

SHEET 1
LTPP TRAFFIC DATA
SUMMARY TRANSMITTAL FORM

*STATE ASSIGNED ID [3292]
*STATE CODE [46]
*SHRP SECTION ID [3009]

1976

STATE OR PROVINCE SOUTH DAKOTA COUNTY CODINGTON
HIGHWAY ROUTE NO. I-29 MILEPOST# 175.39
NEAREST CITY/TOWN WATERMAN NEAREST INTERSECTION US 81
FUNCTIONAL CLASS 1 NO. LANES EACH DIRECTION 2 TOTAL NO. LANES 4
DIRECTION OF TRAVEL GPS LANE NB DATE OPENED TO TRAF. - - - 84
FIPS COUNTY CODE 029 FHWA STATION IDENTIFICATION NO. -
HPMS SAMPLE NO. 150029170230 HPMS SUBDIVISION NO. 0
TYPE 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 Dan Stetson PHONE # -
DATE PREPARED 7-24

SHEET 2

LTPP TRAFFIC DATA

TRAFFIC VOLUMES
AND LOAD ESTIMATES

*STATE ASSIGNED ID [3292]

*STATE CODE [46]

*SHRP SECTION ID [3009]

YEAR	1. ESTIMATED TOTAL VEHICLES AADT (TWO-WAY)	2. ESTIMATED TOTAL TRUCK AADT (TWO-WAY)	3. ESTIMATED TOTAL VEHICLES AADT GPS LANE NB 90/10	4. ESTIMATED TOTAL TRUCKS AADT GPS LANE	5. ESTIMATED ESAL'S/YR GPS LANE (1000's)	
1989	5340	1157	2421	1041 521	36.3	21.0
1988	4780	950	2151	855 428	45.0	12.7
1987	4380	863	1971	402	33.7	13.7
1986	3880	835	3442 1746	752 376	36.6	21.0
1985	3805	863	1713	389	35.9 *	
1984	3730	890	3357 1679	804 401	35.2	23.0
1983	3370	805	1517	363	30 *	
1982	3010	720	2709 1354	648 324	31.8	23.0
1981	3008	693	1354	312	22.4 *	
1980	3005	665	2705 1353	599 300	30.1	12.0
1979	3090	680	1391	307	20.7 *	
1978	3175	695	2858 1429	626 313	21.3	21.0
1977						
1976						
1975						
1974			* line has been averaged			
1973						
1972						
1971						
1970						
1969		8				
1968		KLU				
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 [3292]

*STATE CODE [46]

*SHRP SECTION ID [309]

1. Year Applicable 198-84

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 map

4. METHOD FOR ESTIMATING AADT BY GPS LANE

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

5. METHOD FOR ESTIMATING TRUCK AADT IN GPS LANES

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

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 Dan Stator

PHONE # _____

DATE PREPARED _____

SHEET 3

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

*STATE ASSIGNED ID [322²]

*STATE CODE [46]

*SHRP SECTION ID [3002]

1. Year Applicable 185-89

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: estimating 90/10

5. METHOD FOR ESTIMATING TRUCK AADT IN GPS LANES

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

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 Dan StetonDATE PREPARED 7-24-91

PHONE # _____

SHEET 4 <i>11/11</i> LTPP TRAFFIC DATA TRAFFIC VOLUME COUNTS	*STATE ASSIGNED ID [3222] *STATE CODE [49] *SHRP SECTION ID [2992]
--	--

HIGHWAY ROUTE NO. (THIS COUNT) I-29

MILEPOST# OR LOCATION (THIS COUNT) 175.39

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 _____

ITEM	ACTUAL COUNTS	UNITS
1. TOTAL NO. OF VEHICLES (RAW COUNT)	_____	-----
2. ADJUSTMENT FACTORS (FILL IN AS APPLICABLE):		
A. ADJUSTMENT TO 24-HOUR COUNT	_____	-.----
B. AXLE CORRECTION FACTOR	_____	-.----
C. DAY OF WEEK FACTOR	_____	-.----
D. MONTH FACTOR	_____	-.----
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 [3 2 5 2]

*STATE CODE [4 6]

*SHRP SECTION ID [3 0 0 9]

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 _____

SHEET 6
LTPP TRAFFIC DATA

**VEHICLE CLASSIFICATION DATA
AGENCY DEFINED CLASSES**

*STATE ASSIGNED ID [3 2 9 2]

*STATE CODE [4 6]

*SHRP SECTION ID [3 0 0 9]

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 _____	

<p>SHEET 7</p> <p>LTPP TRAFFIC DATA</p> <p>VEHICLE CLASSIFICATION CONVERSION CHART</p>	<p>*STATE ASSIGNED ID [<u>3292</u>]</p> <p>*STATE CODE [<u>46</u>]</p> <p>*SHRP SECTION ID [<u>3009</u>]</p>
---	--

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 _____

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

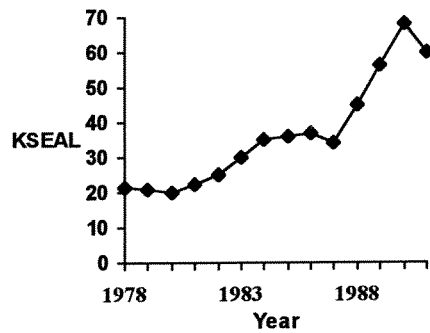
NAME OF PREPARER _____	PHONE # _____
DATE PREPARED _____	

Agency ID: 46

SHRP ID: 3009

Agency Name: South Dakota

Historical Traffic Data



Year:	KESAL:	SRO:
1990	68	
1991	60	

Site Location I-29 NB

MP or Station MP 175.39

Design KESAL 150

Level P

Number of Lanes 4

Lanes Monitored 2N/2S

Equipment Location 16 MLS

Construction Event 1

Layer Number	Layer Type	Thickness0	Thickness5
1	SS		
2	GB	2.4	2.4
3	PC	9.5	9.5