

## LTPP TRAFFIC DATA

\*STATE ASSIGNED ID [ 2/4 ]\*STATE CODE [ 46 ]\*SHRP SECTION ID [ 9197 ]

SCANNED

## SUMMARY TRANSMITTAL FORM

AUG 05 2008

BY [Signature]STATE OR PROVINCE South Dakota COUNTY JeromeHIGHWAY ROUTE NO. SR 34 MILEPOST# 315.88NEAREST CITY/TOWN NW of Huron NEAREST INTERSECTION 2.75 W of US 281FUNCTIONAL CLASS 6 NO. LANES EACH DIRECTION 1 TOTAL NO. LANES 2DIRECTION OF TRAVEL GPS LANE WB DATE OPENED TO TRAF. - - - 89FIPS COUNTY CODE 73 FHWA STATION IDENTIFICATION NO. \_\_\_\_\_HPMS SAMPLE NO. 000034313310 HPMS SUBDIVISION NO. 0TYPE OF PAVEMENT: AC ☒ PCC \_\_\_\_\_ OTHER \_\_\_\_\_CONTROL OF ACCESS: YES ☒ NO \_\_\_\_\_ MEDIAN: YES \_\_\_\_\_ NO ☒

CURRENT SURROUNDING DEVELOPMENT:

URBAN \_\_\_\_\_ SUBURBAN \_\_\_\_\_ RURAL ☒

HAS INTENSITY OF ROADSIDE DEVELOPMENT INCREASED OVER PAST 10 YEARS?

YES \_\_\_\_\_ NO ☒

IF YES, DESCRIBE CHANGES \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

NOTE: ATTACH ALL RELATED FORMS AND COUNT DATA AND SUBMIT TO THE  
SHRP REGIONAL OFFICE. ATTACH MAP INDICATING THE LOCATION OF  
EACH TRAFFIC COUNT, VEHICLE CLASSIFICATION COUNT, OR WEIGHT  
STATION RELATIVE TO THIS GPS TEST SECTION.

NAME OF PREPARER \_\_\_\_\_ PHONE # \_\_\_\_\_

DATE PREPARED \_\_\_\_\_

## SHEET 2

## LTPP TRAFFIC DATA

TRAFFIC VOLUMES  
AND LOAD ESTIMATES

\*STATE ASSIGNED ID [1111]

\*STATE CODE [42]

\*SHRP SECTION ID [9192]

YEAR	1. ESTIMATED TOTAL VEHICLES AADT (TWO-WAY)	2. ESTIMATED TOTAL TRUCK AADT (TWO-WAY)	3. ESTIMATED TOTAL VEHICLES AADT GPS LANE	4. ESTIMATED TOTAL TRUCKS AADT GPS LANE	5. ESTIMATED ESAL'S / YR GPS LANE (1000's)
1989					
1988	1110	100	555	50	5.3
1987	1025	88	513	44	5.1
1986	940	75	470	38	4.8
1985	915	75	458	38	3.8
1984	890	75	445	38	2.7
1983	880	75	440	38	2.6
1982	870	75	435	38	2.4
1981	893	78	447	39	2.6
1980	915	80	458	40	2.7
1979	1028	90	514	45	3.0
1978	1140	100	570	50	3.3
1977	1018	78	509	39	3.0
1976	895	55	448	28	2.6
1975	860	65	430	33	2.5
1974	820	65	410	33	2.4
1973	869	68	435	34	2.6
1972	918	70	400	35	2.7
1971	920	70	460	35	2.7
1970	920	90	410	45	2.7
1969	922	101	461	51	3.0
1968	831	90	416	45	2.7
1967	955	104	478	52	3.1
1966	934	101	467	51	3.1
1965	946	102	473	51	3.1
1964	1019	111	510	56	3.4

NAME OF PREPARER \_\_\_\_\_

PHONE # \_\_\_\_\_

DATE PREPARED \_\_\_\_\_

KLC

<p align="center">SHEET 2</p> <p align="center"><b>LTPP TRAFFIC DATA</b></p> <p align="center"><b>TRAFFIC VOLUMES AND LOAD ESTIMATES</b></p>	<p>*STATE ASSIGNED ID [ <u>N/A</u> ]</p> <p>*STATE CODE [ <u>46</u> ]</p> <p>*SHRP SECTION ID [ <u>9197</u> ]</p>
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YEAR	1. ESTIMATED TOTAL VEHICLES AADT (TWO-WAY)	2. ESTIMATED TOTAL TRUCK AADT (TWO-WAY)	3. ESTIMATED TOTAL VEHICLES AADT GPS LANE	4. ESTIMATED TOTAL TRUCKS AADT GPS LANE	5. ESTIMATED ESAL'S / YR GPS LANE (1000's)
1989	1512	271	756	135	9.3 17.9
1988					
1987					
1986					
1985					
1984					
1983					
1982					
1981					
1980					
1979					
1978					
1977					
1976					
1975					
1974					
1973					
1972					
1971					
1970					
1969					
1968					
1967					
1966					
1965					

NAME OF PREPARER _____	PHONE # _____
DATE PREPARED _____	

# LTPP TRAFFIC DATA PROCEDURES FOR ESTIMATING ANNUAL AVERAGE VOLUMES AND TOTAL ANNUAL ESALS

\*STATE ASSIGNED ID [ N/A ]\*STATE CODE [ 46 ]\*SHRP SECTION ID [ 2122 ]1. Year Applicable 1989

## 2. METHOD FOR ESTIMATING AADT

- ☐ Factored a single count taken this year at the GPS site.
- ☐ Averaged multiple counts taken this year at the GPS site.
- ☐ Averaged and factored multiple counts taken this year at the GPS site.
- ☐ Growth factored last year's estimate.
- ☐ Estimated based on volume counts at nearby locations.
- ☒ Used flow maps.
- ☐ Used computerized network analyses.
- ☐ Other: \_\_\_\_\_

## 3. METHOD FOR ESTIMATING TRUCK VOLUMES OR PERCENTAGES

- ☐ Used a single count taken this year at the GPS site.
- ☐ Factored a single count taken this year at the GPS site.
- ☐ Averaged multiple counts taken this year at the GPS site.
- ☐ Used system averages from counts taken this year.
- ☐ Used count data from nearby sites.
- ☐ Used count data taken in earlier years at the GPS site.
- ☐ Used system averages taken in earlier years at the GPS site.
- ☐ Used computerized network analyses.
- ☒ Other: Flow maps.

## 4. METHOD FOR ESTIMATING AADT BY GPS LANE

- ☐ Based on actual lane count data.
- ☐ System distribution factors.
- ☒ Other: EST 90/10

## 5. METHOD FOR ESTIMATING TRUCK AADT IN GPS LANES

- ☐ Based on actual lane count data.
- ☐ System distribution factors.
- ☒ Other: Flow maps

## 6. METHOD FOR ESTIMATING ESAL/VEHICLE

- ☐ ESAL/Truck.
- ☐ ESAL/Vehicle class. (no. of classes) \_\_\_\_\_
- ☒ Other: Summation

## 7. ESAL ESTIMATES

## (A) Source of Data

- ☐ Weight data collected at GPS site this year.
- ☐ Weight data collected at GPS site prior years.
- ☒ Weight data from system averages this year.
- ☐ Weight data from system averages prior years.
- ☐ Weight data from historic W-4 Tables used.
- ☐ Other: \_\_\_\_\_

## (B) Weight Scale Type

- ☒ WIM scale.
- ☐ Static scale used for enforcement.
- ☐ Static scale not used for enforcement.
- ☐ Other: \_\_\_\_\_

NAME OF PREPARER \_\_\_\_\_ PHONE # \_\_\_\_\_

DATE PREPARED \_\_\_\_\_

<b>SHEET 4</b> <b>LTPP TRAFFIC DATA</b> <b>TRAFFIC VOLUME COUNTS</b>	*STATE ASSIGNED ID [ <u>N/A</u> ] *STATE CODE [ <u>46</u> ] *SHRP SECTION ID [ <u>2122</u> ]
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HIGHWAY ROUTE NO. (THIS COUNT) \_\_\_\_\_

MILEPOST# OR LOCATION (THIS COUNT) \_\_\_\_\_

BEGINNING DATE \_\_\_\_\_ ENDING DATE \_\_\_\_\_

BEGINNING TIME \_\_\_\_\_ ENDING TIME \_\_\_\_\_

COUNT DURATION \_\_\_\_\_ [ ] HOURS [ ] DAYS [ ] MONTHS

TYPE OF COUNTER \_\_\_\_\_ NAME/MODEL # \_\_\_\_\_

TYPE OF COUNT: TWO-WAY\_\_\_ ONE DIRECTION ONLY\_\_\_ GPS TEST LANE ONLY\_\_\_

<u>ACTUAL COUNTS</u>	
<u>ITEM</u>	<u>UNITS</u>
1. TOTAL NO. OF VEHICLES (RAW COUNT)	----- <i>Sheets</i>
2. ADJUSTMENT FACTORS (FILL IN AS APPLICABLE):	
A. ADJUSTMENT TO 24-HOUR COUNT	-.---- <i>4-7</i>
B. AXLE CORRECTION FACTOR	-.---- <i>N/A</i>
C. DAY OF WEEK FACTOR	-.---- <i>used Flow</i>
D. MONTH FACTOR	-.---- <i>maps</i>
E. OTHER FACTOR (_____)	-.----
3. ANNUAL AVERAGE DAILY TRAFFIC (AADT) (TWO-WAY)	-----
4. DIRECTIONAL DISTRIBUTION FACTOR	-.----
5. GPS LANE DISTRIBUTION FACTOR	-.----
6. AADT GPS LANE	-----

**NOTE: COMPLETE ONE SHEET FOR EACH COUNTING SESSION.**

NAME OF PREPARER _____	PHONE # _____
DATE PREPARED _____	

## LTPP TRAFFIC DATA

VEHICLE CLASSIFICATION DATA  
FHWA 13-CLASS SYSTEM\*STATE ASSIGNED ID [ N/A ]\*STATE CODE [ 46 ]\*SHRP SECTION ID [ 9197 ]

HIGHWAY RT. NO. (THIS COUNT) \_\_\_\_\_ MILEPOST# (THIS COUNT) \_\_\_\_\_

LOCATION (THIS COUNT) \_\_\_\_\_ FUNCTIONAL CLASS \_\_\_\_\_

BEGINNING DATE \_\_\_\_\_ ENDING DATE \_\_\_\_\_

BEGINNING TIME \_\_\_\_\_ ENDING TIME \_\_\_\_\_ DURATION (HRS) \_\_\_\_\_

TYPE OF COUNT: MANUAL \_\_\_\_\_ AUTOMATED \_\_\_\_\_ NO. OF LANES COUNTED \_\_\_\_\_

TYPE OF EQUIP.: AVC PERM. \_\_\_\_\_ AVC PORT. \_\_\_\_\_ WIM PERM. \_\_\_\_\_ WIM PORT. \_\_\_\_\_

EQUIPMENT NAME / MODEL # \_\_\_\_\_

TOTAL NO. OF VEHICLES CLASSIFIED \_\_\_\_\_ # TRUCKS \_\_\_\_\_ % TRUCKS \_\_\_\_\_

NO. OF TRUCKS IN GPS LANE \_\_\_\_\_ % OF TRUCKS IN GPS LANE \_\_\_\_\_

VEHICLE CLASSIFICATION METHOD: FHWA \_\_\_\_\_ OTHER \_\_\_\_\_ # BINS \_\_\_\_\_

NOTE: IF THIS COUNT DOES NOT USE THE FHWA 13-BIN CLASSIFICATION SYSTEM USE SHEET 6. PLEASE DESCRIBE ON AN ATTACHED PAGE THE VEHICLE CLASSIFICATION SYSTEM USED BY THE AGENCY AND COMPLETE SHEET 7 DESCRIBING HOW THE SHA WOULD EXPAND OR COLLAPSE THE USER CLASSIFICATION SYSTEM TO CORRESPOND WITH THE FHWA 13 CLASSES.

VEHICLE CLASSES	TOTAL NUMBER OF VEHICLES TWO-WAY	TOTAL NUMBER OF VEHICLES GPS DIRECTION	TOTAL NUMBER OF VEHICLES GPS LANE
1. FHWA CLASSES 1-3 (Cars, Motorcycles, Vans)	_____	_____	_____
2. FHWA CLASS 4 (Buses)	_____	_____	_____
3. FHWA CLASS 5 (Two Axle, 6-Tire, SU Truck)	_____	_____	_____
4. FHWA CLASS 6 (3 AXLE SU TRUCK)	_____	_____	_____
5. FHWA CLASS 7 (4 or more Axle SU Truck)	_____	_____	_____
6. FHWA CLASS 8 (4 or less axle 1-Trlr.Truck)	_____	_____	_____
7. FHWA CLASS 9 (5 Axle, 1-Trlr.Truck)	_____	_____	_____
8. FHWA CLASS 10 (6 or more Axle, 1-Trlr.Truck)	_____	_____	_____
9. FHWA CLASS 11 (5 or less Axle, Multi-Trlr.Truck)	_____	_____	_____
10. FHWA CLASS 12 (6 Axle, Multi-Trlr.Truck)	_____	_____	_____
11. FHWA CLASS 13 (7 or more Axle, Multi-Trlr.Truck)	_____	_____	_____
12. OTHER VEHICLES	_____	_____	_____
GRAND TOTAL	_____	_____	_____

NAME OF PREPARER \_\_\_\_\_ PHONE # \_\_\_\_\_

DATE PREPARED \_\_\_\_\_

## LTPP TRAFFIC DATA

VEHICLE CLASSIFICATION DATA  
AGENCY DEFINED CLASSES\*STATE ASSIGNED ID [ NA ]\*STATE CODE [ 46 ]\*SHRP SECTION ID [ 9197 ]

FOR 4-BIN OR OTHER CLASSIFICATION SYSTEMS

HIGHWAY ROUTE NO. (THIS COUNT) \_\_\_\_\_ MILEPOST # (THIS COUNT) \_\_\_\_\_

BEGINNING DATE \_\_\_\_\_ ENDING DATE \_\_\_\_\_

BEGINNING TIME \_\_\_\_\_ ENDING TIME \_\_\_\_\_ DURATION (HRS) \_\_\_\_\_

VEHICLE CLASSES (DESCRIBE VEHICLE TYPES IN EACH CLASS OR AXLE SPACING CATEGORY)	TOTAL NUMBER OF VEHICLES TWO-WAY	TOTAL NUMBER OF VEHICLES GPS DIRECTION	TOTAL NUMBER OF VEHICLES GPS LANE
A. _____	_____	_____	_____
B. _____	_____	_____	_____
C. _____	_____	_____	_____
D. _____	_____	_____	_____
E. _____	_____	_____	_____
F. _____	_____	_____	_____
G. _____	_____	_____	_____
H. _____	_____	_____	_____
I. _____	_____	_____	_____
J. _____	_____	_____	_____
K. _____	_____	_____	_____
L. _____	_____	_____	_____
M. _____	_____	_____	_____
N. _____	_____	_____	_____
O. _____	_____	_____	_____
P. _____	_____	_____	_____
Q. _____	_____	_____	_____
R. _____	_____	_____	_____
S. _____	_____	_____	_____
T. _____	_____	_____	_____

GRAND TOTAL \_\_\_\_\_

NAME OF PREPARER _____	PHONE # _____
DATE PREPARED _____	

<b>SHEET 7</b> <b>LTPP TRAFFIC DATA</b> <b>VEHICLE CLASSIFICATION</b> <b>CONVERSION CHART</b>	*STATE ASSIGNED ID [ <u>N/A</u> ] *STATE CODE [ <u>46</u> ] *SHRP SECTION ID [ <u>9192</u> ]
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FOR 4-BIN, 6-BIN, OR OTHER NON FHWA CLASSIFICATION SYSTEMS

USE THIS SHEET TO DESCRIBE HOW THE AGENCY'S CLASSIFICATION SYSTEM CAN BE CONVERTED TO THE FHWA 13-CLASSES. ENTER PERCENTAGE OF TOTAL SHA CLASS DISTRIBUTED TO EACH FHWA CLASS. APPLICABLE PERIOD FROM \_\_\_\_\_ TO \_\_\_\_\_

FHWA CLASSES													
SHA CLASS	1-3	4	5	6	7	8	9	10	11	12	13	OTHER	TOTAL
A													
B													
C													
D													
E													
F													
G													
H													
I													
J													
K													
L													
M													
N													
O													
P													
Q													
R													
S													
T													
TOTAL													

NAME OF PREPARER _____	PHONE # _____
DATE PREPARED _____	



SHEET 8 LTPP TRAFFIC DATA TRUCK WEIGHT SESSION INFORMATION	*STATE ASSIGNED ID [ <u>2A</u> ]
	*STATE CODE [ <u>46</u> ]
	*SHRP SECTION ID [ <u>9192</u> ]

\*SHRP SECTION ID [9197]

LOCATION (THIS SESSION) \_\_\_\_\_

1. FHWA STATION IDENTIFICATION NUMBER \_\_\_\_\_

3. COUNT DURATION (HOURS) \_\_\_\_\_ COUNT LANE \_\_\_\_\_

4. BEGINNING TIME (MONTH, DAY, YEAR, TIME) - - -

5. ENDING TIME (MONTH, DAY, YEAR, TIME) . . . . .

6. EQUIPMENT MANUFACTURER / MODEL #

7. PURPOSE OF WEIGHT SESSION: DATA COLLECTION ENFORCEMENT

8. VEHICLE CLASSIFICATION SCHEME:	FHWA	OTHER	# BINS
1. LIGHT TRUCKS	1		1
2. HEAVY TRUCKS	2		1
3. PASSENGER CARS	3		1
4. BUSES	4		1
5. MOTORCYCLES	5		1
6. OTHER	6		1
7. TOTAL	7		1

9. PAVEMENT TYPE:    AC                          PCC                          OTHER

10. METHOD OF CALIBRATION AND FREQUENCY:

**NOTE: IF THIS WEIGHT SESSION IS NOT BASED UPON THE FHWA 13-BIN CLASSIFICATION SYSTEM, USE SHEET 7 TO DESCRIBE HOW THE SHA WOULD EXPAND OR COLLAPSE THE AGENCY CLASSIFICATION SYSTEM TO CORRESPOND WITH THE FHWA 13 CLASSES. ALSO PROVIDE A DESCRIPTION OF THE CLASSIFICATION SCHEME THAT WAS USED.**

NAME OF PREPARER \_\_\_\_\_ PHONE # \_\_\_\_\_

DATE PREPARED \_\_\_\_\_

<b>SHEET 9</b> <b>LTPP TRAFFIC DATA</b> <b>TRUCK AXLE LOAD MEASUREMENTS</b> <b>BY VEHICLE CLASSIFICATION</b>	*STATE ASSIGNED ID [ <u>N/A</u> ] *STATE CODE [ <u>46</u> ] *SHRP SECTION ID [ <u>2192</u> ]
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FHWA CLASSIFICATION SCHEME: FHWA \_\_\_\_\_ OTHER \_\_\_\_\_ #BINS \_\_\_\_\_

NOTE: FOR CLASSIFICATION SCHEMES OTHER THAN FHWA, ATTACH SHEET 7  
 DESCRIBING CONVERSION FROM AGENCY CLASSIFICATION SCHEME TO  
 FHWA 13 CLASSES.

1. VEHICLE CLASS \_\_\_\_\_

2. TOTAL NUMBER VEHICLES COUNTED \_\_\_\_\_

3. SINGLE AXLES LOAD RANGE	NUMBER OF SINGLE AXLES WEIGHED	4. TANDEM AXLES LOAD RANGE	NUMBER OF TANDEM AXLES WEIGHED	5. TRIPLE AXLES LOAD RANGE	NUMBER OF TRIPLE AXLES WEIGHED
< 3000	-----	< 6000	-----	< 12000	-----
3000 - 3999	-----	6000 - 7999	-----	12000 - 14999	-----
4000 - 4999	-----	8000 - 9999	-----	15000 - 17999	-----
5000 - 5999	-----	10000 - 11999	-----	18000 - 20999	-----
6000 - 6999	-----	12000 - 13999	-----	21000 - 23999	-----
7000 - 7999	-----	14000 - 15999	-----	24000 - 26999	-----
8000 - 8999	-----	16000 - 17999	-----	27000 - 29999	-----
9000 - 9999	-----	18000 - 19999	-----	30000 - 32999	-----
10000 - 10999	-----	20000 - 21999	-----	33000 - 35999	-----
11000 - 11999	-----	22000 - 23999	-----	36000 - 38999	-----
12000 - 12999	-----	24000 - 25999	-----	39000 - 41999	-----
13000 - 13999	-----	26000 - 27999	-----	42000 - 44999	-----
14000 - 14999	-----	28000 - 29999	-----	45000 - 47999	-----
15000 - 15999	-----	30000 - 31999	-----	48000 - 50999	-----
16000 - 16999	-----	32000 - 33999	-----	51000 - 53999	-----
17000 - 17999	-----	34000 - 35999	-----	54000 - 56999	-----
18000 - 18999	-----	36000 - 37999	-----	57000 - 59999	-----
19000 - 19999	-----	38000 - 39999	-----	60000 - 62999	-----
20000 - 20999	-----	40000 - 41999	-----	63000 - 65999	-----
21000 - 21999	-----	42000 - 43999	-----	66000 - 68999	-----
22000 - 22999	-----	44000 - 45999	-----	69000 - 71999	-----
23000 - 23999	-----	46000 - 47999	-----	72000 - 74999	-----
24000 - 24999	-----	48000 - 49999	-----	75000 - 77999	-----
25000 - 25999	-----	50000 - 51999	-----	78000 - 79999	-----
26000 - 26999	-----	52000 - 53999	-----	> 80000	-----
27000 - 27999	-----	54000 - 55999	-----		
28000 - 28999	-----	56000 - 57999	-----		
29000 - 29999	-----	58000 - 59999	-----		
> 30000	-----	> 60000	-----		

6. USE SECOND PAGE FOR FOUR AXLE GROUPS.

NAME OF PREPARER _____	PHONE # _____
DATE PREPARED _____	

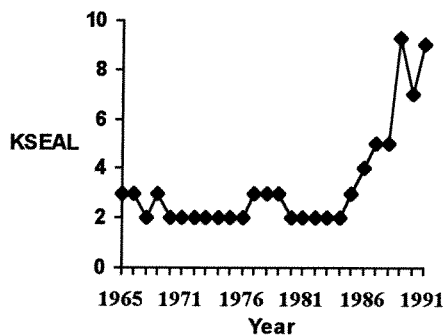


Agency ID: 46

SHRP ID: 9197

Agency Name: South Dakota

### Historical Traffic Data



Year:	KESAL:	SRO:
1990	7	
1991	9	

Permanent System WIM

Installation Date 12/1/93

Manufacturer Pat Equipment

Model DAW 100

Type Piezo Cable

Site Location ST-34 WB

MP or Station MP 315.88

Design KESAL 22

Level P

Number of Lanes 2

Lanes Monitored 1W/1E

Equipment Location 1.3 MLE

### Construction Event 1

Layer Number	Layer Type	Thickness0	Thickness5
1	SS		
2	GS	9	1
3	GB	5	4
4	AC	3.2	3.8
5	AC	2.3	2.7

### Construction Event 2

Layer Number	Layer Type	Thickness0	Thickness5
1	SS		
2	GS	9	1
3	GB	5	4
4	AC	3.2	3.8
5	AC	2.3	2.7
6	AC	1.5	1.5