

SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

*STATE ASSIGNED ID
*STATE CODE
*SHRP SECTION ID

0240 5721
91
0300 0200

SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [MM/DD/YY] 4/13/2005
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 Mettler - Toledo

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.** CALIBRATION TECHNIQUE USED:
☐ TRAFFIC STREAM -- ☐ STATIC SCALE (Y/N) ☒ TEST TRUCKS
☒ NUMBER OF TRUCKS COMPARED 2 NUMBER OF TEST TRUCKS USED

PASSES PER TRUCK

TRUCK TYPE SUSPENSION
TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)

1	<u>9</u>	_____
2	<u>5</u>	_____
3	_____	_____
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN --- See attached calibration form
DYNAMIC AND STATIC GVW 1.20 STANDARD DEVIATION _____
DYNAMIC AND STATIC SINGLE AXLES _____ STANDARD DEVIATION _____
DYNAMIC AND STATIC DOUBLE AXLES _____ STANDARD DEVIATION _____
8. 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 55

10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) P4 _____
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) N
IF YES, LIST AND DEFINE AUTO-CALIBRATION 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 _____ 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: Steven Jessberger
CONTACT INFORMATION: 614-752-4057

Post Validation

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID [0 7 2 1] *STATE CODE [3 9] *SHRP SECTION ID [0 2 0 0]
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SITE CALIBRATION INFORMATION

ENTERED SEP 12 2005
D. Marshall

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [0 5 / 1 2 / 2 0 0 5]
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 Mettler-Toledo

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.** CALIBRATION TECHNIQUE USED:
☐ TRAFFIC STREAM -- ☐ STATIC SCALE (Y/N) ☒ TEST TRUCKS
☐ NUMBER OF TRUCKS COMPARED 2 NUMBER OF TEST TRUCKS USED 2
☒ PASSES PER TRUCK

TRUCK	TYPE	SUSPENSION
1	9	1
2	9	2
3		

 TYPE PER FHWA 13 BIN SYSTEM
 SUSPENSION: 1 - AIR; 2 - LEAF SPRING
 3 - OTHER (DESCRIBE)
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
 MEAN DIFFERENCE BETWEEN --
 DYNAMIC AND STATIC GVW 0 . 3 STANDARD DEVIATION 3 . 1
 DYNAMIC AND STATIC SINGLE AXLES - 5 . 1 STANDARD DEVIATION 3 . 6
 DYNAMIC AND STATIC DOUBLE AXLES 1 . 5 STANDARD DEVIATION 4 . 6
8. 3 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 40-47, 48-52, 53+
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) light truck = .998015992;
medium truck = .927573608; heavy truck = .937089650
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) N
 IF YES, LIST AND DEFINE AUTO-CALIBRATION 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 ☒ NUMBER OF TRUCKS
14. MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:
 *** FHWA CLASS 9 2 . 7 FHWA CLASS
 *** FHWA CLASS 8 0 . 0 FHWA CLASS
 FHWA CLASS
 FHWA CLASS
 FHWA CLASS
 *** PERCENT "UNCLASSIFIED" VEHICLES: 0 . 0

PERSON LEADING CALIBRATION EFFORT: Dean J. Wolf
 CONTACT INFORMATION: MACTEC Engineering and Consulting 301-210-5105 rev. November 9, 1999

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*STATE ASSIGNED ID  [__0_7_2_1_]
*STATE CODE          [__3_9_]
*SHRP SECTION ID     [__0_2_0_0_]

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SITE CALIBRATION INFORMATION

ENTERED SEP 12 2005
D. Marshall

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [_0_5_ / _1_1_ / _2_0_0_5_]
2. * TYPE OF EQUIPMENT CALIBRATED _ WIM _ CLASSIFIER _X_ BOTH
3. * REASON FOR CALIBRATION
 ___ REGULARLY SCHEDULED SITE VISIT ___ RESEARCH
 ___ EQUIPMENT REPLACEMENT ___ TRAINING
 ___ DATA TRIGGERED SYSTEM REVISION ___ NEW EQUIPMENT INSTALLATION
 X 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 _X_ LOAD CELLS ___ QUARTZ PIEZO
 ___ CHANNELIZED FLAT PIEZO _X_ INDUCTANCE LOOPS ___ CAPACITANCE PADS
 ___ OTHER (SPECIFY) _____
5. EQUIPMENT MANUFACTURER _____ Mettler-Toledo _____

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
 _____ 1.4 PASSES PER TRUCK

TRUCK	TYPE	SUSPENSION
1	<u> 9 </u>	<u> 1 </u>
2	<u> 9 </u>	<u> 2 </u>
3	<u> 9 </u>	<u> 2 </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	<u> 2.9 </u>	STANDARD DEVIATION	<u> 6.2 </u>
DYNAMIC AND STATIC SINGLE AXLES	<u> 1.6 </u>	STANDARD DEVIATION	<u> 4.9 </u>
DYNAMIC AND STATIC DOUBLE AXLES	<u> 3.8 </u>	STANDARD DEVIATION	<u> 7.5 </u>

 8. 3 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
 9. DEFINE THE SPEED RANGES USED (MPH) 40-47, 48-52, 53+
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CLASSIFIER TEST SPECIFICS***

- 12.*** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
 ___ VIDEO _X_ 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 ___ 0 . 0 FHWA CLASS ___ ___
 *** FHWA CLASS 8 ___ 0 . 0 FHWA CLASS ___ ___
 FHWA CLASS ___ ___
 FHWA CLASS ___ ___
 *** PERCENT "UNCLASSIFIED" VEHICLES: ___ 0 . 0

PERSON LEADING CALIBRATION EFFORT: Dean J. Wolf
CONTACT INFORMATION: MACTEC Engineering and Consulting 301-210-5105 rev. November 9, 1999