code	[ 81 ]						
* SHRP Section ID	[ A 900 ]						

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) December 3, 2009
- 2 \* TYPE OF EQUIPMENT CALIBRATED X WIM \_\_\_ CLASSIFIER \_\_\_ BOTH
- 3 \* REASON FOR CALIBRATION
- |   |  |
|---|--|
| <u>X</u> REGULARLY SCHEDULED SITE VISIT<br>___ EQUIPMENT REPLACEMENT<br>___ DATA TRIGGERED SYSTEM REVISION<br>___ OTHER (SPECIFY) _____ | ___ RESEARCH<br>___ TRAINING<br>___ 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   |
| <u>X</u> CHANNELIZED ROUND PIEZO | ___ LOAD CELLS            | ___ QUARTZ PIEZO     |
| ___ CHANNELIZED FLAT PIEZO       | <u>X</u> 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
- |                                      | <u>10</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         | ___              | ___        |
|                                      | 3         | ___              | ___        |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
- |                                 |              |                        |              |
|---------------------------------|--------------|------------------------|--------------|
| MEAN DIFFERENCE BETWEEN ---     |              |                        |              |
| DYNAMIC AND STATIC GVW          | <u>5.16%</u> | STANDARD DEVIATION +/- | <u>4.10%</u> |
| DYNAMIC AND STATIC SINGLE AXLES | <u>6.08%</u> | STANDARD DEVIATION +/- | <u>7.15%</u> |
| DYNAMIC AND STATIC DOUBLE AXLES | <u>5.07%</u> | STANDARD DEVIATION +/- | <u>7.40%</u> |
- 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 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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ENTERED  
 4-13-10

**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 22, 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 **3.29%** STANDARD DEVIATION +/- **3.71%**  
DYNAMIC AND STATIC SINGLE AXLES **18.99%** STANDARD DEVIATION +/- **11.17%**  
DYNAMIC AND STATIC DOUBLE AXLES **1.65%** STANDARD DEVIATION +/- **4.82%**
- 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 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  
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 [A 900]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) August 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 \_\_\_\_\_ 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 7.23% STANDARD DEVIATION +/- 6.74%  
DYNAMIC AND STATIC SINGLE AXLES 11.93% STANDARD DEVIATION +/- 8.93%  
DYNAMIC AND STATIC DOUBLE AXLES 6.76% STANDARD DEVIATION +/- 7.62%
- 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 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 [ A 900 ]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) June 25, 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 -- X 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                   | 1          |
| 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 7.07% STANDARD DEVIATION +/- 4.64%  
DYNAMIC AND STATIC SINGLE AXLES 18.84% STANDARD DEVIATION +/- 10.23%  
DYNAMIC AND STATIC DOUBLE AXLES 5.80% STANDARD DEVIATION +/- 4.83%
- 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 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  
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 [ A 900 ]

SITE CALIBRATION INFORMATION

- 1 \* DATE OF CALIBRATION (MONTH/DAY/YEAR) April 23, 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
- | TYPE PER FHWA 13 BIN SYSTEM |  | 10 PASSES PER TRUCK |          |            |
|-----------------------------|--|---------------------|----------|------------|
| SUSPENSION:                 |  | TRUCK               | TYPE     | 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 11.05% STANDARD DEVIATION +/- 10.39%  
DYNAMIC AND STATIC SINGLE AXLES 24.89% STANDARD DEVIATION +/- 16.87%  
DYNAMIC AND STATIC DOUBLE AXLES 10.19% STANDARD DEVIATION +/- 11.85%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 62.4 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 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  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. April 12, 2010

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4-23-10

**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 19, 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 3.95% STANDARD DEVIATION +/- 2.88%  
DYNAMIC AND STATIC SINGLE AXLES 16.21% STANDARD DEVIATION +/- 9.39%  
DYNAMIC AND STATIC DOUBLE AXLES 1.87% STANDARD DEVIATION +/- 4.27%
- 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 Transportation uses a typical 3000 lb - 8.8 foot wheel base passenger vehicle  
as it is the only vehicle which occurs + 100 times daily

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- 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 Transportation  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. April 12, 2010

ENTERED  
4-23-10

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 12, 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
- | 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 5.31% STANDARD DEVIATION +/- 3.53%  
DYNAMIC AND STATIC SINGLE AXLES 13.78% STANDARD DEVIATION +/- 8.14%  
DYNAMIC AND STATIC DOUBLE AXLES 3.64% STANDARD DEVIATION +/- 4.34%
- 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 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  
CONTACT INFORMATION: peter.kilburn@gov.ab.ca (780) 415-1359 rev. April 12, 2010

ENTERED  
4-13-10



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 22, 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 **6.83%** STANDARD DEVIATION +/- **3.80%**  
DYNAMIC AND STATIC SINGLE AXLES **19.60%** STANDARD DEVIATION +/- **10.84%**  
DYNAMIC AND STATIC DOUBLE AXLES **4.50%** STANDARD DEVIATION +/- **4.95%**
- 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 \_\_\_\_\_  
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