

<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>500</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)
2005	7310	2230	2960	980	622

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

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

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

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

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

- ☐ System distribution factors  
**2** ☒ 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**

- ☒ 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>Peter Kilburn</p> <p>2007.03.07</p>	<p><b>Phone #:</b> _____</p> <p>(780) 415-1359</p>
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**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) December 12, 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
- |       | <u>10</u> 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 16.58% STANDARD DEVIATION +/- 9.22%  
DYNAMIC AND STATIC SINGLE AXLES 27.75% STANDARD DEVIATION +/- 14.92%  
DYNAMIC AND STATIC DOUBLE AXLES 15.46% STANDARD DEVIATION +/- 9.87%
- 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 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

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**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 14, 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
- |       |          | <u>10</u> 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 **10.85%** STANDARD DEVIATION +/- **7.03%**  
DYNAMIC AND STATIC SINGLE AXLES **15.27%** STANDARD DEVIATION +/- **10.51%**  
DYNAMIC AND STATIC DOUBLE AXLES **10.49%** STANDARD DEVIATION +/- **7.67%**
- 8 **1** NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) **64.7 MPH**
- 10 CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) **1.00**
- 11 \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) ☒  
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

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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 17, 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
- |       | 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 9.69% STANDARD DEVIATION +/- 5.72%  
DYNAMIC AND STATIC SINGLE AXLES 14.96% STANDARD DEVIATION +/- 8.25%  
DYNAMIC AND STATIC DOUBLE AXLES 9.26% STANDARD DEVIATION +/- 6.04%
- 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

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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) September 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
- |       | <u>10</u> 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 3.51% STANDARD DEVIATION +/- 3.44%  
DYNAMIC AND STATIC SINGLE AXLES 3.17% STANDARD DEVIATION +/- 3.26%  
DYNAMIC AND STATIC DOUBLE AXLES 3.30% STANDARD DEVIATION +/- 4.36%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 67 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

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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) August 22, 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 -2.64% STANDARD DEVIATION +/- 3.80%  
DYNAMIC AND STATIC SINGLE AXLES 4.74% STANDARD DEVIATION +/- 4.27%  
DYNAMIC AND STATIC DOUBLE AXLES -3.48% STANDARD DEVIATION +/- 4.32%
- 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 \_\_\_\_\_  
FHWA CLASS \_\_\_\_\_  
\*\*\* PERCENT "UNCLASSIFIED" VEHICLES: \_\_\_\_\_

PERSON LEADING CALIBRATION EFFORT: Peter Kilburn P.Eng. Alberta Infrastructure & Transportation  
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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) July 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     | <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 9.89% STANDARD DEVIATION +/- 8.56%  
DYNAMIC AND STATIC SINGLE AXLES 6.71% STANDARD DEVIATION +/- 10.23%  
DYNAMIC AND STATIC DOUBLE AXLES 9.66% STANDARD DEVIATION +/- 9.73%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 65.2 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 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  
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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) June 20, 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)  
X 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 -31.83% STANDARD DEVIATION +/- 18.13%  
DYNAMIC AND STATIC SINGLE AXLES -33.47% STANDARD DEVIATION +/- 25.14%  
DYNAMIC AND STATIC DOUBLE AXLES -31.79% STANDARD DEVIATION +/- 19.03%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 66.8 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

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SK



**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) May 16, 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)  
X 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
- |       |          | <u>10</u> 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 -9.41% STANDARD DEVIATION +/- 11.59%  
DYNAMIC AND STATIC SINGLE AXLES -62.92% STANDARD DEVIATION +/- 45.18%  
DYNAMIC AND STATIC DOUBLE AXLES 12.88% STANDARD DEVIATION +/- 14.56%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 67.5 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

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**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 18, 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
- |       | <u>10</u> | 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 -5.69% STANDARD DEVIATION +/- 16.90%  
DYNAMIC AND STATIC SINGLE AXLES -47.15% STANDARD DEVIATION +/- 76.54%  
DYNAMIC AND STATIC DOUBLE AXLES 7.92% STANDARD DEVIATION +/- 28.72%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 66.9 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

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**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) **March 14, 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 TRUCK | PASSES PER TRUCK | SUSPENSION |
|--------------------------------------|----------|------------------|------------|
| SUSPENSION: 1 - AIR; 2 - LEAF SPRING | 1        | <b>9</b>         | <b>1</b>   |
| 3 - OTHER (DESCRIBE)                 | 2        |                  |            |
|                                      | 3        |                  |            |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
MEAN DIFFERENCE BETWEEN ---  
DYNAMIC AND STATIC GVW **-29.12%** STANDARD DEVIATION +/- **17.70%**  
DYNAMIC AND STATIC SINGLE AXLES **-12.82%** STANDARD DEVIATION +/- **23.76%**  
DYNAMIC AND STATIC DOUBLE AXLES **-30.79%** STANDARD DEVIATION +/- **22.70%**
- 8 **1** NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) **67.2 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 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

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**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): **February 14, 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<br>SUSPENSION: | 10 PASSES PER TRUCK |            |
|--|---------------------|------------|
|  | TRUCK               | SUSPENSION |
| 1 - AIR; 2 - LEAF SPRING                   | 1                   | 1          |
| 3 - OTHER (DESCRIBE)                       | 2                   |            |
|  | 3                   |            |
- 7 SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
 MEAN DIFFERENCE BETWEEN ---  
 DYNAMIC AND STATIC GVW -33.70% STANDARD DEVIATION +/- 19.85%  
 DYNAMIC AND STATIC SINGLE AXLES 17.49% STANDARD DEVIATION +/- 12.68%  
 DYNAMIC AND STATIC DOUBLE AXLES -36.55% STANDARD DEVIATION +/- 23.51%
- 8 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- 9 DEFINE THE SPEED RANGES USED (MPH) 64.3 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 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

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**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) January 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
- |            | <u>10</u> 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 -20.89% STANDARD DEVIATION +/- 12.63%  
DYNAMIC AND STATIC SINGLE AXLES 14.17% STANDARD DEVIATION +/- 12.20%  
DYNAMIC AND STATIC DOUBLE AXLES -23.50% STANDARD DEVIATION +/- 16.62%
- 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

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