

SHEET 12 LTPP TRAFFIC DATA CLASSIFICATION DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[_ _ _ _]
	*STATE CODE	[0 9]
	*SHRP SECTION ID	[0 9 0 0]

HIGHWAY RT. NO. (THIS COUNT) 2

MILEPOST NO. OR LOCATION (THIS COUNT) 29.61

FILENAME See sheet 13A attached DISK ID _____

BEGINNING DATE _____ BEGINNING TIME _____

ENDING DATE _____ ENDING TIME _____

COUNT DURATION _____ [] HOURS [] DAYS [] MONTHS

VEHICLE CLASSIFICATION METHOD: FHWA _____ OTHER X

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

NOTE: IF NOT PREVIOUSLY PROVIDED TO SHRP/LTPP, PLEASE ATTACHE 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.

TYPE OF AVC EQUIPMENT: PORTABLE _____ PERMANENT X

EQUIPMENT MAKE/MODEL# IRD / WIM Electronic

SENSOR TYPE IRD / Kistler Quartz 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>A. M^cDonnell</u>	PHONE <u>860-258-0308</u>
DATE PREPARED <u>10-31-00</u>	revised November 11, 1999

SHEET 13 LTPP TRAFFIC DATA VEHICLE WEIGHT DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[_ _ _ _]
	*STATE CODE	[0 9]
	*SHRP SECTION ID	[0 9 0 0]

HIGHWAY RT. NO. (THIS SESSION) 2

MILEPOST NO. OR LOCATION (THIS SESSION) 29.61

FILENAME see sheet 13 A attached DISK ID _____

BEGINNING DATE _____ BEGINNING TIME _____

ENDING DATE _____ ENDING TIME _____

COUNT DURATION _____ [] HOURS [] DAYS [] MONTHS

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

EQUIPMENT MAKE/MODEL# IR0/WIM Electronic

SENSOR TYPE IR0/Kistler Quartz Piezo

VEHICLE CLASSIFICATION METHOD:

FHWA 13 bin in cols. 18-19 _____ FHWA 13 bin in cols. 18-23 _____ OTHER _____

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

NOTE: IF NOT PREVIOUSLY PROVIDED TO SHRP/LTPP, PLEASE ATTACHE 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: Testing against loaded 5-
axle truck of known weight. Semi-annually
and as needed.

COMMENTS See attached vehicle weight data

FILL OUT ONE TRANSMITTAL SHEET FOR EACH DATA FILE SUBMITTED.

NAME OF PREPARER <u>A. McDonnell</u>	PHONE <u>960-258-0308</u>
DATE PREPARED <u>10-31-00</u>	revised November 11, 1999

SHEET 13A ATTACHMENT LTTP TRAFFICE DATA VEHICLE WEIGHT DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[]
	*STATE CODE	[09]
	*SHRP SECTION ID	[090900]

Filename	Start Date	Start Time	End Date	End Time	Class Scheme	
	Mm/dd/yyyy	Hh:mm	Mm/dd/yyyy	Hh:mm		
C090900.CAA	1/11/00	0:04	1/19/00	14:27	A	Eastbound
W090900.CAA	1/11/00	0:04	1/19/00	14:27	A	Before-Cal
C090900.CIA	1/19/00	14:38	1/21/00	14:29	A	↑
W090900.CIA	1/19/00	14:38	1/21/00	14:29	A	
C090900.CKA	1/21/00	14:33	1/26/00	8:37	A	
W090900.CKA	1/21/00	14:33	1/26/00	8:37	A	
C090900.CPA	1/26/00	8:46	1/28/00	8:46	A	
W090900.CPA	1/26/00	8:46	1/28/00	8:46	A	
C090900.CRA	1/28/00	8:51	2/9/00	10:42	A	
W090900.CRA	1/28/00	8:51	2/9/00	10:42	A	
C090900.D9A	2/9/00	9:21	2/17/00	8:25	A	
W090900.D9A	2/9/00	9:21	2/17/00	8:25	A	
C090900.DGA	2/17/00	8:26	2/23/00	8:16	A	
W090900.DGA	2/17/00	8:26	2/23/00	8:16	A	
C090900.DMA	2/23/00	8:21	2/29/00	10:20	A	
W090900.DMA	2/23/00	8:21	2/29/00	10:20	A	
C090900.DSA	2/29/00	13:26	3/8/00	8:59	A	
W090900.DSA	2/29/00	13:26	3/8/00	8:59	A	
C090900.E8A	3/8/00	9:07	3/30/00	8:35	A	
W090900.E8A	3/8/00	9:07	3/30/00	8:35	A	
C090900.ETA	3/30/00	8:44	4/10/00	13:59	A	
W090900.ETA	3/30/00	8:44	4/10/00	13:59	A	
C090900.F0A	4/10/00	14:25	4/12/00	8:50	A	
W090900.F0A	4/10/00	14:25	4/12/00	8:50	A	
C090900.FDA	4/14/00	10:07	4/17/00	11:31	A	
W090900.FDA	4/14/00	10:07	4/17/00	11:31	A	
C090900.FGA	4/17/00	11:33	4/25/00	14:51	A	
W090900.FGA	4/17/00	11:33	4/25/00	14:51	A	
C090900.GOA	4/25/00	14:54	5/1/00	8:18	A	
W090900.GOA	4/25/00	14:54	5/1/00	8:18	A	
C090900.G1A	5/1/00	8:22	5/8/00	8:33	A	
W090900.G1A	5/1/00	8:22	5/8/00	8:33	A	
C090900.G8A	5/8/00	8:35	5/24/00	9:19	A	
W090900.G8A	5/8/00	8:35	5/24/00	9:19	A	
C090900.GNA	5/24/00	9:30	6/28/00	12:10	A	
W090900.GNA	5/24/00	9:30	6/28/00	12:10	A	
C090900.HRA	6/28/00	12:14	7/5/00	11:16	A	
W090900.HRA	6/28/00	12:14	7/5/00	11:16	A	

PERSON LEADING CALIBRATION EFFORT: CONTACT INFORMATION: 860-258-0308	Anne-Marie McDonnell DATE PREPARED 10/19/00
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SHEET 12 LTPP TRAFFIC DATA CLASSIFICATION DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[_ _ _ _]
	*STATE CODE	[0 9]
	*SHRP SECTION ID	[0 9 0 0]

HIGHWAY RT. NO. (THIS COUNT) 2

MILEPOST NO. OR LOCATION (THIS COUNT) 29.61

FILENAME See sheet 13A attached DISK ID _____

BEGINNING DATE _____ BEGINNING TIME _____

ENDING DATE _____ ENDING TIME _____

COUNT DURATION _____ [] HOURS [] DAYS [] MONTHS

VEHICLE CLASSIFICATION METHOD: FHWA _____ OTHER X

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

NOTE: IF NOT PREVIOUSLY PROVIDED TO SHRP/LTPP, PLEASE ATTACHE 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.

TYPE OF AVC EQUIPMENT: PORTABLE _____ PERMANENT X

EQUIPMENT MAKE/MODEL# IRD / WIM Electronic

SENSOR TYPE IRD / Kistler Quartz 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>A. Mc Donnell</u>	PHONE <u>860-258-0308</u>
DATE PREPARED <u>10-31-00</u>	revised November 11, 1999

SHEET 13A ATTACHMENT LTPP TRAFFIC DATA VEHICLE WEIGHT DATA TRANSMITTAL FORM	*STATE ASSIGNED ID	[]
	*STATE CODE	[09]
	*SHRP SECTION ID	[090900]

Filename	Start Date	Start Time	End Date	End Time	Class Scheme	
		Hh:mm	Mm/dd/yyyy	Hh:mm		
C090900.LS8	10/29/98	15:00	12/31/98	23:53	A	Eastbound
W090900.LS8	10/29/98	15:00	12/31/98	23:53	A	
C090900.C19	1/1/99	0:07	8/5/99	18:09	A	
W090900.C19	1/1/99	0:07	8/5/99	18:09	A	
C090900.J59	8/5/99	18:40	10/5/99	9:01	A	
W090900.J59	8/5/99	18:40	10/5/99	9:01	A	
C090900.L59	10/5/99	12:20	10/6/99	7:53	A	
W090900.L59	10/5/99	12:20	10/6/99	7:53	A	
C090900.L69	10/6/99	15:20	11/1/99	7:53	A	
W090900.L69	10/6/99	15:20	11/1/99	7:53	A	
C090900.M19	11/1/99	12:53	12/1/99	1:00	A	
W090900.M19	11/1/99	12:53	12/1/99	1:00	A	
C090900.N19	12/1/99	13:13	12/15/99	23:59	A	
W090900.N19	12/1/99	13:13	12/15/99	23:59	A	
C090900.NF9	12/16/99	14:59	12/31/99	23:53	A	
W090900.NF9	12/16/99	14:59	12/31/99	23:53	A	
C090900.C1A	1/1/00	0:05	1/11/00	23:58	A	
W090900.C1A	1/1/00	0:05	1/11/00	23:58	A	

PERSON LEADING CALIBRATION EFFORT:	<u>Anne-Marie McDonnell</u>
CONTACT INFORMATION: <u>860-258-0308</u>	DATE PREPARED <u>10/19/00</u>

SHEET 15 LTPP TRAFFIC DATA LOG OF CHANGE AT GPS TEST LOCATIONS WITH PERM. AVC OR WIM	*STATE ASSIGNED ID	[]
	*STATE CODE	[09]
	*SHRP SECTION ID	[0900]

LOCATION Lebanon
 MP# 29.61

TYPE EQUIP. IRI
 MODEL # WIM Electric

DATE OF CHANGE	TIME OF CHANGE	DESCRIPTION OF CHANGE	PERSON MAKING CHANGE	PHONE #	NEW EQUIP. SERIAL #
Feb/2000		Wim Software Upgrade to IRI 7.5 Rev E	Ed Block	258-0303	

ENTERED AUG 19 2009

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID	[]
	*STATE CODE	[09]
	*SHRP SECTION ID	[090960]

090960

SITE CALIBRATION INFORMATION

- * DATE OF CALIBRATION (MONTH/DAY/YEAR) [04 /24 /2000]
- * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
- * REASON FOR CALIBRATION
 REGULARLY SCHEDULED SITE VISIT X RESEARCH
 EQUIPMENT REPLACEMENT TRAINING
 DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
 OTHER (SPECIFY) _____
- * 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 X QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY) _____
- EQUIPMENT MANUFACTURER KISTLER SENSOR, IRD ELECTRONICS

WIM SYSTEM CALIBRATION SPECIFICS**

- ** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- Y STATIC SCALE (Y/N) 2 TEST TRUCKS
 2 NUMBER OF TRUCKS COMPARED 2 NUMBER OF TEST TRUCKS USED
 20, 18 PASSES PER TRUCK

TRUCK	TYPE	SUSPENSION
1	<u> 9 </u>	<u> 1 </u>
2	<u> 9 </u>	<u> 1 </u>
3	<u> SHEET 16 TRUCKS COMBINED </u>	

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

- SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
 MEAN DIFFERENCE BETWEEN ---
 DYNAMIC AND STATIC GVW 0.81 STANDARD DEVIATION 2.36
 DYNAMIC AND STATIC SINGLE AXLES -2.55 STANDARD DEVIATION 3.67
 DYNAMIC AND STATIC DOUBLE AXLES 1.44 STANDARD DEVIATION 3.23
- 2 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- DEFINE THE SPEED RANGES USED (MPH) 60, 65
- CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) SENSOR 1 - 4.1130, SENSOR 2 - 5.9895, SENSOR 3 - 3.9843, SENSOR 4 - 4.2869
- ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) N
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: _____

CLASSIFIER TEST SPECIFICS***

- *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
 VIDEO X MANUAL PARALLEL CLASSIFIERS
- METHOD TO DETERMINE LENGTH OF COUNT TIME X NUMBER OF TRUCKS
- 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: Anne-Marie McDonnell
 CONTACT INFORMATION: 860-258-0308 rev. November 9, 1999

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID	[]
	*STATE CODE	[09]
	*SHRP SECTION ID	[090960]

090960

SITE CALIBRATION INFORMATION

- * DATE OF CALIBRATION (MONTH/DAY/YEAR) [04 /24 /2000]
- * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
- * REASON FOR CALIBRATION
 REGULARLY SCHEDULED SITE VISIT X RESEARCH
 EQUIPMENT REPLACEMENT TRAINING
 DATA TRIGGERED SYSTEM REVISION NEW EQUIPMENT INSTALLATION
 OTHER (SPECIFY) _____
- * 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 X QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY) _____
- EQUIPMENT MANUFACTURER KISTLER SENSOR, IRD ELECTRONICS

WIM SYSTEM CALIBRATION SPECIFICS**

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

TRUCK	TYPE	SUSPENSION
1	<u> 9 </u>	<u> 1 </u>
2	<u> </u>	<u> </u>
3	<u> SHEET 16 </u>	<u> 1 OF 2 </u>

TYPE PER FHWA 13 BIN SYSTEM
 SUSPENSION: 1 - AIR; 2 - LEAF SPRING
 3 - OTHER (DESCRIBE)
- SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
 MEAN DIFFERENCE BETWEEN ---
 DYNAMIC AND STATIC GVW 0.50 STANDARD DEVIATION 1.71
 DYNAMIC AND STATIC SINGLE AXLES -5.25 STANDARD DEVIATION 1.37
 DYNAMIC AND STATIC DOUBLE AXLES 1.40 STANDARD DEVIATION 2.10
- 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
- DEFINE THE SPEED RANGES USED (MPH) 60
- CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) SENSOR 1 - 4.1130, SENSOR 2 - 5.9895, SENSOR 3 - 3.9843, SENSOR 4 - 4.2869
- ** IS AUTO-CALIBRATION USED AT THIS SITE? (Y/N) N
 IF YES, LIST AND DEFINE AUTO-CALIBRATION VALUE: _____

CLASSIFIER TEST SPECIFICS***

- *** METHOD FOR COLLECTING INDEPENDENT VOLUME MEASUREMENT BY VEHICLE CLASS:
 VIDEO X MANUAL PARALLEL CLASSIFIERS
- METHOD TO DETERMINE LENGTH OF COUNT TIME X NUMBER OF TRUCKS
- 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: <u> Anne-Marie McDonnell </u>
CONTACT INFORMATION: <u> 860-258-0308 </u> rev. November 9, 1999

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID [] *STATE CODE [09] *SHRP SECTION ID [090900]
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SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [04 /24 /2000.]
2. * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
3. * REASON FOR CALIBRATION
 REGULARLY SCHEDULED SITE VISIT X 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 X QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY) _____
5. EQUIPMENT MANUFACTURER KISTLER SENSOR, IRD ELECTRONICS

WIM SYSTEM CALIBRATION SPECIFICS**

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

TRUCK	TYPE	SUSPENSION
1	<u> </u>	<u> </u>
2	<u> 9 </u>	<u> 1 </u>
3	<u> SHEET 16 </u>	<u> 2 OF 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 0.19 STANDARD DEVIATION 3.43
 DYNAMIC AND STATIC SINGLE AXLES -4.27 STANDARD DEVIATION 3.15
 DYNAMIC AND STATIC DOUBLE AXLES 1.05 STANDARD DEVIATION 3.61
8. 2 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 60, 65
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) SENSOR 1 - 4.6193, SENSOR 2 - 4.4395, SENSOR 3 - 4.1030, SENSOR 4 - 4.5078
- 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: <u> Anne-Marie McDonnell </u>
CONTACT INFORMATION: <u> 860-258-0308 </u> rev. November 9, 1999

W

PERSON LEADING CALIBRATION EFFORT: Anne-Marie McDonnell
CONTACT INFORMATION: 860-258-0308 rev. November 9, 1999

SHEET 16
MONITORED TRAFFIC DATA
LTPP PROGRAM

*STATE ASSIGNED ID []
*STATE CODE [09]
*SHRP SECTION ID [0900] ✓

SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) 07/25/2000
2. * TYPE OF EQUIPMENT CALIBRATED ___ WIM ___ CLASSIFIER ☒ BOTH
3. * REASON FOR CALIBRATION
☒ REGULARLY SCHEDULED SITE VISIT ☒ RESEARCH ENTERED JUN 14 2002
___ 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 KISTLER SENSOR, IRD ELECTRONICS (INTERNATIONAL/ROAD DYNAMICS)

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
___ 20 PASSES PER TRUCK
TRUCK TYPE SUSPENSION
TYPE PER FHWA 13 BIN SYSTEM 1 CL9 air (1) or taller
SUSPENSION: 1 - AIR, 2 - LEAF SPRING 2 CL9 leaf (2)
3 - OTHER (DESCRIBE) 3
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. 1 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 60 - 65
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) _____
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 HOURLY 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: A. M. Donnell
CONTACT INFORMATION: 10-31-00

rev. November 9, 1999

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID [] *STATE CODE [09] *SHRP SECTION ID [090900]
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SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [12 /13 /2000.]
2. * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
3. * REASON FOR CALIBRATION
 REGULARLY SCHEDULED SITE VISIT X 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 X QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY) _____
5. EQUIPMENT MANUFACTURER KISTLER SENSOR, IRD ELECTRONICS

WIM SYSTEM CALIBRATION SPECIFICS**

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

TRUCK	TYPE	SUSPENSION
1	<u> 9 </u>	<u> 1 </u>
2	<u> </u>	<u> </u>
3	<u> SHEET 16 </u>	<u> 1 OF 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 0.53 STANDARD DEVIATION 2.69
 DYNAMIC AND STATIC SINGLE AXLES STANDARD DEVIATION
 DYNAMIC AND STATIC DOUBLE AXLES STANDARD DEVIATION
8. 2 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 55, 60
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) SENSOR 1 - 4.5880, SENSOR 2 - 6.8935, SENSOR 3 - 4.5242, SENSOR 4 - 4.9706
- 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: <u> Anne-Marie McDonnell </u> CONTACT INFORMATION: <u> 860-258-0308 </u>	rev. November 9, 1999
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SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID [] *STATE CODE [09] *SHRP SECTION ID [090900]
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SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [12 / 13 / 2000]
2. * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
3. * REASON FOR CALIBRATION
 REGULARLY SCHEDULED SITE VISIT X 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 X QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY) _____
5. EQUIPMENT MANUFACTURER KISTLER SENSOR, IRD ELECTRONICS

WIM SYSTEM CALIBRATION SPECIFICS**

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

TRUCK	TYPE	SUSPENSION
1	<u> </u>	<u> </u>
2	<u> 9 </u>	<u> 2 </u>
3	<u> SHEET 16 </u>	<u> 2 OF 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 0.37 STANDARD DEVIATION 4.03
 DYNAMIC AND STATIC SINGLE AXLES STANDARD DEVIATION
 DYNAMIC AND STATIC DOUBLE AXLES STANDARD DEVIATION
8. 2 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 55, 60
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) SENSOR 1 - 4.5880, SENSOR 2 - 6.8935, SENSOR 3 - 4.5242, SENSOR 4 - 4.9706
- 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: <u> Anne-Marie McDonnell </u> CONTACT INFORMATION: <u> 860-258-0308 </u>	rev. November 9, 1999
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ENTERED 10/9/2009

SHEET 16 LTPP MONITORED TRAFFIC DATA SITE CALIBRATION SUMMARY	*STATE ASSIGNED ID	[]
	*STATE CODE	[09]
	*SHRP SECTION ID	[090960]

090960

SITE CALIBRATION INFORMATION

1. * DATE OF CALIBRATION (MONTH/DAY/YEAR) [12 /13 /2000]
2. * TYPE OF EQUIPMENT CALIBRATED X WIM CLASSIFIER BOTH
3. * REASON FOR CALIBRATION
 REGULARLY SCHEDULED SITE VISIT X 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 X QUARTZ PIEZO
 CHANNELIZED FLAT PIEZO INDUCTANCE LOOPS CAPACITANCE PADS
 OTHER (SPECIFY) _____
5. EQUIPMENT MANUFACTURER KISTLER SENSOR, IRD ELECTRONICS

WIM SYSTEM CALIBRATION SPECIFICS**

- 6.** CALIBRATION TECHNIQUE USED:
 TRAFFIC STREAM -- Y STATIC SCALE (Y/N) 2 TEST TRUCKS
 2 NUMBER OF TRUCKS COMPARED 2 NUMBER OF TEST TRUCKS USED
- | TYPE PER FHWA 13 BIN SYSTEM | | 27, 28 PASSES PER TRUCK | |
|-----------------------------|-------|-----------------------------------|------------|
| SUSPENSION: | TRUCK | TYPE | SUSPENSION |
| 1 - AIR; 2 - LEAF SPRING | 1 | <u> 9 </u> | <u> 1 </u> |
| 3 - OTHER (DESCRIBE) | 2 | <u> 9 </u> | <u> 2 </u> |
| | 3 | <u> SHEET 16 TRUCKS COMBINED </u> | |
7. SUMMARY CALIBRATION RESULTS (EXPRESSED AS A PERCENT)
MEAN DIFFERENCE BETWEEN ---
DYNAMIC AND STATIC GVW 0.36 STANDARD DEVIATION 5.15
DYNAMIC AND STATIC SINGLE AXLES STANDARD DEVIATION
DYNAMIC AND STATIC DOUBLE AXLES STANDARD DEVIATION
8. 3 NUMBER OF SPEEDS AT WHICH CALIBRATION WAS PERFORMED
9. DEFINE THE SPEED RANGES USED (MPH) 50, 55, 60
10. CALIBRATION FACTOR (AT EXPECTED FREE FLOW SPEED) SENSOR 1 - 4.3192, SENSOR 2 - 6.2912, SENSOR 3 - 4.1842, SENSOR 4 - 4.5023
- 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: Anne-Marie McDonnell
CONTACT INFORMATION: 860-258-0308 rev. November 9, 1999

SHEET 16A ATTACHMENT MONITORED TRAFFIC DATA LTTP PROGRAM	*STATE ASSIGNED ID	□
	*STATE CODE	[09]
	*SHRP SECTION ID	[090900]

Vehicle No.	Vehicle Type/Description
1	FHWA Class 9, air-ride suspension
2	FHWA Class 9, standard suspension (non-air ride)

Measurement errors (%) from static for lane 4

Pass Number	Vehicle Number	% err Steer	% err Drive	% err Trailer	% err GVW
1	1	-1.98%	-1.59%	-3.75%	-2.92%
2	1	-0.99%	-4.14%	-3.00%	-3.36%
3	1	-1.98%	-2.55%	3.37%	-0.58%
4	1	-1.98%	-0.96%	-0.75%	-1.17%
5	1	-2.97%	0.96%	4.87%	1.61%
6	1	0.00%	-1.27%	-0.37%	-1.02%
7	1	-0.99%	-4.46%	3.00%	-1.17%
8	1	-0.99%	-2.87%	-1.87%	-2.49%
9	1	0.00%	-0.64%	0.75%	-0.44%
10	1	0.00%	-1.27%	-3.00%	-2.19%
11	1	0.00%	-1.27%	3.37%	0.44%
12	1	-1.98%	-3.50%	3.00%	-1.02%
13	1	-0.99%	0.00%	1.87%	0.15%
14	1	-0.99%	-2.87%	-1.12%	-2.19%
15	1	0.99%	-2.23%	2.25%	-0.29%
16	1	0.00%	-3.50%	-1.87%	-2.78%
17	1	13.86%	11.15%	19.10%	14.33%
18	1	-0.99%	0.64%	2.62%	0.73%
19	1	-2.97%	0.00%	1.50%	-0.29%
20	1	1.98%	-2.87%	-0.37%	-1.61%
21	1	0.99%	-1.91%	14.61%	4.68%
22	1	0.00%	-4.46%	-1.12%	-2.78%
23	1	0.00%	-0.64%	2.25%	0.15%
24	1	-1.98%	-1.59%	3.37%	0.00%
25	1	-3.96%	-4.78%	0.37%	-2.92%
26	1	-0.99%	-0.64%	1.50%	0.00%
27	1	-0.99%	-4.46%	2.25%	-1.61%
28	2	-3.60%	2.84%	1.32%	0.86%
29	2	-7.21%	2.13%	1.66%	0.58%
30	2	-8.11%	-3.90%	-5.30%	-5.32%
31	2	-1.80%	2.84%	2.65%	2.01%
32	2	-8.11%	-5.32%	-3.97%	-5.18%
33	2	-4.50%	2.84%	2.65%	1.58%
34	2	-0.90%	4.61%	2.98%	3.02%
35	2	-3.60%	0.00%	2.65%	0.58%
36	2	-1.80%	1.42%	0.66%	0.58%
37	2	-1.80%	3.90%	4.97%	3.45%
38	2	-3.60%	3.19%	3.31%	2.16%
39	2	-4.50%	4.96%	3.97%	3.02%
40	2	-0.90%	4.61%	3.97%	3.60%
41	2	-6.31%	-3.19%	-2.32%	-3.45%
42	2	-2.70%	4.96%	2.32%	2.59%
43	2	-2.70%	-0.71%	0.00%	-0.58%
44	2	-0.90%	5.67%	4.97%	4.46%
45	2	-5.41%	-2.13%	-3.31%	-3.17%
46	2	-6.31%	2.48%	1.99%	0.86%
47	2	-4.50%	4.26%	2.98%	2.45%
48	2	-1.80%	2.84%	1.66%	1.44%
49	2	-2.70%	-1.42%	-1.66%	-1.73%
50	2	-14.41%	-7.80%	-8.94%	-9.35%
		Steer	Drive	Trailer	GVW
Avg		-2.16%	-0.25%	1.44%	-0.09%
Std Dev		3.64%	3.56%	4.28%	3.35%

Field Calibration Date: April 2000

PERSON LEADING CALIBRATION EFFORT:	Anne-Marie McDonnell
CONTACT INFORMATION: 860-258-0308	DATE PREPARED 10/19/00