

West Virginia Department of Transportation



Division of Highways

HPMS



**WEST VIRGINIA
2008 HPMS DATA PROFILE**

Prepared June 2009



*GTI-Highway Data Services
Program Planning & Administration
Division*

2008 Submittal Summary

- 2008 Certified Public Road mileage was 38,452 by letter to the Regional FHWA, Tom Smith, dated April 14, 2009.
- 100% of data based on 2000 Census.
- Data files imported into the Internet HPMS Software. Validations and final edits ran and submitted via the internet software on June 11, 2009.
- Actual Traffic counts were completed for Districts 4, 5 and 6. ADT factors used for remaining Districts as supplied by Program Planning & Administration Division, Traffic Analysis unit.
- Future AADT Year: 2029
Factors provided by Program Planning & Administration Division Traffic Analysis Section.
- No IRI updates required this submittal.
- Verified NHS & Strahnet Mileage.
- All items generated by the HPMS software "Validations/Errors Summary Report" were addressed in the submittal comments.
- Population estimates for 2008 Summary Information based on US Census Bureau data.
- 2008 submittal coordinated, verified and compiled by Janet Lemon, Jennifer Cox and Michelle Frame. Submittal made on June 11, 2009 via FHWA online HPMS Software accessed through UPACS authorization.

Standard Sample Panel Changes:

<u>2007 Submittal</u>	<u>2008 Submittal</u>	<u>Net Change</u>
1,223 Samples	1,304 Samples	+81
(1,216.70 miles)	(1,281.02 miles)	+64.32 miles

2008 HPMS Roadway Inventory Record Profile Summary

2008 Public Certified Mileage: 38,452

Mileage & Record Breakdown	Number of Records	Total Mileage	Percent Mileage
State Owned	12,213	34,368.82	89.38%
Municipal Grouped	126	2,882.86	7.50%
Federal	21	834.34	2.17%
Municipal Fed Aid	1,205	279.54	0.73%
Other State Agency WV T-Pike	46	86.58	0.23%
Private	2	0.40	0.00%
	13,613	38,452.54	100.00%

Standard Sample Records	Number of Records	Total Mileage	Percent Mileage
<i>(Maintained Manually)</i>			
State Standard Samples (Non-Interstate)	836	686.73	53.61%
Interstate (State Owned)	295	460.77	35.97%
WV Turnpike (I-77)	45	86.15	6.73%
Municipal	128	47.37	3.70%
TOTAL Standard Samples:	1,304	1,281.02	100%
TOTAL Universe:	12,299	37,171.52	
	13,603	38,452.54	

Total Number of Records Maintained Manually:	1,478
Total Number of Records Extracted From Mainframe:	59,139
	60,617
Total Number of Records after HPMS Software Grouping Function:	13,603

Profile Changes Since 2007 Submittal

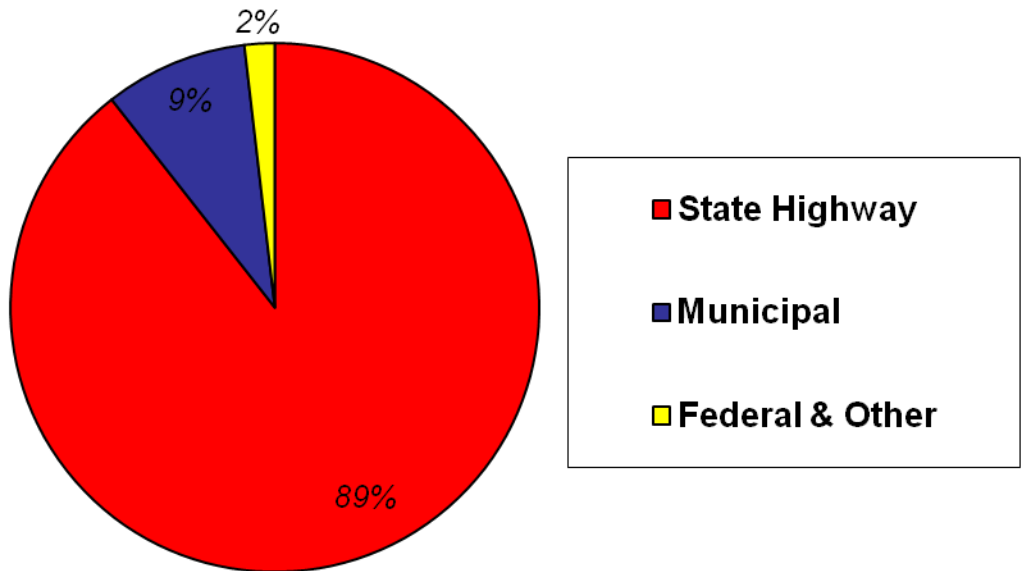
	<u>2007</u>	<u>2008</u>	<u>Net Change</u>
<u>Standard Samples:</u>	1,223 Sections (1216.70 Miles)	1,304 Sections (1281.02 Miles)	+81 Sections (+64.32 Miles)
<u>Donut Samples*:</u>	444 Sections (490.06 Miles)	430 Sections (478.74 Miles)	-14 Sections (-11.32 Miles)
<u>Interstate Samples:</u>	340 Sections (546.92 Miles)	340 Sections (546.92 Miles)	Unchanged (Unchanged)

Rural/Urban Shifts

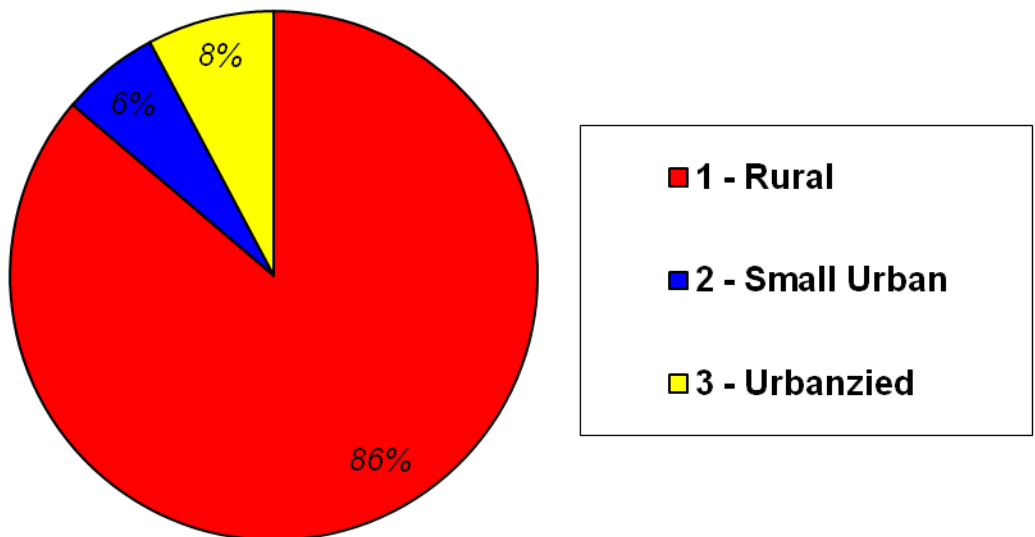
Total Mileage

	2007	Percent	2008	Percent	Mileage Change
Rural:	32,994.51	86 %	33,093.68	86 %	+ 99.17
Small Urban:	2,306.23	6 %	2,153.07	6 %	- 153.16
Urbanized:	2,972.26	8 %	3,205.80	8 %	+ 233.54
Certified Mileage:	38,273		38,452		+ 179.00

Percentage of Total Miles By Ownership



Percentage of Total Miles by Rural/Urban Classification



2008 National Highway System Mileage 1,870.68

By Category

On NHS	1,847.49	(Includes 45.97 miles for Unbuilt Facilities)
Airport	4.50	
Port Facility	13.81	
Amtrak Station	.99	
Bus Terminal	.86	
P.T./M.P Terminal*	3.03	

TOTAL: 1,870.68

**(PT=Public Transit, M.P.= Multi-Modal Passenger)*

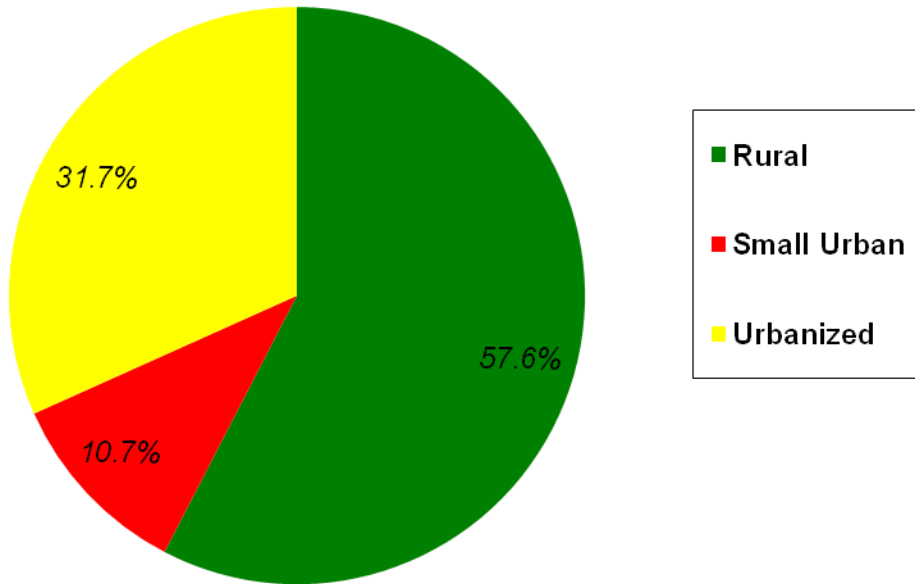
See 2007/2008 NHS mileage comparisons in the Submittal Comments in the back of this book.

2007 STRAHNET Mileage

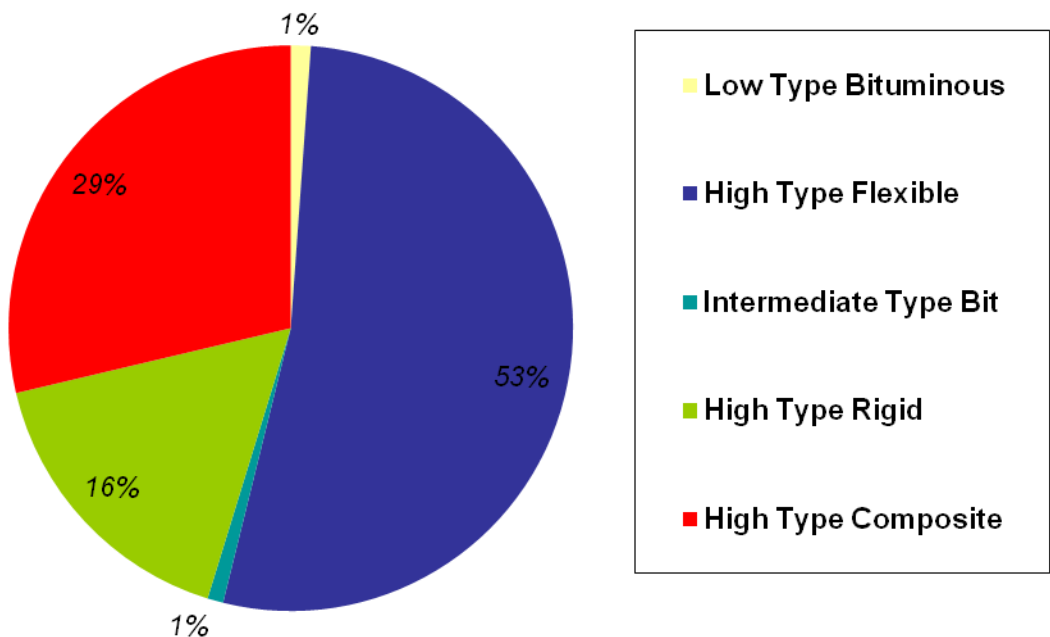
All Interstate	554.59
US 50	<u>82.20</u>
	636.79

1,304 Standard Sample Sections - 1,281.02 Miles

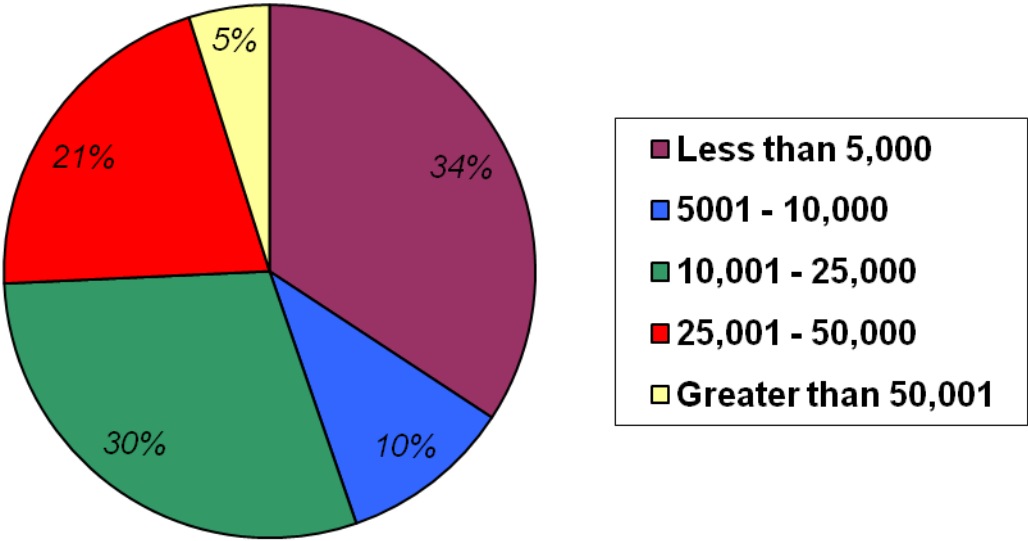
Percent Sample Mileage By Rural/Urban Classification



Percent Sample Mileage By Pavement Type

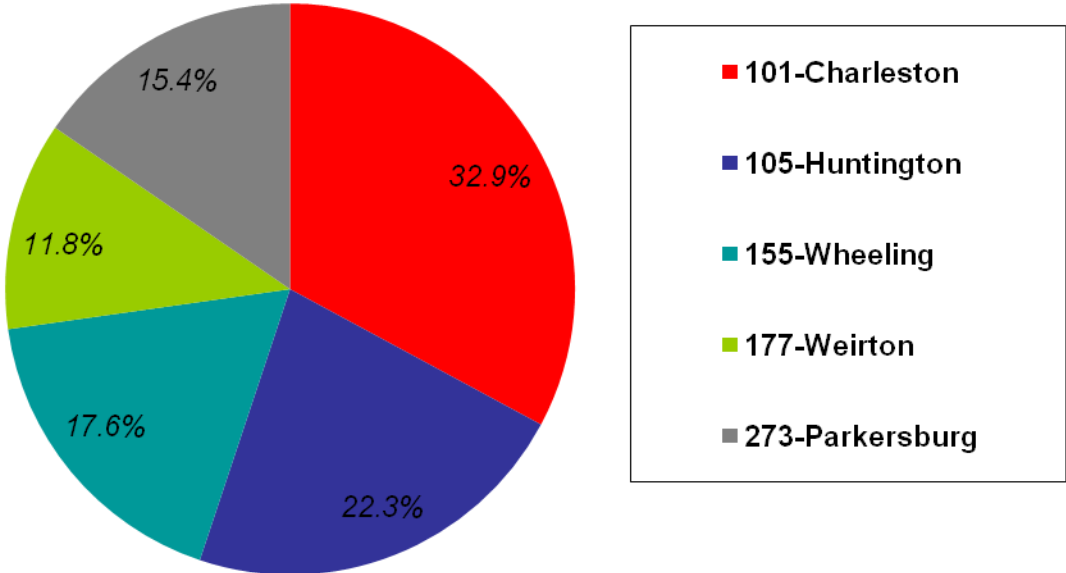


Percent Sample Mileage By Average Daily Traffic Volume



430 Donut Sections: 478.74 miles

Percent Donut Mileage By Non-Attainment Area



*2008 HPMS
Submittal Comments*

GENERAL COMMENTS:

This is the HPMS submission for the 2008 data year. The Certified Public Road mileage is 38,452 miles, by letter to the West Virginia Regional FHWA office dated April 14, 2009, signed by the West Virginia Secretary of Transportation/Commissioner of Highways, Paul Mattox.

EXPLANATION OF DISCREPANCIES FROM 2007 DATA

Federal Mileage:

There is an increase of 200+ miles for federal ownership mileage. This is not due to any addition of federal roads; instead it was observed that the federal mileage line item on the Certified Mileage did not match what was contained in the HPMS data file. This was causing a problem when calculating the Certified Mileage in the HPMS Software. Currently West Virginia can support mileages for all federal agencies except for the Monongahela National Forest. This National Forest covers a huge amount of land area over a span of several counties that includes a mixture of state owned and forest owned roads. The inventory file we received from the Monongahela National Forest included state owned roads but we cannot identify them because the forest service has their own unique numbering system that does not cross reference our state owned roads. Until we have time to accurately distinguish between the roadway ownership mileages, we felt it was necessary to at least synchronize our Certified Public Mileage and HPMS files. We will make the corrections as appropriate to both files when the verification task is complete.

Rural, Small Urban & Urbanized Area Shifts:

The following shows a change in Rural/Urban mileage totals compared to the 2007 submittal. The shifting is largely attributed to the re-coding of our grouped non-state city street mileage into their correct Rural/Urban category. Last year West Virginia completed an entire re-inventory of city streets in the state. It wasn't until this year that an in-depth review was made to correctly situate the given city in the appropriate rural, small urban or urbanized region. The shift mostly affected small urban and urbanized categories but affected some rural as well. None of the changes were substantial enough to alter the overall percentages.

	<u>2007</u>		<u>2008</u>		
Rural	32,994.51	86%	33,093.68	86%	99.17
Small Urban	2,306.23	6%	2,153.07	6%	(153.16)
Urbanized	2,972.26	8%	3,205.80	8%	233.54
Certified Mileage	38,273.00		38,452.55		

Urbanized Area Mileage Changes

In addition to the non-state municipal street corrections adding to the urbanized area mileage shift, other factors included changes to Urban Area 101-Charleston and 105-Huntington that now divides at the Putnam County line that had a few straggling roadway sections that had not been correctly converted. Also new mileage was added to 101-Charleston for a small portion of Fayette County that was newly added as a result of the 2000 Census but had not been properly coded. The decrease in Urban Area 284-Hagerstown is due to the correction of some miscoded mileage in the Inwood small urban area that was mistakenly marked as 284-Hagerstown.

	2007	2008	Change
101	1,073.17	1,249.65	176.48
105	632.21	610.50	-21.71
155	270.58	294.56	23.98
177	183.59	207.18	23.59
273	324.99	421.06	96.07
284	243.03	187.64	-55.39
285	13.71	22.69	8.98
475	208.66	316.02	107.36
	2,949.94	3,309.30	359.36

STANDARD SAMPLE PANEL:

We continue to move forward with adding Standard Samples to satisfy our HPMS requirements. For 2008 we collected data for over 100 new samples for a net increase of 81 samples when combined with a few samples that had to be removed due to roadway construction, relocation or other reasons. We will continue to make Standard Sample data collection a high priority until we reach an optimum sampling level. We are progressing a little slower than we would like due to limited resources and preparing for the HPMS 2010 reporting changes.

INTERNATIONAL ROUGHNESS INDEX (IRI)

West Virginia currently gathers IRI on a 2 year cycle and IRI updates are not due until the 2009 submittal.

AADT

Actual traffic counts are contained in 19 counties plus all Interstates. The remaining 36 counties contain factored AADT values. The future AADT/Year is 2029.

Non-Interstate AADT values that increased or decreased more than 20% were reviewed thoroughly and were either corrected or verified as correct.

Interstate AADT Values that increased or decreased more than 10% were reviewed thoroughly and were either corrected or verified as correct.

National Highway System Mileage

The change in alignment for Corridor H and US 35 impacted our NHS mileage last year but has been rectified for this year. A correction of 45.97 miles of approved unbuilt mileage has replaced the previous 40 miles of NHS unbuilt mileage. All mileages below match our NHS FHWA approval listing.

	2007	2008	Net Change	Reason for Change
On NHS	1,770.78	1,801.52	30.74	Added back NHS coding that was temporarily removed in 2007 submittal due to Corr H relocation and the new opening of US 35 that affected alignment of original route.
Unbuilt	40.00	45.97	5.97	FHWA Approved on NHS
<u>INTERMODAL</u>				
Airport	4.50	4.50	-	
Major Ports	12.75	13.81	1.06	Re-inventory. FHWA Approved
Amtrak	0.99	0.99	-	
Intercity Bus	1.23	0.86	(0.37)	Re-inventory. FHWA Approved
Public Transit	5.18	3.13	(2.05)	Re-inventory. FHWA Approved
	1,835.43	1,870.78	35.35	2008 Figures FHWA Approved

VALIDATIONS ERROR SUMMARY REPORT EXPLANATIONS:

LEVEL 1

1. VSF > 1.20: 13 9 records are below the new tolerance level of 1.50. The remaining 4 records are >1.5 but were verified as correct with the information that was available.

LEVEL 3

- | | | |
|---|----|-------------------------------------|
| 1. 1 Lane PAS Section | 12 | Connectors to Concurrent Routes |
| 2. Inadequate Horiz Alignment (>2) on Interstate | 9 | Curve Data verified as correct |
| 3. Inadequate Vert Alignment (>2) on Interstate | 3 | Curve Data verified as correct |
| 4. Low Weighted Design Speed on Interstate | 20 | Curve Data verified as correct |
| 5. % Peak Singl Trucks > % Av Daily Single Trucks | 32 | Verified as accurate |
| 6. % Peak Combo Trucks > % Avd Dail Comb Trks | 9 | Verified as accurate |
| 7. Two Way 4 or more lane with left turns but no bays | 2 | Coding appears legitimate |
| 8. Unusually high number of intersections | 6 | In Urban areas, verified as correct |

If more detail regarding this submittal is needed or there are other questions, you may contact the following employees either by telephone or email.

Janet Lemon	304-558-9599	Janet.L.Lemon@wv.gov
Jennifer Cox	304-558-9584	Jennifer.L.Cox@wv.gov
Michelle Frame	304-558-9588	Michelle.L.Frame@wv.gov

HPMS
WEST VIRGINIA – 2008 DATA YEAR
TRUTH IN DATA NARRATIVE

Traffic volume data for HPMS are based on the statewide traffic counting program conducted according to FHWA Traffic Monitoring Guide and HPMS procedures. Data are collected on HPMS sample sections every three years with the exception of the Interstate system which are counted annually.

Volumes for those sections not counted during the current year are estimated by applying growth factors based on statistical analysis of historic growth for similar routes in each county in the state. Future traffic volumes were projected based on similarly developed growth factors.

Data necessary for peak hour percentage, percent trucks and directional distribution are based on hourly, directional classification data collected as prescribed by the TMG and HPMS. The factors are applied according to route functional classification and county. Percent travel by vehicle type was also based on these data.

2008
Certified Mileage
Worksheet



WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Division of Highways

1900 Kanawha Boulevard East • Building Five • Room 110
Charleston, West Virginia 25305-0430 • 304/558-3505

Joe Manchin III
Governor

April 14, 2009

Mr. Thomas J. Smith
Division Administrator
Federal Highway Administration
Charleston, West Virginia 25301

Dear Mr. Smith:

The West Virginia Annual Public Road Mileage Certification and Certification of Off-System, Non-Toll, and Public Road Mileage are contained in the following statement:

“This certifies that as of December 31, 2008, in the State of West Virginia, there were 38,452 miles of Public Road as defined in Title 23 United States Code (USC), Section 402 © and the total (non-Federal Aid) Off-System, Non-Toll, Public Road Mileage, as defined in 23 USC, Section 210 (f) is 28,033.”

The Public Certified Mileage has increased by 179 miles since the 2007 data year. City street local mileage updates were made as received from the municipalities that increased the non-state municipal data by 25 miles. The primitive road upgrades added to the regular processing of additions, changes, and abandonments equates to the remaining difference in the 2008 change.

Should you have any questions, please contact Mrs. Janet Lemon, Transportation Services Manager with our Highway Data Services Unit, at (304) 558-9599.

Sincerely,

ORIGINAL SIGNED BY
PAUL A. MATTOX, JR.

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

PAM:Pc

Attachment

bcc: AC, CP, CP(HDS)



West Virginia Certified Public Mileage

Mileages as of December 31, 2008

4/14/2009

Prepared by: West Virginia DOT - Division of Highways - Program Planning & Administration Division

PUBLIC MILEAGE - State

1	Total Sign System Miles (IST- includes WV TP, US, WV, CO, HARP, State Park & Forest, FANS):	36,249
2	Source: HWA2395A (Does not include "Other")	
	Remove Primitive "A" Type Miles	1,517
3		
	Remove Interstate Ramps:	6
	(HWA2500A Line 7+ 8)	
4		
	Subtotal:	34,726

PUBLIC MILEAGE - Federal

5	<u>National Forest Service</u>	737
	Jefferson, George Washington, Monongahela National Forests	
6	<u>National Park Service</u> (Source Detail: HPMS Contact Data Sheet)	11
	New River Gorge, Bluestone National Scenic River, Gauley River National Recreation Area Harpers's Ferry National Park	
7	<u>US Fish & Wildlife Service</u> (Source Detail: HPMS Contact Data Sheet)	7
	Canaan Valley National Wildlife Refuge, Ohio River Islands Wildlife Refuge White Sulphur Springs National Fish Hatchery	
8	<u>US Corp of Engineers</u>	80
9		
	Subtotal:	35,561

PUBLIC MILEAGE - Local City Streets

10	<u>Municipal Local Streets</u> (Source: HPMS WV Municipal City Street Database)	2,891
11		
	Subtotal:	38,452
12	<u>TOTAL PUBLIC ROAD MILES FOR CERTIFICATION:</u>	38,452

Federal Aid Summary

13	Subtract Miles on Federal Aid System (HWA2500A, Line 13)	10,419
14	Total NON-Federal Aid, Off System, Non-Toll, Public Road Miles	28,033