WIM System Field Calibration and Validation Handout Guide

Washington, SPS-2
SHRP ID – 530200

Validation Date: March 29, 2011

Table of Contents

1 Site Information

Site ID:	530200	**State:**	Washington
LTPP Region:	Western	**Configuration:**	Loop- 2 Quartz Piezo-Loop
Controller Type:	IRD 1068	**Sensor Type:**	Quartz Piezo
Power:	AC	**Communication:**	Landline
Class Scheme:	Agency Mod	**CPU type/setup:**	IRD 1068

2 Contact Information

Agency	Contact	Position	Phone	E-Mail
FHWA	Debbie Walker	COTR	202 493-3068	deborah.walker@dot.gov
FHWA	Anthony Sarhan	FHWA Division	360-753-9412	anthony.sarhan@dot.gov
RSC	Kevin Senn	Project Manager	775-329-4955	ksenn@nce.reno.nv.us
WSDOT	Jeff Uhlmeyer	LTPP Coord.	360-709-5485	uhlmeyj@wsdot.wa.gov
WSDOT	John Rosen	Traffic Coord.	360-570-2373	rosenj@wsdot.wa.gov
WSDOT	Ken Lakey	Traffic Contact	360-570-2374	lakeyk@wsdot.wa.gov
WSDOT	Hoang Nguyen	Traffic Contact	360-570-2389	nguyehv@wsdot.wa.gov
ARA	Dean Wolf	Task Leader	717-512-6638	dwolf@ara.com
ARA	Olga Selezneva	Project Manager	410-540-9949	oselezneva@ara.com

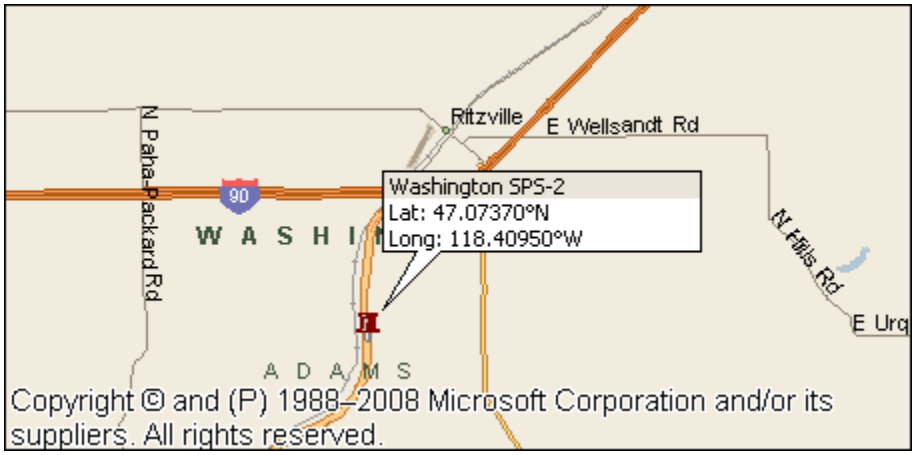
3 Schedule of Events

Date	Event	Location	Start Time
3/28/11	Travel	Spokane, WA	TBD
3/29/11	Test Truck Weigh/Measure/Inspection	Broadway Truck Stop	6:30 am
3/29/11	Equipment Assessment	WIM Site	8:00 am
3/29/11	Initial Performance Evaluation	WIM Site	8:30 am
3/29/11	System Test/Class and Speed Study	WIM Site	TBD
3/30/11	Test Truck Weigh/Measure/Inspection	Pilot Travel Center	6:30 am
3/30/11	Calibration/Validation	WIM Site	8:00 am
3/30/11	Validation	WIM Site	TBD
3/31/11	Travel	Camp Hill, PA	TBD

4 Maps

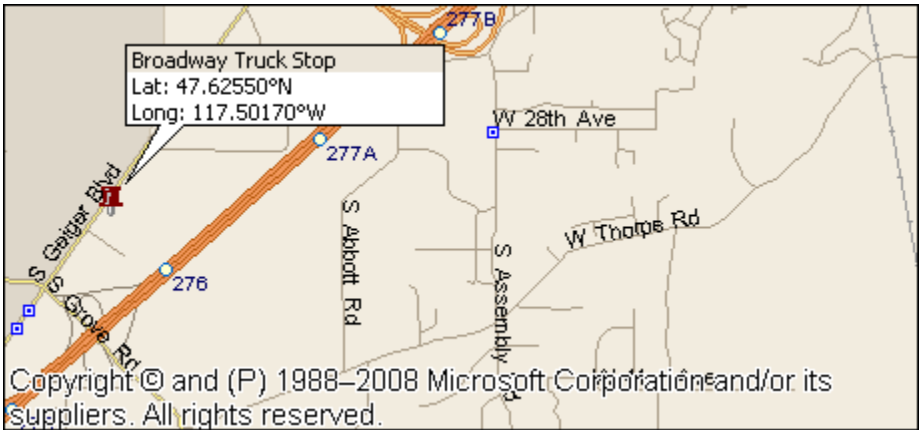
4.1 Site Location

Location:	US-395 at M.P. 93.01, 3.1 miles south of Interstate 90		**Dir:**	NB
Latitude:	47.0737°	**Longitude:**	-118.4095°	



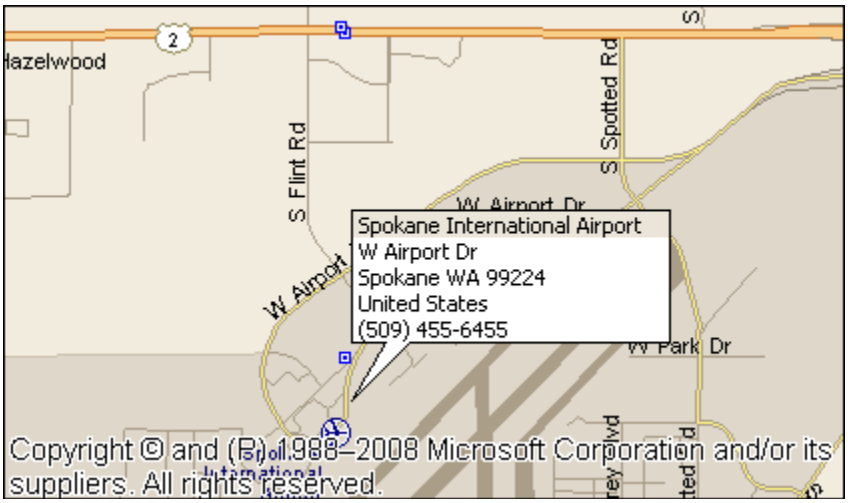
4.2 Truck Scale Location

Name:	Broadway Truck Stop	**Location:**	I-90 & Exit 276, Spokane
Latitude:	47.6255°	**Longitude:**	-117.5017°



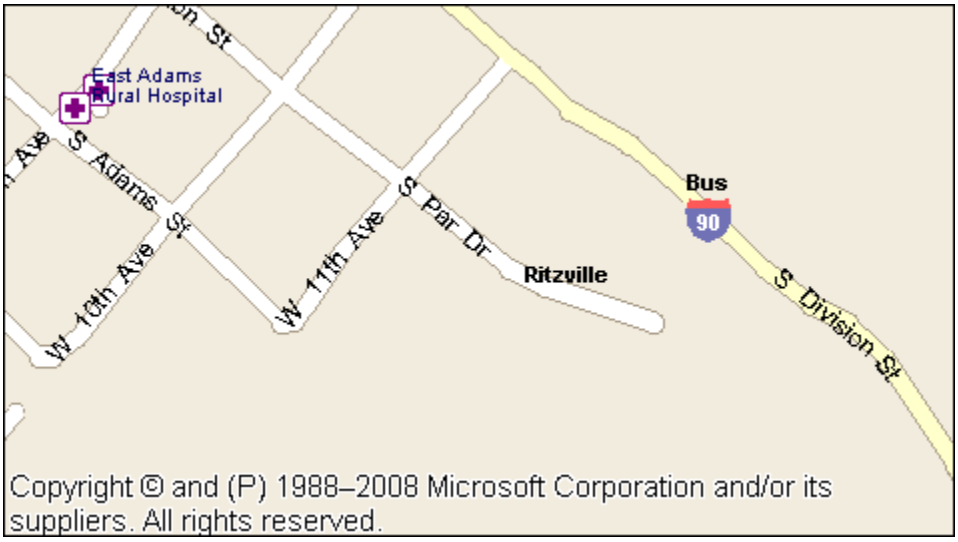
4.3 Airport Location

Name:	Spokane International Airport	**Location:**	W. Airport Drive, Spokane, WA
Latitude:	47.625°	**Longitude:**	-117.5738°



4.4 Hospital Location

Name:	East Adams Rural Hospital-ER		
Phone:	509-659-1200	**Location:**	903 South Adams Street, Ritzville, WA



5 Occupational Health and Safety Plan

All fieldwork in the right-of-way will be carried out when the ground visibility is more than 3 km, and when there is no accumulation of water, snow, or ice is on the pavement.

To the extent possible, inspection work during extremely high and low temperatures will be avoided. If the work becomes necessary, workers will be reminded to make appropriate precautions (wear protective clothing, drink fluids, and avoid prolonged exposure to severe weather conditions).

All personnel present on the right-of-way will wear approved safety gear (boots, reflective safety vest, and helmet).

The following items will be available at the site: a standard first-aid kit, a cell phone, and the location of nearby hospital(s).

6 Contingency Plan

If inclement weather is forecasted prior to mobilizing to the site, the Project Manager will make the final decision to postpone the Validation visit. The Task Leader is responsible for contacting all parties involved to inform them of the postponement. He is also responsible for rearranging travel.

Once the Validation team is on-site, the On-Site Task Leader is responsible for making decisions to delay or postpone the Validation. He will contact the Project Manager to make recommendations for completing the Validation, and the Project Manager will make the final decision to cancel or postpone. The On-Site Task Leader is responsible for contacting the COTR and all other participating parties to inform them of the delay or postponement.

Traffic Sheet 17 LTPP MONITORED TRAFFIC DATA WIM SITE INVENTORY	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/29/2011

1. ROUTE: US-395 **MILEPOST:** 93.01 **LTPP DIRECTION:** north

2. WIM SITE DESCRIPTION

Grade: 1 to 2% Sag Vertical: N
Nearest Upstream SPS Section: 205
Distance from sensors to SPS Section: 0 feet

3. LANE CONFIGURATION

Lanes in LTPP direction: 2 Median: 3 - grass
Lane width: 12' Shoulder: 2 - paved AC
Shoulder width: 10'

4. PAVEMENT TYPE PCC

5. PAVEMENT SURFACE CONDITION - Distress Survey

Date: 3/29/11 Photo Filename: 530200_upstream_03_29_11.jpg
Date: 3/29/11 Photo Filename: 530200_downstream_03_29_11.jpg
Date: Photo Filename:

6. SENSOR SEQUENCE

Loop - Quartz - Quartz - Loop

7. REPLACEMENT AND/OR GRINDING

Date:
Date:
Date:

8. RAMPS OR INTERSECTIONS

Intersection within 300' upstream of site: N
Intersection within 300' downstream of site: N
Is shoulder routinely used for turning? N

9. DRAINAGE

Drainage *(bending plate and load cell)* :
Clearance under plate (in.):
Clearance /access to flush fines from under system:

Traffic Sheet 17	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
WIM SITE INVENTORY	DATE (mm/dd/yyyy)	3/29/2011

10. CABINET LOCATION

Same side of road as LTPP lane: Y
Distance from edge of traveled lane: 83 ft
distance from system: 90 ft
type: M

Cabinet access controlled by: Agency
Contact name: Ken Lakey Phone # 360-570-2374
Alternate name: Hoang Nguyen Phone # 360-570-2389

11. POWER

Distance to cabinet from drop: 160 ft
Type: AC
AC in cabinet? Y
Service provider: Phone #

12. TELEPHONE

Distance to cabinet from drop: 160 ft
Type: landline
Service provider: Phone #

13. SYSTEM

Software and version no. 1068
Computer connection: RS-232

14. TEST TRUCK TURNAROUND TIME

Duration: 21 minutes Distance: 19.2 miles

15. PHOTOS

	Filename
Power source:	530200_power_service_box_03_29_11.jpg
Phone source:	530200_telephone_pedestal_03_29_11.jpg
Cabinet exterior:	530200_cabinet_exterior_03_29_11.jpg
Cabinet interior:	530200_cabinet_interior_front_03_29_11.jpg
Weight sensors:	530200_leading_WIM_sensor_03_29_11.jpg
	530200_trailing_WIM_sensor_03_29_11.jpg
Other sensors:	530200_leading_loop_sensor_03_29_11.jpg
	530200_trailing_loop_sensor_03_29_11.jpg
Downstream from sensors on LTPP lane:	530200_downstream_03_29_11.jpg
Upstream from sensors on LTPP lane:	530200_upstream_03_29_11.jpg

Traffic Sheet 18 LTPP MONITORED TRAFFIC DATA WIM SITE COORDINATION	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/29/2011

1. DATA PROCESSING

a. Download: State only

b. Data review: State per LTPP guidelines
If state, how often?

c. Data submission: State
If state how often? Monthly

2. EQUIPMENT

a. Purchase: State

b. Installation: State personnel

c. Maintenance: State personnel
Expiration Date

d. Calibration: LTPP

e. Manuals and software control: State

f. Power
i. Type: Underground ii. Payment: State

g. Communication
i. Type: Landline ii. Payment: State

3. PAVEMENT

a. Type: Portland Concrete Cement

b. Allowable Rehabilitation activities: Maintenance only

c. Profile Site Markings: Temporary

Traffic Sheet 18 LTPP MONITORED TRAFFIC DATA WIM SITE COORDINATION	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/29/2011

4. Onsite Activities

a. WIM Validation Check advance notice required

_____ Days 2 Weeks

b. Notice for straightedge and grinding check

_____ Days 2 Weeks

i. On site lead LTPP

ii. Accept grinding LTPP

c. Authorization to calibrate site State

d. Calibration routine LTPP annually

Other: State per LTPP Protocol

e. Test Vehicle Responsibilities

i. Trucks

1st-	Air suspension 3S2	LTPP
2nd-	Air Suspension 3S2	LTPP
3rd-		
4th-		

ii. Loads LTPP

iii. Drivers LTPP

f. Contractor(s) with prior experience in wim calibration in state:

g. Access to cabinet State only

h. State personel required on site Yes

i. Traffic control required No

J. Enforcement coordination required No

Traffic Sheet 18 LTPP MONITORED TRAFFIC DATA WIM SITE COORDINATION	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/29/2011

5. SITE SPECIFIC CONDITIONS

a. Funds and accountability: _____
b. Reports: _____
c. Other: _____
c. Special Conditions _____

6. CONTACTS

a. Equipment (operational status, access, etc.)
Name Hoang Nguyen Phone # 360-570-2374
Agency WA DOT

b. Maintenance (equipment)
Name Hoang Nguyen Phone # 360-570-2374
Agency WA DOT

c. Data Processing and pre-visit data
Name Tony Niemi Phone # 360-570-2392
Agency WA DOT

d. Construction schedule and verification
Name John Rosen Phone # 360-570-2373
Agency WA DOT

e. Test Vehicles (trucks, loads, drivers)
Name Doug Ross Phone # 509-570-2390
Agency Spokane Transport

f. Traffic control
Name _____ Phone # _____
Agency _____

g. Enforcement coordination
Name _____ Phone # _____
Agency _____

h. Nearest static scale
Name _____ Location: _____
Phone: _____

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/29/2011

CALIBRATION TEST TRUCK - Primary

PART A

1. FHWA CLASS: 9 **2. Number of axles:** 5

3. AXLE WEIGHTS (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		11050	10780	Direct
B		14230	14220	Direct
C		14230	14220	Direct
D		15720	15630	Direct
E		15720	15630	Direct
F				

4. GVW (same units as axles)

a. Empty GVW:
b. Average Pre-Test Loaded weight: 70950
c. Post Test Loaded Weight: 70480
d. Difference Post Test - Pre-Tests: 470

5. TRUCK DESCRIPTION

a. Tractor Cab Style: Sleeper Cab:
photo: ☑

b. Make:
c. Model:

d. Trailer Load Distribution Description:

photo: ☑

e. Tractor Tare weight - -
f. Trailer Tare weight - -
g. Axle Spacing -

A to B 12.8 B to C 4.3 C to D 33.7 D to E 4.2 E to F

h. Wheelbase - ☐ Measured ☑ Computed 55.0
i. Kingpin offset from Axle B (units) 1.3 photo: ☐
j. Overall Length - ☑ Measured 68.5

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/29/2011

CALIBRATION TEST TRUCK - Primary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A		steel spring	☑
B		air	☑
C		air	☑
D		air	☑
E		air	☑
F			☐

d. Cold Tire Pressures (psi)- from right to left

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

PART B

Table 1 - Raw Measurements -Platform Scale

Axles	Meas.	Pre-test Weight	Instance	Instance	Post-test weight
A	I				
A+B	II				
A+B+C	III				
A+B+C+D	IV				
A+B+C+D+E(1)	V				
A+B+C+D+E+(F)(1)	VI				
B+C+D+E+(F)	VII				
C+D+E+(F)	VIII				
D+E+(F)	IX				
E+(F)	X				
(F)	XI				
A+B+C+D+E+(F)(2)	XII				

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	3/29/2011

CALIBRATION TEST TRUCK - Primary

Table 2 - Axle and GVW Computations -Platform Scale Pre-test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 3- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 4- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 5- Axle and GVW Computations - Platform Scale Post-Test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	3/29/2011

CALIBRATION TEST TRUCK - Primary

Table 6 - Raw Data -Axle Scales - Pre-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	11040	14200	14200	15690	15690		70820
2	11060	14260	14260	15750	15750		71080
Avg.	11050	14230	14230	15720	15720		70950

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 9 - Raw Data -Axle Scales - Post-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10840	14180	14180	15630	15630		70460
2	10720	14260	14260	15630	15630		70500
Avg.	10780	14220	14220	15630	15630		70480

Validation Test Truck Run Set - Pre

Measured By: _____

Verified By: _____

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/29/2011

CALIBRATION TEST TRUCK - Secondary

PART A

1. FHWA CLASS: 9 **2. Number of axles:** 5

3. AXLE WEIGHTS

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10290	10080	Direct
B		10410	10420	Direct
C		10410	10420	Direct
D		9630	9630	Direct
E		9630	9630	Direct
F				

4. GVW (same units as axles)

a. Empty GVW:
b. Average Pre-Test Loaded weight: 50370
c. Post Test Loaded Weight: 50180
d. Difference Post Test - Pre-Tests: 190

5. TRUCK DESCRIPTION

a. Tractor Cab Style: Sleeper Cab:
photo: ☑

b. Make:
c. Model:

d. Trailer Load Distribution Description:

photo: ☑

e. Tractor Tare weight - -
f. Trailer Tare weight - -
g. Axle Spacing -

A to B 12.8 B to C 4.3 C to D 34.0 D to E 4.0 E to F

h. Wheelbase - ☐ Measured ☑ Computed 55.1
i. Kingpin offset from Axle B (units) photo: ☐
j. Overall Length - ☑ Measured 67.8

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/29/2011

CALIBRATION TEST TRUCK - Secondary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A		steel spring	☑
B		air	☑
C		air	☑
D		air	☑
E		air	☑
F			☐

d. Cold Tire Pressures (psi)- from right to left

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

PART B

Table 1 - Raw Measurements -Platform Scale

Axles	Meas.	Pre-test Weight	Instance	Instance	Post-test weight
A	I				
A+B	II				
A+B+C	III				
A+B+C+D	IV				
A+B+C+D+E(1)	V				
A+B+C+D+E+(F)(1)	VI				
B+C+D+E+(F)	VII				
C+D+E+(F)	VIII				
D+E+(F)	IX				
E+(F)	X				
(F)	XI				
A+B+C+D+E+(F)(2)	XII				

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	3/29/2011

CALIBRATION TEST TRUCK - Secondary

Table 2 - Axle and GVW Computations -Platform Scale Pre-test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 3- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 4- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 5- Axle and GVW Computations - Platform Scale Post-Test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	3/29/2011

CALIBRATION TEST TRUCK - Secondary

Table 6 - Raw Data -Axle Scales - Pre-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10280	10410	10410	9680	9680		50460
2	10300	10410	10410	9580	9580		50280
Avg.	10290	10410	10410	9630	9630		50370

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 9 - Raw Data -Axle Scales - Post-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10080	10400	10400	9630	9630		50140
2	10080	10440	10440	9630	9630		50220
Avg.	10080	10420	10420	9630	9630		50180

Validation Test Truck Run Set - Pre

Measured By: _____

Verified By: _____

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Primary

PART A

1. FHWA CLASS: 9 **2. Number of axles:** 5

3. AXLE WEIGHTS (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10550	0	Direct
B		14125	0	Direct
C		14125	0	Direct
D		15585	0	Direct
E		15585	0	Direct
F				

4. GVW (same units as axles)

a. Empty GVW:
b. Average Pre-Test Loaded weight: 69970
c. Post Test Loaded Weight: 0
d. Difference Post Test - Pre-Tests: 69970

5. TRUCK DESCRIPTION

a. Tractor Cab Style: Sleeper Cab:
photo: ☑

b. Make:
c. Model:

d. Trailer Load Distribution Description:

photo: ☑

e. Tractor Tare weight - -
f. Trailer Tare weight - -
g. Axle Spacing -

A to B 12.8 B to C 4.3 C to D 33.7 D to E 4.2 E to F

h. Wheelbase - ☐ Measured ☑ Computed 55.0
i. Kingpin offset from Axle B (units) 1.3 photo: ☐
j. Overall Length - ☑ Measured 68.5

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Primary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A		steel spring	☑
B		air	☑
C		air	☑
D		air	☑
E		air	☑
F			☐

d. Cold Tire Pressures (psi)- from right to left

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

PART B

Table 1 - Raw Measurements -Platform Scale

Axles	Meas.	Pre-test Weight	Instance	Instance	Post-test weight
A	I				
A+B	II				
A+B+C	III				
A+B+C+D	IV				
A+B+C+D+E(1)	V				
A+B+C+D+E+(F)(1)	VI				
B+C+D+E+(F)	VII				
C+D+E+(F)	VIII				
D+E+(F)	IX				
E+(F)	X				
(F)	XI				
A+B+C+D+E+(F)(2)	XII				

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Primary

Table 2 - Axle and GVW Computations -Platform Scale Pre-test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 3- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 4- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 5- Axle and GVW Computations - Platform Scale Post-Test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Primary

Table 6 - Raw Data -Axle Scales - Pre-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10620	14070	14070	15590	15590		69940
2	10480	14180	14180	15580	15580		70000
Avg.	10550	14125	14125	15585	15585		69970

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 9 - Raw Data -Axle Scales - Post-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Validation Test Truck Run Set - Cal 1

Measured By: _____

Verified By: _____

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Secondary

PART A

1. **FHWA CLASS:** 9 **2. Number of axles:** 5

3. **AXLE WEIGHTS**

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10570	0	Direct
B		10500	0	Direct
C		10500	0	Direct
D		9575	0	Direct
E		9575	0	Direct
F				

4. **GVW (same units as axles)**
   a. Empty GVW:
   b. Average Pre-Test Loaded weight: 50720
   c. Post Test Loaded Weight: 0
   d. Difference Post Test - Pre-Tests: 50720

5. **TRUCK DESCRIPTION**
   a. Tractor Cab Style: Sleeper Cab:
   photo: ☑

   b. Make:
   c. Model:

   d. Trailer Load Distribution Description:

   photo: ☑

   e. Tractor Tare weight - -
   f. Trailer Tare weight - -
   g. Axle Spacing -

A to B 12.8 B to C 4.3 C to D 34.0 D to E 4.0 E to F

   h. Wheelbase - ☐ Measured ☑ Computed 55.1
   i. Kingpin offset from Axle B (units) photo: ☐
   j. Overall Length - ☑ Measured 67.8

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Secondary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A		steel spring	☑
B		air	☑
C		air	☑
D		air	☑
E		air	☑
F			☐

d. Cold Tire Pressures (psi)- from right to left

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

PART B

Table 1 - Raw Measurements -Platform Scale

Axles	Meas.	Pre-test Weight	Instance	Instance	Post-test weight
A	I				
A+B	II				
A+B+C	III				
A+B+C+D	IV				
A+B+C+D+E(1)	V				
A+B+C+D+E+(F)(1)	VI				
B+C+D+E+(F)	VII				
C+D+E+(F)	VIII				
D+E+(F)	IX				
E+(F)	X				
(F)	XI				
A+B+C+D+E+(F)(2)	XII				

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Secondary

Table 2 - Axle and GVW Computations -Platform Scale Pre-test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 3- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 4- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 5- Axle and GVW Computations - Platform Scale Post-Test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Secondary

Table 6 - Raw Data -Axle Scales - Pre-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10520	10460	10460	9590	9590		50620
2	10620	10540	10540	9560	9560		50820
Avg.	10570	10500	10500	9575	9575		50720

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 9 - Raw Data -Axle Scales - Post-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Validation Test Truck Run Set - Cal 1

Measured By: _____

Verified By: _____

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Primary

PART A

1. FHWA CLASS: 9 **2. Number of axles:** 5

3. AXLE WEIGHTS (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10550	0	Direct
B		14125	0	Direct
C		14125	0	Direct
D		15585	0	Direct
E		15585	0	Direct
F				

4. GVW (same units as axles)

a. Empty GVW:
b. Average Pre-Test Loaded weight: 69970
c. Post Test Loaded Weight: 0
d. Difference Post Test - Pre-Tests: 69970

5. TRUCK DESCRIPTION

a. Tractor Cab Style: Sleeper Cab:
photo: ☑

b. Make:
c. Model:

d. Trailer Load Distribution Description:

photo: ☑

e. Tractor Tare weight - -
f. Trailer Tare weight - -
g. Axle Spacing -

A to B 12.8 B to C 4.3 C to D 33.7 D to E 4.2 E to F

h. Wheelbase - ☐ Measured ☑ Computed 55.0
i. Kingpin offset from Axle B (units) 1.3 photo: ☐
j. Overall Length - ☑ Measured 68.5

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Primary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A		steel spring	☑
B		air	☑
C		air	☑
D		air	☑
E		air	☑
F			☐

d. Cold Tire Pressures (psi)- from right to left

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

PART B

Table 1 - Raw Measurements -Platform Scale

Axles	Meas.	Pre-test Weight	Instance	Instance	Post-test weight
A	I				
A+B	II				
A+B+C	III				
A+B+C+D	IV				
A+B+C+D+E(1)	V				
A+B+C+D+E+(F)(1)	VI				
B+C+D+E+(F)	VII				
C+D+E+(F)	VIII				
D+E+(F)	IX				
E+(F)	X				
(F)	XI				
A+B+C+D+E+(F)(2)	XII				

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Primary

Table 2 - Axle and GVW Computations -Platform Scale Pre-test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 3- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 4- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 5- Axle and GVW Computations - Platform Scale Post-Test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Primary

Table 6 - Raw Data -Axle Scales - Pre-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10620	14070	14070	15590	15590		69940
2	10480	14180	14180	15580	15580		70000
Avg.	10550	14125	14125	15585	15585		69970

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 9 - Raw Data -Axle Scales - Post-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Validation Test Truck Run Set - Cal 2

Measured By: _____

Verified By: _____

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Secondary

PART A

1. **FHWA CLASS:** 9 **2. Number of axles:** 5

3. **AXLE WEIGHTS**

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10570	0	Direct
B		10500	0	Direct
C		10500	0	Direct
D		9575	0	Direct
E		9575	0	Direct
F				

4. **GVW (same units as axles)**
   a. Empty GVW:
   b. Average Pre-Test Loaded weight: 50720
   c. Post Test Loaded Weight: 0
   d. Difference Post Test - Pre-Tests: 50720

5. **TRUCK DESCRIPTION**
   a. Tractor Cab Style: Sleeper Cab:
   photo: ☑

   b. Make:
   c. Model:

   d. Trailer Load Distribution Description:

   photo: ☑

   e. Tractor Tare weight - -
   f. Trailer Tare weight - -
   g. Axle Spacing -

A to B 12.8 B to C 4.3 C to D 34.0 D to E 4.0 E to F

   h. Wheelbase - ☐ Measured ☑ Computed 55.1
   i. Kingpin offset from Axle B (units) photo: ☐
   j. Overall Length - ☑ Measured 67.8

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Secondary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A		steel spring	☑
B		air	☑
C		air	☑
D		air	☑
E		air	☑
F			☐

d. Cold Tire Pressures (psi)- from right to left

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

PART B

Table 1 - Raw Measurements -Platform Scale

Axles	Meas.	Pre-test Weight	Instance	Instance	Post-test weight
A	I				
A+B	II				
A+B+C	III				
A+B+C+D	IV				
A+B+C+D+E(1)	V				
A+B+C+D+E+(F)(1)	VI				
B+C+D+E+(F)	VII				
C+D+E+(F)	VIII				
D+E+(F)	IX				
E+(F)	X				
(F)	XI				
A+B+C+D+E+(F)(2)	XII				

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Secondary

Table 2 - Axle and GVW Computations -Platform Scale Pre-test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 3- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 4- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 5- Axle and GVW Computations - Platform Scale Post-Test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Secondary

Table 6 - Raw Data -Axle Scales - Pre-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10520	10460	10460	9590	9590		50620
2	10620	10540	10540	9560	9560		50820
Avg.	10570	10500	10500	9575	9575		50720

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 9 - Raw Data -Axle Scales - Post-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Validation Test Truck Run Set - Cal 2

Measured By: _____

Verified By: _____

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Primary

PART A

1. FHWA CLASS: 9 **2. Number of axles:** 5

3. AXLE WEIGHTS (lbs)

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10550	10230	Direct
B		14125	14020	Direct
C		14125	14020	Direct
D		15585	15595	Direct
E		15585	15595	Direct
F				

4. GVW (same units as axles)

a. Empty GVW:
b. Average Pre-Test Loaded weight: 69970
c. Post Test Loaded Weight: 69460
d. Difference Post Test - Pre-Tests: 510

5. TRUCK DESCRIPTION

a. Tractor Cab Style: Sleeper Cab:
photo: ☑

b. Make:
c. Model:

d. Trailer Load Distribution Description:

photo: ☑

e. Tractor Tare weight - -
f. Trailer Tare weight - -
g. Axle Spacing -

A to B 12.8 B to C 4.3 C to D 33.7 D to E 4.2 E to F

h. Wheelbase - ☐ Measured ☑ Computed 55.0
i. Kingpin offset from Axle B (units) 1.3 photo: ☐
j. Overall Length - ☑ Measured 68.5

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 1	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Primary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A		steel spring	☑
B		air	☑
C		air	☑
D		air	☑
E		air	☑
F			☐

d. Cold Tire Pressures (psi)- from right to left

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

PART B

Table 1 - Raw Measurements -Platform Scale

Axles	Meas.	Pre-test Weight	Instance	Instance	Post-test weight
A	I				
A+B	II				
A+B+C	III				
A+B+C+D	IV				
A+B+C+D+E(1)	V				
A+B+C+D+E+(F)(1)	VI				
B+C+D+E+(F)	VII				
C+D+E+(F)	VIII				
D+E+(F)	IX				
E+(F)	X				
(F)	XI				
A+B+C+D+E+(F)(2)	XII				

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Primary

Table 2 - Axle and GVW Computations -Platform Scale Pre-test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 3- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 4- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 5- Axle and GVW Computations - Platform Scale Post-Test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 1	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Primary

Table 6 - Raw Data -Axle Scales - Pre-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10620	14070	14070	15590	15590		69940
2	10480	14180	14180	15580	15580		70000
Avg.	10550	14125	14125	15585	15585		69970

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 9 - Raw Data -Axle Scales - Post-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10200	14020	14020	15620	15620		69480
2	10260	14020	14020	15570	15570		69440
Avg.	10230	14020	14020	15595	15595		69460

Validation Test Truck Run Set - Post Val

Measured By: Kevin Trousdale

Verified By:

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Secondary

PART A

1. FHWA CLASS: 9 **2. Number of axles:** 5

3. AXLE WEIGHTS

	a. Empty Truck Avg. Axle Weight	b. Pre-test Average Axle Weight	c. Post-Test Avg. Axle Weight	d. Direct or Calculated?
A		10570	10320	Direct
B		10500	10515	Direct
C		10500	10515	Direct
D		9575	9580	Direct
E		9575	9580	Direct
F				

4. GVW (same units as axles)

a. Empty GVW:
b. Average Pre-Test Loaded weight: 50720
c. Post Test Loaded Weight: 50510
d. Difference Post Test - Pre-Tests: 210

5. TRUCK DESCRIPTION

a. Tractor Cab Style: Sleeper Cab:
photo: ☑

b. Make:
c. Model:

d. Trailer Load Distribution Description:

photo: ☑

e. Tractor Tare weight - -
f. Trailer Tare weight - -
g. Axle Spacing -

A to B 12.8 B to C 4.3 C to D 34.0 D to E 4.0 E to F

h. Wheelbase - ☐ Measured ☑ Computed 55.1
i. Kingpin offset from Axle B (units) photo: ☐
j. Overall Length - ☑ Measured 67.8

Traffic Sheet 19 LTPP MONITORED TRAFFIC DATA CALIBRATION TEST TRUCK # 2	STATE CODE: 53 SPS WIM ID: 530200 DATE (mm/dd/yyyy) 3/30/2011

CALIBRATION TEST TRUCK - Secondary

6. SUSPENSION

	a. Tire size	b.Suspension description (leaf, air # of leaves, taper or flat leaf, etc.)	c. photo
A		steel spring	☑
B		air	☑
C		air	☑
D		air	☑
E		air	☑
F			☐

d. Cold Tire Pressures (psi)- from right to left

Steering Axle	Axle B	Axle C	AxleD	AxleE	Axle F

PART B

Table 1 - Raw Measurements -Platform Scale

Axles	Meas.	Pre-test Weight	Instance	Instance	Post-test weight
A	I				
A+B	II				
A+B+C	III				
A+B+C+D	IV				
A+B+C+D+E(1)	V				
A+B+C+D+E+(F)(1)	VI				
B+C+D+E+(F)	VII				
C+D+E+(F)	VIII				
D+E+(F)	IX				
E+(F)	X				
(F)	XI				
A+B+C+D+E+(F)(2)	XII				

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Secondary

Table 2 - Axle and GVW Computations -Platform Scale Pre-test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 3- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 4- Axle and GVW Computations - Platform Scale - Instance - _____

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Table 5- Axle and GVW Computations - Platform Scale Post-Test

	1		2		Avg.
Axle A	I	0	VI-VII	0	0
Axle B	II-I	0	VII-VIII	0	0
Axle C	III-II	0	VIII-IX	0	0
Axle D	IV-III	0	IX-X	0	0
Axle E	V-IV	0	X-XI	0	0
Axle F	VI-V		XI		
GVW	VI	0	XII	0	0

Traffic Sheet 19	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
CALIBRATION TEST TRUCK # 2	DATE (mm/dd/yyyy)	3/30/2011

CALIBRATION TEST TRUCK - Secondary

Table 6 - Raw Data -Axle Scales - Pre-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10520	10460	10460	9590	9590		50620
2	10620	10540	10540	9560	9560		50820
Avg.	10570	10500	10500	9575	9575		50720

Table 7- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 8- Raw Data- Axle scales -

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
Avg.							

Table 9 - Raw Data -Axle Scales - Post-test

Pass	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW
1	10320	10500	10500	9580	9580		50480
2	10320	10530	10530	9580	9580		50540
Avg.	10320	10515	10515	9580	9580		50510

Validation Test Truck Run Set - Post Val

Measured By: Kevin Trousdale

Verified By:

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/29/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length
40.7	50	1	1	8:51:18	1155	47.0	12.4	15.3	14.5	16.8	16.9		75.9	12.9	4.3	33.6	4.1		54.9	69.0
40.7	50	2	1	8:51:30	1156	49.0	11.6	11.3	10.6	8.7	8.1		50.4	12.7	4.2	34.3	4.0		55.2	67.0
39.5	53	1	2	9:11:32	1285	54.0	11.7	16.0	15.7	17.7	17.3		78.4	12.9	4.3	33.8	4.1		55.1	69.0
39.5	54	2	2	9:11:37	1288	54.0	11.8	10.8	11.7	10.0	9.0		53.4	12.6	4.3	34.1	4.0		55.0	67.0
41.4	59	1	3	9:31:33	1437	59.0	12.0	15.6	15.9	16.9	17.4		77.8	12.9	4.3	33.9	4.1		55.2	69.0
41.4	60	2	3	9:31:38	1439	59.0	11.5	11.2	11.2	9.3	9.9		53.1	12.6	4.2	34.2	4.0		55.0	67.0
41.8	48	2	4	9:51:52	1597	49.0	12.1	11.6	11.5	9.9	9.8		54.9	13.0	4.3	34.9	4.1		56.3	68.0
41.8	49	1	4	9:52:01	1599	48.0	11.6	15.2	15.5	15.4	15.2		72.9	12.8	4.3	33.5	4.0		54.6	68.0
46.6	51	2	5	10:11:59	1718	54.0	11.8	12.0	11.1	10.0	10.0		55.0	12.7	4.3	34.1	4.0		55.1	67.0
46.6	51	1	5	10:12:07	1719	54.0	11.2	15.3	15.5	16.3	15.9		74.2	12.8	4.3	33.6	4.0		54.7	69.0
48.1	61	2	6	10:31:10	1848	60.0	11.1	11.7	11.5	9.8	10.6		54.7	12.6	4.3	34.3	4.1		55.3	67.0
48.1	60	1	6	10:33:27	1866	58.0	10.1	15.2	15.4	16.0	15.7		72.6	12.7	4.3	33.6	4.0		54.6	68.0
46.1	49	2	7	10:50:49	2003	48.0	9.4	9.8	9.3	9.3	9.1		46.9	12.7	4.2	34.0	4.0		54.9	66.0
47.6	54	2	8	11:10:21	2154	54.0	11.3	10.8	11.0	10.0	9.4		52.5	12.6	4.2	34.2	4.0		55.0	67.0
47.6	54	1	7	11:13:13	2176	54.0	11.6	15.7	15.7	17.1	17.4		77.5	12.9	4.2	33.6	4.0		54.7	69.0
51.0	60	2	9	11:30:40	2275	60.0	10.9	11.4	10.3	9.8	10.4		52.9	12.6	4.3	34.1	4.0		55.0	67.0
51.0	60	1	8	11:32:59	2292	59.0	11.3	14.8	15.3	16.7	16.7		74.8	12.7	4.3	33.7	4.0		54.7	69.0
60.0	48	1	9	11:52:59	2428	48.0	10.6	14.6	14.5	15.9	14.1		69.7	12.9	4.3	33.6	4.1		54.9	69.0
61.9	54	1	10	12:12:54	2559	54.0	11.3	15.7	16.1	17.3	16.5		76.9	12.8	4.3	33.8	4.1		55.0	69.0
61.9	53	2	10	12:13:00	2560	54.0	11.0	10.8	10.4	9.1	9.7		50.9	12.7	4.2	34.3	4.0		55.2	67.0
57.4	59	1	11	12:32:43	2710	59.0	10.6	15.3	15.4	17.4	15.7		74.5	12.9	4.3	33.6	4.0		54.8	69.0
57.4	60	2	11	12:32:49	2711	60.0	9.9	12.1	11.7	9.7	8.9		52.4	12.6	4.2	34.3	4.0		55.1	67.0
56.8	53	1	12	12:52:38	2865	54.0	10.9	15.9	15.8	16.5	16.5		75.6	12.7	4.3	33.6	4.1		54.7	68.0
56.8	50	2	12	12:52:51	2867	49.0	11.5	11.7	11.8	8.7	10.1		53.8	12.7	4.3	34.4	4.0		55.4	68.0

Recorded By: ar Verified By: dw Run Set Pre

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/29/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length
61.7	52	1	13	13:12:26	2997	59.0	10.7	15.3	15.8	17.7	16.8		76.3	12.8	4.2	33.7	4.1		54.8	69.0
61.7	54	2	13	13:12:31	2998	54.0	10.6	11.7	11.7	10.1	9.4		53.5	12.7	4.2	34.3	4.1		55.3	67.0
60.2	60	2	14	13:31:54	3127	60.0	10.9	11.3	10.8	9.3	9.8		52.2	12.8	4.3	34.1	4.0		55.2	67.0
60.2	55	1	14	13:33:35	3132	47.0	10.8	16.0	16.2	18.1	16.6		77.7	12.9	4.3	33.8	4.1		55.1	69.0
61.2	48	2	15	13:51:24	3269	49.0	10.9	11.3	10.7	9.3	9.3		51.4	12.6	4.2	34.3	4.0		55.1	67.0
61.2	48	1	15	13:53:35	3290	54.0	10.3	15.3	15.3	16.5	15.9		73.3	12.8	4.3	33.7	4.0		54.8	69.0
61.5	50	2	16	14:10:53	3411	54.0	10.5	11.3	10.4	9.2	8.9		50.2	12.7	4.3	34.3	4.0		55.3	68.0
61.5	48	1	16	14:13:43	3428	54.0	10.7	15.8	15.9	17.0	16.9		76.3	12.8	4.3	33.8	4.1		55.0	69.0
60.4	55	2	17	14:30:18	3587	60.0	10.0	12.0	11.3	9.6	9.6		52.4	12.6	4.3	34.2	4.0		55.1	67.0
60.4	55	1	17	14:34:09	3628	59.0	9.8	14.7	14.9	15.9	16.3		71.7	12.8	4.3	33.9	4.1		55.1	69.0
58.7	48	2	18	14:48:11	3720	48.0	11.7	10.9	10.6	9.8	9.2		52.1	12.8	4.3	34.2	4.0		55.3	68.0
58.7	47	1	18	14:54:00	3771	47.0	11.4	16.0	15.2	18.1	16.4		77.0	12.8	4.3	33.7	4.1		54.9	69.0
56.4	54	2	19	15:06:25	3862	54.0	10.9	11.3	10.8	8.3	10.1		51.4	12.8	4.3	34.4	3.9		55.4	68.0
56.4	53	1	19	15:12:21	3912	54.0	11.5	16.1	15.9	17.6	17.6		78.6	12.9	4.3	33.6	4.1		54.9	69.0
56.0	59	2	20	15:27:00	4026	60.0	10.5	10.3	10.9	8.8	9.3		49.8	12.6	4.2	34.4	4.0		55.2	67.0
56.0	60	1	20	15:30:37	4051	59.0	11.6	15.7	15.5	17.8	17.2		77.9	12.8	4.2	33.5	4.0		54.5	69.0

Recorded By: ar Verified By: dw Run Set Pre

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/29/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length

Recorded By: ar Verified By: dw Run Set Pre

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/30/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length
45.8	49	1	1	8:20:35	997	48.0	9.6	15.2	14.2	15.3	14.5		68.7	12.8	4.3	33.8	4.0		54.9	69.0
45.8	51	2	1	8:21:14	1002	49.0	9.5	10.8	11.0	9.0	8.8		49.0	12.7	4.2	34.3	4.0		55.2	68.0
46.8	53	1	2	8:40:26	1102	54.0	11.0	14.7	13.9	15.8	15.4		70.8	12.7	4.3	33.6	4.0		54.6	69.0
46.8	54	2	2	8:40:42	1106	54.0	9.9	11.7	11.5	10.4	10.3		53.7	12.7	4.3	34.4	4.0		55.4	67.0
47.6	63	1	3	9:00:01	1243	59.0	10.6	15.6	15.2	17.0	16.0		74.4	12.9	4.3	33.8	4.1		55.1	69.0
47.6	61	2	3	9:00:14	1245	60.0	9.7	12.3	11.7	10.7	10.0		54.3	12.8	4.3	34.6	4.0		55.7	68.0
47.6	48	1	4	9:19:38	1360	48.0	9.7	14.5	13.5	15.3	14.2		67.2	12.8	4.3	33.6	4.0		54.7	68.0
47.6	49	2	4	9:19:48	1361	49.0	10.2	11.8	11.3	10.9	9.4		53.7	12.7	4.2	34.4	4.1		55.4	68.0
49.3	53	1	5	9:39:08	1502	53.0	11.0	14.7	14.4	15.4	14.7		70.2	12.8	4.3	33.5	4.0		54.6	69.0
49.3	53	2	5	9:41:37	1515	54.0	9.5	11.9	11.5	10.4	11.1		54.4	12.6	4.2	34.3	4.0		55.1	67.0
52.9	60	1	6	9:58:38	1606	59.0	9.4	15.1	14.4	16.3	14.8		70.1	12.8	4.3	33.8	4.1		55.0	69.0
52.9	61	2	6	10:01:19	1632	61.0	9.2	11.8	11.8	10.7	10.3		53.8	12.8	4.3	34.6	4.1		55.8	68.0

Recorded By: ar Verified By: dw Run Set Cal 1

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/30/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length
55.5	49	1	1	10:52:06	1991	47.0	10.4	14.3	14.0	15.2	14.3		68.3	12.8	4.3	33.6	4.0		54.7	68.0
55.5	48	2	1	10:52:11	1994	49.0	9.9	11.4	11.3	9.8	10.5		52.9	12.7	4.3	34.4	4.1		55.5	67.0
54.2	51	1	2	11:11:48	2141	54.0	11.1	14.3	14.3	14.7	15.5		69.9	12.7	4.3	33.4	4.0		54.4	68.0
54.2	55	2	2	11:11:52	2142	55.0	11.8	11.6	11.0	9.8	9.6		53.7	12.7	4.2	34.4	4.0		55.3	67.0
61.5	47	1	3	11:51:02	2421	48.0	10.5	14.1	14.9	15.2	15.0		69.7	12.7	4.3	33.4	4.0		54.4	68.0
61.5	52	2	3	11:51:05	2422	53.0	9.6	10.8	10.6	9.5	9.9		50.4	12.7	4.2	34.5	4.1		55.5	68.0
60.5	52	1	4	12:10:51	2567	54.0	11.0	13.6	13.6	13.8	13.9		65.9	12.7	4.3	33.5	4.0		54.5	68.0
60.5	56	2	4	12:11:22	2572	54.0	11.9	11.1	11.4	9.1	9.0		52.5	12.7	4.3	34.3	4.0		55.3	68.0
59.4	60	1	5	12:30:25	2697	60.0	9.4	14.4	14.5	15.2	14.5		67.9	12.9	4.4	34.1	4.1		55.5	69.0
59.4	61	2	5	12:30:43	2702	60.0	9.5	11.4	11.0	10.3	10.1		52.4	12.7	4.3	34.5	4.1		55.6	67.0
60.4	51	1	6	12:50:08	2849	48.0	10.2	14.3	14.0	15.7	14.8		69.0	12.8	4.3	33.7	4.0		54.8	69.0
60.4	50	2	6	12:50:20	2851	50.0	9.8	11.2	10.4	9.4	9.8		50.6	12.8	4.3	34.6	4.1		55.8	69.0
64.2	53	1	7	13:09:48	3002	53.0	11.0	14.5	14.0	15.1	13.6		68.2	12.8	4.3	33.6	4.0		54.7	68.0
64.2	55	2	7	13:09:53	3004	55.0	11.0	11.6	10.5	8.6	9.7		51.5	12.7	4.3	34.3	4.0		55.3	68.0

Recorded By: ar Verified By: dw Run Set Cal 2

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/30/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length

Recorded By: ar Verified By: dw Run Set Cal 2

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/30/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length

Recorded By: ar Verified By: dw Run Set Cal 2

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/30/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length
55.5	49	1	1	10:52:06	1991	47.0	10.4	14.3	14.0	15.2	14.3		68.3	12.8	4.3	33.6	4.0		54.7	68.0
55.5	48	2	1	10:52:11	1994	49.0	9.9	11.4	11.3	9.8	10.5		52.9	12.7	4.3	34.4	4.1		55.5	67.0
54.2	51	1	2	11:11:48	2141	54.0	11.1	14.3	14.3	14.7	15.5		69.9	12.7	4.3	33.4	4.0		54.4	68.0
54.2	55	2	2	11:11:52	2142	55.0	11.8	11.6	11.0	9.8	9.6		53.7	12.7	4.2	34.4	4.0		55.3	67.0
61.5	47	1	3	11:51:02	2421	48.0	10.5	14.1	14.9	15.2	15.0		69.7	12.7	4.3	33.4	4.0		54.4	68.0
61.5	52	2	3	11:51:05	2422	53.0	9.6	10.8	10.6	9.5	9.9		50.4	12.7	4.2	34.5	4.1		55.5	68.0
60.5	52	1	4	12:10:51	2567	54.0	11.0	13.6	13.6	13.8	13.9		65.9	12.7	4.3	33.5	4.0		54.5	68.0
60.5	56	2	4	12:11:22	2572	54.0	11.9	11.1	11.4	9.1	9.0		52.5	12.7	4.3	34.3	4.0		55.3	68.0
59.4	60	1	5	12:30:25	2697	60.0	9.4	14.4	14.5	15.2	14.5		67.9	12.9	4.4	34.1	4.1		55.5	69.0
59.4	61	2	5	12:30:43	2702	60.0	9.5	11.4	11.0	10.3	10.1		52.4	12.7	4.3	34.5	4.1		55.6	67.0
60.4	51	1	6	12:50:08	2849	48.0	10.2	14.3	14.0	15.7	14.8		69.0	12.8	4.3	33.7	4.0		54.8	69.0
60.4	50	2	6	12:50:20	2851	50.0	9.8	11.2	10.4	9.4	9.8		50.6	12.8	4.3	34.6	4.1		55.8	69.0
64.2	53	1	7	13:09:48	3002	53.0	11.0	14.5	14.0	15.1	13.6		68.2	12.8	4.3	33.6	4.0		54.7	68.0
64.2	55	2	7	13:09:53	3004	55.0	11.0	11.6	10.5	8.6	9.7		51.5	12.7	4.3	34.3	4.0		55.3	68.0
65.3	61	1	8	13:29:23	3143	59.0	9.6	14.6	14.0	15.2	15.2		68.5	12.8	4.3	33.6	4.0		54.7	69.0
65.3	61	2	8	13:29:33	3144	60.0	9.4	11.5	11.4	10.0	10.9		53.3	12.8	4.3	34.6	4.1		55.8	68.0
63.3	51	1	9	13:48:51	3291	49.0	10.9	13.8	14.2	15.3	14.9		69.1	12.7	4.2	33.4	4.0		54.3	68.0
63.3	52	2	9	13:49:00	3293	49.0	10.5	10.5	10.7	9.1	9.7		50.4	12.7	4.2	34.2	4.0		55.1	67.0
62.7	53	1	10	14:08:29	3438	54.0	10.2	14.6	15.7	16.2	15.2		71.8	12.8	4.3	33.8	4.1		55.0	69.0
62.7	53	2	10	14:08:41	3440	54.0	10.6	10.8	10.6	9.0	9.1		50.2	12.7	4.3	34.5	4.0		55.5	68.0
61.6	60	1	11	14:28:11	3627	59.0	9.3	13.7	14.1	14.5	14.7		66.2	12.7	4.2	33.6	4.0		54.5	69.0
61.6	61	2	11	14:28:35	3636	60.0	10.4	11.2	11.4	9.8	10.3		53.1	12.7	4.2	34.4	4.0		55.3	68.0
60.3	50	1	12	14:47:59	3799	49.0	10.2	15.7	15.7	16.7	15.3		73.5	12.9	4.3	34.1	4.1		55.4	70.0
60.3	50	2	12	14:48:06	3802	49.0	11.5	11.6	10.9	10.3	10.3		54.6	12.9	4.3	34.5	4.0		55.7	68.0

Recorded By: ar Verified By: dw Run Set: Post Val

Traffic Sheet 21 (Wheel Load) LTPP MONITORED TRAFFIC DATA WIM SYSTEM TRUCK RECORDS	STATE CODE: 53 SPS WIM ID: 530200 DATE: (mm/dd/yyyy): 3/30/2011

Pvmt Temp	Radar speed	Truck	Pass	Time	Record No.	WIM Speed	Axle A	Axle B	Axle C	Axle D	Axle E	Axle F	GVW	A-B space	B-C space	C-D space	D - E space	E - F space	Axle Length	Overall Length
62.0	54	1	13	15:07:30	3975	54.0	10.8	14.1	14.0	14.9	15.2		69.0	12.7	4.3	33.5	4.0		54.5	69.0
62.0	55	2	13	15:17:36	3976	55.0	11.0	11.6	11.6	10.4	10.9		55.5	12.8	4.3	34.7	4.0		55.8	68.0
62.9	60	1	14	15:27:09	4147	59.0	9.6	14.4	14.6	16.3	14.5		69.4	12.8	4.3	33.6	4.1		54.8	69.0
62.9	61	2	14	15:27:12	4148	60.0	10.7	11.4	11.5	10.1	9.6		53.3	12.7	4.2	34.5	4.1		55.5	68.0
61.2	50	1	15	15:47:08	4324	49.0	9.8	14.2	14.7	13.6	14.8		67.2	12.8	4.3	33.6	4.0		54.7	69.0
61.2	50	2	15	15:50:30	4350	49.0	9.4	11.3	11.1	8.9	9.3		50.0	12.8	4.3	34.4	4.0		55.5	68.0
59.7	56	1	16	16:07:11	4501	55.0	11.0	14.8	15.0	17.0	15.5		73.3	13.0	4.3	34.0	4.0		55.3	69.0
59.7	58	1	16	16:26:59	4656	59.0	9.2	13.2	14.0	14.5	14.5		65.3	12.8	4.2	33.7	4.0		54.7	69.0
60.8	49	1	17	16:45:00	4794	48.0	10.1	14.1	14.1	15.9	14.0		68.3	12.7	4.3	33.6	4.0		54.6	69.0
60.8	55	2	17	16:45:39	4798	55.0	10.2	11.9	11.0	9.8	9.9		52.8	12.7	4.3	34.4	4.0		55.4	68.0
59.3	53	1	18	17:03:02	4944	54.0	10.3	14.2	14.2	15.1	14.5		68.4	12.8	4.3	33.8	4.0		54.9	69.0
59.3	48	2	18	17:03:14	4947	49.0	9.3	11.6	11.4	9.5	8.8		50.5	12.8	4.3	34.5	4.1		55.7	68.0
58.2	61	1	19	17:20:56	5071	59.0	10.7	14.3	14.0	15.0	14.4		68.4	12.7	4.2	33.5	4.0		54.4	68.0
58.2	61	2	19	17:21:01	5074	60.0	10.6	10.7	12.0	9.7	9.9		53.1	12.8	4.1	34.5	4.1		55.5	67.0
58.6	50	1	20	17:39:01	5226	49.0	10.9	14.3	15.0	15.4	14.7		70.3	12.8	4.2	33.6	4.0		54.6	69.0
58.6	49	2	20	17:39:21	5228	49.0	11.7	10.7	11.3	10.0	9.1		52.7	12.8	4.3	34.6	4.1		55.8	68.0

Recorded By: ar Verified By: dw Run Set: Post Val

Traffic Sheet 22	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	0
LTPP LANE ONLY	DATE (mm/dd/yyy)	3/29/2011

SITE EQUIPMENT INFORMATION

1. **TYPE OF EQUIPMENT** BOTH

2. **LANE NUMBER ON SITE** 1 **3. DIRECTION ON SITE** north

4. **VENDOR** IRD **MODEL** 1068 **SERIAL#** _____

5. **WEIGHING SENSOR TYPE** quartz

6. **SYSTEM SOFTWARE VERSIONS:**

CPU _____

LOOP _____

PIEZO _____

WEIGHPAD/ LOADCELL _____

COMMUNICATIONS _____

7. **CLASSIFICATION VIDEO:**

TIME FROM: _____ TO: _____
TIME FROM: _____ TO: _____

SITE CONDITIONS

8. **PAVEMENT:**

Indicate any deficiencies that may affect the performance of the WIM sytem. List all photos on Sheet 24 that support the evaluation.

There were no pavement distresses noted that may affect the accuracies of the WIM system.

Traffic Sheet 22	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	0
LTPP LANE ONLY	DATE (mm/dd/yyy)	3/29/2011

9. IN ROAD SENSORS:

Describe any deficiencies regarding the sensor installation. Indicate sensors that show any signs of being broken, severely worn, missing, removed, or loose. List photos on Sheet 24 for

the equipment is operating within the manufacturer's tolerances.

TRUCK OBSERVATIONS

10. Indicate any irregular truck behaviors such as bouncing, swerving, or braking near the weighing area (within 40 meters). Note the distance from the weighing sensors.

A visual observation of the trucks as they approach, traverse, and leave the sensor area did not indicate any adverse dynamics that would affect the accuracy of the WIM system. The trucks appear to track down the center of the lane.

Minimum 15 minute or 35 truck sample video sample for pavement interaction deficiencies:

Tape Filename: _____

Time: From: _____ To: _____

Traffic Sheet 22 LTPP MONITORED TRAFFIC DATA SITE EQUIPMENT ASSESSSMENT LTPP LANE ONLY	STATE CODE: 53 SPS WIM ID: 530200 STATE ASSIGNED ID 0 DATE (mm/dd/yyy) 3/29/2011

11. CLASSIFICATION VERIFICATION VIDEO:

TAPE 1- NAME: _____

Interval	Filename	From	To
1			
2			
3			
4			
5			
6			
7			
8			

TAPE 2- NAME: _____

Interval	Filename	From	To
1			
2			
3			
4			
5			
6			
7			
8			

TAPE 3- NAME: _____

Interval	Filename	From	To
1			
2			
3			
4			
5			
6			
7			
8			

Traffic Sheet 22	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	0
LTPP LANE ONLY	DATE (mm/dd/yyy)	3/29/2011

SYSTEM ACCURACY TESTS

12. CONDUCT THE FOLLOWING SYSTEM ACCURACY TESTS EITHER ON- SITE OR IN OFFICE

Speed Accuracy - Complete Sheet 20 and attach.

Average radar speed 61.3 mph Average WIM Speed 60.5 mph
Mean Difference -0.8 mph SD of mean 1.5

Posted Speed Limit 60 mph
Speed Range 15th percentile - 58 mph 85th percentile- 66 mph

Spacing and Weight - Complete Sheet 21 and attach.

Average distance between axles of drive tandem feet
% error from 4.25 ft (industry average) OR 4.27 ft (WIM system average)
= 0.5 %

Average front axle weight for Class 9 vehicles lbs
% error from 10.3 kips (industry average) OR 11.1 lbs (known site value)
= 7.3 %

SUPPORT EQUIPMENT STRUCTURES

17. Indicate any deficiencies with any site equipment other than the in-road sensors. List all photos on the Sheet 24 for each occurance.

Cabinet/Foundation None ☑
no cabinet or foundation deficiencies

Pull Boxes None ☑
no pull box deficiencies

Mast None ☑
no service mast deficiencies

Solar Panels None ☑
no solar panel deficiencies

Traffic Sheet 22	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	0
LTPP LANE ONLY	DATE (mm/dd/yyy)	3/29/2011

Telephone D-Mark Box None ☑

no telephone d-mark box deficiencies

Power Service Box None ☑

no power service box deficiencies

Grounding None ☑

no grounding deficiencies

Conduit None ☑

no conduit deficiencies

STATIC AND DYNAMIC ELECTRONIC EQUIPMENT TESTS

18. Complete and attach a Sheet 22 addendum applicable to the installed road equipment.

ADDITIONAL COMMENTS

All values for the WIM sensors and inductive loops were within tolerances. Electronic tests of the power and communication devices indicated that they were operating normally.

Assessor Kevin Trousdale

Traffic Sheet 22 Addendum - Kistler Quartz	STATE CODE:	53
LTPP MONITORED TRAFFIC DATA	SPS WIM ID:	530200
SITE EQUIPMENT ASSESSSMENT	STATE ASSIGNED ID	0
LTPP LANE ONLY	DATE (mm/dd/yyy)	3/29/2011

STATIC EQUIPMENT VALUES (SYSTEM OFF)

1. POWER

a. Solar Panel		WATTS		VDC
b. Equipment Power	129.1	VAC		VDC
c. Battery 1		VDC		
d. Battery 2		VDC		
e. Regulated		VDC		
f. Power Supply		VDC		VDC
g. System Input	129.1	VAC		VDC
h. Modem Power	129.1	VAC	17.06	VDC
i. Telephone		VDC		

2. LOOP SENSORS

	Resistance		Inductance		Shield	
a. Leading	1	Ω	71	µh	inf	MΩ
b. Trailing	1.1	Ω	71	µh	inf	MΩ

3. KISTLER SENSORS

	Resistance		Capacitance	
a. K1 (lead/left)	10^9	Ω	7.39	ηf
b. K2 (lead/middle)		Ω		ηf
c. K3 (lead mid/right)	10^11	Ω	7.37	ηf
d. K4 (lead/right)		Ω		ηf
e. K5 (trail/left)	10^11	Ω	7.27	ηf
f. K6 (trail/mid left)		Ω		ηf
g. K7 (trail/mid right)		Ω		ηf
h. K8 (trail/right)	10^11	Ω	7.11	ηf

DYNAMIC EQUIPMENT VALUES (SYSTEM ON)

4. LOOP SENSORS

	Frequency	
a. Leading	13.28	KHz
b. Trailing	13.73	KHz

5. KISTLER SENSORS

Dynamic testing for the Kistler Quartz sensor is not recommended.

Assessor Kevin Trousdale