

<p align="center"><b>SHEET 16</b>  <b>LTPP MONITORED TRAFFIC DATA</b>  <b>SITE CALIBRATION SUMMARY</b></p>	*STATE ASSIGNED ID [ <u>1W523</u> ]
	*STATE CODE [ <u>48</u> ]
	*SHRP SECTION ID [ <u>0199</u> ]

SITE CALIBRATION INFORMATION

- \* DATE OF CALIBRATION (MONTH/DAY/YEAR) [ 05/09/2006 ]
- \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM ☐ CLASSIFIER ☐ BOTH
- \* REASON FOR CALIBRATION  
☐ REGULARLY SCHEDULED SITE VISIT ☐ RESEARCH  
☐ EQUIPMENT REPLACEMENT ☐ TRAINING  
☐ DATA TRIGGERED SYSTEM REVISION ☐ NEW EQUIPMENT INSTALLATION  
☒ OTHER (SPECIFY) LTPP VALIDATION
- \* 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) \_\_\_\_\_
- EQUIPMENT MANUFACTURER PCM

WIM SYSTEM CALIBRATION SPECIFICS\*\*

- \*\*CALIBRATION TECHNIQUE USED:  
☐ TRAFFIC STREAM -- ☐ STATIC SCALE (Y/N) ☒ TEST TRUCKS  
☐ NUMBER OF TRUCKS COMPARED 3 ☐ NUMBER OF TEST TRUCKS USED 16 PASSES PER TRUCK  

TRUCK	TYPE	SUSPENSION
1	9	1 - AIR
2	10	1 - AIR
3	9	1 - AIR

TYPE PER FHWA 13 BIN SYSTEM  
SUSPENSION: 1 - AIR; 2 - LEAF SPRING  
3 - OTHER (DESCRIBE)
- SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  

MEAN DIFFERENCE BETWEEN ---	STANDARD DEVIATION
DYNAMIC AND STATIC GVW <u>-5.8</u>	<u>3.2</u>
DYNAMIC AND STATIC SINGLE AXLES <u>-10.5</u>	<u>2.8</u>
DYNAMIC AND STATIC DOUBLE AXLES <u>-4.4</u>	<u>5.1</u>
- 3 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- DEFINE THE SPEED RANGES USED (MPH) 45-55, 56-65, 66-75
- CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 860 / 820
- \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) N  
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: \_\_\_\_\_

CLASSIFIER TEST SPECIFICS\*\*\*

- \*\*\* METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:  
☐ VIDEO ☒ MANUAL ☐ PARALLEL CLASSIFIERS

13. METHOD TO DETERMINE LENGTH OF COUNT \_\_\_\_\_ TIME X NUMBER OF TRUCKS

14. MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:

\*\*\* FHWA CLASS 9 -1, 2

FHWA CLASS \_\_\_\_\_

\*\*\* FHWA CLASS 8 \_\_\_\_\_

FHWA CLASS \_\_\_\_\_

FHWA CLASS \_\_\_\_\_

FHWA CLASS \_\_\_\_\_

\*\*\* PERCENT "UNCLASSIFIED" VEHICLES: 1.7

PERSON LEADING CALIBRATION EFFORT: DEAN S. WOLF, MATTEL ENGINEERING + CONSULTING, INC.

CONTACT INFORMATION: 301-210-5105

rev. November 9, 1999

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

\*STATE ASSIGNED ID [ LW523 ]  
\*STATE CODE [ 49 ]  
\*SHRP SECTION ID [ 0100 ]

SITE CALIBRATION INFORMATION

1. \* DATE OF CALIBRATION (MONTH/DAY/YEAR) [ 05 / 09 / 2006 ]
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) LTPP Validation
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 ILD / PAT Traffic

WIM SYSTEM CALIBRATION SPECIFICS\*\*

6. \*\*CALIBRATION TECHNIQUE USED:  
☐ TRAFFIC STREAM -- ☐ STATIC SCALE (Y/N) ☒ TEST TRUCKS  
☐ NUMBER OF TRUCKS COMPARED 3 NUMBER OF TEST TRUCKS USED  

	<u>16</u>	PASSES PER TRUCK	
	TRUCK	TYPE	SUSPENSION
TYPE PER FHWA 13 BIN SYSTEM	1	9	1
SUSPENSION: 1 - AIR; 2 - LEAF SPRING	2	10	1
3 - OTHER (DESCRIBE)	3	9	1
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)  
 MEAN DIFFERENCE BETWEEN ---  
 DYNAMIC AND STATIC GVW 0.5 STANDARD DEVIATION 2.4  
 DYNAMIC AND STATIC SINGLE AXLES -2.4 STANDARD DEVIATION 2.2  
 DYNAMIC AND STATIC DOUBLE AXLES 1.2 STANDARD DEVIATION 6.1
8. 3 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 45-55 , 56-65 , 66+
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 2600 .
11. \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) N  
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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CLASSIFIER TEST SPECIFICS\*\*\*

- 12.\*\*\* METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:  
\_\_\_ VIDEO \_\_\_ MANUAL \_\_\_ PARALLEL CLASSIFIERS
13. METHOD TO DETERMINE LENGTH OF COUNT \_\_\_ TIME X NUMBER OF TRUCKS
14. MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:  
\*\*\* FHWA CLASS 9 -3.0 FHWA CLASS \_\_\_  
\*\*\* FHWA CLASS 8 \_\_\_\_\_ FHWA CLASS \_\_\_  
FHWA CLASS \_\_\_  
FHWA CLASS \_\_\_  
FHWA CLASS \_\_\_  
\*\*\* PERCENT "UNCLASSIFIED" VEHICLES: 2.0

PERSON LEADING CALIBRATION EFFORT: DAVID PETER, METEL ENGINEERING & CONSULTING, INC  
CONTACT INFORMATION: 701-210-5105 rev. November 9, 1999

<b>SHEET 16</b> <b>LTPP MONITORED TRAFFIC DATA</b> <b>SITE CALIBRATION SUMMARY</b>	*STATE ASSIGNED ID [ <u>LW523</u> ] *STATE CODE [ <u>48</u> ] *SHRP SECTION ID [ <u>0199</u> ]
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## SITE CALIBRATION INFORMATION

1. \* DATE OF CALIBRATION (MONTH/DAY/YEAR) [ 05 / 10 / 2006 ]
2. \* TYPE OF EQUIPMENT CALIBRATED ☒ WIM ☐ CLASSIFIER ☐ BOTH
3. \* REASON FOR CALIBRATION
 

<input 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 checked="" type="checkbox"/> OTHER (SPECIFY) <u>LTPP Validation</u>	
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 type="checkbox"/> CHANNELIZED ROUND PIEZO	<input type="checkbox"/> LOAD CELLS	<input checked="" 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 3 NUMBER OF TEST TRUCKS USED

<u>14</u> PASSES PER TRUCK		
TRUCK	TYPE	SUSPENSION
1	<u>9</u>	<u>1 - Air</u>
	<u>10</u>	<u>1 - Air</u>
	<u>9</u>	<u>1 - Air</u>

TYPE PER F  
SUSPENSIO

*Not Entered.*

*Bending plates also  
Installed also  
Data from bending  
plate is used.*

7. SUMMARY  
MEAN DI  
DYNAMI  
DYNAMI  
DYNAMI  
CENT)  
STANDARD DEVIATION 2.9  
STANDARD DEVIATION 3.6  
STANDARD DEVIATION 4.3

8. 3 WAS PERFORMED
9. DEFIN 5, 56-65, 66-75

10. CALI 903 / 861
- 11.\*\* IS AUTO-CALI N  
IF YES, LIST AND ON VALUE:

## CLASSIFIER TEST SPECIFICS\*\*\*

- 12.\*\*\* METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:  
☐ VIDEO ☒ MANUAL ☐ PARALLEL CLASSIFIERS

13. METHOD TO DETERMINE LENGTH OF COUNT \_\_\_\_\_ TIME X NUMBER OF TRUCKS

14. MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:

\*\*\* FHWA CLASS 9 - 1.2 FHWA CLASS \_\_\_\_\_

\*\*\* FHWA CLASS 8 \_\_\_\_\_ FHWA CLASS \_\_\_\_\_

FHWA CLASS \_\_\_\_\_

FHWA CLASS \_\_\_\_\_

\*\*\* PERCENT "UNCLASSIFIED" VEHICLES: 3.8

PERSON LEADING CALIBRATION EFFORT: DEAN J WOLF, MACTEL ENGINEERING & CONSULTING, INC  
CONTACT INFORMATION: 301-210-5105 rev. November 9, 1999

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

\*STATE ASSIGNED ID [ LW 523 ]  
 \*STATE CODE [ 48 ]  
 \*SHRP SECTION ID [ 0100 ]

SITE CALIBRATION INFORMATION

1. \* DATE OF CALIBRATION (MONTH/DAY/YEAR) [ 05 / 10 / 2006 ]
2. \* TYPE OF EQUIPMENT CALIBRATED X WIM      \_\_\_ CLASSIFIER      \_\_\_ BOTH
3. \* REASON FOR CALIBRATION  
     \_\_\_ REGULARLY SCHEDULED SITE VISIT                      \_\_\_ RESEARCH  
     \_\_\_ EQUIPMENT REPLACEMENT                              \_\_\_ TRAINING  
     \_\_\_ DATA TRIGGERED SYSTEM REVISION                  \_\_\_ NEW EQUIPMENT INSTALLATION  
     X OTHER (SPECIFY) LTPP VARIATION
4. \* SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY):  
     \_\_\_ BARE ROUND PIEZO CERAMIC      \_\_\_ BARE FLAT PIEZO      X BENDING PLATES  
     \_\_\_ CHANNELIZED ROUND PIEZO      \_\_\_ LOAD CELLS      \_\_\_ QUARTZ PIEZO  
     \_\_\_ CHANNELIZED FLAT PIEZO      X INDUCTANCE LOOPS      \_\_\_ CAPACITANCE PADS  
     \_\_\_ OTHER (SPECIFY) \_\_\_\_\_
5. EQUIPMENT MANUFACTURER WISCONSIN TRAFFIC

WIM SYSTEM CALIBRATION SPECIFICS\*\*

6. \*\* CALIBRATION TECHNIQUE USED:  
     \_\_\_ TRAFFIC STREAM -- \_\_\_ STATIC SCALE (Y/N)      X TEST TRUCKS  
     \_\_\_ NUMBER OF TRUCKS COMPARED      3 NUMBER OF TEST TRUCKS USED  
     14 PASSES PER TRUCK  

TRUCK	TYPE	SUSPENSION
1	9	1
2	10	1
3	9	1

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      - 0.5      STANDARD DEVIATION 1.8  
 DYNAMIC AND STATIC SINGLE AXLES      - 2.6      STANDARD DEVIATION 2.8  
 DYNAMIC AND STATIC DOUBLE AXLES      - 0.1      STANDARD DEVIATION 4.4
8. 3 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 45-55, 56-65, 66+
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 2600
11. \*\* IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) N  
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

ENTERED JAN 3 2011

CLASSIFIER TEST SPECIFICS\*\*\*

12.\*\*\* METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:

\_\_\_ VIDEO \_\_\_ MANUAL \_\_\_ PARALLEL CLASSIFIERS

13. METHOD TO DETERMINE LENGTH OF COUNT \_\_\_ TIME X NUMBER OF TRUCKS

14. MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:

\*\*\* FHWA CLASS 9 - 3.0

FHWA CLASS \_\_\_

\*\*\* FHWA CLASS 8 \_\_\_

FHWA CLASS \_\_\_

FHWA CLASS \_\_\_

FHWA CLASS \_\_\_

\*\*\* PERCENT "UNCLASSIFIED" VEHICLES: 2.0

PERSON LEADING CALIBRATION EFFORT: DEAN WOLF, MAJOR ENGINEERING + CONSULTING, INC.

CONTACT INFORMATION: 38-110-5104 rev. November 9, 1999