

SHEET 10
LTPP TRAFFIC DATA

TRAFFIC VOLUME AND LOAD
ESTIMATE UPDATE-NO SITE COUNT

*STATE ASSIGNED ID []

*STATE CODE [37]

*SHRP SECTION ID [1006]

1. ANNUAL TRAFFIC ESTIMATES

ENTERED APR 24 2003

*YEAR	ESTIMATED TOTAL VEHICLES AADT (TWO-WAY)	ESTIMATED TOTAL TRUCK AADT (TWO-WAY)	ESTIMATED TOTAL VEHICLES AADT LTPP LANE	*ESTIMATED TOTAL TRUCKS AADT LTPP LANE	*ESTIMATED ESAL'S/YRLTPP LANE (1000'S)
2000	39,642 68,184	3,313 7,278	22,910	2,491	665

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

- ☐ Growth factored last year's estimate. (6)
- ☐ Estimated based on volume counts at nearby locations.
(3)
- ☐ Used computerized network analyses. (4)
- ☐ Factored a single count taken this year at the LTPP site.
(1)
- ☐ Average multiple counts taken this year at the LTPP site.
(2)
- ☐ Average and factored multiple count taken this year at
the LTPP site. (5)
- ☐ Used flow maps. (7)
- ☒ Other: (8) Used counts from the site.

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

- ☒ Used system averages from counts taken this year. (6)
- ☐ Used count data from nearby sites. (3)
- ☐ Used count data from previous years at the LTPP site. (7)
- ☐ Used system averages from previous years. (9)
- ☐ Used computerized network analyses. (4)
- ☐ Used a single count taken this year at the LTPP site. (5)
- ☐ Factored a single count taken this year at the LTPP site.
(4)
- ☐ Averaged multiple counts taken this year at the LTPP
site. (2)
- ☐ Other: (10)

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

- ☒ System distribution factors. (2)
- ☐ Based on actual lane count data. (1)
- ☐ Other: (3)

***5 METHOD FOR ESTIMATING TOTAL TRUCKS,
LTPP LANE, AADT**

- ☒ System distribution factors. (2)
- ☐ Based on actual lane data count. (1)
- ☐ Other: (3)

***6. METHOD FOR ESTIMATING ESAL/YEAR
IN LTPP LANE**

- ☒ ESAL/Truck factor (1)
- ☐ ESAL/Vehicle class. (2) (No. of classes) _____
- ☐ ESAL/Axle(3) Sing. ___ Tand. ___ Tri. ___
- ☐ Other: (4)

7. ESAL ESTIMATES SOURCE OF DATA

- ☐ Weight data collected at LTPP site prior years. (2)
- ☐ Weight data from system averages this year. (3)
- ☐ Weight data from system averages prior years. (4)
- ☐ Weight data from historic W-4 Tables used. (5)
- ☒ Other: (6)

8. WEIGHT SCALE TYPE

- ☐ WIM scale. (1)
- ☐ Static scale used for enforcement. (2)
- ☐ Static scale not used for enforcement. (3)
- ☒ Other: (4) None.

NAME OF PREPARER Michael H. Ashbrook

PHONE 919-733-4796

DATE PREPARED 2/26/01

rev. February

21, 2000

ENTERED JUN 05 2003

SHEET 12 LTPP TRAFFIC DATA CLASSIFICATION DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[_____]
	*STATE CODE	[<u>37</u>]
	*SHRP SECTION ID	[<u>1006</u>]

HIGHWAY RT. NO. (THIS COUNT) I-40

MILEPOST NO. OR LOCATION (THIS COUNT) MM 291 East Bnd

FILENAME C371006.L1A DISK ID _____

BEGINNING DATE 10/1/00 BEGINNING TIME 0000

ENDING DATE 11/15/00 ENDING TIME 2400

COUNT DURATION 45 [] HOURS [X] DAYS [] MONTHS

VEHICLE CLASSIFICATION METHOD: FHWA X OTHER _____

NAME OF AGENCY CLASSIFICATION SCHEME _____ NO. OF BINS: _____

NOTE: IF NOT PREVIOUSLY PROVIDED TO SHRP/LTPP, PLEASE ATTACH SHEET 6 DESCRIBING THE VEHICLE CLASSIFICATION CATEGORIES AND ALSO ATTACH SHEET 7 DESCRIBING HOW THE AGENCY WOULD CONVERT ITS CLASSIFICATION SCHEME TO THE FHWA 13 BIN SYSTEM.

TYPE OF AVC EQUIPMENT: PORTABLE _____ PERMANENT X

EQUIPMENT MAKE/MODEL# Peek ADR-3000

SENSOR TYPE Bare flat piezo.

ADJUSTMENT FACTORS FOR ESTIMATING AVERAGE ANNUAL VOLUMES BY CLASSIFICATION:

GENERAL FACTORS: _____

CLASS SPECIFIC FACTORS (PROVIDE BY CLASS OF CLASS GROUPS) _____

COMMENTS _____

FILL OUT ONE TRANSMITTAL SHEET FOR EACH DATA FILE SUBMITTED.

NAME OF PREPARER <u>Michael H. Ashbrook</u>	PHONE <u>919-733-4796</u>
DATE PREPARED <u>2/26/01</u>	revised November 11, 1999

SHEET 12 LTPP TRAFFIC DATA CLASSIFICATION DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[_____]
	*STATE CODE	[<u>37</u>]
	*SHRP SECTION ID	[<u>1006</u>]

HIGHWAY RT. NO. (THIS COUNT) I-40

MILEPOST NO. OR LOCATION (THIS COUNT) MM 291 East Bnd

FILENAME C371006.MHA DISK ID _____

BEGINNING DATE 11/18/00 BEGINNING TIME 0000

ENDING DATE 12/31/00 ENDING TIME 2400

COUNT DURATION 44 [] HOURS [☒] DAYS [] MONTHS

VEHICLE CLASSIFICATION METHOD: FHWA ☒ OTHER _____

NAME OF AGENCY CLASSIFICATION SCHEME _____ NO. OF BINS: _____

NOTE: IF NOT PREVIOUSLY PROVIDED TO SHRP/LTPP, PLEASE ATTACH SHEET 6 DESCRIBING THE VEHICLE CLASSIFICATION CATEGORIES AND ALSO ATTACH SHEET 7 DESCRIBING HOW THE AGENCY WOULD CONVERT ITS CLASSIFICATION SCHEME TO THE FHWA 13 BIN SYSTEM.

TYPE OF AVC EQUIPMENT: PORTABLE _____ PERMANENT ☒

EQUIPMENT MAKE/MODEL# Peek ADR-3000

SENSOR TYPE Bare flat piezo.

ADJUSTMENT FACTORS FOR ESTIMATING AVERAGE ANNUAL VOLUMES BY CLASSIFICATION:

GENERAL FACTORS: _____

CLASS SPECIFIC FACTORS (PROVIDE BY CLASS OF CLASS GROUPS) _____

COMMENTS _____

FILL OUT ONE TRANSMITTAL SHEET FOR EACH DATA FILE SUBMITTED.

NAME OF PREPARER <u>Michael H. Ashbrook</u>	PHONE <u>919-733-4796</u>
DATE PREPARED <u>2/26/01</u>	revised November 11, 1999

SHEET 13 LTPP TRAFFIC DATA VEHICLE WEIGHT DATA TRANSMITTAL FORM	*STATE ASSIGNED ID [_____]
	*STATE CODE [37]
	*SHRP SECTION ID [1006]

HIGHWAY RT. NO. (THIS SESSION) I-40

MILEPOST NO. OR LOCATION (THIS SESSION) MM 291 West Bnd.

FILENAME W371006.NFA DISK ID _____

BEGINNING DATE 12/16/00 BEGINNING TIME 0000

ENDING DATE 12/22/00 ENDING TIME 2400

COUNT DURATION 7 [] HOURS [X] DAYS [] MONTHS

WEIGHT SCALE TYPE: PORT. WIM _____ PERM. WIM X OTHER _____

EQUIPMENT MAKE/MODEL# Peek ADR-3000

SENSOR TYPE Bare flat piezo

VEHICLE CLASSIFICATION METHOD:

7-card FHWA 13 bin in cols. 18-19 _____ 7-card FHWA 13 bin in cols. 22-23 _____
 7-card 6 digit Truck Weight study _____ W-card X OTHER 7-card FHWA 13 bin cols. 20-21

NAME OF AGENCY CLASSIFICATION SCHEME: _____ NO. OF BINS _____

NOTE: IF NOT PREVIOUSLY PROVIDED TO SHRP/LTPP, PLEASE ATTACH SHEET 6 DESCRIBING THE VEHICLE CLASSIFICATION CATEGORIES AND ALSO ATTACH SHEET 7 DESCRIBING HOW THE AGENCY WOULD CONVERT ITS CLASSIFICATION SCHEME TO THE FHWA 13 CLASS SYSTEM.

METHOD OF CALIBRATION AND FREQUENCY: Self calibration factor adjusted hourly on predominate
Vehicle class at the site.

COMMENTS Automatic calibration capabilities

FILL OUT ONE TRANSMITTAL SHEET FOR EACH DATA FILE SUBMITTED.

NAME OF PREPARER <u>Michael H. Ashbrook</u>	PHONE <u>919-733-4796</u>
DATE PREPARED <u>2/26/01</u>	revised February 21,2000

**SHEET 14
LTPP TRAFFIC DATA
EQUIPMENT INSTALLATION
LOG**

*STATE ASSIGNED ID []
 *STATE CODE [37]
 *SHRP SECTION ID [1006]

LOCATION I-40 east at Exit 291
 INSTALLATION DATE 9/15/00

	TYPE	BRAND NAME	SERIAL NUMBER
Control Unit(s) and peripheral equipment			
Control Unit	ADR-3000	PEEK TRAFFIC	11687-0004
Interface			
Modem	DC POWERED 14.4 BPS	MICRO-AIDE	12423-0032
Loop Amplifiers	SL58P	PEEK TRAFFIC	11687-0004
Power <u>PIEZO BOARD</u>	SW58P	PEEK TRAFFIC	11554-0004
Processor(s) / Platform(s)			
Loop Processor Lane Sensor	BARE FLAT PIEZO	MSI	
Processor Next Adjacent Lane (1)	BARE FLAT PIEZO	MSI	
Processor Next Adjacent Lane (2)			
Processor Next Adjacent Lane (3)			
Angular Sensor			
Scale Sensor			
Light Platform			
Weight Platform			
Power <u> </u>			
Software			
Complete Package	TDP VER. 3.32, TMG VER. 8.5, VTRIS 5.0		
Loop Spacing Algorithm Only			
Power <u> </u>			
Loops			
Upstream - Lane I	6'X6' 4 TURN INDUCTIVE LOOP		
Downstream - Lane I			
Upstream - Other Lanes	6'X6' 4 TURN INDUCTIVE LOOP		
Downstream - Other Lanes			

revised November 11, 1999)

SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

*STATE ASSIGNED ID []
*STATE CODE [37]
*SHRP SECTION ID [1006]

SITE CALIBRATION INFORMATION

- *DATE OF CALIBRATION (MONTH/DAY/YEAR) [11 / 6 / 00]
2. *TYPE OF EQUIPMENT CALIBRATED _____ WIM _____ CLASSIFIER X BOTH
3. *REASON FOR CALIBRATION
____ REGULARLY SCHEDULED SITE VISIT
____ EQUIPMENT REPLACEMENT
____ DATA TRIGGERED SYSTEM REVISION
____ RESEARCH
____ TRAINING
X NEW EQUIPMENT INSTALLATION
4. *SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY):
____ BARE ROUND PIEZO CERAMIC X BARE FLAT PIEZO
____ CHANNELIZED ROUND PIEZO _____ LOAD CELLS
____ CHANNELIZED FLAT PIEZO _____ INDUCTANCE LOOPS
____ OTHER (SPECIFY) _____
____ BENDING PLATES
____ QUARTZ PIEZO
____ CAPACITANCE PADS
5. EQUIPMENT MANUFACTURER _____

ENTERED JUN 14 2002

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.** CALIBRATION TECHNIQUE USED:
____ TRAFFIC STREAM _____ STATIC SCALE (Y/N) X TEST TRUCKS
____ NUMBER OF TRUCKS COMPARED _____ NUMBER OF TEST TRUCKS USED
____ 5 PASSES PER TRUCK
- | TRUCK | TYPE | SUSPENSION |
|-------|------|------------|
| 1 | 9 | 2 |
| 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 . 76
DYNAMIC AND STATIC SINGLE AXLES _____ 8 . 47
DYNAMIC AND STATIC DOUBLE AXLES _____ 2 . 06
STANDARD DEVIATION _____ 2 . 50
STANDARD DEVIATION _____ 4 . 40
STANDARD DEVIATION _____ 5 . 23
8. _____ / _____ NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 65 mph
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) _____ 1 . 00
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) yes
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: CL 2, Axle 1, Expected weight 1,950 lbs

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 3 hrs TIME _____ NUMBER OF TRUCKS
- MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:
*** FHWA CLASS 9 1.0 FHWA CLASS _____
*** FHWA CLASS 8 1.5 FHWA CLASS _____
FHWA CLASS _____
FHWA CLASS _____
FHWA CLASS _____
*** PERCENT UNCLASSIFIED VEHICLES: 0

SHEET 16
LTPP MONITORED TRAFFIC DATA
SITE CALIBRATION SUMMARY

*STATE ASSIGNED ID []
*STATE CODE [37]
*SHRP SECTION ID [1006]

SITE CALIBRATION INFORMATION

- *DATE OF CALIBRATION (MONTH/DAY/YEAR) [11 / 6 / 00]
2. *TYPE OF EQUIPMENT CALIBRATED _____ WIM _____ CLASSIFIER X BOTH
3. *REASON FOR CALIBRATION
____ REGULARLY SCHEDULED SITE VISIT
____ EQUIPMENT REPLACEMENT
____ DATA TRIGGERED SYSTEM REVISION
____ RESEARCH TRAINING
X NEW EQUIPMENT INSTALLATION
- ENTERED JUN 14 2002
4. *SENSORS INSTALLED IN LTPP LANE AT THIS SITE (CHECK ALL THAT APPLY):
____ BARE ROUND PIEZO CERAMIC X BARE FLAT PIEZO
____ CHANNELIZED ROUND PIEZO _____ LOAD CELLS
____ CHANNELIZED FLAT PIEZO _____ INDUCTANCE LOOPS
____ OTHER (SPECIFY) _____ BENDING PLATES
____ QUARTZ PIEZO
____ CAPACITANCE PADS
5. EQUIPMENT MANUFACTURER PEEK TRAFFIC TRF-194.

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.** CALIBRATION TECHNIQUE USED:
____ TRAFFIC STREAM _____ STATIC SCALE (Y/N) X TEST TRUCKS
____ NUMBER OF TRUCKS COMPARED _____ NUMBER OF TEST TRUCKS USED
____ PASSES PER TRUCK
- | TRUCK | TYPE | SUSPENSION |
|-------|------|------------|
| 1 | 1 | 2 |
| 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 . 76
DYNAMIC AND STATIC SINGLE AXLES 8 . 47
DYNAMIC AND STATIC DOUBLE AXLES 2 . 06
STANDARD DEVIATION 2 . 50
STANDARD DEVIATION 4 . 40
STANDARD DEVIATION 5 . 23

8. 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 65 mph
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) 1 . 00
- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) yes
IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: CL 2, Axle 1, Expected weight 1,950 lbs

CLASSIFIER TEST SPECIFICS***

- 12.*** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
____ VIDEO X MANUAL _____ PARRALLEL CLASSIFIERS
13. METHOD TO DETERMINE LENGTH OF COUNT 3 hrs TIME _____ NUMBER OF TRUCKS
- MEAN DIFFERENCE IN VOLUMES BY VEHICLES CLASSIFICATION:
- | *** FHWA CLASS | *** FHWA CLASS | *** FHWA CLASS | *** FHWA CLASS |
|----------------|----------------|----------------|----------------|
| 9 | 1.0 | | |
| 8 | 1.5 | | |
| | | | |
| | | | |
| | | | |
- *** PERCENT UNCLASSIFIED VEHICLES: 0
- SCANNED
FED 06 2002