

SHEET 1 LTPP TRAFFIC DATA SUMMARY TRANSMITTAL FORM	*STATE ASSIGNED ID [0013]
	*STATE CODE [21]
	*SHRP SECTION ID [1010]

STATE OR PROVINCE KENTUCKY COUNTY OWSLEY
 HIGHWAY ROUTE NO. KY 11 MILEPOST# 13.300
 NEAREST CITY/TOWN BOONEVILLE NEAREST INTERSECTION KY 30
 FUNCTIONAL CLASS 07 NO. LANES EACH DIRECTION 1 TOTAL NO. LANES 2
 DIRECTION OF TRAVEL GPS LANE SOUTH DATE OPENED TO TRAF. 6-85
 FIPS COUNTY CODE 189 FHWA STATION IDENTIFICATION NO. 211010
 HPMS SAMPLE NO. 00011012432 HPMS SUBDIVISION NO. _____
 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 <u>A. RUCKEL</u>	PHONE # <u>564-7183</u>
DATE PREPARED <u>8-9-90</u>	

SHEET 1 LTPP TRAFFIC DATA SUMMARY TRANSMITTAL FORM	*STATE ASSIGNED ID [0013]
	*STATE CODE [21]
	*SHRP SECTION ID [1010]

SCANNED
JUN 17 2008
BY AR

STATE OR PROVINCE KENTUCKY COUNTY OWSLEY
HIGHWAY ROUTE NO. KY 11 MILEPOST# 13.300
NEAREST CITY/TOWN BOONEVILLE NEAREST INTERSECTION KY 30
FUNCTIONAL CLASS 07 NO. LANES EACH DIRECTION 1 TOTAL NO. LANES 2
DIRECTION OF TRAVEL GPS LANE SOUTH DATE OPENED TO TRAF. 6-85
FIPS COUNTY CODE 189 FHWA STATION IDENTIFICATION NO. 211010
HPMS SAMPLE NO. 00011012453 HPMS SUBDIVISION NO. _____
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 <u>A. RUCKER</u>	PHONE # <u>564-7183</u>
DATE PREPARED <u>8-9-90</u>	

SHEET 2
LTPP TRAFFIC DATA
TRAFFIC VOLUMES
AND LOAD ESTIMATES

*STATE ASSIGNED ID [0013]
 *STATE CODE [21]
 *SHRP SECTION ID [1010]

YEAR	1. ESTIMATED TOTAL VEHICLES AADT (TWO-WAY)	2. ESTIMATED TOTAL TRUCK AADT (TWO-WAY) 5.4	3. ESTIMATED TOTAL VEHICLES AADT GPS LANE 51.6	4. ESTIMATED TOTAL TRUCKS AADT GPS LANE 3.8	5. ESTIMATED ESAL'S / YR GPS LANE (1000's)
1989	- 2360	125	1220	45	19.0
1988	- 2320	125	1200	45	18.1
1987	- 2280	125	1175	45	16.9
1986	2230	120	1150	45	16.0
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 _____

SHEET 3
LTPP TRAFFIC DATA
PROCEDURES FOR ESTIMATING
ANNUAL AVERAGE VOLUMES AND
TOTAL ANNUAL ESALS

*STATE ASSIGNED ID [0013]
 *STATE CODE [21]
 *SHRP SECTION ID [1010]

1. Year Applicable 1986

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: USED 1990 CLASS. CT.

4. METHOD FOR ESTIMATING AADT BY GPS LANE

- ☐ Based on actual lane count data.
☐ System distribution factors.
☒ Other: USED 1990 CLASS CT.

5. METHOD FOR ESTIMATING TRUCK AADT IN GPS LANES

- ☒ Based on actual lane count data. 1990 CLASS CT.
☐ System distribution factors.
☐ Other: _____

6. METHOD FOR ESTIMATING ESAL/VEHICLE

- ☐ ESAL/Truck.
☐ ESAL/Vehicle class. (no. of classes) _____
☒ Other: USED NY'S ESAL ESTIMATION METHOD

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: USED NY'S ESAL ESTIMATION METHOD

(B) Weight Scale Type

- ☒ WIM scale. 1990
☐ Static scale used for enforcement.
☐ Static scale not used for enforcement.
☐ Other: _____

NAME OF PREPARER _____

PHONE # _____

DATE PREPARED _____

SCANNED

JUN 13 2008

SHEET 3

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

*STATE ASSIGNED ID [0013]
*STATE CODE [21]
*SHRP SECTION ID [1010]

1. Year Applicable 1986

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: USED 1990 CLASS. CT.

**4. METHOD FOR ESTIMATING AADT
BY GPS LANE**

- ☐ Based on actual lane count data.
- ☐ System distribution factors.
- ☒ Other: USED 1990 CLASS CT.

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

- ☒ Based on actual lane count data. 1990 CLASS CT.
- ☐ System distribution factors.
- ☐ Other: _____

6. METHOD FOR ESTIMATING ESAL/VEHICLE

- ☐ ESAL/Truck.
- ☐ ESAL/Vehicle class. (no. of classes) _____
- ☒ Other: USED NY'S ESAL
ESTIMATION METHOD

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: USED NY'S ESAL
ESTIMATION METHOD

(B) Weight Scale Type

- ☒ WIM scale. 1990
- ☐ Static scale used for enforcement.
- ☐ Static scale not used for enforcement.
- ☐ Other: _____

NAME OF PREPARER _____

PHONE # _____

DATE PREPARED _____

SCANNED

JUN 17 2008
BY *[Signature]*

SHEET 3
LTPP TRAFFIC DATA
PROCEDURES FOR ESTIMATING
ANNUAL AVERAGE VOLUMES AND
TOTAL ANNUAL ESALS

*STATE ASSIGNED ID [0013]
*STATE CODE [21]
*SHRP SECTION ID [1010]

1. Year Applicable 87-88-89

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: USED 1990 CLASSIFICATION COUNT

4. METHOD FOR ESTIMATING AADT BY GPS LANE
- ☒ Based on actual lane count data. 1990 CLASS. CT.
 - ☐ System distribution factors.
 - ☐ Other: _____

5. METHOD FOR ESTIMATING TRUCK AADT IN GPS LANES
- ☒ Based on actual lane count data. 1990 CLASS CT.
 - ☐ System distribution factors.
 - ☐ Other: _____

6. METHOD FOR ESTIMATING ESAL/VEHICLE
- ☐ ESAL/Truck.
 - ☒ ESAL/Vehicle class. (no. of classes) _____
 - ☐ Other: USED KY'S ESAL ESTIMATION METHOD

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: USED KY'S ESAL ESTIMATION METHOD
- (B) Weight Scale Type
- ☒ WIM scale. 1990
 - ☐ Static scale used for enforcement.
 - ☐ Static scale not used for enforcement.
 - ☐ Other: _____

NAME OF PREPARER A. RUCKER PHONE # 564-7183
DATE PREPARED 8-9-90

SHEET 3

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

*STATE ASSIGNED ID [0013]

*STATE CODE [21]

*SHRP SECTION ID [1010]

1. Year Applicable 87-88-89

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: USED 1990 CLASSIFICATION COUNT

4. METHOD FOR ESTIMATING AADT BY GPS LANE

- ☒ Based on actual lane count data. 1990 CLASS. CT.
- ☐ System distribution factors.
- ☐ Other: _____

5. METHOD FOR ESTIMATING TRUCK AADT IN GPS LANES

- ☒ Based on actual lane count data. 1990 CLASS CT.
- ☐ System distribution factors.
- ☐ Other: _____

6. METHOD FOR ESTIMATING ESAL/VEHICLE

- ☐ ESAL/Truck.
- ☒ ESAL/Vehicle class. (no. of classes) _____
- ☐ Other: USED KY'S ESAL ESTIMATION METHOD

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: USED KY'S ESAL ESTIMATION METHOD

(B) Weight Scale Type

- ☒ WIM scale. 1990
- ☐ Static scale used for enforcement.
- ☐ Static scale not used for enforcement.
- ☐ Other: _____

NAME OF PREPARER A. RUCKERPHONE # 564-7183DATE PREPARED 8-9-90

SHEET 4 LTPP TRAFFIC DATA TRAFFIC VOLUME COUNTS	*STATE ASSIGNED ID <u>0013</u>
	*STATE CODE <u>21</u>
	*SHRP SECTION ID <u>1010</u>

HIGHWAY ROUTE NO. (THIS COUNT) KY 11

MILEPOST# OR LOCATION (THIS COUNT) 13.300

BEGINNING DATE 4-21-86 ENDING DATE 4-23-86

BEGINNING TIME 11 AM ENDING TIME 11 AM

COUNT DURATION 48 ☒ HOURS ☐ DAYS ☐ MONTHS

TYPE OF COUNTER PORTABLE 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)		<u>4780</u>
2. ADJUSTMENT FACTORS (FILL IN AS APPLICABLE):		
A. ADJUSTMENT TO 24-HOUR COUNT		<u>0.500</u>
B. AXLE CORRECTION FACTOR		<u>0.950</u>
C. DAY OF WEEK FACTOR		<u>-----</u>
D. MONTH FACTOR		<u>0.986</u>
E. OTHER FACTOR (_____)		<u>-----</u>
3. ANNUAL AVERAGE DAILY TRAFFIC (AADT) (TWO-WAY)		<u>2230</u>
4. DIRECTIONAL DISTRIBUTION FACTOR		<u>1.000</u>
5. GPS LANE DISTRIBUTION FACTOR		<u>0.516</u>
6. AADT GPS LANE		<u>1150</u>

NOTE: COMPLETE ONE SHEET FOR EACH COUNTING SESSION.

NAME OF PREPARER <u>A. RUCKER</u>	PHONE # <u>502 564-7183</u>
DATE PREPARED <u>12-6-90</u>	

SHEET 5

LTPP TRAFFIC DATA

VEHICLE CLASSIFICATION DATA
FHWA 13-CLASS SYSTEM

*STATE ASSIGNED ID [0013]

*STATE CODE [21]

*SHRP SECTION ID [1016]

HIGHWAY RT. NO. (THIS COUNT) KY 11 MILEPOST# (THIS COUNT) 13.200LOCATION (THIS COUNT) MP 13.200 FUNCTIONAL CLASS 07
BEGINNING DATE 6-14-90 ENDING DATE 6-15-90
BEGINNING TIME 11 AM ENDING TIME 11 AM DURATION (HRS) 24TYPE OF COUNT: MANUAL AUTOMATED ✓ NO. OF LANES COUNTED TYPE OF EQUIP.: AVC PERM. AVC PORT. ✓ WIM PERM. WIM PORT. EQUIPMENT NAME / MODEL # SELECT AMET TRAFFIC Comp II# 241TOTAL NO. OF VEHICLES CLASSIFIED 2778 # TRUCKS 150 % TRUCKS 5.4NO. OF TRUCKS IN GPS LANE 54 % OF TRUCKS IN GPS LANE 3.8VEHICLE 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)	<u>2628</u>	<u>1380</u>	<u>1380</u>
2. FHWA CLASS 4 (Buses)	<u>7</u>	<u>1</u>	<u>1</u>
3. FHWA CLASS 5 (Two Axle, 6-Tire, SU Truck)	<u>94</u>	<u>32</u>	<u>32</u>
4. FHWA CLASS 6 (3 AXLE SU TRUCK)	<u>17</u>	<u>6</u>	<u>6</u>
5. FHWA CLASS 7 (4 or more Axle SU Truck)	<u>0</u>	<u>0</u>	<u>0</u>
6. FHWA CLASS 8 (4 or less axle 1-Trlr.Truck)	<u>11</u>	<u>5</u>	<u>5</u>
7. FHWA CLASS 9 (5 Axle, 1-Trlr.Truck)	<u>18</u>	<u>9</u>	<u>9</u>
8. FHWA CLASS 10 (6 or more Axle, 1-Trlr.Truck)	<u>3</u>	<u>1</u>	<u>1</u>
9. FHWA CLASS 11 (5 or less Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
10. FHWA CLASS 12 (6 Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
11. FHWA CLASS 13 (7 or more Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
12. OTHER VEHICLES	<u>0</u>	<u>0</u>	<u>0</u>
GRAND TOTAL	<u>2778</u>	<u>1434</u>	<u>1434</u>

NAME OF PREPARER A. RUCKER PHONE # 502 564-7183
DATE PREPARED 8-9-90

SHEET 8

LTPP TRAFFIC DATA

VEHICLE CLASSIFICATION DATA
FHWA 13-CLASS SYSTEM

*STATE ASSIGNED ID ()

*STATE CODE ()

*SHRP SECTION ID ()

SCANNED

JUN 11 2008

HIGHWAY RT. NO. (THIS COUNT) _____ MILEPOST# (THIS COUNT) _____

LOCATION (THIS COUNT) _____ FUNCTIONAL CLASS 02BEGINNING DATE 9-12-90 ENDING DATE 9-12-90BEGINNING TIME 12:00 AM ENDING TIME 12:00 PM DURATION (HRS) 24TYPE OF COUNT: MANUAL _____ AUTOMATED ✓ NO. OF LANES COUNTED 4TYPE OF EQUIP.: AVC PERM. _____ AVC PORT. ✓ WIM PERM. _____ WIM PORT. _____EQUIPMENT NAME / MODEL # STERGEK AMGT 241 - TRAFFIC COMP IITOTAL NO. OF VEHICLES CLASSIFIED 7558 # TRUCKS 765 % TRUCKS 10.1NO. OF TRUCKS IN GPS LANE 337 % OF TRUCKS IN GPS LANE 12.6VEHICLE CLASSIFICATION METHOD: FHWA ✓ OTHER _____ # BINS _____

NOTE: IF THIS COUNT DOES NOT USE THE FHWA 13-BIN CLASSIFICATION SYSTEM USE SHEET 8. 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)	<u>6793</u>	<u>3419</u>	<u>2331</u>
2. FHWA CLASS 4 (Buses)	<u>32</u>	<u>18</u>	<u>18</u>
3. FHWA CLASS 5 (Two Axle, 6-Tire, SU Truck)	<u>185</u>	<u>95</u>	<u>85</u>
4. FHWA CLASS 6 (3 AXLE SU TRUCK)	<u>217</u>	<u>122</u>	<u>107</u>
5. FHWA CLASS 7 (4 or more Axle SU Truck)	<u>55</u>	<u>10</u>	<u>8</u>
6. FHWA CLASS 8 (4 or less axle 1-Trlr.Truck)	<u>34</u>	<u>16</u>	<u>16</u>
7. FHWA CLASS 9 (5 Axle, 1-Trlr.Truck)	<u>186</u>	<u>83</u>	<u>76</u>
8. FHWA CLASS 10 (6 or more Axle, 1-Trlr.Truck)	<u>56</u>	<u>29</u>	<u>27</u>
9. FHWA CLASS 11 (5 or less Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
10. FHWA CLASS 12 (6 Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
11. FHWA CLASS 13 (7 or more Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
12. OTHER VEHICLES	<u>0</u>	<u>0</u>	<u>0</u>
GRAND TOTAL	<u>7558</u>	<u>50.2 3792</u>	<u>35.3 2668</u>

NAME OF PREPARER _____

PHONE # _____

DATE PREPARED _____

SHEET 5
LTPP TRAFFIC DATA

VEHICLE CLASSIFICATION DATA
FHWA 13-CLASS SYSTEM

*STATE ASSIGNED ID [0013]

*STATE CODE [21]

*SHRP SECTION ID [1016]

HIGHWAY RT. NO. (THIS COUNT) KY 11 MILEPOST# (THIS COUNT) 13.200

LOCATION (THIS COUNT) MP 13.200 FUNCTIONAL CLASS 07

BEGINNING DATE 6-14-90 ENDING DATE 6-15-90

BEGINNING TIME 114m ENDING TIME 114m DURATION (HRS) 24

TYPE OF COUNT: MANUAL AUTOMATED ✓ NO. OF LANES COUNTED

TYPE OF EQUIP.: AVC PERM. AVC PORT. ✓ WIM PERM. WIM PORT.

EQUIPMENT NAME / MODEL # SELECTRA MET TRAFFIC COMP II 241

TOTAL NO. OF VEHICLES CLASSIFIED 2778 # TRUCKS 150 % TRUCKS 5.4

NO. OF TRUCKS IN GPS LANE 54 % OF TRUCKS IN GPS LANE 3.8

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)	<u>2628</u>	<u>1380</u>	<u>1380</u>
2. FHWA CLASS 4 (Buses)	<u>7</u>	<u>1</u>	<u>1</u>
3. FHWA CLASS 5 (Two Axle, 6-Tire, SU Truck)	<u>94</u>	<u>32</u>	<u>32</u>
4. FHWA CLASS 6 (3 AXLE SU TRUCK)	<u>17</u>	<u>6</u>	<u>6</u>
5. FHWA CLASS 7 (4 or more Axle SU Truck)	<u>0</u>	<u>0</u>	<u>0</u>
6. FHWA CLASS 8 (4 or less axle 1-Trlr.Truck)	<u>11</u>	<u>5</u>	<u>5</u>
7. FHWA CLASS 9 (5 Axle, 1-Trlr.Truck)	<u>18</u>	<u>9</u>	<u>9</u>
8. FHWA CLASS 10 (6 or more Axle, 1-Trlr.Truck)	<u>3</u>	<u>1</u>	<u>1</u>
9. FHWA CLASS 11 (5 or less Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
10. FHWA CLASS 12 (6 Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
11. FHWA CLASS 13 (7 or more Axle, Multi-Trlr.Truck)	<u>0</u>	<u>0</u>	<u>0</u>
12. OTHER VEHICLES	<u>0</u>	<u>0</u>	<u>0</u>
GRAND TOTAL	<u>2778</u>	<u>1434</u>	<u>1434</u>

NAME OF PREPARER A. RUCKER PHONE # 502 564-7183
DATE PREPARED 8-9-90

COUNTY OwsleyDATE 8-9-90NAME A. Rocker

ROUTE ID:

Road Name _____ Route No KY 11Project No SHRP 211010Project Limits MP 13.200 SOUTHBOUNDRef Stations 1988 EAL TABLES

Federal Aid	Volume (Midyear)	Area	Coal Haul (Midyear)
Interstate	Less Than 5000	West	Less Than 1.00
FAP	5000 or More	South Central	1 - 4.99
FAM		North Central	5 - 19.99
<u>4</u> FAS		<u>4</u> East	20 or more
Non FA			

DATES:

Base Year _____ Design Period (Years) _____ Project Midyear 1986

TRAFFIC PARAMETERS:

	Unadjusted Base Year Estimate	Site- Specific Adjustment	Adjusted Base Year Estimate	Increment	Project Midyear Estimate
Volume (AADT)	x	=	+		= <u>1150</u>
Percent Trucks (IT)	x	=	+		= <u>3.9</u>
Percent Trucks Hauling Coal (ICT)	x	=	+		= <u>2.7</u>
Non-Coal Trucks					
Axles/Truck (A/NCT)	x	=	+		= <u>2.732</u>
EAL's/Axle (EAL/NCA)	x	=	+		= <u>0.192</u>
Coal Trucks					
Axles/Truck (A/CT)	x	=	+		= <u>4.352</u>
EAL's/Axle (EAL/CA)	x	=	+		= <u>3.059</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles

$$\frac{1150}{AADT} \times \frac{0.961}{1-(IT/100)} \times 0.005 = \underline{5.53}$$

Non-Coal Trucks

$$\frac{1150}{AADT} \times \frac{0.038}{(IT/100)(1-ICT/100)} \times \frac{2.732}{A/NCT} \times \frac{0.192}{EAL/NCA} = \underline{22.92}$$

Coal Trucks

$$\frac{1150}{AADT} \times \frac{0.001}{(IT/100)(ICT/100)} \times \frac{4.352}{A/CT} \times \frac{3.059}{EAL/CA} = \underline{25.31}$$

Total Midyear Daily EAL's = 43.76

DESIGN EAL'S:

$$\frac{43.76}{\text{Midyear Daily EAL's (No. of Lanes } \underline{1} \text{)}} \times 365 \times \frac{1}{\text{Design Period}} \times \frac{\text{Lane Adjustment (1 or 2 Way } \underline{1} \text{)}}{\text{Design EAL's in Critical Lane}} = \boxed{15,972}$$

COUNTY OWSLEYDATE 8-9-90NAME A. Rucker

ROUTE ID:

Road Name _____ Route No KY 11Project No SHKD 211010Project Limits MP 13.200 SOUTH BOUND.Ref Stations OWSLEY CO. STA. A13(90), 1989 COAL HAUL, 1988 EAL TABLES

Federal Aid	Volume (Midyear)	Area	Coal Haul (Midyear)
Interstate	Less Than 5000	West	(Percent Trucks Hauling Coal)
FAP	5000 or More	South Central	Less Than 1.00
PAU		North Central	1 - 4.99
4 FAS		4 East	5 - 19.99
Non FA			20 or more

DATES:

Base Year _____ Design Period (Years) _____ Project Midyear 1989

TRAFFIC PARAMETERS:

	Unadjusted Base Year Estimate	Site- Specific Adjustment	Adjusted Base Year Estimate	Increment	Project Midyear Estimate
Volume (AADT)	x	=	+		= 1220
Percent Trucks (IT)	x	=	+		= 3.7
Percent Trucks Hauling Coal (ICT)	x	=	+		= 3.2
Non-Coal Trucks					
Axles/Truck (A/NCT)	x	=	+		= 2.660
EAL's/Axle (EAL/NCA)	x	=	0.201 + 0.004		= 0.205
Coal Trucks					
Axles/Truck (A/CT)	x	=	4.387 + 0.018		= 4.405
EAL's/Axle (EAL/CA)	x	=	3.773 + 0.357		= 4.130

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles

$$\frac{1220}{AADT} \times \frac{0.963}{1-(IT/100)} \times 0.005 = 5.87$$

Non-Coal Trucks

$$\frac{1220}{AADT} \times \frac{0.036}{(IT/100)(1-ICT/100)} \times \frac{2.660}{A/NCT} \times \frac{0.205}{EAL/NCA} = 23.95$$

Coal Trucks

$$\frac{1220}{AADT} \times \frac{0.001}{(IT/100)(ICT/100)} \times \frac{4.405}{A/CT} \times \frac{4.130}{EAL/CA} = 22.20$$

$$\text{Total Midyear Daily EAL's} = 52.02$$

DESIGN EAL'S:

$$\frac{52.02}{\text{Midyear Daily EAL's (No. of Lanes)}} \times 365 \times \frac{1}{\text{Design Period}} \times \frac{\text{Lane Adjustment (1 or 2 Way)}}{1} = 28,987$$

Design EAL's in
Critical Lane

COUNTY Dawson

DATE 8-9-90

NAME A. Rucker

ROUTE ID:

Road Name _____ Route No KY 11

Project No SHRP 211010

Project Limits MP 13.200 SOUTHBOUND

Ref Stations 1988 EAL TABLES

Federal Aid	Volume (Midyear)	Area	Coal Haul (Midyear)	
			(Percent Trucks Hauling Coal)	
Interstate	Less Than 5000	West	Less Than 1.00	
FAP	5000 or More	South Central	1 - 4.99	
FAD		North Central	5 - 19.99	
4 FAS		4 East	20 or more	
Non FA				

DATES:

Base Year _____ Design Period (Years) _____ Project Midyear 1988

TRAFFIC PARAMETERS:

	Unadjusted Base Year Estimate	Site- Specific Adjustment	Adjusted Base Year Estimate	Increment	Project Midyear Estimate
Volume (AADT)	x	=	+		= 1200
Percent Trucks (IT)	x	=	+		= 3.8
Percent Trucks Hauling Coal (ICT)	x	=	+		= 2.8
Non-Coal Trucks					
Axles/Truck (A/NCT)	x	=	+		= 2.688
EAL's/Axle (EAL/NCA)	x	=	+		= 0.201
Coal Trucks					
Axles/Truck (A/CT)	x	=	+		= 4.387
EAL's/Axle (EAL/CA)	x	=	+		= 3.773

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles

$$\frac{1200}{AADT} \times \frac{0.962}{1-(IT/100)} \times 0.005 = 5.77$$

Non-Coal Trucks

$$\frac{1200}{AADT} \times \frac{0.037}{(IT/100)(1-ICT/100)} \times \frac{2.688}{A/NCT} \times \frac{0.201}{EAL/NCA} = 23.99$$

Coal Trucks

$$\frac{1200}{AADT} \times \frac{0.007}{(IT/100)(ICT/100)} \times \frac{4.387}{A/CT} \times \frac{3.773}{EAL/CA} = 19.86$$

Total Midyear Daily EAL's = 49.62

DESIGN EAL'S:

$$\frac{49.62}{Midyear Daily EAL's (No. of Lanes)} \times 365 \times \frac{1}{Design Period} \times \frac{Lane Adjustment (1 or 2 Way)}{1} = 18,111$$

Design EAL's in Critical Lane

COUNTY OwsleyDATE 8-9-90NAME A. Rucker

ROUTE ID:

Road Name _____ Route No KY 11Project No SHRP 211010Project Limits MP 13.200 SOUTHBOUNDRef Stations 1988 EAL TABLES

Federal Aid	Volume (Midyear)	Area	Coal Eal (Midyear)	
			(Percent Trucks Hauling Coal)	
Interstate	Less Than 5000	West	Less Than 1.00	
FAP	5000 or More	South Central	1 - 4.99	
FAD		North Central	5 - 19.99	
<u>4</u> FAS		<u>4</u> East	20 or more	
Non FA				

DATES:

Base Year _____ Design Period (Years) _____ Project Midyear 1987

TRAFFIC PARAMETERS:

	Unadjusted Base Year Estimate	Site- Specific Adjustment	Adjusted Base Year Estimate	Increment	Project Midyear Estimate
Volume (AADT)	x	=	+		<u>1175</u>
Percent Trucks (XT)	x	=	+		<u>3.8</u>
Percent Trucks Hauling Coal (XCT)	x	=	+		<u>2.8</u>
Non-Coal Trucks					
Axles/Truck (A/NCT)	x	=	+		<u>2,710</u>
EAL's/Axle (EAL/NCA)	x	=	+		<u>0.196</u>
Coal Trucks					
Axles/Truck (A/CT)	x	=	+		<u>4,369</u>
EAL's/Axle (EAL/CA)	x	=	+		<u>3.416</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles

$$\frac{1175}{AADT} \times \frac{0.962}{1-(XT/100)} \times 0.003 = \underline{5.65}$$

Non-Coal Trucks

$$\frac{1175}{AADT} \times \frac{0.037}{(XT/100)(1-XCT/100)} \times \frac{2,710}{A/NCT} \times \frac{0.196}{EAL/NCA} = \underline{23.09}$$

Coal Trucks

$$\frac{1175}{AADT} \times \frac{0.001}{(XT/100)(XCT/100)} \times \frac{4,369}{A/CT} \times \frac{3.416}{EAL/CA} = \underline{17.54}$$

$$\text{Total Midyear Daily EAL's} = \underline{46.28}$$

DESIGN EAL'S:

$$\frac{46.28}{\text{Midyear Daily EAL's (No. of Lanes)}} \times 365 \times \frac{1}{\text{Design Period}} \times \frac{1}{\text{Lane Adjustment (1 or 2 Way)}} = \underline{16,892}$$

Design EAL's in
Critical Lane

COUNTY OwsleyDATE 8-9-90NAME A. Rucker

ROUTE ID:

Road Name _____ Route No KY 11Project No SHRP 211010Project Limits MP 13.200 SOUTHBOUNDRef Stations 1988 EAL TABLES

Federal Aid	Volume (Midyear)	Area	Coal Haul (Midyear)
Interstate	Less Than 5000	West	(Percent Trucks Hauling Coal)
PAP	5000 or More	South Central	1 - 4.99
PAU		North Central	5 - 19.99
4 PAS		4 East	20 or more
Non PA			

DATES:

Base Year _____ Design Period (Years) _____ Project Midyear 1986

TRAFFIC PARAMETERS:

	Unadjusted Base Year Estimate	Site- Specific Adjustment	Adjusted Base Year Estimate	Increment	Project Midyear Estimate
Volume (AADT)	x	=	+		= 1150
Percent Trucks (IT)	x	=	+		= 3.9
Percent Trucks Hauling Coal (ICT)	x	=	+		= 2.7
Non-Coal Trucks					
Axles/Truck (A/NCT)	x	=	+		= 2.732
EAL's/Axle (EAL/NCA)	x	=	+		= 0.192
Coal Trucks					
Axles/Truck (A/CT)	x	=	+		= 4.352
EAL's/Axle (EAL/CA)	x	=	+		= 3.059

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles

$$\frac{1150}{AADT} \times \frac{0.961}{1-(IT/100)} \times 0.005 = 5.53$$

Non-Coal Trucks

$$\frac{1150}{AADT} \times \frac{0.038}{(IT/100)(1-ICT/100)} \times \frac{2.732}{A/NCT} \times \frac{0.192}{EAL/NCA} = 22.92$$

Coal Trucks

$$\frac{1150}{AADT} \times \frac{0.001}{(IT/100)(ICT/100)} \times \frac{4.352}{A/CT} \times \frac{3.059}{EAL/CA} = 25.31$$

Total Midyear Daily EAL's = 43.76

DESIGN EAL'S:

$$\frac{43.76}{\text{Midyear Daily EAL's (No. of Lanes)}} \times 365 \times \frac{1}{\text{Design Period}} \times \frac{\text{Lane Adjustment (1 or 2 Way)}}{1} = 15,972$$

Design EAL's in
Critical Lane

ESTIMATION OF EQUIVALENT AXLELOAD ACCUMULATIONS

COUNTY PikeDATE 1-14-91NAME A. Rucker

ROUTE ID:

Road Name _____

Route No. US 119Classified ✓Project No. SHRP 211014

Unclassified _____

Project Limits MP 2.4Reference Stations Pike Co. Sta 804(90) 1989 EAL TABLES

Functional Class	
Rural	Urban
<u>01</u> Interstate	<u>11</u> Interstate
<u>02</u> Principal Arterial	<u>12</u> Other Freeways & Expressways
<u>06</u> Minor Arterial	<u>14</u> Other Principal Arterial
<u>07</u> Major Collector	<u>16</u> Minor Arterial
<u>08</u> Minor Collector	<u>17</u> Collector
<u>09</u> Local	<u>19</u> Local

Percent Trucks Hauling Coal
Less Than 3.0
✓ 3.0 or GreaterDATES: Base Year _____ Design Period (Years) _____ Project Midyear 1989

TRAFFIC PARAMETERS:

	Base Year Estimate	Annual Change (Fractions)	No. Years to Midyear	Increment	Base Year Estimate	Project Midyear Estimate
Volume (AADT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>2310</u>
Percent Trucks (%T)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>12.6</u>
% Trucks Hauling Coal (%CT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>28.4</u>
Non-Coal Trucks						
Axles/Truck (A/NCT)	_____ x	_____ x	_____ =	<u>0.058</u> +	<u>3.548</u> =	<u>3.606</u>
EAL's/Axle (EAL/NCA)	_____ x	_____ x	_____ =	<u>0.002</u> +	<u>0.193</u> =	<u>0.195</u>
Coal Trucks						
Axles/Truck (A/CT)	_____ x	_____ x	_____ =	<u>0.044</u> +	<u>4.525</u> =	<u>4.569</u>
EAL's/Axle (EAL/CA)	_____ x	_____ x	_____ =	<u>0.365</u> +	<u>3.774</u> =	<u>4.139</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles:	$\frac{2310}{AADT} \times \frac{0.834}{1-(ET/100)} \times 0.005$	=	<u>10.09</u>		
Non-Coal Trucks:	$\frac{2310}{AADT} \times \frac{0.080}{(ET/100)(1-4CT/100)} \times \frac{3.606}{A/NCT} \times \frac{0.195}{EAL/WCA}$	=	<u>146.19</u>		
Coal Trucks:	$\frac{2310}{AADT} \times \frac{0.036}{(ET/100)(ET/100)} \times \frac{4.569}{A/CT} \times \frac{4.139}{EAL/CA}$	=	<u>2522.65</u>		
Total Midyear Daily EAL's				=	<u>1728.93</u>

DESIGN EAL'S:

<u>1728.93</u> x 365 x <u>1</u> x <u>1</u>	=	<u>631,059</u>
Midyear Daily EAL's (No. of Lanes <u>1</u>)	Design Period	Lane Adjustment (1 or 2 Way <u>1</u>)

Lane Distribution Adjustments

L = 0.497 - (1.84 + 1.42 FT)(AADT)(10⁻⁴) for 4-lane roadways (Minimum value = 0.375)L = 0.427 - (2.308 + 1.75 FT)(AADT)(10⁻⁴) for 6-lane roadways (Minimum value = 0.25)

L = 0.50 for 2-lane roadways

ESTIMATION OF EQUIVALENT AXLELOAD ACCUMULATIONS

COUNTY PIKEDATE 1-14-91
NAME A. Rucker

ROUTE ID:

Road Name

Route No. US 119Classified ☒Project No. SHRP 211014

Unclassified

Project Limits MP 2.4Reference Stations Abaco, Sta 80490 1989 EAL TABLES

Functional Class

Urban

Percent Trucks Hauling Coal
Less Than 3.0
3.0 or Greater

Rural	Urban
01 Interstate	11 Interstate
02 Principal Arterial	12 Other Freeways & Expressways
06 Minor Arterial	14 Other Principal Arterial
07 Major Collector	16 Minor Arterial
08 Minor Collector	17 Collector
09 Local	19 Local

DATES: Base Year _____ Design Period (Years) _____ Project Midyear 1988

TRAFFIC PARAMETERS:

	Base Year Estimate	Annual Change (Fractions)	No. Years to Midyear	Increment	Base Year Estimate	Project Midyear Estimate
Volume (AADT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>2095</u>
Percent Trucks (%T)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>12.6</u>
% Trucks Hauling Coal (%CT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>28.4</u>
Non-Coal Trucks						
Axles/Truck (A/NCT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>3.548</u>
EAL's/Axle (EAL/NCA)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>0.193</u>
Coal Trucks						
Axles/Truck (A/CT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>4.525</u>
EAL's/Axle (EAL/CA)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>3.774</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles:	$\frac{2095}{AADT} \times \frac{0.874}{1-(\%T/100)} \times 0.005$	<u>9.16</u>
Non-Coal Trucks:	$\frac{2095}{AADT} \times \frac{0.090}{(\%T/100)(1-\%CT/100)} \times \frac{3.548}{A/NCT} \times \frac{0.193}{EAL/NCA}$	<u>129.11</u>
Coal Trucks:	$\frac{2095}{AADT} \times \frac{0.036}{(\%T/100)(\%CT/100)} \times \frac{4.525}{A/CT} \times \frac{3.774}{EAL/CA}$	<u>1287.97</u>
Total Midyear Daily EAL's		<u>1426.24</u>

DESIGN EAL'S:

$\frac{1426.24}{Midyear Daily EAL's (No. of Lanes)} \times 365 \times \frac{1}{Design Period} \times \frac{Lane Adjustment (1 or 2 Way)}{1}$	<u>520,578</u>
--	----------------

Lane Distribution Adjustments

L = 0.497 - (1.84 + 1.42 FT)(AADT)(10⁻⁴) for 4-lane roadways (Minimum value = 0.375)L = 0.427 - (2.308 + 1.75 FT)(AADT)(10⁻⁴) for 6-lane roadways (Minimum value = 0.25)

L = 0.50 for 2-lane roadways

ESTIMATION OF EQUIVALENT AXLELOAD ACCUMULATIONS

COUNTY PikeDATE 1-14-91
NAME A. Rucker

ROUTE ID:

Road Name

Route No. US 119Classified ☒Project No. SHRP 211014Unclassified ☐Project Limits MP 2.400Reference Stations Pike Co. STA 80490 1989 EAL TABLES

Functional Class

Percent Trucks Hauling Coal
☒ Less Than 3.0
☒ 3.0 or Greater

Rural	Urban
<input checked="" type="checkbox"/> 01 Interstate	<input type="checkbox"/> 11 Interstate
<input type="checkbox"/> 02 Principal Arterial	<input type="checkbox"/> 12 Other Freeways & Expressways
<input type="checkbox"/> 06 Minor Arterial	<input type="checkbox"/> 14 Other Principal Arterial
<input type="checkbox"/> 07 Major Collector	<input type="checkbox"/> 16 Minor Arterial
<input type="checkbox"/> 08 Minor Collector	<input type="checkbox"/> 17 Collector
<input type="checkbox"/> 09 Local	<input type="checkbox"/> 19 Local

DATES: Base Year _____ Design Period (Years) _____ Project Midyear 1987

TRAFFIC PARAMETERS:

	Base Year Estimate	Annual Change (Fractions)	No. Years to Midyear	Increment	Base Year Estimate	Project Midyear Estimate
Volume (AADT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>2885</u>
Percent Trucks (%T)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>12.6</u>
% Trucks Hauling Coal (%CT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>28.4</u>
Non-Coal Trucks						
Axles/Truck (A/NCT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>3.489</u>
EAL's/Axle (EAL/NCA)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>0.190</u>
Coal Trucks						
Axles/Truck (A/CT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>4.482</u>
EAL's/Axle (EAL/CA)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>3.409</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles:	$\frac{2885}{AADT} \times \frac{0.874}{1-(\%T/100)} \times 0.005$	=	<u>0.24</u>
Non-Coal Trucks:	$\frac{2885}{AADT} \times \frac{0.090}{(\%T/100)(1-\%CT/100)} \times \frac{3.489}{A/NCT} \times \frac{0.190}{EAL/NCA}$	=	<u>112.46</u>
Coal Trucks:	$\frac{2885}{AADT} \times \frac{0.036}{(\%T/100)(\%CT/100)} \times \frac{4.482}{A/CT} \times \frac{3.409}{EAL/CA}$	=	<u>1036.84</u>
Total Midyear Daily EAL's		=	<u>1157.54</u>

DESIGN EAL'S:

<u>1157.54</u>	x	365	x	$\frac{1}{\text{Design Period}}$	x	$\frac{\text{Lane Adjustment}}{\text{Lane Adjustment (1 or 2 Way)}}$	=	<u>422,502</u>
Midyear Daily EAL's								
(No. of Lanes)	<u>1</u>							

Lane Distribution Adjustments

L = 0.497 - (1.84 + 1.42 FT)(AADT)(10⁻⁴) for 4-lane roadways (Minimum value = 0.375)L = 0.427 - (2.308 + 1.75 FT)(AADT)(10⁻⁴) for 6-lane roadways (Minimum value = 0.25)

L = 0.50 for 2-lane roadways

ESTIMATION OF EQUIVALENT AXLELOAD ACCUMULATIONS

COUNTY

PIKE

DATE

1-14-91

NAME

A. Ruckx

ROUTE ID:

Road Name

Route No.

US 119Classified ☒

Project No.

SHRP 211014Unclassified ☐

Project Limits

MP 2.400

Reference Stations

AKG Co. STA 804(90) 1989 EAL TABLES

Functional Class

Percent Trucks Hauling Coal

Less Than 3.0

3.0 or Greater

Rural	Functional Class	Urban
<u>01</u> Interstate	<u>11</u> Interstate	
<u>02</u> Principal Arterial	<u>12</u> Other Freeways & Expressways	
<u>06</u> Minor Arterial	<u>14</u> Other Principal Arterial	
<u>07</u> Major Collector	<u>16</u> Minor Arterial	
<u>08</u> Minor Collector	<u>17</u> Collector	
<u>09</u> Local	<u>19</u> Local	

DATES: Base Year

Design Period (Years)

Project Midyear

1986

TRAFFIC PARAMETERS:

	Base Year Estimate	Annual Change (Fractions)	No. Years to Midyear	Increment	Base Year Estimate	Project Midyear Estimate
Volume (AADT)	<u> </u> x	<u> </u> x	<u> </u> =	<u> </u> +	<u> </u>	<u>1670</u>
Percent Trucks (%T)	<u> </u> x	<u> </u> x	<u> </u> =	<u> </u> +	<u> </u>	<u>12.6</u>
% Trucks Hauling Coal (%CT)	<u> </u> x	<u> </u> x	<u> </u> =	<u> </u> +	<u> </u>	<u>28.4</u>
Non-Coal Trucks						
Axles/Truck (A/NCT)	<u> </u> x	<u> </u> x	<u> </u> =	<u> </u> +	<u> </u>	<u>3.431</u>
EAL's/Axle (EAL/NCA)	<u> </u> x	<u> </u> x	<u> </u> =	<u> </u> +	<u> </u>	<u>0.188</u>
Coal Trucks						
Axles/Truck (A/CT)	<u> </u> x	<u> </u> x	<u> </u> =	<u> </u> +	<u> </u>	<u>4.438</u>
EAL's/Axle (EAL/CA)	<u> </u> x	<u> </u> x	<u> </u> =	<u> </u> +	<u> </u>	<u>3.044</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles:	<u>1670</u> x <u>0.874</u> x 0.005	<u>7.30</u>
Non-Coal Trucks:	<u>1670</u> x <u>0.090</u> x <u>3.431</u> x <u>0.188</u>	<u>96.95</u>
Coal Trucks:	<u>1670</u> x <u>0.036</u> x <u>4.438</u> x <u>3.044</u>	<u>812.18</u>
Total Midyear Daily EAL's		<u>916.43</u>

DESIGN EAL'S:

<u>916.43</u> x 365 x <u>1</u> x <u>1</u>	<u>334,497</u>
Midyear Daily EAL's (No. of Lanes <u>1</u>)	Design Period
	Lane Adjustment (1 or 2 Way <u>1</u>)

Lane Distribution Adjustments

L = 0.497 - (1.84 + 1.42 FT)(AADT)(10⁻⁴) for 4-lane roadways (Minimum value = 0.375)L = 0.427 - (2.308 + 1.75 FT)(AADT)(10⁻⁴) for 6-lane roadways (Minimum value = 0.25)

L = 0.50 for 2-lane roadways

ESTIMATION OF EQUIVALENT AXLELOAD ACCUMULATIONS

COUNTY

Pike

DATE

1-14-91

NAME

A. Rucker

ROUTE ID:

Road Name

Route No.

US 119

Classified

Project No.

SHRP 211014

Unclassified

Project Limits

MP 2.4

Reference Stations

Pike Co. STA 804(90) 1989 EOL TABLES

Functional Class		
Rural	Urban	
01 Interstate	11 Interstate	
02 Principal Arterial	12 Other Freeways & Expressways	
06 Minor Arterial	14 Other Principal Arterial	
07 Major Collector	16 Minor Arterial	
08 Minor Collector	17 Collector	
09 Local	19 Local	

Percent Trucks Hauling Coal
 Less Than 3.0
 3.0 or Greater

DATES: Base Year

Design Period (Years)

Project Midyear

1989

TRAFFIC PARAMETERS:

	Base Year Estimate	Annual Change (Fractions)	No. Years to Midyear	Increment	Base Year Estimate	Project Midyear Estimate
Volume (AADT)	x	x	-	+	-	<u>2310</u>
Percent Trucks (%T)	x	x	-	+	-	<u>12.6</u>
% Trucks Hauling Coal (%CT)	x	x	-	+	-	<u>28.4</u>
Non-Coal Trucks						
Axles/Truck (A/NCT)	x	x	-	<u>0.008</u>	<u>3.548</u>	<u>3.606</u>
EAL's/Axle (EAL/NCA)	x	x	-	<u>0.002</u>	<u>0.193</u>	<u>0.195</u>
Coal Trucks						
Axles/Truck (A/CT)	x	x	-	<u>0.044</u>	<u>4.525</u>	<u>4.569</u>
EAL's/Axle (EAL/CA)	x	x	-	<u>0.365</u>	<u>3.774</u>	<u>4.139</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles:	<u>2310</u>	x	<u>0.874</u>	x	0.005	-	<u>10.09</u>
Non-Coal Trucks:	<u>2310</u>	x	<u>0.080</u>	x	<u>3.606</u>	x	<u>0.195</u>
Coal Trucks:	<u>2310</u>	x	<u>0.036</u>	x	<u>4.569</u>	x	<u>4.139</u>
Total Midyear Daily EAL's							<u>4728.93</u>

DESIGN EAL'S:

<u>1728.93</u>	x	365	x	<u>1</u>	x	<u>1</u>	-	<u>631,059</u>
Midyear Daily EAL's			Design Period		Lane Adjustment	(1 or 2 Way)		
(No. of Lanes)	<u>1</u>							

Lane Distribution Adjustments

L = 0.497 - (1.84 + 1.42 FT)(AADT)(10⁻⁴) for 4-lane roadways (Minimum value = 0.375)L = 0.427 - (2.308 + 1.75 FT)(AADT)(10⁻⁴) for 6-lane roadways (Minimum value = 0.25)

L = 0.50 for 2-lane roadways

ESTIMATION OF EQUIVALENT AXLELOAD ACCUMULATIONS

COUNTY

PIKE

DATE

1-14-91

NAME

D. RUCKEN

ROUTE ID:

Road Name

Route No.

US 119Classified ☒

Project No.

SHRP 211014Unclassified ☐

Project Limits

MP 2.4

Reference Stations

Pike Co. Sta 80490 1989 EAL TABLES

Functional Class		
Rural	Urban	
<u>01</u> Interstate	11 Interstate	
<u>02</u> Principal Arterial	12 Other Freeways & Expressways	
<u>06</u> Minor Arterial	14 Other Principal Arterial	
<u>07</u> Major Collector	16 Minor Arterial	
<u>08</u> Minor Collector	17 Collector	
<u>09</u> Local	19 Local	

Percent Trucks Hauling Coal
☒ Less Than 3.0
☐ 3.0 or Greater

DATES: Base Year

Design Period (Years)

Project Midyear

1988

TRAFFIC PARAMETERS:

	Base Year Estimate	Annual Change (Fractions)	No. Years to Midyear	Increment	Base Year Estimate	Project Midyear Estimate
Volume (AADT)	<u>2095</u>	x	-	+	-	<u>2095</u>
Percent Trucks (%T)	<u>12.6</u>	x	-	+	-	<u>12.6</u>
% Trucks Hauling Coal (%CT)	<u>28.4</u>	x	-	+	-	<u>28.4</u>
Non-Coal Trucks						
Axles/Truck (A/NCT)	<u>3.548</u>	x	-	+	-	<u>3.548</u>
EAL's/Axle (EAL/NCA)	<u>0.193</u>	x	-	+	-	<u>0.193</u>
Coal Trucks						
Axles/Truck (A/CT)	<u>4.525</u>	x	-	+	-	<u>4.525</u>
EAL's/Axle (EAL/CA)	<u>3.774</u>	x	-	+	-	<u>3.774</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles:	<u>2095</u>	x	<u>0.874</u>	x	0.005	-	<u>9.16</u>
Non-Coal Trucks:	<u>2095</u>	x	<u>0.090</u>	x	<u>3.548</u>	x	<u>0.193</u>
Coal Trucks:	<u>2095</u>	x	<u>0.036</u>	x	<u>4.525</u>	x	<u>3.774</u>
Total Midyear Daily EAL's							<u>1426.24</u>

DESIGN EAL'S:

<u>1426.24</u>	x	365	x	<u>1</u>	x	<u>1</u>	-	<u>520,578</u>
Midyear Daily EAL's				Design Period		Lane Adjustment (1 or 2 Way)		
(No. of Lanes)	<u>1</u>							

Lane Distribution Adjustments

L = 0.497 - (1.84 + 1.42 FT)(AADT)(10⁻⁴) for 4-lane roadways (Minimum value = 0.375)L = 0.427 - (2.308 + 1.75 FT)(AADT)(10⁻⁴) for 6-lane roadways (Minimum value = 0.25)

L = 0.50 for 2-lane roadways

ESTIMATION OF EQUIVALENT AXLELOAD ACCUMULATIONS

COUNTY

Pike

DATE

1-14-91

NAME

A. Ruckson

ROUTE ID:

Road Name

Route No.

US 119Classified ☒

Project No.

SHRP 211014Unclassified ☐

Project Limits

MP 2.400

Reference Stations

Pike Co. STA 20490 1989 CAL TABLES

Functional Class

Percent Trucks Hauling Coal

Less Than 3.0

☒ 3.0 or Greater

Rural	Functional Class	Urban
<input checked="" type="checkbox"/> 01 Interstate	<input type="checkbox"/> 11 Interstate	
<input type="checkbox"/> 02 Principal Arterial	<input type="checkbox"/> 12 Other Freeways & Expressways	
<input type="checkbox"/> 06 Minor Arterial	<input type="checkbox"/> 14 Other Principal Arterial	
<input type="checkbox"/> 07 Major Collector	<input type="checkbox"/> 16 Minor Arterial	
<input type="checkbox"/> 08 Minor Collector	<input type="checkbox"/> 17 Collector	
<input type="checkbox"/> 09 Local	<input type="checkbox"/> 19 Local	

DATES:

Base Year

Design Period (Years)

Project Midyear

1987

TRAFFIC PARAMETERS:

	Base Year Estimate	Annual Change (Fractions)	No. Years to Midyear	Increment	Base Year Estimate	Project Midyear Estimate
Volume (AADT)	<u>1885</u>	x	-	+		<u>1885</u>
Percent Trucks (%T)		x	-	+		<u>12.6</u>
% Trucks Hauling Coal (%CT)		x	-	+		<u>28.4</u>
Non-Coal Trucks						
Axles/Truck (A/NCT)		x	-	+		<u>3.489</u>
EAL's/Axle (EAL/NCA)		x	-	+		<u>0.190</u>
Coal Trucks						
Axles/Truck (A/CT)		x	-	+		<u>4.482</u>
EAL's/Axle (EAL/CA)		x	-	+		<u>3.409</u>

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles:	<u>1885</u>	x	<u>0.874</u>	x	0.005	=	<u>8.24</u>
Non-Coal Trucks:	<u>1885</u>	x	<u>0.090</u>	x	$\frac{3.489}{A/NCT} \times \frac{0.190}{EAL/NCA}$	=	<u>102.46</u>
Coal Trucks:	<u>1885</u>	x	<u>0.036</u>	x	$\frac{4.482}{A/CT} \times \frac{3.409}{EAL/CA}$	=	<u>1036.84</u>
Total Midyear Daily EAL's						=	<u>1157.54</u>

DESIGN EAL'S:

<u>1157.54</u>	x	365	x	<u>1</u>	x	<u>1</u>	=	<u>422,502</u>
Midyear Daily EAL's			Design Period		Lane Adjustment (1 or 2 Way)			
(No. of Lanes)	<u>1</u>							

Lane Distribution Adjustments

L = 0.497 - (1.84 + 1.42 FT)(AADT)(10⁻⁴) for 4-lane roadways (Minimum value = 0.375)L = 0.427 - (2.308 + 1.75 FT)(AADT)(10⁻⁴) for 6-lane roadways (Minimum value = 0.25)

L = 0.50 for 2-lane roadways

ESTIMATION OF EQUIVALENT AXLELOAD ACCUMULATIONS

COUNTY PIKEDATE 1-14-91NAME A. RUCKER

ROUTE ID:

Road Name _____

Route No. US 119Classified ☒Project No. SHRP 211014

Unclassified _____

Project Limits MP 2.400Reference Stations PIKE CO. STA 804(90) 1989 EAL TABLES

Functional Class		Urban
<u>01</u> Rural Interstate	<u>11</u> Interstate	
<u>02</u> Principal Arterial	<u>12</u> Other Freeways & Expressways	
<u>06</u> Minor Arterial	<u>14</u> Other Principal Arterial	
<u>07</u> Major Collector	<u>16</u> Minor Arterial	
<u>08</u> Minor Collector	<u>17</u> Collector	
<u>09</u> Local	<u>19</u> Local	

Percent Trucks Hauling Coal
Less Than 3.0
3.0 or GreaterDATES: Base Year _____ Design Period (Years) _____ Project Midyear 1986

TRAFFIC PARAMETERS:

	Base Year Estimate	Annual Change (Fractions)	No. Years to Midyear	Increment	Base Year Estimate	Project Midyear Estimate
Volume (AADT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>1670</u>
Percent Trucks (%T)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>12.6</u>
% Trucks Hauling Coal (%CT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>28.4</u>
Non-Coal Trucks						
Axles/Truck (A/NCT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>3.431</u>
EAL's/Axle (EAL/NCA)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>0.188</u>
Coal Trucks						
Axles/Truck (A/CT)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>4.438</u>
EAL's/Axle (EAL/CA)	_____ x	_____ x	_____ =	_____ +	_____ =	<u>3.044</u>

DAILY EAL'S AT MIDYEAR:

$$\begin{aligned}
 &4\text{-Tired Vehicles: } \frac{1670}{\text{AADT}} \times \frac{0.874}{1-(\%T/100)} \times 0.005 = \underline{7.30} \\
 &\text{Non-Coal Trucks: } \frac{1670}{\text{AADT}} \times \frac{0.090}{(\%T/100)(1-\%CT/100)} \times \frac{3.431}{\text{A/NCT}} \times \frac{0.188}{\text{EAL/NCA}} = \underline{96.95} \\
 &\text{Coal Trucks: } \frac{1670}{\text{AADT}} \times \frac{0.036}{(\%T/100)(\%CT/100)} \times \frac{4.438}{\text{A/CT}} \times \frac{3.044}{\text{EAL/CA}} = \underline{812.18} \\
 &\text{Total Midyear Daily EAL's} = \underline{916.43}
 \end{aligned}$$

DESIGN EAL'S:

$$\begin{aligned}
 &\frac{916.43}{\text{Midyear Daily EAL's}} \times 365 \times \frac{1}{\text{Design Period}} \times \frac{\text{Lane Adjustment}}{(1 \text{ or } 2 \text{ Way})} = \underline{334,497}
 \end{aligned}$$

Lane Distribution Adjustments

L = 0.497 - (1.84 + 1.42 FT)(AADT)(10⁻⁴) for 4-lane roadways (Minimum value = 0.375)L = 0.427 - (2.308 + 1.75 FT)(AADT)(10⁻⁴) for 6-lane roadways (Minimum value = 0.25)

L = 0.50 for 2-lane roadways

COUNTY OwsleyDATE 8-9-90NAME A. Rucker

ROUTE ID:

Road Name _____ Route No KY 11Project No SHKP 211010Project Limits MP 13.200 SOUTH BOUND.Ref Stations Owsley Co. STA. A13(90), 1989 COAL HAUL, 1988 EAL TABLES

Federal Aid	Volume (Midyear)	Area	Coal Haul (Midyear)	
			(Percent Trucks Hauling Coal)	
Interstate	Less Than 5000	West	Less Than 1.00	
FAP	5000 or More	South Central	1 - 4.99	
PAU		North Central	5 - 19.99	
4 FAS		4 East	20 or more	
Non FA				

DATES:

Base Year _____ Design Period (Years) _____ Project Midyear 1989

TRAFFIC PARAMETERS:

	Unadjusted Base Year Estimate	Site- Specific Adjustment	Adjusted Base Year Estimate	Increment	Project Midyear Estimate
Volume (AADT)	x	=	+		= 1220
Percent Trucks (IT)	x	=	+		= 3.7
Percent Trucks Hauling Coal (XCT)	x	=	+		= 3.2
Non-Coal Trucks					
Axles/Truck (A/NCT)	x	=	+		= 2.660
EAL's/Axle (EAL/NCA)	x	=	0.201 + 0.004		= 0.205
Coal Trucks					
Axles/Truck (A/CT)	x	=	4.387 + 0.018		= 4.405
EAL's/Axle (EAL/CA)	x	=	3.773 + 0.357		= 4.130

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles

$$\frac{1220}{AADT} \times \frac{0.963}{1-(IT/100)} \times 0.005 = 5.87$$

Non-Coal Trucks

$$\frac{1220}{AADT} \times \frac{0.036}{(IT/100)(1-XCT/100)} \times \frac{2.660}{A/NCT} \times \frac{0.205}{EAL/NCA} = 23.95$$

Coal Trucks

$$\frac{1220}{AADT} \times \frac{0.001}{(IT/100)(XCT/100)} \times \frac{4.405}{A/CT} \times \frac{4.130}{EAL/CA} = 22.20$$

$$\text{Total Midyear Daily EAL's} = 52.02$$

DESIGN EAL'S:

$$\frac{52.02}{\text{Midyear Daily EAL's (No. of Lanes)}} \times 365 \times \frac{1}{\text{Design Period}} \times \frac{\text{Lane Adjustment (1 or 2 Way)}}{1} = 78,987$$

Design EAL's in
Critical Lane

COUNTY OwsleyDATE 8-9-90NAME A. Rucker

ROUTE ID:

Road Name _____ Route No KY 11Project No SHRP 211010Project Limits MP 13.200 SOUTHBOUNDRef Stations 1988 EAL TABLES

Federal Aid	Volume (Midyear)	Area	Coal Haul (Midyear)
Interstate	Less Than 5000	West	(Percent Trucks Hauling Coal)
FAP	5000 or More	South Central	Less Than 1.00
FAU		North Central	1 - 4.99
4 FAS		East	5 - 19.99
Non FA			20 or more

DATES:

Base Year _____ Design Period (Years) _____ Project Midyear 1988

TRAFFIC PARAMETERS:

	Unadjusted Base Year Estimate	Site- Specific Adjustment	Adjusted Base Year Estimate	Increment	Project Midyear Estimate
Volume (AADT)	x	=	+		= 1200
Percent Trucks (IT)	x	=	+		= 3.8
Percent Trucks Hauling Coal (ICT)	x	=	+		= 2.8
Non-Coal Trucks					
Axles/Truck (A/NCT)	x	=	+		= 2.688
EAL's/Axle (EAL/NCA)	x	=	+		= 0.201
Coal Trucks					
Axles/Truck (A/CT)	x	=	+		= 4.387
EAL's/Axle (EAL/CA)	x	=	+		= 3.773

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles

$$\frac{1200}{AADT} \times \frac{0.962}{1-(IT/100)} \times 0.005 = 5.77$$

Non-Coal Trucks

$$\frac{1200}{AADT} \times \frac{0.037}{(IT/100)(1-ICT/100)} \times \frac{2.688}{A/NCT} \times \frac{0.201}{EAL/NCA} = 23.99$$

Coal Trucks

$$\frac{1200}{AADT} \times \frac{0.007}{(IT/100)(ICT/100)} \times \frac{4.387}{A/CT} \times \frac{3.773}{EAL/CA} = 19.86$$

Total Midyear Daily EAL's = 49.62

DESIGN EAL'S:

$$\frac{49.62}{Midyear Daily EAL's (No. of Lanes)} \times 365 \times \frac{1}{Design Period} \times \frac{Lane Adjustment (1 or 2 Way)}{1} = 18,111$$

Design EAL's in
Critical Lane

COUNTY OwsleyDATE 8-9-90NAME A. Rucker

ROUTE ID:

Road Name _____ Route No KY 11Project No SHRP 211010Project Limits MP 13.200 SOUTHBOUNDRef Stations 1988 EAL TABLES

Federal Aid	Volume (Midyear)	Area	Coal Eaul (Midyear)
Interstate	Less Than 5000	West	(Percent Trucks Hauling Coal)
FAP	5000 or More	South Central	Less Than 1.00
FAU		North Central	1 - 4.99
4 FAS		4 East	5 - 19.99
Non FA			20 or more

DATES:

Base Year _____ Design Period (Years) _____ Project Midyear 1987

TRAFFIC PARAMETERS:

	Unadjusted Base Year Estimate	Site- Specific Adjustment	Adjusted Base Year Estimate	Increment	Project Midyear Estimate
Volume (AADT)	x	=	+		= 1175
Percent Trucks (XT)	x	=	+		= 3.8
Percent Trucks Hauling Coal (XCT)	x	=	+		= 2.8
Non-Coal Trucks					
Axles/Truck (A/NCT)	x	=	+		= 2,710
EAL's/Axle (EAL/NCA)	x	=	+		= 0.196
Coal Trucks					
Axles/Truck (A/CT)	x	=	+		= 4,369
EAL's/Axle (EAL/CA)	x	=	+		= 3.416

DAILY EAL'S AT MIDYEAR:

4-Tired Vehicles

$$\frac{1175}{AADT} \times \frac{0.962}{1-(XT/100)} \times 0.005 = 5.65$$

Non-Coal Trucks

$$\frac{1175}{AADT} \times \frac{0.037}{(XT/100)(1-XCT/100)} \times \frac{2,710}{A/NCT} \times \frac{0.196}{EAL/NCA} = 23.09$$

Coal Trucks

$$\frac{1175}{AADT} \times \frac{0.001}{(XT/100)(XCT/100)} \times \frac{4,369}{A/CT} \times \frac{3.416}{EAL/CA} = 17.54$$
Total Midyear Daily EAL's = 46.28

DESIGN EAL'S:

$$\frac{46.28}{\text{Midyear Daily EAL's (No. of Lanes)}} \times 365 \times \frac{1}{\text{Design Period}} \times \frac{1}{\text{Lane Adjustment (1 or 2 Way)}} = \boxed{16,892}$$

Design EAL's in Critical Lane