

**SHEET 10
LTPP TRAFFIC DATA**

**TRAFFIC VOLUME AND LOAD
ESTIMATE UPDATE-NO SITE COUNT**

*STATE ASSIGNED ID [] [] [] []

*STATE CODE [] []

*SHRP SECTION ID [] [] [] []

1. ANNUAL TRAFFIC ESTIMATES

*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/YR LTPP LANE (1000'S)
<u>2005</u>	<u>27235</u>	<u>1525</u>	<u>4221</u>	<u>529</u>	<u>77</u>

**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) _____

**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. (8)
- ☐ 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. (1)
- ☐ Averaged multiple counts taken this year at the LTPP site. (2)
- ☐ Other: (9) _____

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

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

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

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

***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) _____

NAME OF PREPARER ARID/KRAM

PHONE# _____

DATE PREPARED APR 28/05

rev. March 12, 2001

SHEET 12 LTPP TRAFFIC DATA CLASSIFICATION DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[NJ-023]
	*STATE CODE	[3 4]
	*SHRP SECTION ID	[1 0 3 0]

HIGHWAY RT. NO. (THIS COUNT): *NJ-023*

MILEPOST NO. OR LOCATION (THIS COUNT): *MP23.8, West Milford Township, Passaic County*

FILENAME: C341030.L1F

DISK ID:

BEGINNING DATE: *10-01-2005*

BEGINNING TIME: *00:00*

ENDING DATE: *10-31-2005*

ENDING TIME: *24:00*

COUNT DURATION: *1* [] HOURS [] DAYS [X] MONTHS

VEHICLE CLASSIFICATION METHOD: FHWA *X* OTHER

NAME OF AGENCY CLASSIFICATION SCHEME: *N/A* NO. OF BINS: *N/A*

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#: *International Road Dynamics' Piezo WIM System.*

SENSOR TYPE: *Each lane has a single upstream loop and two (2) Class I piezoelectric WIM sensors.*

ADJUSTMENT FACTORS FOR ESTIMATING AVERAGE ANNUAL VOLUMES BY CLASSIFICATION:

GENERAL FACTORS:

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

COMMENTS:

NAME OF PREPARER: <i>Teresa A. Goslin</i>	PHONE: <i>(609) 530-3508</i>
DATE PREPARED: <i>December 2, 2005</i>	

SHEET 12 LTPP TRAFFIC DATA CLASSIFICATION DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[NJ-023]
	*STATE CODE	[3 4]
	*SHRP SECTION ID	[1 0 3 0]

HIGHWAY RT. NO. (THIS COUNT): *NJ-023*

MILEPOST NO. OR LOCATION (THIS COUNT): *MP23.8, West Milford Township, Passaic County*

FILENAME: C341030.M1F

DISK ID:

BEGINNING DATE: *11-01-2005*

BEGINNING TIME: *00:00*

ENDING DATE: *11-30-2005*

ENDING TIME: *24:00*

COUNT DURATION: *1* [] HOURS [] DAYS [X] MONTHS

VEHICLE CLASSIFICATION METHOD: FHWA *X* OTHER

NAME OF AGENCY CLASSIFICATION SCHEME: *N/A* NO. OF BINS: *N/A*

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#: *International Road Dynamics' Piezo WIM System.*

SENSOR TYPE: *Each lane has two (2) loops and two (2) Class I piezoelectric WIM sensors, (L-P-P-L) configuration.*

ADJUSTMENT FACTORS FOR ESTIMATING AVERAGE ANNUAL VOLUMES BY CLASSIFICATION:

GENERAL FACTORS:

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

COMMENTS:

NAME OF PREPARER: <i>Teresa A. Goslin</i>	PHONE: <i>(609) 530-3508</i>
DATE PREPARED: <i>January 9, 2006</i>	

SHEET 12 LTPP TRAFFIC DATA CLASSIFICATION DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[NJ-023]
	*STATE CODE	[3 4]
	*SHRP SECTION ID	[1 0 3 0]

HIGHWAY RT. NO. (THIS COUNT): *NJ-023*

MILEPOST NO. OR LOCATION (THIS COUNT): *MP 23.8, West Milford Township, Passaic County*

FILENAME: C341030.N1F

DISK ID:

BEGINNING DATE: *12-01-2005*

BEGINNING TIME: *00:00*

ENDING DATE: *12-31-2005*

ENDING TIME: *24:00*

COUNT DURATION: *1* [] HOURS [] DAYS [X] MONTHS

VEHICLE CLASSIFICATION METHOD: FHWA *X* OTHER

NAME OF AGENCY CLASSIFICATION SCHEME: *N/A* NO. OF BINS: *N/A*

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#: *International Road Dynamics' Piezo WIM System.*

SENSOR TYPE: *Each lane has two (2) loops and two (2) Class I piezoelectric WIM sensors, (L-P-P-L) configuration.*

ADJUSTMENT FACTORS FOR ESTIMATING AVERAGE ANNUAL VOLUMES BY CLASSIFICATION:

GENERAL FACTORS:

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

COMMENTS:

NAME OF PREPARER: <i>Teresa A. Goslin</i>	PHONE: <i>(609) 530-3508</i>
DATE PREPARED: <i>January 31, 2006</i>	

SHEET 13 LTPP TRAFFIC DATA VEHICLE WEIGHT DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[NJ023]
	*STATE CODE	[3 4]
	*SHRP SECTION ID	[1 030]

HIGHWAY RT. NO. (THIS SESSION): *NJ-023*

MILEPOST NO. OR LOCATION (THIS SESSION): *MP 23.8, West Milford, Passaic County*

FILENAME : W341030.L1F
V341030.L1F

DISK ID:

BEGINNING DATE: *10-01-2005*

BEGINNING TIME: *00:00*

ENDING DATE: *10-31-2005*

ENDING TIME: *24:00*

COUNT DURATION: 1 [] HOURS [] DAYS [X] MONTHS

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

EQUIPMENT MAKE/MODEL# *International Road Dynamics Piezo WIM System*

SENSOR TYPE: *Each lane has a single upstream loop and two (2) class I piezoelectric WIM sensors.*

VEHICLE CLASSIFICATION METHOD:

7-card FHWA 13 bin in cols. 18-19
7-card 6 digit Truck Weight study

7-card FHWA 13 bin in cols. 22-23
W-card *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 CLASS SYSTEM.

METHOD OF CALIBRATION AND FREQUENCY: *Calibration is field validated on each site once a year using one 3S2 vehicle loaded and statically weighed at about 70,000 to 80,000 pounds. A minimum of 20 passes is made per lane at highway speeds or until a consistent calibration tolerance of ± 5 percent of the gross test vehicle weight is achieved. The initial run consists of about 10 or more passes of the calibration vehicles and the weights recorded are averaged using only the consistently measured GVW. Another 10 or more passes are then made after inputting the new changes to confirm the calibration tolerances. The process is repeated until the required tolerance is satisfied.*

COMMENTS:

NAME OF PREPARER: <i>Teresa A. Goslin</i>	PHONE: <i>(609) 530-3508</i>
DATE PREPARED: <i>December 6, 2005</i>	

SHEET 13 LTPP TRAFFIC DATA VEHICLE WEIGHT DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[NJ023]
	*STATE CODE	[3 4]
	*SHRP SECTION ID	[1 030]

HIGHWAY RT. NO. (THIS SESSION): *NJ-023*

MILEPOST NO. OR LOCATION (THIS SESSION): *MP 23.8, West Milford, Passaic County*

FILENAME : W341030.M1F
V341030.M1F

DISK ID:

BEGINNING DATE: *11-01-2005*

BEGINNING TIME: *00:00*

ENDING DATE: *11-30-2005*

ENDING TIME: *24:00*

COUNT DURATION: 1 [] HOURS [] DAYS [X] MONTHS

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

EQUIPMENT MAKE/MODEL# *International Road Dynamics Piezo WIM System*

SENSOR TYPE: *Each lane has two (2) loops and two (2) Class I piezoelectric WIM sensors, (L-P-P-L) configuration.*

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

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: *Calibration is field validated on each site once a year using one 3S2 vehicle loaded and statically weighed at about 70,000 to 80,000 pounds. A minimum of 20 passes is made per lane at highway speeds or until a consistent calibration tolerance of ± 5 percent of the gross test vehicle weight is achieved. The initial run consists of about 10 or more passes of the calibration vehicles and the weights recorded are averaged using only the consistently measured GVW. Another 10 or more passes are then made after inputting the new changes to confirm the calibration tolerances. The process is repeated until the required tolerance is satisfied.*

COMMENTS:

NAME OF PREPARER: *Teresa A. Goslin*
DATE PREPARED: *January 9, 2006*

PHONE: *(609) 530-3508*

SHEET 13 LTPP TRAFFIC DATA VEHICLE WEIGHT DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[NJ023]
	*STATE CODE	[3 4]
	*SHRP SECTION ID	[1 030]

HIGHWAY RT. NO. (THIS SESSION): *NJ-023*

MILEPOST NO. OR LOCATION (THIS SESSION): *MP 23.8, West Milford, Passaic County*

FILENAME : W341030.N1F
V341030.N1F

DISK ID:

BEGINNING DATE: *12-01-2005*

BEGINNING TIME: *00:00*

ENDING DATE: *12-31-2005*

ENDING TIME: *24:00*

COUNT DURATION: 1 [] HOURS [] DAYS [X] MONTHS

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

EQUIPMENT MAKE/MODEL# *International Road Dynamics Piezo WIM System*

SENSOR TYPE: *Each lane has two (2) loops and two (2) Class I piezoelectric WIM sensors, (L-P-P-L) configuration.*

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

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: *Calibration is field validated on each site once a year using one 3S2 vehicle loaded and statically weighed at about 70,000 to 80,000 pounds. A minimum of 20 passes is made per lane at highway speeds or until a consistent calibration tolerance of ± 5 percent of the gross test vehicle weight is achieved. The initial run consists of about 10 or more passes of the calibration vehicles and the weights recorded are averaged using only the consistently measured GVW. Another 10 or more passes are then made after inputting the new changes to confirm the calibration tolerances. The process is repeated until the required tolerance is satisfied.*

COMMENTS:

NAME OF PREPARER: <i>Teresa A. Goslin</i>	PHONE: <i>(609) 530-3508</i>
DATE PREPARED: <i>January 31, 2006</i>	

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID [NJ-23] *STATE CODE [34] *SHRP SECTION ID [1030]
--	--

SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [07 / 30 / 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
 X OTHER (SPECIFY) SEMI-ANNUAL CALIBRATION
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 IRD

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.**CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- Y STATIC SCALE (Y/N) X TEST TRUCKS
- 1 NUMBER OF TRUCKS COMPARED 1 NUMBER OF TEST TRUCKS USED
- 12 PASSES PER TRUCK
- | TRUCK | TYPE | SUSPENSION |
|-------|------------------|------------|
| 1 | <u> Class 9 </u> | <u> 2 </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 ---
STATIC GVW: (S) 47.16 2.1 2.7
- STANDARD DEVIATION BY LANE: Lane 1 Sensor 1: .91 Lane 3 Sensor 1: 1.02
Lane 1 Sensor 2: .24 Lane 3 Sensor 2: .63
*Please see accomp. data file: Lane 2 Sensor 1: 2.95 Lane 4 Sensor 1: 1.88
CDS_23_1030.xls Lane 2 Sensor 2: 1.74 Lane 4 Sensor 2: 1.02

8. 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 45-50
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) :
NB_SLOW (Lane 1) Sensor 1: 0.271 Sensor 2: 0.271
NB_PASS (Lane 2) Sensor 1: 0.300 Sensor 2: 0.267
SB_PASS (Lane 3) Sensor 1: 0.311 Sensor 2: 0.295
SB_SLOW (Lane 4) Sensor 1: 0.288 Sensor 2: 0.271 Avg. 0.2795

- 11.** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) N
- IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: The auto-calibration is defined in 24 hours intervals. The method is set to *adjust after 50 trucks*, the number of auto-calibration class 9 trucks for the interval and the sum of front axle weights for the period are calculated and added to a running totals read from the ASCII file. If the number of trucks is less than 50 *trucks required before adjust*, then the new count and sum are stored in the file. If the number of accumulated trucks is greater than the user entered, then, as above, the error between the calculated mean front axle weight and the user entered Population Mean is determined. Temperature sensor is another factor that has an influence on auto-calibration process.

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 AUNCLASSIFIED≅ VEHICLES:

PERSON LEADING CALIBRATION EFFORT: BRIAN BRITTON AND KEVIN HALL
CONTACT INFORMATION: BRIAN BRITTON (609) 530-3478