

SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

*STATE ASSIGNED ID [509]
*STATE CODE [04]
*SHRP SECTION ID [0500]

SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [May / 27 / 2004]
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 PAT

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
22 PASSES PER TRUCK

	TRUCK	TYPE	SUSPENSION
TYPE PER FHWA 13 BIN SYSTEM	1	<u>9</u>	<u>AIR</u>
SUSPENSION: 1 - AIR; 2 - LEAF SPRING	2	_____	_____
3 - OTHER (DESCRIBE)	3	_____	_____
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW ☐ 1.00 STANDARD DEVIATION ☐ 0.35
DYNAMIC AND STATIC SINGLE AXLES ☐ 6.83 STANDARD DEVIATION ☐ 0.15
DYNAMIC AND STATIC DOUBLE AXLES ☐ 6.04 STANDARD DEVIATION ☐ 0.35
8. 3 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 45 55 65 _____
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) _____
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) YES
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 _____
- *** PERCENT "UNCLASSIFIED" VEHICLES: _____ . _____

PERSON LEADING CALIBRATION EFFORT: IRD Technician
CONTACT INFORMATION: Tom Kombe 602 712 3135

rev. November 9, 1999

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID [0 5 0 9] *STATE CODE [0 4] *SHRP SECTION ID [0 5 0 0]
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SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [0 3 / 0 1 / 2 0 0 4]
2. * TYPE OF EQUIPMENT CALIBRATED WIM XX CLASSIFIER BOTH
3. * REASON FOR CALIBRATION
 REGULARLY SCHEDULED SITE VISIT RESEARCH
 EQUIPMENT REPLACEMENT TRAINING
 DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
XX OTHER (SPECIFY) SITE ASSESSMENT
4. * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY):
 BARE ROUND PIEZO CERAMIC X BARE FLAT PIEZO BENDING PLATES
 CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO X INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY)
5. EQUIPMENT MANUFACTURER PAT DAW

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
 PASSES PER TRUCK

TRUCK	TYPE	SUSPENSION
1	<u> </u>	<u> </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 STANDARD DEVIATION
 DYNAMIC AND STATIC SINGLE AXLES STANDARD DEVIATION
 DYNAMIC AND STATIC DOUBLE AXLES STANDARD DEVIATION
8. NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH)
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED)
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N)
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE:

CLASSIFIER TEST SPECIFICS***

- 12.*** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
 VIDEO XX MANUAL PARALLEL CLASSIFIERS
13. METHOD TO DETERMINE LENGTH OF COUNT TIME 119 NUMBER OF TRUCKS
14. MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:
 *** FHWA CLASS 9 4 FHWA CLASS 3 -7
 *** FHWA CLASS 8 999 FHWA CLASS
 FHWA CLASS 5 -31
 FHWA CLASS
 *** PERCENT "UNCLASSIFIED" VEHICLES: 11

PERSON LEADING CALIBRATION EFFORT: <u>Dean J. Wolf</u> CONTACT INFORMATION: <u>301-210-5105</u> rev. November 9, 1999
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Sheet 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNMENT [509] *STATE CODE [04] *SHRP SECTION ID [0501]
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0500

SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) 06/24/2005
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 X BARE FLAT PIEZO BENDING PLATES
 CHANNELIZED ROUND PIEZO LOAD CELLS QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY)
5. EQUIPMENT MANUFACTURER PAT

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- STATIC SCALE (Y/N) X TEST TRUCKS
 NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED

	<u> 25 </u> PASSES PER TRUCK
	TRUCK TYPE SUSPENSION
TYPE PER FHWA 13 BIN SYSTEM	1 <u> 9 </u> <u> 1 </u>
SUSPENSION: 1 - AIR; 2 - LEAF SPRING	2 <u> </u> <u> </u>
3 - OTHER (DESCRIBE)	3 <u> </u> <u> </u>
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW -6.3 -0.9 STANDARD DEVIATION 6.34 4.96
DYNAMIC AND STATIC SINGLE AXLES 5.3 4.3 STANDARD DEVIATION 17.08 8.14
DYNAMIC AND STATIC DOUBLE AXLES -8.9 -2.1 STANDARD DEVIATION 9.80 10.54
8. 3 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 50, 60, 70
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 548 961
- 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
*** PERCENT "UNCLASSIFIED" VEHICLES:

PERSON LEADING CALIBRATION EFFORT: Greg Felsing IRD CONTACT INFORMATION: 435-632-4142	July 12, 2005
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ENTERED SEP 30 2005

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*STATE ASSIGNED ID [_0_5_0_9_]
 *STATE CODE [_0_4_]
 *SHRP SECTION ID [0_5_0_0_]

SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [_0_ _3_ / _0_ _1_ / _2_ _0_ _0_ _4_]
2. * TYPE OF EQUIPMENT CALIBRATED _ WIM _XX_ CLASSIFIER ___ BOTH
3. * REASON FOR CALIBRATION
___ REGULARLY SCHEDULED SITE VISIT ___ RESEARCH
___ EQUIPMENT REPLACEMENT ___ TRAINING
___ DATA TRIGGERED SYSTEM REVISION ___ NEW EQUIPMENT INSTALLATION
XX OTHER (SPECIFY) _____ SITE ASSESSMENT _____
4. * SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY):
___ BARE ROUND PIEZO CERAMIC _X_ BARE FLAT PIEZO ___ BENDING PLATES
___ CHANNELIZED ROUND PIEZO ___ LOAD CELLS ___ QUARTZ PIEZO
___ CHANNELIZED FLAT PIEZO _X_ INDUCTANCE LOOPS ___ CAPACITANCE PADS
___ OTHER (SPECIFY) _____
5. EQUIPMENT MANUFACTURER PAT DAW _____

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
- _____ PASSES PER TRUCK
- | TRUCK | TYPE | SUSPENSION |
|-------|-------|------------|
| 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 | _____ . _____ | STANDARD DEVIATION | _____ . _____ |
| DYNAMIC AND STATIC SINGLE AXLES | _____ . _____ | STANDARD DEVIATION | _____ . _____ |
| DYNAMIC AND STATIC DOUBLE AXLES | _____ . _____ | STANDARD DEVIATION | _____ . _____ |
8. _____ NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) _____
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) _____ . _____
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) _____
- IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: _____

CLASSIFIER TEST SPECIFICS***

- 12.*** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
 ___ VIDEO __XX__ MANUAL ___ PARALLEL CLASSIFIERS
13. METHOD TO DETERMINE LENGTH OF COUNT ___ TIME _119_ NUMBER OF TRUCKS
14. MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:
 *** FHWA CLASS 9 4 FHWA CLASS 3 ___ -7 ___
 *** FHWA CLASS 8 ___ -999 ___ FHWA CLASS ___
 FHWA CLASS 5 ___ -31 ___
 FHWA CLASS ___ ___
 *** PERCENT "UNCLASSIFIED" VEHICLES: 11

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