

SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

*STATE ASSIGNED ID
*STATE CODE
*SHRP SECTION ID

[072]
[39]
[0900] 0900

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 PA
☐ 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)

7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN --- See attached calibration form
DYNAMIC AND STATIC GVW 0.15 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

ION VALUE: _____

- 12.** ME

13. ME

14. ME
**
**

**

PERSON
CONTACT

SPECIFICS***

E MEASUREMENT BY VEHICLE CLASS:
CLASSIFIERS

TIME NUMBER OF TRUCKS

ASSIFICATION:

IWA CLASS
IWA CLASS
IWA CLASS
IWA CLASS

ssberger.

rev. November 9, 1999

390100
390100

Stantec
Created from
Microsoft Excel
file Ohio Sent
w/ sept. 01/00 submission

corrected (A1)
May 21/08

Entered
Mar 12/07
NW

SCANNED

FEB 07 2011

BY

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 1 0 0]

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 ___ 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 ___ 2 NUMBER OF TEST TRUCKS USED
___ 2 1 PASSES PER TRUCK
TRUCK TYPE SUSPENSION
TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE)
- | TRUCK | TYPE | SUSPENSION |
|-------|------|------------|
| 1 | 9 | 1 |
| 2 | 9 | 2 |
| 3 | | |
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW ___ 3 . 5 STANDARD DEVIATION ___ 3 . 0
DYNAMIC AND STATIC SINGLE AXLES ___ 1 . 4 STANDARD DEVIATION ___ 2 . 8
DYNAMIC AND STATIC DOUBLE AXLES ___ 3 . 9 STANDARD DEVIATION ___ 4 . 2
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 = .941416662;
medium truck = .928389036; heavy truck = .909484754
- 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 ___ 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 _____
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_1_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
- | TYPE PER FHWA 13 BIN SYSTEM
SUSPENSION: 1 - AIR; 2 - LEAF SPRING
3 - OTHER (DESCRIBE) | 1 4 PASSES PER TRUCK | | |
|---|----------------------|------|------------|
| | TRUCK | TYPE | SUSPENSION |
| | 1 | 9 | 1 |
| | 2 | 9 | 2 |
| | 3 | 9 | 2 |
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
 MEAN DIFFERENCE BETWEEN ---
 DYNAMIC AND STATIC GVW ____-1.3____ STANDARD DEVIATION ____5.0____
 DYNAMIC AND STATIC SINGLE AXLES ____-3.2____ STANDARD DEVIATION ____5.9____
 DYNAMIC AND STATIC DOUBLE AXLES ____-0.9____ STANDARD DEVIATION ____5.8____
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 = .941416662;
 medium truck = .928389036; heavy truck = .909484754____
- 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 _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