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<p>Abstract</p> <p>Estimates of annual average daily traffic volumes are important in the planning and operations of state highway departments. These estimates are used in the planning of new construction and improvement of existing facilities, and, in some cases, in the allocation of maintenance funds. It is, therefore, important that any method used in obtaining the estimates provide data of sufficient accuracy for the intended use. This importance of having reliable and current data on traffic volumes at hand is generally recognized, and over the years data collection programs have tended to expand. This expansion has led to huge amounts of money being spent annually for the collection and analysis of traffic data. Efforts are, however, now being made to reduce the annual expenditure on traffic counts while at the same time maintaining the desired level of accuracy.</p> <p>A study was, therefore, carried out by the Council to develop an optimal counting program for the state. Firstly, the study entailed breaking down all highways in the primary system into homogeneous links such that the traffic characteristics along any given link were constant. A total of 2,510 links were obtained. The links in each district were then grouped into clusters, such that the links within a given cluster had similar traffic volume characteristics. The McQueen's K-means Method was used in the grouping procedure. A total of 82 clusters were obtained. A counting procedure was then developed based on an accuracy level of $\pm 10\%$ with 95% confidence. Counting stations were then randomly selected. The counting program developed requires 927 counting stations for the whole state compared with the 1,345 currently being used.</p>
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FINAL REPORT
OPTIMIZING TRAFFIC COUNTING PROCEDURES

by

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and

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(The opinions, findings, and conclusions expressed in this report are those of the authors and not necessarily those of the sponsoring agencies.)

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ABSTRACT

Estimates of annual average daily traffic volumes are important in the planning and operations of state highway departments. These estimates are used in the planning of new construction and improvement of existing facilities, and, in some cases, in the allocation of maintenance funds. It is, therefore, important that any method used in obtaining the estimates provide data of sufficient accuracy for the intended use. This importance of having reliable and current data on traffic volumes at hand is generally recognized, and over the years data collection programs have tended to expand. This expansion has led to huge amounts of money being spent annually for the collection and analysis of traffic data. Efforts are, however, now being made to reduce the annual expenditure on traffic counts while at the same time maintaining the desired level of accuracy.

A study was, therefore, carried out by the Council to develop an optimal counting program for the state. Firstly, the study entailed breaking down all highways in the primary system into homogeneous links such that the traffic characteristics along any given link were constant. A total of 2,510 links were obtained. The links in each district were then grouped into clusters, such that the links within a given cluster had similar traffic volume characteristics. The McQueen's K-means Method was used in the grouping procedure. A total of 82 clusters were obtained. A counting procedure was then developed based on an accuracy level of $\pm 10\%$ with 95% confidence. Counting stations were then randomly selected. The counting program developed requires 927 counting stations for the whole state compared with the 1,345 currently being used.

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INTRODUCTION

Data obtained from traffic counts are used in formulating decisions that affect federal, state, and local highway projects. In particular, current and projected traffic volumes in Annual Average Daily Traffic (AADT) and Vehicle Miles of Travel (VMT) are used in decisions on the techniques to be used in designing, repairing, resurfacing, and reconstructing highways and on the allocation of funds for these activities. Traffic count data are also important to highway safety personnel, as they are frequently used in conjunction with accident statistics to produce traffic accident rates. These rates are important indicators of accident probabilities and are frequently used to identify hazardous locations. It is, therefore, imperative that the traffic counts be accurate indications of traffic volumes and VMT.

The traffic count system presently used in the state of Virginia consists of five types of counting programs:

1. The Interstate, Arterial and Primary Route Program covers all of the interstate, arterial, and primary routes maintained by the Department of Highways and Transportation, excluding arterial and primary routes within cities and towns, which are controlled and maintained by the local governments. Manual counts are conducted by observers using hand counters to record hourly volume, vehicle classification, and directional traffic data during 12-hour periods.

Under this program, counts are made at 1,345 stations, 211 of which are on interstate roads and 1,134 on arterial and primary roads. Nine counts a year are carried out at 80 stations (key counts), four counts a year at 1,023 stations

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(key counts), four counts a year at 1,023 stations (seasonal counts), and two counts a year at 242 stations (coverage counts).

The Department of Highways and Transportation is, however, initiating a program that will eventually change the manual system of collection to a mechanical system at all sites. The Department has obtained equipment for the mechanical collection of data at 59 permanent sites. The initial conversion from a manual to a mechanical system has been made in the Richmond District, where mechanical counters are now being used at all counting stations.

2. The Automatic Traffic Recorder program provides continuous automatic recording of traffic volumes at selected stations. Initially, at 16 stations traffic volumes in 15-minute intervals were printed on paper tapes and retrieved weekly. This number of stations was recently increased to 59.
3. The Secondary Route Count Program provides 24-hour counts on each secondary route segment every two years. The results are used mainly to compute VMT values in each county, which are subsequently used as a basis for the allocation of funds for the construction and maintenance of secondary roads.
4. The Urban Traffic Program was developed in the 1960's as part of the formal planning process mandated by the U. S. Department of Transportation. It entails the recording of traffic volumes at 15-minute intervals for a period of 24 hours once a year using a Streeter AMET-MR101A Counter. All stations under this program are within cities and towns having a population of more than 3,500.
5. The Special Count Program consists of ad hoc traffic studies requested by agencies and departments from time to time for specific projects.

Studies carried out by the Virginia Highway and Transportation Research Council (1,2) have revealed several deficiencies in the above programs which have resulted in a lack of confidence in the accuracy of the published data. These studies together have recommended that --

- (a) the manual classification count program be replaced with a mechanical recorder program,
- (b) adjustment factors for the estimation of VMTs be developed, based on statistical procedures, and

- (c) the existing urban count program be expanded and include the relocation of stations to facilitate a proper coverage of the urban areas.

In addition to the recommendations above, personnel of the Department's Highway and Traffic Safety Division agreed that recommendations based on a detailed study on the following items of concern are urgently required.

1. The suitability of the existing functional classification system of roads in the state for traffic count purposes.
2. The development of adjustment factors for estimating AADTs from short counts.
3. The suitability of the locations of existing count stations vis-a-vis any new system that may be developed for classifying the state's highways.
4. The feasibility of using factors for estimating vehicle classifications from volumes obtained by the mechanical counting system combined with those from a minimum number of manual counts.
5. The feasibility of reducing the existing number of stations while improving or at least maintaining the level of accuracy in determining AADTs and VMTs.

A study was, therefore, carried out by the Virginia Highway and Transportation Research Council to develop recommendations on these items of concern to the Highway and Traffic Safety Division. This report describes the research methodology of the study and the results obtained, including the classification system and adjustment factors developed and a recommended traffic count program.

PURPOSE AND SCOPE

The purpose of this study was to develop a statewide traffic count program, taking into consideration the proposed switch from manual to mechanical counts, and to develop suitable recommendations on the items of concern that had been identified by the Highway and Traffic Safety Division. The specific objectives of the study were to --

1. establish a highway classification system for traffic count purposes that is suitable for use in sampling procedures,

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2. determine expansion factors for the estimation of AADTs and VMTs within acceptable levels from short counts,
3. develop a statewide sampling procedure for traffic counts, and
4. identify and develop an optimal counting program for the state that will produce results within required limits of accuracy and that can be implemented at an acceptable cost.

The scope of the study was limited to the traffic count program for interstate, rural arterial, and primary routes. It is anticipated that a similar study will be conducted later for the urban arterial and primary routes.

METHODOLOGY AND RESEARCH APPROACH

The methodology for carrying out the project entailed the following tasks:

1. Review of literature, including that on current federal guidelines, counting procedures, and methodologies.
2. Development of a classification system for roads in Virginia.
3. Development of appropriate adjustment factors for estimating annual flows from traffic counts.
4. Development of counting procedures for each class of roads.
5. Estimation of equipment and personnel needed for the implementation of the recommended procedure.

Literature Review

A review of the literature was carried out to identify results and recommendations from recent studies similar to this project. A review of the traffic counting procedure and methodology used in Virginia was carried out, including a study of the present and probable future uses for and importance of the data currently being provided. This included a review of the current system of road classification for the existing traffic counting procedures to determine the basis for classifying the roads and the factors taken into consideration. Information was sought on the counting procedures and methodologies being used by other states, and their associated costs, to determine whether there is a counting procedure commonly used by other states which may be suitable for Virginia. Federal guidelines and recommendations for performing counting operations (3,4,5) were reviewed so that adequate cognizance could be

taken of them in the formulation of a traffic counting procedure for Virginia.

Development of a Road Classification System

The procedure used in developing the classification presented consisted of --

1. defining and identifying a highway link,
2. identifying those variables that significantly influence the AADT, and
3. establishing link clusters.

Each highway in the rural area was broken down into homogenous sections based on guidelines developed for freeways and interstates, arterials, and collectors. Statistical tests were then carried out using AADT data for 1977 through 1980 for 112 permanent count stations in Kansas, Maryland, West Virginia, and Virginia to identify the variables that have a significant effect on the AADT. These variables were then used to classify the highway links in each district.

Development of Adjustment (Multiplying) Factors

The third task involved the development of appropriate factors for estimating, from 48-hour counts, the Monthly Average Daily Traffic (MADT), and then estimating the AADT from the MADT and from short counts of less than 24 hours duration.

Factors (F_1) for Estimating MADT From 48-Hour Counts

It will be seen later that 48 hours is the count duration for the traffic count program recommended in this report. It was, therefore, necessary to determine factors that could be used to estimate the MADT at a count station for a given month from a 48-hour count taken during that month. Factors were determined for Monday and Tuesday, Tuesday and Wednesday, and Wednesday and Thursday, as data normally are collected during those combinations of days. This was done by first determining the factor for each day, and using the average for the two consecutive days as the representative factor for those days. The factor for each weekday was determined from the 1984 continuous count data. For example, the factor for Tuesday was determined by first finding the average 24-hour volume for all Tuesdays in a given month, and then dividing the MADT for that month by this volume. Since much more data than those

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provided by the manual counts are required to develop these factors, it was not possible to determine them for clusters with no continuous count stations. It is anticipated that preliminary factors will be developed for clusters without continuous count sections during the first year of implementation of the traffic count program recommended in this report.

Factors (F_2) for Estimating AADT from MADT

It was originally intended to develop estimating factors through the use of data from continuous count stations in Virginia for the period 1980 through 1983; however, data were available for only 16 continuous count stations for this period and these were, not adequate for the analysis. Therefore, it was decided to use 1984 data for the 59 continuous count stations that had been placed in operation by that date. These data were used mainly to determine the estimating factors. It was, however, found that there were still several clusters for which there were no continuous count data. It was, therefore, decided to supplement the continuous count data with available manual data at seasonal and key count stations in clusters with no continuous count stations. It is anticipated that the factors determined will be monitored and updated annually based on data that will be collected at the continuous count stations recommended in this report.

The methodology used for developing the factors is similar to that proposed by the FHWA. (4) Monthly factors for a station were determined for a given month by dividing the AADT by the MADT for that month. This calculation was carried out for 1981 through 1984, and the average value of the factors for the same month was determined for each station.

The cluster into which each of the continuous count stations or the seasonal and key count stations belong was then identified. A representative monthly factor was then determined for a given cluster by determining the average of the monthly factors for the continuous count stations or seasonal count stations in the cluster.

Factors (F_3) for Estimating AADT From Short Counts of Less Than 24-hour Duration

The factors for estimating the AADT from short counts were developed using data for only 16 continuous count stations in operation prior to 1984. Because of the classification system used, it is envisaged that the factors developed for a continuous count station on a given link are appropriate for all links in the cluster to which the given link

belongs. The data that will be collected under the counting program proposed in this report can be used to regularly check and update the short count factors determined in this study and to develop new factors for those clusters for which the necessary continuous count data are not now available. These short count factors are not, however, incorporated in the proposed traffic count program, as short counts of less than 24-hour duration are used only for special projects where the AADT of a specific link is required.

The procedure was first to use 1980 data for the 16 continuous count stations to determine periods stable throughout the year for different short counts. Expansion factors were then developed for short counts of different durations and different starting times for those stable periods. The expansion factors were then used to estimate 1981 AADTs from short counts extracted from data obtained in 1981 continuous counts. The estimated AADTs were then compared with the true AADTs to evaluate the accuracy of the factors determined.

Development of Counting Procedures

The first activity under the fourth task was to establish desired accuracies for the different classes of roads. Personal interviews were carried out with officials of the state agencies who would be using the estimated information to obtain what levels of accuracy they would require in the information they would be seeking. These requirements were then combined with the guidelines by the Department of Highways and Transportation to establish a desired accuracy for each road class.

The next activity was to determine a suitable sampling procedure for each class of highway. This involved determining whether the counting stations proposed by the Department are statistically distributed within the different classes of roads developed in this study. Factors such as number of roads in each class and the accuracy required were used to determine the number of counting stations and the locations of these stations for each class of roads. The "t" distribution was used to determine the minimum number of count stations required for each class.

Personnel and Equipment

The personnel and equipment required for implementing and carrying out the recommended procedure were determined based on the numbers of counting stations and frequency of counts.

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ANALYSIS AND FINDINGS

The following subsections summarize the results of the analysis conducted during the study.

Literature Review

The literature survey revealed that for many states a major concern in the development of a traffic count program is the classification or grouping of highway links with similar traffic characteristics. The literature revealed that the different classification techniques can be divided into two main classes. The first class consists of procedures based on empirical observations and sound judgements, whereas the second class is based mainly on various mathematical and statistical techniques. This latter group provides more accurate results at the cost of generally requiring more mathematical and computational procedures. The empirical and statistical techniques that are closely related to the grouping of highway links and traffic count stations based on their traffic characteristics are discussed.

Empirical Techniques

Administrative Classification. The administrative classification is the practice currently used in most of the states to classify count sites. Road systems are classified into the FHWA categories (interstate, federal-aid, and local). In Virginia, interstate, arterial, and primary routes are covered by a single program -- the interstate, arterial, and primary route count program. Although this type of classification cannot distinguish the variation in patterns among the routes, it must be maintained for funding purposes. The data taken by these programs are multiplied by factors to compute ADTs or the raw data are considered ADT without any manipulation.

Geographic Classification. The geographic classification is a recognition of substantial differences in the variations of traffic volumes in rural and urban areas within specified time periods. It is a required step before attempting further classifications or groupings. (3)

Functional Classification. Under the functional classification system the highways are classified into interstates, principal and minor arterials, and major collectors and minor collectors by their functional usage. (4) In practice, however, it is difficult to clearly delineate arterials and collectors, because such classification is subjective. Therefore, they are often classified into a single type, the arterials. Because of this approach, the arterials in the functional classification are not necessarily those in the administrative classification. The arterials may be further stratified by traffic volume. The FHWA

recommends this classification sampling procedure for traffic count programs. (3) The main problem associated with this classification system is that it is very difficult to clearly delineate arterials from collectors, and collectors from local streets. This is because of the very broad definitions used by the Guide for each of these facilities. This widely used classification scheme does not fully provide the information required to differentiate between any two classes in terms of traffic volume, traffic characteristics, or both. This deficiency suggests that although the FHWA functional classification by itself is not adequate for the design of an improved statewide counting program, its use will provide significant information.

Road Type Classification. The road type classification evolved from a research study by Britain's Transport and Road Research Laboratory (TRRL), which recommended that road segments be assigned to one of the following four classes in terms of their known traffic characteristics. (6,7)

- o Urban/Commuter Roads
- o Low Flow (<1,000 vehicles per day) Non-recreational Rural Roads
- o Rural long Distance Roads
- o Recreational Roads

It should be mentioned that the main feature distinguishing the four main road categories is the "degree of seasonal variation in traffic flow," which was defined as the ratio of average daily flow for each month to the annual average flow. The study used 50 Permanent Traffic Counter Sites (PTCs) to establish the recommended highway classes. Therefore, the TRRL road type classification method of grouping roads appears to have more validity than any other empirical method yet applied. But, this procedure has the same disadvantage as the FHWA method; that is, the important parameter needed for classification (the ratio of monthly traffic volumes to annual average flow) is not available for every road in a network. Therefore, to apply this technique, one should use a considerable amount of subjective judgement in choosing the needed monthly factors for each road type. This subjective input may lead to the misclassification of individual road sections, which could result in large errors in the estimated AADT values.

Trip Purpose Classification. A trip purpose classification methodology was studied by Harrison and Roberts. (8) This approach considers trip purposes at individual sites. Traffic estimates are made in terms of the proportion each trip purpose under consideration shares in the total traffic. The seasonality of each trip is examined. However, it should be noted that this approach requires extensive roadside interviews to identify trip purposes, particularly if such data have not been previously collected.

The preceding discussion of the various empirical classification techniques shows that these grouping procedures are basically subjective in nature or are very limited in scope. Furthermore, there is very little definitive information on the accuracy and reliability of traffic estimates derived by use of these procedures.

Statistical Classification Techniques

In general, the statistical techniques may be divided into two main categories. First are those techniques in which the clustering is based on a prespecified number of groups. The terms used for such techniques are "discriminant analysis," "regionalization," or "allocation analysis." Second, there are those in which the clustering is done in terms of groups that are themselves determined from the data variation. The term used in the literature for describing these techniques is factor analysis, or linkage analysis. Considering the objectives of this study, it was decided that the first group of statistical techniques, which are based on a fixed and predetermined number of groups, would be inappropriate. The literature review was, therefore, focused on the latter type.

The available methods under this type of classification technique can be divided into two major groups: The hierarchical and the nonhierarchical. In the hierarchical techniques, every class obtained at any stage is a merger of clusters at previous stages. In this case, therefore, data units are grouped into clusters in a nested sequence of, say, $(M+1)$ clusters, $C_0, C_1, C_2, \dots, C_m, C_{m+1}$, where C_0 represents a weak clustering and C_m a strong clustering.

In nonhierarchical clustering procedures, the central theme is to choose some initial grouping of data units and change cluster membership or obtain different clusters by merging or splitting the existing clusters. Unlike the hierarchical methods, the selection of an initial grouping configuration is done only to improve the accuracy and the data processing speed. Furthermore, the nonhierarchical methods may be used for larger problems and are generally simpler and more economical in terms of processing cost than the hierarchical techniques.

Development of the Classification System

The classification system was developed primarily to eliminate the necessity for knowing the AADT of a link before it could be assigned to a group and to avoid sole reliance on the FHWA functional class stratification. The following steps were taken in the development of the system.

1. Definition and identification of links,

2. identification of significant variables that influence the AADT, and
3. clustering of links

Definition and Identification of Links.

The first step in the process is to break down each highway in the rural area of the state into short, homogeneous sections known as highway links. The main requirement for a link is that each point on it have the same traffic characteristics, such as the AADT and daily, weekly, and seasonal variations in the traffic volume. The following three basic guidelines were used to identify a link.

1. Freeways and Interstates -- Any section of the highway between any two consecutive interchanges is considered a link. This satisfies the main requirement, as traffic volume changes cannot occur between consecutive interchanges on these highways.
2. Arterials -- Any section of road between any two consecutive major intersections or between any two consecutive intersections if the length is 2 miles or greater is considered a link. This is based on a survey which indicated that the minimum travel distance on such facilities is usually greater than 2 miles.
3. Collectors -- Any section of road between any two consecutive major intersections can be taken as a link, but with the condition that a new link should start whenever there is a change in the physical appearance of the highway. For example, a new link will begin at a section where the highway changes from a two-lane undivided highway to a three-lane highway with the middle lane being used for turning movements.

Using these guidelines and the road inventory mileage record file for each highway district, each rural highway was divided into a number of links.

Each link was identified by its maintenance jurisdiction -- i.e., state, county, or incorporated area -- the route number, the county in which the link was located, and a sequence number identifying all the links belonging to the same highway and located within the same county. In addition, the length of each link was given together with the starting and end points. The total number of links obtained was 2,510, with the Bristol District having the highest number, 377, and Northern Virginia having the least, 127 (see Appendix A).

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Identification of Significant Variables.

Since the main objective was to develop a clustering system that does not initially require the AADT of each link, but that will at the same time produce groups that consist of highway links with similar AADTs, it was necessary to identify those variables that have a significant effect on the AADT so that they could be used as surrogates of the AADT in the clustering system.

A detailed search of the literature indicated that the following candidate variables have some impact on the AADT and other traffic characteristics.

- 1. Locational Characteristics
 - o Urban vs. Rural
 - o Terrain
 - o Area Land Use
- 2. Design Characteristics
 - o Number of Lanes
 - o Access Control
 - o Lane and Roadway Width
- 3. FHWA Functional Classification
- 4. Traffic Composition
 - o Percentage of Passenger Cars
 - o Percentage of Out-Of-State Passenger Cars
 - o Percentage of 3-or-More-Axle Trucks
- 5. Posted Speed Limit

In order to identify which of these variables have a significant effect on the AADT, statistical tests were carried out using AADT data for 1977 through 1980 from 112 permanent count stations in Kansas, Maryland, West Virginia, and Virginia. Before any statistical test was carried out, however, it was decided to combine all the variables under item 4 into a single variable defined as "functional use," by considering the individual variables in the following manner:

- PC_{ij} = percentage of passenger vehicles in total traffic on link i in state j,
- POC_{ij} = percentage of out-of-state passenger vehicles in passenger vehicle traffic on link i in state j,
- PHT_{ij} = 3-or-more axle trucks as a percentage of total traffic on link i and state j,

PC_j, POC_j, PHT_j = average of PC_{ij}, POC_{ij} and PHT_{ij} , respectively
 (i.e., state average for PC, POC & PHT), and
 $SPC_j, SPOC_j, SPHT_j$ = standard deviations of PC_{ij}, POC_{ij} , and PHT_{ij} , respectively.

Limits of the mean for a state plus or minus one standard deviation were used to determine whether a particular variable for a given link was high, average, or low with respect to that of the state in which the link was located. For example,

- if $PC_{ij} > PC_h + SPC_j$, the link PC is high,
- if $PC_{ij} < PC_j - SPC_j$, the link PC is low, and
- if $PC_j - SPC_j > PC_{ij} > PC_j + SPC_j$, the link PC is average.

Similar limits were defined for POC_{ij} and PHT_{ij} . Table 1 shows a matrix of the predominant combinations identified into which a given link fell and the five types of functional uses that were obtained. These are referred to in this study as recreational, local service, long-distance service, industrial, and local commercial links.

Table 1

Functional Use Classification			
PC_{ij}	POC_{ij}	PHT_{ij}	Functional Use
<u>(%)</u>	<u>(%)</u>	<u>(%)</u>	<u>Use</u>
High	High	Low	Recreational
High	Low	Low	Local Service
High	Average	Low	Long-distance Service
Average or Low	Low	High	Industrial
Average or Low	Low	Average or Low	Commercial

PC_{ij} = percentage of passenger vehicles in total traffic on link i in state j,
 POC_{ij} = percentage of out-of-state passenger vehicles in passenger vehicle traffic on link i in state j, and
 PHT_{ij} = 3-or-more-axle trucks as a percentage of total traffic on link i and state j.

Recreational links have relatively high volumes of out-of-state passenger cars, which may easily be affected by seasonal factors. The exception to this are links located in the vicinity of state boundaries. In general, seasonal characteristics have a significant impact on the traffic volume on these links at any given time.

Local service links are used mainly by residents of the area for commuter trips, which cause relatively little variation in traffic volume throughout the year.

Long-distance service links have traffic characteristics similar to those on local service links, but they contain a larger portion of long-distance commuter trips.

Industrial links have a relatively high percentage of heavy trucks and are typically on highways connecting major industrial cities.

Local commercial links have an average percentage of 3-or-more-axle trucks, but a relatively high percentage of pickups. Business trips are likely to be predominant on these links.

The set of candidate variables was further reduced by discarding the locational variable (urban vs. rural), since nearly all links considered were located in rural areas, and discarding access control, as this is somewhat related to the FHWA functional classification system.

The remaining candidate variables were then tested for significant effect on the AADT using an analysis of variance (ANOVA). The significant variables identified were --

- o FHWA functional class,
- o functional use as described in this study,
- o land use of the county in which the link is located,
- o population of the county in which the link is located, and
- o type of terrain.

These variables were, therefore, used in the clustering technique as described below.

Clustering of Links

McQueen's K-means Method was used as the clustering technique. (9) This technique provides for the assignment of a set of m data units to a number of clusters such that data elements within any given cluster are "similar" or "near" each other. The first K data units are initially selected as K clusters of one member each. The distances between all paired combinations of the K clusters are then computed. If the smallest distance is less than a predetermined minimum (c), the two associated

clusters are merged. The centroid of the new cluster is determined and the process repeated until the distance between the centroids of any two clusters is greater than c . The distances between each of the remaining $(m-K)$ data units and the centroids of each of the clusters already formed are computed and each data unit is assigned to the cluster with the nearest centroid (i.e., minimum d), if this distance is less than c . After each assignment, the centroid of the gaining cluster is computed. If the distance to the nearest centroid of any data unit is greater than a refining parameter (R) where $R \leq c$, then that data unit is taken as a separate cluster.

In this study the "squared Euclidean distance" in n -dimensional space, defined by equation 1, was used as the basis for representing "similarity" or "nearness" among the data units.

$$d_{ij}^2 = \sum_{h=1}^n (x_{ih} - x_{jh})^2, \quad (1)$$

where

x_{ih} = value of variable h for case i ,

x_{jh} = value of variable h for case j ,

d_{ij}^2 = the square Euclidean distance between case i and j , and

n = number of variables.

The number of clusters obtained is dependent upon the values of c and R . In this study R was taken as being equal to c . The links were initially clustered for a minimum value of 0.01 for c , which gave the largest number of clusters. The number of clusters was then gradually decreased by gradually increasing the value of c .

It can be seen that the variables identified as significant are mainly nominal variables (e.g., terrain and land use) and cannot, therefore, be used directly in equation 1. It was, therefore, necessary to convert these nominal variables to interval variables. The procedure adopted to achieve this was to represent each category of the nominal variables by 1% of the average AADT of the continuous count stations under that category. This provides for a common measure of all variables, and at the same time employs the relative impact of each category of each of those variables on the AADT. As an example, the computation carried out for terrain is shown in Table 2. Based on these computations the following codes were used to represent each of the x_{ij} s of the significant variables.

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	<u>Terrain</u>		<u>Population of county in which link is located</u>	
Flat	- 30		< 10,000	- 20
Rolling	- 48		10,001 - 30,000	- 42
Mountainous	- 57		30,001 - 40,000	- 38
			40,001 - 50,000	- 93
			50,001 - 100,000	- 68
			> 100,000	- 74
	<u>Land Use</u>		<u>Functional Use</u>	
Agricultural	- 23		Recreational	- 31
Industrial	- 63		Local Service	- 59
Service	- 59		Long-distance Service	- 37
Mining	- 51		Local Commercial	- 25
			Industrial	- 10
	<u>FHWA Classification</u>			
Interstate	- 93			
Principal Arterials	- 42			
Minor Arterials	- 34			
Collectors	- 19			

Table 2

Sample Computation for Converting Nominal Variables to Interval Variables

	<u>Type of Terrain</u>		
	<u>Flat</u>	<u>Rolling</u>	<u>Mountainous</u>
Sample Size ^a	37	51	24
x AADT (1979)	3035	4831	5771
x AADT (1980)	2976	4674	5679
x	3006	4753	5725
Code	30	48	57

^a Extracted from continuous count stations in Maryland, Kansas, West Virginia, and Virginia.

These values may be considered as representative and can be used by any state, as they were computed from data obtained at continuous count stations located in different parts of the country. On the other hand, specific values for a particular state may be computed if the state has an adequate number of continuous count stations.

Another problem which had to be overcome before the technique could be used is related to the differences in the order of magnitude and dispersion among the values of the "n" variables. It was noted that if the order of magnitude of the range of values that a particular variable takes is much larger than the range of values for other variables, the value of the Euclidean distance between data units will be based on that variable. In order to overcome this problem, the values of the variables were standardized using equation 2.

$$Z_{ih} = \frac{x_{ih} - x_h}{SD (s_h)} \quad , \quad (2)$$

where

- Z_{ih} = standard value for variable h for case i,
- x_{ih} = value of variable h for case i,
- x_h = mean value of variable h, and
- $SD (s_h)$ = standard deviation of variable h.

It was also noted that the variables used do not all have the same degree of impact on the AADT of a given link. This, therefore, required that a weighting factor be included for each variable. A stepwise regression analysis was used to determine the relative influence of each variable on the AADT by assigning the average value of "F to remove" of each variable as the weighting factor for that variable, as shown in Table 3.

Table 3
Weighting Factors for Significant Variables

Variable Type	F TO REMOVE				Average F	Weighting Factor
	BASED ON AADT DATA FOR					
	1977	1978	1979	1980		
Function Use	11.00	11.86	10.08	11.9	11.38	12
FHWA Functional Classification	13.03	11.86	12.24	9.89	11.01	11
Population of County	4.4	5.09	5.2	4.68	4.84	5
Terrain	2.97	2.98	2.38	2.69	2.76	3
Land Use	0.33	0.70	0.74	0.68	0.71	1

The squared Euclidean distance used in McQueen's K-means technique is, therefore, given as

$$d_{ij}^2 = \sum_{h=1}^m W_h (Z_{ih} - Z_{jh})^2, \quad (3)$$

where

W_h = weighting factor for variable h, and

m = number of variables.

A FORTRAN computer program was written for executing the whole procedure based on the flowchart shown in Figure 1.

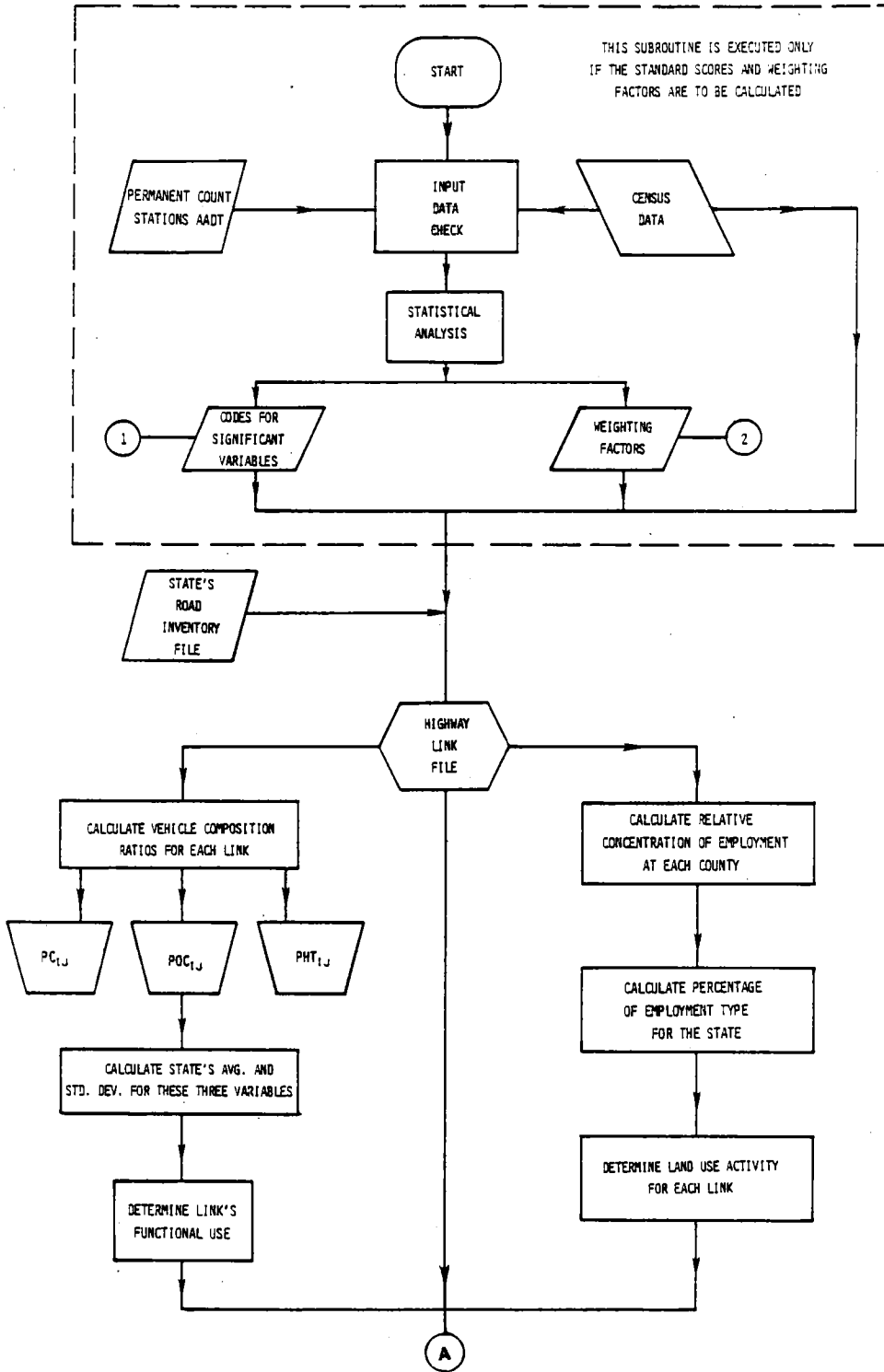


Figure 1. Schematic representation of proposed highway classification algorithm.

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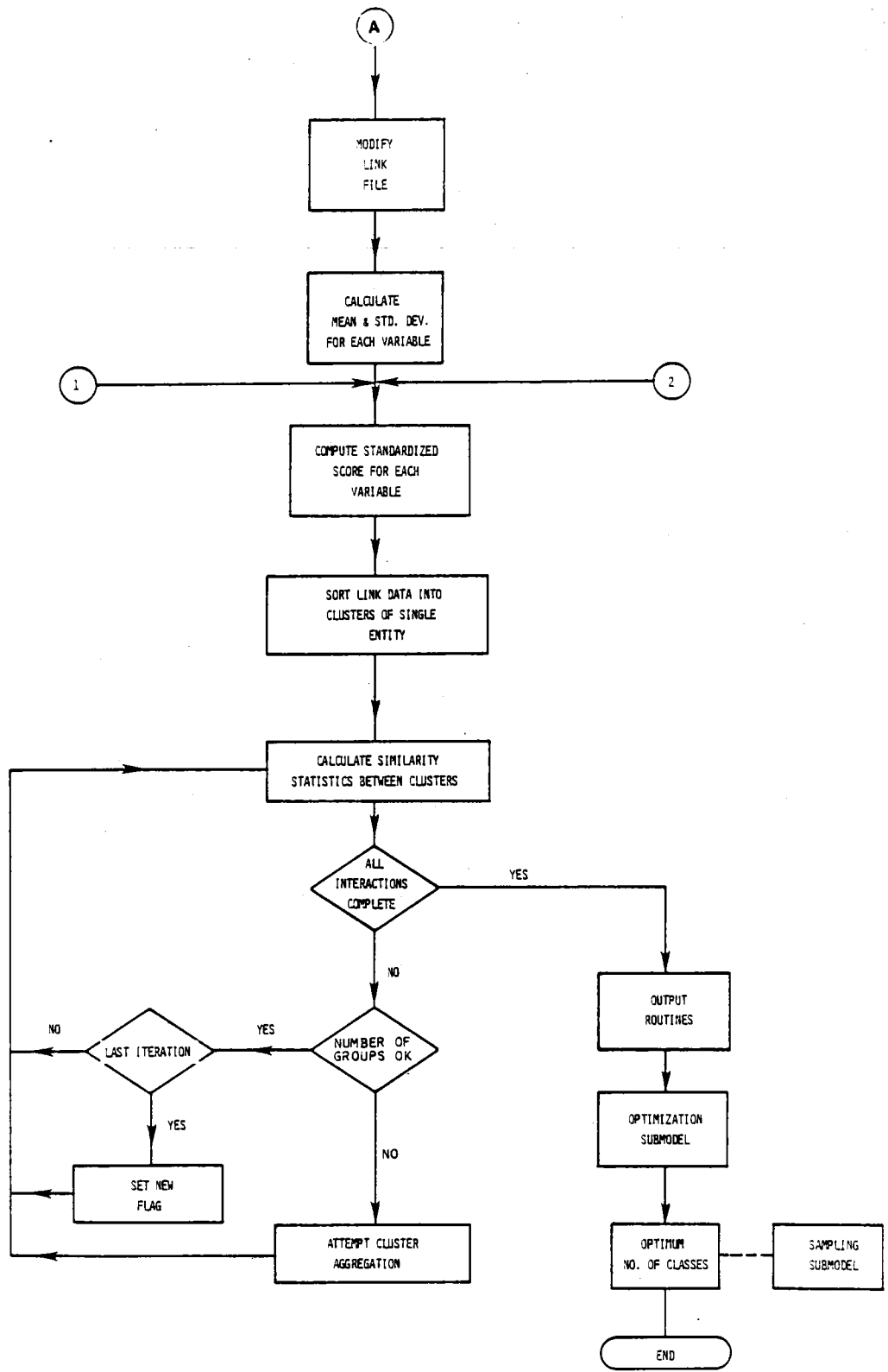


Figure 1 - Continued

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Before using the methodology to classify all rural highways in the state, it was first tested using the interstate, arterial, and collector roads in the Richmond District. A total of 343 highway links were obtained using the guidelines presented earlier. Figure 2 is a plot of the number of clusters vs. c and indicates that the rate of increase of the number of clusters is relatively high for values of c less than 2.5 and low for values of c greater than 6.5. These values correspond to about 10 and 4 clusters, respectively, and suggest that a reasonable number of clusters is between 4 and 10.

Since the coefficient of variation of the AADTs within any given cluster is an indication of how successful the clustering procedure is, data on average daily traffic were collected on a sample of links in each cluster for a system of 10 clusters, and the coefficients of variation were estimated for each cluster. The results obtained are shown in Table 4, which indicates that all of the coefficients of variation were lower than the recommended FHWA values.

The computer program was, therefore, used to group the links in each district. Table 5 shows the recommended number of clusters for each district and the distribution of the clusters among the different types of highways. The links in each cluster are shown in Appendix B. It can be seen that 82 clusters were obtained for the entire state. This means that a minimum of 82 continuous count stations (one for each cluster) is required. The procedure used for identifying these continuous count stations is presented later.

Factors for Estimating Annual Flows

Three types of factors were developed using the procedures described earlier in the methodology section. These three types are --

1. factors for estimating MADT from 48 hour counts, (F_1),
2. factors for estimating AADT from MADT (F_2), and
3. factors for estimating AADT from short count of less than 24 hour duration (F_3).

The values obtained for the F_1 and F_2 factors are shown in Appendix C of this report. Details of the analysis carried out to estimate the F_3 factors and the values obtained are given in Appendix D.

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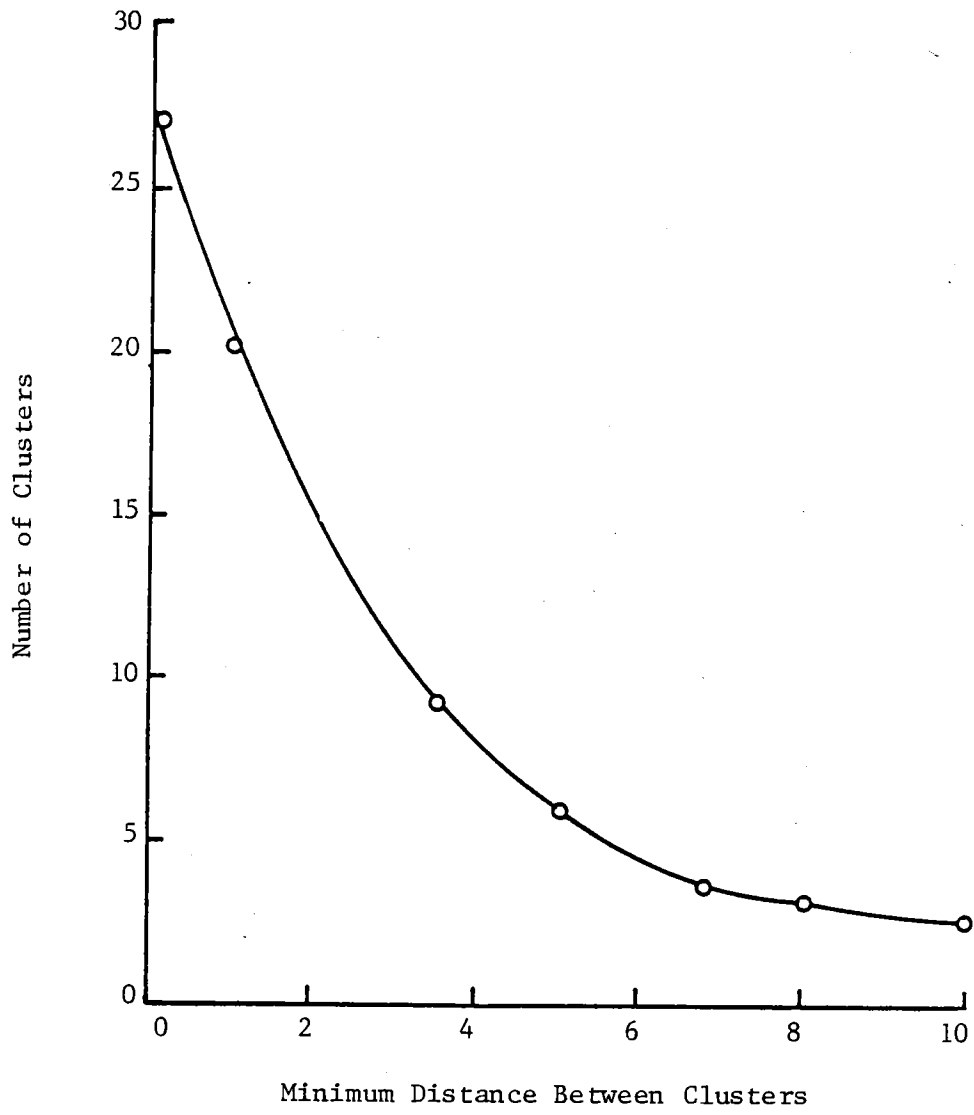


Figure 2. Number of clusters vs minimum distance between clusters for Richmond District.

Table 4

ADT Estimated Coefficient of Variation for Each Cluster
of a Clustering System of Ten Clusters in the
Richmond District

Cluster No.	Predominant Type Of Highway	Number Of Links Sampled	Estimated ADT	Estimated Standard Deviation	COV
1	Interstate	5	8,601	1,140	0.13
2	Major & Minor Arterials	8	6,500	1,027	0.16
3	Major Collectors	6	6,720	1,023	0.15
4	Interstate	9	13,920	2,744	0.20
5	Major & Minor Arterials	7	12,737	2,058	0.16
6	Interstate	8	33,799	6,422	0.19
7	Major Collectors	10	1,582	568	0.36
8	Minor Arterials	10	1,709	532	0.31
9	Major Collectors	6	3,584	650	0.18
10	Major & Minor Arterials	8	3,614	630	0.17

2500

Table 5

Distribution of Clusters Amongst the Different Types of Highways in Each District

<u>District</u>	<u>Total No. of Clusters</u>	<u>Interstate</u>	<u>Principal Arterials</u>	<u>Minor Arterials</u>	<u>Principal and Minor Arterials</u>	<u>Major Collectors and Arterials</u>	
						<u>Major Collectors</u>	<u>Major Collectors</u>
Bristol	7	2	2	-	-	3	-
Clupeper	10	2	1	2	2	2	1
Fredericksburg	8	1	1	2	2	2	-
Lynchburg	10	-	1	4	1	2	2
Northern Virginia	10	3	1	2	1	2	1
Richmond	10	3	-	1	3	-	3
Salem	8	4	-	-	2	2	-
Staunton	10	4	-	-	2	4	-
Suffolk	9	5	1	-	1	2	-

Development of Counting Procedures

The counting procedure is largely based on the level of accuracy required, which was used to determine the number of counts required for each cluster. The procedure was developed by determining -

- o the level of accuracy,
- o the number and location of counting stations,
- o the duration of each count, and
- o the frequency of counts.

Level of Accuracy

During the several interviews conducted with officials of the state agencies that would be using the estimated information, it was found that a precision level of ± 10 percent with 95 percent confidence (95-10) would be adequate. Since this level of accuracy is in keeping with the FHWA recommendations, (5) it was adopted for developing the counting procedure.

Number and Location of Counting Stations

Determining the number of counting stations required involved a determination of the minimum sample size for the desired accuracy level. The locations were determined by random selection.

Sample Number of Counting Stations

The factors which affect the sample size required for estimating a parameter of a population are --

- o the precision level desired,
- o the variance of the variable being examined within the population,
- o the population size, and
- o the method of sample selection.

It has been shown that the required sample size of a simple random sample without replacement can be obtained as

$$n_o = [t^2_{(1-\alpha/2)} s^2/d^2] / [1 + (1/n) [t^2_{(1-\alpha/2)} s^2/d^2]] , \quad (4)$$

where

- n_o = sample size,
- $t_{(1-\alpha/2)}$ = standard t value two-tail at level of confidence $(1-\alpha)$,
- S = standard deviation of the sample observation about the sample mean,
- d = acceptable differences (\pm) between the sample mean and the population mean (tolerance level), and
- n = total number of elements in the population.

The required sample size is obtained from equation 4 only if the sample units are selected by simple random samples. If, however, sample units are considered as cluster samples, then each sample unit will contain more than one sample element. In this case it is necessary to adjust n_o obtained from equation 4 by multiplying it by a design effect D, such that

$$n = n_o D ,$$

where

- n = required sample size for a cluster sample,
- n_o = required sample size for a simple random sample,
- $D = \text{var}(Y) / [(1 - f) S^2/n]$,
- f = proportion of elements in the population that are sampled (sample fraction), and
- S^2 = sample variance of a simple random sample about the sample mean.

In this study it was assumed that each cluster of highway links is an independent unit of a population equal to the number of links in the cluster. A simple random selection process was, therefore, assumed, and equation 4 was used to determine the sample size for each cluster. Tables 6 through 14 show for each cluster in each district the number of links, the estimated AADT (from existing key count data), the estimated standard deviation, and the required minimum sample size.

The results indicate that a total of 927 counting stations would be required for the whole state, compared with the total of 1,345 currently used.

Table 6

Clusters and Sample Size for Bristol District

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Major Collectors & Minor Arterials	96	3,422	720	0.21	15
2	Major Collectors & Minor Arterials	21	1,089	499	0.45	19
3	Major Collectors & Minor Arterials	111	1,339	629	0.47	49
4	Interstate	10	9,152	488	0.05	2
5	Principal Arterials	83	7,092	1,372	0.19	12
6	Principal Arterials	29	11,588	1,291	0.11	4
7	Interstate	27	15,175	2,784	0.18	9
				Total		110

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Table 7

Clusters and Sample Size for Culpeper District

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Minor Arterials	49	1,673	501	0.30	21
2	Major Collectors & Minor Arterials	25	1,744	644	0.37	18
3	Minor Arterials	51	3,610	661	0.18	11
4	Major Collectors & Minor Arterials	8	3,660	643	0.18	6
5	Principal & Minor Arterials	7	8,150	1,073	0.13	4
6	Interstate	6	8,288	828	0.10	3
7	Principal & Minor Arterials	46	7,073	1,472	0.21	13
8	Principal Arterials	19	15,353	2,889	0.19	8
9	Interstate	13	12,585	2,138	0.17	9
10	Major Collectors	12	3,093	588	0.19	8
				Total		101

Table 8

Clusters and Sample Size for Fredericksburg District

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Major Collectors and Minor Arterials	48	1,524	662	0.43	29
2	Minor Arterials	19	1,497	426	0.28	12
3	Principal & Minor Arterials	81	3,613	644	0.18	10
4	Principal & Minor Arterials	48	6,440	1,094	0.17	9
5	Principal Arterials	16	7,367	1,197	0.16	7
6	Major Collectors & Minor Arterials	22	14,257	3,229	0.23	11
7	Minor Arterials	6	26,155	2,695	0.10	3
8	Interstate	11	38,341	4,450	0.12	4
				Total		85

Table 9

Clusters and Sample Size for Lynchburg District

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Major Collectors & Minor Arterials	52	1,436	566	0.39	29
2	Minor Arterials	46	1,755	563	0.32	20
3	Major Collectors	15	1,416	572	0.40	13
4	Major Collectors & Minor Arterials	27	3,657	878	0.24	13
5	Minor Arterials	21	3,341	642	0.19	9
6	Major Collectors	12	3,404	679	0.20	7
7	Minor Arterials	30	5,746	1,488	0.26	15
8	Principal Arterials	22	7,468	1,761	0.24	12
9	Minor Arterials	19	6,077	1,916	0.32	13
10	Principal & Minor Arterials	23	14,351	2,562	0.18	8
				Total		139

2597

Table 10

Clusters and Sample Size for Northern Virginia

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Major Collectors	6	2,273	506	0.22	5
2	Minor Arterials & Major Collectors	15	3,718	893	0.24	10
3	Minor Arterials	13	3,866	682	0.18	7
4	Minor Arterials	12	7,846	1,058	0.13	5
5	Interstate	6	8,950	905	0.10	2
6	Principal & Minor Arterials	21	6,824	1,467	0.21	10
7	Principal Arterials	5	13,209	1,520	0.12	3
8	Major Collectors & Minor Arterials	23	16,839	3,489	0.21	11
9	Interstate	18	40,786	14,506	0.36	8
10	Interstate	8	114,388	8,522	0.07	2
				Total		63

Table 11

Clusters and Sample Size for Richmond District

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Interstate	19	8,601	1,140	0.13	5
2	Principal & Minor Arterials	36	6,500	1,027	0.16	8
3	Major Collectors	18	6,720	1,023	0.15	7
4	Interstate	21	13,960	2,744	0.20	9
5	Principal & Minor Arterials	24	12,737	2,058	0.16	7
6	Interstate	17	33,799	6,422	0.19	10
7	Major Collectors	70	1,582	568	0.36	30
8	Minor Arterials	40	1,709	532	0.31	20
9	Major Collectors	42	3,584	650	0.18	10
10	Principal & Minor Arterials	56	3,614	630	0.17	10
				Total		116

2599

Table 12

Clusters and Sample Size for Salem District

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Major Collectors & Minor Arterials	87	1,384	623	0.45	42
2	Major Collectors & Minor Arterials	66	3,346	720	0.22	15
3	Principal & Minor Arterials	74	7,168	1,524	0.21	14
4	Interstate	3	7,581	1,084	0.14	3
5	Principal & Minor Arterials	36	13,346	2,920	0.22	13
6	Interstate	16	15,179	1,632	0.11	3
7	Interstate	9	26,302	2,809	0.06	4
8	Interstate	7	29,252	7,171	0.25	5
				Total		99

2609

Table 13

Clusters and Sample Size for Staunton District

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Major Collectors & Minor Arterials	29	1,066	431	0.40	20
2	Major Collectors & Minor Arterials	78	1,517	590	0.39	34
3	Interstate	11	3,501	748	0.21	6
4	Major Collectors & Minor Arterials	69	3,664	693	0.19	12
5	Principal & Minor Arterials	84	6,539	1,670	0.26	19
6	Interstate	3	6,491	1,369	0.21	3
7	Major Collectors & Minor Arterials	25	1,055	345	0.33	16
8	Interstate	35	15,427	2,151	0.14	7
9	Interstate	18	15,980	3,062	0.19	8
10	Principal & Minor Arterials	11	12,262	1,754	0.14	5
				Total		130

Table 14
 Clusters and Sample Size for Suffolk District

<u>Cluster No.</u>	<u>Predominant Type of Highway</u>	<u>Number of Links</u>	<u>Estimated Average AADT</u>	<u>Estimated Standard Deviation</u>	<u>COV</u>	<u>Minimum Sample Size Required</u>
1	Major Collectors & Minor Arterials	55	1,641	479	0.29	21
2	Major Collectors & Minor Arterials	50	3,447	702	0.20	12
3	Principal & Minor Arterials	61	7,214	1,444	0.20	13
4	Principal Arterials	40	14,030	3,900	0.28	18
5	Interstate	14	18,128	2,228	0.12	5
6	Interstate	13	36,878	7,417	0.20	8
7	Interstate	7	17,922	4,446	0.25	4
8	Interstate	6	55,653	5,000	0.09	2
9	Interstate	2	93,480	0	0.00	1
				Total		84

2602

Station Locations

After the minimum number of counting stations required for each cluster was determined, the locations of counting stations were initially selected for each cluster separately by selecting the required number of highway links using a list of computer generated random numbers. It was, however, necessary to take into consideration the current locations of the HPMS sites, as the inclusion of a majority of these in the proposed counting program was necessary to provide some continuity of the HPMS data. The number and locations of HPMS stations currently in use were identified. For clusters with no HPMS stations, the links initially randomly selected were taken as the locations of the sample stations. For clusters containing HPMS counting stations up to a maximum of 50 percent of the required locations were randomly selected from the current HPMS locations, and the remaining were randomly selected from the set of highway links initially selected. The locations of all counting stations for each cluster are shown in Appendix B.

One continuous count station was assigned to each cluster. The locations for these were determined by either selecting existing continuous count stations where they existed in a cluster or randomly selecting a highway link when there were no existing continuous count stations in the cluster. The locations selected for the continuous count stations are shown in Appendix B.

Count Duration and Day of Count

The main criteria used in selecting the count duration were the relative error and variance of the MADT estimated from either 24-, 48-, or 72-hour counts. The analysis was carried out using data for existing continuous count stations for 1980, 1981, and 1982. A computer program was developed to randomly select periods of 24, 48, or 72 continuous hours starting at 12 midnight during (1) weekday only, (2) any day of the week, and (3) weekend only. The traffic volumes for these periods were extracted from the data for each of the continuous count stations. The ADT was then computed in each case and compared with the AADT, MADT, and the Weekly Average Daily Traffic (WADT) at the appropriate station.

Similar results were obtained for all stations, and were in the form of the plots shown in Figures 3 through 8. Several observations could be made from these results. Firstly, the least errors between the Estimated Monthly Average Daily Traffic (EMADT) and the True Monthly Average Daily Traffic (TMADT) generally occurred for random samples taken only during weekdays (Monday through Friday); while the greatest error occurred for samples taken only at weekends. Secondly, errors for 48-hour counts were generally lower than those for 24-hour counts, while

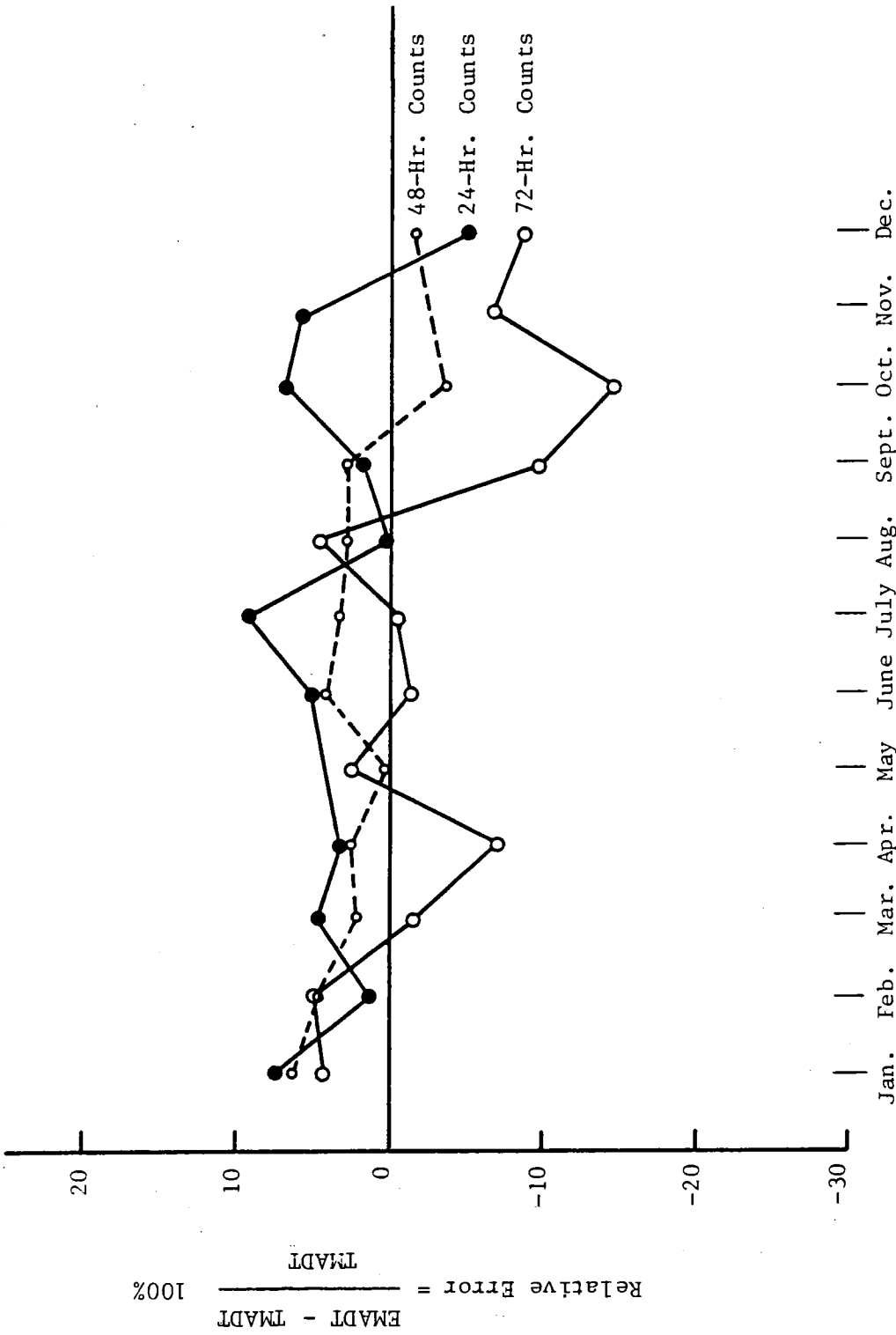
the errors for the 72-hour counts were not significantly different from those for 48-hour counts. It was, therefore, decided that of the three count durations considered the 48-hour count seems to be the best, as the additional accuracy which may be gained by adopting a 72-hour count may not warrant the additional cost. It was also decided that counts should be taken only during the weekdays. The 48-hour duration is also in keeping with the FHWA guidelines. (5)

An analysis was also carried out to determine which combination of days of the week (i.e., Monday and Tuesday, Tuesday and Wednesday, Wednesday and Thursday, or Thursday and Friday) is most suitable for taking counts. This was done by determining the relative error with respect to the TMADT and the coefficient of variation of the EMADT from 48-hour counts taken during each combination of days, for each month, and for each continuous count station.

The results did not identify any single combination of days to be significantly more accurate or more stable than the others. It was, however, observed that counts taken on Tuesdays and Wednesdays and Wednesdays and Thursdays gave slightly lower errors for the estimated MADT when compared with the recorded MADT. Since monthly factors will be used in the count program, the combinations of Tuesday and Wednesday and Wednesday and Thursday seem to be preferable, although counts may also be taken on Mondays and Tuesdays. Counts on Thursday and Friday should be avoided as Friday volumes are influenced by the weekend traffic.

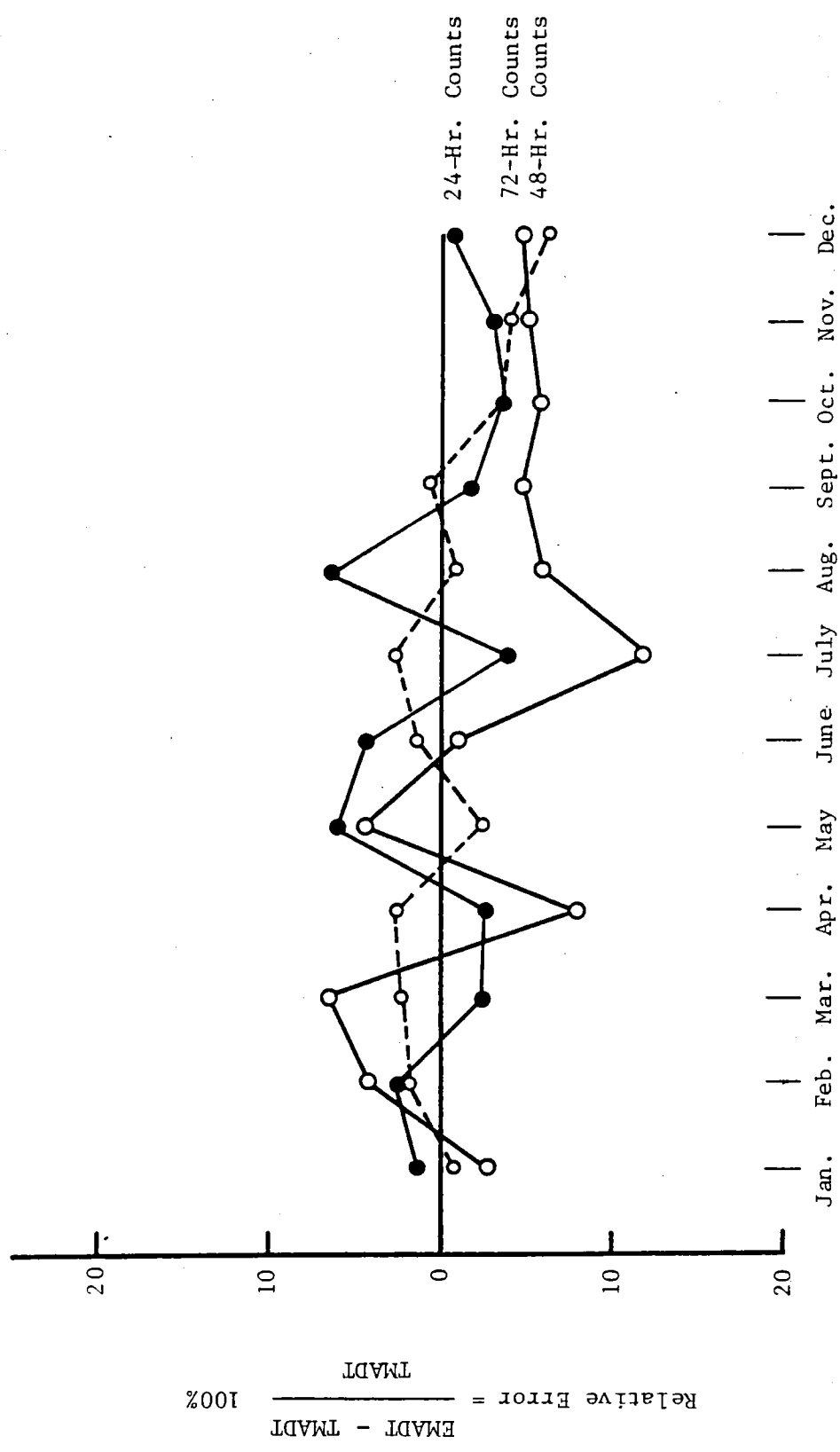
Frequency of Counts

The factors considered in selecting the monitoring cycle were (1) the accuracy of the estimates made from the data collected, which is influenced by the temporal variation of the traffic volume at any particular site; (2) the need for initial monitoring and updating of the daily and monthly factors determined in this study; and (3) the cost of the counting program. The FHWA has recommended that an average of 48-hour counts taken every three years is a cost-effective and reliable procedure. Because it will be necessary to monitor and update the daily and monthly factors presented in this report, it will be necessary to collect data on all sample sites each month for an initial period. Since it is anticipated that eventually the FHWA recommendation of a three-year cycle count will be implemented, an initial period of three years is appropriate, as this will provide data at every count station in three consecutive years before the three-year cycle begins. It is envisaged that by the end of this initial period, updating of the monthly and daily factors will no longer be necessary, and that the FHWA recommendation may then be implemented. This will entail a three-year cycle counting program, where one-third of the sample sites in each cluster are monitored every year in rotation.



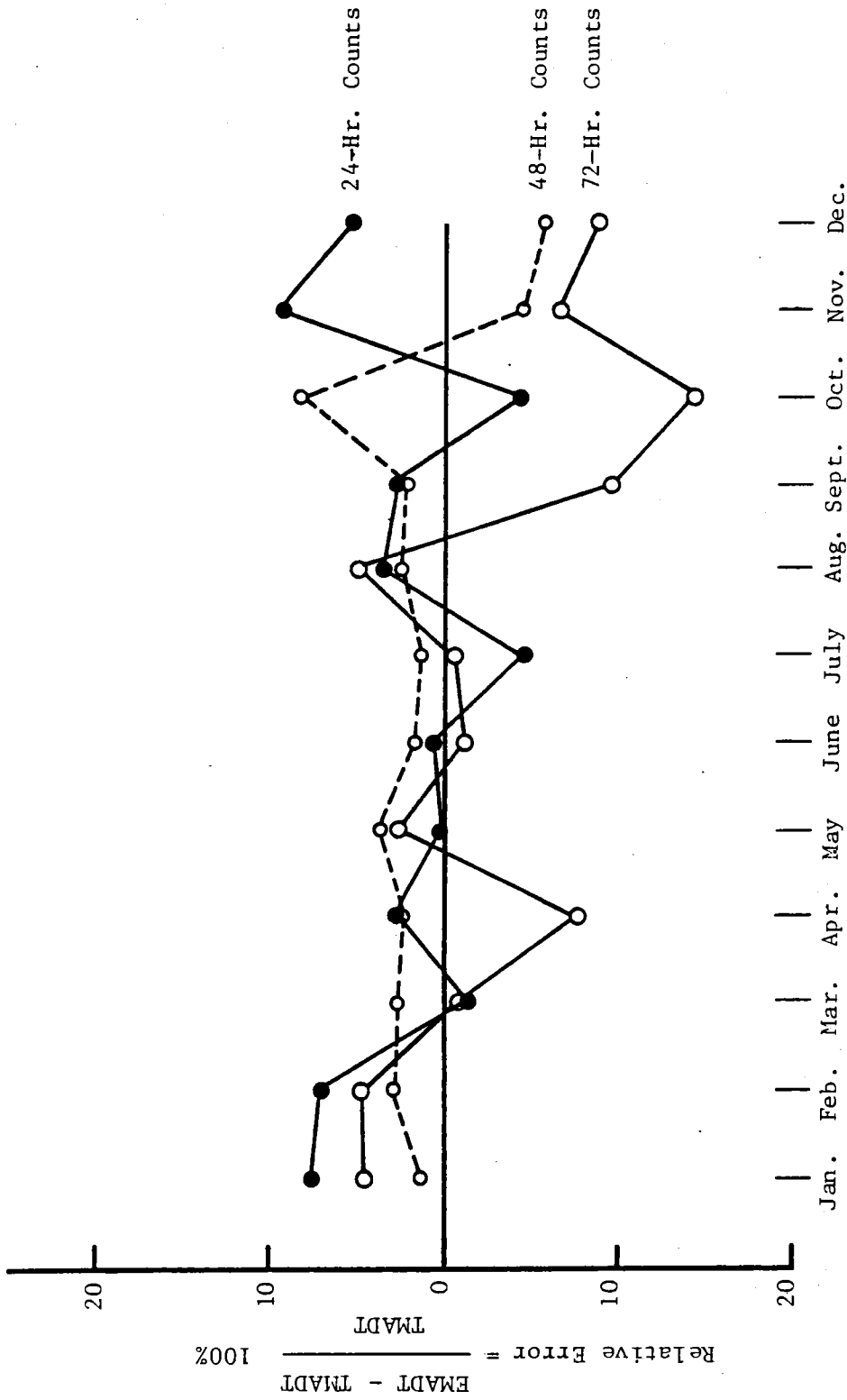
EMADT = Estimated Monthly Average Daily Traffic
 TMADT = True Monthly Average Daily Traffic

Figure 3. Comparison of monthly average daily traffic estimated from 24-, 48-, and 72-hr. counts with the true monthly average daily traffic at station 1 (counts taken on weekdays only).



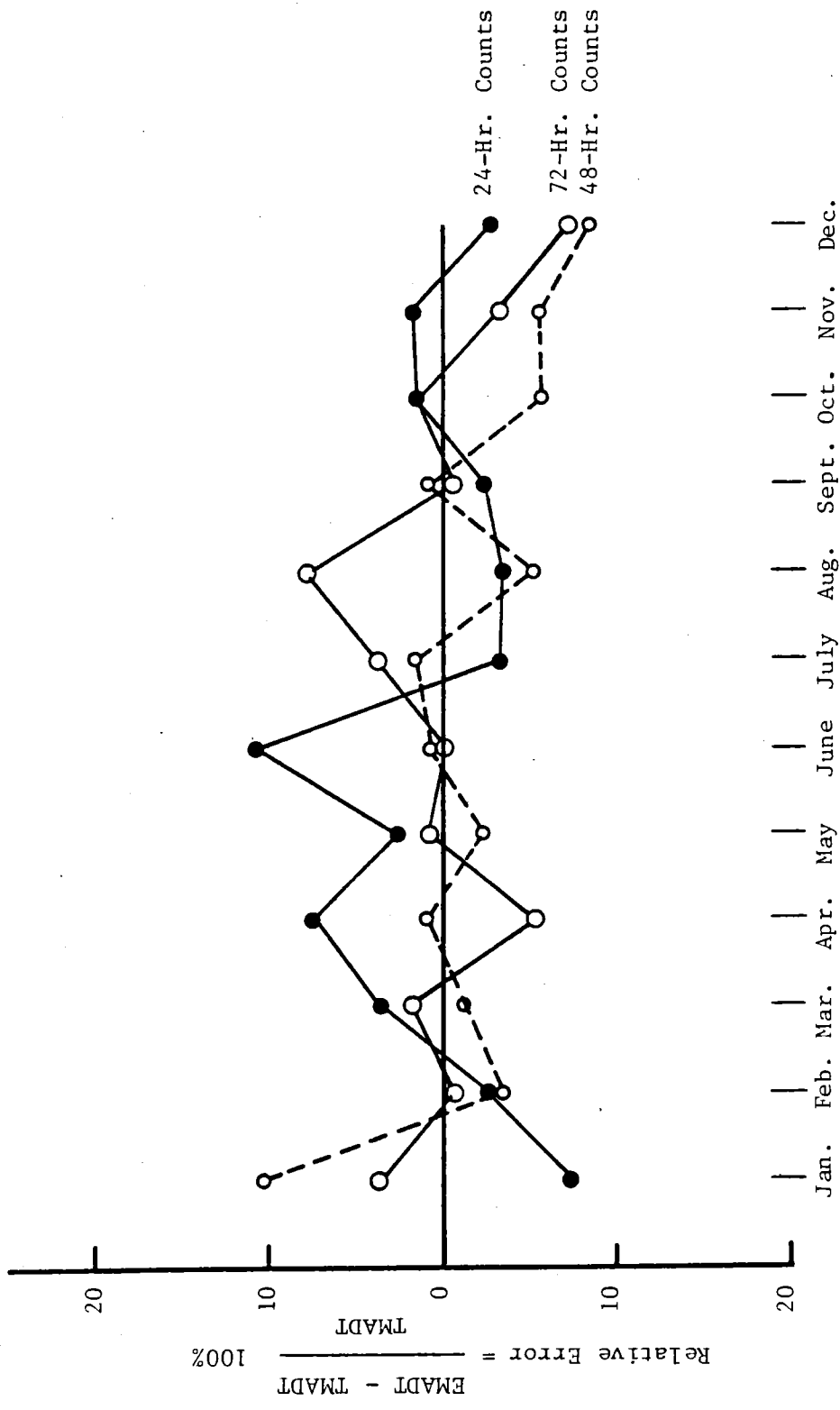
EMADT = Estimated Monthly Average Daily Traffic
 TMADT = True Monthly Average Daily Traffic

Figure 4. Comparison of monthly average daily traffic estimated from 24-, 48-, and 72-hr. counts with the true monthly average daily traffic at station 2 (counts taken on weekdays only).



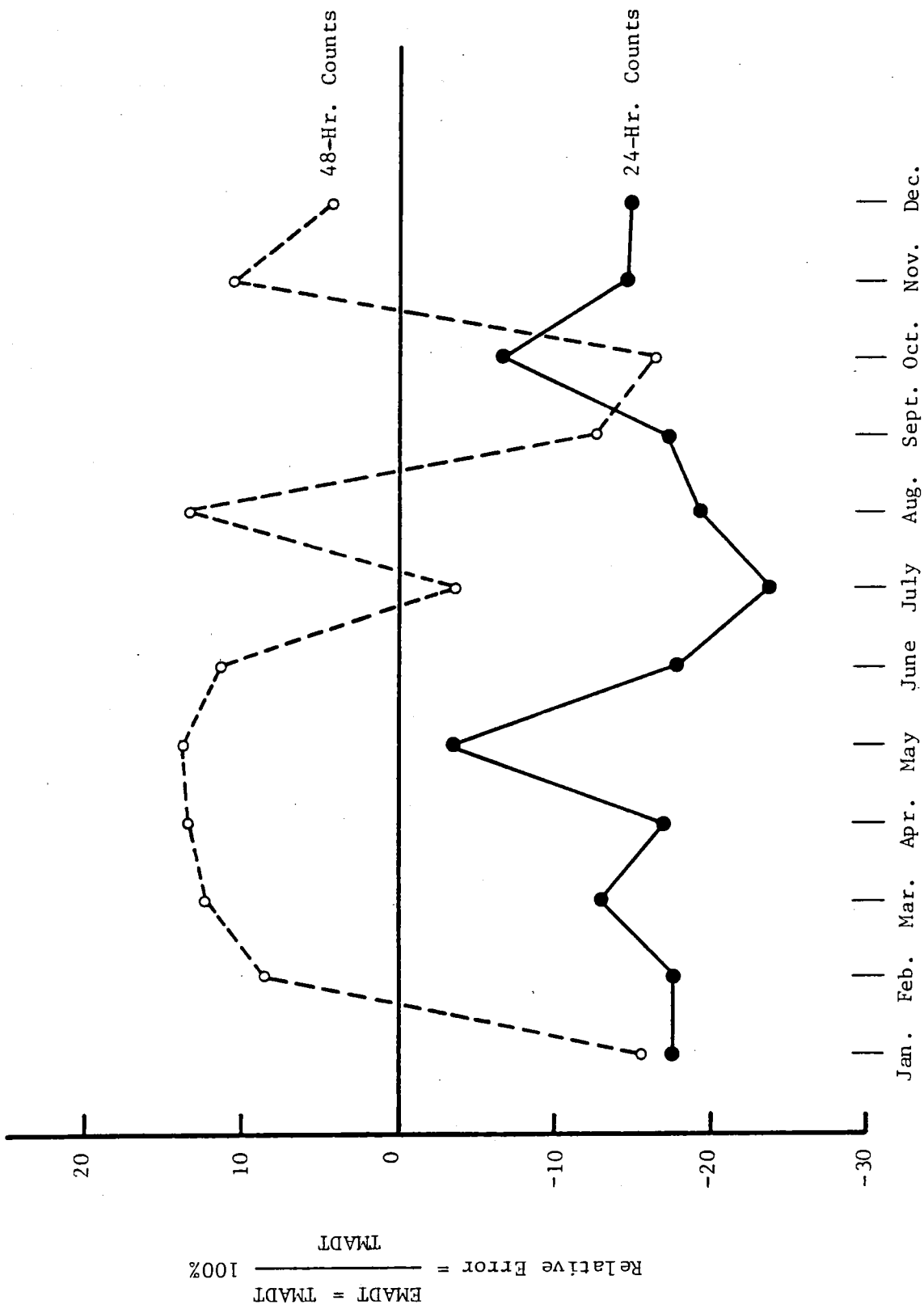
EMADT = Estimated Monthly Average Daily Traffic
 TMADT = True Monthly Average Daily Traffic

Figure 5. Comparison of monthly average daily traffic estimated from 24-, 48-, and 72-hr. counts with the true monthly average daily traffic at station 1 (counts taken on any day of week).



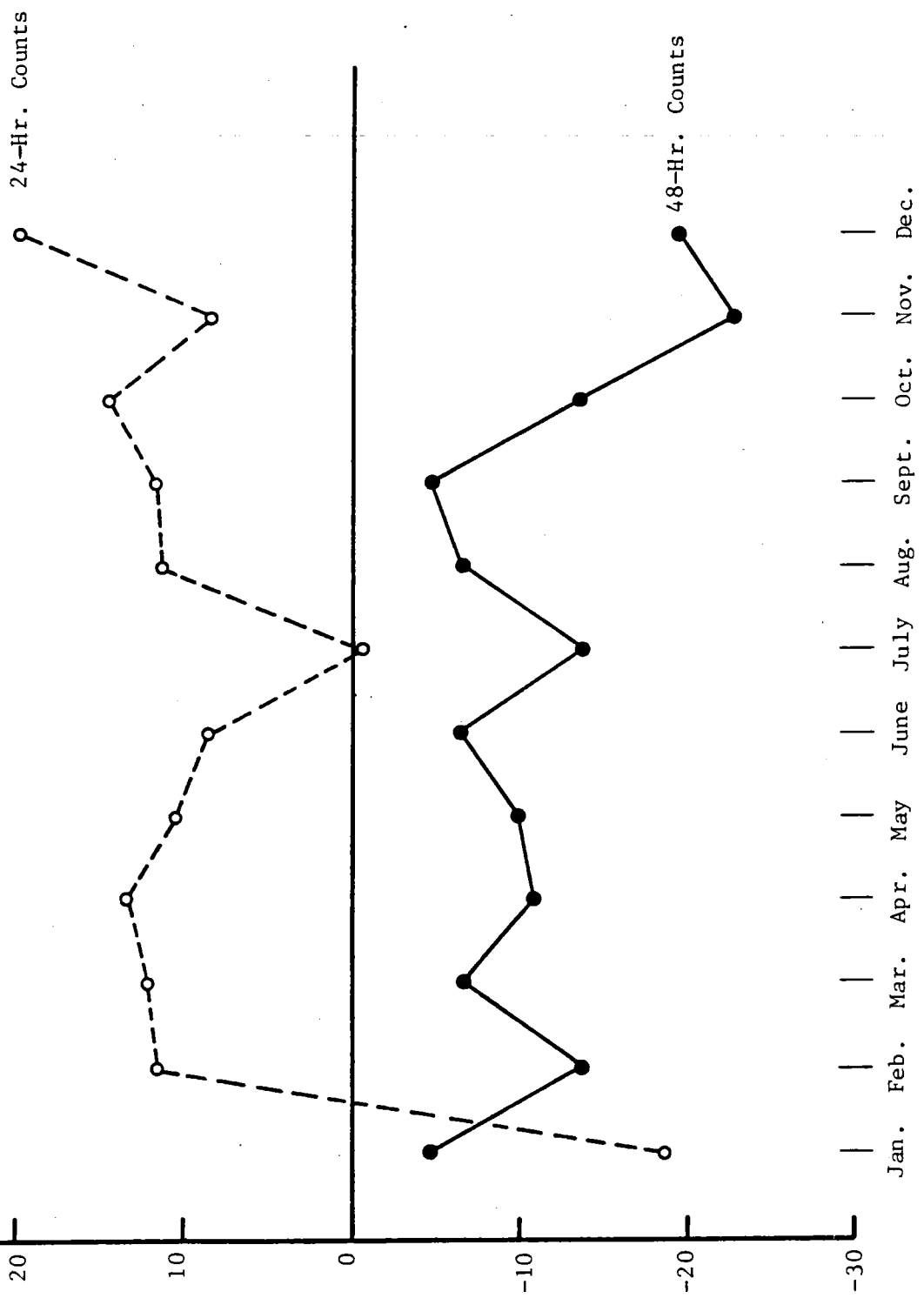
EMADT = Estimated Monthly Average Daily Traffic
 TMADT = True Monthly Average Daily Traffic

Figure 6. Comparison of monthly average daily traffic estimated from 24-, 48-, and 72-hr. counts with the true monthly average daily traffic on station 2 (counts taken on any day of the week).



EMADT = Estimated Monthly Average Daily Traffic
 TMADT = True Monthly Average Daily Traffic

Figure 7. Comparison of monthly average daily traffic estimated from 24- and 48-hr. counts with the true monthly average daily traffic at station 1 (counts taken on weekends only).



$$\text{Relative Error} = \frac{\text{EMADT} - \text{TMADT}}{\text{TMADT}} \times 100\%$$

EMADT = Estimated Monthly Average Daily Traffic
 TMADT = True Monthly Average Daily Traffic

Figure 8. Comparison of monthly average daily traffic estimated from 24- and 48-hr. counts with the true monthly average daily traffic at station 2 (counts taken on weekends only).

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Personnel and Equipment

It is estimated that 256 road tube type counters will be required as shown in Table 15. The number given for each station allows for monitoring all sample stations every month in each cluster, with a 10 percent leeway for maintenance. Information obtained from the Department of Highways and Transportation suggests that it presently has 30 Streeter AMET counters which can be used in the program. The purchase of 226 of these counters is, therefore, required.

In addition, about 149 loop counters will be required. The distribution of these additional loop counters is shown in Table 16. This distribution is based on the additional continuous count stations required in each district and the need for loop counters on interstate highways.

It is also envisaged that each district, with the exception of Lynchburg, will need a counting crew consisting of one Technician C to maintain the counters and supervise the data collection and a Technician B. A pickup will be necessary for each crew. The Lynchburg District will, however, require two crews because of the distances involved.

SUMMARY OF PROPOSED TRAFFIC COUNT PROGRAM

Counting Procedure

1. All highways in the interstate, arterial, and primary systems in the state should be considered as consisting of the links identified in Appendix A.
2. Continuous count stations should be located as indicated in Appendix B. Data obtained at these stations should be used by the Research Council every year during the first three years of program operation to update the multiplication factors given in Appendices C and D.
3. Counts of 48 hours duration should be taken every month for the first three years at each link identified in Appendix B. These data, in conjunction with the continuous count data, will be used to update the multiplication factors given in Appendix C. After the first three years, a three-year cycle program may be implemented where one-third of the sample sites in each cluster are monitored every year in rotation.

Table 15

Number of Links to be Sampled and Number of Road Tube
Counters Required for Each District

<u>District</u>	<u>No. of Links</u>	<u>Sample Size</u>	<u>No. of Tube Type Counters Required</u>
Bristol	377	110	30
Culpeper	236	101	28
Fredericksburg	251	85	24
Lynchburg ^a	267	139	39
Richmond	343	116	32
Salem	298	99	27
Staunton	363	130	35
Suffolk	248	84	23
N. Virginia	<u>127</u>	<u>63</u>	<u>18</u>
TOTAL	2,510	927	256

Note: This provision is for only the primary roads counting program as considered in this study.

^a Because of the long distances involved in this district, two crews are recommended.

Table 16

Number of Additional Loop Counters Required for Each District^a

District	No. of Continuous Count Stations Required ^a	No. of Existing Continuous Count Stations	Additional Loop Counters Required			Total
			Continuous Count Stations	Interstate Monthly Count Stations	Interstate Monthly Count Stations	
Bristol	7	4 ^b	3	11	14	
Culpeper	10	7 ^b	3	12	15	
Fredericksburg	8	3	5	4	9	
Lynchburg	10	4	6	-	6	
Richmond	10	6 ^b	4	12	16	
Salem	8	4	4	15	19	
Staunton	10	6 ^b	4	24	28	
Suffolk	9	5	4	20	24	
N. Virginia	<u>10</u>	<u>4^b</u>	<u>6</u>	<u>12</u>	<u>18</u>	
TOTAL	82	43	39	110	149	

Note: One loop counter for each countinuous count station and for each monthly count station on an interstate link.

^a Same as number of clusters in each district.

^b One cluster contains two continuous stations, one of which is to be relocated.

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Estimation of MADT, AADT and VMT

Estimation of MADT From 48-hour Counts

The average MADT for a given month for each cluster is estimated from the 48-hour counts by using equation 5.

$$MADT_{cmd} = \frac{F_{1cmd}}{2 N_{cd}} \sum_{i=1}^{N_{cd}} V_{icmd} \quad , \quad (5)$$

where

V_{icmd} = 48-hour count at any counting station i in cluster c of district d during month m ,

N_{cd} = number of counting stations in cluster c of district d ,

F_{1cmd} = factor (F_1) for estimating MADT from 48-hour count taken in cluster c of district d during month m (see Appendix B), and

$MADT_{cmd}$ = monthly average daily traffic in month m for cluster c in district d .

Estimation of AADT from MADT

The representative $AADT_{cd}$ for any cluster is determined from equation 6.

$$AADT_{cd} = \frac{1}{12} \sum_{m=1}^{12} MADT_{cmd} F_{2cmd} \quad , \quad (6)$$

where

$AADT_{cd}$ = annual average daily traffic for cluster c in district d ,

$MADT_{cmd}$ = monthly average daily traffic in month m for cluster c in district d , and

F_{2cmd} = factor (F_2) for estimating AADT from MADT in month m for cluster c in district d .

Estimation of VMT From AADT

The VMT for each district is determined from equation 7.

$$VMT_d = \sum_{c=1}^{M_d} AADT_{cd} N_{cd} L_{cd} \quad , \quad (7)$$

where

VMT_d = vehicle miles of travel in district d ,

N_{cd} = number of links in cluster c of district d ,

L_{cd} = average length of links in cluster c of district d ,
and

M_d = number of clusters in district d .

The VMT for the entire state is determined from equation 8.

$$VMT_s = \sum_{d=1}^s VMT_d \quad , \quad (8)$$

where

VMT_s = vehicle miles of travel for the entire state,

VMT_d = vehicle miles of travel for district d , and

s = number of districts in entire state = 9.

The VMT for each county is determined from equation 9.

$$VMT_n = \sum_{cn=1}^G AADT_{cn} N_{cn} L_{cn} \quad , \quad (9)$$

where

VMT_n = vehicle miles of travel in county n,

$AADT_{cn}$ = annual average daily traffic for cluster c, containing links in county n,

N_{cn} = numbers of links from county n in cluster c,

L_{cn} = average length of links from county n in cluster c,
and

G_{cn} = number of clusters containing links from county n.

Vehicle Classification

Since the classification of vehicles is an important element in the traffic count program, it should be noted that the percentage of 3-or-more axle trucks in the traffic stream was taken as a variable in grouping highway links. Links within a given group should, therefore, have similar percentages of heavy vehicles in the traffic streams. The data used for this variable were, however, obtained from previous manual counts. These were conducted by part-time personnel and may, therefore, not be accurate. It should be noted, however, that when the grouping procedure was tested in the Richmond District, except for a few links, similar percentage distributions of heavy vehicles were obtained for links within a given group. However, in order to ascertain that this also applies to groups in the other districts, classification data will be collected during the first year of implementation of the program. It is proposed that classification data be collected using the Station Streeter AMET Counter, if its accuracy on classification can be ascertained, or be collected manually by experienced and dedicated personnel (preferably VDH&T personnel) under strict supervision. The data collected will be used to check the spread of vehicle type distribution and the link within each group. In cases where an unacceptable spread is obvious, subgroups for vehicle classification only will be developed. These data will then be used to determine representative vehicle classification and average truck adjustment factors for each group or subgroup. These adjustment factors will be used to correct machine count volumes based on an average of 2 axles per vehicle.

Site Specific Data

The AADT or VMT of a specific site can be determined using data obtained for the cluster containing that link, or by taking a short count and using the procedure described in Appendix D.

The clustering system developed facilitates the estimation of the AADT on a specific link, even though volume counts may not have been taken on that link. The AADT determined for a given cluster may be used as the AADT for any link within that cluster, with an estimated error of ± 10 percent with 95 percent confidence. This AADT will, however, reflect data collected during the previous year but not during the current year.

When estimates of a current year's AADT is required the procedures described in Appendix D could be used. This involves:

1. identifying a stable period for the cluster containing the link (see appendix D),
2. taking a 6-, 8-, 10-, or 12-hr. volume count at the site, and
3. multiplying this volume by the appropriate factor obtained from tables in Appendix D, to give the estimated AADT for the current year at that site.

It should be noted, however, that all the necessary factors have not yet been determined, as the continuous count data required for the development are not yet available. The remaining factors will be collected after the first year of implementation of the program.

FHWA Requirement

The proposed counting program does not conflict with any of the FHWA requirements, but may not directly address some specific recommendations for example the number of vehicle classes for classification. These recommendations could easily be incorporated within the program without any difficulty. It is, therefore, recommended that during the program implementation, any specific recommendations which need to be addressed be identified and incorporated in the program.

CONCLUSION

The results of the analysis presented indicate that if the traffic count program proposed in this report is implemented, much more reliable results can be anticipated as compared with those currently obtained. Significant annual savings will be realized as it will no longer be necessary to hire a large number of part-time personnel solely for the purpose of conducting manual counts.

RECOMMENDATIONS

In view of the positive results envisaged from the implementation of the program, it is recommended that the state adopt the proposed traffic count program and that an effort be made to implement it as soon as possible.

It is also recommended that \$15,000 be provided annually to the Research Council during the first three years of the program to cover the cost associated with the reviewing and updating of the adjustment factors.

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4. U. S. Department of Transportation, Guide for Traffic Volume Counting Manual, March 1970.
5. U. S. Department of Transportation, Traffic Monitoring Guide, Federal Highway Administration, June 1985.
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APPENDIX A

ROAD LINKS IN EACH DISTRICT FOR TRAFFIC COUNT PURPOSES

Definitions

A = Type of System

1 = Interstate

2 = Business

0 = Others

B = Route Number

C = County Number

D = Link Sequence Number in County

E = Link Length

F = Direction

1 = North or South

2 = East or West

G = Start of Link to End of Link

H = Percentage of Cars

I = Percentage of Out-of-State Cars (Total)

J = Percentage of Trucks

K = Functional Use (As Developed in This Study)

L = Highway Type

93 = Interstate

42 = Principal Arterial

34 = Minor Arterial

19 = Collectors

M = County Population

20 = < 10,000

42 = 10,001 - 20,000

38 = 20,001 - 30,000

46 = 30,001 - 40,000

93 = 40,001 - 50,000

68 = 50,001 - 100,000

74 = > 100,000

N = Type of Terrain

30 = Flat

48 = Rolling

57 = Mountainous

O = Type of Land Use

23 = Agricultural

63 = Industrial

59 = Service

51 = Mining

P = AADT

Q = Cluster Number

NOTE: Please use template in pocket of back cover to identify Columns A through Q.

TABLE A-1: BRISTOL DISTRICT ROAD LINKS

B	C	D	E	F	G		H	I	J	K	L	M	N	O	P	Q
0042100001		0230	2	GILES CL	RT 606		060005003000019020057023000910									02
0042100002		0308	2	RT 606	RT 738		060005003000019020057023000910									02
0042100003		1025	2	RT 738	RT 52		068005001000019020057023001485									02
0042100004		0539	2	RT 52	RT 622		061017006000019020057023000475									02
0042100005		0958	2	RT 622	SMYTH CL		050025003000019020057023000320									02
0052100001		0253	1	I-77	I-77		069032006000019020057023000985									02
0052100002		0622	1	I-77	RT 666		064027001000019020057023000515									02
0052100003		0206	1	RT 666	RT 615		069013001000019020057023001375									02
0052100004		0457	1	RT 615	RT 42 N		069013001000019020057023001375									02
0052100005		0083	1	RT 42 N	I-77		067008001000019020057023002835									01
0052100006		0406	1	I-77	RT 42 S		055019006000019020057023000730									02
0052100007		0405	1	RT 42 S	WYTHE CL		074010003000019020057023000690									02
0061100003		1068	2	TAZEWL CL	I-77		069032006000019020057023000985									02
0061100002		0030	2	I-77	RT 52		067019001000019020057023001615									02
0061100001		0744	2	RT 52	GILES CL		060011001000019020057023000695									02
1077100007		0392	1	WYTHE CL	FO01		069056011000093020057023009505									04
1077100006		0244	1	FO01	RT 52&42		069056011000093020057023009505									04
1077100005		0291	1	RT 52&42	RT 612		068069014000093020057023008580									04
1077100004		0317	1	RT 612	RT 666		068069014000093020057023008580									04
1077100003		0392	1	RT 666	RT 606		068064014000093020057023009420									04
1077100002		0202	1	RT 606	RT 61		067063013000093020057023009710									04
1077100001		0280	1	RT 61	W.VA. SL		068068013000093020057023008770									04
0598100001		0416	2	W.VA. SL	SBL I-77		062041002000019020057023000355									02
0080130001		0160	1	KY ST LN	DICKNSN CL		072028000000034046057051001815									03
0080130002		0849	1	DICKNSN CL	RT 83		072028000000034046057051001815									03
0080130003		0341	1	SCL HAYSI	RT 605		054007002000034046057051002785									01
0080130004		0874	1	RT 605	RT 600		061003002000034046057051001620									03
0080130005		0448	1	RT 600	RT 623		061003002000034046057051001620									03
0080130006		0378	1	RT 623	RUSSELL CL		061007001000034046057051002090									03
0083130001		0466	2	W.VA. LN	RT 640		058020002000019046057051002260									03
0083130002		0246	2	RT 640	RT 643		058020002000019046057051002260									03
0083130003		0423	2	RT 643	RT 642		053015007000019046057051003815									01
0083130004		0294	2	RT 642	ECL GRUNDY		053015007000019046057051003815									01
0083130005		0205	2	SCL GRUNDY	RT 460		061004005000019046057051013250									06
0083130006		0189	2	RT 460	RT 619		052004005000019046057051005300									05
0083130007		0596	2	RT 619	RT 604		052004005000019046057051005300									05
0083130008		0250	2	RT 604	DICKNSN CL		052004005000019046057051005300									05
0460130001		0632	2	TAZEWL CL	RT 680		056008008000042046057051008295									05
0460130002		0219	2	RT 680	RT 1101		058005006000042046057051013105									06
0460130003		0533	2	RT 1101	RT 638		058005006000042046057051013105									06
0460130004		0353	2	RT 638	RT 83 S		058005006000042046057051013105									06
0460130005		0199	2	RT 83 S	SCL GRUNDY		061004005000042046057051013250									06
0460130006		0235	2	SCL GRUNDY	RT 83 E		053008011000042046057051007640									05
0460130007		0347	2	RT 83 E	RT 656		053008011000042046057051007640									05
0460130008		0257	2	RT 656	RT 609		053008011000042046057051007640									05
0460130009		0238	2	RT 609	RT 700		049010014000042046057051005805									05
0460130010		0207	2	RT 700	RT 645		049010014000042046057051005805									05
0460130011		0261	2	RT 645	KY ST LN		051018019000042046057051003265									01
0063250001		0380	1	N RT 83	RT 614		053009002000019042057051003080									01
0063250002		0273	1	RT 614	RT 616		053009002000019042057051003080									01
0063250003		0842	1	RT 616	RT 83 S		053009002000019042057051003080									01
0063250004		0232	1	RT 83 S	RT 714		051010002000034042057051002045									03

TABLE A-1: BRISTOL DISTRICT ROAD LINKS (Cont.)

0063250005	0781	1	RT 714	RT 656	051010002000034042057051002045	03
0063250006	0483	1	RT 656	RUSSELL CL	051010002000034042057051002045	03
0072250001	0513	1	RT 83	RT 665	052005006000034042057051003055	01
0072250002	0255	1	RT 665	WISE CL	052005006000034042057051003055	01
0080250001	0232	1	KY ST LINE	RT 768	072028000000034042057051001815	03
0080250002	0068	1	RT 768	RT 702	064018001000034042057051001845	03
0080250003	0710	1	RT 702	NCL HAYSI	064018001000034042057051001845	03
0080250004	0195	1	SCL HAYSI	RT 607	090007002000034042057051002785	01
0080250005	0857	1	RT 607	BUCHNON CL	090007002000034042057051002785	01
0083250001	0470	2	BUCHNON CL	RT 63 E	052004005000034042057051005300	05
0083250002	0408	2	RT 63 E	RT 607	055007002000034042057051003515	01
0083250003	0248	2	RT 607	M RT 63	055007002000034042057051003515	01
0083250004	0494	2	M RT 63	RT 63	053009002000034042057051003080	01
0083250005	0564	2	RT 63	ECL CLNTWD	053009002000034042057051003080	01
0083250006	0120	2	WCL CLNTWD	RT 72	057006001000034042057051005095	05
0083250007	0383	2	RT 72	WISE CL	059007003000034042057051005715	05
0016380001	0082	1	SMYTH CL	WCL TRTDLE	063013003000034042057063001235	03
0016380002	0566	1	ECL TRTDLE	RT 58 N	063014003000034042057063001165	03
0016380003	0400	1	RT 58 N	RT 58 S	066018003000034042057063001105	03
0016380004	0402	1	RT 58 S	NC ST LN	058035008000034042057063000795	03
0021380001	0137	1	WYTHE CL	RT 805	067012003000042042057063001020	03
0021380002	0145	1	RT 805	RT 791	069009002000042042057063002470	03
0021380003	1036	1	RT 791	RT 58	069009002000042042057063002470	03
0021380004	0415	1	RT 58	NC ST LN	071029002000042042057063001530	03
0058380001	0140	2	WCL GALAX	RT 94	071008002000034042057063004505	01
0058380002	0864	2	RT 94	RT 274	071010002000034042057063002830	01
0058380003	0272	2	RT 274	RT 21	071009001000034042057063005030	05
0058380004	0892	2	RT 21	RT 711	069013002000034042057063002415	03
0058380005	0380	2	RT 711	E RT 16	069013002000034042057063002415	03
0058380006	0399	2	E RT 16	W RT 16	066018003000034042057063001105	03
0058380007	0399	2	W RT 16	RT 740	072015001000034042057063000510	03
0058380008	0376	2	RT 740	RT 362	067032004000034042057063000855	03
0058380009	0957	2	RT 362	WASH CL	067032004000034042057063000855	03
0089380001	0489	1	SCL GALAX	NC ST LN	074042004000034042057063001785	03
0093380001	0092	1	RT 58	NC ST LN	059045001000019042057063000340	03
0094380001	0120	1	CARROLL CL	RT 1001	070004001000019042057063000920	03
0094380002	0267	1	RT 1001	RT 805	070004003000019042057063002085	03
0094380003	0205	1	RT 805	RT 274	067004003000019042057063001715	03
0094380004	0422	1	RT 274	RT 58	069004001000019042057063001585	03
0274380001	0736	1	RT 94	RT 58	066004000000019042057063000870	03
2058520001	0640	2	WISE CL	RT 642	068007002000034038057023003560	01
2058520002	0284	2	RT 642	RT 737	069009002000034038057023004395	01
2058520003	0200	2	RT 737	RT 629	069009002000034038057023004395	01
2058520004	0258	2	RT 629	RT 421 E	069009002000034038057023004395	01
2058520005	0470	2	RT 421 E	RT 645	069010001000034038057023005845	05
2058520006	0417	2	RT 645	RT 58	069010001000034038057023005845	05
0023520001	0444	1	WISE CL	SCOTT CL	070015003000042038057023005615	05
0025520002	0006	1	TN ST LN	RT 58	065094005000042038057023011505	06
0025520001	0083	1	RT 58	KY ST LN	064089006000042038057023013180	06
0058520001	0633	2	SCOTT CL	RT 421	066024005000034038057023002690	01
0058520002	0703	2	RT 421	W RT 641	065017004000034038057023001820	03
0058520003	0217	2	W RT 641	RT 58A	065013003000034038057023002750	01

TABLE A-1: BRISTOL DISTRICT ROAD LINKS (Cont.)

0058520004	0527	2	RT 58A	RT 758	066021004000034038057023002960	01
0058520005	0977	2	RT 758	RT 667	065022004000034038057023002825	01
0058520006	0474	2	RT 667	RT 744	065022004000034038057023002825	01
0058200007	0823	2	RT 744	RT 691	064033005000034038057023003585	01
0058200008	0420	2	RT 691	RT 694	064033005000034038057023003585	01
0058520009	0228	2	RT 694	RT 25 E	064033005000034038057023003585	01
0070520001	0510	1	RT 58	N RT 612	056010002000019038057023001295	03
0070520002	0388	1	N RT 612	RT 604	064023001000019038057023000345	03
0070520003	0335	1	RT 604	TN ST LN	064023001000019038057023000345	03
0352520001	0240	1	RT 421	RT 634	056007009000019038057023003260	01
0421520001	0239	2	RT 58	RT 642	066017003000034038057023002545	01
0421520002	0282	2	RT 642	RT 58A	069010002000034038057023006110	05
0421520003	0298	2	RT 58A	RT 352	055015010000034038057023005040	05
0421520004	0452	2	RT 352	KY ST LN	052026016000034038057023002540	01
0058830001	0671	2	RT 19	RT 71	070014005000042038057051004370	05
0058830002	0146	2	RT 71	RT 71	063014005000042038057051006580	05
0058830003	0414	2	RT 71	RT 65	064012006000042038057051007170	05
0058830004	0252	2	RT 65	WISE CL	068008005000042038057051010235	06
0019830001	0810	1	TAZEWL CL	E RT 80	064011004000042038057051006540	05
0019830002	0257	1	E RT 80	W RT 80	062012004000042038057051008360	05
0019830003	0825	1	W RT 80	RT 71	066012004000042038057051010110	06
0019830004	0263	1	RT 71	RT 841	066012004000042038057051010110	06
0019830005	0344	1	RT 841	RT 58A	067012004000042038057051008410	05
0019830006	0198	1	RT 58A	WASH CL	065014005000042038057051009270	05
0063830001	0322	1	DICKNSN CL	RT 608	051010002000034038057051002045	03
0063830002	0343	1	RT 608	RT 615	065006004000034038057051004335	01
0063830003	0218	1	RT 615	WISE CL	065006004000034038057051004335	01
0065830001	0585	2	RT 58A	SCOTT CL	072004001000019038057051002625	01
0067830003	0354	1	RT 80	RT 633	066005001000034038057051007075	05
0067830002	0285	1	RT 633	RT 617	066005001000034038057051007075	05
0067830001	0404	1	RT 617	TAZEWL CL	066005001000034038057051007075	05
0071830001	0875	2	RT 19	E RT 58 A	061009003000034038057051002970	01
0071830002	0405	2	E RT 58 A	RT 602	063016002000034038057051001355	03
0071830003	0560	2	RT 602	SCOTT CL	063016002000034038057051001355	03
0080830001	0566	1	BUCHNON CL	RT 645	061007001000034038057051002090	03
0080830002	0117	1	RT 645	RT 67	065005001000034038057051006720	05
0080830003	0446	1	RT 67	E RT 19	063006002000034038057051005170	05
0080830004	0623	1	W RT 19	WASH CL	065006004000034038057051000975	03
0082830001	0706	2	RT 19	RT 600	068005003000019038057051002485	03
0023840001	0412	1	LEE CL	RT 58 N	070015003000042038057063005615	05
0023840002	0467	1	RT 58 N	RT 65	070025004000042038057063006835	05
0023840003	0356	1	RT 65	RT 870	070025004000042038057063006835	05
0023840004	0603	1	RT 870	23 BUS OP	070025004000042038057063006835	05
0058840001	0935	2	WASH CL	RT 696	068019001000034038057063002965	01
0058840002	0327	2	RT 696	RT 709	070025004000034038057063007385	05
0058840003	0518	2	RT 709	E RT 23	070025004000034038057063006835	05
0058840004	0475	2	W RT 23	LEE CL	071019003000034038057063004750	01
0065840001	0414	2	RUSSELL CL	RT 774	061007001000019038057063000830	03
0065840002	0124	2	RT 774	RT 1009	062008001000019038057063001165	03
0065840003	0811	2	RT 1009	W RT 619	055012002000019038057063000840	03
0065840004	0803	2	W RT 619	RT 645	060009002000019038057063000715	03
0065840005	0228	2	RT 645	RT 649	065007003000019038057063000860	03

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TABLE A-1: BRISTOL DISTRICT ROAD LINKS(Cont.)

0065840006	0444	2	RT 649	RT 58	065007003000019038057063000860	03
0071840001	0432	2	RUSSELL CL	W RT 682	065014002000034038057063001705	03
0071840002	0681	2	W RT 682	RT 671	070016000000034038057063002315	03
0071840003	0491	2	RT 671	ECL GATECY	067014001000034038057063004870	01
0072840001	0032	1	WISE CL	RT 755	063007001000019038057063003440	01
0072840002	0545	1	RT 755	RT 65	058010001000019038057063001095	03
0011860001	0265	2	WYTHE CL	RT 683	067002003000019046057063002575	01
0011860002	0397	2	RT 683	E RT 622	067001002000019046057063004250	01
0011860003	0318	2	E RT 622	ECL MARION	067001002000019046057063004250	01
0011860004	0069	2	WCL MARION	FO07	074002001000019046057063008535	05
0011860005	0429	2	FO07	E RT 645	073002001000019046057063002810	01
0011860006	0431	2	E RT 645	RT 107	074001001000019046057063008140	05
0011860007	0117	2	RT 107	WASH CL	072002002000019046057063003275	01
0016860001	0296	1	TAZEWL CL	E RT 42	058004003000019046057063000195	03
0016860002	0032	1	E RT 42	W RT 42	062008001000019046057063000525	03
0016860003	0943	1	W RT 42	RT 348	062006001000019046057063000545	03
0016860004	0193	1	RT 348	RT 617	068008000000019046057063001280	03
0016860005	0059	1	RT 617	NCL MARION	071011000000019046057063001735	03
0016860006	0270	1	SCL MARION	RT 601	067008002000019046057063002535	01
0016860007	0138	1	RT 601	RT 676	063013003000019046057063001235	03
0016860008	0448	1	RT 676	GRAYSON CL	063013003000019046057063001235	03
0042860001	0829	2	BLAND CL	E RT 16	050025003000019046057063000320	03
0042860002	0667	2	W RT 16	RT 630	055004011000019046057063000665	03
0042860003	0292	2	RT 630	RT 91	055004011000019046057063000665	03
1081860007	0119	1	WASH CL	RT 107	058044023000093046057063012670	07
1081860006	0387	1	RT 107	RT 11 UP	059035021000093046057063013855	07
1081860005	0256	1	RT 11 UP	RT 11 N	061033019000093046057063015440	07
1081860004	0228	1	RT 11 N	RT 730	059033019000093046057063014420	07
1081860003	0173	1	RT 730	RT 16	059033019000093046057063014420	07
1081860002	0912	1	RT 16	RT 683	058037020000093046057063013970	07
1081860001	0261	1	RT 683	WYTHE CL	060049025000093046057063012125	07
0091860001	0054	1	TAZEWL CL	RT 42	061004001000019046057063000375	03
0091860002	0237	1	RT 42	RT 633	059004009000019046057063001320	03
0091860003	0583	1	RT 633	WASH CL	068019005000019046057063002280	03
0107860001	0304	1	RT 91	RT 610	067002002000019046057063004065	01
0107860002	0506	1	RT 610	RT 11	068002002000019046057063006385	05
0107860003	0032	1	RT 11	RT 762	068002002000019046057063006385	05
2019920001	0093	2	RT 19&460	ECL TAZWL	073026001000019046057051004260	01
2019920002	0065	2	ECL TAZWL	RT 61	064013000000019046057051003070	01
2019920003	0165	2	RT 61	RT 16	064013000000019046057051003070	01
2019920004	0125	2	RT 16	RT 16A	061006001000019046057051001455	03
2019920005	0020	2	RT 16A	WCL TAZWL	061006001000019046057051001455	03
2019920006	0155	2	WCL TAZWL	RT 16	061006001000019046057051001455	03
2019920007	0027	2	RT 16	RT 91	061006001000019046057051001455	03
2019920008	0168	2	RT 91	RT 19&460	063008002000019046057051001435	03
2460920001	0323	2	RT 460	RT 16	064013000000019046057051003070	01
2460920002	0327	2	RT 16	RT 91	061006001000019046057051001455	03
2460920003	1254	2	RT 91	RT 19	063008002000019046057051001435	03
2460920004	0350	2	RT 19	ECL RICHLD	063008002000019046057051001435	03
2460920005	0117	2	ECL RICHLD	RT 67 E	063008002000019046057051001435	03
2460920006	0083	2	RT 67 W	RT 460 BP	063008002000019046057051001435	03
0016920001	0255	1	W.VA.ST LN	RT 644	066046001000034046057051002590	01

TABLE A-1: BRISTOL DISTRICT ROAD LINKS (Cont.)

0016920002	0262	1	RT 644	RT 636	066046001000034046057051002590	01
0016920003	0267	1	RT 636	NCL TAZWL	067019001000034046057051007740	05
0016920004	0054	1	NCL TAZWL	RT 16A	064013000000034046057051003070	01
0016920005	0130	1	RT 16A	RT 61	064013000000019046057051003070	01
0016920006	0040	1	RT 61	RT 19	064013000000019046057051003070	01
0016920007	0087	1	RT 19	RT 19N BUS	064013000000019046057051003070	01
0016920008	0166	1	RT 19S BUS	RT 604 N	065006001000019046057051001980	03
0016920009	0279	1	RT 604 N	RT 602	065006001000019046057051000905	03
0016920010	0495	1	RT 602	RT 601	065006001000019046057051000905	03
0016920011	0366	1	RT 601	SMYTH CL	058004003000019046057051000195	03
0019920001	0121	1	WCL BLUFLD	RT 640	067022004000019046057051009730	05
0019920002	0040	1	RT 640	RT 720 W	068027004000042046057051010920	06
0019920003	0489	1	RT 720 W	RT 680	068027004000042046057051010920	06
0019920004	0590	1	RT 680	RT 460 BUS	068027004000042046057051010920	06
0019920005	0193	1	RT 460 BUS	RT 61	063028006000042046057051006585	05
0019920006	0079	1	RT 61	RT 16	070019005000042046057051007525	05
0019920007	0300	1	RT 16	RT 19&460B	065014005000042046057051007960	05
0019920008	0303	1	RT 19&460B	RT 637	063012005000042046057051008195	05
0019920009	0782	1	RT 637	RT 460	063012005000042046057051008195	05
0019920010	0307	1	RT 460	RT 609	064011004000042046057051006540	05
0019920011	0236	1	RT 609	RUSSELL CL	064011004000042046057051006540	05
0061920006	0074	2	RT 16	RT 19&460	070012000000019046057051007955	05
0061920005	0082	2	RT 11&460	NCL TAZWL	070012000000019046057051007955	05
0061920004	0060	2	NCL TAZWL	RT 19 BUS	067010001000019046057051002990	01
0061920003	0491	2	RT 19 BUS	RT 623	067010001000019046057051002990	01
0061920002	0734	2	RT 623	RT 662	065008001000019046057051001845	03
0061920001	0160	2	RT 662	BLAND CL	056027008000019046057051000805	03
0067920003	0160	1	RUSSELL CL	RT 460	066005001000034046057051007075	05
0067920002	0118	1	RT 460 BUS	NCL RICHLD	068007003000019046057051020570	06
0067920001	0691	1	NCL RICHLD	RT 616	052016013000019046057051003430	01
0091920001	0948	1	RT 19	RT 609	064003000000019046057051000370	03
0091920002	0250	1	RT 609	RT 604	061004001000019046057051000375	03
0091920003	0580	1	RT 604	RT 607	061004001000019046057051000375	03
0091920004	0533	1	RT 607	SMYTH CL	061004001000019046057051000375	03
0102920004	0085	1	BEG RT 102	W.VA.ST LN	072040001000019046057051004015	01
0102920003	0020	1	W.VA.ST LN	W.VA.ST LN	072040001000019046057051004015	01
0120920002	0467	1	W.VA.ST LN	NCL BLUFLD	075031000000019046057051002710	01
0102920001	0140	1	SCL BLUFLD	W.VA.ST LN	082030001000034046057051006110	05
0460920001	0144	2	W.VA.ST LN	E RT 720	075033006000042046057051008425	05
0460920002	0232	2	RT 19	RT 460 BUS	064008004000042046057051011805	06
0460920003	0039	2	RT 460 BUS	F608	064009007000042046057051012980	06
0460920004	0156	2	F608	RT 67	064009007000042046057051012980	06
0460920005	0117	2	RT 67	RT 460 BUS	068008005000042046057051009160	05
0460920006	0139	2	RT 460 BUS	RT 67	068067003000042046057051020570	06
0460920007	0206	2	RT 67	RT 804	056008008000042046057051008295	05
0460920008	0399	2	RT 804	BUCHNON CL	056008008000042046057051008295	05
2091950001	0138	1	N RT 91	S RT 91	074004001000019093057063002600	01
0011950001	0217	1	SMYTH CL	I-81	072002002000034093057063003275	01
0011950002	0285	1	I-81	RT 91	066006003000034093057063002580	01
0011950003	0433	1	RT 91	RT 80	071005002000034093057063002680	01
0011950004	0211	1	RT 80	RT 704	071008003000034093057063004065	01
0011950005	0258	1	RT 704	RT 58	071008003000034093057063004065	01

TABLE A-1: BRISTOL DISTRICT ROAD LINKS (Cont.)

0011950006	0038	1	RT 58	I-81	070010003000034093057063005455	05
0011950007	0100	1	I-81	ECL ABNGDN	075008002000034093057063009080	05
0011950008	0037	1	WCL ABNGDN	RT 140	069013003000034093057063009785	05
0011950009	0229	1	RT 140	RT 611	071015003000019093057063008465	05
0011950010	0209	1	RT 611	RT 1717	071015003000019093057063008465	05
0011950011	0292	1	RT 1717	NCL BRISTL	071015003000019093057063008465	05
0019950001	0325	1	RUSSELL CL	RT 802	065014005000042093057063009270	05
0019950002	0303	1	RT 802	RT 700	065014005000042093057063009270	05
0019950003	0399	1	RT 700	RT 58A	065012004000042093057063011375	06
0019950004	0044	1	RT 58A	RT 11	069013003000042093057063009785	05
0058950001	0582	2	GRAYSON CL	RT 603	069022004000034093057063003675	01
0058950002	0961	2	RT 603	RT 91	069022004000034093057063003675	01
0058950003	0596	2	RT 91	RT 708	069022004000034093057063003675	01
0058950004	0592	2	RT 708	RT 11	069022004000034093057063003675	01
0058950005	0397	2	W RT 81	RT 700	063039016000034093057063017500	06
0058950006	0266	2	RT 700	SCOTT CL	064036016000034093057063017105	06
0075950002	0469	1	TENN ST LN	N RT 670	068035001000019093057063000705	02
0075950001	0563	1	N RT 670	SCL ABNGDN	065008000000042093057063003185	01
0080950001	0367	1	RUSSELL CL	RT 613	065006004000019093057063000975	03
0080950002	0206	1	RT 613	RT 689	065006004000019093057063000975	03
0080950003	0601	1	RT 689	RT 740	068004001000019093057063001060	03
0080950004	0219	1	RT 740	S RT 609	068004001000019093057063001060	03
0080950005	0106	1	S RT 609	RT 11	074005001000019093057063002055	03
1081950011	0091	1	TENN ST LN	EB RT 421	057063023000093093057063011515	07
1081950010	0466	1	RT 421	RT 11	060027022000093093057063012825	07
1081950009	0262	1	RT 11	NCL BRIST	065024015000093093057063019680	07
1081950008	0501	1	NCL BRIST	RT 611	065024015000093093057063019680	07
1081950007	0189	1	RT 611	RT 140	065024015000093093057063019680	07
1081950006	0215	1	RT 140	RT 75	064023016000093093057063017105	07
1081950005	0251	1	RT 75	RT 11	063025016000093093057063017500	07
1081950004	0538	1	RT 11	RT 80	061025020000093093057063014270	07
1081950003	0437	1	RT 80	RT 91	060039021000093093057063013150	07
1081950002	0266	1	RT 91	RT 11	059041022000093093057063013350	07
1081950001	0218	1	RT 11	SMYTH CL	058044023000093093057063012670	07
0091950001	0671	1	SMYTH CL	RT 91 NBUS	068019005000019093057063002280	02
0091950002	0188	1	N RT 91 B	N RT 11	072005002000019093057063003870	01
0091950003	0357	1	S RT 11	RT 762	064010002000019093057063001310	02
0091950004	0103	1	RT 762	RT 803	063010002000019093057063000965	02
0091950005	0763	1	RT 803	N RT 58	065009002000019093057063001310	02
0091950006	0160	1	S RT 58	TENN ST LN	065055005000019093057063001825	02
0058970001	0018	2	RUSSELL CL	RT 63	061008004000042046057051004910	01
0058970002	0225	2	RT 63	RT 655	061008004000042046057051004910	01
0058970003	0227	2	RT 655	RT 657	061008004000042046057051004910	01
0058970004	0516	2	RT 657	RT 653	061008004000042046057051004910	01
0058970005	0243	2	RT 653	W RT 72	061008004000042046057051004910	01
0058970006	0304	2	W RT 72	RT 813	066007003000042046057051009040	05
0058970007	0230	2	RT 813	RT 762	066007003000042046057051009040	05
0058970008	0200	2	RT 762	ECL NORTON	066007003000019046057051009040	05
0058970009	0171	2	ECL NORTON	RT 74	061017007000019046057051007565	05
0058970010	0053	2	SE POW RV	WCL BIGSTG	068008003000034046057051011570	06
0058970011	0206	2	WCL BIGSTG	LEE CL	068007002000034046057051003560	01
0023970001	0198	1	RT 610	RT 74	062010005000034046057051010245	06

TABLE A-1: BRISTOL DISTRICT ROAD LINKS (Cont.)

2023970001	0122	1	N RT 23	RT 83	065023001000019046057051005310	05
2023970002	0952	1	RT 83	S RT 23	062012002000019046057051007105	05
2023970003	0065	1	S RT 23	NCL WISE	059011005000019046057051006095	05
2023970004	0021	1	SCL WISE	S RT 23	070009003000019046057051005340	05
0023970001	0321	1	KY ST LN	N RT 23B	066048003000042046057051004845	01
0023970002	0253	1	N RT 23B	S RT 23B	063041006000042046057051003680	01
0023970003	0356	1	S RT 23B	RT 634	060021005000042046057051007600	05
0023970004	0410	1	RT 634	N RT 23B	060021005000042046057051007600	05
0023970005	0196	1	N RT 23B	S RT 23B	054022009000042046057051004725	01
0023970006	0088	1	S RT 23B	NCL NORTON	062010005000042046057051010245	06
0023970007	0120	1	NCL NORTON	RT 74	062010005000019046057051010245	06
0023970008	0067	1	RT 74	RT 58A	062010005000019046057051010245	06
0023970009	0115	1	RT 58A	SCL NORTON	062010005000019046057051010245	06
0023970010	0143	1	SCL NORTON	RT 790	061017007000019046057051007565	05
0023970011	0359	1	RT 790	RT 603	063015006000019046057051006290	05
0023970012	0396	1	RT 603	RT 78	063015006000019046057051006290	05
0023970013	0259	1	RT 78	NCL BIGSTG	068008003000019046057051011570	06
0023970014	0090	1	NCL BIGSTG	RT 58A	070015003000019046057051005615	05
0023970015	0213	1	S RT 614	RT 844	070015003000042046057051005615	05
0023970016	0209	1	RT 844	LEE CL	070015003000042046057051005615	05
0063970001	0142	1	RUSSELL CL	RT 58A	065006004000034046057051004335	01
0068970001	0537	2	RT 23	LEE CL	058014002000019046057051001900	03
0072970001	0669	1	DICKNSN CL	RT 649	052005006000019046057051003055	01
0072970002	0339	1	RT 649	W RT 58A	052005006000019046057051003055	01
0072970003	0589	1	E RT 58A	SCOTT CL	063007001000019046057051003440	01
0078970002	0166	1	RT 23	RT 686	061004002000019046057051004040	01
0078970001	0209	1	RT 686	RT 600	061005003000019046057051003980	01
0083970001	0360	2	DICKNSN CL	RT 23 BUS	059007003000034046057051005715	05
0160970001	0826	2	KY ST LN	RT 23	054027004000019046057051001190	03
0011980001	0372	2	I-81	ECL WYTHVL	058044025000042038057063020890	06
0011980002	0007	2	WCL WYTHVL	RT 656	075006001000042038057063003580	01
0011980003	0729	2	RT 656	RT 737	070004001000042038057063002235	01
0011980004	0412	2	RT 737	SMYTH CL	067002003000042038057063002575	01
0021980001	0618	1	SCL WYTHVL	RT 690	078010002000034038057063002335	01
0021980002	0367	1	RT 690	RT 684	067012003000034038057063001020	03
0021980003	0532	1	RT 684	GRAYSON CL	067012003000034038057063001020	03
0052980001	0728	1	BLAND CL	RT 680	074010003000019038057063000690	03
0052980002	0441	1	RT 680	NCL WYTHVL	074010003000019038057063000690	03
0052980003	0109	1	I-81	S RT 736	070003002000019038057063002445	03
0052980004	0414	1	S RT 736	RT 619	070003002000019038057063002445	03
0052980005	0386	1	RT 619	RT 607	066007004000019038057063001945	03
0052980006	0031	1	RT 607	CARROLL CL	066007004000019038057063001945	03
0069980001	0025	2	RT 52	I-77	060014008000019038057063001455	03
0069980002	0131	2	I-77	CARROLL CL	060008013000019038057063001500	03
0069980003	0178	2	CARROLL CL	RT 636	060008013000019038057063001500	03
1077980003	0020	1	CARROLL CL	RT 69	067070022000093038057063008510	04
1077980002	0793	1	RT 69	I-81	064067023000093038057063009870	04
1077980001	0539	1	I-81	BLAND CL	069058012000093038057063009365	04
1081980009	0321	1	SMYTH CL	RT 90	060049025000093038057063012125	07
1081980008	0613	1	RT 90	RT 663	060049025000093038057063012125	07
1081980007	0422	1	RT 663	RT 21	060049025000093038057063012125	07
1081980006	0203	1	RT 21	RT 77	056028028000093038057063017900	07

TABLE A-1: BRISTOL DISTRICT ROAD LINKS(Cont.)

1081980005	0343	1	RT 77	RT 11	054025028000093038057063016115	07
1081980004	0111	1	RT 11	RT 121	058044025000093038057063020890	07
1081980003	0158	1	RT 121	I-77 NB UP	056050029000093038057063017900	07
1081980002	0225	1	I-77 NB UP	RT 619	055045028000093038057063016115	07
1081980001	0332	1	RT 619	PULASKI CL	055045028000093038057063016115	07
0090980001	0126	1	RT 616	RT 11	067003002000019038057063003150	01
0090980002	0044	1	RT 11	I-81	070005003000019038057063001655	03
0094980001	0206	1	RT 52	RT 634	066003001000019038057063001710	03
0094980002	0417	1	RT 634	RT 619	066003001000019038057063001710	03
0094980003	0273	1	RT 619	RT 639	062005001000019038057063001245	03
0094980004	0085	1	RT 639	CARROLL CL	070004001000019038057063000920	03
0100980001	0616	1	CARROLL CL	PULASKI CL	069006003000019038057063001775	03
0121980001	0187	1	I-81 NB	RT 1004	068003001000019038057063002030	03

TABLE A-2: CULPEPER DISTRICT ROAD LINKS

2029020001	0037	1	RT 29	SCL C'VIL	087007001000034046048059009155	07
2250020001	0065	2	WCL C'VIL	RT 250	087008000000034046048059012125	08
0006020001	0028	2	FLUVA CL	E RT 20	072002002000034046048059003785	03
0006020002	0058	2	E RT 20	W RT 20	071002002000034046048059001225	01
0006020003	0568	2	RT 20	RT 627	071002002000019046048059001225	01
0006020004	0719	2	RT 627	NELSON CL	071002002000019046048059001225	01
0020020001	0584	1	ORANGE CL	RT 600	077004001000019046048059002180	01
0020020002	0282	1	RT 600	RT 649	077004001000019046048059002180	01
0020020003	0487	1	RT 649	RT 250	077004001000019046048059002180	01
0020020004	0004	1	SCL C'VIL	RT 64	079007001000034046048059012190	08
0020020005	0074	1	RT 64	RT 53	076012001000034046048059008365	07
0020020020	0216	1	RT 53	RT 742	074004002000034046048059003440	03
0020020007	0516	1	RT 742	RT 708	074004002000034046048059003440	03
0020020008	0406	1	RT 708	RT 712	074004002000034046048059003440	03
0020020009	0551	1	RT 712	RT 6	078004002000034046048059002520	01
0020020010	0029	1	S RT 6	BUCKIN CL	072003002000034046048059003785	03
0022020001	0371	2	LOUISA CL	RT 231	077003001000019046048059001530	01
0022020002	0293	2	RT 231	RT 616	075003002000034046048059004290	03
0022020003	0246	2	RT 616	RT 250	075003002000034046048059004290	03
0029020008	0789	1	NELSON CL	RT 692	070013014000042046048059005240	07
0029020007	0269	1	RT 692	RT 708	075009010000042046048059006290	07
0029020006	0603	1	RT 708	RT 64	076008008000042046048059008985	07
0029020005	0064	1	RT 64	RT 29 B	081008006000042046048059018225	08
0029020004	0169	1	NEL C'VIL	RT 631	085004003000042046048059034350	08
0029020003	0311	1	RT 631	RT 1520	079004005000042046048059018105	08
0029020002	0281	1	RT 1520	RT 1510	079004005000042046048059018105	08
0029020001	0289	1	RT 1510	GREENE CL	079004005000042046048059018105	08
0053020004	0166	2	RT 20	MONTICELLO	0078015000000019046048059005220	07
0053020003	0156	2	MONTICELLO	RT 795	074009001000019046048059003800	03
0053020002	0256	2	RT 795	RT 729	074002001000019046048059001445	01
0053020001	0378	2	RT 729	FLUVA CL	074002001000019046048059001445	01
1064020009	0608	2	NELSON CL	RT 250	077009009000093046048059012230	09
1064020008	0697	2	RT 250	RT 637	082006006000093046048059014610	09
1064020007	0384	2	RT 637	RT 29	081007007000093046048059014540	09
1064020006	0184	2	RT 29	RT 631	080008006000093046048059016870	09
1064020005	0183	2	RT 631	RT 20	080010007000093046048059015275	09
1064020004	0266	2	RT 20	RT 250	078009008000093046048059013310	09
1064020003	0541	2	RT 250	RT 616	077010008000093046048059011820	09
1064020002	0123	2	RT 616	FLUVA CL	079012008000093046048059011285	09
1064020001	0151	2	FLUVA CL	FLUVA CL	079012008000093046048059011285	09
0231020001	0811	1	RT 22	LOUISA CL	078003003000034046048059002600	03
0240020002	0068	2	RT 250	RT 802	073002001000034046048059003155	03
0240020001	0383	2	RT 802	RT 250	077002003000034046048059002805	03
0250020001	0440	2	FLUVA CL	RT 22	073002001000019046048059003635	03
0250020002	0207	2	RT 22	RT 64	075002002000034046048059009510	07
0250020003	0190	2	RT 64	ECL C'VIL	080002001000034046048059014855	08
0250020004	0152	2	WCL C'VIL	RT 250	084003003000034046048059020635	08
0250020005	0380	2	RT 250	RT 637	083003001000034046048059008085	07
0250020006	0329	2	RT 637	E RT 240	082003001000034046048059006350	07
0250020007	0297	2	E RT 240	W RT 240	079003003000034046048059003435	03
0250020008	0159	2	W RT 240	RT 64	077003002000034046048059005140	07
0250020009	0469	2	RT 64	RT 6	075004001000034046048059003315	03

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TABLE A-2: CULPEPER DISTRICT ROAD LINKS(Cont.)

0250020010	0195	2	RT 6	RT 151	071003005000034046048059003790	03
0250020011	0127	2	RT 151	AUGUST CL	071003005000034046048059003790	03
2015230001	0056	1	FAUQUI CL	RT 15&29	068003001000019042048023001925	01
2015230002	0207	1	RT 15&29	NCL CULPE	070002002000019042048023006915	07
2029230001	0014	1	RT 29	SCL CULPE	072001001000019042048023007465	07
0003230003	0352	1	ORANGE CL	RT 647	071007005000042042048023003955	03
0003230002	0458	1	RT 647	RT 663	071007005000042042048023003955	03
0003230001	0451	1	RT 663	RT 522	071007005000042042048023003955	03
0015230001	0024	1	FAUQUI CL	RT 29&15	068010014000042042048023008770	07
0015230002	0431	1	RT 29&15	RT 663	074009012000042042048023009025	07
0015230003	0265	1	RT 663	RT 15&29	074009012000042042048023009025	07
0015230004	0209	1	S RT 15 B	RT 692	070003004000034042048023003285	03
0015230005	0276	1	RT 692	RT 649	070003004000034042048023003285	03
0015230006	0509	1	RT 649	MADISON CL	070003004000034042048023003285	03
0029230005	0279	1	MADISON CL	RT 603	069007009000042042048023009675	07
0029230004	0369	1	RT 603	S RT 29 B	069007009000042042048023009675	07
0029230003	0098	1	S RT 29 B	RT 15 B	068008014000042042048023005935	07
0029230002	0148	1	RT 15 B	RT 522	069010015000042042048023006455	07
0029230001	0372	1	RT 522	RT 15&29 B	074010013000042042048023007215	07
0211230001	0090	2	FAUQUI CL	RT 229	080004001000042042048023007760	07
0211230002	0296	2	RT 229	RAPP CL	077006001000042042048023004110	03
0229230004	0121	1	NCL CULPE	RT 685	071001001000034042048023004950	03
0229230003	0493	1	RT 685	RT 640	070002001000034042048023003930	03
0229230002	0543	1	RT 640	RT 621	077002001000034042048023002675	03
0229230001	0215	1	RT 621	RT 211	077002001000034042048023002675	03
0522230001	0093	1	RAPP CL	RT 707	073005002000034042048023001765	01
0522230002	0734	1	RT 707	WCL CULPE	073003002000034042048023002140	01
0522230003	0066	1	ECL CULPE	RT 3	065003006000034042048023005990	07
0522230004	0092	1	RT 3	RT 652	067002003000034042048023002395	01
0522230005	0627	1	RT 652	RT 647	065004003000034042048023001585	01
0522230006	0009	1	RT 647	ORANGE CL	067004005000034042048023001555	01
2015300001	0126	1	RT 211 B	RT 15&29	070002001000019038048059002365	01
2015300002	0178	1	RT 15&29	RT T651	070002001000019038048059002365	01
2015300003	0037	1	RT T651	CULPE CL	068003001000019038048059001925	01
2211300001	0104	2	RT 211	RT 15 B	058001001000019038048059001120	02
2211300002	0072	2	RT 15 B	RT 211	058001001000019038048059001120	02
0015300001	0177	1	RT 17	GREENE ST	074006008000042038048059021130	08
0015300002	0336	1	SCL WARRNT	RT 684	065012014000042038048059014450	08
0015300003	0224	1	RT 684	RT 17	065012014000042038048059014450	08
0015300004	0404	1	RT 17	RT 28	067013013000042038048059009125	07
0015300005	0247	1	RT 28	CULPE CL	067010014000042038048059008770	07
0017300001	0148	1	RT 50	RT 710	064033016000034038048059003380	03
0017300002	0568	1	RT 710	RT 55	064033016000034038048059003380	03
0017300003	0084	1	RT 55	RT 66	064034014000034038048059003975	03
0017300004	0127	1	RT 17 B	RT 709	076021011000042038048059005595	07
0017300005	0064	1	RT 709	RT 812	076021011000042038048059005595	07
0017300006	0461	1	RT 812	RT 777	073019010000042038048059006710	07
0017300007	0304	1	RT 777	NCL WARREN	070016009000042038048059007650	07
0017300008	0042	1	NCL WARREN	RT 15&29	065012014000042038048059014450	08
0017300009	0323	1	RT 15&29	RT 28	061014017000042038048059006600	07
0017300010	0751	1	RT 28	RT 634	062017014000042038048059007035	07
0017300011	0428	1	RT 634	RT 615	062017014000042038048059007035	07

TABLE A-2: CULPEPER DISTRICT ROAD LINKS (Cont.)

0017300012	0189	1	RT 615	STAFF CL	062017014000042038048059007035	07
0028300005	0227	1	RT 15&29	RT 17	065007003000034038048059003050	02
0028300004	0273	1	RT 17	RT 610	066008003000034038048059004635	03
0028300003	0384	1	RT 610	RT 616	066008003000034038048059004635	03
0028300002	0228	1	RT 616	RT 806	066008003000034038048059004635	03
0028300001	0257	1	RT 806	PRINCEW CL	073005002000034038048059006840	07
0029300004	0118	1	RT 17	SCL WARREN	065012014000042038048059014450	08
0029300003	0320	1	NCL WARREN	RT 693	074006008000042038048059021130	08
0029300002	0322	1	RT 693	RT 215	074006008000042038048059021130	08
0029300001	0013	1	RT 215	PRINCEW CL	076008007000042038048059019135	08
0055300001	0469	2	PRINCEW CL	RT 245	082004001000019038048059002115	01
0055300002	0253	2	RT 245	RT 709	085003001000019038048059003165	03
0055300003	0204	2	RT 709	RT 17 B	085003001000019038048059003165	03
0055300004	0089	2	RT 17 B	RT 66	084004001000019038048059005095	07
0055300005	0891	2	RT 17	WARREN CL	073006001000019038048059001100	01
1066300006	0420	2	WARREN CL	RT 688	071018012000093038048059007960	06
1066300005	0400	2	RT 688	RT 731	074024014000093038048059010710	09
1066300004	0450	2	RT 731	RT 55	074025014000093038048059009400	06
1066300003	0132	2	RT 55	RT 17	075020009000093038048059007405	06
1066300002	0303	2	RT 17	RT 245	075020009000093038048059007405	06
1066300001	0490	2	RT 245	PRINCEW CL	073019010000093038048059008310	06
0211300001	0586	2	RT 29&17	CULPE CL	080004001000042038048059007760	07
0215300001	0213	2	RT 29	PRINCEW CL	077004001000019038048059003220	03
0245300001	0118	1	RT 55	RT 66	086005001000019038048059001360	01
0245300002	0209	1	RT 66	RT 17	085003000000019038048059001190	01
0006320001	0496	2	GOOCH CL	RT 15	066001007000019020048059001440	02
0006320002	0226	2	RT 15	JUDY CRK	072002004000019020048059003565	04
0006320003	0539	2	RT 612	RT 620	073001002000019020048059001525	01
0006320004	0829	2	RT 620	ALBERM CL	073001002000019020048059001525	01
0015320001	0825	1	RT 250	RT 601	072002004000034020048059002355	02
0015320002	0042	1	RT 601	RT 53	072002004000034020048059002355	02
0015320003	0206	1	RT 53	RT 649	073002003000034020048059003075	04
0015320004	0432	1	RT 649	RT 6	073002003000034020048059003075	04
0015320005	0199	1	RT 6	S RT 6	072002004000034020048059003565	04
0015320006	0454	1	S RT 6	JHN CK BR	069001004000034020048059004110	04
0053320001	0877	2	ALBERM CL	RT 15	074002001000019020048059001445	01
0029390002	0321	1	ALBERM CL	RT 33	079003005000042020057063018105	08
0029390001	0368	1	RT 33	NERAP BR	070012010000042020057063007860	05
0033390001	0225	2	ORANGE CL	RT 29	071003002000042020057063002905	10
0033390002	0208	2	RT 29	RT 633	073005002000042020057063002860	10
0033390003	0202	2	RT 633	RT 609	073005002000042020057063002860	10
0033390004	0181	2	RT 609	ECL STANUD	073005002000042020057063002860	10
0033390005	0010	2	ECL STAUND	RT 230	073005002000019020057063002860	10
0033390006	0406	2	RT 230	RT 638	073005002000034020057063002860	10
0033390007	0458	2	RT 638	ROCKHAM CL	073005002000042020057063002860	10
0230390001	0341	2	RT 33	WE CNWT BR	069002001000034020057063001790	02
0015540001	0045	1	ORANGE CL	RT 33	068002006000034042048063005175	05
0015540002	0361	1	RT 33	RT 22	069003006000034042048063002935	03
0015540003	0687	1	RT 22	RT 64	072003006000034042048063001880	01
0015540004	0053	1	RT 64	RT 250	070003007000034042048063001790	01
0022540001	0521	2	RT 522	E RT 33	067002002000034042048063005380	07
0022540002	0622	2	W RT 33	RT 15	074001003000019042048063001575	02

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TABLE A-2: CULPEPER DISTRICT ROAD LINKS(Cont.)

0022540003	0399	2	RT 15	ALBERM CL	077002001000019042048063001530	01
0033540001	0280	2	HANOV CL	RT 655	073001002000034042048063003265	03
0033540002	0920	2	RT 655	E RT 522	073001002000034042048063003265	03
0033540003	0066	2	E RT 522	W RT 522	075002003000034042048063002510	01
0033540004	0656	2	W RT 522	E RT 22	077001002000034042048063002885	03
0033540005	0063	2	E RT 22	RT 208	071001002000034042048063009360	07
0033540006	0469	2	RT 208	W RT 22	067001004000034042048063004165	03
0033540007	0828	2	W RT 22	RT 15	069001004000034042048063002375	01
1064540004	0383	2	AMBEM CL	RT 627	079010008000093042048063011285	09
1064540003	0589	2	RT 627	RT 626	079011009000093042048063010170	09
1064540002	0345	2	RT 626	RT 688	079011009000093042048063010170	09
1064540001	0273	2	RT 688	RT 604	075012011000093042048063008105	06
0208540001	0362	2	SPOTS CL	RT 522	067003005000034042048063001970	01
0208540002	0884	2	S RT 33	RT 64	074002004000019042048063002740	04
0208540003	0046	2	RT 64	RT 250	065001003000019042048063001100	02
0231540001	0027	1	ALBEM CL	ORANGE CL	078003003000034042048063002600	03
0250540001	0287	2	RT 605	LOUISA CL	073002002000019042048063000840	01
0250540002	0244	2	LOUISA CL	RT 659	073002002000019042048063000840	01
0250540003	0372	2	RT 659	RT 759	074001002000019042048063001240	01
0250540004	0278	2	RT 759	RT 15	074001002000019042048063001240	01
0250540005	0600	2	RT 15	ALBEM CL	073002001000019042048063003635	03
0522540001	0372	1	N ANNA BR	RT 208	068004003000034042048063001395	01
0522540002	0552	1	RT 208	RT 22	071003003000034042048063002000	01
0522540003	0385	1	RT 22	N RT 33	070001004000034042048063001330	01
0522540004	0630	1	S RT 33	RT 648	067001005000034042048063001135	01
0522540005	0845	1	RT 648	RT 64	067001005000034042048063001135	01
0522540006	0059	1	RT 64	RT 250	069002003000034042048063001720	01
2029560001	0124	1	S RT 29	RT 231	065003001000034020057023003165	10
2029560002	0080	1	RT 231	N RT 29	063000001000019020057023002305	02
0015560001	0312	1	S RT 614	RT 230	070003004000034020057023003285	04
0029560006	0469	1	RT 621	S RT 230	070012012000042020057023007860	05
0029560005	0052	1	S RT 230	N RT 230	069011009000042020057023008590	05
0029560004	0114	1	N RT 230	S RT 29 B	074009008000042020057023010530	08
0029560003	0202	1	S RT 29 B	N RT 29 B	069009010000042020057023008595	05
0029560002	0316	1	N RT 29 B	RT 607	069007009000042020057023009675	05
0029560001	0403	1	RT 607	CULPE CL	069007009000042020057023009675	05
0230560001	0746	2	GREENE CL	W RT 29	069002001000034020057023001790	02
0230560002	0064	2	E RT 29	E RT 231	070001001000034020057023002185	02
0230560003	0253	2	E RT 231	RT 607	069001001000034020057023002335	02
0230560004	0286	2	E RT 607	RT 705	069001001000034020057023002335	02
0230560005	0322	2	RT 705	RT 15	069001001000034020057023002335	02
0231560003	0944	1	RAPID BR	RT 230	072005001000034020057023001645	02
0231560002	0548	1	RT 29 B	RT 670	066004001000034020057023001785	02
0231560001	0719	1	RT 670	RAPP CL	065004002000034020057023001470	02
2020680001	0076	1	RT 20	RT 15	074001000000019042048059005670	07
0003680002	0012	1	SPOT CL	RT 20	071007005000034042048059003955	03
0003680001	0490	1	RT 20	CULPE CL	065003006000034042048059005990	07
0015680001	0327	1	WERAP BR	RT 20	072001002000034042048059005100	07
0015680002	0383	1	RT 20	RT 639	068003003000034042048059008450	07
0015680003	0469	1	RT 639	RT 33	068003003000034042048059008450	07
0015680004	0111	1	RT 33	SCL GORD	068002006000034042048059005175	07
0020680001	0473	1	RT 3	RT 611	078005002000034042048059004010	03

TABLE A-2: CULPEPER DISTRICT ROAD LINKS(Cont.)

0020680002	0638	1	RT 611	RT 650	078005002000034042048059004010	03
0020680003	0228	1	RT 650	RT 522	078005002000034042048059004010	03
0020680004	0598	1	RT 522	RT 629	071003002000034042048059007030	07
0020680005	0235	1	RT 629	RT 612	071003002000034042048059007030	07
0020680006	0066	1	RT 612	E RT 15	071003002000034042048059007030	07
0020680007	0654	1	W RT 15	E RT 231	073002001000019042048059003990	03
0020680008	0014	1	E RT 231	W RT 231	072005001000034042048059001645	01
0020680009	0560	1	W RT 231	E RT 33	073006001000019042048059001430	01
0020680010	0130	1	W RT 33	ALBEM CL	077004001000019042048059002180	01
0033680001	0561	2	RT 15	RT 20	071003002000034042048059003005	03
0033680002	0473	2	RT 20	GREENE CL	071003002000034042048059002905	03
0231680003	0116	1	LOUISA CL	N RT33	078003003000034042048059002600	03
0231680002	0641	1	N RT 33	S RT 20	069003002000034042048059000895	01
0231680001	0044	1	N RT 20	NERAP BR	063001001000034042048059000755	01
0522680001	0684	1	WERAP BR	RT 20	067004005000034042048059001555	01
0522680002	0887	1	RT 20	SPOT CL	068004004000034042048059001370	01
2211780001	0150	2	E RT 211	W RT 211	058001001000019020057023001120	02
0211780001	0917	2	CULPE CL	E RT 522	077006001000042020057023004110	10
0211780002	0238	2	E RT 522	E RT 211	B071004001000042020057023003590	10
0211780003	0109	2	E RT 211 B	W RT 211	B069004002000042020057023003085	10
0211780004	0462	2	W RT 211B	W RT 522	069004002000042020057023003100	10
0211780005	0709	2	W RT 522	PAGE CL	079013001000042020057023001880	02
0231780001	0819	1	MADISON CL	RT 522	065004002000034020057023001470	02
0522780001	0726	1	WARREN CL	N RT 641	070003003000034020057023003150	04
0522780002	0282	1	N RT 641	N RT 211	067003002000034020057023002015	02
0522780003	0079	1	S RT 211	RT 231	071005002000034020057023002560	02
0522780004	0400	1	RT 231	RT 618	071005002000034020057023001735	02
0522780005	0467	1	RT 618	CULPE CL	073005002000034020057023001765	02

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TABLE A-3: FREDERICKSBURG DISTRICT ROAD LINKS

0003590003	0320	2	NE PIAK RB	S RT 33	073001001000034020030059002210	01
0003590002	0345	2	S RT 33	N RT 33	076001001000034020030059004140	03
0003590001	0391	2	N RT 33	NE RAPP RB	078003003000034020030059002830	03
0017590001	0746	1	ESSEX CL	RT 602	069007007000042020030059006165	04
0017590002	0240	1	RT 602	RT 603	069007007000042020030059006165	04
0017590003	0361	1	RT 603	RT 33	069007007000042020030059006165	04
0017590004	0161	1	RT 33	DRAGON RB	069007007000042020030059006165	04
0033590001	0200	2	STINGRY PT	RT 636	078001001000019020030059003815	03
0033590002	0426	2	RT 636	RT 628	078001001000019020030059003815	03
0033590003	0215	2	RT 628	E RT 3	078001001000019020030059003815	03
0033590004	0218	2	W RT 3	RT 619	078001002000034020030059005995	04
0033590005	0293	2	RT 619	RT 227	078001002000034020030059005995	04
0033590006	0178	2	RT 227	RT 17	078001002000034020030059005995	04
0227590001	0298	1	WCL URBANA	RT 33	076001001000019020030059003605	03
0200660001	0507	1	RT 360	RT 609	075001002000034020030023003105	03
0200660002	0511	1	RT 609	LANCSTR CL	075001002000034020030023003105	03
0201660001	0692	1	LANCSTR CL	RT 360	073001001000019020030023000865	01
0202660001	0352	2	RT 360	WSTMRLD CL	065002003000034020030023001880	01
0360660001	0273	2	RT 644	E 646	073001001000042020030023001935	01
0360660002	0080	2	E 646	RT 200	072002002000042020030023004225	03
0360660003	0782	2	RT 200	RT 201	072001002000042020030023003715	03
0360660004	0428	2	RT 201	RT 614	071001002000042020030023005030	04
0360660005	0287	2	RT 614	RT 202	071001002000042020030023005030	04
0360660006	0319	2	RT 202	RICHMD CL	070001003000042020030023004160	03
0003790001	0270	2	LANCSTR CL	RT 608	075003001000034020030023003935	03
0003790002	0237	2	RT 608	RT 692	075003001000034020030023003935	03
0003790003	0308	2	RT 692	RT 642	072005002000034020030023001960	01
0003790004	0630	2	RT 642	RT 360	074002002000034020030023005465	03
0003790005	0420	2	RT 360	RT 203	068001003000034020030023008170	05
0003790006	0015	2	RT 203	WSTMRLD CL	076002003000034020030023004535	03
0203790001	0040	2	RT 3	WSTMRLD CL	076002005000034020030023001945	01
0360790001	0297	2	NORTHUM CL	RT 661	070001003000042020030023004160	03
0360790002	0496	2	RT 661	E RT 3	070001003000042020030023004160	03
0360790003	0071	2	E RT 3	N RT 3	068001003000042020030023008170	05
0360790004	0240	2	W RT 3	RT 624	075001004000042020030023007525	05
0360790005	0349	2	RT 624	ESSEX CL	075001004000042020030023007585	05
2001880001	0152	1	SCL FRED	RT 1	079004001000034042048059025800	07
2017880001	0084	1	ECL FRED	RT 1301	074004002000034042048059009645	05
2017880002	0369	1	RT 1301	RT 17	069005004000034042048059002910	03
0001880001	0011	1	SCL FRED	RT 1 BUS	076007001000019042048059013530	06
0001880002	0117	1	RT 1 BUS	I-95	078006002000019042048059013735	06
0001880003	0075	1	I-95	RT 17 BP	071006004000042042048059010265	06
0001880004	0252	1	RT 17 BP	RT 608	070005004000019042048059006300	04
0001880005	0426	1	RT 608	RT 606	070005004000019042048059006300	04
0001880006	0261	1	RT 606	CAROLIN CL	070005006000019042048059003690	03
0002880001	0136	2	RT 17	CAROLIN CL	071004002000034042048059002695	03
0003880001	0101	2	WCL FRED	I-95	084015001000034042048059029010	07
0003880002	0270	2	I-95	E RT 610	080004002000034042048059020150	06
0003880003	0466	2	E RT 610	W RT 610	078004003000034042048059011225	06
0003880004	0527	2	W RT 610	ORANGE CL	072009004000034042048059005050	04
0017880001	0300	1	RT 1	RT 608	071008006000042042048059002850	03
0017880002	0275	1	RT 608	RT 2	071008006000042042048059002850	03

TABLE A-3: FREDERICKSBURG DISTRICT ROAD LINKS (Cont.)

0017880003	0189	1	RT 2	CAROLIN CL	072013007000042042048059002160	01
1095880003	0934	1	CAROLIN CL	RT 1	070060018000093042048059033155	08
1095880002	0421	1	RT 1	RT 3	069059019000093042048059033460	08
1095880001	0202	1	RT 3	STAFFORDCL	070050016000093042048059042160	08
0208880001	0278	2	RT 1	RT 629	076003001000034042048059007225	04
0208880002	0380	2	RT 629	RT 613	076003001000034042048059007225	04
0208880003	0394	2	RT 613	RT 606	074002001000034042048059003250	03
0208880004	0244	2	RT 606	RT 648	067005005000034042048059001970	01
0208880005	0894	2	RT 648	RT 601	067005005000034042048059001970	01
0208880006	0355	2	RT 601	LOUISA CL	067005005000034042048059001970	01
0522880001	0094	1	ORANGE CL	RT 612	068006004000034042048059001370	01
0522880002	0110	1	RT 612	LOUISA CL	068005003000034042048059001395	01
2017890001	0176	2	I-95	RT 1	072004003000019038048059015270	06
0001890001	0233	1	PNCE WM CL	RT 638	078011002000019038048059014115	06
0001890002	0240	1	RT 638	RT 610	078011002000019038048059014115	06
0001890003	0282	1	RT 610	RT 687	077006001000019038048059014225	06
0001890004	0245	1	RT 687	RT 628	077006001000019038048059014225	06
0001890005	0301	1	RT 628	RT 627	077006001000019038048059014225	06
0001890006	0251	1	RT 627	RT 17 BUS	077006001000019038048059014225	06
0001890007	0036	1	RT 17 BUS	NCL FRED	079004001000019038048059025800	07
0003890001	0040	2	KING G CL	E RT 601	077005003000034038048059006080	04
0003890002	0554	2	E RT 601	RT 680	078004003000034038048059010055	06
0003890003	0207	2	RT 680	RT 218	078004003000034038048059010055	06
0003890004	0032	2	RT 218	SPOTSYL CL	080002001000034038048059023655	07
0017890001	0423	1	FAUQUIR CL	RT 705 S	062026014000042038048059007035	05
0017890002	0237	1	705 S	RT 655	069027011000042038048059007720	04
0017890003	0343	1	RT 655	I-95	069027011000042038048059007720	04
1095890005	0122	1	SPOTSYL CL	RT 17 BUS	070050016000093038048059042160	08
1095890004	0249	1	RT 17 BUS	RT 627	072051015000093038048059041480	08
1095890003	0450	1	RT 627	RT 630	072051015000093038048059041480	08
1095890002	0318	1	RT 630	RT 610	072051015000093038048059041480	08
1095890001	0435	1	RT 610	PRNC WM CL	073050013000093038048059043850	08
0218890001	0209	2	KING GE CL	RT 603	073002001000019038048059002515	03
0218890002	0410	2	RT 603	W RT 607	070002001000019038048059003630	03
0218890003	0060	2	W RT 607	RT 3	077001001000019038048059016215	06
0003960001	0560	2	RICHMND CL	RT 202	072003004000034042030059003065	03
0003960002	0367	2	RT 202	E T622	070003004000034042030059003685	03
0003960003	0452	2	E T622	RT 214	069008004000034042030059003090	03
0003960004	0068	2	RT 214	RT 347	069009003000034042030059003180	03
0003960005	0283	2	RT 347	RT 624	070012004000034042030059003055	03
0003960006	0205	2	RT 624	RT 204	068006005000034042030059002665	03
0003960007	0283	2	RT 204	RT 205	073003003000034042030059003190	03
0003960008	0283	2	RT 205	KING G CL	076003002000034042030059005490	04
0202960001	0182	2	NORTHMD CL	W RT 203	065002003000034042030059001880	02
0202960002	0264	2	W RT 203	RT 611	070003003000034042030059001560	02
0202960003	0424	2	RT 611	RT 626	070003003000034042030059001560	02
0202960004	0537	2	RT 626	RT 202Y	070003003000034042030059001560	02
0202960005	0042	2	RT 202Y	RT 3	069002001000034042030059000380	01
0203960003	0582	2	RICHMND CL	RT 604	076002005000034042030059001945	02
0203960002	0121	2	RT 604	W RT 202	053001130300034042030059000675	01
0203960001	0173	2	E RT 202	RT 608	056001012000019042030059001170	02
0204960001	0173	2	RT 3	END ROUTE	076015002000019042030059000310	01

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TABLE A-3: FREDERICKSBURG DISTRICT ROAD LINKS(Cont.)

0205960001	0208	2	RT 3	RT 628	068004001000034042030059002760	03
0205960002	0361	2	RT 628	WCL COL BC	074001000000034042030059003225	03
0205960003	0535	2	WCL COL BC	KING G CL	073004003000034042030059003140	03
0214960001	0248	2	RT 3	END ROUTE	071010001000019042030059000575	01
2301160001	0068	1	N RT 301	RT 2	062033019000019042048059005800	04
2301160002	0110	1	RT 2	S RT 301	073005002000034042048059003530	03
0001160001	0253	1	SPOTSYL CL	RT 632	070005006000019042048059003690	03
0001160002	0219	1	RT 632	RT 1401	070005006000019042048059003690	03
0001160003	0716	1	RT 1401	RT 207	070005006000019042048059003690	03
0001160004	0299	1	RT 207	HANOVER CL	069008010000019042048059004805	03
0002160001	0371	1	SPOTSYL CL	RT 606	071004002000034042048059002695	03
0002160002	0812	1	RT 606	RT 301 BUS	073005002000034042048059003530	03
0017160001	0257	1	SPOTSYL CL	RT 610	072013007000042042048059002160	01
0017160002	0966	1	RT 610	RT 301	072013007000042042048059002160	01
0017160003	0589	1	RT 301	ESSEX CL	070019010000042042048059003285	03
0030160001	0318	2	KING WM CL	RT 301	064003014000034042048059001620	02
0030160002	0352	2	RT 301	HANOVER CL	069008011000034042048059002045	01
1095160001	0330	1	HANOVER CL	RT 207	064058020000093042048059036220	08
1095160002	0602	1	RT 207	RT 639	070060018000093042048059033155	08
1095160003	0622	1	RT 639	SPOTSYL CL	070060018000093042048059033155	08
0207160004	0064	1	RT 1	I-95 UP	070002009000042042048059002345	02
0207160003	0496	1	I-95 UP	RT 601	065029017000042042048059004540	03
0207160002	0430	1	RT 601	RT 722	065029017000042042048059004540	03
0207160001	0183	1	RT 722	RT 301 BUS	064028017000042042048059005365	04
0301160001	0115	1	KING G CL	RT 17	063029021000042042048059006355	04
0301160002	0990	1	RT 17	RT 608	064024021000042042048059004110	03
0301160003	0090	1	RT 608	RT 301 B	060038022000042042048059005115	04
0301160004	0127	1	RT 301 B	RT 301 B	073028004000042042048059001585	01
0301160005	0259	1	RT 301 B	RT 721	073014003000034042048059005080	04
0301160006	0750	1	RT 721	RT 647	072025007000034042048059003025	03
0301160007	0444	1	RT 647	RT 30	072025007000034042048059003025	03
0301160008	0316	1	RT 30	HANOVER CL	074016003000034042048059003920	03
0017280001	0445	1	CAROLIN CL	RT 635	070019010000042020030059003285	03
0017280002	0926	1	RT 635	RT 624	070019010000042020030059003285	03
0017280003	0380	1	RT 624	RT 703	073010006000042020030059006815	04
0017280004	0315	1	RT 703	N RT 360	073010006000042020030059006815	04
0017280005	0247	1	N RT 360	360 N EB	070005005000042020030059012610	06
0017280006	0300	1	360 N EB	RT 609	070010006000042020030059005720	04
0017280007	0564	1	RT 609	RT 684	070010006000042020030059005720	04
0017280008	0466	1	RT 684	MIDSEX CL	069007007000042020030059006165	04
0360280001	0025	2	RICHMND CL	RT 17	070005005000042020030059012610	06
0360280002	0633	2	W RT 17	RT 620	074001005000042020030059005535	05
0360280003	0045	2	RT 620	K&Q CL	072001007000042020030059003870	03
2017360001	0056	1	RT 17	RT 1007	075001001000034042030059004700	03
2017360002	0071	1	RT 1007	S RT 14	074001001000034042030059010885	06
2017360003	0120	1	S RT 14	RT 17	075001000000034042030059012110	06
0003360001	0218	2	RT 17 BUS	RT 623	075001001000034042030059007775	04
0003360002	0407	2	RT 623	MATHEWS CL	075001001000034042030059007775	04
0014360001	0106	1	W RT 17	K&Q CL	066001004000034042030059001615	02
0017360001	0155	1	MIDSEX CL	RT 33	073004006000042042030059008060	04
0017360002	0477	1	RT 33	RT 14	070004008000042042030059005190	04
0017360003	0373	1	RT 14	RT 615	072004005000042042030059006855	04

TABLE A-3: FREDERICKSBURG DISTRICT ROAD LINKS(Cont.)

0017360004	0165	1	RT 615	RT 606	073003004000042042030059008840	05
0017360005	0245	1	RT 606	RT 17 BUS	073003004000042042030059008840	05
0017360006	0168	1	17 BUS N	17 BUS S	073004004000042042030059006960	04
0017360007	0301	1	17 BUS S	RT 628	077001002000042042030059019935	06
0017360008	0312	1	RT 628	RT 636	077001002000042042030059019935	06
0017360009	0292	1	RT 636	RT 216	077001002000042042030059019935	06
0017360010	0149	1	RT 216	RT 1208	078001002000042042030059026570	07
0017360011	0113	1	RT 1208	YORK CL	077005002000042042030059021030	07
0033360001	0292	2	RT 17	K&Q CL	073001005000034042030059004205	03
0198360001	0410	2	MATHEWS CL	RT 606	068001002000034042030059001090	01
0198360002	0292	2	RT 606	RT 601	060002006000034042030059001010	02
0198360003	0441	2	RT 601	RT 17	065001005000034042030059001240	02
0216360001	0361	2	RT 17	RT 649	073000001000019042030059005185	04
0003480001	0718	2	WSMRLND CL	RT 301	068006005000034020030059002665	03
0003480002	0156	2	RT 301	RT 205	073003003000034020030059003190	03
0003480003	0258	2	RT 205	RT 206	076003002000034020030059005490	04
0003480004	0479	2	RT 206	RT 605	077005003000034020030059006080	04
0003480005	0368	2	RT 605	STAFFRD CL	077005003000034020030059006080	04
0205480001	0336	2	WSMRLND CL	RT 617	076004002000034020030059001855	01
0205480002	0281	2	RT 617	RT 301	075004001000034020030059002160	01
0205480003	0126	2	RT 301	RT 3	076002001000034020030059004220	03
0206480005	0218	1	RT 3	RT 610	079002001000034020030059002460	01
0206480004	0426	1	RT 610	RT 218	079002001000034020030059002460	01
0206480003	0219	1	RT 218	RT 218	079003001000034020030059003320	03
0206480002	0064	1	RT 218	RT 301	079004001000034020030059003410	03
0206480001	0177	1	RT 301	RT 604	090001000000019020030059004270	03
0218480001	0602	2	RT 205	RT 301	077002001000019020030059001985	01
0218480002	0028	2	RT 301	E RT 206	075002001000019020030059000775	01
0218480003	0685	2	W RT 206	RT 609	074005001000019020030059000740	01
0218480004	0104	2	RT 609	RT 696	077001001000019020030059001785	01
0218480005	0589	2	RT 696	STAFFRD CL	077001001000019020030059001785	01
0301480001	0358	1	MARYLAND	RT 206	070029014000042020030059008920	04
0301480002	0649	1	RT 206	RT 205	071025014000042020030059008510	04
0301480003	0191	1	RT 205	RT 3	063029019000042020030059007340	04
0301480004	0205	1	RT 3	RT 623	063029021000042020030059006355	04
0301480005	0305	1	RT 623	CAROLIN CL	063029021000042020030059006355	04
0014490007	0495	1	GLOUCSR CL	E RT 33	066001004000034020030063001615	02
0014490006	0164	1	E RT 33	W RT 33	073001004000034020030063006025	05
0014490005	0683	1	W RT 33	RT 614	068001005000034020030063001205	02
0014490004	0563	1	RT 614	RT 617	068001005000034020030063001205	02
0014490003	0961	1	RT 617	RT 620	066001005000034020030063000830	02
0014490002	0200	1	RT 620	RT 629	066001005000034020030063000830	02
0014490001	0616	1	RT 629	RT 360	066001005000034020030063000830	02
0033490001	0261	2	GLOUCSR CL	E RT 14	073001005000034020030063004205	03
0033490002	0014	2	W RT 14	RT 678	070001006000034020030063007255	05
0033490003	0330	2	RT 678	KING WM CL	070001006000034020030063007255	05
0360490001	0629	2	ESSEX CL	RT 14	072001007000042020030063003870	03
0360490002	0291	2	RT 14	KING WM CL	073000006000042020030063003165	03
0030500001	0025	2	NEW KT CL	RT 33	075003002000034020030063001575	01
0030500002	0781	2	RT 33	RT 632	068003007000034020030063008130	05
0030500003	0834	2	RT 632	RT 633	061003014000034020030063002545	03
0030500004	0839	2	RT 633	RT 360	063003014000034020030063001980	02

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0030500005	0437	2	RT 360	RT 608	064003014000034020030063001620	02
0030500006	0775	2	RT 608	CARLIN CL	069008011000034020030063002045	01
0033500001	0048	2	K&Q CL	RT 30	068003007000034020030063008130	05
0296500001	0040	2	RT 33	RT 298	081000000000019020030063000295	01
0298500001	0022	1	RT 33	RT 296	082000000000019020030063001905	01
0298500002	0053	1	RT 296	END ROUTE	082000000000019020030063001715	01
0360500001	0336	2	K&Q CL	RT 30	073000006000042020030063003165	03
0360500002	0275	2	RT 30	RT 605	075001004000042020030063005335	05
0360500003	0232	2	RT 605	HANOVER CL	075001004000042020030063005335	05
0003510007	0155	1	MIDSEX CL	RT 200	077002002000034020030023005175	04
0003510006	0401	1	RT 200	RT 222	078002001000034020030023003335	03
0003510005	0242	1	RT 222	E RT 200	079003000000034020030023004945	03
0003510004	0362	1	E RT 200	RT 614	075003001000034020030023003935	03
0003510003	0226	1	RT 614	RT 604	075003001000034020030023003935	03
0003510002	0404	1	RT 604	RT 201	075003001000034020030023003935	03
0003510001	0530	1	RT 201	RICHMD CL	072005002000034020030023001960	01
0200510001	0253	1	NORTHMB CL	N RT 3	074002002000034020030023004800	03
0200510002	0639	1	S RT 3	RT 3	074002002000034020030023004800	03
0201510003	0322	1	RT 354	RT 3	077001001000019020030023001775	01
0201510002	0274	1	RT 3	RT 201Y	075001001000019020030023000725	01
0201510001	0329	1	RT 201Y	NORTHMB CL	073001001000019020030023000865	01
0222510001	0417	1	RT 3	END ROUTE	080002000000019020030023002365	01
0354510001	0217	1	RT 3	RT 622	069002002000019020030023000630	01
0354510002	0410	1	RT 622	RT 201	069002002000019020030023000630	01
0354510003	0362	1	RT 201	RT 604	077001000000019020030023002045	01
0354510004	0364	1	RT 604	END ROUTE	077001000000019020030023002045	01
0003570004	0011	1	GLOUCSR CL	RT 14	075001001000034020030059007775	04
0003570003	0207	1	RT 14	S RT 198	078001001000034020030059003360	03
0003570002	0155	1	S RT 198	N RT 198	076001002000034020030059002975	03
0003570001	0116	1	N RT 198	MIDSEX CL	073001001000034020030059002210	01
0014570008	0174	1	BAYSD WHRF	RT 602	064002000000034020030059000765	01
0014570007	0188	1	RT 602	RT 604	065001000000034020030059001110	01
0014570006	0465	1	RT 604	E RT 611	079000001000034020030059003990	03
0014570005	0062	1	E RT 611	E RT 198	079001000000034020030059007935	04
0014570004	0169	1	E RT 198	W RT 198	076001000000034020030059007900	04
0014570003	0314	1	W RT 198	RT 660	074001001000034020030059003865	03
0014570002	0138	1	RT 660	RT 617	076000001000034020030059004035	03
0014570001	0275	1	RT 617	RT 3	076000001000034020030059004035	03
0198570001	0097	2	RT 642	E RT 14	077000000000034020030059002090	01
0198570002	0092	2	W RT 14	RT 223	075001001000034020030059005505	04
0198570003	0624	2	RT 223	E RT 3	075001001000034020030059003740	03
0198570004	0199	2	W RT 3	GLOUCSR CL	076001002000034020030059002975	03
0223570001	0207	1	RT 198	RT 633	072001001000019020030059003575	03

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TABLE A-4: LYNCHBURG DISTRICT ROAD LINKS

2029050003	0129	1	NCL LYNCH	RT 29	079002001000019038057063008280	07
2029050002	0230	1	S RT 29	RT 60	082001001000019038057063005600	08
2029050001	0127	1	RT 60	N RT 29	081001000000019038057063003890	04
0029050009	0206	1	NCL LYNCH	N RT 29B	076003006000042038057063023380	10
0029050008	0220	1	N RT 29B	RT 130	076002005000042038057063025020	10
0029050007	0211	1	RT 130	RT 657	076003006000042038057063016550	10
0029050006	0331	1	RT 657	RT 663	076003006000042038057063016550	10
0029050005	0272	1	RT 663	S RT 29 B	076003003000042038057063016550	10
0029050004	0139	1	S RT 29 B	SCL AMHER	073005011000042038057063008555	07
0029050003	0185	1	SCL AMHER	N RT 29 B	068010013000042038057063007710	07
0029050002	0193	1	N RT 29 B	RT 151	068006013000042038057063007955	07
0029050001	0410	1	RT 151	TYE BR	065009016000042038057063005850	07
0060050001	0405	2	NELSON CL	RT 600	057003013000034038057063001430	01
0060050002	0412	2	RT 600	RT 29 BP	057003013000034038057063001430	01
0060050003	0055	2	RT 29 BP	RT 29 B	076001001000034038057063003820	04
0060050004	0574	2	RT 29 B	RT 778	069004003000034038057063001985	01
0060050005	0692	2	RT 778	RT 635	064006005000034038057063001525	01
0060050006	0942	2	RT 635	ROCKBG CL	063015014000034038057063000805	01
0130050001	0591	2	RT 29	S RT 652	067001007000034038057063003880	09
0130050002	0413	2	S RT 652	RT 635	063003010000034038057063002015	04
0130050003	0966	2	RT 635	RT 501	051005020000034038057063001170	01
0151050001	0634	1	PINEY BR	RT 29	070002002000034038057063002255	01
0501050001	0394	1	ROCKBG CL	RT 130	060010016000034038057063001175	01
0501050002	0014	1	RT 130	JAMES RV	069005011000034038057063001480	01
2460060001	0025	2	PRINCEE CL	RT 47	068001002000019020048063001120	01
2460060002	0088	2	RT 47	RT 460	065000004000019020048063002010	01
0024060001	0493	2	BUCKIN CL	RT 616	071003003000034020048063002105	01
0024060002	0534	2	RT 616	RT 1014	071003003000034020048063002105	01
0024060003	0009	2	RT 1014	RT 131	071003003000019020048063002105	01
0024060004	0043	2	RT 131	RT 460	075003003000019020048063002340	01
0026060001	0778	1	RT 60	RT 608	068001004000034020048063001920	01
0026060002	0515	1	RT 608	RT 460	068001004000034020048063001920	01
0047060001	0107	1	RT 460	PRINCEE CL	065001005000019020048063001505	01
0060060001	0414	2	STEVEN RUN	JAMES BR	056003014000034020048063000940	01
0131060001	0106	2	S RT 460	N RT 460	076000001000019020048063003065	04
0131060002	0031	2	NCL APPOM	RT 24	078002001000019020048063003025	04
0460060001	0099	2	PRINCEE CL	RT 460 B	066007019000042020048063004060	04
0460060002	0528	2	RT 460 B	RT 630	070004010000042020048063005445	08
0460060003	0288	2	RT 630	RT 707	070004010000042020048063005445	08
0460060004	0236	2	RT 707	RT 24	074002006000019020048063013860	10
0460060005	0472	2	RT 24	RT 689	072002007000042020048063010155	10
0460060006	0328	2	RT 689	CAMPB CL	074003008000042020048063009990	08
0015140001	0303	1	JAMES BR	RT 715	069001004000034042048063004110	05
0015140002	0541	1	RT 715	RT 622	069001004000034042048063004110	05
0015140003	0791	1	RT 622	RT 20	069001004000034042048063004110	05
0015140004	0145	1	RT 20	RT 60	067001005000034042048063005700	09
0015140005	0546	1	RT 60	RT 600	068004005000034042048063002645	10
0015140006	0930	1	RT 600	PRINCEE CL	068004005000034042048063002645	10
0020140001	0850	1	JAMES BR	RT 655	072001002000034042048063002255	02
0020140002	0799	1	RT 655	RT 631	072001002000034042048063002255	02
0020140003	0256	1	RT 631	RT 15	072001002000034042048063002255	02
0024140001	0871	2	RT 60	APPOM CL	071003003000034042048063002105	02

TABLE A-4: LYNCHBURG DISTRICT ROAD LINKS(Cont.)

0056140001	0780	2	RT 60	RT 604	057001003000019042048063000955	01
0056140002	0267	2	RT 604	JAMES BR	057001003000019042048063000955	01
0060140001	0838	2	CUMBER CL	RT 15	067001009000034042048063001810	02
0060140002	0403	2	RT 15	E RT 633	066001009000034042048063004210	09
0060140003	0175	2	E RT 633	RT 56	063002009000034042048063002710	05
0060140004	0202	2	RT 56	RT 24	063003011000034042048063001895	02
0060140005	0937	2	RT 24	STEVEN BR	056003014000034042048063000940	02
2029150002	0032	1	STAUN BR	RT 43	078001002000019093048063007270	08
2029150001	0330	1	RT 43	RT 29	073001003000019093048063007675	08
0024150001	0316	2	RT 460	RT 656	075001002000034093048063004465	05
0024150002	0638	2	RT 656	E RT 501	075001002000034093048063004465	05
0024150003	0432	2	W RT 501	RT 29	072001003000034093048063002555	05
0024150004	0668	2	RT 29	RT 811	070001001000034093048063001080	02
0024150005	0206	2	RT 811	BEDFOR CL	063002001000034093048063000630	02
0029150006	0091	1	STAUN BR	RT 43	070017017000042093048063004695	04
0029150005	0335	1	RT 43	RT 29 B	064011021000042093048063004505	04
0029150004	0434	1	RT 29 B	RT 696	071006011000042093048063009990	08
0029150003	0499	1	RT 696	RT 24	071006011000042093048063009990	08
0029150002	0241	1	RT 24	RT 738	073004007000042093048063016330	10
0029150001	0432	1	RT 738	RT 224	073003006000042093048063018345	10
0040150001	0216	2	CHARLO CL	RT 605	063001003000034093048063001460	02
0040150002	0291	2	RT 605	RT 501	063001003000034093048063001460	02
0043150003	0158	1	RT 29 B	WCL ALTAV	077001001000019093048063002750	04
0043150002	0648	1	WCL ALTAV	RT 682	077001001000019093048063002175	04
0043150001	0126	1	RT 682	BEDFO CL	078002001000019093048063000800	01
0460150001	0011	2	APPOM CL	RT 24	072002007000042093048063010155	10
0460150002	0279	2	RT 24	RT 1017	074003008000042093048063009990	08
0460150003	0292	1	RT 1017	RT 726	074003008000042093048063009990	08
0460150004	0146	1	RT 726	ECL LYNCH	077003005000042093048063015855	10
0460150005	0235	1	WCL LYNCH	RT 892	080002005000042093048063020465	10
0460150006	0221	1	RT 892	BEDF CL	080002005000042093048063020465	10
0501150001	0309	1	SCL LYNCH	RT 916	079002001000034093048063006315	09
0501150002	0388	1	RT 916	E RT 24	079002001000042093048063006315	09
0501150003	0092	1	E RT 24	W RT 24	075002002000034093048063005910	09
0501150004	0833	1	W RT 24	RT 761	075004003000034093048063003915	05
0501150005	0479	1	RT 761	RT 917	073003004000034093048063003150	05
0501150006	0348	1	RT 917	RT 633	073003004000034093048063003150	05
0501150007	0292	1	RT 633	RT 40	073003004000034093048063003150	05
0501150008	0085	1	RT 40	HALIF CL	071003004000034093048063004445	05
2015190001	0171	1	RT 15	W RT 40	067002004000019042048023002815	04
2015190002	0422	1	W RT 40	RT 15	063001005000034042048023001025	02
0015190001	0166	1	PRINCEE CL	RT 360	072005004000034042048023002835	05
0015190002	0192	1	RT 360	RT 40	057008027000042042048023003180	04
0015190003	0348	1	RT 40	S RT 15 B	056009028000042042048023002890	04
0015190004	0660	1	S RT 15 B	N RT 47	056008024000042042048023003305	04
0015190005	0388	1	N RT 47	RT 360	056007023000042042048023003140	04
0015190006	0324	1	RT 360	RT 92	061004008000034042048023001295	02
0015190007	0739	1	RT 92	MECKL CL	066007006000034042048023001475	02
0040190001	0125	2	LUNEN CL	E RT 15 B	064001003000034042048023001155	02
0040190002	0906	2	W RT 15 B	E RT 47	070001004000034042048023001725	02
0040190003	0546	2	E RT 47	RT 746	068001003000034042048023002475	02
0040190004	0140	2	RT 746	RT T727	068002004000034042048023001650	02

TABLE A-4: LYNCHBURG DISTRICT ROAD LINKS(Cont.)

0040190005	0771	2	RT T727	CAMPB CL	063001003000034042048023001460	02
0047190001	0441	1	APPOM CL	N RT 649	065001005000019042048023001505	03
0047190002	0704	1	N RT 649	RT 660	067001003000019042048023002735	06
0047190003	0443	1	RT 660	N RT 40	067001003000019042048023002735	06
0047190004	0427	1	S RT 40	RT 59	070000002000019042048023002230	03
0047190005	0864	1	RT 59	RT 15	065001003000019042048023002085	03
0047190006	0270	1	RT 15	MECKL CL	071001004000019042048023001805	03
0059190001	0790	2	RT 40	RT 47	069001002000019042048063001400	03
0092190001	0211	2	MECKL CL	RT 15	067001004000034042048023001425	02
0092190002	0380	2	RT 15	RT 360	064004005000034042048023001185	02
0092190003	0070	2	RT 360	HALIF CL	062001004000034042048023000280	01
0360190001	0175	2	PRINCEE CL	E RT 15	053006029000042042048023002965	06
0360190002	0464	2	W RT 15	RT 92	054007030000042042048023002350	03
0360190003	0173	2	RT 92	STAUN BR	054005025000042042048023003185	06
0013240001	0719	2	POWHA CL	RT 60	064001004000019020048023000825	01
0045240001	0075	1	JAMES BR	RT 649	070000001000019020048023001110	01
0045240002	0220	1	RT 649	RT 690	069000003000019020048023001375	01
0045240003	0660	1	RT 690	RT 616	066000003000019020048023001025	01
0045240004	0485	1	RT 616	E RT 60	066000003000019020048023001025	01
0045240005	0582	1	W RT 60	RT 634	074000002000034020048023002305	02
0045240006	0467	1	RT 634	RT 636	074000002000034020048023002305	02
0045240007	0353	1	RT 636	NCL FARMV	073000002000034020048023002975	05
0060240001	0602	2	POWHA CL	E RT 45	072001005000034020048023003470	05
0060240002	0243	2	E RT 45	W RT 600	073001005000034020048023003190	05
0060240003	0242	2	W RT 600	RT 45	072001004000034020048023003285	05
0060240004	0406	2	RT 45	BUCKIN CL	067001009000034020048023001810	01
0040410001	0596	2	RT 501	RT 638	067001002000034046048023002115	01
0040410002	0416	2	RT 638	PITTS CL	067001002000034046048023002115	01
0049410001	0265	1	ARROW BR	NC LINE	067015002000019046048023001230	03
0058410001	0577	2	ARROW BR	RT 601	072005004000042046048023005615	07
0058410002	0481	2	RT 601	RT 360	072005004000042046048023005615	07
0058410003	0072	2	RT 360	RT 501	072005004000042046048023005615	07
0058410004	0923	2	RT 501	RT 658	065006014000042046048023005995	07
0058410005	0658	2	RT 658	RT 119	065006014000042046048023005995	07
0058410006	0348	2	RT 119	PITTS CL	067008013000042046048023006560	07
0092410001	0579	2	CHARLO CL	RT 360	069001001000019046048023001300	03
0096410001	0770	2	RT 49	RT 501	065013006000019046048023000850	03
0119410001	0308	1	RT 58	NC LINE	071001001000019046048023000455	03
0129410001	0085	1	RT 501	S. BOSTON	077001001000019046048023008820	07
0344410001	0233	1	RT 360	RT 720	066001001000019046048023001140	03
0344410002	0777	1	RT 720	STAUN RV	062001001000019046048023000950	03
0344410003	0203	1	STAUN RV	STATE PARK	062001001000019046048023000950	03
0360410001	0273	2	CHARLO CL	RT 92	057005025000042046048023003185	07
0360410002	0279	2	RT 92	RT 607	062004017000042046048023004355	07
0360410003	0239	2	RT 607	RT 360	062004017000042046048023004355	07
0360410004	0529	2	RT 360	W RT 716	060004016000042046048023005040	07
0360410005	0143	2	W RT 716	ECL BOSTON	061003015000042046048023006275	07
0360410006	0045	2	SCL BOSTON	E RT 58	061003015000042046048023006275	07
0360410007	0645	2	RT 360	N RT 501	069002002000034046048023002440	05
0360410008	0201	2	S RT 501	RT 654	073002002000034046048023006345	09
0360410009	0258	2	RT 654	RT 681	076002001000034046048023003915	09
0360410010	0573	2	RT 681	RT 683	072002000000034046048023001315	02

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TABLE A-4: LYNCHBURG DISTRICT ROAD LINKS(Cont.)

0360410011	0503	2	RT 683	PITTS CL	072002000000034046048023001315	02
0501410001	0097	1	STAUN BR	RT 40	071003004000034046048023004445	05
0501410002	0490	1	RT 40	RT 645	071004004000034046048023002685	02
0501410003	0251	1	RT 645	RT 603	071004004000034046048023002685	02
0501410004	0591	1	RT 603	RT 642	073003003000034046048023003320	05
0501410005	0723	1	RT 642	N RT 360	073003003000034046048023003320	05
0501410006	0078	1	N RT 360	S RT 360	073002002000034046048023006345	09
0501410007	0229	1	S RT 360	N RT 129	080001001000034046048023017275	10
0501410008	0080	1	N RT 129	NCL BOSTON	082001001000034046048023015505	10
0501410009	0046	1	SCL BOSTON	RT 58	073003002000034046048023011585	10
0501410010	0463	1	RT 58	RT 658	069008007000034046048023003800	09
0501410011	0385	1	RT 658	RT 96	069008007000034046048023003800	09
0501410012	0246	1	RT 96	NC LINE	061021015000034046048023001480	02
2029620002	0030	1	S RT 29	RT 56	073002001000019042057063002305	01
2029620001	0063	1	RT 56	N RT 29	070002001000019042057063002040	01
0006620001	0342	2	ALBEM CL	E RT 29	071002002000019042057063001225	01
0006620002	0576	2	W RT 29	E RT 151	066006009000019042057063001750	01
0006620003	0252	2	W RT 151	RT 250	067003006000034042057063003170	04
0029620006	0447	1	TYE RV	RT 56	065009016000042042057063005850	07
0029620005	0428	1	RT 56	S RT 29 B	065009014000042042057063006800	07
0029620004	0082	1	S RT 29 B	N RT 29 B	067011016000042042057063006090	07
0029620003	0651	1	N RT 29 B	S RT 6	066015016000042042057063005515	07
0029620002	0394	1	S RT 6	N RT 6	066013016000042042057063004840	04
0029620001	0144	1	N RT 6	ALBEM CL	070009014000042042057063005240	07
0056620001	0272	2	JAMES RV	RT 626	057001003000019042057063000955	01
0056620002	0803	2	RT 626	E RT 639	057001003000019042057063000955	01
0056620003	0379	2	E RT 639	RT 29 B	066001002000019042057063001605	01
0056620004	0483	2	R 29	RT 151Y	062001003000019042057063001260	01
0056620005	0020	2	RT 151Y	E RT 151	075001001000019042057063000355	01
0056620006	0196	2	W RT 151	E RT 680	063001001000019042057063000925	01
0056620007	0765	2	E RT 680	RT 687	056003002000019042057063000475	01
0056620008	0865	2	RT 687	ROCKB CL	056006001000019042057063000140	01
0060620001	0633	2	JAMES BR	AMHER CL	057003013000034042057063001430	01
0151620001	0372	1	RT 250	N RT 6	059004001000019042057063000655	01
0151620002	0622	1	N RT 6	S RT 6	063005005000034042057063003275	04
0151620003	0552	1	S RT 6	RT 664	068004001000034042057063001810	01
0151620004	0809	1	RT 664	RT 666	068004001000034042057063001810	01
0151620005	0230	1	RT 666	N RT 56	068004001000034042057063001810	01
0151620006	0279	1	N RT 56	RT 151Y	063003002000034042057063001395	01
0151620007	0144	1	RT 151Y	PINEY RV	070002002000034042057063002255	01
2029710005	0347	1	RT 29	RT 29BP	073002002000019068048063003450	04
2029710004	0221	1	S RT 29	RT 40	068001002000019068048063003530	04
2029710003	0264	1	RT 40	N RT 29	070001001000019068048063004615	04
2029710002	0232	1	RT 29	RT 924	076001002000019068048063005890	08
2029710001	0051	1	RT 924	STAUN BR	078001002000019068048063007270	08
0029710012	0039	1	NC LINE	SCL DANVIL	066032021000042068048063007925	08
0029710011	0424	1	NCL DANVIL	RT 726	075006008000042068048063012460	10
0029710010	0140	1	RT 726	RT 640	075006008000042068048063012460	10
0029710009	0349	1	RT 640	RT 718	075006008000042068048063012460	10
0029710008	0337	1	RT 718	RT 29 B	075006008000042068048063012460	10
0029710007	0341	1	RT 29 B	RT 29 B	060010021000042068048063004995	04
0029710006	0606	1	RT 29 B	S RT 29 B	063008016000042068048063006270	08

TABLE A-4: LYNCHBURG DISTRICT ROAD LINKS (Cont.)

0029710005	0201	1	S RT 29 B	RT 40	063012024000042068048063004460	04
0029710004	0230	1	RT 40	N RT 29 B	060010024000042068048063004285	04
0029710003	0308	1	N RT 29 B	RT 643	067009015000042068048063006025	08
0029710002	0421	1	RT 643	RT 29 B	067009015000042068048063006025	08
0029710001	0302	1	RT 29 B	STAUN BR	070017017000042068048063004695	04
0040710001	0514	2	HALIF CL	RT 640	067001002000034068048063002115	02
0040710002	0812	2	RT 640	RT 686	067001002000034068048063002115	02
0040710003	0186	2	RT 686	RT 29 B	067001002000034068048063002115	02
0040710004	0103	2	RT 29 B	RT 29	069001001000034068048063003805	02
0040710005	0510	2	RT 29	RT 799	065004006000034068048063001395	02
0040710006	0852	2	RT 799	FRANK CL	065004006000034068048063001395	02
0041710007	0048	1	WCL DANVIL	RT 743	073002000000034068048063008405	09
0041710006	0155	1	RT 743	RT 1535	072002000000034068048063007950	09
0041710005	0346	1	RT 1535	RT 835	072002000000034068048063007950	09
0041710004	0300	1	RT 835	RT 718	071001001000034068048063001570	02
0041710003	0310	1	RT 718	RT 750	071001001000034068048063001570	02
0041710002	0230	1	RT 750	RT 844	071001001000034068048063001570	02
0041710001	0609	1	RT 844	RT 57	071001001000034068048063001570	02
0051710001	0456	2	WCL DANVIL	RT 58	075001000000019068048063004715	08
0057710001	0456	2	RT 29 B	RT 799	068002004000034068048063001600	02
0057710002	0397	2	RT 799	RT 750	068002004000034068048063001600	02
0057710003	0324	2	RT 750	RT 41	068002004000034068048063001600	02
0057710004	0495	2	RT 41	HENRY CL	072002005000034068048063001855	02
0058710001	0332	2	HALIF CL	RT 62	067008013000042068048063006560	08
0058710002	0239	2	RT 62	RT 734	067008013000042068048063006560	08
0058710003	0196	2	RT 734	RT 729	067008013000042068048063006560	08
0058710004	0220	2	RT 729	ECL DANVIL	070006009000042068048063015420	10
0058710005	0418	2	WCL DANVIL	RT 51	076003005000042068048063009885	08
0058710006	0643	2	RT 51	RT 622	072003008000042068048063007180	08
0058710007	0378	2	RT 622	HENRY CL	073004008000042068048063004900	04
0062710001	0401	1	NC LINE	RT 58	071025002000019068048063002730	04
0086710001	0113	1	SCL DANVIL	NC LINE	076031004000034068048063007535	09
0265710001	0358	2	NC LINE	RT 86	069010010000042068048063002290	01
0265710002	0206	2	RT 86	RT 737	069010010000042068048063002290	01
0360710001	0749	2	HALIF CL	RT 716	072002000000034068048063001315	02
0360710002	0349	2	RT 716	RT 726	072002000000034068048063001315	02
0360710003	0706	2	RT 726	ECL DANVIL	072002000000034068048063001315	02
2015730001	0222	1	RT 768	WCL FARMV	073003002000019042048059004805	06
2015730002	0083	1	SCL FARMV	RT 15	076003001000034042048059007845	09
2460730001	0133	2	RT 460	ECL FARMV	076001002000019042048059005635	07
2460730002	0164	2	RT 460	APPOT CL	068001002019000042048059001120	02
0015730001	0176	1	BUCKI CL	RT 15&460	068004005000034042048059002645	03
0015730002	0025	1	RT 15&460	RT 460	072005005000042042048059002995	07
0015730003	0456	1	RT 460	S RT 15 B	065007014000042042048059003705	07
0015730004	0282	1	S RT 15 B	RT 133	075004003000034042048059004865	09
0015730005	0766	1	RT 133	RT 633	072005004000034042048059002835	09
0015730006	0449	1	RT 633	CHARL CL	072005004000034042048059002835	09
0133730001	0015	1	RT 15	E RT 692	083005001000019042048059002815	07
0133730002	0104	1	E RT 692	W RT 692	081002001000019042048059001460	03
0307730001	0283	2	NATTO CL	RT 460	072004010000042042048059002725	06
0360730001	0556	2	NATTO CL	RT 696	057004025000042042048059003680	06
0360730002	0335	2	RT 696	RT 728	053006029000042042048059002965	06

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TABLE A-4: LYNCHBURG DISTRICT ROAD LINKS(Cont.)

0360730003	0536	2	RT 728	CHARL CL	053006029000042042048059002965	06
0460730001	0444	2	NATTO CL	RT 307	072006009000042042048059003935	06
0460730002	0428	2	RT 307	RT 460 B	071004011000042042048059007635	07
0460730003	0275	2	RT 460 B	RT 15	062008021000042042048059003655	06
0460730004	0558	2	W RT 15	RT 626	067006015000042042048059005360	07
0460730005	0583	2	RT 626	RT 460 B	067006015000042042048059005360	07
0460730006	0107	2	RT 460 B	APPDM CL	066007019000042042048059004060	06

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TABLE A-5: NORTHERN VIRGINIA DISTRICT ROAD LINKS

1066000002	0463	2	FARFX CL	RT 29	077015005000093074048059034850	09
1066000001	0244	2	RT 29	RSVLT BR	081016005000093074048059032920	09
1395000001	0437	1	ARLNTN CL	ROCH BR	087015002000093074048059128390	10
0001290001	0151	1	RT 242	RT I-95	081016002000019074048059019520	08
0001290002	0083	1	RT I-95	PRINCEW CL	080010002000019074048059025515	08
0028290001	0270	1	PRINCEW CL	RT 29	078006002000034074048059018995	08
0028290002	0054	1	RT 29	RT 66	080009002000034074048059019370	08
0028290003	0388	1	RT 66	RT 50	074010005000034074048059008180	04
0028290004	0412	1	RT 50	LOUDOUN CL	078010004000034074048059011355	08
0029290004	0320	1	PRINCEW CL	RT 66	078009003000034074048059003960	03
0029290003	0083	1	RT 66	RT 28	076006005000034074048059019730	08
0029290002	0310	1	RT 28	RT 2953	076007003000034074048059018990	08
0029290001	0226	1	RT 2953	WCL FAIRF	076007003000034074048059018990	08
0050290001	0247	2	RT 608	RT 645	072007006000034074048059014365	08
0050290002	0201	2	RT 645	RT 28	072007006000034074048059014365	08
0050290003	0206	2	RT 28	LOUDOUN CL	071007005000034074048059008755	06
1066290008	0307	2	PRINCEW CL	RT 29	077019005000093074048059034850	09
1066290007	0104	2	RT 29	RT 28	081020005000093074048059032920	09
1066290006	0336	2	RT 28	RT 608	082020004000093074048059044210	09
1066290005	0134	2	RT 608	RT 50	082017004000093074048059044210	09
1066290004	0212	2	RT 50	RT 123	079014004000093074048059061520	09
1066290003	0239	2	RT 123	RT 243	080016004000093074048059065610	09
1066290002	0252	2	RT 243	RT 495	082015004000093074048059086030	09
1066290001	0313	2	RT 495	ARLNTN CL	090038002000093074048059021675	09
1395290002	0240	1	I-95	ALEX CL	086013002000093074048059111640	10
1395290001	0290	1	ALEX CL	ARLNTN CL	087014002000093074048059116760	10
1495290005	0284	1	I-95	RT 620	081014003000093074048059116980	10
1495290004	0168	1	RT 620	RT 236	081014003000093074048059114850	10
1495290003	0217	1	RT 236	RT 50	081014003000093074048059114260	10
1495290002	0318	1	RT 50	RT 7	081014003000093074048059114930	10
1495290001	0463	1	RT 7	MD ST LINE	080013004000093074048059097300	10
0193290001	0302	2	RT 495	RT 676	089018001000019074048059012450	08
0193290002	0236	2	RT 676	RT 683	089018001000019074048059012450	08
0193290003	0396	2	RT 683	RT 7	089018001000019074048059012450	08
0242290001	0287	2	RT 611	RT 600	074009001000019074048059003040	01
1066300004	0421	2	WARREN CL	RT 688	071018012000093038048059007960	05
1066300003	0981	2	RT 688	RT 17	071018012000093038048059007960	05
1066300002	0302	2	RT 17	RT 245	075020009000093038048059007405	05
1066300001	0489	2	RT 245	PRC WM CL	073019010000093038048059008310	05
2007530001	0453	2	WCL LEESB	RT 7	070002001000019046048059003610	02
2015530001	0237	1	RT 15	NCL LEESB	077012001000019046048059002415	01
0007530001	0383	2	FAIRF CL	RT 28	083009001000042046048059020050	08
0007530002	0320	2	RT 28	RT 641	084011003000042046048059014310	07
0007530003	0242	2	RT 641	RT 653	084011003000042046048059014310	07
0007530004	0182	2	RT 653	RT 15	084011003000042046048059014310	07
0007530005	0062	2	WCL LEESB	RT 699	072013008000042046048059009260	06
0007530006	0008	2	WCL LEESB	RT 7 B	076014003000042046048059009270	06
0007530007	0247	2	RT 7 B	RT 9	075011002000042046048059011735	07
0007530008	0246	2	RT 9	RT 704	077006002000042046048059006260	06
0007530009	0216	2	RT 704	RT 287	077006002000042046048059006260	06
0007530010	0067	2	RT 287	RT 7 B	076005002000019046048059006810	06
0007530011	0417	2	RT 7 B	RT T719	074007002000019046048059005240	06

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TABLE A-5: NORTHERN VIRGINIA DISTRICT ROAD LINKS (Cont.)

0007530012	0034	2	RT T719	NCL ROUND	074007002000019046048059005240	06
0007530013	0314	2	WCL ROUND	RT 760	073006003000042046048059005120	06
0007530014	0093	2	RT 760	CLARK CL	070006002000042046048059005435	06
0009530001	0307	1	W VA LINE	RT 671	074019002000034046048059002620	02
0009530002	0233	1	RT 671	RT 690	074019002000034046048059002620	02
0009530003	0238	1	RT 690	RT 287	074019002000034046048059002620	02
0009530004	0310	1	RT 287	RT 704	071018001000034046048059004080	02
0009530005	0217	1	RT 704	RT 7	071018001000034046048059004080	02
0015530001	0997	1	SE POTOMA	RT 15 B	068014011000034046048059003005	02
0015530002	0233	1	RT 15 B	NCL LEESB	068014011000034046048059003005	02
0015530003	0034	1	SCL LEESB	NCL LEESB	069013012000034046048059004295	02
0015530004	0130	1	SCL LEESB	NCL LEESB	072013008000034046048059009260	06
0015530005	0255	1	SCL LEESB	RT 704	073008006000034046048059005530	06
0015530006	0782	1	RT 704	RT 50	073008006000034046048059005530	06
0015530007	0258	1	RT 50	NE BULL	068010012000034046048059004025	02
0028530003	0050	1	FAIRF CL	DULLE RD	078008004000034046048059011355	07
0028530002	0291	1	DULLE RD	RT 625	072005006000034046048059006180	06
0028530001	0288	1	RT 625	RT 7	072005006000034046048059006180	06
0050530001	0275	2	FAIRF CL	RT 606	071007005000034046048059008755	06
0050530002	0625	2	RT 606	RT 15	071007005000034046048059008755	06
0050530003	0560	2	RT 15	ECL MIDDLE	072007003000034046048059006975	06
0050530004	0095	2	ECL MIDDLE	RT T626	072007003000019046048059006975	06
0050530005	0105	2	RT T626	WCL MIDDLE	077012005000019046048059004795	02
0050530006	0222	2	WCL MIDDLE	RT 611	077012005000034046048059004795	02
0050530007	0299	2	RT 611	RT 623	077012005000034046048059004795	02
0050530008	0542	2	RT 623	RT 17	077012005000034046048059004795	02
0050530009	0111	2	RT 17	CLARKE CL	068017012000034046048059006080	06
0287530001	0175	1	SEPO BR	NCL LOVET	071019002000019046048059002630	02
0287530002	0479	1	NCL LOVET	RT 693	069017002000019046048059002095	01
0287530003	0237	1	RT 693	RT 9	071008001000019046048059002460	01
0287530004	0376	1	RT 9	RT 7	067007002000019046048059001510	01
0340530001	0057	1	SE POTOMA	W VA LINE	074066008000034046048059007380	06
0001760001	0266	1	RT 610	RT 234	081007002000019074048059022630	09
0001760002	0149	1	RT 234	SCL DUMFR	078009002000019074048059014115	08
0001760003	0215	1	RT 619	STAFF CL	078009002000019074048059014115	08
0015760001	0217	1	NE BULL	RT 701	068010012000034074048059004025	03
0015760002	0208	1	RT 701	RT 234	068010012000034074048059004025	03
0015760003	0382	1	RT 234	E RT 66 B	070010010000034074048059004355	03
0015760004	0023	1	E RT 66 B	RT 55	067006011000034074048059004595	03
0015760005	0277	1	RT 55	RT 29&211	062009016000034074048059002560	03
0028760005	0218	1	FAUQU CL	RT 652	073005002000034074048059006840	04
0028760004	0297	1	RT 652	RT 215	073005002000034074048059006840	04
0028760003	0204	1	RT 215	WCL MANAS	076004001000034074048059009575	04
0028760002	0026	1	ECL MANAS	SCL MANAS	078004002000034074048059022650	08
0028760001	0213	1	NCL MANAS	NEBUL BR	078005002000034074048059018995	08
0029760004	0083	1	FAUQU CL	RT 15	076008007000042074048059019135	08
0029760003	0330	1	RT 15	RT 55	079010005000042074048059017530	08
0029760002	0054	1	RT 55	RT 66	079011004000042074048059022525	08
0029760001	0539	1	RT 66	BULLE BR	078007003000034074048059003960	03
0055760001	0233	2	RT 29	RT 15	068003003000019074048059003105	03
0055760002	0370	2	RT 15	FAUQU CL	082004001000019074048059002115	01
1066760004	0383	2	FAUQU CL	RT 15	073019010000093074048059008310	05

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TABLE A-5: NORTHERN VIRGINIA DISTRICT ROAD LINKS(Cont.)

1066760003	0255	2	RT 15	E RT 29	076018009000093074048059009590	05
1066760002	0425	2	E RT 29	RT 234	074015007000093074048059023280	09
1066760001	0170	2	RT 234	BULL BR	077015005000093074048059034850	09
1095760006	0240	1	CHOP CKBR	RT 619	073036013000093074048059043850	09
1095760005	0261	1	RT 619	RT 234	075030011000093074048059048230	09
1095760004	0241	1	RT 234	RT 610	078030010000093074048059052070	09
1095760003	0332	1	RT 610	RT 639	078030010000093074048059052070	09
1095760002	0198	1	RT 639	RT 123	078028009000093074048059057350	09
1095760001	0050	1	RT 784	NE OCCOQ	081023008000093074048059069680	09
0123760001	0025	1	NE OCCOQ	RT 1203	075008006000034074048059009350	04
0123760002	0085	1	RT 1203	E RT 95	083006002000034074048059014695	08
0215760002	0368	2	FAUQU CL	RT 658	077004001000019074048059003220	03
0215760001	0345	2	RT 658	RT 28	077004001000019074048059003220	03
0234760011	0055	1	RT 1	E RT 95	081008002000019074048059008875	04
0234760010	0193	1	E RT 95	RT 1450	083010002000034074048059013490	08
0234760009	0155	1	RT 1450	RT 643	077012003000034074048059008035	04
0234760008	0442	1	RT 643	RT 619	072009003000034074048059006930	04
0234760007	0269	1	RT 619	RT 766	071007003000034074048059007805	04
0234760006	0248	1	RT 766	RT 688	071007003000034074048059007805	04
0234760005	0206	1	RT 688	SCL MANAS	071007003000034074048059007805	04
0234760004	0275	1	RT 1004	RT 66	086003001000019074048059030010	09
0234760003	0124	1	RT 66	RT 29&211	081005002000019074048059006115	04
0234760002	0226	1	RT 29&211	RT 659	078005002000019074048059004280	03
0234760001	0532	1	RT 659	RT 15	078005002000019074048059004280	03
0253760001	0079	2	RT T1203	RT 9344	083007001000019074048059004770	03

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TABLE A-6: RICHMOND DISTRICT ROAD LINKS

0153040001	0167	1	RT 360	RT 628	071000004000019020030023001205	07
0153040002	0112	1	RT 628	RT 38	071000003000019020030023001695	07
0153040003	0301	1	RT 38	RT 708	072001004000019020030023001560	07
0153040004	0470	1	RT 708	NOTTWAY CL	072001004000019020030023001560	07
0307040001	0107	1	RT 360	NOTTWAY CL	072006010000042020048023002725	10
0360040001	0337	2	CHSTFLD CL	RT 604	067003016000042020030023007400	02
0360040002	0277	2	RT 604	RT 360 BUS	067003016000042020030023007400	02
0360040003	0264	2	RT 360 BUS	RT 681	067003016000042020030023007400	02
0360040004	0855	2	RT 681	RT 307	067003016000042020030023007400	02
0360040005	0049	2	RT 307	NOTTWAY CL	067003016000042020030023007400	02
2360040001	0294	2	EINT RT360	WINT RT360	063002017000019020030023005915	02
1085120001	0055	1	DNWDDIE CL	RT 712	069064021000093042030063009795	01
1085120002	0479	1	RT 712	RT 630	068073023000093042030063008335	01
1085120003	0631	1	RT 630	RT 1	067073023000093042030063007890	01
1085120004	0126	1	RT 1	RT 46	069068022000093042030063007610	01
1085120005	0297	1	RT 46	RT 644	069067022000093042030063008250	01
1085120006	0497	1	RT 644	MEKLNBG CL	070068022000093042030063008690	01
0001120001	0539	1	DNWDDIE CL	RT 630 S	062012005000019042030063001625	08
0001120001	0408	1	RT 630 S	NCL ALBRTA	068002006000019042030063000895	07
0001120003	0019	1	SCL ALBRTA	I85	066003006000019042030063001040	07
0001121114	0146	1	I-85	RT 46	064002009000019042030063002015	07
0001120005	0320	1	RT 46	RT 644	060006015000019042030063001055	08
0001120006	0432	1	RT 644	RT 657	060006015000019042030063001055	08
0046120001	0471	1	NOTTWAY CL	RT 616 S	065006006000019042030063001080	07
0046120002	0726	1	RT 616 S	I85	073008006000019042030063001410	07
0046120003	0059	1	I85	RT 1	075003006000034042030063001710	08
0046120004	0636	1	RT1	CL LWRNCVL	075002006000034042030063002325	08
0046120005	0063	1	CL LWRNCVL	RT 58 BUS	073002002000034042030063006200	02
0046120006	0013	1	RT 58 BUS	RT 1009	066005006000034042030063002495	08
0046120007	0010	1	RT 1009	RT 1027	066005006000034042030063002495	08
0046120008	0035	1	RT 1027	RT 1018	066005006000034042030063002495	08
0046120009	0038	1	RT 1018	RT 58	066005006000034042030063002495	08
0046120010	0287	1	RT 58	RT 715	066005006000019042030063002495	07
0046120011	0426	1	RT 715	RT 611	066005006000019042030063002495	07
0046120012	0271	1	RT 611	RT 665	070011005000019042030063001495	07
0046120013	0659	1	RT 665	NC ST LINE	070011005000019042030063001495	07
0058120001	0692	2	GREENSVLCL	RT 712	069015010000042042030063005795	02
0058120002	0298	2	RT 712	RT 58 BUS	070015010000042042030063005110	02
0058120003	0288	2	RT 58 BUS	RT 694	067009005000042042030063003650	10
0058120004	0957	2	RT 694	ECL BRODNX	067009005000042042030063003650	10
0058120005	0074	2	ECL BRODNX	MECKLNBGCL	067009005000042042030063003650	10
2058120001	0256	2	RT 750	RT 58	067009005000019042030063003650	09
0136120001	0112	2	RT 1	WCL ALBRTA	074001001000019042030063000435	07
0137120001	0356	2	LUNENBG CL	RT 46	065002005000019042030063000960	07
0005180001	0950	2	JMS CIT CL	RT 632	076011004000034020030063004460	10
0005180002	0378	2	RT 632	RT 155	076011004000034020030063004460	10
0005180003	0568	2	RT 155	RT 609	074014005000034020030063002810	10
0005180004	0369	2	RT 609	RT 156	074014005000034020030063002810	10
0155180001	0275	1	NEW KNT CL	RT 612	067003004000019020030063001685	07
0155180002	0367	1	RT 612	RT 5	067003004000019020030063001685	07
0156180001	0434	1	HENRICO CL	RT 5	069007006000034020030063006665	02
0156180002	0131	1	RT 5	PNC GEO CL	069007006000019020030063006665	03

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TABLE A-6: RICHMOND DISTRICT ROAD LINKS(Cont.)

0295200001	0190	1	RT 10	PNC GEO	CL900900900900093068030059900000	01
0001200001	0258	1	RT 618	RT 620	077002001000019068030059019705	05
0010200001	0060	2	SCL RICHMD	RT 150	084001001000034068030059007735	03
0010200002	0122	2	RT 150	RT 638	080002002000034068030059013170	05
0010200003	0494	2	RT 638	RT 655	080002002000034068030059013170	05
0010200004	0475	2	RT 655	RT 749	077002004000034068030059017005	05
0010200005	0207	2	NE APPO RB	RT 746	074002005000042068030059018020	05
0010200006	0235	2	RT 746	RT 618	074002005000042068030059018020	05
0010200007	0243	2	RT 618	I-95	074002005000042068030059018020	05
0060200001	0226	2	RT 147	RT 754	079001001000034068030059021680	05
0060200002	0489	2	RT 754	POWHTN CL	073002002000034068030059008020	03
0144200001	0224	1	RT 619	RT 1136	082001000000019068030059005750	03
0145200001	0281	2	RT 10	RT 144	079001002000019068030059007405	03
0360200001	0349	2	RT 653	RT 652	069003011000042042030063011415	05
0360200002	0190	2	RT 652	RT 702	073002007000042042030063025980	03
0360200003	0378	2	RT 702	RT 730	069003011000042042030063011415	05
0360200004	0284	2	RT 730	RT 603	065004015000042042030063008190	02
0360200005	0516	2	RT 603	AMELIA CL	067003016000042042030063007400	02
1085260001	0097	1	RT 95	JOHNSON RD	067038021000093074030059014756	04
1085260002	0368	1	JOHNSON RD	RT 1	067038021000093074030059014765	04
1085260003	0235	1	RT 1	RT 1	069067022000093038030063008250	01
1085260004	0790	1	RT 1	RT 703	070059020000093038030063010420	04
1085260005	0495	1	RT 703	RT 650	069063020000093038030063009820	01
1085260006	0596	1	RT 650	RT 40	069063020000093038030063009820	01
1085260007	0251	1	RT 40	NOTT BR	069064021000093038030063009795	01
0001260001	0327	1	RT 613 S	RT 740	071005001000019038030063006055	03
0001260002	0248	1	RT 740	RT 627	070005004000019038030063002865	09
0001260003	0564	1	RT 627	RT 649	070005004000019038030063002865	09
0001260004	0448	1	RT 649	RT 40	070005004000019038030063002865	09
0001260005	0269	1	RT 40	BRUNSWK CL	070005004000019038048063002865	09
0040260001	0519	2	SUSSEX CL	RT 619	063008012000034038030063001320	08
0040260002	0201	2	RT 619	RT 609	063008012000034038030063001320	08
0040260003	0522	2	RT 609	RT 692	063008012000034038030063001320	08
0040260004	0050	2	RT 692	I-85	063008012000034038030063001320	08
0040260005	0145	2	I-85	RT 1002	064014006000034038030063001725	08
0040260006	0271	2	RT 1002	RT 610	063007007000034038030063001455	08
0040260007	0615	2	RT 610	RT 644	068005007000034038030063002085	08
0040260008	0490	2	RT 644	NOTTOWY CL	068005007000034038030063002085	08
0460260001	0082	2	RT 226	RT 632	065005008000042038030063005645	02
0460260002	0200	2	RT 632	RT 743	065005008000042038030063005645	02
0460260003	0025	2	RT 743	RT 708	065005008000042038030063005645	02
0460260004	0212	2	RT 708	RT 628	066006011000042038030063004070	10
0460200005	0236	2	RT 628	RT 627	066006011000042038030063004070	10
0460260006	0329	2	RT 627	RT 611	066006011000042038030063004070	10
0460260007	0232	2	RT 611	RT 622	066006011000042038030063004070	10
0460260008	0327	2	RT 622	RT 625	066006011000042038030063004070	10
0460260009	0684	2	RT 625	NOTTOWY CL	066006011000042038030063004070	10
0006370001	0492	2	EE TUCKACB	RT 662	065003001000019042030059003565	09
0006370002	0590	2	RT 662	RT 628	076002001000019042030059003565	09
0006370003	0493	2	RT 628	RT 522	073002002000019042030059003230	09
0006370004	0521	2	RT 522	RT 600	067002005000019042030059002905	09
0006370005	0647	2	RT 600	RT 45	067002005000019042030059002905	09

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TABLE A-6: RICHMOND DISTRICT ROAD LINKS(Cont.)

0006370006	0601	2	RT 45	FLUVANN	CL066002007000019042030059001440	07
1064370001	0165	2	HENRICO CL	RT 623	074013010000093042030059012995	04
1064370002	0659	2	RT 623	RT 617	075011010000093042030059011960	04
1064370003	0489	2	RT 617	LOUISA CL	077012010000093042030059010650	04
1064370004	0500	2	LOUISA CL	RT 629	077013010000093042030059009630	01
1064370005	0392	2	RT 629	RT F087	077012010000093042030059009035	01
1064370006	0126	2	RT F087	LOUISA CL	075016011000093042030059008105	01
0271370001	0048	1	HENRICO CL	HANOVER	CL062001006000019042030063003005	09
0005430001	0172	2	CHAS CI CL	RT 156	074013007000019074030059002490	07
0005430002	0605	2	RT 156	MILL RD	074003004000019074030059002510	09
0005430003	0408	2	MILL RD	OSBORN TPK	074001003000034074030059003560	09
0005430004	0126	2	OSBORN TPK	C&O RR	075001002000034074030059004950	09
1064430001	0472	2	SKIPERDUP	I-295	082008005000093074030059021830	06
1064430002	0240	2	I-295	GOOCHLD	CL074013010000093074030059012995	04
0001430001	0150	1	SE CHIK RB	I-295	071004004000019074030059011330	05
0006430001	0104	2	PUMP RD	EE TUCK	CB090001000000019074030059022970	10
0033430003	0218	1	HUNGARY RD	RT 157	080001002000034074030063010430	05
0033430002	0061	1	RT 157	I-295	074001002000034074030063006405	03
0033430001	0038	1	I-295	HANVR CL	073001002000034068030059003715	09
0060430001	0301	2	N I-295	E 156	070003006000019074030059005825	03
0060430002	0188	2	E RT 156	I-295	070003006000019074030059005825	03
0060430003	0099	2	I-295	WHTSIDE	RDO74001002000019074030059008280	03
0156430001	0486	1	OLD WMBG R	CHAS CI	RDO72001000000019074030059001010	07
0156430002	0497	1	CHAS CI RD	RT 5	072001000000019074030059001010	07
0157430001	0025	1	RT 33	FRANCISTN	076001001000019074030059003905	09
0157430002	0256	1	FRANCISTN	HUNGARY	RDO76001001000019074030059003905	09
0250430001	0195	2	RT 157	I-64	081001001000019074030059011460	09
0250430002	0311	2	I-64	GOOCHLD	CL075002003000019074030059008015	03
0271430001	0370	1	RT 250	GOOCHLD	CL062001006000019074030059003005	09
0040550001	0456	2	NOTTOWY CL	RT 137	067003005000034042048023002945	10
0040550002	0089	2	RT 137	RT 697	067003005000034042048023002945	10
0040550003	0512	2	RT 697	RT 1009	070002003000034042048023003775	10
0040550004	0391	2	RT 1009	RT 675	066001004000034042048023001850	08
0040550005	1284	2	RT 675	CHRLTTE	CL064002003000034042048023001155	08
0045370001	0471	1	RT 6	PEMBERTON	062000000000019042030063000990	08
0250370001	0150	2	WE LTTL CB	RT 623	075002002000019042030063004225	09
0250370002	0626	2	RT 623	RT 670	075002002000019042030063004225	09
0250370003	0835	2	RT 670	RT 522	068002001000019042030063001735	07
0250370004	0728	2	RT 522	RT 606	069003002000019042030063001050	07
0250370005	0343	2	RT 606	RT 605	069003002000019042030063001050	07
0250370006	0286	2	RT 605	LOUISA CL	073002002000019042030063000840	07
0522370001	0625	1	LOUISA CL	RT 6	071002004000019042030063005485	03
0522370002	0228	1	RT 6	POWHATN	CL068002003000019042030063002620	09
1095420001	0320	1	CAROLIN CL	RT 30	064058020000093046030059036220	06
1095420002	0605	1	RT 30	RT 54	068049018000093046030059043700	06
1095420003	0269	1	RT 54	RT 802	074037015000093046030059052630	06
1095420004	0266	1	RT 802	RT 656	074037015000093046030059052630	06
1095420005	0191	1	RT 656	I-295	075035013000093046030059047170	06
1095420006	0150	1	I-295	RT 73	075035013000093046030059047170	06
1295420005	0119	2	WE CHIC RV	RT 301	079009008000093046030059015230	04
1295420004	0260	2	RT 301	RT 627	078009007000093046030059017980	04
1295420003	0160	2	RT 627	RT 360	078009007000093046030059017980	04

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TABLE A-6: RICHMOND DISTRICT ROAD LINKS(Cont.)

1295420002	0259	2	RT 350	RT 615	080015007000093046030059011880	04
1295420001	0228	2	RT 615	HENRICO CL	080015007000093046030059011880	04
0001420001	0168	1	CAROLIN CL	RT 684	075009007000019046030059006805	03
0001420002	0325	1	RT 684	RT 738	075009007000019046030059006805	03
0001420003	0275	1	RT 738	NCL ASHLND	073004005000019046030059010860	05
0001420004	0215	1	SCL ASHLND	RT 802	071004004000019046030059011330	05
0001420004	0241	1	RT 802	HENRICO CL	071004004000019046030059011330	05
0030420001	0100	2	CAROLIN CL	RT 688	064036002000034046030059011800	05
0030420002	0050	2	RT 688	I-95	064036002000034046030059011800	05
0030420003	0070	2	I-95	RT 1	064005003000034046030059003785	10
0033420001	0550	2	HENRICO CL	RT 670	073001002000034046030059003715	10
0033420002	0172	2	RT 670	RT 671	073001002000034046030059003715	10
0033420003	0399	2	RT 671	RT 657	073001002000034046030059003715	10
0033420004	0217	2	RT 657	RT 715	073001002000034046030059003265	10
0033420005	0395	2	RT 715	LOUISA CL	073001002000034046030059003265	10
0054420001	0025	2	RT 301	RT 646	079002002000034046030059002420	07
0054420002	0529	2	RT 646	I-95	079002002000034046030059002420	07
0054420003	0401	2	RT 687	RT 671	074002003000034046030059011645	05
0054420004	0367	2	RT 671	RT 33	075001001000034046030059004045	10
0156420001	0124	1	RT 643	RT 615	074001001000019046030059001340	07
0156420002	0167	1	RT 615	RT 718	074001001000019046030059001340	07
0156420003	0290	1	RT 718	RT 643	074001001000019046030059001340	07
0156420004	0233	1	RT 643	HENRICO CL	078001000000019046030059006170	03
0271420001	0326	1	GOOCHLD CL	RT 622	062001006000019046030059003005	09
0301420001	0183	1	CAROLIN CL	RT 1002	074016003000034046030059003920	10
0301420002	0274	1	RT 1002	RT 651	076006002000034046030059003920	10
0301420003	0257	1	RT 651	RT 653	076006002000034046030059007560	02
0301420004	0127	1	RT 653	RT 643	080004001000034046030059012380	05
0301420005	0130	1	RT 643	RT 640	080004001000034046030059012380	05
0360420001	0435	2	KING WM CL	RT 606	075001004000042046030059005335	02
0360420002	0334	2	RT 606	RT 615	078001002000042046030059012430	05
0360420003	0274	2	RT 615	RT 643	078001002000042046030059012430	05
1095430004	0578	1	CHESTFD CL	RT 195	075033016000093074030059040560	06
1095430003	0374	1	RT 195	RT 73	076026013000093074030059048470	06
1095430002	0154	1	RT 73	I-295	075026013000093074030059047170	06
1095430001	0169	1	I-295	HANOVER CL	074027015000093074030059052630	06
1295430006	0406	2	I-64	RT 33	076007007000093074030059005770	01
1295430005	0332	2	RT 33	WDMAN RD	075005008000093074030059007165	01
1295430004	0205	2	WDMAN RD	I-95	075005008000093074030059007165	01
1295430003	0114	2	I-95	WE CHIC RV	079009008000093074030059015230	04
1295430002	0318	2	HENRICO CL	I-64	080015007000093074030059011880	04
1295430001	0080	2	I-64	RT 60	080015007000093074030059011880	04
0049550001	0547	1	NOTTOWY CL	RT T1017	067004005000034042048023001090	08
0049550002	0402	1	RT T1017	RT 40	066001004000034042048023001850	08
0049550003	1122	1	RT 40	MECKLNBGCL	074003003000034042048023002375	08
0137550001	0467	2	BRNSWK CL	RT 138	065002005000019042048023000960	07
0137550002	0216	2	RT 138	RT 601	067003005000019042048023002470	07
0137550003	0187	2	RT 601	RT 40	067003005000019042048023002470	07
0138550001	0983	1	RT 137	MECKLNBGCL	067003004000019042048023001535	07
1085580001	0422	1	BRNSWCK CL	RT 1	070068022000093038030023008690	01
1085580002	0279	1	RT 1	RT 58	067057024000093038030023009225	01
1085580003	0810	1	RT 58	RT 903	063059025000093038030023010085	04

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TABLE A-6: RICHMOND DISTRICT ROAD LINKS(Cont.)

1085580004	0441	1	RT 903	NC ST LINE	070064021000093038030023011215	04
0001580001	0376	1	BRNSWCK CL	I-85	067001005000019038030023002990	09
0001580002	0046	1	I-85	RT 138	067001005000019038030023002990	09
0001580003	0081	1	RT 138	NCL S HILL	067009005000019038030023003650	09
0001580004	0698	1	RT 58	RT 712	070010002000019038048023001370	07
0004580001	0450	1	RT 58	RT 707	060011001000019038048023000770	08
0004580002	0652	1	RT 707	NC ST LINE	060011001000019038048023000790	08
0015580001	0683	1	CHRLTTE CL	RT 49	066011006000034038030023001475	08
0015580002	0159	1	RT 49	RT 58	072006002000034038030023003875	08
0015580003	0307	1	RT 58	RT 722	076013003000034038030023005665	02
0015580004	0437	1	RT 722	NC ST LINE	072030006000034038030023002775	10
0047580001	0566	2	CHRLTTE CL	RT 49	071002004000034038048023001805	08
0047580002	0594	2	RT 49	RT 600	076003003000034038048023005375	02
0047580003	0146	2	RT 600	RT 660	076003003000034038048023005375	02
0047580004	0528	2	RT 660	RT 664	061003005000034038048023001420	08
0047580005	0770	2	RT 664	S HILL CL	064004005000034038048023002360	08
0049580001	0395	1	LUNENBG CL	RT 47	074003003000034038048023002375	08
0049580002	0415	1	RT 92	RT 696	071006001000019038048023001805	07
0049580003	0590	1	RT 696	RT 609	071006001000019038048023001805	07
0049580004	0206	1	RT 609	RT 15	071006001000019038048023001805	07
0049580005	0864	1	RT 58	HALIFAX CL	067022002000019038048023001230	07
0058580001	0244	2	BRNSWCK CL	RT 644	071014009000042038048023004515	10
0058580002	0236	2	RT 644	S HILL CL	071014009000042038048023004515	10
0058580003	0138	2	S HILL CL	E RT 1	067009005000042038048023003650	10
0058580004	0423	2	W RT 1	RT 4	071008005000042038048023003340	10
0058580005	0488	2	RT 4	RT 386	071008005000042038048023003340	10
0058580006	0091	2	RT 386	RT 92	071012008000042038048023002640	10
0058580007	0064	2	RT 92	RT 58 BUS	067012009000042038048023002035	08
0058580008	0946	2	RT 58 BUS	RT 15&49	071009006000042038048023003035	10
0058580009	0089	2	RT 15	CL CLARKSV	071009006000042038048023003035	10
0058580010	0083	2	CL CLARKSV	RT 15	071008004000042038048023006345	02
0058580011	0097	2	RT 15	CL CLARKSV	071008004000042038048023006345	02
0058580012	0175	2	CL CLARKSV	RT 49	075012004000042038048023005500	02
0058580013	0297	2	RT 49	RT 735	072007004000042038048023005615	02
0058580014	0298	2	RT 735	HALIFAX CL	072007004000042038048023005615	02
0092580001	0612	1	CHRLTTE CL	RT 49	067002004000034038030023001425	08
0092580002	0088	1	RT 47	CL CHASE	067002004000034038030023001425	08
0092580003	0957	1	CL CHASE	RT 58 BUS	068003002000034038030023001600	08
0138580001	0327	1	LUNENBG CL	RT 1	067003005000019038048023001535	07
1064630001	0392	2	JMES CI CL	RT 33	078019010000093020030059016815	04
1064630002	0591	2	RT 33	RT 155	081013007000093020030059021395	06
1064630003	0347	2	RT 155	RT 609	083011006000093020030059024310	06
1064630004	0577	2	RT 609	RT 249&33	083011006000093020030059024310	06
1064630005	0108	2	RT 249&33	EE CHIC RB	084012005000093020030059027170	06
0030630001	0078	2	JMES CI CL	RT 273	072002006000019020030059002405	07
0030630002	0342	2	RT 273	RT 33	075003002000019020030059001575	07
0030630003	0460	2	RT 33	KING WM CL	068003007000019020030059008130	03
0033630001	0286	2	RT 249	I-64	071005008000034020030059003845	10
0033630002	0042	2	I-64	RT 60	081013007000034020030059021395	10
0060630001	0855	2	JMES CI CL	RT 155	072006003000019020030059003905	09
0060630002	0288	2	RT 155	RT 615	071004003000019020030059004550	09
0060630003	0262	2	RT 615	RT 609	071004003000019020030059004550	09

TABLE A-6: RICHMOND DISTRICT ROAD LINKS(Cont.)

0060630004	0403	2	RT 609	RT 33	071004003000019020030059004550	09
0060630005	0091	2	RT 33	HENRICO	CL070003006000019020030059005825	03
0155630001	0213	1	RT 249	I-64	069002004000019020030059002450	07
0155630002	0498	1	I-64	CHAS CI	CL069002004000019020030059002450	07
0249630001	0295	2	RT 30	RT 626	074007007000019020030059001670	07
0249630002	0557	2	RT 626	RT 155	074002002000019020030059001780	07
0249630003	0373	2	RT 155	RT 609	076002001000019020030059001740	07
0249630004	0230	2	RT 609	RT 612	076002001000019020030059001740	07
0249630005	0441	2	RT 612	I-64	076002001000019020030059001740	07
0040670001	0576	2	DNWDDIE	CL ECL BLKSTN	068005007000034042048059002085	08
0040670002	0536	2	RT 701	LUNENBG	CL067003005000034042048059002945	10
0046670001	0561	1	RT 40	BRUNS	CL 065006006000019042048059001080	07
0049670001	0189	1	RT 360	RT 460	068002006000019042048059001435	07
0049670002	0241	1	RT 460	RT 633	066004011000019042048059005400	03
0049670003	0859	1	RT 633	LUNENBG	CL070004005000019042048059001700	07
0153670001	0652	1	RT 460	AMELIA	CL 073001004000019042048059001400	07
0307670001	0542	2	AMELIA	CL PRNC ED	CL072006010000042042048059002725	10
0360670001	0417	2	AMELIA	CL RT 49	060004021000042042030059004105	09
0360670002	0246	2	RT 49	RT 723	058005025000042042030059003445	09
0360670003	0066	2	RT 723	RT 460	BUS058005025000042042030059003445	09
0360670004	0174	2	RT 460	BUS RT 621	065006017000042042030059004815	10
0360670005	0112	2	RT 621	PRNC ED	CL057007025000042042030059003680	09
2360670001	0044	2	RT 460	RT 628	068002004000019042030059002240	07
2360670002	0021	2	RT 628	RT T724	068002004000019042030059002240	07
2360670003	0051	2	RT T724	RT 460	068002004000019042030059002240	07
0460670001	0371	2	DNWIDDE	CL RT 609	067005014000042042030059003780	10
0460670002	0209	2	RT 609	RT 606	067005014000042042030059003780	10
0460670003	0616	2	RT 606	RT 607	067005014000042042030059003780	10
0460670004	0199	2	RT 607	RT 1006	064004018000042042030059003250	10
0460670005	0030	2	RT 1006	RT 1005	067004012000042042030059005050	10
0460670006	0222	2	RT 1005	RT 49	066004011000042042030059005400	02
0460670007	0205	2	RT 49	RT 723	065004011000042042030059004980	02
0460670008	0018	2	RT 723	RT 360	065004011000042042030059004980	10
0460670009	0299	2	RT 460	PRNC ED	CL065006017000042042030059004815	10
2460670001	0317	2	RT 460	RT 40	071002006000034042030059002145	08
2460670002	0202	2	RT 40	RT 658	070003005000034042030059003090	10
2460670003	0389	2	RT 658	RT 9457	070003005000019042030059003090	09
2460670004	0120	2	RT 9457	RT 460	068002004000019042030059002240	07
0013720001	0237	2	RT 60	RT 300	066001001000019020030023001070	07
0013720002	0028	2	RT 300	RT 1005	066001001000019020030023001070	07
0013720003	0015	2	RT 1005	RT 726	066001001000019020030023001070	07
0013720004	0351	2	RT 726	RT 609	066001001000019020030023001070	07
0013720005	0651	2	RT 609	RT 638	066001001000019020030023001070	07
0013720006	0407	2	RT 638	CMBRLND	CL064001004000019020030023000825	07
0060720001	0222	2	CHSFLD	CL RT 676	072002002000034020030023008020	02
0060720002	0288	2	RT 676	RT 622	072002002000034020030023008020	02
0060720003	0501	2	RT 622	RT 300	072002002000034020030023008020	02
0060720004	0187	2	RT 300	RT 522	072002002000034020030023008020	02
0060720005	0535	2	RT 522	RT 629	072002005000034020030023003470	10
0060720006	0409	2	RT 629	CMBRLND	CL072002005000034020030023003470	10
0300720001	0004	2	RT 300	RT 1002	080000000000019020030023000415	07
0300720002	0064	2	RT 60	RT 13	080000000000019020030023000415	07

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TABLE A-6: RICHMOND DISTRICT ROAD LINKS(Cont.)

0522720001	0399	1	GOOCHLD CL	RT 711	068002003000034020030023002620	10
0522720002	0481	1	RT 711	RT 60	072001003000034020030023002355	08
1095740005	0646	1	SUSSEX CL	RT 35	069056019000093042030059016315	04
1095740004	0411	1	RT 35	RT 301	068044017000093042030059016890	04
1095740003	0236	1	RT 301	RT 629	072046016000093042030059017650	04
1095740002	0347	1	RT 629	RT 460	075033016000093042030059040560	06
1095740001	0187	1	RT 460	CHESTFD CL	075033016000093042030059040560	06
0010740001	0793	2	SURRY CL	RT 609	074002005000034042030059018020	05
0010740002	0255	2	RT 609	RT 641	069006006000034042030059007600	02
0010740003	0226	2	RT 641	RT 156	069007006000034042030059006665	02
0010740004	0207	2	RT 156	ECL HOPEWL	067004006000034042030059003345	10
0035740001	0058	1	RT 605	I-95	064025009000034042030059003000	10
0035740002	0014	1	I-95	RT 156	064025009000034042030059003000	10
0035740003	0400	1	RT 156	SUSSEX CL	067017013000034042030059001980	08
0106740001	0150	1	RT 156	RT 616	076003002000019042030059003310	09
0106740002	0044	1	RT 616	RT 1510	076003002000019042030059003310	09
0106740003	0042	1	RT 1510	RT 634	076003002000019042030059003310	09
0106740004	0250	1	RT 634	ECL PETBRG	076003002000019042030059003310	09
0156740001	0184	1	SE JMES RB	RT 10	071009007000034042030059003095	10
0156740002	0224	1	SCL HOPEWL	RT 674S	074001002000019042030059004625	09
0156740003	0089	1	RT 674	RT 106	074001002000019042030059004625	09
0156740004	0560	1	RT 106	RT 460	063006010000019042030059001860	08
0156740005	0307	1	RT 460	RT 626	064013007000019042030059001615	07
0156740006	0426	1	RT 626	RT 35	064013007000019042030059001615	07
0301740001	0215	1	SCL PETBRG	I-95	077005001000019042030059004990	09
0301740002	0430	1	I-95	RT 156	068007001000019042030059001345	07
0301740003	0387	1	RT 156	RT 673	063006001000019042030059000760	07
0301740004	0314	1	RT 673	SUSSEX CL	063006001000019042030059000760	07
0460740001	0420	1	ECL PETBRG	RT 156	068005014000042042030059006300	02
0460740002	0351	1	RT 156	RT 625	068005014000042042030059006300	02
0460740003	0269	1	RT 625	SUSSEX CL	062001017000042042030059005695	02

TABLE A-7: SALEM DISTRICT ROAD LINKS

0024090001	0759	2	CAMPB CL	E RT 43	063002001000019038057063000630	01
0024090002	0266	2	E RT 43	W RT 43	071002001000019038057063001335	01
0024090003	0551	2	W RT 43	RT 122	073001001000019038057063001285	01
0024090004	0373	2	RT 122	RT 801	076002002000034038057063002015	01
0024090005	0453	2	RT 801	RT 746	076002002000034038057063002015	01
0024090006	0215	2	RT 746	RT 755	077002002000034038057063003195	02
0024090007	0204	2	RT 755	RT 635	077002002000034038057063003195	02
0024090008	0490	2	RT 635	RT 651	077002002000034038057063003195	02
0024090009	0008	2	RT 651	ROAND CL	076001001000034038057063013440	05
0043090005	0513	1	CAMPB CL	RT 626	078002001000019038057063000800	01
0043090004	0249	1	RT 626	E RT 24	078002001000019038057063000800	01
0043090003	0834	1	W RT 24	SCL BEDFO	072002001000019038057063001090	01
0043090002	0379	1	NCL BEDFO	N RT 643	082004000000019038057063001930	01
0043090001	0503	1	N RT 643	BR PARK	090009000000019038057063000455	01
0122090001	0875	1	RT 501	RT 639	074001003000034038057063002110	01
0122090002	0805	1	RT 639	NCL BEDFO	074001003000034038057063002110	01
0122090003	0319	1	SCL BEDFO	RT 747	077001003000034038057063003435	02
0122090004	0406	1	RT 747	RT 24	077001003000034038057063003435	02
0122090005	0209	1	RT 24	RT 801	080001003000034038057063002350	01
0122090006	0280	1	RT 801	RT 608	080001003000034038057063002350	01
0122090007	0380	1	RT 608	STAUN BR	069003004000034038057063001810	01
0221090004	0222	2	ECL BEDFO	RT 671	084001001000034038057063005490	03
0221090003	0926	2	RT 671	RT 663	084001001000034038057063005490	03
0221090002	0274	2	RT 663	RT 661	086001001000034038057063009205	03
0221090001	0232	2	RT 661	WCL LYNCH	086001001000034038057063009205	03
0460090001	0788	2	CAMPB CL	RT 803	080002005000042038057063020465	01
0460090002	0462	2	RT 803	RT 460 B	075004011000042038057063009115	03
0460090003	0288	2	RT 460 B	W RT 460 B	075006012000042038057063007910	03
0460090004	0342	2	W RT 460 B	RT 831	076005009000042038057063010690	05
0460090005	0769	2	RT 831	RT 695	076005009000042038057063010690	05
0460090006	0418	2	RT 695	BOTET CL	075004010000042038057063010485	05
0501090001	0433	1	JAMES BR	RT 122	069005011000034038057063001480	01
0501090002	0641	1	RT 122	RT 651	079003005000034038057063002430	01
0501090003	0379	1	RT 651	NCL LYNCH	079003005000034038057063002430	01
A220110002	0448	1	ROAND CL	W RT 11	060004014000034042048059005245	03
A220110001	0016	1	E RT 11	RT 81	065003017000034042048059009445	03
Y043110001	0011	1	RT 220	RT 43	063001001000019042048059000735	01
0011110001	0119	1	E RT 81	E RT 43	067004003000019042048059002815	02
0011110002	0241	1	E RT 43	RT 625	067002003000019042048059002970	02
0011110003	0234	1	RT 625	RT 81	067002003000019042048059002970	02
0011110004	0604	1	RT 81	RT 640	067002003000019042048059002685	02
0011110005	0298	1	RT 640	RT 670	067002003000019042048059002685	02
0011110006	0319	1	RT 670	RT 220	064003013000019042048059004755	02
0011110007	0023	1	RT 220	RT A220	070003013000034042048059015960	05
0011110008	0256	1	RT A220	RT 601	064003012000034042048059008400	03
0011110009	0004	1	RT 601	ROAND CL	079002003000034042048059018985	05
0043110006	0475	1	BR PARKW	S RT 11	0690000003000019042048059001200	01
0043110005	0395	1	N RT 11	RT 630	054001001000019042048059001280	01
0043110004	0522	1	RT 630	S RT 688	050001002000019042048059000805	01
0043110003	0539	1	S RT 688	N RT 688	062001003000019042048059001195	01
0043110002	0047	1	N RT 688	RT 43Y	062001003000019042048059001195	01
0043110001	0174	1	RT 43Y	RT 220	054002004000019042048059000675	01

TABLE A-7: SALEM DISTRICT ROAD LINKS (Cont.)

1081110001	0307	1	ROANO CL	RT 220	068019019000093042048059019415	06
1081110002	0613	1	RT 220	RT 640	062024024000093042048059015140	06
1081110003	0587	1	RT 640	RT 11	059022025000093042048059014215	06
1081110004	0434	1	RT 11	F-054	059022027000093042048059012965	06
1081110005	0211	1	F-054	RT 614	060022025000093042048059013020	06
1081110006	0534	1	RT 614	ROCKB CL	061020026000093042048059014125	06
0220110001	0995	1	ALLEG CL	RT 43	068010010000042042048059003870	02
0220110002	0215	1	RT 43	RT 43Y	072003011000042042048059004055	02
0220110003	0679	1	RT 43Y	RT 635	069005009000042042048059004115	02
0220110004	0467	1	RT 635	RT T630	069005009000042042048059004115	02
0220110005	0326	1	RT T630	N RT 670	069009008000042042048059005580	03
0220110006	0369	1	N RT 670	N RT 779	071007007000042042048059006620	03
0220110007	0160	1	N RT 779	RT 81	076004007000042042048059009545	03
0460110001	0299	2	BEDFO CL	BR PARKW	075004010000042042048059010485	05
0460110002	0250	2	BR PARKW	ROANO CL	071002009000042042048059015225	05
0052170001	0446	1	WYTHE CL	RT 620	072004002000019038057063001065	01
0052170002	0315	1	RT 620	RT 705	072004002000019038057063001065	01
0052170003	0340	1	RT 705	RT 58	072004002000019038057063001065	01
0052170004	0701	1	RT 58	RT 148	076016002000019038057063002000	01
0052170005	0535	1	RT 148	RT 691	074021007000034038057063004315	02
0052170006	0407	1	RT 691	NC LINE	074021007000034038057063004315	02
0058170001	0823	2	FLOYD CL	RT 680	070005006000034038057063001410	01
0058170002	0846	2	RT 680	RT 221	070005006000034038057063001410	01
0058170003	0279	2	RT 221	RT 77	077005003000034038057063006755	03
0058170004	0220	2	RT 77	RT 872	077002004000034038057063005435	03
0058170005	0218	2	RT 872	RT 887	077002004000034038057063005435	03
0058170006	0268	2	RT 887	ECL GALAX	077002004000034038057063005435	03
1077170003	0879	1	NC LINE	RT 148	067050026000093038057063006390	04
1077170002	0624	1	RT 148	RT 58	070053022000093038057063007845	04
1077170001	0926	1	RT 58	WYTHE CL	067047022000093038057063008510	04
0094170001	0920	1	WYTHE CL	GRAYS CL	070003001000019038057063000920	01
0097170002	0376	2	GRAYS CL	RT 713	071003000000019038057063001395	01
0097170001	0451	2	RT 713	BR PARKW	070003000000019038057063001130	01
0100170001	0812	2	RT 221	WYTHE CL	069004003000019038057063001775	01
0148170001	0087	2	RT 52	RT 77	070032012000034038057063002345	01
0221170003	0144	2	RT 58	RT 100	070004002000034038057063003410	02
0221170002	0677	2	RT 100	RT 638	071001001000034038057063001575	01
0221170001	0337	2	RT 638	FLOYD CL	066003002000034038057063001355	01
0018220001	0512	2	ALLEG CL	RT 311	052009003000019020048063000220	01
0042220001	0474	2	RT 311	RT 645	064005002000019020048063000510	01
0042220002	0899	2	RT 645	RT 626	064005001000019020048063000685	01
0042220003	0792	2	RT 626	RT 629	066005001000019020048063000685	01
0042220004	0368	2	RT 629	GILES CL	066005001000019020048063000685	01
0311220005	0956	1	ROANO CL	RT 42	066002002000019020048063002435	01
0311220004	0520	1	RT 42	RT 658	052008003000019020048063000385	01
0311220003	0740	1	RT 658	RT 602	057015003000019020048063000375	01
0311220002	0366	1	RT 602	RT 18	057015003000019020048063000375	01
0311220001	0339	1	RT 18	WVA LINE	066026003000019020048063000350	01
0008310004	0034	1	PATRI CL	BR PARKW	064007004000034020057063001015	01
0008310003	0596	1	BR PATKW	RT 221	067008003000034020057063001040	01
0008310002	0437	1	RT 221	RT 730	069003001000034020057063002645	02
0008310001	0615	1	RT 730	LITTL BR	069003001000034020057063002645	02

TABLE A-7: SALEM DISTRICT ROAD LINKS (Cont.)

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0058310001	0157	2	PATRI CL	CARRO CL	070005006000034020057063001410	01
0221310007	0450	2	CARRO CL	RT 787	066003002000034020057063001355	01
0221310006	0291	2	RT 787	RT 750	074001001000034020057063002895	02
0221310005	0859	2	RT 750	RT 8	074001001000034020057063002895	02
0221310004	0265	2	RT 8	RT 860	075002001000034020057063002650	02
0221310003	0697	2	RT 860	RT 661	073002001000034020057063002050	01
0221310002	0379	2	RT 661	RT 642	073002001000034020057063002050	01
0221310001	0720	2	RT 642	ROANO CL	074002001000034020057063002230	01
2220330001	0057	1	N RT 220	NCL ROCKY	070001003000019038057063004685	02
2220330002	0176	1	SCL ROCKY	S RT 220	070001003000019038057063003950	02
0040330001	0063	2	PITTS CL	RT 890	065004006000034038057063001395	01
0040330002	0401	2	RT 890	RT 945	063002004000034038057063003560	02
0040330003	0448	2	RT 945	RT 718	063002004000034038057063003560	02
0040330004	0388	2	RT 718	RT 655	063002004000034038057063003560	02
0040330005	0273	2	RT 655	RT 122	063002004000034038057063003560	02
0040330006	0095	2	RT 122	RT 220	063002003000034038057063007625	03
0040330007	0007	2	RT 220	ECL ROCKY	068001002000034038057063010555	05
0040330008	0888	2	WCL ROCKY	RT 602	068001001000034038057063004685	02
0040330009	0405	2	RT 602	RT 605	061002002000034038057063002935	02
0040330010	0477	2	RT 605	RT 622	061002002000034038057063002935	02
0040330011	0075	2	RT 622	RT 785	053003003000034038057063000240	01
0040330012	0283	2	RT 785	PATRI CL	063002003000034038057063000430	01
0116330001	0358	1	ROANO CL	RT 678	071001001000019038057063002885	02
0116330002	0592	1	RT 678	RT 122	071001001000019038057063002885	02
0122330001	0361	1	STAUN BR	RT 616	069003004000034038057063001810	01
0122330002	0219	1	RT 616	RT 636	069003004000034038057063001810	01
0122330003	0446	1	RT 636	RT 116	069003004000034038057063001810	01
0122330004	0714	1	RT 116	RT 40	058001004000034038057063002625	02
0220330001	0037	1	ROANO CL	RT 613	069005011000034038057063013640	05
0220330002	0117	1	RT 613	NCL BOONE	069005011000042038057063013640	05
0220330003	0529	1	NCL BOONE	RT 697	064003013000042038057063012615	05
0220330004	0373	1	RT 697	RT 220 B	064003013000042038057063012615	05
0220330005	0124	1	RT 220 B	RT 40	060005018000042038057063007845	03
0220330006	0329	1	RT 40	RT 220 B	058005020000042038057063006765	03
0220330007	0670	1	RT 220 B	RT 718	065007015000042038057063009615	03
0220330008	0396	1	RT 718	RT 605	065007015000042038057063009615	03
0220330009	0190	1	RT 605	HENRY CL	065007015000042038057063009615	03
2460350001	0248	2	RT 460	E RT 100	077003001000019042048063004595	02
2460350002	0098	2	E RT 100	RT 460	077003001000034042048063004595	02
0042350001	0311	2	CRAIG CL	RT 601	066005001000019042048063000685	01
0042350002	0099	2	RT 601	RT 460	069001001000019042048063001330	01
0042350003	0795	2	RT 100	BLAND CL	060003003000019042048063000910	01
0061350003	0511	2	BLADE CL	W RT 724	060006001000019042048063000695	01
0061350002	0456	2	W RT 724	E RT 724	065002000000019042048063000615	01
0061350001	0396	2	E RT 724	RT 460	068003000000019042048063000905	01
0100350005	0137	1	PULAS CL	RT 42	065003007000034042048063003245	02
0100350004	0314	1	RT 42	RT 730	056005009000034042048063001735	01
0100350003	0499	1	RT 730	RT 665	070004007000034042048063002975	02
0100350002	0270	1	RT 665	RT 460 B	070004007000034042048063002975	02
0100350001	0472	1	RT 460 B	RT 61	064005001000019042048063001005	01
0219350001	0173	1	WVA LINE	RT 460	071036001000034042048063004310	02
0460350001	0116	2	MONTG CL	RT 42	071009009000042042048063006480	03

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TABLE A-7: SALEM DISTRICT ROAD LINKS (Cont.)

0460350002	0166	2	RT 42	RT 700	070010008000042042048063006360	03
0460350003	0235	2	RT 700	RT 730	070010007000042042048063005480	03
0460350004	0282	2	RT 730	RT 613	071010006000042042048063006825	03
0460350005	0201	2	RT 613	RT T626	071010006000042042048063006825	03
0460350006	0370	2	RT T626	RT 460 B	071010006000042042048063006825	03
0460350007	0260	2	RT 460 B	RT 460 B	066016012000042042048063005955	03
0460350008	0461	2	RT 460 B	RT 61	070013007000042042048063009200	03
0460380009	0295	2	RT 61	RT T712	072019010000042042048063004735	02
0460350010	0073	2	RT T712	RT 219	072021011000042042048063004510	02
0460350011	0248	2	RT 219	RT 806	067026012000042042048063005465	03
0460380012	0081	2	RT 806	WVA LINE	066026012000042042048063005265	03
A057440001	0122	2	RT 682	RT 903	080002004000019068048063007655	03
A057440002	0287	2	RT 903	RT 57	078002003000019068048063007020	03
2220440001	0202	1	RT 57	RT 609	078002003000042068048063016910	05
2220440002	0229	1	RT 609	WCL MARTN	078002003000042068048063016910	05
2220440003	0321	1	S RT 58	RT 220	074005005000034068048063016630	05
2220440004	0085	1	RT 220	RT 87	084007001000019068048063002380	01
2220440005	0083	1	RT 87	RT 220	084008001000019068048063001280	01
0057440001	0298	2	PITTS CL	RT 647	072002005000034068048063001855	01
0057440002	0982	2	RT 647	E RT 58	072002005000034068048063001855	01
0057440003	0241	2	WCL MARTN	RT 609	079001002000019068048063003535	02
0057440004	0168	2	RT 609	RT 220	075001002000019068048063002710	02
0057440005	0101	2	W RT 220	RT 903	078002002000034068048063010385	05
0057440006	0283	2	RT 903	RT 57A	077001002000034068048063008460	03
0057440007	0212	2	RT 57A	RT 904	071003002000034068048063003680	02
0057440008	0374	2	RT 904	PATRI CL	071003002000034068048063003680	02
0057440009	0262	2	RT 57 NEW	ECL MARTN	071003002000019068048063003680	02
0058440001	0138	2	PITTS CL	RT 610	073004008000042068048063004900	02
0058440002	0211	2	RT 610	RT 648	078004005000042068048063008730	03
0058440003	0240	2	RT 648	RT 930	078004005000042068048063008730	03
0058440004	0254	2	RT 930	RT 57	078004005000034068048063008730	03
0058440005	0054	2	RT 57	ECL MARTN	079003004000034068048063013695	05
0058440006	0065	2	SCL MARTN	RT 58	076006005000034068048063017865	05
0058440007	0242	2	RT 58	RT 220	079003003000034068048063009190	03
0058440008	0251	2	RT 220	RT 687	076004004000034068048063005855	03
0058440009	0326	2	RT 687	RT 695	076004004000034068048063005855	03
0058440010	0272	2	RT 695	PATRI CL	076004004000034068048063005855	03
0087440001	0028	1	RT 220	RT 220 B	076020006000034068048063005665	03
0087440002	0382	1	RT 220 B	NC LINE	076021007000034068048063004965	02
0108440002	0219	1	NCL MARTN	RT 714	076001000000019068048063003145	02
0108440001	0377	1	RT 714	RT 657	076001000000019068048063003145	02
0174440001	0257	2	RT 220 B	RT 108	072001000000019068048063003455	02
0220440001	0384	1	FRANK CL	RT 669	065007015000042068048063009615	03
0220440002	0204	1	RT 669	RT 57&220	065007015000042068048063009615	03
0220440003	0377	1	RT 57&220	RT 609	070008016000042068048063008175	03
0220440004	0385	1	RT 609	RT 58	069010018000042068048063007515	03
0220440005	0386	1	RT 58	RT 220 B	065013021000042068048063005420	03
0220440006	0239	1	RT 220 B	N RT 220 B	072014013000042068048063010970	05
0220440007	0131	1	N RT 220 B	S RT 220 B	073017015000042068048063008465	03
0220440008	0305	1	S RT 220 B	NC LINE	069019019000042068048063006340	03
0008600002	0599	1	LITTLE BR	RT 658	069003001000034093048059002645	02
0008600001	0326	1	RT 658	SCL CHRIS	067003001000034093048059003105	02

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TABLE A-7: SALEM DISTRICT ROAD LINKS (Cont.)

0011600001	0245	1	ROANO CL	RT 631	071002005000019093048059005245	03
0011600002	0319	1	RT 631	RT 753	071002005000019093048059005245	03
0011600003	0685	1	RT 753	ECL CHRIS	071002005000019093048059005245	03
0011600004	0082	1	WCL CHRIS	RT 662	077002001000034093048059005585	03
0011600005	0233	1	RT 662	RT 663	077002001000034093048059005585	03
0011600006	0245	1	RT 663	ECL RADFO	077002001000034093048059005585	03
0011600007	0028	1	NEW BR E	NEW BR W	077002001000034093048059005585	03
1081600007	0049	1	PULAS CL	RT 232	060021024000093093048059015190	06
1081600006	0288	1	RT 232	RT 665	060022024000093093048059013930	06
1081600005	0615	1	RT 665	RT 8	064020022000093093048059016115	06
1081600004	0406	1	RT 8	RT 460	063021024000093093048059016040	06
1081600003	0057	1	RT 460	NCL CHRIS	063021024000093093048059016040	06
1081600002	0931	1	NCL CHRIS	RT 603	069018018000093093048059022430	07
1081600001	0213	1	RT 603	ROANO CL	069015018000093093048059024825	07
0114600001	0246	2	WCL CHRIS	RT 659	075001001000034093048059007680	03
0114600002	0362	2	RT 659	RT 812	075001001000034093048059007680	03
0114600003	0102	2	RT 812	PULAS CL	075001001000034093048059007680	03
0177600001	0233	1	S RT 600	SCL RADFO	074002002000034093048059003745	02
0232600001	0058	1	RT 81	SCL RADFO	087030001000034093048059019010	05
0460600001	0262	2	RT 11	ECL CHRIS	076002005000042093048059009250	03
0460600002	0094	2	ECL CHRIS	NCL CHRIS	079002003000042093048059025335	06
0460600003	0198	2	NCL CHRIS	SCL BLACKS	079002003000042093048059025660	06
0460600004	0346	2	NCL BLACKS	GILES CL	071009009000042093048059006480	03
0460670001	0342	2	SCL BLACK	RT 412	079007006000042093048059013145	05
0460670002	0371	2	RT 412	NCL BLACK	072007009000042093048059007085	03
0008700005	0508	1	NC LINE	RT 103	070021004000034042057063002000	01
0008700004	0417	1	RT 103	S RT 58	065017004000034042057063003070	02
0008700003	0389	1	N RT 58	RT 57	067004002000034042057063001970	01
0008700002	0622	1	RT 57	RT 40	069004003000034042057063001670	01
0008700001	0614	1	RT 40	FLOYD CL	064007004000034042057063001015	01
0057700001	0298	2	HENRY CL	RT 346	071003002000034042057063003680	02
0057700002	0788	2	RT 346	RT 8	071003002000034042057063001985	01
0058700001	0659	2	HENRY CL	RT 626	076004004000034042057063005855	03
0058700002	0363	2	RT 626	RT 680	068005007000034042057063003070	02
0058700003	0424	2	RT 680	E RT 8	068005007000034042057063003070	02
0058700004	0355	2	E RT 8	N RT 8	067004002000034042057063003255	02
0058700005	0943	2	N RT 8	RT 764	069008004000034042057063001735	01
0058700006	0240	2	RT 764	BR PARKW	069008004000034042057063001735	01
0058700007	0234	2	BR PARKW	FLOYD CL	070005006000034042057063001410	01
0103700001	0900	2	RT 8	RT 773	066009004000019042057063001700	01
0103700002	0443	2	RT 773	NC LINE	067008003000019042057063001525	01
0011770001	0046	1	NEW RV	RT 600	081001001000034038048063019390	05
0011770002	0029	1	RT 600	RT 114	080001001000034038048063014660	05
0011770003	0199	1	RT 114	RT 747	079001001000034038048063011560	05
0011770004	0268	1	RT 747	RT 1085	078001001000034038048063010135	05
0011770005	0214	1	RT 1085	S RT 100	078001001000034038048063010135	05
0011770006	0248	1	S RT 100	RT 643	078001001000034038048063008330	03
0011770007	0225	1	RT 643	ECL PULAS	078001001000034038048063008330	03
0011770008	0385	1	WCL PULAS	RT 81	070002001000034038048063002005	01
1081770005	0262	1	WYTHE CL	RT 11-100	055025028000093038048063016115	06
1081770004	0433	1	RT 11-100	RT 99	060022024000093038048063016505	06
1081770003	0265	1	RT 99	RT 644	061023023000093038048063015395	06

TABLE A-7: SALEM DISTRICT ROAD LINKS(Cont.)

1081770002	0414	1	RT 644	RT 660	060021024000093038048063015190	06
1081770001	0380	1	RT 660	MONTG CL	060021024000093038048063015190	06
0099770001	0264	2	RT 81	ECL PULAS	067004003000034038048063004965	02
0100770005	0407	1	WYTHE CL	S RT 81	061023023000019038048063015395	05
0100770004	0098	1	N RT 81	RT 682	073001004000034038048063008575	03
0100770003	0075	1	RT 682	RT 11	073001004000034038048063010070	05
0100770002	0434	1	RT 11	RT 627	065003007000034038048063003245	02
0100770001	0444	1	RT 627	GILES CL	065003007000034038048063003245	02
0114770001	0177	2	NEW RV	RT 600	077001001000034038048063007755	03
0114770002	0037	2	RT 600	RT 11	077001001000034038048063011135	05
0011800001	0319	1	BOTE CL	NCL ROANO	084003001000034068048059017610	05
0011800002	0389	1	WCL SALEM	RT 647	071002005000019068048059007280	03
0011800003	0193	1	RT 647	MONTG CL	071002005000019068048059005245	03
0024800001	0120	2	BEDFO CL	ECL VINTON	076001001000034068048059013440	05
1081800007	0182	1	MONTG CL	RT 647	069015018000093068048059024825	07
1081800006	0314	1	RT 647	RT 643	068015019000093068048059024940	07
1081800005	0203	1	RT 643	RT 112	068015019000093068048059024940	07
1081800004	0429	1	RT 112	RT 419	066015020000093068048059026670	07
1081800003	0231	1	RT 419	RT 581	068014016000093068048059032170	07
1081800002	0298	1	RT 581	RT 815	073016013000093068048059027960	07
1081800001	0045	1	RT 815	BOTE CL	073016013000093068048059027960	07
0220800001	0610	1	BR PARKW	FRANK CL	069005011000042068048059013640	05
0220800002	0165	1	RT 24	WONJU ST	084003004000042068048059043910	08
0220800003	0184	1	WONJU ST	RT 419	083005006000042068048059029060	08
0220800004	0191	1	RT 419	BR PARKW	069005011000042068048059013640	05
0221800004	0240	2	FLOYD CL	RT 708	074002001000034068048059002230	01
0221800003	0165	2	RT 708	N RT 711	064002002000034068048059002650	02
0221800002	0820	2	RT 711	RT 897	083001001000034068048059008420	03
0221800001	0022	2	RT 897	RT 1683	085001001000034068048059011125	05
0311800004	0122	1	NCL SALEM	RT 419	076001001000019068048059005325	03
0311800003	0670	1	RT 419	RT 779	071001001000019068048059006440	03
0311800002	0051	1	RT 779	RT 785	065002002000019068048059002780	02
0311800001	0255	1	RT 785	CRAIG CL	066002002000019068048059002435	01
0419800005	0084	1	RT 220	RT 904	083003001000019068048059032430	08
0419800004	0142	1	RT 904	RT 221	085002001000019068048059022775	08
0419800003	0318	1	RT 221	SCL SALEM	084002001000019068048059025595	08
0419800002	0107	1	NCL SALEM	RT 81	076006004000019068048059010515	05
0419800001	0046	1	RT 81	RT 311	075001001000019068048059008335	03

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TABLE A-8: STAUNTON DISTRICT ROAD LINKS

0018030001	0404	2	SCL CVNGTN	RT 657	062003001000019042057063001285	01
0018030002	0322	2	RT 657	RT 614	062003001000019042057063001285	01
0018030003	0793	2	RT 614	RT 608	056006001000019042057063000870	01
0018030004	0277	2	RT 608	RT 607	056006001000019042057063000870	01
0042030001	0489	1	BATH CL	I-64	067005003000034042057063001325	01
0060030001	0093	2	I-64	ECL CLF FG	066012006000034042057063000860	01
0060030002	0038	2	WCL CLF FG	I-64	068008001000034042057063000870	01
1064030011	0730	2	W VA LINE	RT 661	067062015000093042057063003500	03
1064030010	0295	2	RT 661	RT 60&159	067062015000093042057063003500	03
1064030009	0441	2	RT 60&159	WCL CVNGTN	071046008000093042057063004760	03
1064030008	0140	2	WCL CVNGTN	ECL CVNGTN	077020006000093042057063007500	09
1064030007	0057	2	ECL CVNGTN	RT 60	077026006000093042057063007500	09
1064030006	0507	2	RT 60	RT 696	076016007000093042057063010720	09
1064030005	0235	2	RT 696	RT 60&384	076016007000093042057063010530	09
1064030004	0379	2	RT 60&384	RT 60&629	072033011000093042057063003940	03
1064030003	0175	2	RT 60&629	RT 42	072029010000093042057063004840	03
1064030002	0642	2	RT 42	RT 269	070041017000093042057063002775	03
1064030001	0508	2	RT 269	ROCKBRG CL	070041017000093042057063002775	03
0159030001	0296	1	I-64	RT 665	058025005000019042057063000915	01
0159030002	0876	1	RT 665	RT 311	058025005000019042057063000915	01
0220030001	0828	1	BATH CL	RT 687	075011003000034042057063001725	01
0220030002	0161	1	RT 687	NCL CVNGTN	072005002000034042057063003520	04
0311030001	0662	1	W VA LINE	RT 159	053049006000019042057063000735	01
0311030002	0587	1	RT 159	W VA LINE	056039007000019042057063000785	01
0011070001	0190	1	RCKNGHM CL	RT 256	075005002000019093048063005110	05
0011070002	0212	1	RT 256	RT 750	075003001000019093048063007310	05
0011070003	0517	1	RT 750	S RT 612	075003001000019093048063007310	05
0011070004	0245	1	S RT 612	RT 11 BUS	074003002000019093048063012920	10
0011070005	0039	1	RT 11 BUS	NCL STNTN	069003002000019093048063004665	04
0011070006	0412	1	SCL STNTN	RT 654	074002001000019093048063007355	05
0011070007	0442	1	RT 654	I-81	074002001000019093048063007355	05
0011070008	0259	1	I-81	RT 675	070003002000019093048063003255	04
0011070009	0524	1	RT 675	RT 56	070003002000019093048063003255	04
0011070010	0004	1	RT 56	RCKBRDG CL	070006002000019093048063002070	02
0042070001	0542	1	RCKNGHM CL	RT 607	063004002000034093048063002065	02
0042070002	0806	1	RT 607	N RT 250	063004002000034093048063002065	02
0042070003	0282	1	S RT 250	RT 720	064004002000034093048063000995	02
0042070004	0243	1	RT 720	RT 254	064004002000034093048063000995	02
0042070005	0818	1	RT 254	RT 811	066007002000034093048063001635	02
0042070006	0418	1	RT 811	RT 1101	066007002000034093048063001635	02
0042070007	0287	1	RT 1101	RCKBRDG CL	066007002000034093048063001635	02
0056070001	0017	2	RCKBRDG CL	RT 11	064003001000019093048063000985	02
1064070005	0425	2	I-81	RT 608	077017008000093093048063014525	09
1064070004	0307	2	RT 608	RT 340	077015008000093093048063012185	09
1064070003	0210	2	RT 340	RT 624	079016008000093093048063012030	09
1064070002	0309	2	RT 624	RT 250	076018009000093093048063011835	09
1064070001	0013	2	RT 250	NELSON CL	077009009000093093048063012230	09
1081070008	0767	1	RCKBRDG CL	RT 11	063041025000093093048063016385	09
1081070007	0472	1	RT 11	RT 654	062038024000093093048063017250	09
1081070006	0381	1	RT 654	I-64	062038024000093093048063017250	09
1081070005	0080	1	I-64	RT 250	066032018000093093048063020280	09
1081070004	0311	1	RT 250	RT 275	065031019000093093048063019280	09

TABLE A-8: STAUNTON DISTRICT ROAD LINKS(Cont.)

1081070003	0200	1	RT 275	RT 612	066032020000093093048063019250	09
1081070002	0768	1	RT 612	RT 256	064035021000093093048063017995	09
1081070001	0168	1	RT 256	RCKNGHM CL	063039023000093093048063017255	09
0250070001	0012	2	NELSON CL	I-64	071005005000034093048063003790	04
0250070002	0187	2	I-64	ECL WYNSBR	073011002000034093048063005630	05
0250070003	0292	2	WCL WYNSBR	RT 608	078002001000034093048063012830	10
0250070004	0200	2	RT 608	RT 1316	078002001000034093048063012830	10
0250070005	0244	2	RT 1316	I-81	078002001000034093048063012830	10
0250070006	0105	2	I-81	ECL STNTN	074005003000034093048063015665	10
0250070007	0200	2	WCL STNTN	RT 732	066005001000034093048063005650	05
0250070008	0345	2	RT 732	E RT 42	066005001000034093048063005650	05
0250070009	0363	2	E RT 42	RT 736	062008002000034093048063001860	02
0250070010	0686	2	RT 736	RT 629	062008002000034093048063001860	02
0250070011	0650	2	RT 629	HIGHLND CL	065015002000034093048063000620	02
0252070005	0069	1	RCKBRDG CL	N RT 620	063001000000019093048063000435	02
0252070004	0254	1	N RT 620	RT 682	059001001000019093048063000585	01
0252070003	0450	1	RT 682	RT 670	059001001000019093048063000585	01
0252070002	0755	1	RT 670	RT 693	064001001000019093048063001370	02
0252070001	0173	1	RT 693	SCL STNTN	064001001000019093048063001370	02
0254070001	0201	2	WCL WYNSBR	RT 640	073001001000019093048063003465	04
0254070002	0345	2	RT 640	RT 608	073001001000019093048063003465	04
0254070003	0391	2	RT 608	RT 275	073002002000019093048063002015	01
0254070004	0398	2	RT 275	ECL STNTN	056001001000019093048063000835	01
0254070005	0459	2	WCL STNTN	RT 876	072002001000019093048063004810	05
0254070006	0266	2	RT 876	RT 42	064003002000019093048063002090	02
0256070001	0450	2	RCKNGHM CL	RT 276	070003003000034093048063003185	04
0256070002	0121	2	RT 276	I-81	071003003000034093048063003585	04
0261070001	0068	1	NCL STNTN	SCL STNTN	075004002000019093048063008060	05
0262070001	0147	2	I-81	RT 11	073015004000034093048063002420	02
0275070001	0078	2	RT 254	I-81	074002002000019093048063002065	02
0275070002	0152	2	I-81	RT 11	074005005000019093048063004180	04
0276070001	0177	1	RT 256	RCKNGHM CL	075001001000034093048063003390	04
0340070001	0272	1	RCKNGHM CL	RT 778	069003002000034093048063003530	04
0340070002	0465	1	RT 778	RT 612	069003002000034093048063003530	04
0340070003	0469	1	RT 612	NCL WYNSBR	069003002000034093048063003530	04
0340070004	0144	1	WCL WYNSBR	I-64	077003001000034093048063009870	05
0340070005	0207	1	I-64	RT 632	074003001000034093048063005275	05
0340070006	0200	1	RT 632	RT 649	074003001000034093048063005275	05
0340070007	0234	1	RT 649	RT 654	074003001000034093048063005275	05
0340070008	0584	1	RT 654	RT 11	074003001000034093048063005275	05
0039080001	0458	2	W VA LINE	RT 600	068012002000034020057059001315	02
0039080002	0995	2	RT 600	RT 687	068912002000034020057059001315	07
0039080003	0297	2	RT 687	W RT 220	065012003000034020057059001255	07
0039080004	0580	2	E RT 220	RT 630	067012004000034020057059001145	07
0039080005	0725	2	RT 630	RT 42	067012004000034020057059001145	07
0039080006	0573	2	RT 42	RCKBRDG CL	065009003000034020057059001055	07
0042080001	0554	1	RT 39	RT 632	067005003000034020057059001325	07
0042080002	0603	1	RT 632	ALLEGNY CL	067005003000034020057059001325	07
0220080001	0410	1	HIGHLND CL	RT 623	059009006000034020057059000650	07
0220080002	0557	1	RT 623	RT 614	059009006000034020057059000650	07
0220080003	0421	1	RT 614	N RT 39	059009006000034020057059000650	07
0220080004	0015	1	N RT 39	S RT 39	061007006000034020057059001450	07

TABLE A-8: STAUNTON DISTRICT ROAD LINKS (Cont.)

0220080005	0543	1	S RT 39	RT 658	075004002000034020057059003685	07
0220080006	0749	1	RT 658	ALLEGNY CL	075011003000034020057059001725	07
2007210001	0139	2	RT 7	RT 340	076005001000019020048023004525	05
2007210002	0166	2	RT 340	RT 7	079005001000019020048023005490	05
0007210001	0251	2	LOUDOUN CL	RT 606	073008003000042020048023005120	05
0007210002	0416	2	RT 606	RT 7 BUS	070008002000042020048023005435	05
0007210003	0152	2	RT 7 BUS	N RT 340	070018003000042020048023003755	04
0007210004	0155	2	N RT 340	RT 7 BUS	072016007000042020048023005120	05
0007210005	0380	2	RT 7 BUS	FREDRCK CL	075019005000042020048023009405	05
0050210001	0344	2	FAUQUIR CL	RT 723	068025012000042020048023006080	05
0050210002	0197	2	RT 723	RT 255	067028012000042020048023005940	05
0050210003	0283	2	RT 255	RT 340	067028012000042020048023005940	05
0050210004	0167	2	RT 340	FREDRCK CL	069017010000042020048023008215	05
0255210001	0305	1	RT 340	N RT 723	069001001000019020048023001430	02
0255210002	0080	1	N RT 723	RT 50	074005001000019020048023000855	02
0340210001	0282	1	W VA LINE	RT 611	070035010000034020048023003885	04
0340210002	0126	1	RT 611	RT 7	070035009000034020048023004295	04
0340210003	0073	1	RT 7	RT 7 BUS	073016006000034020048023004155	04
0340210004	0349	1	RT 7 BUS	RT 255	072010005000034020048023004450	04
0340210005	0417	1	RT 255	RT 50	068012009000034020048023003010	04
0340210006	0179	1	RT 50	RT 658	068017008000034020048023003000	04
0340210007	0209	1	RT 658	RT 522	069019009000034020048023002585	04
0007340001	0369	2	CLARKE CL	ECL WNCHST	075019005000042038048059009405	05
0011340001	0221	1	W VA LINE	RT 671	067024002000019038048059005180	05
0011340001	0262	1	RT 671	RT 761	067024002000019038048059005180	05
0011340003	0157	1	RT 761	I-81	067022002000019038048059006290	05
0011340004	0152	1	I-81	NCL WNCHST	068019005000019038048059009820	05
0011340005	0131	1	SCL WINCHS	RT 37	077008003000019038048059009715	05
0011340006	0303	1	RT 37	RT 277	072006007000019038048059006450	05
0011340007	0451	1	RT 277	RT 627	070006007000019038048059005080	05
0011340008	0089	1	RT 627	SCL MDDL TN	070006007000019038048059005080	05
0037340004	0308	2	I-81	RT 622	069017008000042038048059004370	05
0037340003	0232	2	RT 622	RT 50	069017008000042038048059004370	05
0037340002	0168	2	RT 50	RT 522	064023007000042038048059007475	05
0037340001	0196	2	RT 522	RT 11	063028009000042038048059007120	05
0050340001	0270	2	CLARKE CL	RT 723	068025012000034038048059006080	05
0050340002	0273	2	RT 723	RT 522	067028012000034038048059005940	05
0050340003	0015	2	RT 522	I-81	069017010000034038048059008215	05
0050340004	0009	2	WCL WINCHS	RT 37	070027003000034038048059009085	05
0050340005	0279	2	RT 37	RT 803	070027003000034038048059009085	05
0050340006	0245	2	RT 803	RT 614	068039005000034038048059006215	05
0050340007	0480	2	RT 614	RT 751	068039005000034038048059006215	05
0050340008	0435	2	RT 751	W VA LINE	068058007000034038048059003045	04
0055340001	0070	2	SHENAND CL	RT 600	058047003000034038048059001205	01
0055340002	0483	2	RT 600	W VA LINE	060056003000034038048059000985	02
1081340008	0200	1	WARREN CL	RT 627	061042023000093038048059014180	08
1081340007	0483	1	RT 627	RT 277	061042023000093038048059014180	08
1081340006	0306	1	RT 277	RT 37	066034020000093038048059018160	08
1081340005	0348	1	RT 37	RT 50	061038023000093038048059016000	08
1081340004	0180	1	RT 50	RT 7	061038022000093038048059019545	08
1081340003	0233	1	RT 7	RT 11	059048021000093038048059018640	08
1081340002	0360	1	RT 11	RT 672	062059024000093038048059016710	08

TABLE A-8: STAUNTON DISTRICT ROAD LINKS(Cont.)

1081340001	0289	1	RT 672	W VA LINE	062059024000093038048059016710	08
0127340001	0335	1	RT 522	W VA LINE	062065008000034038048059001645	02
0259340001	0499	2	RT 50	W VA LINE	066059002000019038048059001425	02
0277340001	0248	2	RT 522	RT 636	071011005000034038048059002380	02
0277340002	0204	2	RT 636	I-81	071011005000034038048059002380	02
0277340003	0020	2	I-81	RT 11	071005004000034038048059005480	05
0522340001	0436	1	W VA LINE	RT 694	066064012000042038048059002705	05
0522340002	0326	1	RT 694	RT 127	063059013000042038048059002845	04
0522340003	0535	1	RT 127	RT 600	061057014000042038048059004005	05
0522340004	0424	1	RT 600	RT 654	061057014000042038048059004005	04
0522340005	0280	1	RT 654	RT 37	068024006000042038048059009295	05
0522340006	0135	1	RT 37	NCL WINCHS	070021003000042038048059008845	05
0522340007	0240	1	RT 50	RT 644	073007004000034038048059006195	05
0522340008	0216	1	RT 644	RT 642	073007004000034038048059006195	05
0522340009	0284	1	RT 642	RT 277	073007004000034038048059006195	05
0084450001	0243	1	RT 220	RT 640	062025002000019020057023000580	07
0084450002	0655	1	RT 640	RT 600	062025002000019020057023000580	07
0084450003	0592	1	RT 600	W VA LINE	062025002000019020057023000580	07
0220450001	0112	1	W VA LINE	RT 642	060038010000034020057023000435	07
0220450002	0649	1	RT 642	RT 250	067014003000034020057023001245	07
0220450003	0389	1	RT 250	RT 84	065016004000034020057023001280	07
0220450004	0347	1	RT 84	RT 607	065016004000034020057023001280	07
0220450005	0862	1	RT 607	BATH CL	065016004000034020057023001280	07
0250450001	0917	2	AUGUSTA CL	E RT 678	065015002000034020057023000620	07
0250450002	0974	2	E RT 678	RT 220	067013002000034020057023001270	07
0250450003	0575	2	RT 220	RT 640	068014001000034020057023001005	07
0250450004	0802	2	RT 640	W VA LINE	068014001000034020057023001005	07
2211690001	0104	2	E RT 211	ECL LURAY	079011001000042042048063001935	02
2211690002	0174	2	ECL LURAY	RT 340	058002001000042042048063001120	01
2211690003	0132	2	RT 340	RT 211	058002001000042042048063001120	01
0211690001	0642	2	RAPPAHK CL	E RT 211B	079025001000042042048063002680	04
0211690002	0235	2	E RT 211B	RT 340	079029001000042042048063002330	02
0211690003	0188	2	RT 340	W RT 211B	079033003000042042048063002375	02
0340690001	0396	1	WARREN CL	RT 662	066009002000034042048063002170	02
0340690002	0593	1	RT 662	RT 648	066009002000034042048063002170	02
0340690003	0124	1	RT 648	NCL LURAY	067008002000034042048063002490	02
0340690004	0219	1	SCL LURAY	RT 629	069003001000034042048063004100	04
0340690005	0401	1	RT 629	RT T689	069003001000034042048063004100	04
0340690006	0407	1	RT T689	RT 650	067003003000034042048063002950	04
0340690007	0924	1	RT 650	RT T706	070002003000034042048063002635	04
0340690008	0224	1	RT T706	ROCKGHM CL	075003002000034042048063005675	05
0011810001	0540	1	AUGUSTA CL	RT 710	070006002000034042048063002070	02
0011810002	0553	1	RT 710	I-81	070006002000034042048063002070	02
0011810003	0375	1	I-81	RT 39	075011004000034042048063004440	04
0011810004	0018	1	RT 39	I-64	077007002000034042048063007015	05
0011810005	0097	1	I-64	NCL LXNGTN	078006001000034042048063010110	09
0011810006	0134	1	SCL LXNGTN	RT 11 BUS	077004001000019042048063005460	05
0011810007	0845	1	RT 11 BUS	I-81	079007001000019042048063002390	02
0011810008	0367	1	I-81	RT 130	068034008000019042048063001125	02
0011810009	0177	1	RT 130	I-81	069023007000034042048063001370	02
0039810005	0247	2	BATH CL	RT 42	067012004000019042048063001145	02
0039810004	0134	2	RT 42	RT 780	065009003000019042048063001055	02

TABLE A-8: STAUNTON DISTRICT ROAD LINKS(Cont.)

0039810003	0869	2	RT 780	RT 602	066004002000019042048063000935	02
0039810002	0233	2	RT 602	RT 252	066004002000019042048063000935	02
0039810001	0756	2	RT 252	RT 11	078004000000019042048063002070	02
0042810001	0598	1	AUGUSTA CL	RT 39	066007002000034042048063001635	02
0056810001	0374	2	NELSON CL	E RT 608	056011001000019042048063000140	01
0056810002	0152	2	E RT 608	AUGUSTA CL	064003001000019042048063000985	02
0060810001	0379	2	AMHERST CL	ECL B-VIST	063024014000034042048063000805	02
0060810002	0090	2	WCL B-VIST	W RT 608	076004004000034042048063007600	05
0060810003	0209	2	W RT 608	I-81	076004004000034042048063007600	05
0060810004	0218	2	I-81	ECL LEXING	079003001000034042048063008095	05
0060810005	0208	2	WCL LEXING	RT 641	077003001000019042048063001745	02
0060810006	0319	2	RT 641	RT 631	070006001000019042048063001085	02
0060810007	0762	2	RT 631	E RT 780	068004003000019042048063000550	02
0060810008	0213	2	E RT 780	ALLGHNY CL	057010017000019042048063000350	02
1064810004	0211	2	ALLGHNY CL	RT 780	070041017000093042048063002775	03
1064810003	0737	2	RT 780	RT 60	065037019000093042048063002900	03
1064810002	0543	2	RT 60	RT 11	070033016000093042048063003215	03
1064810001	0132	2	RT 11	I-81	071011015000093042048063003540	03
1081810008	0207	1	BOTETRT CL	RT 11	061033026000093042048063014125	08
1081810007	0474	1	RT 11	RT 11	059042029000093042048063013590	08
1081810006	0816	1	RT 11	RT 60	059043030000093042048063013595	08
1081810005	0269	1	RT 60	I-64	061039026000093042048063014995	08
1081810004	0371	1	I-64	RT 11	060044028000093042048063015130	08
1081810003	0551	1	RT 11	RT 710	059043026000093042048063016195	08
1081810002	0450	1	RT 710	RT 606	059043026000093042048063016195	08
1081810001	0046	1	RT 606	AUGUSTA CL	063041025000093042048063016385	08
0130810001	0285	2	RT 501	RT 759	071020009000034042048063001585	02
0130810002	0319	2	RT 759	RT 11	071020009000034042048063001585	02
0251810001	0105	2	WCL LEXNGT	RT 764	071001001000019042048063001695	02
0251810002	0385	2	RT 764	W RT 675	072006001000019042048063001235	02
0251810003	0443	2	W RT 675	RT 770	067002000000019042048063000615	02
0252810002	0603	1	RT 39	RT 722	063001000000019042048063000435	02
0252810001	0422	1	RT 722	AUGUSTA CL	059001001000019042048063000585	01
0501810001	0634	1	SCL B-VIST	RT 130	071009010000034042048063001775	01
0501810002	0252	1	RT 130	AMHERST CL	060017016000034042048063001175	02
0259820001	0032	1	RT 42	RT 259	077003001000034093048023002745	04
2033820001	0172	2	RT 340	RT 33	067002001000019093048023002940	04
2042820001	0063	1	RT 42	N RT 290	081002000000019093048023001090	02
2042820002	0007	1	N RT 290	S RT 290	075002000000019093048023002880	04
2042820003	0012	1	S RT 290	RT 257	078002004000019093048023001570	02
2042820004	0003	1	RT 257	RT 42	071002001000019093048023003940	04
0011820001	0596	1	SHENAN CL	I-81	069005003000019093048023003095	04
0011820002	0196	1	I-81	RT 806	072004003000019093048023007225	05
0011820003	0386	1	RT 806	RT 765	072004003000019093048023007225	05
0011820004	0316	1	RT 765	NCL HRSNBG	072004003000019093048023007225	05
0011820005	0100	1	SCL HRSNBG	RT 704	073007005000019093048023011330	10
0011820006	0130	1	RT 704	N RT 257	075005002000019093048023004695	05
0011820007	0361	1	N RT 257	AUGUSTA CL	075005002000019093048023005110	05
0033820001	0631	2	GREENE CL	RT 340&33B	073009003000042093048023002850	04
0033820002	0156	2	RT 340&33B	RT 33B	076005003000042093048023004395	04
0033820003	0312	2	RT 33B	RT 602	076004002000042093048023006655	05
0033820004	0222	2	RT 602	RT 649	076004002000042093048023006655	05

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TABLE A-8: STAUNTON DISTRICT ROAD LINKS(Cont.)

0033820005	0214	2	RT 649	RT 842	076004002000042093048023006655	05
0033820006	0273	2	RT 842	RT 276	077006002000042093048023009875	05
0033820007	0207	2	RT 276	RT 704	079005002000042093048023013010	10
0033820008	0019	2	RT 704	ECL HRSNBG	079005002000042093048023013010	10
0033820009	0570	2	WCL HRSNBG	RT 613	069014002000034093048023004025	04
0033820010	0280	2	RT 613	RT 840	067023003000034093048023002230	02
0033820011	1166	2	RT 840	W. VA LINE	067023003000034093048023002230	02
0042820001	0297	1	SHENAN CL	RT T617	058004004000019093048023001165	02
0042820002	0207	1	RT T617	N RT 259	071004003000019093048023007275	05
0042820003	0062	1	N RT 259	S RT 259	071004003000034093048023007275	05
0042820004	0573	1	S RT 259	RT 753	072007003000034093048023005795	05
0042820005	0512	1	RT 753	NCL HRSNBG	071005003000034093048023004650	05
0042820006	0152	1	SCL HRSNBG	RT 42 BUS	073003002000034093048023010195	10
0042820007	0356	1	RT 42 BUS	S RT 257	074003002000034093048023010055	10
0042820008	0287	1	S RT 257	AUGUSTA CL	063004002000034093048023002065	02
1081820009	0312	1	AUGUSTA CL	RT 257	063039023000093093048023017255	08
1081820008	0331	1	RT 257	RT 11	065044021000093093048023017010	08
1081820007	0261	1	RT 11	RT 659	069040019000093093048023019075	08
1081820006	0106	1	RT 659	SCL HRSNBG	068032019000093093048023022315	08
1081820005	0018	1	NCL HRSNBG	WB RT 33	068032019000093093048023022315	08
1081820004	0011	1	WB RT 33	SCL HRSNBG	065043020000093093048023016680	08
1081820003	0357	1	NCL HRSNBG	RT 724	065043020000093093048023016680	08
1081820002	0569	1	RT 724	RT 11	065043020000093093048023016680	08
1081820001	0600	1	RT 11	SHENAN CL	064047021000093093048023016145	08
0211820001	0069	2	ECL TIMBER	RT 42	072007005000034093048023004870	04
0256820001	0110	2	RT 340	AUGUSTA CL	070003003000034093048023003185	04
0257820005	0278	2	W RT 731	E RT 613	066002001000019093048023001485	02
0257820004	0394	2	E RT 613	RT 738	069002001000019093048023002460	02
0257820003	0231	2	RT 738	W RT 42 B	069002001000019093048023002460	02
0257820002	0256	2	E RT 42	W RT 11	076003001000019093048023009955	05
0257820001	0076	2	E RT 11	RT 682	075009004000019093048023002265	02
0259820001	0241	1	W VA LINE	RT 820	051051010000034093048023001115	01
0259820002	0733	1	RT 820	RT 612	062023005000034093048023002710	04
0259820003	0361	1	RT 612	E RT 613	062023005000034093048023002710	04
0259820004	0339	1	E RT 613	W RT 42	063015004000034093048023004190	04
0259820005	0204	1	E RT 42	RT 619	071004003000034093048023004710	04
0259820006	0233	1	RT 619	RT 11	071004003000034093048023004710	04
0276820003	0300	1	AUGUSTA CL	RT 682	075001001000034093048023003390	04
0276820002	0246	1	RT 682	RT 659	075001001000034093048023003390	04
0276820001	0220	1	RT 659	RT 33	075001001000034093048023003390	04
0290820001	0033	2	NCL DAYTON	N RT 42 B	078002000000019093048023001895	02
0290820002	0022	2	S RT 42 B	RT 42	079001001000019093048023001800	02
0290820003	0015	2	RT 42	ECL DAYTON	074002002000019093048023004505	04
0340820001	0413	1	PAGE CL	SCL ELKTON	075003002000034093048023005675	05
0340820002	0294	1	SCL ELKTON	RT 754	073004003000034093048023001645	02
0340820003	0298	1	RT 754	RT 649	073004003000034093048023001645	02
0340820004	0825	1	RT 649	RT 659	072004004000034093048023002025	01
0340820005	0234	1	RT 659	AUGUSTA CL	072004004000034093048023002025	01
0011850001	0101	1	CEDAR CK	I-81	070007006000019038048063004445	04
0011850002	0194	1	I-81	S RT 55	070008005000034038048063004935	04
0011850003	0481	1	S RT 55	RT 651	070004002000019038048063005585	05
0011850004	0256	1	RT 651	RT 654	070004002000019038048063005585	05

TABLE A-8: STAUNTON DISTRICT ROAD LINKS(Cont.)

0011850005	0525	1	RT 654	RT 42	070004002000019038048063005585	05
0011850006	0221	1	RT 42	RT 837	072004003000019038048063005150	05
0011850007	0207	1	RT 837	RT 185	072004003000019038048063005150	05
0011850008	0715	1	RT 185	RT 263	072004003000019038048063005150	05
0011850009	0252	1	RT 263	RT 730	071007002000019038048063002855	04
0011850010	0190	1	RT 730	RT 767	071007002000019038048063002855	04
0011850011	0219	1	RT 767	N RT 211	071006002000019038048063003070	04
0011850012	0027	1	N RT 211	S RT 211	072010004000019038048063006950	05
0011850013	0116	1	S RT 211	RCKNGHM CL	073006002000019038048063003285	04
0042850001	0061	1	RT 11	I-81	073004002000019038048063007965	05
0042850002	0132	1	I-81	RT 605	069002001000019038048063004940	04
0042850003	0448	1	RT 605	S RT 675	070002001000019038048063004095	04
0042850004	0467	1	S RT 675	RT 703	063008001000019038048063000465	02
0042850005	0527	1	RT 703	S RT 263	063008001000019038048063000465	02
0042850006	0578	1	S RT 263	RT 767	061003004000019038048063000625	01
0042850007	0291	1	RT 767	RCKNGHM CL	058004004000019038048063001165	01
0055850001	0217	2	WARREN CL	E RT 11	069007001000034038048063003275	04
0055850002	0158	2	W RT 11	I-81	070008002000034038048063001870	02
0055850003	0348	2	I-81	W RT 628	057010002000034038048063001220	01
0055850004	0530	2	W RT 628	FERDRCK CL	058047003000034038048063001205	01
1081850010	0101	1	RCKNGHM CL	RT 211	063052023000093038048063013805	08
1081850009	0415	1	RT 211	RT 730	060048028000093038048063013470	08
1081850008	0448	1	RT 730	RT 703	060048028000093038048063013470	08
1081850007	0391	1	RT 703	RT 614	060049027000093038048063013310	08
1081850006	0179	1	RT 614	RT 185	060048027000093038048063013310	08
1081850005	0401	1	RT 185	RT 42	060049025000093038048063013840	08
1081850004	0814	1	RT 42	RT 651	063047024000093038048063013920	08
1081850003	0517	1	RT 651	RT 55	063047024000093038048063013920	08
1081850002	0173	1	RT 55	RT 11	059043027000093038048063014705	08
1081850001	0186	1	RT 11	FREDRCK CL	061048025000093038048063014195	08
0185850001	0100	1	RT 686	RT 11	065006002000019038048063002875	04
0211850001	0370	2	PAGE CL	RT 11	072010004000019038048063006950	05
0211850002	0023	2	RT 11	I-81	074014003000042038048063007635	05
0211850003	0144	2	I-81	RCKNGHM CL	072007005000034038048063004870	04
0263850001	0631	2	RT 11	E RT 42	074015001000019038048063001370	02
0263850002	0478	2	W RT 42	RT 717	075013001000019038048063001385	02
0263850003	0171	2	RT 717	RT 659	069018000000019038048063001110	02
0011930001	0019	1	FREDRCK CL	CEDAR CK	070007006000019042048063004445	04
0055930001	0135	2	FAUQUIR CL	RT 79	073008001000019042048063001100	02
0055930002	0298	2	RT 79	ECL FR ROY	068013001000019042048063003485	04
0055930003	0230	2	NCL FR ROY	RT 626	069007001000019042048063003275	04
0055930004	0491	2	RT 626	SHENAN CL	069007001000019042048063003275	04
1066930003	0677	2	I-81	RT 340&522	069033013000093042048063006265	06
1066930002	0653	2	RT 340&522	RT 79	066037016000093042048063005250	06
1066930001	0136	2	RT 79	FAUQUIR CL	071026012000093042048063007960	06
0340930001	0891	1	SCL FR ROY	N RT 613	069013001000034042048063004565	04
0340930002	0251	1	N RT 613	PAGE CL	066009002000034042048063002170	02
0522930001	0347	1	RT 340	RT 802	072009008000034042048063004655	04
0522930002	0403	1	RT 802	I-66	072009008000034042048063004655	04
0522930003	0089	1	I-66	NCL FR ROY	072011003000034042048063012130	10
0522930004	0377	1	SCL FR ROY	RAPP CL	070005003000034042048063003150	04

TABLE A-9: SUFFOLK DISTRICT ROAD LINKS

2013010001	0185	1	N RT 13	RT 764	073003004000019038030023000890	01
2013010002	0110	1	RT 764	RT 659	081002001000019038030023002725	02
2013010003	0101	1	RT 659	RT 178&316	081002001000019038030023002725	02
2013010004	0177	1	RT 178&316	RT 13	081002001000019038030023002725	02
0175010001	0091	1	RT 175	NCL CHINCO	072014002000019038030023005925	03
0013010001	0409	1	MD LINE	RT 175	068027009000042038030023010885	04
0013010002	0378	1	RT 175	RT 695	070022010000042038030023009605	03
0013010003	0810	1	RT 695	RT 676	070022010000042038030023009605	03
0013010004	0448	1	RT 676	N RT 13 B	070022010000042038030023009605	03
0013010005	0154	1	N RT 13 B	SCL ACCOM	073022010000042038030023009020	03
0013010006	0314	1	SCL ACCOM	RT 179	074020009000042038030023009245	03
0013010007	0366	1	RT 179	RT T626	075016007000042038030023010930	04
0013010008	0237	1	RT T626	RT 180	071017008000042038030023010190	04
0013010009	0268	1	RT 180	RT 614	074018007000042038030023010650	04
0013010010	0337	1	RT 614	NORTH CL	074018007000042038030023010650	04
0175010003	0352	2	RT 13	RT 798	073023003000019038030023003765	02
0175010002	0680	2	RT 798	RT 175Y	073023003000019038030023003765	02
0175010001	0077	2	RT 175Y	RT 2126	069012001000019038030023004575	02
0176010001	0258	1	RT 13	RT 316	074005002000019038030023003190	02
0178010005	0439	1	NORTH CL	RT 615	074002000000019038030023002720	02
0178010004	0433	1	RT 615	S RT 180	076002001000019038030023001500	01
0178010003	0193	1	S RT 180	RT 620	073003000000019038030023001110	01
0178010002	0116	1	S RT 658	RT 179	078003001000019038030023009175	03
0178010001	0138	1	RT 179	RT 316	074003001000019038030023002800	02
0179010001	0142	1	RT 178	RT 13 B	080003001000019038030023006400	03
0180010001	0445	2	RT 1701	RT 13	072005001000019038030023000935	01
0180010002	0335	2	RT 13	N RT 178	071005001000019038030023000770	01
0181010001	0095	2	RT 13	RT 609	070002001000019038030023001205	01
0182010001	0371	2	RT 13	RT 605	063007001000019038030023000940	01
0187010001	0173	2	E RT 679	RT 13	067003001000019038030023000920	01
0187010002	0219	2	RT 13	RT 316	073004002000019038030023001660	01
0187010003	0151	2	RT 316	RT 658	070005000000019038030023000845	01
0316010003	0258	1	RT 178	RT 764	070002003000019038030023002820	02
0316010002	0323	1	RT 764	RT 176	072002001000019038030023003015	01
0316010001	0368	1	RT 176	RT 187	076004001000019038030023002225	01
1064270005	0023	2	NP NEWS CL	RT 143	079013006000093074030059027550	06
1064270004	0336	2	RT 143	RT 105	080015004000093074030059041650	06
1064270003	0309	2	RT 105	RT 173	080015004000093074030059041650	06
1064270002	0513	2	RT 143	RT 17	080015004000093074030059041650	06
1064270001	0090	2	RT 17	HAMPTON CL	079013004000093074030059050430	06
1664270001	0027	2	NP NEWS CL	CHESTNT AV	080004004000093074030059028240	06
0058400001	0262	2	SOUTH CL	ECL EMPO	066019015000042020030023005765	03
0058400002	0040	2	WCL EMPO	RT 619	071010006000042020030023010620	04
0058400003	0675	2	RT 619	BRUNS CL	069010010000042020030023005795	03
1095400005	0426	1	NC LINE	RT 629	069055017000093020030023017940	05
1095400004	0411	1	RT 629	RT 301	069055017000093020030023017940	05
1095400003	0276	1	RT 301	RT 58	068055018000093020030023017525	05
1095400002	0264	1	RT 58	RT 614	067054022000093020030023016340	05
1095400001	0337	1	RT 614	SUSSEX CL	067056020000093020030023016965	05
0139400001	0076	2	SUSSEX CL	RT 610	073000005000019020030023001790	01
0301400001	0277	1	SUSSEX CL	RT 614	070004005000019020030023002435	01
0301400002	0217	1	RT 614	NCL EMPOR	068005007000019020030023003565	02

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TABLE A-9: SUFFOLK DISTRICT ROAD LINKS(Cont.)

0301400003	0061	1	SCL EMPOR	RT 689	068010004000019020030023003965	02
0301400004	0397	1	RT 689	RT 629	066010005000019020030023002785	02
0301400005	0474	1	RT 629	NC LINE	054014014000019020030023001145	01
2010460002	0205	1	RT 258 B	RT 674	075002002000019042030063008380	03
2010460001	0214	1	RT 674	RT 10 B	076002001000019042030063002220	01
2258460001	0064	2	RT 10	RT 10 B	076002001000019042030063006485	03
2258460002	0243	2	RT 10 B	RT 10 B	075002002000019042030063008380	03
0010460004	0415	1	NCL SUFFO	S RT 258	072005006000034042030063006735	03
0010460003	0230	1	RT 10 B	RT 258	073002004000034042030063005460	03
0010460002	0374	1	RT 258	RT 10 B	071003007000034042030063003150	02
0010460001	0412	1	RT 10 B	WE LAWNS	073003004000034042030063003910	02
0017460001	0680	1	JAMES BR	RT 32&258	075006005000042042030063014750	04
0017460002	0243	1	RT 32&258	CHUCK BR	071004007000042042030063009685	03
0058460001	0509	2	WCL SUFFO	RT 258	074003005000019042030063004315	02
0058460002	0154	2	RT 258	BLACK BR	073004006000019042030063010780	04
0258460006	0679	1	RT 58	RT 641	070004008000034042030063003175	02
0258460005	0613	1	RT 641	RT 460	070004008000034042030063003175	02
0258460004	0774	1	RT 460	RT 637	076004005000034042030063004595	02
0258460003	0666	1	RT 637	RT 10 B	076004005000034042030063004595	02
0258460002	0196	1	RT 10 B	RT 10&32	077002004000034042030063010085	04
0258460001	0285	1	RT 10&32	RT 17	076005005000034042030063010265	04
0460460001	0333	2	WCL SUFFO	RT 610	069004012000042042030063008105	03
0460460002	0662	2	RT 610	BLACK BR	066004015000042042030063007085	03
0005470001	0181	2	RT 199	RT 615	076008004000034042030059004460	02
0005470002	0203	2	RT 615	RT 614	074010005000034042030059002810	02
0005470003	0435	2	RT 614	CHICK BR	074010005000034042030059002810	02
0030470001	0341	2	RT 64	RT 60	061004008000019042030059000985	01
0030470002	0171	2	RT 60	W RT 64	079016002000034042030059005155	03
0030470003	0213	2	W RT 64	KENT CL	072002006000019042030059002405	01
0060470001	0138	2	YORK CL	ECL WMSBG	080019004000034042030059016010	04
0060470002	0239	2	NCL WMSBG	RT 614	081016001000034042030059013815	04
0060470003	0285	2	RT 614	RT 607	081016001000034042030059013815	04
0060470004	0317	2	RT 607	RT 30	081016001000034042030059013815	04
0060470005	0505	2	RT 30	NEW KENT	072004003000019042030059003905	02
1064470005	0169	2	E RT 30	YORK CL	078015010000093042030059016815	07
1064470004	0092	2	JAMES CL	STR 2000	076018009000093042030059021440	07
1064470003	0148	2	STR 2000	NP NEWS CL	078012008000093042030059022885	07
1064470002	0269	2	NEWKEN CL	W RT 30	078015010000093042030059016815	05
1064470001	0430	2	W RT 30	E RT 30	077016010000093042030059017205	05
0132470001	0054	1	SCL WMSBG	RT 199	088008000000019042030059003110	02
0143470001	0250	1	YORK CL	YORK CL	083005001000019042030059017795	04
0199470003	0022	2	RT 5	WCL WMSBG	080006003000034042030059007795	03
0199470002	0167	2	ECL WMSBG	COLON PKW	080006003000034042030059011510	04
0199470001	0218	2	COLON PKW	YORK CL	077008003000034042030059010595	04
2189610001	0049	2	RT 58	RT 189	069002003000019046030063001275	01
2460610001	0144	2	NCL SUFF	RT 10	077005002000034046030063016305	04
0010610002	0709	1	URBAN BD	RT 125	072006006000034046030063006490	03
0010610001	0131	1	RT 125	ISLEW CL	072005006000034046030063006735	03
0013610001	0193	1	SCL SUFF	RT 688	068017007000034046030063008235	03
0013610002	0087	1	RT 688	RT 32	068017007000042046030063008235	03
0013610003	0360	1	RT 32	RT 759	067023010000042046030063004400	02
0013610004	0434	1	RT 759	RT 616	067023010000042046030063004400	02

TABLE A-9: SUFFOLK DISTRICT ROAD LINKS(Cont.)

0013610005	0537	1	RT 616	NC LINE	065032013000042046030063003445	02
0017610001	0364	1	NE CHUCK	RT 627	071004007000042046030063009685	03
0017610002	0343	1	RT 627	RT 662	080002003000042046030063014315	04
0032610002	0496	1	NC LINE	RT 675	056030018000034046030063001910	01
0031610001	0450	1	RT 675	RT 13	068018006000034046030063002930	02
0058610001	0060	2	RT 642	NANSE BR	070008014000042046030063013395	04
0058610002	0233	2	NANSE BR	RT 460	072013013000042046030063013550	04
0058610003	0163	2	RT 460	RT 604	070012012000042046030063010710	04
0058610004	0116	2	RT 604	RT 639	070012012000042046030063010710	04
0058610005	0276	2	RT 639	RT 643	076012008000042046030063014785	04
0058610006	0205	2	RT 643	RT 647	076012008000042046030063014785	04
0058610007	0520	2	RT 647	RT 189 B	076012008000042046030063014785	04
0058610008	0218	2	RT 189 B	RT 655	074003005000042046030063004315	02
0058610009	0315	2	RT 655	RT 189	074004005000042046030063004020	02
0058610010	0246	2	RT 189	WCL SUFF	074003005000042046030063004315	02
0125610001	0624	1	RT 337	RT 10	071002001000019046030063002150	01
0135610001	0210	1	RT 17	ST MAINT	084001002000019046030063008320	03
0189610001	0336	2	RT 58	RT 613	066018016000034046030063005305	03
0189610002	0507	2	RT 613	BLACK BR	066018016000034046030063005305	03
0337610001	0252	1	WCL CHESA	RT 125	074002005000019046030063004870	02
0337610002	0341	1	RT 125	RT 642	076001002000019046030063002340	01
0337610003	0302	1	RT 642	RT 13&58	076001002000019046030063002340	01
0337610004	0236	1	RT 13&58	ECL SUFF	077002003000019043030063003250	02
0460610001	0509	2	RT 460 B	ISLEW CL	072013013000042046030063013550	04
1264640008	0143	2	BEG HPMS	WCL PORTS	071008012000093042030059017950	07
1264640007	0175	2	WCL PORTS	RT 239	078008006000093042030059019345	07
1264640006	0075	2	RT 239	RT 337	085005003000093042030059032880	06
1264640005	0092	2	RT 337	RT 17	085005002000093042030059040080	06
1264640005	0167	2	RT 17	RT 141	087005001000093042030059040040	06
1264640004	0024	2	RT 141	RAMP J	086005002000093042030059032190	06
1264640003	0269	2	MAIN ST	RT 405	087007002000093042030059093480	09
1264640002	0244	2	RT 405	RT 13	087007002000093042030059093480	09
1264640001	0078	2	RT 13	RT 64	071008012000093042030059017950	07
1464640001	0080	1	RT 64	RT 13	063006012000093042030059009070	07
1564640001	0274	1	RT 165	END	085013002000093042030059057990	08
2013650001	0214	1	RT 687	S RT 13	078001001000019042030023002020	01
2013650002	0137	1	N RT 13	RT T631	076001001000019042030023001465	01
2013650003	0134	1	RT T631	S RT 13	066001001000019042030023001450	01
2013650004	0159	1	N RT 13	S RT 13	064002003000019042030023001570	01
0013650001	0019	1	ACCOM CL	N RT 13 B	074018007000042042030023010650	04
0013650002	0087	1	N RT 13 B	RT 183	073019008000042042030023009000	03
0013650003	0140	1	RT 183	S RT 13 B	072022009000042042030023008050	03
0013650004	0276	1	S RT 13 B	RT T678	072019009000042042030023008280	03
0013650005	0326	1	RT T678	RT 620	072019009000042042030023008280	03
0013650006	0331	1	RT 620	RT 628	072019009000042042030023008280	03
0013650007	0243	1	RT 628	RT 13 B	072019009000042042030023008280	03
0013650008	0233	1	RT 13 B	RT 13 B	071028010000042042030023006705	03
0013650009	0321	1	RT 13 B	RT 13 B	071028010000042042030023006705	03
0013650010	0171	1	RT 13 B	RT 13 B	069024009000042042030023008320	03
0013650011	0456	1	RT 13 B	RT 624	067024011000042042030023006385	03
0013650012	0478	1	RT 624	RT 600	071034010000042042030023006280	03
0013650013	1914	1	RT 600	VA BEACH	071034010000042042030023006280	03

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TABLE A-9: SUFFOLK DISTRICT ROAD LINKS (Cont.)

0178650001	0086	1	RT 13 B	ACCOM CL	074003001000019042030023002800	02
0183650001	0745	2	RT 13 B	END	070002000000019042030023001470	01
0184650001	0320	2	RT 13	RT 1101	069002001000019042030023003370	02
2058870001	0232	2	WCL FRANK	RT 58	072002006000042042030023007730	03
0035870001	0394	1	SUSSEX CL	RT 653	058002019000034042030023001650	01
0035870002	0624	1	RT 653	RT 616	062005012000034042030023002455	01
0035870003	0063	1	RT 616	N RT 58	056018012000034042030023007280	03
0035870004	0514	1	S RT 58	RT 693	063012011000019042030023003020	02
0035870005	0642	1	RT 693	RT 186	063012011000019042030023003020	02
0035870006	0264	1	RT 186	NC LINE	067017006000019042030023002115	02
0058870001	0189	2	RT 714	E RT 258	066025020000042042030023003505	02
0058870002	0379	2	E RT 258	RT 58 B	069026013000042042030023004670	02
0058870003	0346	2	RT 58 B	RT 35	070018012000042042030023007280	03
0058870004	0570	2	W RT 35	RT T653	066019015000042042030023005765	03
0058870005	0569	2	RT T653	RT 659	066019015000042042030023005765	03
0058870006	0472	2	RT 659	RT 615	066019015000042042030023005765	03
0058870007	0544	2	RT 615	GREENE CL	066019015000042042030023005765	03
0186870001	0261	2	RT 35	ECL BRANC	059010014000019042030023002845	02
0186870002	0360	2	ECL BRANC	MEHER BR	043015035000019042030023000805	01
0189870001	0022	2	BLACK BR	RT 714	066018016000034042030023005305	03
0189870002	0220	2	RT 714	RT 258	062036028000034042030023001170	01
0258870003	0528	1	NC LINE	RT 189	061025012000034042030023003860	02
0258870002	0344	1	RT 189	RT 684	065023014000034042030023002635	02
0258870001	0060	1	RT 684	ECL FRSNK	068015010000034042030023003130	02
0308870001	0365	1	RT 58	RT 612	074004003000019042030023000680	01
0460870001	0423	2	BLACK BR	RT T616	066004015000042042030023007085	03
0460870002	0437	2	RT T616	SUSSEX CL	063002013000042042030023006190	03
0010900005	0314	1	LAMNS BR	RT 617	073003004000034020030023003910	02
0010900004	0674	1	RT 617	N RT 31	072001004000034020030023002915	02
0010900003	0104	1	N RT 31	S RT 31	072005004000034020030023003310	02
0010900002	0790	1	S RT 31	RT 40	072008006000034020030023001805	01
0010900001	0545	1	RT 40	CHIPP BR	065003008000034020030023002015	01
0031900001	0441	1	FERRY	N RT 10	084020000000019020030023001335	01
0031900002	0836	1	S RT 10	RT T643	073003001000019020030023001565	01
0031900003	0266	1	RT T643	SUSSEX CL	073003001000019020030023001565	01
0040900001	0304	2	RT 10	RT 611	067003004000034020030023002215	01
0040900002	0597	2	RT 611	SUSSEX CL	067003004000034020030023002215	01
0031910001	0366	1	SURRY CL	RT 460	073003001000019042030023001565	01
0035910001	0446	1	PRINCEG CL	RT 626	067011013000034042030023001980	01
0035910002	0581	1	RT 626	RT 40	067011013000034042030023001980	01
0035910003	0748	1	RT 40	SOUTH CL	058002019000034042030023001650	01
0040910001	0311	2	SURRY CL	RT 460	067003004000034042030023002215	01
0040910002	0115	2	RT 460	RT 651	063001006000034042030023005145	03
0040910003	0675	2	RT 651	RT 35	061003015000034042030023001495	01
0040910004	0653	2	RT 35	RT 735	059002016000034042030023001455	01
0040910005	0667	2	RT 735	RT 95	063004011000034042030023001700	01
0040910006	0013	2	RT 95	RT 301	067002009000034042030023002230	01
0040910007	0104	2	RT 301	RT 40 B	068003007000034042030023001325	01
0040910008	0437	2	RT 40 B	DINWI CL	063005012000034042030023001320	01
1095910004	0037	1	GREENE CL	RT 301	067056020000093042030023016965	05
1095910003	0677	1	RT 301	RT 645	067056020000093042030023016965	05
1095910002	0685	1	RT 645	RT 40	070058018000093042030023016100	05

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TABLE A-9: SUFFOLK DISTRICT ROAD LINKS(Cont.)

1095910001	0361	1	RT 40	PRINCEG	CL069056019000093042030023016315	05
0139910001	0063	2	RT 301	RT 646	070000005000019042030023001355	01
0139910002	0023	2	RT 646	GREENE CL	073000005000019042030023001790	01
0301910001	0369	1	RT 139	GREENE CL	069002004000019042030023001440	01
0460910001	0218	2	SOUTH CL	RT T628	063002016000042042030023006190	03
0460910002	0768	2	RT T628	RT 40	063002016000042042030023006190	03
0460910003	0690	2	RT 40	PRINCEG CL	062001017000042042030023005695	03
1064940006	0406	2	HAMPTON CL	RT 258	082009004000093074030059064630	08
1064940005	0197	2	RT 258	RT 167	081013003000093074030059054540	08
1064940004	0212	2	RT 167	RT 143	082010003000093074030059053680	08
1064940003	0098	2	RT 143	BRIDGE PC	079012004000093074030059046580	06
1064940002	0233	2	BRIDGE PC	WE APPROH	081012004000093074030059051540	08
1064940001	0117	2	WE APPROH	END	081012004000093074030059051540	08
1664940002	0265	2	NMKT CR BR	ABERDN RD	080004004000093074030059028240	06
1664940001	0046	2	ABERDN RD	NP NEWS CL	080004004000093074030059028240	06
0017990001	0009	1	COLEM BR	RT 1001	077004002000042046030059021030	04
0017990002	0335	1	RT 1001	RT 704	075008003000042046030059016695	04
0017990003	0241	1	RT 704	RT 621	073006002000042046030059026020	04
0019990004	0157	1	RT 621	RT 620	073006002000042046030059026020	04
0060990001	0251	2	JAMES CL	RT 199	080019004000034046030059016010	04
0060990002	0005	2	NCL WMSBG	RT 132	087023001000034046030059010450	04
0060990003	0107	2	RT 132	WCL WMSBG	085017001000034046030059011595	04
1064990003	0541	2	JAMES CL	RT 143	076019009000093046030059021440	05
1064990002	0388	2	RT 143	RT 199	080016007000093046030059021235	05
1064990001	0198	2	RT 199	JAMES CL	078012008000093046030059022885	05
0105990001	0236	2	NCL NEWPO	RT 17	079011003000034046030059006870	03
0132990001	0116	1	RT 143	RT 60	083026001000019046030059005820	03
0132990002	0010	1	RT 60	NCL WMSBG	084025000000019046030059009025	03
0143990004	0250	1	JAMES CL	JAMES CL	083005001000019046030059017795	04
0143990003	0050	1	JAMES CL	RT 162	083005001000019046030059017795	04
0143990002	0026	1	RT 162	SCL WMSBG	082005001000019046030059006610	03
0143990001	0082	1	NCL WMSBG	RT 64	080022001000019046030059009245	03
0162990001	0017	2	RT 143	ECL WMSBG	084008001000019046030059015645	04
0171990001	0285	2	RT 17	WCL PQQUO	075004000000019046030059006115	03
0173990001	0438	2	RT 17	E RT 629	075004002000019046030059004400	02
0199990003	0004	2	JAMES CL	RT 143	077008003000034046030059010595	04
0199990002	0099	2	RT 143	RT 64	077015007000034046030059010910	04
0199990001	0101	2	RT 64	RT 641	075010007000034046030059002305	01
0238990002	0227	2	ECL NEWPO	RT 638	076009002000019046030059005010	03
0238990001	0378	2	RT 638	MAIN GATE	079013001000019046030059003330	02

APPENDIX B

LINK CLUSTERS AND COUNTING STATIONS IN EACH DISTRICT

Definitions

- Column A - Route number on which link is located
- Column B - County in which link is located
- Column C - Sequence number of link for a route in a county
- Column D - Length of link in 0.01 mile
- Column E - Direction, 1-North/South, 2-East/West
- * - Monthly count stations
- ** - Monthly count stations that are also HPMS stations
- *** () - Existing permanent count stations that should be retained
() Indicates existing permanent count station number
- **** - New permanent count stations
- ***** - Existing permanent count stations that should be removed

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Table B-1: BRISTOL DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	0052	10	005	0083	1	RT 42 N	I-77*
1	0080	13	003	0341	1	SCL HAYSI	RT 605
1	0083	13	003	0423	2	RT 643	RT 642
1	0083	13	004	0294	2	RT 642	ECL GRUNDY
1	0460	13	011	0261	2	RT 645	KY ST LN
1	0063	25	001	0380	1	N RT 83	RT 614
1	0063	25	002	0273	1	RT 614	RT 616
1	0063	25	003	0842	1	RT 616	RT 83 S*
1	0072	25	001	0513	1	RT 83	RT 665*
1	0072	25	002	0255	1	RT 665	WISE CL
1	0080	25	004	0195	1	SCL HAYSI	RT 607
1	0080	25	005	0857	1	RT 607	BUCHNON CL*
1	0083	25	002	0408	2	RT 63 E	RT 607
1	0083	25	003	0248	2	RT 607	M RT 63
1	0083	25	004	0494	2	M RT 63	RT 63
1	0083	25	005	0564	2	RT 63	ECL CLNTWD
1	0058	38	001	0140	2	WCL GALAX	RT 94
1	0058	38	002	0864	2	RT 94	RT 274
1	2058	52	001	0640	2	WISE CL	RT 642
1	2058	52	002	0284	2	RT 642	RT 737
1	2058	52	003	0200	2	RT 737	RT 629
1	2058	52	004	0258	2	RT 629	RT 421 E
1	0058	52	001	0633	2	SCOTT CL	RT 421
1	0058	52	003	0217	2	W RT 641	RT 58A
1	0058	52	004	0527	2	RT 58A	RT 758*
1	0058	52	005	0977	2	RT 758	RT 667
1	0058	52	006	0474	2	RT 667	RT 744
1	0058	20	007	0823	2	RT 744	RT 691****
1	0058	20	008	0420	2	RT 691	RT 694
1	0058	52	009	0228	2	RT 694	RT 25 E
1	0352	52	001	0240	1	RT 421	RT 634
1	0421	52	001	0239	2	RT 58	RT 642
1	0421	52	004	0452	2	RT 352	KY ST LN
1	0063	83	002	0343	1	RT 608	RT 615
1	0063	83	003	0218	1	RT 615	WISE CL*
1	0065	83	001	0585	2	RT 58A	SCOTT CL
1	0071	83	001	0875	2	RT 19	E RT 58 A
1	0058	84	001	0935	2	WASH CL	RT 696
1	0058	84	004	0475	2	W RT 23	LEE CL
1	0071	84	003	0491	2	RT 671	ECL GATECY
1	0072	84	001	0032	1	WISE CL	RT 755*
1	0011	86	001	0265	2	WYTHE CL	RT 683
1	0011	86	002	0397	2	RT 683	E RT 622
1	0011	86	003	0318	2	E RT 622	ECL MARION
1	0011	86	005	0429	2	FO07	E RT 645
1	0011	86	007	0117	2	RT 107	WASH CL
1	0016	86	006	0270	1	SCL MARION	RT 601
1	0107	86	001	0304	1	RT 91	RT 610
1	2019	92	001	0093	2	RT 19&460	ECL TAZWL
1	2019	92	002	0065	2	ECL TAZWL	RT 61

Table B-1 (Cont.)

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CLASS	A	B	C	D	E	START	END
1	2019	92	003	0165	2	RT 61	RT 16
1	2460	92	001	0323	2	RT 460	RT 16
1	0016	92	001	0255	1	W.VA.ST LN	RT 644*
1	0016	92	002	0262	1	RT 644	RT 636
1	0016	92	004	0054	1	NCL TAZWL	RT 16A
1	0016	92	005	0130	1	RT 16A	RT 61*
1	0016	92	006	0040	1	RT 61	RT 19
1	0016	92	007	0087	1	RT 19	RT 19N BUS
1	0061	92	004	0060	2	NCL TAZWL	RT 19 BUS
1	0061	92	003	0491	2	RT 19 BUS	RT 623
1	0067	92	001	0691	1	NCL RICHLD	RT 616
1	0102	92	004	0085	1	BEG RT 102	W.VA.ST LN
1	0102	92	003	0020	1	W.VA.ST LN	W.VA.ST LN*
1	0120	92	002	0467	1	W.VA.ST LN	NCL BLUFLD
1	2091	95	001	0138	1	N RT 91	S RT 91
1	0011	95	001	0217	1	SMYTH CL	I-81
1	0011	95	002	0285	1	I-81	RT 91
1	0011	95	003	0433	1	RT 91	RT 80
1	0011	95	004	0211	1	RT 80	RT 704
1	0011	95	005	0258	1	RT 704	RT 58
1	0058	95	001	0582	2	GRAYSON CL	RT 603*
1	0058	95	002	0961	2	RT 603	RT 91
1	0058	95	003	0596	2	RT 91	RT 708
1	0058	95	004	0592	2	RT 708	RT 11
1	0075	95	001	0563	1	N RT 670	SCL ABNGDN*
1	0091	95	002	0188	1	N RT 91 B	N RT 11
1	0058	97	001	0018	2	RUSSELL CL	RT 63
1	0058	97	002	0225	2	RT 63	RT 655
1	0058	97	003	0227	2	RT 655	RT 657
1	0058	97	004	0516	2	RT 657	RT 653
1	0058	97	005	0243	2	RT 653	W RT 72
1	0058	97	011	0206	2	WCL BIGSTG	LEE CL
1	0023	97	001	0321	1	KY ST LN	N RT 23B
1	0023	97	002	0253	1	N RT 23B	S RT 23B
1	0023	97	005	0196	1	N RT 23B	S RT 23B
1	0063	97	001	0142	1	RUSSELL CL	RT 58A*
1	0072	97	001	0669	1	DICKNSN CL	RT 649
1	0072	97	002	0339	1	RT 649	W RT 58A
1	0072	97	003	0589	1	E RT 58A	SCOTT CL
1	0078	97	002	0166	1	RT 23	RT 686**
1	0078	97	001	0209	1	RT 686	RT 600
1	0011	98	002	0007	2	WCL WYTHVL	RT 656
1	0011	98	003	0729	2	RT 656	RT 737
1	0011	98	004	0412	2	RT 737	SMYTH CL
1	0021	98	001	0618	1	SCL WYTHVL	RT 690
1	0090	98	001	0126	1	RT 616	RT 11

Number of links = 96

Average link length = 3.61 miles

19978

Table B-2: BRISTOL DISTRICT ROAD LINKS-Cluster 2

CLASS	A	B	C	D	E	START	END
2	0042	10	001	0230	2	GILES CL	RT 606*
2	0042	10	002	0308	2	RT 606	RT 738*
2	0042	10	003	1025	2	RT 738	RT 52*** (17)
2	0042	10	004	0539	2	RT 52	RT 622*
2	0042	10	005	0958	2	RT 622	SMYTH CL*
2	0052	10	001	0253	1	I-77	I-77*
2	0052	10	002	0622	1	I-77	RT 666*
2	0052	10	003	0206	1	RT 666	RT 615*
2	0052	10	004	0457	1	RT 615	RT 42 N
2	0052	10	006	0406	1	I-77	RT 42 S*
2	0052	10	007	0405	1	RT 42 S	WYTHE CL
2	0061	10	003	1068	2	TAZEWL CL	I-77*
2	0061	10	002	0030	2	I-77	RT 52*
2	0061	10	001	0744	2	RT 52	GILES CL**
2	0598	10	001	0416	2	W.VA. SL	SBL I-77*
2	0075	95	002	0469	1	TENN ST LN	N RT 670*
2	0091	95	001	0671	1	SMYTH CL	RT 91 NBUS*
2	0091	95	003	0357	1	S RT 11	RT 762*
2	0091	95	004	0103	1	RT 762	RT 803*
2	0091	95	005	0763	1	RT 803	N RT 58*
2	0091	95	006	0160	1	S RT 58	TENN ST LN*

Number of links = 21

Average link length = 4.85 miles

2079

Table B-3: BRISTOL DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	0080	13	001	0160	1	KY ST LN	DICKNSN CL
3	0080	13	002	0849	1	DICKNSN CL	RT 83*
3	0080	13	004	0874	1	RT 605	RT 600*
3	0080	13	005	0448	1	RT 600	RT 623
3	0080	13	006	0378	1	RT 623	RUSSELL CL
3	0083	13	001	0466	2	W.VA.LN	RT 640
3	0083	13	002	0246	2	RT 640	RT 643
3	0063	25	004	0232	1	RT 83 S	RT 714
3	0063	25	005	0781	1	RT 714	RT 656
3	0063	25	006	0483	1	RT 656	RUSSELL CL*
3	0080	25	001	0232	1	KY ST LINE	RT 768*
3	0080	25	002	0068	1	RT 768	RT 702*
3	0080	25	003	0710	1	RT 702	NCL HAYSI
3	0016	38	001	0082	1	SMYTH CL	WCL TRTDLE
3	0016	38	002	0566	1	ECL TRTDLE	RT 58 N*
3	0016	38	003	0400	1	RT 58 N	RT 58 S
3	0016	38	004	0402	1	RT 58 S	NC ST LN
3	0021	38	001	0137	1	WYTHE CL	RT 805*
3	0021	38	002	0145	1	RT 805	RT 791
3	0021	38	003	1036	1	RT 791	RT 58*** (21)
3	0021	38	004	0415	1	RT 58	NC ST LN
3	0058	38	004	0892	2	RT 21	RT 711
3	0058	38	005	0380	2	RT 711	E RT 16
3	0058	38	006	0399	2	E RT 16	W RT 16*
3	0058	38	007	0399	2	W RT 16	RT 740
3	0058	38	008	0376	2	RT 740	RT 362
3	0058	38	009	0957	2	RT 362	WASH CL*
3	0089	38	001	0489	1	SCL GALAX	NC ST LN
3	0093	38	001	0092	1	RT 58	NC ST LN*
3	0094	38	001	0120	1	CARROLL CL	RT 1001
3	0094	38	002	0267	1	RT 1001	RT 805*
3	0094	38	003	0205	1	RT 805	RT 274
3	0094	38	004	0422	1	RT 274	RT 58*
3	0274	38	001	0736	1	RT 94	RT 58*
3	0058	52	002	0703	2	RT 421	W RT 641*
3	0070	52	001	0510	1	RT 58	N RT 612*
3	0070	52	002	0388	1	N RT 612	RT 604
3	0070	52	003	0335	1	RT 604	TN ST LN
3	0063	83	001	0322	1	DICKNSN CL	RT 608
3	0071	83	002	0405	2	E RT 58 A	RT 602*
3	0071	83	003	0560	2	RT 602	SCOTT CL
3	0080	83	001	0566	1	BUCHNON CL	RT 645*****
3	0080	83	004	0623	1	W RT 19	WASH CL*
3	0082	83	001	0706	2	RT 19	RT 600
3	0065	84	001	0414	2	RUSSELL CL	RT 774*
3	0065	84	002	0124	2	RT 774	RT 1009
3	0065	84	003	0811	2	RT 1009	W RT 619
3	0065	84	004	0803	2	W RT 619	RT 645
3	0065	84	005	0228	2	RT 645	RT 649
3	0065	84	006	0444	2	RT 649	RT 58*

Table B-3 (Cont.)

CLASS	A	B	C	D	E	START	END
3	0071	84	001	0432	2	RUSSELL CL	W RT 682*
3	0071	84	002	0681	2	W RT 682	RT 671*
3	0072	84	002	0545	1	RT 755	RT 65
3	0016	86	001	0296	1	TAZEWL CL	E RT 42
3	0016	86	002	0032	1	E RT 42	W RT 42
3	0016	86	003	0943	1	W RT 42	RT 348*
3	0016	86	004	0193	1	RT 348	RT 617
3	0016	86	005	0059	1	RT 617	NCL MARION*
3	0016	86	007	0138	1	RT 601	RT 676
3	0016	86	008	0448	1	RT 676	GRAYSON CL
3	0042	86	001	0829	2	BLAND CL	E RT 16*
3	0042	86	002	0667	2	W RT 16	RT 630
3	0042	86	003	0292	2	RT 630	RT 91
3	0091	86	001	0054	1	TAZEWL CL	RT 42
3	0091	86	002	0237	1	RT 42	RT 633*
3	0091	86	003	0583	1	RT 633	WASH CL*
3	2019	92	004	0125	2	RT 16	RT 16A*
3	2019	92	005	0020	2	RT 16A	WCL TAZWL
3	2019	92	006	0155	2	WCL TAZWL	RT 16
3	2019	92	007	0027	2	RT 16	RT 91*
3	2019	92	008	0168	2	RT 91	RT 19&460*
3	2460	92	002	0327	2	RT 16	RT 91
3	2460	92	003	1254	2	RT 91	RT 19
3	2460	92	004	0350	2	RT 19	ECL RICHLD
3	2460	92	005	0117	2	ECL RICHLD	RT 67 E*
3	2460	92	006	0083	2	RT 67 W	RT 460 BP*
3	0016	92	008	0166	1	RT 19S BUS	RT 604 N
3	0016	92	009	0279	1	RT 604 N	RT 602*
3	0016	92	010	0495	1	RT 602	RT 601
3	0016	92	011	0366	1	RT 601	SMYTH CL
3	0061	92	002	0734	2	RT 623	RT 662
3	0061	92	001	0160	2	RT 662	BLAND CL
3	0091	92	001	0948	1	RT 19	RT 609
3	0091	92	002	0250	1	RT 609	RT 604
3	0091	92	003	0580	1	RT 604	RT 607
3	0091	92	004	0533	1	RT 607	SMYTH CL*
3	0080	95	001	0367	1	RUSSELL CL	RT 613
3	0080	95	002	0206	1	RT 613	RT 689
3	0080	95	003	0601	1	RT 689	RT 740*
3	0080	95	004	0219	1	RT 740	S RT 609
3	0080	95	005	0106	1	S RT 609	RT 11
3	0068	97	001	0537	2	RT 23	LEE CL*
3	0160	97	001	0826	2	KY ST LN	RT 23
3	0021	98	002	0367	1	RT 690	RT 684*
3	0021	98	003	0532	1	RT 684	GRAYSON CL*
3	0052	98	001	0728	1	BLAND CL	RT 680
3	0052	98	002	0441	1	RT 680	NCL WYTHVL*
3	0052	98	003	0109	1	I-81	S RT 736*
3	0052	98	004	0414	1	S RT 736	RT 619
3	0052	98	005	0386	1	RT 619	RT 607*

Table B-3 (Cont.)

2891

CLASS	A	B	C	D	E	START	END
3	0052	98	006	0031	1	RT 607	CARROLL CL
3	0069	98	001	0025	2	RT 52	I-77*
3	0069	98	002	0131	2	I-77	CARROLL CL
3	0069	98	003	0178	2	CARROLL CL	RT 636*
3	0090	98	002	0044	1	RT 11	I-81*
3	0094	98	001	0206	1	RT 52	RT 634*
3	0094	98	002	0417	1	RT 634	RT 619*
3	0094	98	003	0273	1	RT 619	RT 639
3	0094	98	004	0085	1	RT 639	CARROLL CL*
3	0100	98	001	0616	1	CARROLL CL	PULASKI CL*
3	0121	98	001	0187	1	I-81 NB	RT 1004

Number of links = 111

Average link length = 4.00 miles

Table B-4: BRISTOL DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	1077	10	007	0392	1	WYTHE CL	FO01
4	1077	10	006	0244	1	FO01	RT 52&42
4	1077	10	005	0291	1	RT 52&42	RT 612
4	1077	10	004	0317	1	RT 612	RT 666
4	1077	10	003	0392	1	RT 666	RT 606
4	1077	10	002	0202	1	RT 606	RT 61
4	1077	10	001	0280	1	RT 61	W.VA. SL****
4	1077	98	003	0020	1	CARROLL CL	RT 69
4	1077	98	002	0793	1	RT 69	I-81**
4	1077	98	001	0539	1	I-81	BLAND CL

Number of links = 10

Average link length = 3.47 miles

3093

Table B-5: BRISTOL DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	0083	13	006	0189	2	RT 460	RT 619
5	0083	13	007	0596	2	RT 619	RT 604
5	0083	13	008	0250	2	RT 604	DICKNSN CL*
5	0460	13	001	0632	2	TAZEWL CL	RT 680
5	0460	13	006	0235	2	SCL GRUNDY	RT 83 E
5	0460	13	007	0347	2	RT 83 E	RT 656*
5	0460	13	008	0257	2	RT 656	RT 609
5	0460	13	009	0238	2	RT 609	RT 700
5	0460	13	010	0207	2	RT 700	RT 645
5	0083	25	001	0470	2	BUCHNON CL	RT 63 E
5	0083	25	006	0120	2	WCL CLNTWD	RT 72
5	0083	25	007	0383	2	RT 72	WISE CL
5	0058	38	003	0272	2	RT 274	RT 21**
5	2058	52	005	0470	2	RT 421 E	RT 645
5	2058	52	006	0417	2	RT 645	RT 58
5	0023	52	001	0444	1	WISE CL	SCOTT CL
5	0421	52	002	0282	2	RT 642	RT 58A
5	0421	52	003	0298	2	RT 58A	RT 352*
5	0058	83	001	0671	2	RT 19	RT 71
5	0058	83	002	0146	2	RT 71	RT 71
5	0058	83	003	0414	2	RT 71	RT 65
5	0019	83	001	0810	1	TAZEWL CL	E RT 80*
5	0019	83	002	0257	1	E RT 80	W RT 80
5	0019	83	005	0344	1	RT 841	RT 58A
5	0019	83	006	0198	1	RT 58A	WASH CL
5	0067	83	003	0354	1	RT 80	RT 633
5	0067	83	002	0285	1	RT 633	RT 617*
5	0067	83	001	0404	1	RT 617	TAZEWL CL
5	0080	83	002	0117	1	RT 645	RT 67
5	0080	83	003	0446	1	RT 67	E RT 19
5	0023	84	001	0412	1	LEE CL	RT 58 N**
5	0023	84	002	0467	1	RT 58 N	RT 65
5	0023	84	003	0356	1	RT 65	RT 870
5	0023	84	004	0603	1	RT 870	23 BUS OP*** (19)
5	0058	84	002	0327	2	RT 696	RT 709
5	0058	84	003	0518	2	RT 709	E RT 23
5	0011	86	004	0069	2	WCL MARION	FO07
5	0011	86	006	0431	2	E RT 645	RT 107
5	0107	86	002	0506	1	RT 610	RT 11
5	0107	86	003	0032	1	RT 11	RT 762
5	0016	92	003	0267	1	RT 636	NCL TAZWL
5	0019	92	001	0121	1	WCL BLUFLD	RT 640
5	0019	92	005	0193	1	RT 460 BUS	RT 61
5	0019	92	006	0079	1	RT 61	RT 16*
5	0019	92	007	0300	1	RT 16	RT 19&460B
5	0019	92	008	0303	1	RT 19&460B	RT 637
5	0019	92	009	0782	1	RT 637	RT 460
5	0019	92	010	0307	1	RT 460	RT 609
5	0019	92	011	0236	1	RT 609	RUSSELL CL
5	0061	92	006	0074	2	RT 16	RT 19&460

Table B-5 (Cont.)

CLASS	A	B	C	D	E	START	END
5	0061	92	005	0082	2	RT 11&460	NCL TAZWL
5	0067	92	003	0160	1	RUSSELL CL	RT 460
5	0102	92	001	0140	1	SCL BLUFLD	W.VA.ST LN*
5	0460	92	001	0144	2	W.VA.ST LN	E RT 720
5	0460	92	005	0117	2	RT 67	RT 460 BUS
5	0460	92	007	0206	2	RT 67	RT 804
5	0460	92	008	0399	2	RT 804	BUCHNON CL
5	0011	95	006	0038	1	RT 58	I-81
5	0011	95	007	0100	1	I-81	ECL ABNGDN
5	0011	95	008	0037	1	WCL ABNGDN	RT 140**
5	0011	95	009	0229	1	RT 140	RT 611
5	0011	95	010	0209	1	RT 611	RT 1717
5	0011	95	011	0292	1	RT 1717	NCL BRISTL
5	0019	95	001	0325	1	RUSSELL CL	RT 802
5	0019	95	002	0303	1	RT 802	RT 700
5	0019	95	004	0044	1	RT 58A	RT 11
5	0058	97	006	0304	2	W RT 72	RT 813
5	0058	97	007	0230	2	RT 813	RT 762
5	0058	97	008	0200	2	RT 762	ECL NORTON*
5	0058	97	009	0171	2	ECL NORTON	RT 74
5	2023	97	001	0122	1	N RT 23	RT 83
5	2023	97	002	0952	1	RT 83	S RT 23
5	2023	97	003	0065	1	S RT 23	NCL WISE
5	2023	97	004	0021	1	SCL WISE	S RT 23
5	0023	97	003	0356	1	S RT 23B	RT 634
5	0023	97	004	0410	1	RT 634	N RT 23B
5	0023	97	010	0143	1	SCL NORTON	RT 790
5	0023	97	011	0359	1	RT 790	RT 603
5	0023	97	012	0396	1	RT 603	RT 78
5	0023	97	014	0090	1	NCL BIGSTG	RT 58A
5	0023	97	015	0213	1	S RT 614	RT 844
5	0023	97	016	0209	1	RT 844	LEE CL
5	0083	97	001	0360	2	DICKNSN CL	RT 23 BUS

Number of links = 83

Average link length = 2.94 miles

2095

Table B-6: BRISTOL DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	0083	13	005	0205	2	SCL GRUNDY	RT 460
6	0460	13	002	0219	2	RT 680	RT 1101
6	0460	13	003	0533	2	RT 1101	RT 638
6	0460	13	004	0353	2	RT 638	RT 83 S
6	0460	13	005	0199	2	RT 83 S	SCL GRUNDY
6	0025	52	002	0006	1	TN ST LN	RT 58
6	0025	52	001	0083	1	RT 58	KY ST LN
6	0058	83	004	0252	2	RT 65	WISE CL
6	0019	83	003	0825	1	W RT 80	RT 71*
6	0019	83	004	0263	1	RT 71	RT 841
6	0019	92	002	0040	1	RT 640	RT 720 W
6	0019	92	003	0489	1	RT 720 W	RT 680
6	0019	92	004	0590	1	RT 680	RT 460 BUS
6	0067	92	002	0118	1	RT 460 BUS	NCL RICHLD
6	0460	92	002	0232	2	RT 19	RT 460 BUS
6	0460	92	003	0039	2	RT 460 BUS	F608
6	0460	92	004	0156	2	F608	RT 67****
6	0460	92	006	0139	2	RT 460 BUS	RT 67
6	0019	95	003	0399	1	RT 700	RT 58A
6	0058	95	005	0397	2	W RT 81	RT 700
6	0058	95	006	0266	2	RT 700	SCOTT CL
6	0058	97	010	0053	2	SE POW RV	WCL BIGSTG
6	0023	97	001	0198	1	RT 610	RT 74*
6	0023	97	006	0088	1	S RT 23B	NCL NORTON
6	0023	97	007	0120	1	NCL NORTON	RT 74
6	0023	97	008	0067	1	RT 74	RT 58A
6	0023	97	009	0115	1	RT 58A	SCL NORTON
6	0023	97	013	0259	1	RT 78	NCL BIGSTG*
6	0011	98	001	0372	2	I-81	ECL WYTHVL

Number of links = 29

Average link length = 2.44 miles

2086

Table B-7: BRISTOL DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	1081	86	007	0119	1	WASH CL	RT 107
7	1081	86	006	0387	1	RT 107	RT 11 UP*
7	1081	86	005	0256	1	RT 11 UP	RT 11 N*
7	1081	86	004	0228	1	RT 11 N	RT 730
7	1081	86	003	0173	1	RT 730	RT 16
7	1081	86	002	0912	1	RT 16	RT 683
7	1081	86	001	0261	1	RT 683	WYTHE CL****
7	1081	95	011	0091	1	TENN ST LN	EB RT 421*
7	1081	95	010	0466	1	RT 421	RT 11
7	1081	95	009	0262	1	RT 11	NCL BRIST
7	1081	95	008	0501	1	NCL BRIST	RT 611
7	1081	95	007	0189	1	RT 611	RT 140*
7	1081	95	006	0215	1	RT 140	RT 75
7	1081	95	005	0251	1	RT 75	RT 11
7	1081	95	004	0538	1	RT 11	RT 80
7	1081	95	003	0437	1	RT 80	RT 91*
7	1081	95	002	0266	1	RT 91	RT 11
7	1081	95	001	0218	1	RT 11	SMYTH CL
7	1081	98	009	0321	1	SMYTH CL	RT 90*
7	1081	98	008	0613	1	RT 90	RT 663
7	1081	98	007	0422	1	RT 663	RT 21
7	1081	98	006	0203	1	RT 21	RT 77
7	1081	98	005	0343	1	RT 77	RT 11*
7	1081	98	004	0111	1	RT 11	RT 121
7	1081	98	003	0158	1	RT 121	I-77 NB UP
7	1081	98	002	0225	1	I-77 NB UP	RT 619*
7	1081	98	001	0332	1	RT 619	PULASKI CL

Number of links = 27

Average link length = 3.15 miles

2687

Table B-8: CULPEPER DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	0006	02	002	0058	2	E RT 20	W RT 20*
1	0006	02	003	0568	2	RT 20	RT 627
1	0006	02	004	0719	2	RT 627	NELSON CL
1	0020	02	001	0584	1	ORANGE CL	RT 600*
1	0020	02	002	0282	1	RT 600	RT 649*
1	0020	02	003	0487	1	RT 649	RT 250
1	0020	02	009	0551	1	RT 712	RT 6*
1	0022	02	001	0371	2	LOUISA CL	RT 231
1	0053	02	002	0256	2	RT 795	RT 729
1	0053	02	001	0378	2	RT 729	FLUVA CL*
1	2015	23	001	0056	1	FAUQUI CL	RT 15&29
1	0522	23	001	0093	1	RAPP CL	RT 707
1	0522	23	002	0734	1	RT 707	WCL CULPE*
1	0522	23	004	0092	1	RT 3	RT 652*
1	0522	23	005	0627	1	RT 652	RT 647*
1	0522	23	006	0009	1	RT 647	ORANGE CL
1	2015	30	001	0126	1	RT 211 B	RT 15&29
1	2015	30	002	0178	1	RT 15&29	RT T651*
1	2015	30	003	0037	1	RT T651	CULPE CL
1	0055	30	001	0469	2	PRINCEW CL	RT 245
1	0055	30	005	0891	2	RT 17	WARREN CL*** (50)
1	0245	30	001	0118	1	RT 55	RT 66
1	0245	30	002	0209	1	RT 66	RT 17
1	0006	32	003	0539	2	RT 612	RT 620
1	0006	32	004	0829	2	RT 620	ALBERM CL*
1	0053	32	001	0877	2	ALBERM CL	RT 15***** (54)
1	0015	54	003	0687	1	RT 22	RT 64
1	0015	54	004	0053	1	RT 64	RT 250
1	0022	54	003	0399	2	RT 15	ALBERM CL*
1	0033	54	003	0066	2	E RT 522	W RT 522
1	0033	54	007	0828	2	W RT 22	RT 15
1	0208	54	001	0362	2	SPOTS CL	RT 522*
1	0250	54	001	0287	2	RT 605	LOUISA CL
1	0250	54	002	0244	2	LOUISA CL	RT 659
1	0250	54	003	0372	2	RT 659	RT 759
1	0250	54	004	0278	2	RT 759	RT 15
1	0522	54	001	0372	1	N ANNA BR	RT 208*
1	0522	54	002	0552	1	RT 208	RT 22*
1	0522	54	003	0385	1	RT 22	N RT 33*
1	0522	54	004	0630	1	S RT 33	RT 648*
1	0522	54	005	0845	1	RT 648	RT 64
1	0522	54	006	0059	1	RT 64	RT 250
1	0020	68	008	0014	1	E RT 231	W RT 231*
1	0020	68	009	0560	1	W RT 231	E RT 33*
1	0020	68	010	0130	1	W RT 33	ALBEM CL
1	0231	68	002	0641	1	N RT 33	S RT 20*
1	0231	68	001	0044	1	N RT 20	NERAP BR
1	0522	68	001	0684	1	WERAP BR	RT 20*
1	0522	68	002	0887	1	RT 20	SPOT CL

0088

Number of links = 49

Average link length = 3.98 miles

Table B-9: CULPEPER DISTRICT ROAD LINKS-Cluster 2

CLASS	A	B	C	D	E	START	END
2	2211	30	001	0104	2	RT 211	RT 15 B*
2	2211	30	002	0072	2	RT 15 B	RT 211
2	0028	30	005	0227	1	RT 15&29	RT 17*
2	0006	32	001	0496	2	GOOCH CL	RT 15*
2	0015	32	001	0825	1	RT 250	RT 601*
2	0015	32	002	0042	1	RT 601	RT 53****
2	0230	39	001	0341	2	RT 33	WE CNWT BR*
2	0022	54	002	0622	2	W RT 33	RT 15*
2	0208	54	003	0046	2	RT 64	RT 250
2	2029	56	002	0080	1	RT 231	N RT 29*
2	0230	56	001	0746	2	GREENE CL	W RT 29
2	0230	56	002	0064	2	E RT 29	E RT 231*
2	0230	56	003	0253	2	E RT 231	RT 607*
2	0230	56	004	0286	2	E RT 607	RT 705
2	0230	56	005	0322	2	RT 705	RT 15*
2	0231	56	003	0944	1	RAPID BR	RT 230
2	0231	56	002	0548	1	RT 29 B	RT 670*
2	0231	56	001	0719	1	RT 670	RAPP CL*
2	2211	78	001	0150	2	E RT 211	W RT 211*
2	0211	78	005	0709	2	W RT 522	PAGE CL*
2	0231	78	001	0819	1	MADISON CL	RT 522*
2	0522	78	002	0282	1	N RT 641	N RT 211*
2	0522	78	003	0079	1	S RT 211	RT 231
2	0522	78	004	0400	1	RT 231	RT 618*
2	0522	78	005	0467	1	RT 618	CULPE CL

Number of links = 25

Average link length = 3.86 miles

0000

Table B-10: CULPEPER DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	0006	02	001	0028	2	FLUVA CL	E RT 20
3	0020	02	020	0216	1	RT 53	RT 742
3	0020	02	007	0516	1	RT 742	RT 708
3	0020	02	008	0406	1	RT 708	RT 712
3	0020	02	010	0029	1	S RT 6	BUCKIN CL
3	0022	02	002	0293	2	RT 231	RT 616
3	0022	02	003	0246	2	RT 616	RT 250
3	0053	02	003	0156	2	MONTICELLO	RT 795
3	0231	02	001	0811	1	RT 22	LOUISA CL
3	0240	02	002	0068	2	RT 250	RT 802
3	0240	02	001	0383	2	RT 802	RT 250*
3	0250	02	001	0440	2	FLUVA CL	RT 22
3	0250	02	007	0297	2	E RT 240	W RT 240
3	0250	02	009	0469	2	RT 64	RT 6*
3	0250	02	010	0195	2	RT 6	RT 151
3	0250	02	011	0127	2	RT 151	AUGUST CL*
3	0003	23	003	0352	1	ORANGE CL	RT 647
3	0003	23	002	0458	1	RT 647	RT 663
3	0003	23	001	0451	1	RT 663	RT 522*
3	0015	23	004	0209	1	S RT 15 B	RT 692
3	0015	23	005	0276	1	RT 692	RT 649*
3	0015	23	006	0509	1	RT 649	MADISON CL
3	0211	23	002	0296	2	RT 229	RAPP CL
3	0229	23	004	0121	1	NCL CULPE	RT 685
3	0229	23	003	0493	1	RT 685	RT 640
3	0229	23	002	0543	1	RT 640	RT 621*
3	0229	23	001	0215	1	RT 621	RT 211
3	0017	30	001	0148	1	RT 50	RT 710
3	0017	30	002	0568	1	RT 710	RT 55*
3	0017	30	003	0084	1	RT 55	RT 66*
3	0028	30	004	0273	1	RT 17	RT 610
3	0028	30	003	0384	1	RT 610	RT 616
3	0028	30	002	0228	1	RT 616	RT 806
3	0055	30	002	0253	2	RT 245	RT 709*
3	0055	30	003	0204	2	RT 709	RT 17 B
3	0215	30	001	0213	2	RT 29	PRINCEW CL
3	0015	54	002	0361	1	RT 33	RT 22
3	0033	54	001	0280	2	HANOV CL	RT 655
3	0033	54	002	0920	2	RT 655	E RT 522
3	0033	54	004	0656	2	W RT 522	E RT 22
3	0033	54	006	0469	2	RT 208	W RT 22
3	0231	54	001	0027	1	ALBEM CL	ORANGE CL
3	0250	54	005	0600	2	RT 15	ALBEM CL
3	0003	68	002	0012	1	SPOT CL	RT 20
3	0020	68	001	0473	1	RT 3	RT 611*** (8)
3	0020	68	002	0638	1	RT 611	RT 650
3	0020	68	003	0228	1	RT 650	RT 522
3	0020	68	007	0654	1	W RT 15	E RT 231
3	0033	68	001	0561	2	RT 15	RT 20
3	0033	68	002	0473	2	RT 20	GREENE CL

0001

Table B-10 (cont.)

CLASS	A	B	C	D	E	START	END
3	0231	68	003	0116	1	LOUISA CL	N RT 33*

Number of links = 51

Average link length = 3.42 miles

2009
 Table B-11: CULPEPER DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	0006	32	002	0226	2	RT 15	JUDY CRK
4	0015	32	003	0206	1	RT 53	RT 649*
4	0015	32	004	0432	1	RT 649	RT 6*
4	0015	32	005	0199	1	RT 6	S RT 6*
4	0015	32	006	0454	1	S RT 6	JHN CK BR*
4	0208	54	002	0884	2	S RT 33	RT 64*
4	0015	56	001	0312	1	S RT 614	RT 230*** (51)
4	0522	78	001	0726	1	WARREN CL	N RT 641

Number of links = 8

Average link length = 4.30 miles

2003

Table B-12: CULPEPER DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	0029	39	001	0368	1	RT 33	NERAP BR*
5	0015	54	001	0045	1	ORANGE CL	RT 33*
5	0029	56	006	0469	1	RT 621	S RT 230****
5	0029	56	005	0052	1	S RT 230	N RT 230
5	0029	56	003	0202	1	S RT 29 B	N RT 29 B
5	0029	56	002	0316	1	N RT 29 B	RT 607
5	0029	56	001	0403	1	RT 607	CULPE CL*

Number of links = 7

Average link length = 2.65 miles

2034

Table B-13: CULPEPER DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	1066	30	006	0420	2	WARREN CL	RT 688
6	1066	30	004	0450	2	RT 731	RT 55*
6	1066	30	003	0132	2	RT 55	RT 17
6	1066	30	002	0303	2	RT 17	RT 245*** (49)
6	1066	30	001	0490	2	RT 245	PRINCEW CL*
6	1064	54	001	0273	2	RT 688	RT 604

Number of links = 6

Average link length = 3.45 miles

2035

Table B-14: CULPEPER DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	2029	02	001	0037	1	RT 29	SCL C'VIL
7	0020	02	005	0074	1	RT 64	RT 53*
7	0029	02	008	0789	1	NELSON CL	RT 692
7	0029	02	007	0269	1	RT 692	RT 708*
7	0029	02	006	0603	1	RT 708	RT 64
7	0053	02	004	0166	2	RT 20	MONTICELLO
7	0250	02	002	0207	2	RT 22	RT 64
7	0250	02	005	0380	2	RT 250	RT 637
7	0250	02	006	0329	2	RT 637	E RT 240*
7	0250	02	008	0159	2	W RT 240	RT 64
7	2015	23	002	0207	1	RT 15&29	NCL CULPE
7	2029	23	001	0014	1	RT 29	SCL CULPE
7	0015	23	001	0024	1	FAUQUI CL	RT 29&15
7	0015	23	002	0431	1	RT 29&15	RT 663
7	0015	23	003	0265	1	RT 663	RT 15&29*
7	0029	23	005	0279	1	MADISON CL	RT 603
7	0029	23	004	0369	1	RT 603	S RT 29 B
7	0029	23	003	0098	1	S RT 29 B	RT 15 B
7	0029	23	002	0148	1	RT 15 B	RT 522*
7	0029	23	001	0372	1	RT 522	RT 15&29 B*
7	0211	23	001	0090	2	FAUQUI CL	RT 229
7	0522	23	003	0066	1	ECL CULPE	RT 3
7	0015	30	004	0404	1	RT 17	RT 28
7	0015	30	005	0247	1	RT 28	CULPE CL*
7	0017	30	004	0127	1	RT 17 B	RT 709*
7	0017	30	005	0064	1	RT 709	RT 812*
7	0017	30	006	0461	1	RT 812	RT 777
7	0017	30	007	0304	1	RT 777	NCL WARREN
7	0017	30	009	0323	1	RT 15&29	RT 28*
7	0017	30	010	0751	1	RT 28	RT 634
7	0017	30	011	0428	1	RT 634	RT 615
7	0017	30	012	0189	1	RT 615	STAFF CL
7	0028	30	001	0257	1	RT 806	PRINCEW CL
7	0055	30	004	0089	2	RT 17 B	RT 66
7	0211	30	001	0586	2	RT 29&17	CULPE CL*
7	0022	54	001	0521	2	RT 522	E RT 33
7	0033	54	005	0063	2	E RT 22	RT 208
7	2020	68	001	0076	1	RT 20	RT 15
7	0003	68	001	0490	1	RT 20	CULPE CL
7	0015	68	001	0327	1	WERAP BR	RT 20
7	0015	68	002	0383	1	RT 20	RT 639****
7	0015	68	003	0469	1	RT 639	RT 33
7	0015	68	004	0111	1	RT 33	SCL GORD
7	0020	68	004	0598	1	RT 522	RT 629*
7	0020	68	005	0235	1	RT 629	RT 612
7	0020	68	006	0066	1	RT 612	E RT 15

Number of links = 46

Average link length = 2.81 miles

2008

Table B-15: CULPEPER DISTRICT ROAD LINKS-Cluster 8

CLASS	A	B	C	D	E	START	END
8	2250	02	001	0065	2	WCL C'VIL	RT 250
8	0020	02	004	0004	1	SCL C'VIL	RT 64*
8	0029	02	005	0064	1	RT 64	RT 29 B
8	0029	02	004	0169	1	NEL C'VIL	RT 631
8	0029	02	003	0311	1	RT 631	RT 1520*
8	0029	02	002	0281	1	RT 1520	RT 1510*
8	0029	02	001	0289	1	RT 1510	GREENE CL*
8	0250	02	003	0190	2	RT 64	ECL C'VIL
8	0250	02	004	0152	2	WCL C'VIL	RT 250*
8	0015	30	001	0177	1	RT 17	GREENE ST
8	0015	30	002	0336	1	SCL WARRNT	RT 684
8	0015	30	003	0224	1	RT 684	RT 17
8	0017	30	008	0042	1	NCL WARREN	RT 15&29
8	0029	30	004	0118	1	RT 17	SCL WARREN*****
8	0029	30	003	0320	1	NCL WARREN	RT 693*
8	0029	30	002	0322	1	RT 693	RT 215
8	0029	30	001	0013	1	RT 215	PRINCEW CL
8	0029	39	002	0321	1	ALBERM CL	RT 33
8	0029	56	004	0114	1	N RT 230	S RT 29 B*

Number of links = 19

Average link length = 1.85 miles

Table B-16: CULPEPER DISTRICT ROAD LINKS-Cluster 9

CLASS	A	B	C	D	E	START	END
9	1064	02	009	0608	2	NELSON CL	RT 250*
9	1064	02	008	0697	2	RT 250	RT 637
9	1064	02	007	0384	2	RT 637	RT 29*
9	1064	02	006	0184	2	RT 29	RT 631*
9	1064	02	005	0183	2	RT 631	RT 20*
9	1064	02	004	0266	2	RT 20	RT 250*
9	1064	02	003	0541	2	RT 250	RT 616
9	1064	02	002	0123	2	RT 616	FLUVA CL*
9	1064	02	001	0151	2	FLUVA CL	FLUVA CL
9	1066	30	005	0400	2	RT 688	RT 731*
9	1064	54	004	0383	2	AMBEM CL	RT 627*
9	1064	54	003	0589	2	RT 627	RT 626*** (16)
9	1064	54	002	0345	2	RT 626	RT 688

Number of links = 13

Average link length = 3.73 miles

Table B-17: CULPEPER DISTRICT ROAD LINKS-Cluster 10

CLASS	A	B	C	D	E	START	END
10	0033	39	001	0225	2	ORANGE CL	RT 29*
10	0033	39	002	0208	2	RT 29	RT 633*
10	0033	39	003	0202	2	RT 633	RT 609*
10	0033	39	004	0181	2	RT 609	ECL STANUD*
10	0033	39	005	0010	2	ECL STAUND	RT 230
10	0033	39	006	0406	2	RT 230	RT 638*** (7)
10	0033	39	007	0458	2	RT 638	ROCKHAM CL*
10	2029	56	001	0124	1	S RT 29	RT 231*
10	0211	78	001	0917	2	CULPE CL	E RT 522
10	0211	78	002	0238	2	E RT 522	E RT 211 B*
10	0211	78	003	0109	2	E RT 211 B	W RT 211 B
10	0211	78	004	0462	2	W RT 211B	W RT 522

Number of links = 12

Average link length = 2.95 miles

2009

Table B-18: FREDERICKSBURG DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	0003	59	003	0320	2 N	0320 2	NE PIAK RB S RT 33*
1	0201	66	001	0692	1 L	0692 1	LANCSTR CL RT 360
1	0202	66	001	0352	2 R	0352 2	RT 360 WSTMRLD CL
1	0360	66	001	0273	2 R	0273 2	RT 644 E 646*
1	0003	79	003	0308	2 R	0308 2	RT 692 RT 642*
1	0203	79	001	0040	2 R	0040 2	RT 3 WSTMRLD CL
1	0017	88	003	0189	1 R	0189 1	RT 2 CAROLIN CL*
1	0208	88	004	0244	2 R	0244 2	RT 606 RT 648
1	0208	88	005	0894	2 R	0894 2	RT 648 RT 601
1	0208	88	006	0355	2 R	0355 2	RT 601 LOUISA CL*
1	0522	88	001	0094	1 O	0094 1	ORANGE CL RT 612*
1	0522	88	002	0110	1 R	0110 1	RT 612 LOUISA CL
1	0202	96	005	0042	2 R	0042 2	RT 202Y RT 3*
1	0203	96	002	0121	2 R	0121 2	RT 604 W RT 202*
1	0204	96	001	0173	2 R	0173 2	RT 3 END ROUTE*
1	0214	96	001	0248	2 R	0248 2	RT 3 END ROUTE
1	0017	16	001	0257	1 S	0257 1	SPOTSYL CL RT 610
1	0017	16	002	0966	1 R	0966 1	RT 610 RT 301**
1	0030	16	002	0352	2 R	0352 2	RT 301 HANOVER CL*
1	0301	16	004	0127	1 R	0127 1	RT 301 B RT 301 B
1	0198	36	001	0410	2 M	0410 2	MATHEWS CL RT 606*
1	0205	48	001	0336	2 W	0336 2	WSMRLND CL RT 617
1	0205	48	002	0281	2 R	0281 2	RT 617 RT 301*
1	0206	48	005	0218	1 R	0218 1	RT 3 RT 610
1	0206	48	004	0426	1 R	0426 1	RT 610 RT 218*
1	0218	48	001	0602	2 R	0602 2	RT 205 RT 301
1	0218	48	002	0028	2 R	0028 2	RT 301 E RT 206*
1	0218	48	003	0685	2 W	0685 2	W RT 206 RT 609
1	0218	48	004	0104	2 R	0104 2	RT 609 RT 696*
1	0218	48	005	0589	2 R	0589 2	RT 696 STAFFRD CL
1	0030	50	001	0025	2 N	0025 2	NEW KT CL RT 33
1	0030	50	006	0775	2 R	0775 2	RT 608 CAROLIN CL*
1	0296	50	001	0040	2 R	0040 2	RT 33 RT 298*
1	0298	50	001	0022	1 R	0022 1	RT 33 RT 296
1	0298	50	002	0053	1 R	0053 1	RT 296 END ROUTE
1	0003	51	001	0530	1 R	0530 1	RT 201 RICHMD CL*
1	0201	51	003	0322	1 R	0322 1	RT 354 RT 3*
1	0201	51	002	0274	1 R	0274 1	RT 3 RT 201Y*** (43)
1	0201	51	001	0329	1 R	0329 1	RT 201Y NORTHMB CL*
1	0222	51	001	0417	1 R	0417 1	RT 3 END ROUTE*
1	0354	51	001	0217	1 R	0217 1	RT 3 RT 622*
1	0354	51	002	0410	1 R	0410 1	RT 622 RT 201*
1	0354	51	003	0362	1 R	0362 1	RT 201 RT 604*
1	0354	51	004	0364	1 R	0364 1	RT 604 END ROUTE*
1	0003	57	001	0116	1 N	0116 1	N RT 198 MIDSEX CL
1	0014	57	008	0174	1 B	0174 1	BAYSD WHRF RT 602*
1	0014	57	007	0188	1 R	0188 1	RT 602 RT 604
1	0198	57	001	0097	2 R	0097 2	RT 642 E RT 14*

Number of links = 48

Table B-18 (Cont.)

Average link length = 3.03 miles

2701

Table B-19: FREDERICKSBURG DISTRICT ROAD LINKS-Cluster 2

CLASS	A	B	C	D	E	START	END
2	0202	96	001 0182	2	N	0182 2 NORTHMD	CL W RT 203*
2	0202	96	002 0264	2	W	0264 2 W RT 203	RT 511
2	0202	96	003 0424	2	R	0424 2 RT 611	RT 526
2	0202	96	004 0537	2	R	0537 2 RT 626	RT 202Y*
2	0203	96	003 0582	2	R	0582 2 RICHMND	CL RT 604
2	0203	96	001 0173	2	E	0173 2 E RT 202	RT 608*
2	0030	16	001 0318	2	K	0318 2 KING WM	CL RT 301
2	0207	16	004 0064	1	R	0064 1 RT 1	I-95 UP*
2	0014	36	001 0106	1	W	0106 1 W RT 17	K&Q CL*
2	0198	36	002 0292	2	R	0292 2 RT 606	RT 601
2	0198	36	003 0441	2	R	0441 2 RT 601	RT 17*
2	0014	49	007 0495	1	G	0495 1 GLOUCSR	CL E RT 33*
2	0014	49	005 0683	1	W	0683 1 W RT 33	RT 614
2	0014	49	004 0563	1	R	0563 1 RT 614	RT 617
2	0014	49	003 0961	1	R	0961 1 RT 617	RT 620*****
2	0014	49	002 0200	1	R	0200 1 RT 620	RT 629*
2	0014	49	001 0616	1	R	0616 1 RT 629	RT 360*
2	0030	50	004 0839	2	R	0839 2 RT 633	RT 360**
2	0030	50	005 0437	2	R	0437 2 RT 360	RT 608*

Number of links = 19

Average link length = 4.30 miles

00707

Table B-20: FREDERICKSBURG DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	0003	59	002	0345	2 S	0345 2 S RT 33	N RT 33
3	0003	59	001	0391	2 N	0391 2 N RT 33	NE RAPP RB
3	0033	59	001	0200	2 S	0200 2 STINGRY PT	RT 636
3	0033	59	002	0426	2 R	0426 2 RT 636	RT 628*
3	0033	59	003	0215	2 R	0215 2 RT 628	E RT 3
3	0227	59	001	0298	1 W	0298 1 WCL URBANA	RT 33
3	0200	66	001	0507	1 R	0507 1 RT 360	RT 609
3	0200	66	002	0511	1 R	0511 1 RT 609	LANCSTR CL
3	0360	66	002	0080	2 E	0080 2 E 646	RT 200
3	0360	66	003	0782	2 R	0782 2 RT 200	RT 201
3	0360	66	006	0319	2 R	0319 2 RT 202	RICHMD CL
3	0003	79	001	0270	2 L	0270 2 LANCSTR CL	RT 608
3	0003	79	002	0237	2 R	0237 2 RT 608	RT 692*
3	0003	79	004	0630	2 R	0630 2 RT 642	RT 360
3	0003	79	006	0015	2 R	0015 2 RT 203	WSTMRLD CL
3	0360	79	001	0297	2 N	0297 2 NORTHUM CL	RT 661
3	0360	79	002	0496	2 R	0496 2 RT 661	E RT 3
3	2017	88	002	0369	1 R	0369 1 RT 1301	RT 17*
3	0001	88	006	0261	1 R	0261 1 RT 606	CAROLIN CL
3	0002	88	001	0136	2 R	0136 2 RT 17	CAROLIN CL
3	0017	88	001	0300	1 R	0300 1 RT 1	RT 608
3	0017	88	002	0275	1 R	0275 1 RT 608	RT 2
3	0208	88	003	0394	2 R	0394 2 RT 613	RT 606
3	0218	89	001	0209	2 K	0209 2 KING GE CL	RT 603
3	0218	89	002	0410	2 R	0410 2 RT 603	W RT 607
3	0003	96	001	0560	2 R	0560 2 RICHMND CL	RT 202
3	0003	96	002	0367	2 R	0367 2 RT 202	E T622
3	0003	96	003	0452	2 E	0452 2 E T622	RT 214*
3	0003	96	004	0068	2 R	0068 2 RT 214	RT 347*
3	0003	96	005	0283	2 R	0283 2 RT 347	RT 624
3	0003	96	006	0205	2 R	0205 2 RT 624	RT 204
3	0003	96	007	0283	2 R	0283 2 RT 204	RT 205
3	0205	96	001	0208	2 R	0208 2 RT 3	RT 628
3	0205	96	002	0361	2 R	0361 2 RT 628	WCL COL BC
3	0205	96	003	0535	2 W	0535 2 WCL COL BC	KING G CL
3	2301	16	002	0110	1 R	0110 1 RT 2	S RT 301
3	0001	16	001	0253	1 S	0253 1 SPOTSYL CL	RT 632
3	0001	16	002	0219	1 R	0219 1 RT 632	RT 1401
3	0001	16	003	0716	1 R	0716 1 RT 1401	RT 207
3	0001	16	004	0299	1 R	0299 1 RT 207	HANOVER CL
3	0002	16	001	0371	1 S	0371 1 SPOTSYL CL	RT 606
3	0002	16	002	0812	1 R	0812 1 RT 606	RT 301 BUS
3	0017	16	003	0589	1 R	0589 1 RT 301	ESSEX CL
3	0207	16	003	0496	1 I	0496 1 I-95 UP	RT 601
3	0207	16	002	0430	1 R	0430 1 RT 601	RT 722
3	0301	16	002	0990	1 R	0990 1 RT 17	RT 608*** (10)
3	0301	16	006	0750	1 R	0750 1 RT 721	RT 647
3	0301	16	007	0444	1 R	0444 1 RT 647	RT 30
3	0301	16	008	0316	1 R	0316 1 RT 30	HANOVER CL
3	0017	28	001	0445	1 C	0445 1 CAROLIN CL	RT 635

Table B-20 (Cont.)

CLASS	A	B	C	D	E	START	END
3	0017	28	002 0926	1	R	0926 1 RT 635	RT 624
3	0360	28	003 0045	2	R	0045 2 RT 620	K&Q CL
3	2017	36	001 0056	1	R	0056 1 RT 17	RT 1007*
3	0033	36	001 0292	2	R	0292 2 RT 17	K&Q CL
3	0003	48	001 0718	2	W	0718 2 WSMRLND CL	RT 301
3	0003	48	002 0156	2	R	0156 2 RT 301	RT 205
3	0205	48	003 0126	2	R	0126 2 RT 301	RT 3
3	0206	48	003 0219	1	R	0219 1 RT 218	RT 218
3	0206	48	002 0064	1	R	0064 1 RT 218	RT 301*
3	0206	48	001 0177	1	R	0177 1 RT 301	RT 604
3	0033	49	001 0261	2	G	0261 2 GLOUCSR CL	E RT 14
3	0360	49	001 0629	2	E	0629 2 ESSEX CL	RT 14
3	0360	49	002 0291	2	R	0291 2 RT 14	KING WM CL*
3	0030	50	003 0834	2	R	0834 2 RT 632	RT 633
3	0360	50	001 0336	2	K	0336 2 K&Q CL	RT 30
3	0003	51	006 0401	1	R	0401 1 RT 200	RT 222
3	0003	51	005 0242	1	R	0242 1 RT 222	E RT 200
3	0003	51	004 0362	1	E	0362 1 E RT 200	RT 614*
3	0003	51	003 0226	1	R	0226 1 RT 614	RT 604
3	0003	51	002 0404	1	R	0404 1 RT 604	RT 201
3	0200	51	001 0253	1	N	0253 1 NORTHMB CL	N RT 3
3	0200	51	002 0639	1	S	0639 1 S RT 3	RT 3
3	0003	57	003 0207	1	R	0207 1 RT 14	S RT 198
3	0003	57	002 0155	1	S	0155 1 S RT 198	N RT 198
3	0014	57	006 0465	1	R	0465 1 RT 604	E RT 611
3	0014	57	003 0314	1	W	0314 1 W RT 198	RT 660
3	0014	57	002 0138	1	R	0138 1 RT 660	RT 617
3	0014	57	001 0275	1	R	0275 1 RT 617	RT 3
3	0198	57	003 0624	2	R	0624 2 RT 223	E RT 3
3	0198	57	004 0199	2	W	0199 2 W RT 3	GLOUCSR CL
3	0223	57	001 0207	1	R	0207 1 RT 198	RT 633

Number of links = 81

Average link length = 360 miles

Table B-21: FREDERICKSBURG DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	0017	59	001 0746	1	E	0746 1	ESSEX CL RT 602
4	0017	59	002 0240	1	R	0240 1	RT 602 RT 603*
4	0017	59	003 0361	1	R	0361 1	RT 603 RT 33
4	0017	59	004 0161	1	R	0161 1	RT 33 DRAGON RB
4	0033	59	004 0218	2	W	0218 2	W RT 3 RT 619
4	0033	59	005 0293	2	R	0293 2	RT 619 RT 227
4	0033	59	006 0178	2	R	0178 2	RT 227 RT 17
4	0360	66	004 0428	2	R	0428 2	RT 201 RT 614
4	0360	66	005 0287	2	R	0287 2	RT 614 RT 202
4	0001	88	004 0252	1	R	0252 1	RT 17 BP RT 608
4	0001	88	005 0426	1	R	0426 1	RT 608 RT 606
4	0003	88	004 0527	2	W	0527 2	W RT 610 ORANGE CL
4	0208	88	001 0278	2	R	0278 2	RT 1 RT 629*
4	0208	88	002 0380	2	R	0380 2	RT 629 RT 613
4	0003	89	001 0040	2	K	0040 2	KING G CL E RT 601
4	0017	89	002 0237	1	7	0237 1	705 S RT 655
4	0017	89	003 0343	1	R	0343 1	RT 655 I-95*
4	0003	96	008 0283	2	R	0283 2	RT 205 KING G CL
4	2301	16	001 0068	1	N	0068 1	N RT 301 RT 2
4	0207	16	001 0183	1	R	0183 1	RT 722 RT 301 BUS
4	0301	16	001 0115	1	K	0115 1	KING G CL RT 17
4	0301	16	003 0090	1	R	0090 1	RT 608 RT 301 B
4	0301	16	005 0259	1	R	0259 1	RT 301 B RT 721*
4	0017	28	003 0380	1	R	0380 1	RT 624 RT 703
4	0017	28	004 0315	1	R	0315 1	RT 703 N RT 360*** (11)
4	0017	28	006 0300	1	3	0300 1	360 N EB RT 609
4	0017	28	007 0564	1	R	0564 1	RT 609 RT 684*
4	0017	28	008 0466	1	R	0466 1	RT 684 MIDSEX CL
4	0003	36	001 0218	2	R	0218 2	RT 17 BUS RT 623
4	0003	36	002 0407	2	R	0407 2	RT 623 MATHEWS CL*
4	0017	36	001 0155	1	M	0155 1	MIDSEX CL RT 33
4	0017	36	002 0477	1	R	0477 1	RT 33 RT 14
4	0017	36	003 0373	1	R	0373 1	RT 14 RT 615
4	0017	36	006 0168	1	1	0168 1	17 BUS N 17 BUS S
4	0216	36	001 0361	2	R	0361 2	RT 17 RT 649*
4	0003	48	003 0258	2	R	0258 2	RT 205 RT 206
4	0003	48	004 0479	2	R	0479 2	RT 206 RT 605
4	0003	48	005 0368	2	R	0368 2	RT 605 STAFFRD CL
4	0301	48	001 0358	1	M	0358 1	MARYLAND RT 206
4	0301	48	002 0649	1	R	0649 1	RT 206 RT 205
4	0301	48	003 0191	1	R	0191 1	RT 205 RT 3
4	0301	48	004 0205	1	R	0205 1	RT 3 RT 623
4	0301	48	005 0305	1	R	0305 1	RT 623 CAROLIN CL
4	0003	51	007 0155	1	M	0155 1	MIDSEX CL RT 200
4	0003	57	004 0011	1	G	0011 1	GLUCSR CL RT 14*
4	0014	57	005 0062	1	E	0062 1	E RT 611 E RT 198
4	0014	57	004 0169	1	E	0169 1	E RT 198 W RT 198
4	0198	57	002 0092	2	W	0092 2	W RT 14 RT 223

Number of links = 48

Table B-21 (Cont.)

Average link length = 2.89 miles

10706

Table B-22: FREDERICKSBURG DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	0003	79	005	0420	2 R	0420 2 RT 360	RT 203
5	0360	79	003	0071	2 E	0071 2 E RT 3	N RT 3*
5	0360	79	004	0240	2 W	0240 2 W RT 3	RT 624*****
5	0360	79	005	0349	2 R	0349 2 RT 624	ESSEX CL
5	2017	88	001	0084	1 E	0084 1 ECL FRED	RT 1301
5	0017	89	001	0423	1 F	0423 1 FAUQUIR CL	RT 705 S*
5	0360	28	002	0633	2 W	0633 2 W RT 17	RT 620
5	0017	36	004	0165	1 R	0165 1 RT 615	RT 606
5	0017	36	005	0245	1 R	0245 1 RT 606	RT 17 BUS*
5	0014	49	006	0164	1 E	0164 1 E RT 33	W RT 33
5	0033	49	002	0014	2 W	0014 2 W RT 14	RT 678*
5	0033	49	003	0330	2 R	0330 2 RT 678	KING WM CL*
5	0030	50	002	0781	2 R	0781 2 RT 33	RT 632
5	0033	50	001	0048	2 K	0048 2 K&Q CL	RT 30*
5	0360	50	002	0275	2 R	0275 2 RT 30	RT 605
5	0360	50	003	0232	2 R	0232 2 RT 605	HANOVER CL

Number of links = 16

Average link length = 2.80 miles

Table B-23: FREDERICKSBURG DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	0001	88	001	0011	1 S	0011 1 SCL FRED	RT 1 BUS
6	0001	88	002	0117	1 R	0117 1 RT 1 BUS	I-95*
6	0001	88	003	0075	1 I	0075 1 I-95	RT 17 BP*
6	0003	88	002	0270	2 I	0270 2 I-95	E RT 610*
6	0003	88	003	0466	2 E	0466 2 E RT 610	W RT 610
6	2017	89	001	0176	2 I	0176 2 I-95	RT 1*
6	0001	89	001	0233	1 P	0233 1 PNCE WM CL	RT 638*
6	0001	89	002	0240	1 R	0240 1 RT 638	RT 610****
6	0001	89	003	0282	1 R	0282 1 RT 610	RT 687
6	0001	89	004	0245	1 R	0245 1 RT 687	RT 628
6	0001	89	005	0301	1 R	0301 1 RT 628	RT 627*
6	0001	89	006	0251	1 R	0251 1 RT 627	RT 17 BUS*
6	0003	89	002	0554	2 E	0554 2 E RT 601	RT 680
6	0003	89	003	0207	2 R	0207 2 RT 680	RT 218
6	0218	89	003	0060	2 W	0060 2 W RT 607	RT 3
6	0017	28	005	0247	1 N	0247 1 N RT 360	360 N EB*
6	0360	28	001	0025	2 R	0025 2 RICHMND CL	RT 17*
6	2017	36	002	0071	1 R	0071 1 RT 1007	S RT 14
6	2017	36	003	0120	1 S	0120 1 S RT 14	RT 17*
6	0017	36	007	0301	1 I	0301 1 17 BUS S	RT 628
6	0017	36	008	0312	1 R	0312 1 RT 628	RT 636
6	0017	36	009	0292	1 R	0292 1 RT 636	RT 216

Number of links = 22

Average link length = 2.21 miles

12708

Table B-24: FREDERICKSBURG DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	2001	88	001	0152	1 S	0152 1 SCL FRED	RT 1
7	0003	88	001	0101	2 W	0101 2 WCL FRED	I-95**
7	0001	89	007	0036	1 R	0036 1 RT 17 BUS	NCL FRED
7	0003	89	004	0032	2 R	0032 2 RT 218	SPOTSYL CL*****
7	0017	36	010	0149	1 R	0149 1 RT 216	RT 1208*
7	0017	36	011	0113	1 R	0113 1 RT 1208	YORK CL

Number of links = 6

Average link length = 0.97 mile

Table B-25: FREDERICKSBURG DISTRICT ROAD LINKS-Cluster 8

CLASS	A	B	C	D	E	START	END
8	1095	88	003 0934	1	C	0934 1	CAROLIN CL RT 1*
8	1095	88	002 0421	1	R	0421 1	RT 1 RT 3
8	1095	88	001 0202	1	R	0202 1	RT 3 STAFFORDCL
8	1095	89	005 0122	1	S	0122 1	SPOTSYL CL RT 17 BUS*
8	1095	89	004 0249	1	R	0249 1	RT 17 BUS RT 627
8	1095	89	003 0450	1	R	0450 1	RT 627 RT 630
8	1095	89	002 0318	1	R	0318 1	RT 630 RT 610****
8	1095	89	001 0435	1	R	0435 1	RT 610 PRNC WM CL
8	1095	16	001 0330	1	H	0330 1	HANOVER CL RT 207
8	1095	16	002 0602	1	R	0602 1	RT 207 RT 639*
8	1095	16	003 0622	1	R	0622 1	RT 639 SPOTSYL CL

Number of links = 11

Average link length = 4.26 miles

Table B-26: LYNCHBURG DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	0060	05	001	0405	2	NELSON CL	RT 600
1	0060	05	002	0412	2	RT 600	RT 29 BP
1	0060	05	004	0574	2	RT 29 B	RT 778*
1	0060	05	005	0692	2	RT 778	RT 635*
1	0060	05	006	0942	2	RT 635	ROCKBG CL*
1	0130	05	003	0966	2	RT 635	RT 501
1	0151	05	001	0634	1	PINEY BR	RT 29*
1	0501	05	001	0394	1	ROCKBG CL	RT 130
1	0501	05	002	0014	1	RT 130	JAMES RV*
1	2460	06	001	0025	2	PRINCEE CL	RT 47
1	2460	06	002	0088	2	RT 47	RT 460*
1	0024	06	001	0493	2	BUCKIN CL	RT 616
1	0024	06	002	0534	2	RT 616	RT 1014*
1	0024	06	003	0009	2	RT 1014	RT 131
1	0024	06	004	0043	2	RT 131	RT 460
1	0026	06	001	0778	1	RT 60	RT 608*
1	0026	06	002	0515	1	RT 608	RT 460*
1	0047	06	001	0107	1	RT 460	PRINCEE CL
1	0060	06	001	0414	2	STEVEN RUN	JAMES BR*
1	0056	14	001	0780	2	RT 60	RT 604*
1	0056	14	002	0267	2	RT 604	JAMES BR
1	0043	15	001	0126	1	RT 682	BEDFO CL*
1	0092	19	003	0070	2	RT 360	HALIF CL
1	0013	24	001	0719	2	POWHA CL	RT 60
1	0045	24	001	0075	1	JAMES BR	RT 649*
1	0045	24	002	0220	1	RT 649	RT 690
1	0045	24	003	0660	1	RT 690	RT 616*
1	0045	24	004	0485	1	RT 616	E RT 60
1	0060	24	004	0406	2	RT 45	BUCKIN CL*
1	0040	41	001	0596	2	RT 501	RT 638*
1	0040	41	002	0416	2	RT 638	PITTS CL*
1	2029	62	002	0030	1	S RT 29	RT 56*
1	2029	62	001	0063	1	RT 56	N RT 29
1	0006	62	001	0342	2	ALBEM CL	E RT 29*
1	0006	62	002	0576	2	W RT 29	E RT 151
1	0056	62	001	0272	2	JAMES RV	RT 626*** (27)
1	0056	62	002	0803	2	RT 626	E RT 639
1	0056	62	003	0379	2	E RT 639	RT 29 B
1	0056	62	004	0483	2	R 29	RT 151Y*
1	0056	62	005	0020	2	RT 151Y	E RT 151*
1	0056	62	006	0196	2	W RT 151	E RT 680
1	0056	62	007	0765	2	E RT 680	RT 687*
1	0056	62	008	0865	2	RT 687	ROCKB CL*
1	0060	62	001	0633	2	JAMES BR	AMHER CL*
1	0151	62	001	0372	1	RT 250	N RT 6
1	0151	62	003	0552	1	S RT 6	RT 664*
1	0151	62	004	0809	1	RT 664	RT 666
1	0151	62	005	0230	1	RT 666	N RT 56*
1	0151	62	006	0279	1	N RT 56	RT 151Y
1	0151	62	007	0144	1	RT 151Y	PINEY RV*

2711

Table B-26 (Cont.)

CLASS	A	B	C	D	E	START	END
1	0265	71	001	0358	2	NC LINE	RT 86*
1	0265	71	002	0206	2	RT 86	RT 737

Number of links = 52

Average link length = 4.08 miles

Table B-27: LYNCHBURG DISTRICT ROAD LINKS-Cluster 2

CLASS	A	B	C	D	E	START	END
2	0020	14	001	0850	1	JAMES BR	RT 655*
2	0020	14	002	0799	1	RT 655	RT 631
2	0020	14	003	0256	1	RT 631	RT 15
2	0024	14	001	0871	2	RT 60	APPOM CL*
2	0060	14	001	0838	2	CUMBER CL	RT 15*
2	0060	14	004	0202	2	RT 56	RT 24
2	0060	14	005	0937	2	RT 24	STEVEN BR*
2	0024	15	004	0668	2	RT 29	RT 811
2	0024	15	005	0206	2	RT 811	BEDFOR CL
2	0040	15	001	0216	2	CHARLO CL	RT 605*
2	0040	15	002	0291	2	RT 605	RT 501
2	2015	19	002	0422	1	W RT 40	RT 15
2	0015	19	006	0324	1	RT 360	RT 92*
2	0015	19	007	0739	1	RT 92	MECKL CL*
2	0040	19	001	0125	2	LUNEN CL	E RT 15 B*
2	0040	19	002	0906	2	W RT 15 B	E RT 47
2	0040	19	003	0546	2	E RT 47	RT 746
2	0040	19	004	0140	2	RT 746	RT T727*
2	0040	19	005	0771	2	RT T727	CAMPB CL
2	0092	19	001	0211	2	MECKL CL	RT 15
2	0092	19	002	0380	2	RT 15	RT 360*
2	0045	24	005	0582	1	W RT 60	RT 634*** (2)
2	0045	24	006	0467	1	RT 634	RT 636
2	0360	41	010	0573	2	RT 681	RT 683
2	0360	41	011	0503	2	RT 683	PITTS CL
2	0501	41	002	0490	1	RT 40	RT 645
2	0501	41	003	0251	1	RT 645	RT 603*
2	0501	41	012	0246	1	RT 96	NC LINE
2	0040	71	001	0514	2	HALIF CL	RT 640*
2	0040	71	002	0812	2	RT 640	RT 686
2	0040	71	003	0186	2	RT 686	RT 29 B
2	0040	71	004	0103	2	RT 29 B	RT 29*
2	0040	71	005	0510	2	RT 29	RT 799
2	0040	71	006	0852	2	RT 799	FRANK CL
2	0041	71	004	0300	1	RT 835	RT 718
2	0041	71	003	0310	1	RT 718	RT 750
2	0041	71	002	0230	1	RT 750	RT 844*
2	0041	71	001	0609	1	RT 844	RT 57*
2	0057	71	001	0456	2	RT 29 B	RT 799*
2	0057	71	002	0397	2	RT 799	RT 750*
2	0057	71	003	0324	2	RT 750	RT 41
2	0057	71	004	0495	2	RT 41	HENRY CL
2	0360	71	001	0749	2	HALIF CL	RT 716*
2	0360	71	002	0349	2	RT 716	RT 726*
2	0360	71	003	0706	2	RT 726	ECL DANVIL
2	2460	73	002	0164	2	RT 460	APPOT CL

Number of links = 46

Average link length = 4.76 miles

Table B-28: LYNCHBURG DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	0047	19	001	0441	1	APPOM CL	N RT 649*
3	0047	19	004	0427	1	S RT 40	RT 59*
3	0047	19	005	0864	1	RT 59	RT 15*
3	0047	19	006	0270	1	RT 15	MECKL CL****
3	0059	19	001	0790	2	RT 40	RT 47*
3	0360	19	002	0464	2	W RT 15	RT 92*
3	0049	41	001	0265	1	ARROW BR	NC LINE*
3	0092	41	001	0579	2	CHARLO CL	RT 360*
3	0096	41	001	0770	2	RT 49	RT 501
3	0119	41	001	0308	1	RT 58	NC LINE*
3	0344	41	001	0233	1	RT 360	RT 720*
3	0344	41	002	0777	1	RT 720	STAUN RV*
3	0344	41	003	0203	1	STAUN RV	STATE PARK
3	0015	73	001	0176	1	BUCKI CL	RT 15&460*
3	0133	73	002	0104	1	E RT 692	W RT 692*

Number of links = 15

Average link length = 4.45 miles

Table B-29: LYNCHBURG DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	2029	05	001	0127	1	RT 60	N RT 29*
4	0060	05	003	0055	2	RT 29 BP	RT 29 B
4	0130	05	002	0413	2	S RT 652	RT 635
4	0131	06	001	0106	2	S RT 460	N RT 460*
4	0131	06	002	0031	2	NCL APPOM	RT 24*
4	0460	06	001	0099	2	PRINCEE CL	RT 460 B
4	0029	15	006	0091	1	STAUN BR	RT 43*
4	0029	15	005	0335	1	RT 43	RT 29 B*
4	0043	15	003	0158	1	RT 29 B	WCL ALTAV
4	0043	15	002	0648	1	WCL ALTAV	RT 682*
4	2015	19	001	0171	1	RT 15	W RT 40
4	0015	19	002	0192	1	RT 360	RT 40*
4	0015	19	003	0348	1	RT 40	S RT 15 B
4	0015	19	004	0660	1	S RT 15 B	N RT 47*
4	0015	19	005	0388	1	N RT 47	RT 360
4	0006	62	003	0252	2	W RT 151	RT 250*
4	0029	62	002	0394	1	S RT 6	N RT 6
4	0151	62	002	0622	1	N RT 6	S RT 6*
4	2029	71	005	0347	1	RT 29	RT 29BP
4	2029	71	004	0221	1	S RT 29	RT 40
4	2029	71	003	0264	1	RT 40	N RT 29
4	0029	71	007	0341	1	RT 29 B	RT 29 B**
4	0029	71	005	0201	1	S RT 29 B	RT 40****
4	0029	71	004	0230	1	RT 40	N RT 29 B
4	0029	71	001	0302	1	RT 29 B	STAUN BR
4	0058	71	007	0378	2	RT 622	HENRY CL*
4	0062	71	001	0401	1	NC LINE	RT 58

Number of links = 27

Average link length = 2.88 miles

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Table B-30: LYNCHBURG DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	0015	14	001	0303	1	JAMES BR	RT 715
5	0015	14	002	0541	1	RT 715	RT 622*
5	0015	14	003	0791	1	RT 622	RT 20
5	0060	14	003	0175	2	E RT 633	RT 56
5	0024	15	001	0316	2	RT 460	RT 656*
5	0024	15	002	0638	2	RT 656	E RT 501*
5	0024	15	003	0432	2	W RT 501	RT 29*
5	0501	15	004	0833	1	W RT 24	RT 761
5	0501	15	005	0479	1	RT 761	RT 917****
5	0501	15	006	0348	1	RT 917	RT 633
5	0501	15	007	0292	1	RT 633	RT 40
5	0501	15	008	0085	1	RT 40	HALIF CL
5	0015	19	001	0166	1	PRINCEE CL	RT 360
5	0045	24	007	0353	1	RT 636	NCL FARMV*
5	0060	24	001	0602	2	POWHA CL	E RT 45*
5	0060	24	002	0243	2	E RT 45	W RT 600
5	0060	24	003	0242	2	W RT 600	RT 45
5	0360	41	007	0645	2	RT 360	N RT 501
5	0501	41	001	0097	1	STAUN BR	RT 40*
5	0501	41	004	0591	1	RT 603	RT 642*
5	0501	41	005	0723	1	RT 642	N RT 360

Number of links = 21

Average link length = 4.24 miles

2716

Table B-31: LYNCHBURG DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	0047	19	002	0704	1	N RT 649	RT 660*
6	0047	19	003	0443	1	RT 660	N RT 40*
6	0360	19	001	0175	2	PRINCEE CL	E RT 15
6	0360	19	003	0173	2	RT 92	STAUN BR*
6	2015	73	001	0222	1	RT 768	WCL FARMV
6	0307	73	001	0283	2	NATTO CL	RT 460**
6	0360	73	001	0556	2	NATTO CL	RT 696****
6	0360	73	002	0335	2	RT 696	RT 728**
6	0360	73	003	0536	2	RT 728	CHARL CL
6	0460	73	001	0444	2	NATTO CL	RT 307**
6	0460	73	003	0275	2	RT 460 B	RT 15
6	0460	73	006	0107	2	RT 460 B	APPOM CL

Number of links = 12

Average link length = 3.54 miles

Table B-32: LYNCHBURG DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	2029	05	003	0129	1	NCL LYNCH	RT 29
7	0029	05	004	0139	1	S RT 29 B	SCL AMHER
7	0029	05	003	0185	1	SCL AMHER	N RT 29 B
7	0029	05	002	0193	1	N RT 29 B	RT 151*
7	0029	05	001	0410	1	RT 151	TYE BR*
7	0058	41	001	0577	2	ARROW BR	RT 601*
7	0058	41	002	0481	2	RT 601	RT 360**
7	0058	41	003	0072	2	RT 360	RT 501
7	0058	41	004	0923	2	RT 501	RT 658****
7	0058	41	005	0658	2	RT 658	RT 119*
7	0058	41	006	0348	2	RT 119	PITTS CL
7	0129	41	001	0085	1	RT 501	S. BOSTON*
7	0360	41	001	0273	2	CHARLO CL	RT 92
7	0360	41	002	0279	2	RT 92	RT 607*
7	0360	41	003	0239	2	RT 607	RT 360*
7	0360	41	004	0529	2	RT 360	W RT 716
7	0360	41	005	0143	2	W RT 716	ECL BOSTON
7	0360	41	006	0045	2	SCL BOSTON	E RT 58
7	0029	62	006	0447	1	TYE RV	RT 56*
7	0029	62	005	0428	1	RT 56	S RT 29 B
7	0029	62	004	0082	1	S RT 29 B	N RT 29 B
7	0029	62	003	0651	1	N RT 29 B	S RT 6*
7	0029	62	001	0144	1	N RT 6	ALBEM CL
7	2460	73	001	0133	2	RT 460	ECL FARMV*
7	0015	73	002	0025	1	RT 15&460	RT 460
7	0015	73	003	0456	1	RT 460	S RT 15 B
7	0133	73	001	0015	1	RT 15	E RT 692*
7	0460	73	002	0428	2	RT 307	RT 460 B
7	0460	73	004	0558	2	W RT 15	RT 626*
7	0460	73	005	0583	2	RT 626	RT 460 B*

Number of links = 30

Average link length = 3.22 miles

2718

Table B-33: LYNCHBURG DISTRICT ROAD LINKS-Cluster 8

CLASS	A	B	C	D	E	START	END
8	2029	05	002	0230	1	S RT 29	RT 60*
8	0460	06	002	0528	2	RT 460 B	RT 630*
8	0460	06	003	0288	2	RT 630	RT 707*
8	0460	06	006	0328	2	RT 689	CAMPB CL*
8	2029	15	002	0032	1	STAUN BR	RT 43
8	2029	15	001	0330	1	RT 43	RT 29**
8	0029	15	004	0434	1	RT 29 B	RT 696
8	0029	15	003	0499	1	RT 696	RT 24
8	0460	15	002	0279	2	RT 24	RT 1017*
8	0460	15	003	0292	1	RT 1017	RT 726
8	2029	71	002	0232	1	RT 29	RT 924*
8	2029	71	001	0051	1	RT 924	STAUN BR*
8	0029	71	012	0039	1	NC LINE	SCL DANVIL
8	0029	71	006	0606	1	RT 29 B	S RT 29 B
8	0029	71	003	0308	1	N RT 29 B	RT 643
8	0029	71	002	0421	1	RT 643	RT 29 B*
8	0051	71	001	0456	2	WCL DANVIL	RT 58*
8	0058	71	001	0332	2	HALIF CL	RT 62*** (26)
8	0058	71	002	0239	2	RT 62	RT 734
8	0058	71	003	0196	2	RT 734	RT 729
8	0058	71	005	0418	2	WCL DANVIL	RT 51*
8	0058	71	006	0643	2	RT 51	RT 622

Number of links = 22

Average link length = 3.26 miles

2719

Table B-34: LYNCHBURG DISTRICT ROAD LINKS-Cluster 9

CLASS	A	B	C	D	E	START	END
9	0130	05	001	0591	2	RT 29	S RT 652
9	0015	14	004	0145	1	RT 20	RT 60*
9	0060	14	002	0403	2	RT 15	E RT 633*
9	0501	15	001	0309	1	SCL LYNCH	RT 916****
9	0501	15	002	0388	1	RT 916	E RT 24*
9	0501	15	003	0092	1	E RT 24	W RT 24*
9	0360	41	008	0201	2	S RT 501	RT 654
9	0360	41	009	0258	2	RT 654	RT 681*
9	0501	41	006	0078	1	N RT 360	S RT 360*
9	0501	41	010	0463	1	RT 58	RT 658*
9	0501	41	011	0385	1	RT 658	RT 96*
9	0041	71	007	0048	1	WCL DANVIL	RT 743
9	0041	71	006	0155	1	RT 743	RT 1535*
9	0041	71	005	0346	1	RT 1535	RT 835*
9	0086	71	001	0113	1	SCL DANVIL	NC LINE
9	2015	73	002	0083	1	SCL FARMV	RT 15
9	0015	73	004	0282	1	S RT 15 B	RT 133*
9	0015	73	005	0766	1	RT 133	RT 633
9	0015	73	006	0449	1	RT 633	CHARL CL*

Number of links = 19

Average link length = 2.92 miles

0720

Table B-35: LYNCHBURG DISTRICT ROAD LINKS-Cluster 10

CLASS	A	B	C	D	E	START	END
10	0029	05	009	0206	1	NCL LYNCH	N RT 29B
10	0029	05	008	0220	1	N RT 29B	RT 130
10	0029	05	007	0211	1	RT 130	RT 657
10	0029	05	006	0331	1	RT 657	RT 663*
10	0029	05	005	0272	1	RT 663	S RT 29 B*
10	0460	06	004	0236	2	RT 707	RT 24
10	0460	06	005	0472	2	RT 24	RT 689
10	0015	14	005	0546	1	RT 60	RT 600
10	0015	14	006	0930	1	RT 600	PRINCEE CL*
10	0029	15	002	0241	1	RT 24	RT 738*
10	0029	15	001	0432	1	RT 738	RT 224*** (3)
10	0460	15	001	0011	2	APPOM CL	RT 24*
10	0460	15	004	0146	1	RT 726	ECL LYNCH
10	0460	15	005	0235	1	WCL LYNCH	RT 892
10	0460	15	006	0221	1	RT 892	BEDF CL
10	0501	41	007	0229	1	S RT 360	N RT 129*
10	0501	41	008	0080	1	N RT 129	NCL BOSTON
10	0501	41	009	0046	1	SCL BOSTON	RT 58
10	0029	71	011	0424	1	NCL DANVIL	RT 726
10	0029	71	010	0140	1	RT 726	RT 640
10	0029	71	009	0349	1	RT 640	RT 718*
10	0029	71	008	0337	1	RT 718	RT 29 B
10	0058	71	004	0220	2	RT 729	ECL DANVIL

Number of links = 23

Average link length = 2.84 miles

9727

Table B-36: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	0242	29	001	0287	2	RT 611	RT 600*
1	2015	53	001	0237	1	RT 15	NCL LEESB
1	0287	53	002	0479	1	NCL LOVET	RT 693****
1	0287	53	003	0237	1	RT 693	RT 9*
1	0287	53	004	0376	1	RT 9	RT 7*
1	0055	76	002	0370	2	RT 15	FAUQU CL*

Number of links = 6

Average link length = 3.31 miles

Table B-37: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 2

CLASS	A	B	C	D	E	START	END
2	2007	53	001	0453	2	WCL LEESB	RT 7
2	0009	53	001	0307	1	W VA LINE	RT 671*
2	0009	53	002	0233	1	RT 671	RT 690*
2	0009	53	003	0238	1	RT 690	RT 287
2	0009	53	004	0310	1	RT 287	RT 704*
2	0009	53	005	0217	1	RT 704	RT 7****
2	0015	53	001	0997	1	SE POTOMA	RT 15 B*
2	0015	53	002	0233	1	RT 15 B	NCL LEESB
2	0015	53	003	0034	1	SCL LEESB	NCL LEESB*
2	0015	53	007	0258	1	RT 50	NE BULL
2	0050	53	005	0105	2	RT T626	WCL MIDDLE*
2	0050	53	006	0222	2	WCL MIDDLE	RT 611*
2	0050	53	007	0299	2	RT 611	RT 623
2	0050	53	008	0542	2	RT 623	RT 17*
2	0287	53	001	0175	1	SEPO BR	NCL LOVET*

Number of links = 15

Average link length = 3.08 miles

2733

Table B-38: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	0029	29	004	0320	1	PRINCEW CL	RT 66
3	0015	76	001	0217	1	NE BULL	RT 701
3	0015	76	002	0208	1	RT 701	RT 234****
3	0015	76	003	0382	1	RT 234	E RT 66 B*
3	0015	76	004	0023	1	E RT 66 B	RT 55
3	0015	76	005	0277	1	RT 55	RT 29&211*
3	0029	76	001	0539	1	RT 66	BULLE BR*
3	0055	76	001	0233	2	RT 29	RT 15
3	0215	76	002	0368	2	FAUQU CL	RT 658*
3	0215	76	001	0345	2	RT 658	RT 28
3	0234	76	002	0226	1	RT 29&211	RT 659**
3	0234	76	001	0532	1	RT 659	RT 15**
3	0253	76	001	0079	2	RT T1203	RT 9344

Number of links = 13

Average link length = 2.88 miles

Table B-39: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	0028	29	003	0388	1	RT 66	RT 50*
4	0028	76	005	0218	1	FAUQU CL	RT 652*
4	0028	76	004	0297	1	RT 652	RT 215
4	0028	76	003	0204	1	RT 215	WCL MANAS*
4	0123	76	001	0025	1	NE OCCOQ	RT 1203
4	0234	76	011	0055	1	RT 1	E RT 95
4	0234	76	009	0155	1	RT 1450	RT 643****
4	0234	76	008	0442	1	RT 643	RT 619
4	0234	76	007	0269	1	RT 619	RT 766
4	0234	76	006	0248	1	RT 766	RT 688
4	0234	76	005	0206	1	RT 688	SCL MANAS**
4	0234	76	003	0124	1	RT 66	RT 29&211

Number of links = 12

Average link length = 2.19 miles .

Table B-40: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	1066	30	004	0421	2	WARREN CL	RT 688*
5	1066	30	003	0981	2	RT 688	RT 17
5	1066	30	002	0302	2	RT 17	RT 245
5	1066	30	001	0489	2	RT 245	PRC WM CL
5	1066	76	004	0383	2	FAUQU CL	RT 15****
5	1066	76	003	0255	2	RT 15	E RT 29

Number of links = 6

Average link length = 4.72 miles

Table B-41: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	0050	29	003	0206	2	RT 28	LOUDOUN CL
6	0007	53	005	0062	2	WCL LEESB	RT 699*
6	0007	53	006	0008	2	WCL LEESB	RT 7 B*
6	0007	53	008	0246	2	RT 9	RT 704
6	0007	53	009	0216	2	RT 704	RT 287*
6	0007	53	010	0067	2	RT 287	RT 7 B
6	0007	53	011	0417	2	RT 7 B	RT T719
6	0007	53	012	0034	2	RT T719	NCL ROUND
6	0007	53	013	0314	2	WCL ROUND	RT 760****
6	0007	53	014	0093	2	RT 760	CLARK CL*
6	0015	53	004	0130	1	SCL LEESB	NCL LEESB
6	0015	53	005	0255	1	SCL LEESB	RT 704*
6	0015	53	006	0782	1	RT 704	RT 50*
6	0028	53	002	0291	1	DULLE RD	RT 625
6	0028	53	001	0288	1	RT 625	RT 7
6	0050	53	001	0275	2	FAIRF CL	RT 606
6	0050	53	002	0625	2	RT 606	RT 15*
6	0050	53	003	0560	2	RT 15	ECL MIDDLE
6	0050	53	004	0095	2	ECL MIDDLE	RT T626*
6	0050	53	009	0111	2	RT 17	CLARKE CL*
6	0340	53	001	0057	1	SE POTOMA	W VA LINE

Number of links = 21

Average link length = 2.44 miles

0727

Table B-42: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	0007	53	002	0320	2	RT 28	RT 641*
7	0007	53	003	0242	2	RT 641	RT 653
7	0007	53	004	0182	2	RT 653	RT 15
7	0007	53	007	0247	2	RT 7 B	RT 9*** (53)
7	0028	53	003	0050	1	FAIRF CL	DULLE RD*

Number of links = 5

Average link length = 2.08 miles

Table B-43: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 8

CLASS	A	B	C	D	E	START	END
8	0001	29	001	0151	1	RT 242	RT I-95
8	0001	29	002	0083	1	RT I-95	PRINCEW CL
8	0028	29	001	0270	1	PRINCEW CL	RT 29*
8	0028	29	002	0054	1	RT 29	RT 66
8	0028	29	004	0412	1	RT 50	LOUDOUN CL*
8	0029	29	003	0083	1	RT 66	RT 28
8	0029	29	002	0310	1	RT 28	RT 2953*
8	0029	29	001	0226	1	RT 2953	WCL FAIRF*** (55)
8	0050	29	001	0247	2	RT 608	RT 645*
8	0050	29	002	0201	2	RT 645	RT 28*
8	0193	29	001	0302	2	RT 495	RT 676**
8	0193	29	002	0236	2	RT 676	RT 683
8	0193	29	003	0396	2	RT 683	RT 7**
8	0007	53	001	0383	2	FAIRF CL	RT 28*
8	0001	76	002	0149	1	RT 234	SCL DUMFR
8	0001	76	003	0215	1	RT 619	STAFF CL
8	0028	76	002	0026	1	ECL MANAS	SCL MANAS
8	0028	76	001	0213	1	NCL MANAS	NEBUL BR
8	0029	76	004	0083	1	FAUQU CL	RT 15
8	0029	76	003	0330	1	RT 15	RT 55*
8	0029	76	002	0054	1	RT 55	RT 66**
8	0123	76	002	0085	1	RT 1203	E RT 95
8	0234	76	010	0193	1	E RT 95	RT 1450

Number of links = 23

Average link length = 2.04 miles

Table B-44: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 9

CLASS	A	B	C	D	E	START	END
9	1066	00	002	0463	2	FARFX CL	RT 29
9	1066	00	001	0244	2	RT 29	RSVLT BR
9	1066	29	008	0307	2	PRINCEW CL	RT 29*
9	1066	29	007	0104	2	RT 29	RT 28
9	1066	29	006	0336	2	RT 28	RT 608***** (52)
9	1066	29	005	0134	2	RT 608	RT 50
9	1066	29	004	0212	2	RT 50	RT 123
9	1066	29	003	0239	2	RT 123	RT 243
9	1066	29	002	0252	2	RT 243	RT 495
9	1066	29	001	0313	2	RT 495	ARLNTN CL
9	1066	76	002	0425	2	E RT 29	RT 234*
9	1066	76	001	0170	2	RT 234	BULL BR*
9	1095	76	006	0240	1	CHOP CKBR	RT 619*
9	1095	76	005	0261	1	RT 619	RT 234*** (45)
9	1095	76	004	0241	1	RT 234	RT 610
9	1095	76	003	0332	1	RT 610	RT 639
9	1095	76	002	0198	1	RT 639	RT 123*
9	1095	76	001	0050	1	RT 784	NE OCCOQ

Number of links = 18

Average link length = 2.51 miles

Table B-45: NORTHERN VIRGINIA DISTRICT ROAD LINKS-Cluster 10

CLASS	A	B	C	D	E	START	END
10	1395	00	001	0437	1	ARLNTN CL	ROCH BR
10	1395	29	002	0240	1	I-95	ALEX CL*
10	1395	29	001	0290	1	ALEX CL	ARLNTN CL
10	1495	29	005	0284	1	I-95	RT 620*
10	1495	29	004	0168	1	RT 620	RT 236***
10	1495	29	003	0217	1	RT 236	RT 50
10	1495	29	002	0318	1	RT 50	RT 7
10	1495	29	001	0463	1	RT 7	MD ST LINE

Number of links = 8

Average link length = 3.02 miles

Table B-46: RICHMOND DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	1085	12	001	0055	1	DNWDDIE CL	RT 712
1	1085	12	002	0479	1	RT 712	RT 630
1	1085	12	003	0631	1	RT 630	RT 1**
1	1085	12	004	0126	1	RT 1	RT 46
1	1085	12	005	0297	1	RT 46	RT 644
1	1085	12	006	0497	1	RT 644	MEKLNBG CL
1	0295	20	001	0190	1	RT 10	PNC GEO CL
1	1085	26	003	0235	1	RT 1	RT 1
1	1085	26	005	0495	1	RT 703	RT 650
1	1085	26	006	0596	1	RT 650	RT 40****
1	1085	26	007	0251	1	RT 40	NOTT BR
1	1064	37	004	0500	2	LOUISA CL	RT 629
1	1064	37	005	0392	2	RT 629	RT F087*
1	1064	37	006	0126	2	RT F087	LOUISA CL
1	1295	43	006	0406	2	I-64	RT 33
1	1295	43	005	0332	2	RT 33	WDMAN RD
1	1295	43	004	0205	2	WDMAN RD	I-95*
1	1085	58	001	0422	1	BRNSWCK CL	RT 1*
1	1085	58	002	0279	1	RT 1	RT 58

Number of links = 19

Average link length = 3.43 miles

Table B-47: RICHMOND DISTRICT ROAD LINKS- Cluster 2

CLASS	A	B	C	D	E	START	END
2	0360	04	001	0337	2	CHSTFLD CL	RT 604
2	0360	04	002	0277	2	RT 604	RT 360 BUS
2	0360	04	003	0264	2	RT 360 BUS	RT 681*** (29)
2	0360	04	004	0855	2	RT 681	RT 307
2	0360	04	005	0049	2	RT 307	NOTTWAY CL
2	2360	04	001	0294	2	EINT RT360	WINT RT360
2	0046	12	005	0063	1	CL LWRNCVL	RT 58 BUS
2	0058	12	001	0692	2	GREENSVLCL	RT 712*
2	0058	12	002	0298	2	RT 712	RT 58 BUS
2	0156	18	001	0434	1	HENRICO CL	RT 5
2	0360	20	004	0284	2	RT 730	RT 603
2	0360	20	005	0516	2	RT 603	AMELIA CL
2	0460	26	001	0082	2	RT 226	RT 632
2	0460	26	002	0200	2	RT 632	RT 743
2	0460	26	003	0025	2	RT 743	RT 708**
2	0301	42	003	0257	1	RT 651	RT 653
2	0360	42	001	0435	2	KING WM CL	RT 606
2	0015	58	003	0307	1	RT 58	RT 722
2	0047	58	002	0594	2	RT 49	RT 600
2	0047	58	003	0146	2	RT 600	RT 660
2	0058	58	010	0083	2	CL CLARKSV	RT 15
2	0058	58	011	0097	2	RT 15	CL CLARKSV*
2	0058	58	012	0175	2	CL CLARKSV	RT 49
2	0058	58	013	0297	2	RT 49	RT 735*
2	0058	58	014	0298	2	RT 735	HALIFAX CL
2	0460	67	006	0222	2	RT 1005	RT 49
2	0460	67	007	0205	2	RT 49	RT 723
2	0060	72	001	0222	2	CHSFLD CL	RT 676
2	0060	72	002	0288	2	RT 676	RT 622*
2	0060	72	003	0501	2	RT 622	RT 300
2	0060	72	004	0187	2	RT 300	RT 522*
2	0010	74	002	0255	2	RT 609	RT 641
2	0010	74	003	0226	2	RT 641	RT 156*
2	0460	74	001	0420	1	ECL PETBRG	RT 156
2	0460	74	002	0351	1	RT 156	RT 625
2	0460	74	003	0269	1	RT 625	SUSSEX CL

Number of links = 36

Average link length = 2.92 miles

2732

Table B-48: RICHMOND DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	0156	18	002	0131	1	RT 5	PNC GEO CL
3	0010	20	001	0060	2	SCL RICHMD	RT 150*
3	0060	20	002	0489	2	RT 754	POWHTN CL*
3	0144	20	001	0224	1	RT 619	RT 1136
3	0145	20	001	0281	2	RT 10	RT 144
3	0001	26	001	0327	1	RT 613 S	RT 740
3	0033	43	002	0061	1	RT 157	I-295*
3	0060	43	001	0301	2	N I-295	E 156*** (1)
3	0060	43	002	0188	2	E RT 156	I-295
3	0060	43	003	0099	2	I-295	WHTSIDE RD*
3	0250	43	002	0311	2	I-64	GOOCHLD CL
3	0522	37	001	0625	1	LOUISA CL	RT 6
3	0001	42	001	0168	1	CAROLIN CL	RT 684*
3	0001	42	002	0325	1	RT 684	RT 738
3	0156	42	004	0233	1	RT 643	HENRICO CL*
3	0030	63	003	0460	2	RT 33	KING WM CL*
3	0060	63	005	0091	2	RT 33	HENRICO CL
3	0049	67	002	0241	1	RT 460	RT 633*

Number of links = 18

Average link length = 2.56 miles

19734
 Table B-49: RICHMOND DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	1085	26	001	0097	1	RT 95	JOHNSON RD
4	1085	26	002	0368	1	JOHNSON RD	RT 1
4	1085	26	004	0790	1	RT 1	RT 703*
4	1064	37	001	0165	2	HENRICO CL	RT 623
4	1064	37	002	0659	2	RT 623	RT 617*
4	1064	37	003	0489	2	RT 617	LOUISA CL*
4	1064	43	002	0240	2	I-295	GOOCHLD CL*
4	1295	42	005	0119	2	WE CHIC RV	RT 301
4	1295	42	004	0260	2	RT 301	RT 627*
4	1295	42	003	0160	2	RT 627	RT 360
4	1295	42	002	0259	2	RT 350	RT 615
4	1295	42	001	0228	2	RT 615	HENRICO CL
4	1295	43	003	0114	2	I-95	WE CHIC RV*
4	1295	43	002	0318	2	HENRICO CL	I-64
4	1295	43	001	0080	2	I-64	RT 60*
4	1085	58	003	0810	1	RT 58	RT 903***** (33)
4	1085	58	004	0441	1	RT 903	NC ST LINE
4	1064	63	001	0392	2	JMES CI CL	RT 33*
4	1095	74	005	0646	1	SUSSEX CL	RT 35
4	1095	74	004	0411	1	RT 35	RT 301
4	1095	74	003	0236	1	RT 301	RT 629*** (34)

Number of links = 21

Average link length = 3.47 miles

Table B-50: RICHMOND DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	0001	20	001	0258	1	RT 618	RT 620
5	0010	20	002	0122	2	RT 150	RT 638
5	0010	20	003	0494	2	RT 638	RT 655
5	0010	20	004	0475	2	RT 655	RT 749
5	0010	20	005	0207	2	NE APPO RB	RT 746*
5	0010	20	006	0235	2	RT 746	RT 618
5	0010	20	007	0243	2	RT 618	I-95
5	0060	20	001	0226	2	RT 147	RT 754*** (9)
5	0360	20	001	0349	2	RT 653	RT 652
5	0360	20	002	0190	2	RT 652	RT 702*
5	0360	20	003	0378	2	RT 702	RT 730*
5	0001	43	001	0150	1	SE CHIK RB	I-295*
5	0033	43	003	0218	1	HUNGARY RD	RT 157
5	0001	42	003	0275	1	RT 738	NCL ASHLND*
5	0001	42	004	0215	1	SCL ASHLND	RT 802
5	0001	42	004	0241	1	RT 802	HENRICO CL
5	0030	42	001	0100	2	CAROLIN CL	RT 688
5	0030	42	002	0050	2	RT 688	I-95
5	0054	42	003	0401	2	RT 687	RT 671
5	0301	42	004	0127	1	RT 653	RT 643*
5	0301	42	005	0130	1	RT 643	RT 640
5	0360	42	002	0334	2	RT 606	RT 615
5	0360	42	003	0274	2	RT 615	RT 643
5	0010	74	001	0793	2	SURRY CL	RT 60S

Number of links = 24

Average link length = 2.70 miles

Table B-51: RICHMOND DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	1064	43	001	0472	2	SKIPERDUP	I-295*
6	1095	42	001	0320	1	CAROLIN CL	RT 30*
6	1095	42	002	0605	1	RT 30	RT 54*
6	1095	42	003	0269	1	RT 54	RT 802*
6	1095	42	004	0266	1	RT 802	RT 656****
6	1095	42	005	0191	1	RT 656	I-295*
6	1095	42	006	0150	1	I-295	RT 73*
6	1095	43	004	0578	1	CHESTFD CL	RT 195
6	1095	43	003	0374	1	RT 195	RT 73
6	1095	43	002	0154	1	RT 73	I-295
6	1095	43	001	0169	1	I-295	HANOVER CL
6	1064	63	002	0591	2	RT 33	RT 155*
6	1064	63	003	0347	2	RT 155	RT 609*
6	1064	63	004	0577	2	RT 609	RT 249&33*
6	1064	63	005	0108	2	RT 249&33	EE CHIC RB
6	1095	74	002	0347	1	RT 629	RT 460
6	1095	74	001	0187	1	RT 460	CHESTFD CL

Number of links = 17

Average link length = 3.36 miles

Table B-52: RICHMOND DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	0153	04	001	0167	1	RT 360	RT 628
7	0153	04	002	0112	1	RT 628	RT 38*
7	0153	04	003	0301	1	RT 38	RT 708
7	0153	04	004	0470	1	RT 708	NOTTWAY CL
7	0001	12	001	0408	1	RT 630 S	NCL ALBRTA
7	0001	12	003	0019	1	SCL ALBRTA	I-85*
7	0001	12	114	0146	1	I-85	RT 46*
7	0046	12	001	0471	1	NOTTWAY CL	RT 616 S
7	0046	12	002	0726	1	RT 616 S	I-85*
7	0046	12	010	0287	1	RT 58	RT 715*
7	0046	12	011	0426	1	RT 715	RT 611
7	0046	12	012	0271	1	RT 611	RT 665
7	0046	12	013	0659	1	RT 665	NC ST LINE
7	0136	12	001	0112	2	RT 1	WCL ALBRTA*
7	0137	12	001	0356	2	LUNENBG CL	RT 46
7	0155	18	001	0275	1	NEW KNT CL	RT 612
7	0155	18	002	0367	1	RT 612	RT 5*
7	0006	37	006	0601	2	RT 45	FLUVANN CL
7	0005	43	001	0172	2	CHAS CI CL	RT 156
7	0156	43	001	0486	1	OLD WMBG R	CHAS CI RD*** (13)
7	0156	43	002	0497	1	CHAS CI RD	RT 5
7	0250	37	003	0835	2	RT 670	RT 522**
7	0250	37	004	0728	2	RT 522	RT 606
7	0250	37	005	0343	2	RT 606	RT 605
7	0250	37	006	0286	2	RT 605	LOUISA CL
7	0054	42	001	0025	2	RT 301	RT 646
7	0054	42	002	0529	2	RT 646	I-95*
7	0156	42	001	0124	1	RT 643	RT 615*
7	0156	42	002	0167	1	RT 615	RT 718
7	0156	42	003	0290	1	RT 718	RT 643
7	0137	55	001	0467	2	BRNSWK CL	RT 138*
7	0137	55	002	0216	2	RT 138	RT 601
7	0137	55	003	0187	2	RT 601	RT 40*
7	0138	55	001	0983	1	RT 137	MECKLNBGCL
7	0001	58	004	0698	1	RT 58	RT 712
7	0049	58	002	0415	1	RT 92	RT 696
7	0049	58	003	0590	1	RT 696	RT 609*
7	0049	58	004	0206	1	RT 609	RT 15
7	0049	58	005	0864	1	RT 58	HALIFAX CL
7	0138	58	001	0327	1	LUNENBG CL	RT 1
7	0030	63	001	0078	2	JMES CI CL	RT 273*
7	0030	63	002	0342	2	RT 273	RT 33*
7	0155	63	001	0213	1	RT 249	I-64*
7	0155	63	002	0498	1	I-64	CHAS CI CL
7	0249	63	001	0295	2	RT 30	RT 626*
7	0249	63	002	0557	2	RT 626	RT 155*
7	0249	63	003	0373	2	RT 155	RT 609*
7	0249	63	004	0230	2	RT 609	RT 612*
7	0249	63	005	0441	2	RT 612	I-64
7	0046	67	001	0561	1	RT 40	BRUNS CL

Table B-52 (Cont.)

CLASS	A	B	C	D	E	START	END
7	0049	67	001	0189	1	RT 360	RT 460
7	0049	67	003	0859	1	RT 633	LUNENBG CL*
7	0153	67	001	0652	1	RT 460	AMELIA CL*
7	2360	67	001	0044	2	RT 460	RT 628
7	2360	67	002	0021	2	RT 628	RT T724
7	2360	67	003	0051	2	RT T724	RT 460*
7	2460	67	004	0120	2	RT 9457	RT 460
7	0013	72	001	0237	2	RT 60	RT 300*
7	0013	72	002	0028	2	RT 300	RT 1005
7	0013	72	003	0015	2	RT 1005	RT 726
7	0013	72	004	0351	2	RT 726	RT 609*
7	0013	72	005	0651	2	RT 609	RT 638
7	0013	72	006	0407	2	RT 638	CMBRLND CL
7	0300	72	001	0004	2	RT 300	RT 1002*
7	0300	72	002	0064	2	RT 60	RT 13*
7	0156	74	005	0307	1	RT 460	RT 626
7	0156	74	006	0426	1	RT 626	RT 35
7	0301	74	002	0430	1	I-95	RT 156*
7	0301	74	003	0387	1	RT 156	RT 673
7	0301	74	004	0314	1	RT 673	SUSSEX CL

Number of links = 70

Average link length = 3.54 miles

2730

Table B-53: RICHMOND DISTRICT ROAD LINKS-Cluster 8

CLASS	A	B	C	D	E	START	END
8	0001	12	001	0539	1	DNWDDIE CL	RT 630 S
8	0001	12	005	0320	1	RT 46	RT 644*
8	0001	12	006	0432	1	RT 644	RT 657
8	0046	12	003	0059	1	I85	RT 1*
8	0046	12	004	0636	1	RT1	CL LWRNCVL
8	0046	12	006	0013	1	RT 58 BUS	RT 1009*
8	0046	12	007	0010	1	RT 1009	RT 1027
8	0046	12	008	0035	1	RT 1027	RT 1018
8	0046	12	009	0038	1	RT 1018	RT 58
8	0040	26	001	0519	2	SUSSEX CL	RT 619*
8	0040	26	002	0201	2	RT 619	RT 609
8	0040	26	003	0522	2	RT 609	RT 692****
8	0040	26	004	0050	2	RT 692	I-85*
8	0040	26	005	0145	2	I-85	RT 1002
8	0040	26	006	0271	2	RT 1002	RT 610
8	0040	26	007	0615	2	RT 610	RT 644
8	0040	26	008	0490	2	RT 644	NOTTOWY CL
8	0040	55	004	0391	2	RT 1009	RT 675
8	0040	55	005	1284	2	RT 675	CHRLTTE CL**
8	0045	37	001	0471	1	RT 6	PEMBERTON*
8	0049	55	001	0547	1	NOTTOWY CL	RT T1017**
8	0049	55	002	0402	1	RT T1017	RT 40
8	0049	55	003	1122	1	RT 40	MECKLNBGCL*
8	0004	58	001	0450	1	RT 58	RT 707*
8	0004	58	002	0652	1	RT 707	NC ST LINE*
8	0015	58	001	0683	1	CHRLTTE CL	RT 49*
8	0015	58	002	0159	1	RT 49	RT 58
8	0047	58	001	0566	2	CHRLTTE CL	RT 49
8	0047	58	004	0528	2	RT 660	RT 664*
8	0047	58	005	0770	2	RT 664	S HILL CL*
8	0049	58	001	0395	1	LUNENBG CL	RT 47
8	0058	58	007	0064	2	RT 92	RT 58 BUS*
8	0092	58	001	0612	1	CHRLTTE CL	RT 49*
8	0092	58	002	0088	1	RT 47	CL CHASE
8	0092	58	003	0957	1	CL CHASE	RT 58 BUS*
8	0040	67	001	0576	2	DNWDDIE CL	ECL BLKSTN*
8	2460	67	001	0317	2	RT 460	RT 40*
8	0522	72	002	0481	1	RT 711	RT 60
8	0035	74	003	0400	1	RT 156	SUSSEX CL
8	0156	74	004	0560	1	RT 106	RT 460

Number of links = 40

Average link length = 4.34 miles

Table B-54: RICHMOND DISTRICT ROAD LINKS-Cluster 9

CLASS	A	B	C	D	E	START	END
9	2058	12	001	0256	2	RT 750	RT 58
9	0001	26	002	0248	1	RT 740	RT 627 *
9	0001	26	003	0564	1	RT 627	RT 649
9	0001	26	004	0448	1	RT 649	RT 40
9	0001	26	005	0269	1	RT 40	BRUNSWK CL
9	0006	37	001	0492	2	EE TUCKACB	RT 662
9	0006	37	002	0590	2	RT 662	RT 628 *
9	0006	37	003	0493	2	RT 628	RT 522
9	0006	37	004	0521	2	RT 522	RT 600
9	0006	37	005	0647	2	RT 600	RT 45*
9	0271	37	001	0048	1	HENRICO CL	HANOVER CL
9	0005	43	002	0605	2	RT 156	MILL RD
9	0005	43	003	0408	2	MILL RD	OSBORN TPK*
9	0005	43	004	0126	2	OSBORN TPK	C&O RR
9	0033	43	001	0038	1	I-295	HANVR CL*
9	0157	43	001	0025	1	RT 33	FRANCISTN
9	0157	43	002	0256	1	FRANCISTN	HUNGARY RD * * * *
9	0250	43	001	0195	2	RT 157	I-64*
9	0271	43	001	0370	1	RT 250	GOOCHLD CL
9	0250	37	001	0150	2	WE LTTL CB	RT 623*
9	0250	37	002	0626	2	RT 623	RT 670
9	0522	37	002	0228	1	RT 6	POWHATN CL
9	0271	42	001	0326	1	GOOCHLD CL	RT 622
9	0001	58	001	0376	1	BRNSWCK CL	I-85
9	0001	58	002	0046	1	I-85	RT 138
9	0001	58	003	0081	1	RT 138	NCL S HILL*
9	0060	63	001	0855	2	JMES CI CL	RT 155
9	0060	63	002	0288	2	RT 155	RT 615
9	0060	63	003	0262	2	RT 615	RT 609
9	0060	63	004	0403	2	RT 609	RT 33
9	0360	67	001	0417	2	AMELIA CL	RT 49
9	0360	67	002	0246	2	RT 49	RT 723
9	0360	67	003	0066	2	RT 723	RT 460 BUS
9	0360	67	005	0112	2	RT 621	PRNC ED CL
9	2460	67	003	0389	2	RT 658	RT 9457
9	0106	74	001	0150	1	RT 156	RT 616
9	0106	74	002	0044	1	RT 616	RT 1510
9	0106	74	003	0042	1	RT 1510	RT 634
9	0106	74	004	0250	1	RT 634	ECL PETRBG
9	0156	74	002	0224	1	SCL HOPEWL	RT 674S
9	0156	74	003	0089	1	RT 674	RT 106
9	0301	74	001	0215	1	SCL PETRBG	I-95*

Number of links = 42

Average link length = 2.97 miles

Table B-55: RICHMOND DISTRICT ROAD LINKS-Cluster 10

CLASS	A	B	C	D	E	START	END
10	0307	04	001	0107	1	RT 360	NOTTWAY CL
10	0058	12	003	0288	2	RT 58 BUS	RT 694
10	0058	12	004	0957	2	RT 694	ECL BRODNX
10	0058	12	005	0074	2	ECL BRODNX	MECKLNBGCL
10	0005	18	001	0950	2	JMS CIT CL	RT 632
10	0005	18	002	0378	2	RT 632	RT 155
10	0005	18	003	0568	2	RT 155	RT 609
10	0005	18	004	0369	2	RT 609	RT 156
10	0460	26	004	0212	2	RT 708	RT 628
10	0460	20	005	0236	2	RT 628	RT 627
10	0460	26	006	0329	2	RT 627	RT 611*
10	0460	26	007	0232	2	RT 611	RT 622
10	0460	26	008	0327	2	RT 622	RT 625
10	0460	26	009	0684	2	RT 625	NOTTOWY CL****
10	0006	43	001	0104	2	PUMP RD	EE TUCK CB*
10	0040	55	001	0456	2	NOTTOWY CL	RT 137
10	0040	55	002	0089	2	RT 137	RT 697
10	0040	55	003	0512	2	RT 697	RT 1009*
10	0030	42	003	0070	2	I-95	RT 1
10	0033	42	001	0550	2	HENRICO CL	RT 670*
10	0033	42	002	0172	2	RT 670	RT 671
10	0033	42	003	0399	2	RT 671	RT 657
10	0033	42	004	0217	2	RT 657	RT 715
10	0033	42	005	0395	2	RT 715	LOUISA CL*
10	0054	42	004	0367	2	RT 671	RT 33
10	0301	42	001	0183	1	CAROLIN CL	RT 1002
10	0301	42	002	0274	1	RT 1002	RT 651
10	0015	58	004	0437	1	RT 722	NC ST LINE
10	0058	58	001	0244	2	BRNSWCK CL	RT 644*
10	0058	58	002	0236	2	RT 644	S HILL CL
10	0058	58	003	0138	2	S HILL CL	E RT 1
10	0058	58	004	0423	2	W RT 1	RT 4
10	0058	58	005	0488	2	RT 4	RT 386
10	0058	58	006	0091	2	RT 386	RT 92*
10	0058	58	008	0946	2	RT 58 BUS	RT 15&49
10	0058	58	009	0089	2	RT 15	CL CLARKSV
10	0033	63	001	0286	2	RT 249	I-64
10	0033	63	002	0042	2	I-64	RT 60
10	0040	67	002	0536	2	RT 701	LUNENBG CL
10	0307	67	001	0542	2	AMELIA CL	PRNC ED CL
10	0360	67	004	0174	2	RT 460 BUS	RT 621
10	0460	67	001	0371	2	DNWIDDE CL	RT 609
10	0460	67	002	0209	2	RT 609	RT 606
10	0460	67	003	0616	2	RT 606	RT 607
10	0460	67	004	0199	2	RT 607	RT 1006
10	0460	67	005	0030	2	RT 1006	RT 1005
10	0460	67	008	0018	2	RT 723	RT 360
10	0460	67	009	0299	2	RT 460	PRNC ED CL
10	2460	67	002	0202	2	RT 40	RT 658
10	0060	72	005	0535	2	RT 522	RT 629

Table B-55 (Cont.)

CLASS	A	B	C	D	E	START	END
10	0060	72	006	0409	2	RT 629	CMBRLND CL*
10	0522	72	001	0399	1	GOOCHLD CL	RT 711
10	0010	74	004	0207	2	RT 156	ECL HOPEWL
10	0035	74	001	0058	1	RT 605	I-95
10	0035	74	002	0014	1	I-95	RT 156
10	0156	74	001	0184	1	SE JMES RB	RT 10**

Number of links = 56

Average link length = 3.20 miles

Table B-56: SALEM DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	0024	09	001	0759	2	CAMPB CL	E RT 43*
1	0024	09	002	0266	2	E RT 43	W RT 43*
1	0024	09	003	0551	2	W RT 43	RT 122
1	0024	09	004	0373	2	RT 122	RT 801
1	0024	09	005	0453	2	RT 801	RT 746*
1	0043	09	005	0513	1	CAMPB CL	RT 626
1	0043	09	004	0249	1	RT 626	E RT 24*
1	0043	09	003	0834	1	W RT 24	SCL BEDFO*
1	0043	09	002	0379	1	NCL BEDFO	N RT 643
1	0043	09	001	0503	1	N RT 643	BR PARK
1	0122	09	001	0875	1	RT 501	RT 639*
1	0122	09	002	0805	1	RT 639	NCL BEDFO
1	0122	09	005	0209	1	RT 24	RT 801*
1	0122	09	006	0280	1	RT 801	RT 608
1	0122	09	007	0380	1	RT 608	STAUN BR
1	0460	09	001	0788	2	CAMPB CL	RT 803
1	0501	09	001	0433	1	JAMES BR	RT 122*
1	0501	09	002	0641	1	RT 122	RT 651
1	0501	09	003	0379	1	RT 651	NCL LYNCH*
1	Y043	11	001	0011	1	RT 220	RT 43*
1	0043	11	006	0475	1	BR PARKW	S RT 11
1	0043	11	005	0395	1	N RT 11	RT 630*
1	0043	11	004	0522	1	RT 630	S RT 688*
1	0043	11	003	0539	1	S RT 688	N RT 688*
1	0043	11	002	0047	1	N RT 688	RT 43Y*
1	0043	11	001	0174	1	RT 43Y	RT 220
1	0052	17	001	0446	1	WYTHE CL	RT 620
1	0052	17	002	0315	1	RT 620	RT 705
1	0052	17	003	0340	1	RT 705	RT 58*
1	0052	17	004	0701	1	RT 58	RT 148
1	0058	17	001	0823	2	FLOYD CL	RT 680*
1	0058	17	002	0846	2	RT 680	RT 221*
1	0094	17	001	0920	1	WYTHE CL	GRAYS CL
1	0097	17	002	0376	2	GRAYS CL	RT 713
1	0097	17	001	0451	2	RT 713	BR PARKW
1	0100	17	001	0812	2	RT 221	WYTHE CL*
1	0148	17	001	0087	2	RT 52	RT 77*
1	0221	17	002	0677	2	RT 100	RT 638
1	0221	17	001	0337	2	RT 638	FLOYD CL
1	0018	22	001	0512	2	ALLEG CL	RT 311*
1	0042	22	001	0474	2	RT 311	RT 645
1	0042	22	002	0899	2	RT 645	RT 626
1	0042	22	003	0792	2	RT 626	RT 629*
1	0042	22	004	0368	2	RT 629	GILES CL
1	0311	22	005	0956	1	ROANO CL	RT 42
1	0311	22	004	0520	1	RT 42	RT 658
1	0311	22	003	0740	1	RT 658	RT 602****
1	0311	22	002	0366	1	RT 602	RT 18*
1	0311	22	001	0339	1	RT 18	WVA LINE
1	0008	31	004	0034	1	PATRI CL	BR PARKW*

Table B-56 (Cont.)

CLASS	A	B	C	D	E	START	END
1	0008	31	003	0596	1	BR PATKW	RT 221
1	0058	31	001	0157	2	PATRI CL	CARRO CL
1	0221	31	007	0450	2	CARRO CL	RT 787
1	0221	31	003	0697	2	RT 860	RT 661*
1	0221	31	002	0379	2	RT 661	RT 642**
1	0221	31	001	0720	2	RT 642	ROANO CL
1	0040	33	001	0063	2	PITTS CL	RT 890
1	0040	33	011	0075	2	RT 622	RT 785
1	0040	33	012	0283	2	RT 785	PATRI CL
1	0122	33	001	0361	1	STAUN BR	RT 616
1	0122	33	002	0219	1	RT 616	RT 636*
1	0122	33	003	0446	1	RT 636	RT 116
1	0042	35	001	0311	2	CRAIG CL	RT 601*
1	0042	35	002	0099	2	RT 601	RT 460
1	0042	35	003	0795	2	RT 100	BLAND CL*
1	0061	35	003	0511	2	BLADE CL	W RT 724*
1	0061	35	002	0456	2	W RT 724	E RT 724*
1	0061	35	001	0396	2	E RT 724	RT 460
1	0100	35	004	0314	1	RT 42	RT 730*
1	0100	35	001	0472	1	RT 460 B	RT 61
1	2220	44	004	0085	1	RT 220	RT 87*
1	2220	44	005	0083	1	RT 87	RT 220*
1	0057	44	001	0298	2	PITTS CL	RT 647*
1	0057	44	002	0982	2	RT 647	E RT 58**
1	0008	70	005	0508	1	NC LINE	RT 103*
1	0008	70	003	0389	1	N RT 58	RT 57*
1	0008	70	002	0622	1	RT 57	RT 40
1	0008	70	001	0614	1	RT 40	FLOYD CL*
1	0057	70	002	0788	2	RT 346	RT 8*
1	0058	70	005	0943	2	N RT 8	RT 764
1	0058	70	006	0240	2	RT 764	BR PARKW
1	0058	70	007	0234	2	BR PARKW	FLOYD CL
1	0103	70	001	0900	2	RT 8	RT 773
1	0103	70	002	0443	2	RT 773	NC LINE*
1	0011	77	008	0385	1	WCL PULAS	RT 81
1	0221	80	004	0240	2	FLOYD CL	RT 708*
1	0311	80	001	0255	1	RT 785	CRAIG CL

Number of links = 87

Average link length = 4.69 miles

Table B-57: SALEM DISTRICT ROAD LINKS-Cluster 2

CLASS	A	B	C	D	E	START	END
2	0024	09	006	0215	2	RT 746	RT 755
2	0024	09	007	0204	2	RT 755	RT 635
2	0024	09	008	0490	2	RT 635	RT 651
2	0122	09	003	0319	1	SCL BEDFO	RT 747
2	0122	09	004	0406	1	RT 747	RT 24*
2	0011	11	001	0119	1	E RT 81	E RT 43
2	0011	11	002	0241	1	E RT 43	RT 625
2	0011	11	003	0234	1	RT 625	RT 81
2	0011	11	004	0604	1	RT 81	RT 640*
2	0011	11	005	0298	1	RT 640	RT 670
2	0011	11	006	0319	1	RT 670	RT 220
2	0220	11	001	0995	1	ALLEG CL	RT 43
2	0220	11	002	0215	1	RT 43	RT 43Y
2	0220	11	003	0679	1	RT 43Y	RT 635
2	0220	11	004	0467	1	RT 635	RT T630**
2	0052	17	005	0535	1	RT 148	RT 691
2	0052	17	006	0407	1	RT 691	NC LINE
2	0221	17	003	0144	2	RT 58	RT 100
2	0008	31	002	0437	1	RT 221	RT 730
2	0008	31	001	0615	1	RT 730	LITTL BR
2	0221	31	006	0291	2	RT 787	RT 750*** (25)
2	0221	31	005	0859	2	RT 750	RT 8
2	0221	31	004	0265	2	RT 8	RT 860
2	2220	33	001	0057	1	N RT 220	NCL ROCKY*
2	2220	33	002	0176	1	SCL ROCKY	S RT 220**
2	0040	33	002	0401	2	RT 890	RT 945
2	0040	33	003	0448	2	RT 945	RT 718
2	0040	33	004	0388	2	RT 718	RT 655*
2	0040	33	005	0273	2	RT 655	RT 122
2	0040	33	008	0888	2	WCL ROCKY	RT 602
2	0040	33	009	0405	2	RT 602	RT 605
2	0040	33	010	0477	2	RT 605	RT 622
2	0116	33	001	0358	1	ROANO CL	RT 678*
2	0116	33	002	0592	1	RT 678	RT 122*
2	0122	33	004	0714	1	RT 116	RT 40
2	2460	35	001	0248	2	RT 460	E RT 100
2	2460	35	002	0098	2	E RT 100	RT 460
2	0100	35	005	0137	1	PULAS CL	RT 42
2	0100	35	003	0499	1	RT 730	RT 665*
2	0100	35	002	0270	1	RT 665	RT 460 B
2	0219	35	001	0173	1	WVA LINE	RT 460
2	0460	38	009	0295	2	RT 61	RT T712*
2	0460	35	010	0073	2	RT T712	RT 219
2	0057	44	003	0241	2	WCL MARTN	RT 609
2	0057	44	004	0168	2	RT 609	RT 220
2	0057	44	007	0212	2	RT 57A	RT 904
2	0057	44	008	0374	2	RT 904	PATRI CL
2	0057	44	009	0262	2	RT 57 NEW	ECL MARTN*
2	0058	44	001	0138	2	PITTS CL	RT 610
2	0087	44	002	0382	1	RT 220 B	NC LINE*

Table B-57 (Cont.)

CLASS	A	B	C	D	E	START	END
2	0108	44	002	0219	1	NCL MARTN	RT 714
2	0108	44	001	0377	1	RT 714	RT 657
2	0174	44	001	0257	2	RT 220 B	RT 108
2	0008	60	002	0599	1	LITTLE BR	RT 658
2	0008	60	001	0326	1	RT 658	SCL CHRIS
2	0177	60	001	0233	1	S RT 600	SCL RADFO
2	0008	70	004	0417	1	RT 103	S RT 58
2	0057	70	001	0298	2	HENRY CL	RT 346*
2	0058	70	002	0363	2	RT 626	RT 680
2	0058	70	003	0424	2	RT 680	E RT 8*
2	0058	70	004	0355	2	E RT 8	N RT 8
2	0099	77	001	0264	2	RT 81	ECL PULAS
2	0100	77	002	0434	1	RT 11	RT 627
2	0100	77	001	0444	1	RT 627	GILES CL
2	0221	80	003	0165	2	RT 708	N RT 711
2	0311	80	002	0051	1	RT 779	RT 785

Number of links = 66

Average link length = 3.54 miles

Table B-58: SALEM DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	0221	09	004	0222	2	ECL BEDFO	RT 671
3	0221	09	003	0926	2	RT 671	RT 663
3	0221	09	002	0274	2	RT 663	RT 661**
3	0221	09	001	0232	2	RT 661	WCL LYNCH**
3	0460	09	002	0462	2	RT 803	RT 460 B
3	0460	09	003	0288	2	RT 460 B	W RT 460 B**
3	A220	11	002	0448	1	ROANO CL	W RT 11
3	A220	11	001	0016	1	E RT 11	RT 81
3	0011	11	008	0256	1	RT A220	RT 601*
3	0220	11	005	0326	1	RT T630	N RT 670*** (5)
3	0220	11	006	0369	1	N RT 670	N RT 779
3	0220	11	007	0160	1	N RT 779	RT 81
3	0058	17	003	0279	2	RT 221	RT 77
3	0058	17	004	0220	2	RT 77	RT 872
3	0058	17	005	0218	2	RT 872	RT 887
3	0058	17	006	0268	2	RT 887	ECL GALAX
3	0040	33	006	0095	2	RT 122	RT 220*
3	0220	33	005	0124	1	RT 220 B	RT 40
3	0220	33	006	0329	1	RT 40	RT 220 B
3	0220	33	007	0670	1	RT 220 B	RT 718
3	0220	33	008	0396	1	RT 718	RT 605
3	0220	33	009	0190	1	RT 605	HENRY CL
3	0460	35	001	0116	2	MONTG CL	RT 42
3	0460	35	002	0166	2	RT 42	RT 700
3	0460	35	003	0235	2	RT 700	RT 730
3	0460	35	004	0282	2	RT 730	RT 613
3	0460	35	005	0201	2	RT 613	RT T626
3	0460	35	006	0370	2	RT T626	RT 460 B
3	0460	35	007	0260	2	RT 460 B	RT 460 B*
3	0460	35	008	0461	2	RT 460 B	RT 61
3	0460	35	011	0248	2	RT 219	RT 806
3	0460	38	012	0081	2	RT 806	WVA LINE
3	A057	44	001	0122	2	RT 682	RT 903
3	A057	44	002	0287	2	RT 903	RT 57
3	0057	44	006	0283	2	RT 903	RT 57A
3	0058	44	002	0211	2	RT 610	RT 648
3	0058	44	003	0240	2	RT 648	RT 930
3	0058	44	004	0254	2	RT 930	RT 57
3	0058	44	007	0242	2	RT 58	RT 220*
3	0058	44	008	0251	2	RT 220	RT 687
3	0058	44	009	0326	2	RT 687	RT 695
3	0058	44	010	0272	2	RT 695	PATRI CL
3	0087	44	001	0028	1	RT 220	RT 220 B*
3	0220	44	001	0384	1	FRANK CL	RT 669
3	0220	44	002	0204	1	RT 669	RT 57&220
3	0220	44	003	0377	1	RT 57&220	RT 609*
3	0220	44	004	0385	1	RT 609	RT 58
3	0220	44	005	0386	1	RT 58	RT 220 B
3	0220	44	007	0131	1	N RT 220 B	S RT 220 B
3	0220	44	008	0305	1	S RT 220 B	NC LINE

Table B-58 (Cont.)

CLASS	A	B	C	D	E	START	END
3	0011	60	001	0245	1	ROANO CL	RT 631
3	0011	60	002	0319	1	RT 631	RT 753
3	0011	60	003	0685	1	RT 753	ECL CHRIS
3	0011	60	004	0082	1	WCL CHRIS	RT 662
3	0011	60	005	0233	1	RT 662	RT 663
3	0011	60	006	0245	1	RT 663	ECL RADFO
3	0011	60	007	0028	1	NEW BR E	NEW BR W
3	0114	60	001	0246	2	WCL CHRIS	RT 659
3	0114	60	002	0362	2	RT 659	RT 812*
3	0114	60	003	0102	2	RT 812	PULAS CL
3	0460	60	001	0262	2	RT 11	ECL CHRIS
3	0460	60	004	0346	2	NCL BLACKS	GILES CL
3	0460	67	002	0371	2	RT 412	NCL BLACK
3	0058	70	001	0659	2	HENRY CL	RT 626
3	0011	77	006	0248	1	S RT 100	RT 643
3	0011	77	007	0225	1	RT 643	ECL PULAS*
3	0100	77	004	0098	1	N RT 81	RT 682
3	0114	77	001	0177	2	NEW RV	RT 600
3	0011	80	002	0389	1	WCL SALEM	RT 647
3	0011	80	003	0193	1	RT 647	MONTG CL*
3	0221	80	002	0820	2	RT 711	RT 897
3	0311	80	004	0122	1	NCL SALEM	RT 419
3	0311	80	003	0670	1	RT 419	RT 779*
3	0419	80	001	0046	1	RT 81	RT 311

Number of links = 74

Average link length = 2.84 miles



Table B-59: SALEM DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	1077	17	003	0879	1	NC LINE	RT 148*
4	1077	17	002	0624	1	RT 148	RT 58*
4	1077	17	001	0926	1	RT 58	WYTHE CL*** (22)

Number of links = 3

Average link length = 8.10 miles

Table B-60: SALEM DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	0024	09	009	0008	2	RT 651	ROANO CL
5	0460	09	004	0342	2	W RT 460 B	RT 831
5	0460	09	005	0769	2	RT 831	RT 695*
5	0460	09	006	0418	2	RT 695	BOTET CL*
5	0011	11	007	0023	1	RT 220	RT A220*
5	0011	11	009	0004	1	RT 601	ROANO CL
5	0460	11	001	0299	2	BEDFO CL	BR PARKW*** (4)
5	0460	11	002	0250	2	BR PARKW	ROANO CL
5	0040	33	007	0007	2	RT 220	ECL ROCKY*
5	0220	33	001	0037	1	ROANO CL	RT 613
5	0220	33	002	0117	1	RT 613	NCL BOONE*
5	0220	33	003	0529	1	NCL BOONE	RT 697
5	0220	33	004	0373	1	RT 697	RT 220 B*
5	2220	44	001	0202	1	RT 57	RT 609*
5	2220	44	002	0229	1	RT 609	WCL MARTN
5	2220	44	003	0321	1	S RT 58	RT 220
5	0057	44	005	0101	2	W RT 220	RT 903
5	0058	44	005	0054	2	RT 57	ECL MARTN
5	0058	44	006	0065	2	SCL MARTN	RT 58
5	0220	44	006	0239	1	RT 220 B	N RT 220 B
5	0232	60	001	0058	1	RT 81	SCL RADFO*
5	0460	67	001	0342	2	SCL BLACK	RT 412*
5	0011	77	001	0046	1	NEW RV	RT 600
5	0011	77	002	0029	1	RT 600	RT 114
5	0011	77	003	0199	1	RT 114	RT 747*
5	0011	77	004	0268	1	RT 747	RT 1085
5	0011	77	005	0214	1	RT 1085	S RT 100
5	0100	77	005	0407	1	WYTHE CL	S RT 81
5	0100	77	003	0075	1	RT 682	RT 11
5	0114	77	002	0037	2	RT 600	RT 11*
5	0011	80	001	0319	1	BOTE CL	NCL ROANO
5	0024	80	001	0120	2	BEDFO CL	ECL VINTON*
5	0220	80	001	0610	1	BR PARKW	FRANK CL
5	0220	80	004	0191	1	RT 419	BR PARKW
5	0221	80	001	0022	2	RT 897	RT 1683
5	0419	80	002	0107	1	NCL SALEM	RT 81

Number of links = 36

Average link length = 2.06 miles

Table B-61: SALEM DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	1081	11	001	0307	1	ROANO CL	RT 220
6	1081	11	002	0613	1	RT 220	RT 640
6	1081	11	003	0587	1	RT 640	RT 11
6	1081	11	004	0434	1	RT 11	F-054
6	1081	11	005	0211	1	F-054	RT 614*
6	1081	11	006	0534	1	RT 614	ROCKB CL
6	1081	60	007	0049	1	PULAS CL	RT 232
6	1081	60	006	0288	1	RT 232	RT 665
6	1081	60	005	0615	1	RT 665	RT 8****
6	1081	60	004	0406	1	RT 8	RT 460
6	1081	60	003	0057	1	RT 460	NCL CHRIS
6	1081	77	005	0262	1	WYTHE CL	RT 11-100
6	1081	77	004	0433	1	RT 11-100	RT 99
6	1081	77	003	0265	1	RT 99	RT 644*
6	1081	77	002	0414	1	RT 644	RT 660
6	1081	77	001	0380	1	RT 660	MONTG CL

Number of links = 16

Average link length = 3.66 miles

Table B-62: SALEM DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	1081	60	002	0931	1	NCL CHRIS	RT 603*
7	1081	60	001	0213	1	RT 603	ROANO CL*
7	1081	80	007	0182	1	MONTG CL	RT 647
7	1081	80	006	0314	1	RT 647	RT 643
7	1081	80	005	0203	1	RT 643	RT 112*
7	1081	80	004	0429	1	RT 112	RT 419
7	1081	80	003	0231	1	RT 419	RT 581
7	1081	80	002	0298	1	RT 581	RT 815
7	1081	80	001	0045	1	RT 815	BOTE CL****

Number of links = 9

Average link length = 3.16 miles

Table B-63: SALEM DISTRICT ROAD LINKS-Cluster 8

CLASS	A	B	C	D	E	START	END
8	0220	80	002	0165	1	RT 24	WONJU ST
8	0220	80	003	0184	1	WONJU ST	RT 419 *
8	0419	80	005	0084	1	RT 220	RT 904
8	0419	80	004	0142	1	RT 904	RT 221****
8	0419	80	003	0318	1	RT 221	SCL SALEM *
8	0460	60	002	0094	2	ECL CHRIS	NCL CHRIS*
8	0460	60	003	0198	2	NCL CHRIS	SCL BLACKS*

Number of links = 7

Average link length = 1.69 miles

Table B-64: STAUNTON DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	0018	03	001	0404	2	SCL CVNGTN	RT 657*
1	0018	03	002	0322	2	RT 657	RT 614*
1	0018	03	003	0793	2	RT 614	RT 608*
1	0018	03	004	0277	2	RT 608	RT 607*
1	0042	03	001	0489	1	BATH CL	I-64*
1	0060	03	001	0093	2	I-64	ECL CLF FG**
1	0060	03	002	0038	2	WCL CLF FG	I-64****
1	0159	03	001	0296	1	I-64	RT 665*
1	0159	03	002	0876	1	RT 665	RT 311
1	0220	03	001	0828	1	BATH CL	RT 687*
1	0311	03	001	0662	1	W VA LINE	RT 159
1	0311	03	002	0587	1	RT 159	W VA LINE*
1	0252	07	004	0254	1	N RT 620	RT 682*
1	0252	07	003	0450	1	RT 682	RT 670
1	0254	07	003	0391	2	RT 608	RT 275*
1	0254	07	004	0398	2	RT 275	ECL STNTN
1	0055	34	001	0070	2	SHENAND CL	RT 600*
1	2211	69	002	0174	2	ECL LURAY	RT 340*
1	2211	69	003	0132	2	RT 340	RT 211*
1	0056	81	001	0374	2	NELSON CL	E RT 608*
1	0252	81	001	0422	1	RT 722	AUGUSTA CL*
1	0501	81	001	0634	1	SCL B-VIST	RT 130*
1	0259	82	001	0241	1	W VA LINE	RT 820
1	0340	82	004	0825	1	RT 649	RT 659*
1	0340	82	005	0234	1	RT 659	AUGUSTA CL
1	0042	85	006	0578	1	S RT 263	RT 767
1	0042	85	007	0291	1	RT 767	RCKNGHM CL*
1	0055	85	003	0348	2	I-81	W RT 628
1	0055	85	004	0530	2	W RT 628	FERDRCK CL

Number of links = 29

Average link length = 4.14 miles

Table B-65: STAUNTON DISTRICT ROAD LINKS-Cluster 2

CLASS	A	B	C	D	E	START	END
2	0011	07	010	0004	1	RT 56	RCKBRDG CL*
2	0042	07	001	0542	1	RCKNGHM CL	RT 607*
2	0042	07	002	0806	1	RT 607	N RT 250
2	0042	07	003	0282	1	S RT 250	RT 720
2	0042	07	004	0243	1	RT 720	RT 254
2	0042	07	005	0818	1	RT 254	RT 811
2	0042	07	006	0418	1	RT 811	RT 1101*
2	0042	07	007	0287	1	RT 1101	RCKBRDG CL*
2	0056	07	001	0017	2	RCKBRDG CL	RT 11
2	0250	07	009	0363	2	E RT 42	RT 736
2	0250	07	010	0686	2	RT 736	RT 629*
2	0250	07	011	0650	2	RT 629	HIGHLND CL
2	0252	07	005	0069	1	RCKBRDG CL	N RT 620
2	0252	07	002	0755	1	RT 670	RT 693
2	0252	07	001	0173	1	RT 693	SCL STNTN
2	0254	07	006	0266	2	RT 876	RT 42
2	0262	07	001	0147	2	I-81	RT 11*
2	0275	07	001	0078	2	RT 254	I-81
2	0039	08	001	0458	2	W VA LINE	RT 600*
2	0255	21	001	0305	1	RT 340	N RT 723
2	0255	21	002	0080	1	N RT 723	RT 50
2	0055	34	002	0483	2	RT 600	W VA LINE*
2	0127	34	001	0335	1	RT 522	W VA LINE*
2	0259	34	001	0499	2	RT 50	W VA LINE*
2	0277	34	001	0248	2	RT 522	RT 636*
2	0277	34	002	0204	2	RT 636	I-81
2	2211	69	001	0104	2	E RT 211	ECL LURAY
2	0211	69	002	0235	2	E RT 211B	RT 340
2	0211	69	003	0188	2	RT 340	W RT 211B
2	0340	69	001	0396	1	WARREN CL	RT 662
2	0340	69	002	0593	1	RT 662	RT 648*
2	0340	69	003	0124	1	RT 648	NCL LURAY*
2	0011	81	001	0540	1	AUGUSTA CL	RT 710
2	0011	81	002	0553	1	RT 710	I-81
2	0011	81	007	0845	1	RT 11 BUS	I-81
2	0011	81	008	0367	1	I-81	RT 130*
2	0011	81	009	0177	1	RT 130	I-81*
2	0039	81	005	0247	2	BATH CL	RT 42
2	0039	81	004	0134	2	RT 42	RT 780
2	0039	81	003	0869	2	RT 780	RT 602*
2	0039	81	002	0233	2	RT 602	RT 252
2	0039	81	001	0756	2	RT 252	RT 11
2	0042	81	001	0598	1	AUGUSTA CL	RT 39*
2	0056	81	002	0152	2	E RT 608	AUGUSTA CL
2	0060	81	001	0379	2	AMHERST CL	ECL B-VIST
2	0060	81	005	0208	2	WCL LEXING	RT 641*
2	0060	81	006	0319	2	RT 641	RT 631*
2	0060	81	007	0762	2	RT 631	E RT 780*
2	0060	81	008	0213	2	E RT 780	ALLGHNY CL
2	0130	81	001	0285	2	RT 501	RT 759*

Table B-65 (Cont.)

CLASS	A	B	C	D	E	START	END
2	0130	81	002	0319	2	RT 759	RT 11
2	0251	81	001	0105	2	WCL LEXNGT	RT 764
2	0251	81	002	0385	2	RT 764	W RT 675
2	0251	81	003	0443	2	W RT 675	RT 770
2	0252	81	002	0603	1	RT 39	RT 722*
2	0501	81	002	0252	1	RT 130	AMHERST CL
2	2042	82	001	0063	1	RT 42	N RT 290
2	2042	82	003	0012	1	S RT 290	RT 257
2	0033	82	010	0280	2	RT 613	RT 840
2	0033	82	011	1166	2	RT 840	W. VA LINE
2	0042	82	001	0297	1	SHENAN CL	RT T617*
2	0042	82	008	0287	1	S RT 257	AUGUSTA CL
2	0257	82	005	0278	2	W RT 731	E RT 613*
2	0257	82	004	0394	2	E RT 613	RT 738
2	0257	82	003	0231	2	RT 738	W RT 42 B*
2	0257	82	001	0076	2	E RT 11	RT 682*
2	0290	82	001	0033	2	NCL DAYTON	N RT 42 B
2	0290	82	002	0022	2	S RT 42 B	RT 42
2	0340	82	002	0294	1	SCL ELKTON	RT 754*
2	0340	82	003	0298	1	RT 754	RT 649
2	0042	85	004	0467	1	S RT 675	RT 703*
2	0042	85	005	0527	1	RT 703	S RT 263*** (56)
2	0055	85	002	0158	2	W RT 11	I-81*
2	0263	85	001	0631	2	RT 11	E RT 42*
2	0263	85	002	0478	2	W RT 42	RT 717*
2	0263	85	003	0171	2	RT 717	RT 659*
2	0055	93	001	0135	2	FAUQUIR CL	RT 79
2	0340	93	002	0251	1	N RT 613	PAGE CL*

Number of links = 78

Average link length = 3.48 miles

Table B-66: STAUNTON DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	1064	03	011	0730	2	W VA LINE	RT 661*
3	1064	03	010	0295	2	RT 661	RT 60&159*
3	1064	03	009	0441	2	RT 60&159	WCL CVNGTN
3	1064	03	004	0379	2	RT 60&384	RT 60&629**
3	1064	03	003	0175	2	RT 60&629	RT 42
3	1064	03	002	0642	2	RT 42	RT 269
3	1064	03	001	0508	2	RT 269	ROCKBRG CL*
3	1064	81	004	0211	2	ALLGHNY CL	RT 780*** (59)
3	1064	81	003	0737	2	RT 780	RT 60
3	1064	81	002	0543	2	RT 60	RT 11*
3	1064	81	001	0132	2	RT 11	I-81

Number of links = 11

Average link length = 4.36 miles

Table B-67: STAUNTON DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	0220	03	002	0161	1	RT 687	NCL CVNGTN**
4	0011	07	005	0039	1	RT 11 BUS	NCL STNTN
4	0011	07	008	0259	1	I-81	RT 675
4	0011	07	009	0524	1	RT 675	RT 56*
4	0250	07	001	0012	2	NELSON CL	I-64
4	0254	07	001	0201	2	WCL WYNSBR	RT 640
4	0254	07	002	0345	2	RT 640	RT 608
4	0256	07	001	0450	2	RCKNGHM CL	RT 276*** (6)
4	0256	07	002	0121	2	RT 276	I-81
4	0275	07	002	0152	2	I-81	RT 11
4	0276	07	001	0177	1	RT 256	RCKNGHM CL
4	0340	07	001	0272	1	RCKNGHM CL	RT 778
4	0340	07	002	0465	1	RT 778	RT 612
4	0340	07	003	0469	1	RT 612	NCL WYNSBR
4	0007	21	003	0152	2	RT 7 BUS	N RT 340
4	0340	21	001	0282	1	W VA LINE	RT 611
4	0340	21	002	0126	1	RT 611	RT 7
4	0340	21	003	0073	1	RT 7	RT 7 BUS
4	0340	21	004	0349	1	RT 7 BUS	RT 255
4	0340	21	005	0417	1	RT 255	RT 50
4	0340	21	006	0179	1	RT 50	RT 658
4	0340	21	007	0209	1	RT 658	RT 522
4	0050	34	008	0435	2	RT 751	W VA LINE*
4	0522	34	002	0326	1	RT 694	RT 127*
4	0522	34	004	0424	1	RT 600	RT 654
4	0211	69	001	0642	2	RAPPAHK CL	E RT 211B
4	0340	69	004	0219	1	SCL LURAY	RT 629
4	0340	69	005	0401	1	RT 629	RT T689
4	0340	69	006	0407	1	RT T689	RT 650
4	0340	69	007	0924	1	RT 650	RT T706
4	0011	81	003	0375	1	I-81	RT 39
4	0259	82	001	0032	1	RT 42	RT 259*
4	2033	82	001	0172	2	RT 340	RT 33
4	2042	82	002	0007	1	N RT 290	S RT 290
4	2042	82	004	0003	1	RT 257	RT 42
4	0011	82	001	0596	1	SHENAN CL	I-81
4	0033	82	001	0631	2	GREENE CL	RT 340&33B
4	0033	82	002	0156	2	RT 340&33B	RT 33B
4	0033	82	009	0570	2	WCL HRSNBG	RT 613
4	0211	82	001	0069	2	ECL TIMBER	RT 42
4	0256	82	001	0110	2	RT 340	AUGUSTA CL*
4	0259	82	002	0733	1	RT 820	RT 612
4	0259	82	003	0361	1	RT 612	E RT 613
4	0259	82	004	0339	1	E RT 613	W RT 42
4	0259	82	005	0204	1	E RT 42	RT 619
4	0259	82	006	0233	1	RT 619	RT 11
4	0276	82	003	0300	1	AUGUSTA CL	RT 682*
4	0276	82	002	0246	1	RT 682	RT 659
4	0276	82	001	0220	1	RT 659	RT 33*
4	0290	82	003	0015	2	RT 42	ECL DAYTON

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Table B-67 (Cont.)

CLASS	A	B	C	D	E	START	END
4	0011	85	001	0101	1	CEDAR CK	I-81
4	0011	85	002	0194	1	I-81	S RT 55
4	0011	85	009	0252	1	RT 263	RT 730
4	0011	85	010	0190	1	RT 730	RT 767
4	0011	85	011	0219	1	RT 767	N RT 211
4	0011	85	013	0116	1	S RT 211	RCKNGHM CL
4	0042	85	002	0132	1	I-81	RT 605*
4	0042	85	003	0448	1	RT 605	S RT 675
4	0055	85	001	0217	2	WARREN CL	E RT 11*
4	0185	85	001	0100	1	RT 686	RT 11
4	0211	85	003	0144	2	I-81	RCKNGHM CL*
4	0011	93	001	0019	1	FREDRCK CL	CEDAR CK
4	0055	93	002	0298	2	RT 79	ECL FR ROY
4	0055	93	003	0230	2	NCL FR ROY	RT 626
4	0055	93	004	0491	2	RT 626	SHENAN CL
4	0340	93	001	0891	1	SCL FR ROY	N RT 613
4	0522	93	001	0347	1	RT 340	RT 802
4	0522	93	002	0403	1	RT 802	I-66
4	0522	93	004	0377	1	SCL FR ROY	RAPP CL

Number of links = 69

Average link length = 2.86 miles

Table B-68: STAUNTON DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	0011	07	001	0190	1	RCKNGHM CL	RT 256*
5	0011	07	002	0212	1	RT 256	RT 750
5	0011	07	003	0517	1	RT 750	S RT 612
5	0011	07	006	0412	1	SCL STNTN	RT 654
5	0011	07	007	0442	1	RT 654	I-81
5	0250	07	002	0187	2	I-64	ECL WYNSBR
5	0250	07	007	0200	2	WCL STNTN	RT 732
5	0250	07	008	0345	2	RT 732	E RT 42*
5	0254	07	005	0459	2	WCL STNTN	RT 876*
5	0261	07	001	0068	1	NCL STNTN	SCL STNTN
5	0340	07	004	0144	1	WCL WYNSBR	I-64
5	0340	07	005	0207	1	I-64	RT 632*
5	0340	07	006	0200	1	RT 632	RT 649
5	0340	07	007	0234	1	RT 649	RT 654
5	0340	07	008	0584	1	RT 654	RT 11
5	2007	21	001	0139	2	RT 7	RT 340*
5	2007	21	002	0166	2	RT 340	RT 7
5	0007	21	001	0251	2	LOUDOUN CL	RT 606
5	0007	21	002	0416	2	RT 606	RT 7 BUS*
5	0007	21	004	0155	2	N RT 340	RT 7 BUS
5	0007	21	005	0380	2	RT 7 BUS	FREDRCK CL
5	0050	21	001	0344	2	FAUQUIR CL	RT 723
5	0050	21	002	0197	2	RT 723	RT 255
5	0050	21	003	0283	2	RT 255	RT 340
5	0050	21	004	0167	2	RT 340	FREDRCK CL*
5	0007	34	001	0369	2	CLARKE CL	ECL WNCHST
5	0011	34	001	0221	1	W VA LINE	RT 671****
5	0011	34	001	0262	1	RT 671	RT 761*
5	0011	34	003	0157	1	RT 761	I-81
5	0011	34	004	0152	1	I-81	NCL WNCHST
5	0011	34	005	0131	1	SCL WINCHS	RT 37
5	0011	34	006	0303	1	RT 37	RT 277
5	0011	34	007	0451	1	RT 277	RT 627
5	0011	34	008	0089	1	RT 627	SCL MDDL TN
5	0037	34	004	0308	2	I-81	RT 622*
5	0037	34	003	0232	2	RT 622	RT 50
5	0037	34	002	0168	2	RT 50	RT 522*
5	0037	34	001	0196	2	RT 522	RT 11
5	0050	34	001	0270	2	CLARKE CL	RT 723
5	0050	34	002	0273	2	RT 723	RT 522
5	0050	34	003	0015	2	RT 522	I-81*
5	0050	34	004	0009	2	WCL WINCHS	RT 37
5	0050	34	005	0279	2	RT 37	RT 803
5	0050	34	006	0245	2	RT 803	RT 614
5	0050	34	007	0480	2	RT 614	RT 751
5	0277	34	003	0020	2	I-81	RT 11
5	0522	34	001	0436	1	W VA LINE	RT 694*
5	0522	34	003	0535	1	RT 127	RT 600
5	0522	34	005	0280	1	RT 654	RT 37
5	0522	34	006	0135	1	RT 37	NCL WINCHS

Table B-68 (Cont.)

CLASS	A	B	C	D	E	START	END
5	0522	34	007	0240	1	RT 50	RT 644
5	0522	34	008	0216	1	RT 644	RT 642
5	0522	34	009	0284	1	RT 642	RT 277*
5	0340	69	008	0224	1	RT T706	ROCKGHM CL
5	0011	81	004	0018	1	RT 39	I-64
5	0011	81	006	0134	1	SCL LXNGTN	RT 11 BUS*
5	0060	81	002	0090	2	WCL B-VIST	W RT 608
5	0060	81	003	0209	2	W RT 608	I-81
5	0060	81	004	0218	2	I-81	ECL LEXING
5	0011	82	002	0196	1	I-81	RT 806
5	0011	82	003	0386	1	RT 806	RT 765
5	0011	82	004	0316	1	RT 765	NCL HRSNBG
5	0011	82	006	0130	1	RT 704	N RT 257*
5	0011	82	007	0361	1	N RT 257	AUGUSTA CL
5	0033	82	003	0312	2	RT 33B	RT 602
5	0033	82	004	0222	2	RT 602	RT 649
5	0033	82	005	0214	2	RT 649	RT 842
5	0033	82	006	0273	2	RT 842	RT 276
5	0042	82	002	0207	1	RT T617	N RT 259
5	0042	82	003	0062	1	N RT 259	S RT 259
5	0042	82	004	0573	1	S RT 259	RT 753*
5	0042	82	005	0512	1	RT 753	NCL HRSNBG
5	0257	82	002	0256	2	E RT 42	W RT 11
5	0340	82	001	0413	1	PAGE CL	SCL ELKTON
5	0011	85	003	0481	1	S RT 55	RT 651*
5	0011	85	004	0256	1	RT 651	RT 654
5	0011	85	005	0525	1	RT 654	RT 42
5	0011	85	006	0221	1	RT 42	RT 837
5	0011	85	007	0207	1	RT 837	RT 185
5	0011	85	008	0715	1	RT 185	RT 263*
5	0011	85	012	0027	1	N RT 211	S RT 211
5	0042	85	001	0061	1	RT 11	I-81
5	0211	85	001	0370	2	PAGE CL	RT 11
5	0211	85	002	0023	2	RT 11	I-81

Number of links = 84

Average link length = 2.60 miles

Table B-69: STAUNTON DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	1066	93	003	0677	2	I-81	RT 340&522*
6	1066	93	002	0653	2	RT 340&522	RT 79****
6	1066	93	001	0136	2	RT 79	FAUQUIR CL*

Number of links = 3

Average link length = 4.89 miles

Table B-70: STAUNTON DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	0039	08	002	0995	2	RT 600	RT 687*
7	0039	08	003	0297	2	RT 687	W RT 220
7	0039	08	004	0580	2	E RT 220	RT 630*
7	0039	08	005	0725	2	RT 630	RT 42*
7	0039	08	006	0573	2	RT 42	ROKBRDG CL*
7	0042	08	001	0554	1	RT 39	RT 632
7	0042	08	002	0603	1	RT 632	ALLEGNY CL*
7	0220	08	001	0410	1	HIGHLND CL	RT 623*
7	0220	08	002	0557	1	RT 623	RT 614
7	0220	08	003	0421	1	RT 614	N RT 39*
7	0220	08	004	0015	1	N RT 39	S RT 39
7	0220	08	005	0543	1	S RT 39	RT 658*
7	0220	08	006	0749	1	RT 658	ALLEGNY CL*** (58)
7	0084	45	001	0243	1	RT 220	RT 640*
7	0084	45	002	0655	1	RT 640	RT 600
7	0084	45	003	0592	1	RT 600	W VA LINE*
7	0220	45	001	0112	1	W VA LINE	RT 642
7	0220	45	002	0649	1	RT 642	RT 250*
7	0220	45	003	0389	1	RT 250	RT 84
7	0220	45	004	0347	1	RT 84	RT 607*
7	0220	45	005	0862	1	RT 607	BATH CL
7	0250	45	001	0917	2	AUGUSTA CL	E RT 678*
7	0250	45	002	0974	2	E RT 678	RT 220*
7	0250	45	003	0575	2	RT 220	RT 640
7	0250	45	004	0802	2	RT 640	W VA LINE*

Number of links = 25

Average link length = 5.66 miles

Table B-71: STAUNTON DISTRICT ROAD LINKS-Cluster 8

CLASS	A	B	C	D	E	START	END
8	1081	34	008	0200	1	WARREN CL	RT 627*
8	1081	34	007	0483	1	RT 627	RT 277
8	1081	34	006	0306	1	RT 277	RT 37*
8	1081	34	005	0348	1	RT 37	RT 50*
8	1081	34	004	0180	1	RT 50	RT 7
8	1081	34	003	0233	1	RT 7	RT 11
8	1081	34	002	0360	1	RT 11	RT 672
8	1081	34	001	0289	1	RT 672	W VA LINE
8	1081	81	008	0207	1	BOTETRT CL	RT 11
8	1081	81	007	0474	1	RT 11	RT 11
8	1081	81	006	0816	1	RT 11	RT 60
8	1081	81	005	0269	1	RT 60	I-64
8	1081	81	004	0371	1	I-64	RT 11*
8	1081	81	003	0551	1	RT 11	RT 710
8	1081	81	002	0450	1	RT 710	RT 606
8	1081	81	001	0046	1	RT 606	AUGUSTA CL
8	1081	82	009	0312	1	AUGUSTA CL	RT 257
8	1081	82	008	0331	1	RT 257	RT 11
8	1081	82	007	0261	1	RT 11	RT 659*** (15)
8	1081	82	006	0106	1	RT 659	SCL HRSNBG
8	1081	82	005	0018	1	NCL HRSNBG	WB RT 33
8	1081	82	004	0011	1	WB RT 33	SCL HRSNBG*
8	1081	82	003	0357	1	NCL HRSNBG	RT 724
8	1081	82	002	0569	1	RT 724	RT 11
8	1081	82	001	0600	1	RT 11	SHENAN CL
8	1081	85	010	0101	1	RCKNGHM CL	RT 211
8	1081	85	009	0415	1	RT 211	RT 730.
8	1081	85	008	0448	1	RT 730	RT 703*
8	1081	85	007	0391	1	RT 703	RT 614
8	1081	85	006	0179	1	RT 614	RT 185
8	1081	85	005	0401	1	RT 185	RT 42
8	1081	85	004	0814	1	RT 42	RT 651
8	1081	85	003	0517	1	RT 651	RT 55
8	1081	85	002	0173	1	RT 55	RT 11
8	1081	85	001	0186	1	RT 11	FREDRCK CL

Number of links = 35

Average link length = 3.36 miles

Table B-72: STAUNTON DISTRICT ROAD LINKS-Cluster 9

CLASS	A	B	C	D	E	START	END
9	1064	03	008	0140	2	WCL CVNGTN	ECL CVNGTN
9	1064	03	007	0057	2	ECL CVNGTN	RT 60
9	1064	03	006	0507	2	RT 60	RT 696*
9	1064	03	005	0235	2	RT 696	RT 60&384*
9	1064	07	005	0425	2	I-81	RT 608
9	1064	07	004	0307	2	RT 608	RT 340
9	1064	07	003	0210	2	RT 340	RT 624
9	1064	07	002	0309	2	RT 624	RT 250****
9	1064	07	001	0013	2	RT 250	NELSON CL*
9	1081	07	008	0767	1	RCKBRDG CL	RT 11*
9	1081	07	007	0472	1	RT 11	RT 654*
9	1081	07	006	0381	1	RT 654	I-64
9	1081	07	005	0080	1	I-64	RT 250*
9	1081	07	004	0311	1	RT 250	RT 275
9	1081	07	003	0200	1	RT 275	RT 612
9	1081	07	002	0768	1	RT 612	RT 256
9	1081	07	001	0168	1	RT 256	RCKNGHM CL

Number of links = 17

Average link length = 3.14 miles

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Table B-73: STAUNTON DISTRICT ROAD LINKS-Cluster 10

CLASS	A	B	C	D	E	START	END
10	0011	07	004	0245	1	S RT 612	RT 11 BUS
10	0250	07	003	0292	2	WCL WYNSBR	RT 608
10	0250	07	004	0200	2	RT 608	RT 1316*
10	0250	07	005	0244	2	RT 1316	I-81*
10	0250	07	006	0105	2	I-81	ECL STNTN
10	0011	82	005	0100	1	SCL HRSNBG	RT 704*
10	0033	82	007	0207	2	RT 276	RT 704*
10	0033	82	008	0019	2	RT 704	ECL HRSNBG
10	0042	82	006	0152	1	SCL HRSNBG	RT 42 BUS****
10	0042	82	007	0356	1	RT 42 BUS	S RT 257
10	0522	93	003	0089	1	I-66	NCL FR ROY

Number of links = 11

Average link length = 1.83 miles

Table B-74: SUFFOLK DISTRICT ROAD LINKS-Cluster 1

CLASS	A	B	C	D	E	START	END
1	2013	01	001	0185	1	N RT 13	RT 764
1	0178	01	004	0433	1	RT 615	S RT 180
1	0178	01	003	0193	1	S RT 180	RT 620
1	0180	01	001	0445	2	RT 1701	RT 13*
1	0180	01	002	0335	2	RT 13	N RT 178*
1	0181	01	001	0095	2	RT 13	RT 609*
1	0182	01	001	0371	2	RT 13	RT 605
1	0187	01	001	0173	2	E RT 679	RT 13
1	0187	01	002	0219	2	RT 13	RT 316
1	0187	01	003	0151	2	RT 316	RT 658*
1	0316	01	002	0323	1	RT 764	RT 176*
1	0316	01	001	0368	1	RT 176	RT 187*
1	0139	40	001	0076	2	SUSSEX CL	RT 610
1	0301	40	001	0277	1	SUSSEX CL	RT 614*
1	0301	40	005	0474	1	RT 629	NC LINE
1	2010	46	001	0214	1	RT 674	RT 10 B*
1	0030	47	001	0341	2	RT 64	RT 60
1	0030	47	003	0213	2	W RT 64	KENT CL
1	2189	61	001	0049	2	RT 58	RT 189*
1	0032	61	002	0496	1	NC LINE	RT 675
1	0125	61	001	0624	1	RT 337	RT 10*
1	0337	61	002	0341	1	RT 125	RT 642
1	0337	61	003	0302	1	RT 642	RT 13&58
1	2013	65	001	0214	1	RT 687	S RT 13
1	2013	65	002	0137	1	N RT 13	RT T631*
1	2013	65	003	0134	1	RT T631	S RT 13*
1	2013	65	004	0159	1	N RT 13	S RT 13
1	0183	65	001	0745	2	RT 13 B	END*
1	0035	87	001	0394	1	SUSSEX CL	RT 653
1	0035	87	002	0624	1	RT 653	RT 616
1	0186	87	002	0360	2	ECL BRANC	MEHER BR*
1	0189	87	002	0220	2	RT 714	RT 258*
1	0308	87	001	0365	1	RT 58	RT 612
1	0010	90	002	0790	1	S RT 31	RT 40*** (40)
1	0010	90	001	0545	1	RT 40	CHIPP BR
1	0031	90	001	0441	1	FERRY	N RT 10*
1	0031	90	002	0836	1	S RT 10	RT T643
1	0031	90	003	0266	1	RT T643	SUSSEX CL*
1	0040	90	001	0304	2	RT 10	RT 611*
1	0040	90	002	0597	2	RT 611	SUSSEX CL
1	0031	91	001	0366	1	SURRY CL	RT 460
1	0035	91	001	0446	1	PRINCEG CL	RT 626
1	0035	91	002	0581	1	RT 626	RT 40
1	0035	91	003	0748	1	RT 40	SOUTH A CL
1	0040	91	001	0311	2	SURRY CL	RT 460
1	0040	91	003	0675	2	RT 651	RT 35*
1	0040	91	004	0653	2	RT 35	RT 735
1	0040	91	005	0667	2	RT 735	RT 95
1	0040	91	006	0013	2	RT 95	RT 301
1	0040	91	007	0104	2	RT 301	RT 40 B

Table B-74 (Cont.)

CLASS	A	B	C	D	E	START	END
1	0040	91	008	0437	2 RT	40 B	DINWI CL
1	0139	91	001	0063	2 RT	301	RT 646
1	0139	91	002	0023	2 RT	646	GREENE CL*
1	0301	91	001	0369	1 RT	139	GREENE CL
1	0199	99	001	0101	2 RT	64	RT 641

Number of links = 55

Average link length = 3.52 miles

Table B-75: SUFFOLK DISTRICT ROAD LINKS-Cluster 2

CLASS	A	B	C	D	E	START	END
2	2013	01	002	0110	1	RT 764	RT 659
2	2013	01	003	0101	1	RT 659	RT 178&316*
2	2013	01	004	0177	1	RT 178&316	RT 13
2	0175	01	003	0352	2	RT 13	RT 798*
2	0175	01	002	0680	2	RT 798	RT 175Y
2	0175	01	001	0077	2	RT 175Y	RT 2126
2	0176	01	001	0258	1	RT 13	RT 316
2	0178	01	005	0439	1	NORTH CL	RT 615
2	0178	01	001	0138	1	RT 179	RT 316
2	0316	01	003	0258	1	RT 178	RT 764
2	0301	40	002	0217	1	RT 614	NCL EMPOR
2	0301	40	003	0061	1	SCL EMPOR	RT 689
2	0301	40	004	0397	1	RT 689	RT 629*** (35)
2	0010	46	002	0374	1	RT 258	RT 10 B
2	0010	46	001	0412	1	RT 10 B	WE LAWNS*
2	0058	46	001	0509	2	WCL SUFFO	RT 258
2	0258	46	006	0679	1	RT 58	RT 641
2	0258	46	005	0613	1	RT 641	RT 460
2	0258	46	004	0774	1	RT 460	RT 637*
2	0258	46	003	0666	1	RT 637	RT 10 B*
2	0005	47	001	0181	2	RT 199	RT 615
2	0005	47	002	0203	2	RT 615	RT 614
2	0005	47	003	0435	2	RT 614	CHICK BR
2	0060	47	005	0505	2	RT 30	NEW KENT*
2	0132	47	001	0054	1	SCL WMSBG	RT 199*
2	0013	61	003	0360	1	RT 32	RT 759*
2	0013	61	004	0434	1	RT 759	RT 616
2	0013	61	005	0537	1	RT 616	NC LINE
2	0031	61	001	0450	1	RT 675	RT 13
2	0058	61	008	0218	2	RT 189 B	RT 655
2	0058	61	009	0315	2	RT 655	RT 189
2	0058	61	010	0246	2	RT 189	WCL SUFF
2	0337	61	001	0252	1	WCL CHESA	RT 125
2	0337	61	004	0236	1	RT 13&58	ECL SUFF
2	0178	65	001	0086	1	RT 13 B	ACCOM CL
2	0184	65	001	0320	2	RT 13	RT 1101
2	0035	87	004	0514	1	S RT 58	RT 693*
2	0035	87	005	0642	1	RT 693	RT 186
2	0035	87	006	0264	1	RT 186	NC LINE
2	0058	87	001	0189	2	RT 714	E RT 258
2	0058	87	002	0379	2	E RT 258	RT 58 B
2	0186	87	001	0261	2	RT 35	ECL BRANC
2	0258	87	003	0528	1	NC LINE	RT 189
2	0258	87	002	0344	1	RT 189	RT 684*
2	0258	87	001	0060	1	RT 684	ECL FRSNK
2	0010	90	005	0314	1	LAMNS BR	RT 617
2	0010	90	004	0674	1	RT 617	N RT 31*
2	0010	90	003	0104	1	N RT 31	S RT 31
2	0173	99	001	0438	2	RT 17	E RT 629
2	0238	99	001	0378	2	RT 638	MAIN GATE

Table B-75 (Cont.)

Number of links = 50

Average link length = 3.44 miles

Table B-76: SUFFOLK DISTRICT ROAD LINKS-Cluster 3

CLASS	A	B	C	D	E	START	END
3	0175	01	001	0091	1	RT 175	NCL CHINCO
3	0013	01	002	0378	1	RT 175	RT 695
3	0013	01	003	0810	1	RT 695	RT 676
3	0013	01	004	0448	1	RT 676	N RT 13 B*
3	0013	01	005	0154	1	N RT 13 B	SCL ACCOM
3	0013	01	006	0314	1	SCL ACCOM	RT 179
3	0178	01	002	0116	1	S RT 658	RT 179
3	0179	01	001	0142	1	RT 178	RT 13 B
3	0058	40	001	0262	2	SOUTH CL	ECL EMPO
3	0058	40	003	0675	2	RT 619	BRUNS CL
3	2010	46	002	0205	1	RT 258 B	RT 674*
3	2258	46	001	0064	2	RT 10	RT 10 B
3	2258	46	002	0243	2	RT 10 B	RT 10 B*
3	0010	46	004	0415	1	NCL SUFFO	S RT 258
3	0010	46	003	0230	1	RT 10 B	RT 258
3	0017	46	002	0243	1	RT 32&258	CHUCK BR
3	0460	46	001	0333	2	WCL SUFFO	RT 610
3	0460	46	002	0662	2	RT 610	BLACK BR*
3	0030	47	002	0171	2	RT 60	W RT 64*
3	0199	47	003	0022	2	RT 5	WCL WMSBG
3	0010	61	002	0709	1	URBAN BD	RT 125*
3	0010	61	001	0131	1	RT 125	ISLEW CL
3	0013	61	001	0193	1	SCL SUFF	RT 688
3	0013	61	002	0087	1	RT 688	RT 32
3	0017	61	001	0364	1	NE CHUCK	RT 627
3	0135	61	001	0210	1	RT 17	ST MAINT*
3	0189	61	001	0336	2	RT 58	RT 613
3	0189	61	002	0507	2	RT 613	BLACK BR
3	0013	65	002	0087	1	N RT 13 B	RT 183
3	0013	65	003	0140	1	RT 183	S RT 13 B
3	0013	65	004	0276	1	S RT 13 B	RT T678
3	0013	65	005	0326	1	RT T678	RT 620
3	0013	65	006	0331	1	RT 620	RT 628
3	0013	65	007	0243	1	RT 628	RT 13 B*
3	0013	65	008	0233	1	RT 13 B	RT 13 B*
3	0013	65	009	0321	1	RT 13 B	RT 13 B
3	0013	65	010	0171	1	RT 13 B	RT 13 B
3	0013	65	011	0456	1	RT 13 B	RT 624
3	0013	65	012	0478	1	RT 624	RT 600
3	0013	65	013	1914	1	RT 600	VA BEACH
3	2058	87	001	0232	2	WCL FRANK	RT 58
3	0035	87	003	0063	1	RT 616	N RT 58
3	0058	87	003	0346	2	RT 58 B	RT 35*** (42)
3	0058	87	004	0570	2	W RT 35	RT T653
3	0058	87	005	0569	2	RT T653	RT 659
3	0058	87	006	0472	2	RT 659	RT 615
3	0058	87	007	0544	2	RT 615	GREENE CL
3	0189	87	001	0022	2	BLACK BR	RT 714*
3	0460	87	001	0423	2	BLACK BR	RT T616
3	0460	87	002	0437	2	RT T616	SUSSEX CL

Table B-76 (Cont.)

CLASS	A	B	C	D	E	START	END
3	0040	91	002	0115	2	RT 460	RT 651
3	0460	91	001	0218	2	SOUTH CL	RT T628
3	0460	91	002	0768	2	RT T628	RT 40
3	0460	91	003	0690	2	RT 40	PRINCEG CL
3	0105	99	001	0236	2	NCL NEWPO	RT 17
3	0132	99	001	0116	1	RT 143	RT 60*
3	0132	99	002	0010	1	RT 60	NCL WMSBG
3	0143	99	002	0026	1	RT 162	SCL WMSBG*
3	0143	99	001	0082	1	NCL WMSBG	RT 64
3	0171	99	001	0285	2	RT 17	WCL POQUO
3	0238	99	002	0227	2	ECL NEWPO	RT 638

Number of links = 61

Average link length = 3.27 miles

Table B-77: SUFFOLK DISTRICT ROAD LINKS-Cluster 4

CLASS	A	B	C	D	E	START	END
4	0013	01	001	0409	1	MD LINE	RT 175
4	0013	01	007	0366	1	RT 179	RT T626
4	0013	01	008	0237	1	RT T626	RT 180*** (38)
4	0013	01	009	0268	1	RT 180	RT 614*
4	0013	01	010	0337	1	RT 614	NORTH CL*
4	0058	40	002	0040	2	WCL EMPO	RT 619*
4	0017	46	001	0680	1	JAMES BR	RT 32&258
4	0058	46	002	0154	2	RT 258	BLACK BR
4	0258	46	002	0196	1	RT 10 B	RT 10&32
4	0258	46	001	0285	1	RT 10&32	RT 17*
4	0060	47	001	0138	2	YORK CL	ECL WMSBG
4	0060	47	002	0239	2	NCL WMSBG	RT 614*
4	0060	47	003	0285	2	RT 614	RT 607*
4	0060	47	004	0317	2	RT 607	RT 30
4	0143	47	001	0250	1	YORK CL	YORK CL
4	0199	47	002	0167	2	ECL WMSBG	COLON PKW
4	0199	47	001	0218	2	COLON PKW	YORK CL
4	2460	61	001	0144	2	NCL SUFF	RT 10
4	0017	61	002	0343	1	RT 627	RT 662*
4	0058	61	001	0060	2	RT 642	NANSE BR
4	0058	61	002	0233	2	NANSE BR	RT 460*
4	0058	61	003	0163	2	RT 460	RT 604
4	0058	61	004	0116	2	RT 604	RT 639*
4	0058	61	005	0276	2	RT 639	RT 643*
4	0058	61	006	0205	2	RT 643	RT 647*
4	0058	61	007	0520	2	RT 647	RT 189 B*
4	0460	61	001	0509	2	RT 460 B	ISLEW CL
4	0013	65	001	0019	1	ACCOM CL	N RT 13 B
4	0017	99	001	0009	1	COLEM BR	RT 1001
4	0017	99	002	0335	1	RT 1001	RT 704*
4	0017	99	003	0241	1	RT 704	RT 621
4	0019	99	004	0157	1	RT 621	RT 620*
4	0060	99	001	0251	2	JAMES CL	RT 199*
4	0060	99	002	0005	2	NCL WMSBG	RT 132
4	0060	99	003	0107	2	RT 132	WCL WMSBG
4	0143	99	004	0250	1	JAMES CL	JAMES CL*
4	0143	99	003	0050	1	JAMES CL	RT 162*
4	0162	99	001	0017	2	RT 143	ECL WMSBG
4	0199	99	003	0004	2	JAMES CL	RT 143
4	0199	99	002	0099	2	RT 143	RT 64

Number of links = 40

Average link length = 2.17 miles

Table B-78: SUFFOLK DISTRICT ROAD LINKS-Cluster 5

CLASS	A	B	C	D	E	START	END
5	1095	40	005	0426	1	NC LINE	RT 629*
5	1095	40	004	0411	1	RT 629	RT 301
5	1095	40	003	0276	1	RT 301	RT 58
5	1095	40	002	0264	1	RT 58	RT 614*
5	1095	40	001	0337	1	RT 614	SUSSEX CL
5	1064	47	002	0269	2	NEWKEN CL	W RT 30
5	1064	47	001	0430	2	W RT 30	E RT 30*
5	1095	91	004	0037	1	GREENE CL	RT 301
5	1095	91	003	0677	1	RT 301	RT 645
5	1095	91	002	0685	1	RT 645	RT 40
5	1095	91	001	0361	1	RT 40	PRINCEG CL
5	1064	99	003	0541	2	JAMES CL	RT 143
5	1064	99	002	0388	2	RT 143	RT 199*** (36)
5	1064	99	001	0198	2	RT 199	JAMES CL**

Number of links = 14

Average link length = 3.79 miles

Table B-79: SUFFOLK DISTRICT ROAD LINKS-Cluster 6

CLASS	A	B	C	D	E	START	END
6	1064	27	005	0023	2	NP NEWS CL	RT 143
6	1064	27	004	0336	2	RT 143	RT 105**** *
6	1064	27	003	0309	2	RT 105	RT 173
6	1064	27	002	0513	2	RT 143	RT 17*
6	1064	27	001	0090	2	RT 17	HAMPTON CL*
6	1664	27	001	0027	2	NP NEWS CL	CHESTNT AV
6	1264	64	006	0075	2	RT 239	RT 337*
6	1264	64	005	0092	2	RT 337	RT 17
6	1264	64	005	0167	2	RT 17	RT 141*
6	1264	64	004	0024	2	RT 141	RAMP J
6	1064	94	003	0098	2	RT 143	BRIDGE PC*
6	1664	94	002	0265	2	NMKT CR BR	ABERDN RD*
6	1664	94	001	0046	2	ABERDN RD	NP NEWS C*

Number of links = 13

Average link length = 1.59 miles

Table B-80: SUFFOLK DISTRICT ROAD LINKS-Cluster 7

CLASS	A	B	C	D	E	START	END
7	1064	47	005	0169	2	E RT 30	YORK CL*
7	1064	47	004	0092	2	JAMES CL	STR 2000
7	1064	47	003	0148	2	STR 2000	NP NEWS CL
7	1264	64	008	0143	2	BEG HPMS	WCL PORTS*
7	1264	64	007	0175	2	WCL PORTS	RT 239****
7	1264	64	001	0078	2	RT 13	RT 64*
7	1464	64	001	0080	1	RT 64	RT 13

Number of links = 7

Average link length = 1.26 miles

Table B-81: SUFFOLK DISTRICT ROAD LINKS-Cluster 8

CLASS	A	B	C	D	E	START	END
8	1564	64	001	0274	1	RT 165	END
8	1064	94	006	0406	2	HAMPTON CL	RT 258
8	1064	94	005	0197	2	RT 258	RT 167
8	1064	94	004	0212	2	RT 167	RT 143*
8	1064	94	002	0233	2	BRIDGE PC	WE APPROH****
8	1064	94	001	0117	2	WE APPROH	END*

Number of links = 6

Average link length = 2.40 miles

Table B-82: SUFFOLK DISTRICT ROAD LINKS-Cluster 9

CLASS	A	B	C	D	E	START	END
9	1264	64	003	0269	2	MAIN ST	RT 405****
9	1264	64	002	0244	2	RT 405	RT 13

Number of links = 2

Average link length = 2.57 miles

01/11/10
11:11

APPENDIX C

FACTORS FOR ESTIMATING ANNUAL FLOWS
FROM 48-HOUR COUNTS

Table C-1
 FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN BRISTOL DISTRICT

Cluster Number	Days Count Taken	M O N T H															
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.				
1 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
2	Mon/Tue	0.91	1.06	1.00	0.96	1.02	1.01	1.06	1.05	1.06	1.07	1.01	1.06	1.05	1.06	1.07	1.01
	Tue/Wed		1.00	0.93	0.90	1.00	1.02	1.02	1.04	1.02	1.03	1.02	1.02	1.04	1.00	0.96	1.03
	Wed/Thu		0.98	0.95	0.92	1.00	1.01	1.02	1.01	1.01	0.99	1.02	0.99	1.01	0.98	0.97	1.01
3	Mon/Tue	1.06	1.11	1.07	1.07	1.08	1.12	0.96				1.12	0.96			1.04	0.99
	Tue/Wed	1.03	1.04	1.08	1.09	1.09	1.13	0.90	1.06	1.14	1.02	1.13	0.90	1.06	1.14	1.02	1.01
	Wed/Thu	0.95	0.99	1.01	1.04	1.06	1.00	1.01	1.05	1.01	1.00	1.01	1.05	1.01	1.00	0.98	1.01
4 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
5	Mon/Tue	1.38	1.05	1.08	1.05	1.10	1.01	1.05	1.02	1.05	1.06	1.01	1.05	1.02	1.07	1.10	1.05
	Tue/Wed	1.31	1.04	1.08	1.06	1.06	1.06	1.06	1.00	1.04	1.06	1.06	1.04	1.00	1.07	1.06	1.04
	Wed/Thu	0.91	0.97	1.07	1.05	1.03	1.04	1.02	1.03	1.01	1.03	1.02	1.03	1.01	1.03	1.06	1.04
6 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
7 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																

^a No data available. Factors will be determined during first year of program implementation.

Table C-2
 FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN CULPEPER

Cluster Number	Days Count Taken	M O N T H											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	Mon/Tue	1.21		1.08	1.03	1.13	1.06	1.13	1.13	1.14	1.21	1.04	1.14
	Tue/Wed	1.41		1.09	1.05	1.13	1.05	1.01	1.16	1.28	1.11	1.06	
	Wed/Thu	1.48	1.76	1.13	1.07	1.12	1.09	1.04	1.15	1.25	1.13	1.00	
2 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
3	Mon/Tue	1.01	1.07	1.16	1.12	1.15	1.15	1.12	1.18		1.25	1.11	1.16
	Tue/Wed	1.16	1.15	1.20	1.13	1.20	1.17	1.16	1.22	1.18	1.19	1.08	1.05
	Wed/Thu	1.16	1.12	1.12	1.07	1.14	1.11	1.12	1.14	1.14	1.13	1.07	1.02
	Mon/Tue	0.09		1.02	1.04	1.00	1.06	1.05	1.22	1.03	1.09	1.09	0.99
	Tue/Wed	1.04		1.03	1.02	1.08	1.05	1.10		1.02	1.08	0.98	
	Wed/Thu	1.11		1.05	0.99	1.07	1.02	0.99		1.07	1.02	0.98	
5 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
6	Mon/Tue	1.07	1.12	1.09	1.17	1.27	1.19	1.16	1.18	1.16	1.25	1.13	1.11
	Tue/Wed	1.14	1.18	1.14	1.22	1.28	1.23	1.20	1.23	1.27	1.38	1.07	1.05
	Wed/Thu	1.13	1.11	1.14	1.16	1.18	1.18	1.15	1.18	1.24	1.29	1.06	1.01
7 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
8	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
9	Mon/Tue	1.07	1.14	1.19	1.17	1.16	1.16	1.12	1.19	1.13	1.17	1.26	1.28
	Tue/Wed	1.18	1.14	1.21	1.17	1.20	1.18	1.23	1.20	1.21	1.24	1.22	1.01
	Wed/Thu	1.16	1.07	1.12	1.08	1.15	1.12	1.17	1.14	1.18	1.20	1.15	0.90
10	Mon/Tue	1.17	1.05	1.15	1.11	1.13	1.15	1.10	1.19	1.15	1.25	1.13	1.10
	Tue/Wed	1.12	1.12	1.15	1.08	1.14	1.12	1.11	1.16	1.23	1.30	1.09	1.04
	Wed/Thu	0.98	1.10	1.08	1.04	1.08	1.02	1.11	1.09	1.15	1.15	1.08	1.03

^aNo data available. Factors will be determined during first year of program implementation.

Table C-3
 FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN FREDERICKSBURG DISTRICT

Cluster Number	Days Count Taken	M O N T H											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	Mon/Tue	1.01	0.97	1.12	1.20	1.15	1.11	1.02	1.10	1.08	0.85	1.72	1.01
	Tue/Wed	1.11	0.99	1.11	1.11	1.09	1.05	1.04	1.11	1.15	1.25	1.55	1.07
	Wed/Thu	1.09	1.03	1.07	1.06	1.05	1.03	1.07	1.11	1.15	1.25	1.02	1.08
2 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
3	Mon/Tue	0.94	1.06	1.12	1.11	1.05	1.16	1.04	1.04	1.04	1.07	1.14	1.16
	Tue/Wed	1.01	1.07	1.11	1.10	1.20	1.12	1.05	1.10	1.26	1.12	1.03	1.25
	Wed/Thu	1.02	1.02	1.06	1.05	1.19	1.03	1.02	1.04	1.20	1.06	0.98	1.02
4	Mon/Tue	1.02	1.07	1.13	1.16	1.17	1.20	1.17	1.22	1.07	1.13	1.24	1.07
	Tue/Wed	1.12	1.18	1.20	1.17	1.23	1.27	1.24	1.27	1.24	1.21	1.08	1.12
	Wed/Thu	1.13	1.14	1.15	1.12	1.16	1.21	1.20	1.22	1.24	1.15	1.03	1.05
5 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
6 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
7 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
8 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												

^aNo data available. Factors will be determined during first year of program implementation.

Table C-4
 FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN LYNCHBURG DISTRICT

Cluster Number	Days Count Taken	M O N T H											
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	Mon/Tue	1.13	1.08	1.29	1.18	1.30	1.06	1.08	1.05	1.18	1.08	1.19	1.04
	Tue/Wed		1.04	1.25	1.12	1.54	1.18	1.04	1.07	2.94*	1.11	1.27	1.22
	Wed/Thu		1.08	1.00	1.01	1.53	1.14	1.04	1.07	4.33*	1.10	1.07	1.17
2	Mon/Tue		1.03	1.15	1.32	1.05	1.03	1.01	1.05	1.09	1.07	1.03	1.01
	Tue/Wed		1.02	0.92	1.06	1.04	1.17		1.05	1.05	1.07	0.97	1.01
	Wed/Thu		0.99	0.90	0.98	1.00	1.10		1.01	1.06	1.05	1.01	0.92
3 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
4 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
5 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
6 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
7 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
8	Mon/Tue	1.01	1.01	1.50	1.04	1.10	1.08	1.01	1.09	1.16	0.95	1.13	1.07
	Tue/Wed		0.98	1.49	1.01	1.03	1.08	1.10	1.08	1.41	0.96	1.09	1.05
	Wed/Thu		0.98	1.47	1.00	0.98	1.09	1.12	1.05	1.20	1.05	1.08	1.00
9 ^a	Mon/Tue												
	Tue/Wed												
	Wed/Thu												
10	Mon/Tue	1.10	1.06	1.03	1.02	1.10	1.03	0.99	1.01	1.02	1.04	1.00	0.96
	Tue/Wed	0.98	1.03	1.04	1.04	1.06	1.05	1.03	1.01	1.04	1.04	0.97	1.04
	Wed/Thu	0.94	0.97	1.02	1.01	0.95	1.00	1.00	1.00	1.02	1.00	1.00	1.01

^aNo data available. Factors will be determined during first year of program implementation.

Table C-5
 FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN NORTHERN VIRGINIA DISTRICT

Cluster Number	Days Count Taken	M O N T H															
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.				
1 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
2 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
3 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
4 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
5 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
6 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
7	Mon/Tue	0.98	1.01	1.01	0.99	1.03	1.27	0.83	0.99	1.02	1.04	1.00	1.05				
	Tue/Wed	1.10	1.00	1.02	1.01	1.02	1.05	0.91	1.00	1.01	1.04	1.00	1.05				
	Wed/Thu	1.05	0.97	1.02	1.00	1.02	0.83	1.14	1.00	1.01	1.01	0.99	1.05				
8	Mon/Tue	0.98	0.96	0.96	0.96	1.00	0.94	0.92	0.96	0.96	0.97	0.90	1.09				
	Tue/Wed	1.01	0.95	0.96	0.96	0.95	0.94	0.97	0.94	0.92	0.96	0.87	1.09				
	Wed/Thu	0.99	0.94	0.95	0.94	0.93	0.93	0.97	0.94	0.91	0.93	0.97	0.96				
9	Mon/Tue	1.91	1.05	1.17	1.14	1.17	1.13	1.13	1.14	1.11	1.08	1.11	1.22				
	Tue/Wed	1.18	1.06	1.18	1.17	1.17	1.19	1.19	1.17	1.15	1.08	1.03	1.12				
	Wed/Thu	1.04	1.06	1.10	1.09	1.10	1.14	1.15	1.14	1.14	1.05	1.00	1.01				
10 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																

^aNo data available. Factors will be determined during first year of program implementation.

FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN RICHMOND DISTRICT

Cluster Number	Days Count Taken	M O N T H															
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.				
1 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
2	Mon/Tue	1.07	1.09	1.08	1.09	1.08	1.08	1.08	1.07	1.08	1.08	1.07	1.10	1.18	1.15	1.07	
	Tue/Wed	1.16	1.07	1.12	1.15	1.10	1.10	1.10	1.10	1.10	1.06	1.10	1.12	1.16	1.06	1.02	
	Wed/Thu	0.95	1.04	1.08	1.08	1.07	1.02	1.06	1.06	1.09	1.02	1.06	1.09	1.07	1.00	1.01	
3	Mon/Tue	1.05	1.08	1.09	1.03	1.16	1.06	1.06	1.03	1.06	1.06	1.07	1.07	1.07	1.03	1.09	
	Tue/Wed	1.08	1.06	1.10	1.03	1.03	1.05	1.02	1.02	1.06	1.06	1.02	1.03	1.06	1.06	1.13	
	Wed/Thu	1.03	1.01	1.03	0.97	0.97	1.00	0.98	1.00	1.00	1.00	0.98	1.00	1.02	1.01	1.00	
4	Mon/Tue	1.14	1.12	1.26	1.27	1.14	1.29	1.21	1.21	1.25	1.29	1.30	1.31	1.10	1.15	1.43	
	Tue/Wed	1.18	1.22	1.28	1.32	1.20	1.28	1.30	1.30	1.25	1.28	1.30	1.31	1.15	1.10	1.22	
	Wed/Thu	1.06	1.19	1.18	1.15	1.14	1.16	1.26	1.26	1.24	1.16	1.26	1.24	1.12	1.05	1.02	
5	Mon/Tue	0.93	0.95	1.00	0.91	1.03	0.93	0.93	0.93	0.97	0.93	0.93	0.97	0.98	0.95	1.02	
	Tue/Wed	1.00	0.95	1.01	0.97	0.96	0.93	0.93	0.99	0.97	0.93	0.99	0.97	0.97	0.95	1.00	
	Wed/Thu	1.01	0.98	0.98	0.98	0.94	0.92	0.99	0.99	0.94	0.92	0.99	0.94	0.96	1.03	0.91	
6 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
7	Mon/Tue	1.05	1.14	1.03	0.87	1.06	1.19	1.15	1.15	1.05	1.19	1.15	1.05	1.03	1.00	1.04	
	Tue/Wed	1.20	1.18	1.18	1.07	1.07	1.11	1.04	1.04	1.04	1.11	1.04	1.04	1.03	1.08	1.06	
	Wed/Thu	1.15	1.15	1.21	1.27	1.02	0.94	0.91	0.91	1.04	0.94	0.91	1.04	1.03	1.08	1.05	
8 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
9 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
10 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																

^aNo data available. Factors will be determined during first year of implementation.

Table C-7

FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN SALEM DISTRICT

Cluster Number	Days Count Taken	M O N T H															
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.				
1 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
2	Mon/Tue	1.08	1.08	1.02	1.02	1.02	1.05	1.05	1.07	1.11				1.14	0.98		
	Tue/Wed	1.04	0.99	0.99	0.95	1.06	1.04	1.04	1.18	1.16				0.99	1.02		
	Wed/Thu	0.92	0.99	0.97	1.01	1.05	1.04	1.04	1.14	1.15				0.88	1.21		
3	Mon/Tue	1.03	1.05	1.01	0.97	0.99	0.98	0.99	0.99	1.01				1.01	1.05	0.95	
	Tue/Wed	0.97	1.02	1.01	0.99	0.99	1.03	0.99	0.99	0.97				1.01	0.94	0.99	
	Wed/Thu	0.91	0.92	0.95	0.97	0.97	1.03	1.03	0.98	0.93				0.99	1.04	1.12	
4	Mon/Tue	1.07	1.12	1.13	1.20	1.11	1.16	1.29	1.27	1.04				1.11	1.11	1.28	
	Tue/Wed	0.99	1.00	1.16	1.20	1.13	1.35	1.35	1.28	1.15				1.17	1.15	1.11	
	Wed/Thu	0.92	0.96	1.10	1.04	1.06	1.20	1.20	1.17	1.17				1.10	1.09	0.97	
5	Mon/Tue	0.98	1.05	1.05	1.17	1.05	1.02	1.02	1.06					0.98	1.10	1.02	
	Tue/Wed	1.18	1.07	1.04	1.17	1.03	1.01	1.04	1.25					1.03	0.95	1.00	
	Wed/Thu	1.16	1.03	0.99	1.00	0.98	0.99	1.03	1.16	1.00					1.00	0.98	
6 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
7 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
8 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																

^aNo data available. Factors will be determined during first year of implementation.

Table C-8
 FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN STAUNTON DISTRICT

Cluster Number	Days Count Taken	M O N T H															
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.				
1 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
2	Mon/Tue	1.13	1.16	1.27	1.17	1.11	1.12	1.12	0.91	1.13	1.16	1.24	1.15				
	Tue/Wed	1.15	1.14	1.02	1.14	1.08	1.11	1.11	0.83	1.12	1.18	1.21	0.96				
	Wed/Thu	1.06	1.07	0.95	1.07	1.11	1.07	1.08	1.03	1.09	1.14	1.17	0.93				
3	Mon/Tue	1.16	1.19	1.09	1.07	1.02	1.15	1.15	1.09	1.13	1.11	1.11	1.10				
	Tue/Wed		1.19	1.13	1.16	1.16	1.41	1.26	1.17	1.16			0.91				
	Wed/Thu		0.81	1.12	1.10	1.08	1.38	1.19	1.15	1.12			1.01				
4	Mon/Tue	0.95	1.06	0.98	0.95	1.03	0.99	0.97	1.01	0.95	1.03	0.96	0.98				
	Tue/Wed	0.91	1.01	0.98	0.93	0.95	0.98	1.07	0.96	1.05	1.01	0.91	0.97				
	Wed/Thu	0.83	0.94	0.95	0.93	0.93		0.93	0.92	1.07	0.97	0.94	0.92				
5 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
6 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
7	Mon/Tue	1.17	1.10	1.07	1.03	1.10	1.06	1.00	1.04	1.02		2.05					
	Tue/Wed		1.12	1.10	1.01	1.03	1.01	1.09	1.04			1.86					
	Wed/Thu		0.98	1.11	0.94	1.01	0.99	1.08	1.04			1.82					
8	Mon/Tue	0.99	1.06	1.05	1.08	1.08	1.13	1.10	1.12	1.05	1.06	1.14	1.17				
	Tue/Wed	1.00	1.05	1.05	1.09	1.10	1.12	1.14	1.12	1.09	1.08	0.94	1.03				
	Wed/Thu	0.94	1.01	1.03	1.01	1.02	1.05	0.96	1.05	1.03	1.03	0.93	0.94				
9 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																
10 ^a	Mon/Tue																
	Tue/Wed																
	Wed/Thu																

^aNo data available. Factors will be determined during first year of program implementation.

Table C-9
 FACTOR (F₁) FOR ESTIMATING MADT FROM 48-HOUR COUNTS IN SUFFOLK DISTRICT

Cluster Number	Days Count Taken	M O N T H												
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	
1	Mon/Tue	1.19	1.14	0.96	1.09	1.15	1.12	1.15	1.15	1.09	1.09	1.15	1.08	1.08
	Tue/Wed	1.20	1.09	0.86	1.07	1.10	1.10	1.13	1.09	1.14	1.23	1.06	1.06	1.01
	Wed/Thu	0.79	0.99	0.95	1.01	1.07	1.07	1.11	1.06	1.11	1.09	1.02	1.02	0.97
2	Mon/Tue	1.17	1.19	1.07	1.07	1.06	1.06	0.97	1.02	1.01	1.02	1.03	1.03	1.25
	Tue/Wed	1.24	1.02	1.10	1.05	1.05	1.05	1.00	1.04	1.05	1.01	1.01	1.01	1.20
	Wed/Thu	1.06	0.92	1.04	0.99	1.01	1.04	1.02	1.01	1.01	0.98	0.99	0.99	0.98
3	Mon/Tue	1.01	1.06	1.06	1.05	1.08	1.07	1.03	1.08	1.00	1.05	1.07	1.07	1.10
	Tue/Wed	1.06	1.04	1.10	1.13	1.10	1.11	1.12	1.12	1.04	1.07	1.02	1.02	1.06
	Wed/Thu	0.99	0.98	1.04	1.07	1.04	1.06	1.09	1.06	1.05	1.03	1.00	1.00	0.97
4	Mon/Tue	0.97	1.02	1.06	1.06	1.08	1.09	1.07	1.11	1.03	1.06	1.06	1.06	1.11
	Tue/Wed	1.02	1.08	1.10	1.12	1.09	1.17	1.17	1.16	1.09	1.10	1.03	1.03	1.11
	Wed/Thu	1.03	1.05	1.07	1.06	1.04	1.09	1.13	1.11	1.09	1.05	1.03	1.03	1.02
5	Mon/Tue	1.04	1.12	1.17	1.15	1.23	1.23	1.14	1.18	1.11	1.15	1.10	1.10	1.15
	Tue/Wed	1.08	1.12	1.18	1.20	1.31	1.31	1.15	1.19	1.22	1.16	1.15	1.15	1.08
	Wed/Thu	1.09	1.06	1.11	1.14	1.18	1.18	1.12	1.14	1.23	1.13	1.12	1.12	1.02
6 ^a	Mon/Tue													
	Tue/Wed													
	Wed/Thu													
7 ^a	Mon/Tue													
	Tue/Wed													
	Wed/Thu													
8 ^a	Mon/Tue													
	Tue/Wed													
	Wed/Thu													
9 ^a	Mon/Tue													
	Tue/Wed													
	Wed/Thu													

^aNo data available. Factors will be determined during first year of program implementation.

Table C-10
FACTORS (F_2) FOR ESTIMATING AADT FROM MADT IN BRISTOL DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2 ^b	1.43	1.20	0.70	0.91	1.06	1.02	1.05	1.00	1.04	1.00	1.00	1.05
3 ^b	1.23	1.19	1.08	1.00	0.97	0.89	1.00	1.04	0.94	0.92	0.97	1.08
4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
5 ^b	1.51	1.42	1.28	1.25	1.26	1.14	0.79	0.76	0.87	1.14	1.11	1.11
6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

^b Based on Continual Counts

N.D. No Data Available

Table C-11
FACTORS (F₂) FOR ESTIMATING AADT FROM MADT IN CLUPEPER DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1 ^b	1.70	0.92	0.97	1.04	1.05	0.92	1.08	0.92	0.89	0.78	0.99	1.05
2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
3 ^b	1.38	1.15	1.10	1.02	0.95	0.91	0.94	0.88	0.90	0.92	0.92	1.02
4 ^a	1.24	N.D.	1.07	1.05	0.99	0.97	0.95	0.93	1.02	0.95	0.97	0.99
5 ^a	N.D.	N.D.	0.91	1.53	N.D.	N.D.	1.35	0.86	N.D.	1.51	N.D.	1.35
6 ^b	1.58	1.38	1.32	1.14	1.05	0.99	1.00	0.91	0.97	0.86	0.74	0.74
7 ^a	N.D.	N.D.	1.38	N.D.	N.D.	1.40	N.D.	N.D.	1.35	N.D.	N.D.	1.29
8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
9 ^b	1.49	1.23	1.21	1.10	0.99	0.93	0.85	0.86	0.99	0.85	1.01	1.04
10 ^b	1.35	1.14	1.15	1.04	0.96	0.93	0.93	0.89	0.89	0.90	0.98	1.07

a Based on Manual Counts

b Based on Continual Counts

N.D. No Data Available

Table C-12
 FACTORS (F_2) FOR ESTIMATING AADT FROM MADT IN FREDERICKSBURG DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1 ^b	1.41	1.24	1.17	1.08	1.02	1.06	1.05	1.00	1.01	0.93	0.91	1.10
2 ^a	1.34	1.19	N.D.	1.21	N.D.	1.02	N.D.	1.23	1.01	N.D.	1.11	N.D.
3 ^b	1.81	1.61	1.45	1.23	1.01	0.83	0.89	0.81	1.25	1.28	1.26	1.42
4 ^b	1.50	1.28	1.25	1.05	0.99	0.89	0.88	0.80	0.89	0.94	0.92	0.98
5 ^a	1.02	N.D.	1.34	1.04	N.D.	0.93	1.25	1.08	0.95	N.D.	1.56	N.D.
6 ^a	1.05	1.22	N.D.	1.20	N.D.	1.16	1.24	N.D.	1.32	N.D.	N.D.	N.D.
7	1.21	N.D.	N.D.	N.D.	1.09	N.D.	1.05	0.93	0.95	1.10	1.15	N.D.
8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

a Based on Manual Counts

b Based on Continual Counts

N.D. No Data Available

Table C-13
FACTORS (F₂) FOR ESTIMATING AADT FROM MADT IN LYNCHBURG DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1 ^b	1.59	1.58	0.77	0.87	0.79	0.69	1.19	1.13	0.56	2.11	2.49	1.10
2 ^b	1.67	1.67	1.67	1.68	1.57	0.53	0.33	1.60	1.53	1.51	1.57	1.69
3 ^a	N.D.	1.62	N.D.	N.D.	N.D.	1.49	N.D.	N.D.	1.45	N.D.	N.D.	1.36
4 ^a	N.D.	1.61	N.D.	N.D.	1.42	N.D.	N.D.	1.25	N.D.	N.D.	N.D.	1.35
5 ^a	N.D.	N.D.	1.41	N.D.	N.D.	1.28	N.D.	N.D.	N.D.	N.D.	1.16	N.D.
6	1.57	N.D.	N.D.	N.D.	N.D.	1.33	1.27	N.D.	N.D.	1.34	N.D.	N.D.
7	1.35	N.D.	N.D.	N.D.	1.19	N.D.	N.D.	1.17	N.D.	1.17	1.22	N.D.
8 ^b	1.33	1.30	1.07	0.93	1.15	1.13	1.09	1.03	1.18	0.93	1.00	1.16
9	N.D.	N.D.	1.41	1.22	N.D.	N.D.	N.D.	N.D.	1.35	N.D.	1.23	N.D.
10 ^b	1.16	1.09	1.06	1.00	0.93	0.96	1.01	0.99	1.03	0.98	1.01	1.00

a Based on Manual Counts

b Based on Continual Counts

N.D. No Data Available

FACTORS (F₂) FOR ESTIMATING AADT FROM MADT IN NORTHERN VIRGINIA DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1 _a	2.01	1.27	1.16	1.51	N.D.	0.81	1.30	1.28	0.93	N.D.	1.54	N.D.
2	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
3	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
4	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
6 _a	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
7 _b	1.33	1.17	1.16	1.05	0.97	0.78	0.79	0.98	0.98	0.96	1.04	1.06
8 _b	1.12	1.08	1.05	1.01	0.96	0.97	1.00	0.97	0.99	0.86	0.94	1.07
9 _b	1.42	1.29	1.09	0.96	0.96	0.97	0.89	0.81	0.97	1.03	0.98	1.01
10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

a Based on Manual Counts

b Based on Continual Counts

N.D. No Data Available

2793

Table C-15
FACTORS (F₂) FOR ESTIMATING AADT FROM MADT IN RICHMOND DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1 ^a	1.89	N.D.	N.D.	1.57	N.D.	N.D.	1.32	N.D.	N.D.	1.31	N.D.	N.D.
2 ^b	1.37	1.17	1.11	0.99	0.98	0.97	0.97	0.94	0.97	0.89	0.91	1.00
3 ^b	1.16	1.05	1.00	1.00	0.96	0.94	0.96	0.94	0.97	0.97	1.04	1.05
4 ^b	1.54	1.13	1.02	0.85	1.00	0.96	0.88	0.85	1.08	1.10	1.05	1.02
5 ^b	1.17	1.19	1.04	1.03	1.01	1.00	1.00	0.96	1.00	0.92	0.98	0.87
6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
7 ^b	1.64	1.48	0.54	0.52	1.18	1.01	0.99	1.19	1.21	1.03	1.20	1.19
8 ^a	1.48	N.D.	N.D.	1.39	N.D.	N.D.	N.D.	N.D.	N.D.	1.21	N.D.	N.D.
9 ^a	N.D.	1.24	N.D.	N.D.	1.17	N.D.	N.D.	1.47	N.D.	1.34	N.D.	N.D.
10	N.D.	1.53	N.D.	1.49	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

a Based on Manual Counts

b Based on Continual Counts

N.D. No Data Available

Table C-16
 FACTORS (F₂) FOR ESTIMATING AADT FROM MADT IN SALEM DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1.29	N.D.	N.D.	A.D.	1.18	N.D.	N.D.	1.34	N.D.	1.03	1.15	N.D.
2 _b	0.87	0.68	0.78	0.82	1.31	1.32	1.34	1.31	1.16	1.45	0.89	1.45
3 _b	1.21	1.14	1.09	1.07	1.01	0.98	1.00	0.96	1.04	0.95	0.87	1.01
4 _b	1.61	1.42	1.12	0.95	1.11	0.88	0.77	0.85	1.05	0.97	1.16	1.19
5 _b	1.25	1.15	1.09	0.95	1.11	0.96	0.98	1.02	0.96	1.03	1.00	1.01
6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

b Based on Continual Counts

N.D. No Data Available

Table C-17
FACTORS (F₂) FOR ESTIMATING AADT FROM MADT IN STAUNTON DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2 ^b	1.11	1.07	0.99	0.98	1.04	1.00	0.94	0.94	1.07	1.05	0.91	1.00
3 ^b	1.22	1.40	1.42	1.10	0.63	0.76	0.80	0.80	1.04	1.27	1.22	1.37
4 ^b	1.17	0.89	1.09	1.00	0.93	0.94	0.93	0.94	1.07	0.96	1.10	1.13
5	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
7 ^b	1.18	1.13	1.08	1.06	0.92	0.87	0.95	0.92	0.95	1.81	1.54	1.16
8 ^b	1.52	1.27	1.21	1.03	1.02	0.94	0.84	0.88	0.90	0.92	0.95	1.06
9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
10	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

^b Based on Continual Counts

N.D. No Data Available

Table C-18
 FACTORS (F₂) FOR ESTIMATING AADT FROM MADT IN SUFFOLK DISTRICT

Cluster No.	M O N T H											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1 _b	1.80	1.18	0.33	1.53	1.41	1.30	1.12	1.18	1.34	1.36	1.42	1.47
2 _b	1.19	1.06	1.05	0.97	0.96	0.89	0.95	0.93	0.98	0.97	1.00	1.02
3 _b	1.30	1.17	1.07	1.02	0.94	0.89	0.90	0.88	1.14	1.10	0.96	0.95
4 _b	1.49	1.33	1.23	1.03	0.97	0.87	0.81	0.79	1.01	1.01	1.05	1.10
5 _b	1.49	1.33	1.25	1.06	0.96	0.86	0.78	0.76	0.98	1.09	1.06	1.10
6	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
7	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
8	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
9	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

b Based on Continual Counts

N.D. No Data Available

APPENDIX D

F_3 FACTORS FOR ESTIMATING AADT FROM SHORT COUNTS OF LESS THAN
24-HOUR DURATION

800
 A primary purpose of the study was to determine the feasibility of using short counts of less than 24-hour duration for estimating AADTs within ± 10 percent of the true volumes.

The objectives were to determine --

1. suitable times in the year to make short counts,
2. suitable days in the week for making them,
3. suitable periods of the day,
4. the optimum duration for short counts, and
5. suitable expansion factors for use with them.

Accuracy of AADTs Estimated from Short Counts

The techniques of estimation generally require the use of sample data to obtain an estimator, which in turn is used to estimate an unknown parameter of the population. The overall accuracy of the estimated parameter is, therefore, dependent upon the accuracy of the estimator. Thus, the accuracy of annual flows estimated from short counts is dependent upon the accuracy of the short counts; and it follows that in the procedure under discussion, estimates of AADTs should be made from only those short counts that provide the required level of accuracy. In this study the accuracy of the estimator (short count) for any given day and time of count was determined in terms of its coefficient of variation (C) given by

$$C = \frac{\sum_{i=1}^{n_d} (v_{idj} - v_d)^2}{n_d - 1} / v_d, \quad (D-1)$$

where

V_{idj} = ith volume for count of duration d taken at a specific site on a specific day j and started at a specific time,

\bar{V}_d = mean of Values $_{idj}$, and

n_d = number of counts for count duration d taken at a specific time.

If the average annual daily traffic is estimated directly from the short count without applying correction factors, the error associated with this estimate is given as

$$\text{Error (\%)} (p) = \frac{(V_{idj}) (24)/d - \text{AADT}}{\text{AADT}} (100) \quad , \quad (\text{D-2})$$

where

AADT = true AADT for the site at which the short counts are taken, and

d = duration of count i.

Values of p are usually very high, but they can be used to determine appropriate expansion factors that can be applied to short counts to improve the accuracy of the estimates.

Methodology

Data obtained in 1980 at 16 continuous count stations were used to determine the coefficients of variation of short duration counts for use in examining the stability of different duration counts taken at different times of the day and on different days of the week. The station locations and their AADTs for 1981 are shown in Table D-1. The AADTs were estimated from short counts using equation (D-3), which estimates the AADT at a site directly from a short count without the application of correction factors. The relative error of the estimated AADTs was then determined by comparing it with the true AADT at the site using equation (D-4).

$$EAADT_{sd} = \frac{V_{ijd} (24)}{d}, \quad (D-3)$$

where

$EAADT_{sd}$ = estimated AADT from the i th short count of duration d at site s (no correction factor applied),

V_{ijd} = volume of i th short count of duration d taken on day j , and

d = duration of count.

$$p = \frac{(EAADT_{sd} - AADT_s) (100)}{AADT_s} \quad (D-4)$$

where

p = relative error, and

$AADT_s$ = true AADT from continuous counts at site s .

The average relative error (p_{it}) was then determined for all EAADTs estimated for a given site from short counts having the same duration and taken on the same day and started at the same time of day. The values of (p_{it}) were then used to determine expansion factors for different durations and starting times, and these factors were then used to estimate 1981 AADTs from short counts extracted from the 1981 data. The accuracies of the estimated AADTs thus obtained were then determined in terms of relative errors.

STATION NO.	DIRECTION	ROUTE	CLASS OF ROAD	LOCATION DESCRIPTION	AAVT (1981)
1	Both	60	VA I	1.7 Miles East of E.C.L. Richmond	12089
2	Both	45	VA II	2.2 Miles South of Route 60	1745
3	North	29	Arterial	3.6 Miles South of S.C.L. Lynchburg	9199
4	East	460	Arterial	0.1 Mile East of Route 652	6714
5	North	220	Arterial	0.6 Mile South of S.C.L. Fincastle	3063
6	Both	256	VA II	1.3 Miles East of Route 276	2607
7	Both	33	Arterial	6.3 Miles East of Swift Run Gap	2704
8	Both	20	VA I	3.4 Miles West of Route 3	3435
9	East	60	VA I	1.2 Miles East of Route 147	13206
10	North	301	Arterial	0.2 Mile South of Route 17	3099
11	North	17	Arterial	0.9 Mile North of N.C.L. Tappahannock	2863
12	Both	208	VA II	0.3 Mile South of Route 608	2417
13	Both	156	VA II	3.6 Miles South of Route 60	470
14	East	6	VA I	0.8 Mile West of W.C.L. Richmond	9179
15	North	81	Interstate	2.4 Miles South of Route 659	10748
16	West	64	Interstate	1.2 Miles East of Route 15	5648

2803

19804

Estimation of AADT From Counts of Less Than 24 Hour Duration

The first step in the estimation of the AADT from short counts is to identify stable periods for taking short counts in terms of days of the week and times of the day for different durations of short counts. A stable period for a given short count in this study is defined as a period during which short counts have coefficients of variation (COV) of 5 percent or less. This ensures that there is a 95 percent chance that any short count started during a stable period will be within ± 10 percent of the true mean value of the count. Each counting period is identified by the time the count starts.

Tables D-2 through D-4 give a representative sample of the COVs obtained. The stable periods are located within the heavy rules in the tables. For some stations the distributions of stable periods tended to be similar during the day although minor variations of the actual COV values were observed. It is believed that based on the classification methodology developed, the links of stations exhibiting similar distributions of stable periods will fall under the same class. The COVs obtained were examined to determine suitable stable periods for different short counts.

Stable Days of the Week

An examination of the results showed clearly that for all stations Thursday had the lowest number of stable periods of all weekdays (Monday to Friday), and that the COVs for Thursday were generally much higher than those for any other weekday, with some stations having no stable periods at all on Thursdays (see Table D-4). Friday had the next least number of stable periods on a weekday. These results indicate that short counts taken on a Thursday or a Friday will tend to be very unreliable and should not be used for estimating AADTs, except where the user of the counts is prepared to accept large errors in the estimates.

The results also show that, in general, there are much fewer stable periods during the weekend (Saturday and Sunday) than during Monday through Wednesday. Obviously, then, the best days for taking short counts are Mondays, Tuesdays, and Wednesdays.

Stable Count Periods and Duration of Counts

In view of the above, only Mondays through Wednesdays were considered for use in identifying stable count periods. In this task, two general patterns of stable count periods were found. In the first pattern, all the stable count periods were enclosed in a single cluster as shown in Table D-2, while in the second pattern, the periods were in two distinct clusters -- one in the morning and the other in the afternoon -- as shown in Table D-3.

The exact timing of the stable count periods was found to be dependent upon the type of highway and the day of the count. In general, however, the length of the stable periods increased as the duration of the count increased to 12 hours, and became rather erratic for some stations when the duration was longer than 12 hours.

The results, in general, do not indicate any specific count duration as being the best, as very low COVs were obtained for most count durations, if the short count was started during a stable period for that specific count duration on a given day. For some stations, however, counts taken for durations of less than 6 hours and longer than 12 hours tended to have very short stable periods. The stable periods selected for the estimation of AADTs were, therefore, those for counts of 6-, 8-, 10-, and 12-hour duration taken on Mondays, Tuesdays, and Wednesdays.

Direct Expansion Factors (f_{jtd}) and EAADT

Using the 1980 data for the stable periods identified, direct expansion factors were developed for short counts of 6-, 8-, 10-, and 12- hour durations for starting times on Mondays, Tuesdays, and Wednesdays. The expansion factors (f_{jtd}) for a given station were determined from equation (D-5) using the average relative error (p_{jtd}) for a given duration d and a given weekday and starting time.

$$f_{jtd} = \frac{24}{(1 + p_{jtd}) d} \quad , \quad (D-5)$$

where

f_{jtd} = direct expansion factor for short count of duration d taken at a given site on day (j) and starting at time (t).

The AADTs for 1981 were then obtained by multiplying the expansion factors by the appropriate short count volumes extracted from the 1981 continuous count data. Tables D-5 through D-7 show representative samples of the results.

Table D-2: Coefficients of Variations of Short Counts for Station 2 on Mondays

Station No: 2

Route: 45

Location: 2.2 Miles

Day of Count Monday

Year of Count 1980

Starting Hour Of Count	COV						
	Duration of Count						
	4 Hr.	6 Hr.	8 Hr.	10 Hr.	12 Hr.	14 Hr.	16 Hr.
0	11.91	31.74	20.67	26.32	16.58	10.96	4.90
1	23.37	14.44	35.49	20.39	12.74	7.25	3.96
2	48.23	22.20	27.47	16.90	11.05	4.92	4.17
3	18.99	35.93	20.32	12.58	7.05	3.77	5.25
4	21.70	27.35	16.69	10.83	4.62	3.99	5.14
5	36.40	20.25	12.39	6.84	3.58	5.10	4.78
6	25.49	14.92	9.30	3.34	2.88	4.16	3.40
7	20.47	11.41	5.52	2.31	4.12	3.85	2.99
8	14.35	7.51	0.93	0.96	2.59	1.83	1.31
9	6.01	8.07	8.03	3.87	3.64	4.25	
10	6.50	10.54	7.10	4.08	4.53	4.98	
11	10.22	9.32	3.97	3.58	4.32		
12	12.69	7.45	3.64	4.34	4.79		
13	9.76	2.70	2.37	3.39			
14	7.79	2.65	3.52	4.15			
15	1.58	1.31	0.44				
16	6.36	3.53	1.78				
17	9.69	5.09					
18	6.19	2.51					
19	6.87						
20	12.39						

Table D-3: Coefficients of Variations of Short Counts for Station 3 on Tuesdays

Station No: 3

Route: 29

Location: 3.6 Miles

Day of Count Tuesday

Year of Count 1980

Starting Hour Of Count	COV						
	Duration of Count						
	4 Hr.	6 Hr.	8 Hr.	10 Hr.	12 Hr.	14 Hr.	16 Hr.
0	2.01	5.08	15.83	11.90	3.62	1.82	2.91
1	6.13	13.13	15.51	8.14	0.05	2.88	1.87
2	7.56	17.20	12.57	3.77	1.87	2.47	1.16
3	12.68	15.46	7.84	0.51	3.31	2.21	0.99
4	18.52	13.20	3.98	1.83	2.95	1.12	0.15
5	16.54	8.29	0.40	3.29	2.17	0.93	0.04
6	13.15	3.40	2.56	3.58	1.59	0.54	0.35
7	5.98	4.25	6.73	4.76	2.93	1.68	0.83
8	7.67	13.11	11.80	7.48	5.32	3.88	3.74
9	18.65	17.60	12.09	8.26	6.14	4.80	
10	23.23	17.84	10.78	7.57	5.63	5.36	
11	33.43	13.28	8.18	5.58	4.01		
12	16.15	7.39	4.09	2.11	2.03		
13	5.79	1.65	0.49	1.80			
14	0.39	2.42	4.01	3.58			
15	4.72	6.17	7.12				
16	7.92	9.09	7.91				
17	8.10	9.14					
18	9.56	7.53					
19	11.99						
20	7.77						

9813

Table D-4: Coefficients of Variation of Short Counts for Station 3 on Thursdays

Station No: 3

Route: 29

Location: 3.6 Miles

Day of Counts Thursday

South of S.C.L. Lynchburg

Year of Counts 1980

Starting Hour of Count	COV						
	Duration of Count						
	4 Hr.	6 Hr.	8 Hr.	10 Hr.	12 Hr.	14 Hr.	16 Hr.
0	19.33	45.96	82.30	74.58	67.93	59.88	54.25
1	41.89	80.70	85.78	75.70	64.11	57.81	52.21
2	67.55	89.44	83.90	70.64	61.79	55.64	51.24
3	89.49	89.61	77.94	65.48	58.78	52.89	50.13
4	92.23	85.68	71.53	62.28	55.92	51.40	48.00
5	90.84	78.32	65.43	58.57	52.61	49.86	45.73
6	85.95	70.91	61.37	54.95	50.46	47.10	44.12
7	73.50	58.92	52.66	46.78	44.68	40.70	39.06
8	54.41	45.36	40.87	38.30	36.03	33.31	32.14
9	38.12	35.28	32.80	33.14	29.67	28.66	
10	29.28	29.01	24.14	28.10	25.66	24.73	
11	26.10	26.26	28.40	24.91	23.89		
12	26.88	27.81	26.84	24.05	23.05		
13	27.85	30.10	25.46	24.16			
14	29.02	27.37	23.81	22.61			
15	30.34	24.14	22.66				
16	26.78	21.92	20.51				
17	22.64	20.70					
18	16.08	14.86					
19	7.97						
20	5.62						

Table D-5: Selected Sample of Expansion Factors and Estimated AADTs with their Relative Errors for Station 1.

Day	Date	Count Duration	Start Time	Short Count Volume	Average Relative Error (\bar{p}_{jt})	Expansion Factor (f_{jtd})	Estimated AADT (EADDT)	Relative Error %
Mon.	1/19/81	6	11 A.M.	5585	0.7298	2.31	12915	6.83
Mon.	2/2/81	8	1 P.M.	5851	0.5239	1.97	11518	-4.72
Mon.	3/2/81	10	8 A.M.	8041	0.6040	1.50	12031	-0.48
Mon.	5/25/81	12	12 Noon	7731	0.3148	1.52	11760	-2.72
Tues.	1/6/81	6	11 A.M.	5088	0.7121	2.34	11887	-1.67
Tues.	5/5/81	8	7 A.M.	6043	0.4284	2.10	12692	4.99
Tues.	6/2/81	10	7 A.M.	7992	0.5164	1.58	12649	4.63
Tues.	8/11/81	6	1 P.M.	5068	0.7128	2.34	11836	-2.09
Wed.	1/28/81	6	7 A.M.	3857	0.3501	2.96	11427	-5.48
Wed.	2/18/81	8	5 A.M.	4675	0.1373	2.64	12332	2.01
Wed.	4/15/81	10	2 A.M.	4016	-0.2363	3.14	12621	4.4
Wed.	7/29/81	12	1 A.M.	4736	-0.2042	2.51	11902	-1.55

Table D-6: Selected Sample of Expansion Factors and Estimated AADTs with their Relative Errors for Station 2.

Day	Date	Count Duration	Start Time	Short Count Volume	Average Relative Error (\bar{p}_{jt})	Expansion Factor (f_{jtd})	Estimated AADT (EADDT)	Relative Error (%)
Mon.	1/5/81	6	2 P.M.	689	0.5408	2.6	1789	2.52
Mon.	2/16/81	8	3 P.M.	639	0.1598	2.59	1653	-5.27
Mon.	3/9/81	10	9 A.M.	1059	0.6149	1.49	1574	-9.80
Mon.	4/13/81	12	6 A.M.	1351	0.6082	1.24	1680	-3.72
Tues.	5/12/81	6	9 A.M.	580	0.4717	2.72	1576	-9.68
Tues.	6/16/81	8	10 A.M.	881	0.6412	1.83	1610	-7.74
Tues.	7/21/81	10	2 P.M.	847	0.1549	2.08	1760	0.86
Tues.	8/25/81	12	11 A.M.	1122	0.2935	1.55	1735	-0.57
Wed.	9/9/81	6	1 P.M.	789	0.6729	2.39	1887	8.14
Wed.	10/28/81	8	8 A.M.	889	0.5684	1.91	1700	-2.58
Wed.	11/18/81	10	10 A.M.	1156	0.5115	1.59	1836	5.21
Wed.	12/2/81	12	10 A.M.	1145	0.3749	1.45	1666	-4.53

Table D-7: Selected Sample of Expansion Factors and Estimated AADTs with their Relative Errors for Station 3.

Day	Date	Count Duration	Start Time	Short Count Volume	Average Relative Error (\bar{p}_{jt})	Expansion Factor (f_{jt})	Estimated AADT (E.AADT)	Relative Error %
Mon.	1/12/81	6	1 P.M.	2830	0.4357	2.79	7885	-14.28
Mon.	1/19/81	8	7 A.M.	4345	0.5283	1.96	8529	- 7.28
Mon.	2/16/81	10	9 A.M.	5332	0.4303	1.68	8947	- 2.74
Mon.	4/13/81	12	9 A.M.	6601	0.3274	1.51	9946	8.12
Tues.	3/24/81	6	7 A.M.	3369	0.5185	2.63	8875	- 3.52
Tues.	5/19/81	8	12 Noon	4112	0.3541	2.22	9110	- 0.97
Tues.	7/14/81	10	6 A.M.	6146	0.5052	1.59	9800	6.53
Tues.	10/27/81	12	7 A.M.	6957	0.4727	1.36	9448	2.71
Wed.	6/24/81	6	7 A.M.	3726	0.5217	2.63	9794	6.47
Wed.	8/19/81	8	1 P.M.	4073	0.2857	2.33	9504	3.32
Wed.	11/11/81	10	10 A.M.	4915	0.3461	1.78	8763	- 4.74
Wed.	12/9/81	12	7 A.M.	6673	0.4682	1.36	9090	- 1.18

Comparison of EAADTs and AADT

In order to determine the accuracy of the estimated AADTs (EAADTs), they were individually compared with the true AADTs of the respective links for 1981 by determining their relative errors. Samples of the results are also shown in Tables D-5 through D-7. An examination of the results indicates that relative errors greater than 10 percent tend to occur for short counts started between the hours of 5 p.m. and 5 a.m. It was also observed that EAADTs obtained from short counts taken on holidays tended to have relative errors higher than 10 percent. The percentage of EAADTs at each station having relative errors greater than 10 percent was also determined for each direction and each day. The results indicate that there was a higher percentage of EAADTs with relative errors greater than 10 percent on Mondays, and that AADTs estimated from short counts taken between February and November tended to be more accurate than those estimated from counts taken in January and December.

A close examination of the expansion factors indicated that those for the same duration at a given site were approximately equal. A representative value was, therefore, determined for each duration at each site by using the average value of the expansion factors for all stable starting times. Starting times for short counts were then selected, based on convenience and accuracy. Tables D-8 through D-16 show the representative values of the expansion factors and recommended starting times.

Discussion

The methodology provides a tool that can be used by highway and traffic engineers and transportation planners to estimate the AADT at a particular highway link by taking only a 6-, 8-, or 10-hour count on one of the recommended days. To use this tool, however, one must know the appropriate expansion factor to be applied to the short count. Although the expansion factors given in this report were developed for specific continuous count stations, it has been shown that factors for a given station can be used at other stations which have similar traffic volume characteristics. (3,4) The classification system developed has facilitated the grouping of highway links with similar traffic volume characteristics into the same class. The factors developed for a given station in this study can, therefore, be used for all other highway links that are grouped in the same class. It will, therefore, be possible to estimate the AADT of any highway link in the state from a short count when the necessary continuous count data are available. It is anticipated that F_3 factors for all clusters will be developed after the first year of implementation of the count program proposed in this study.

Table D-8: Expansion Factors and Recommended Starting Times for Station 1

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
1	6	Mon.	2.39	9 a.m., 10 a.m., 11 a.m. 12 N. 1 p.m.
	8	Mon.	1.91	7 a.m., 8 a.m., 9 a.m. 10 a.m., 12 N. 1 p.m.
	10	Mon.	1.53	7 a.m., 8 a.m., 9 a.m. 10 a.m., 11 a.m., 12 N.
	12	Mon.	1.36	6 a.m., 7 a.m., 8 a.m. 9 a.m., 10 a.m., 11 a.m. 12 N.
	6	Tue.	2.47	8 a.m., 9 a.m., 10 a.m. 11 a.m., 12 N. 1 p.m.
	8	Tue.	1.89	7 a.m., 8 a.m., 9 a.m. 10 a.m., 11 a.m., 12 N.
	10	Tue.	1.56	6 a.m., 7 a.m., 8 a.m. 9 a.m., 10 a.m.
	6	Wed.	3.17	6 a.m., 7 a.m.
	8	Wed.	-	-*
	10	Wed.	-	-*

*Stable periods are between 5:00 p.m. and 5:00 a.m.

Table D-9: Expansion Factors and Recommended Starting Times for Station 2

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
2	6	Mon.	2.83	1 p.m., 2 p.m., 3 p.m., 4 p.m.
	8	Mon.	2.32	11 a.m., 12 N., 1 p.m., 2 p.m., 3 p.m., 4 p.m.
	10	Mon.	1.57	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.
	12	Mon.	1.43	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.
	6	Tue.	2.50	9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m.
	8	Tue.	1.96	9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m.
	10	Tue.	1.80	10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m.
	12	Tue.	1.51	9 a.m., 10 a.m., 11 a.m., 12 N.,
	6	Wed.	2.42	12 N., 1 p.m., 2 p.m.
	8	Wed.	1.96	8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m.
	10	Wed.	1.74	9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m.
	12	Wed.	1.51	9 a.m., 10 a.m., 11 a.m., 12 N.

Table D-10: Expansion Factors and Recommended Starting Times for Station 3

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
3	6	Mon.	2.76	7 a.m., 12 N., 1 p.m., 2 p.m.
	8	Mon.	2.17	7 a.m., 12 N., 1 p.m.
	10	Mon.	1.81	7 a.m., 8 a.m., 9 a.m., 11 a.m., 12 N., 1 p.m.
	12	Mon.	1.57	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.
	6	Tue.	2.78	7 a.m., 1 p.m., 2 p.m.
	8	Tue.	2.27	7 a.m., 12 N., 1 p.m., 2 p.m.
	10	Tue.	1.99	7 a.m., 12 N., 1 p.m., 2 p.m.
	12	Tue.	1.63	7 a.m., 11 a.m., 12 N.
	6	Wed.	2.81	7 a.m., 12 N., 1 p.m., 2 p.m.
	8	Wed.	2.19	7 a.m., 11 a.m., 12 N., 1 p.m.
	10	Wed.	1.83	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m.
	12	Wed.	1.59	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.

Table D-11: Expansion Factors and Recommended Starting Times for Station 4

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
4	6	Mon.	3.05	7 a.m.
	8	Mon.	2.31	6 a.m., 7 a.m.
	10	Mon.	1.74	6 a.m., 7 a.m.
	12	Mon.	1.37	6 a.m., 7 a.m.
	6	Tue.	2.69	8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N. 1 p.m. 2 p.m., 3 p.m.
	8	Tue.	2.06	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12N. 1 p.m., 2 p.m.
	10	Tue.	1.71	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N. 1 p.m., 2 p.m.
	12	Tue.	1.46	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.
	6	Wed.	2.65	8 a.m., 1 p.m., 2 p.m.
	8	Wed.	2.11	7 a.m., 12 N. 1 p.m., 2 p.m.
	10	Wed.	1.70	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m.
	12	Wed.	1.45	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.

Table D-12: Expansion Factors and Recommended Starting Times for Station 5

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
5	6	Mon.	2.63	9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m., 3 p.m., 4 p.m.
	8	Mon.	2.09	9 a.m., 10 a.m., 11 p.m., 12 N., 1 p.m., 2 p.m., 3 p.m., 4 p.m.
	10	Mon.	1.67	8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m.
	12	Mon.	1.44	8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.
	6	Wed.	2.76	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N. 1 p.m., 2 p.m., 3 p.m., 4 p.m.
	8	Wed.	2.00	8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m.
	10	Wed.	1.63	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.
	12	Wed.	1.44	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.

Table D-13: Expansion Factors and Recommended Starting Times for Station 6

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
6	6	Mon.	2.70	9 a.m., 10 a.m., 11 a.m.
	8	Mon.	-*	-*
	10	Mon.	-*	-*
	12	Mon.	-*	-*
	6	Tue.	2.57	7 a.m., 12 N., 1 p.m.
	8	Tue.	1.94	10 a.m., 11 a.m., 12 N.
	10	Tue.	1.65	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.
	12	Tue.	1.48	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.
	6	Wed.	2.44	12 N.
	8	Wed.	1.42	11 a.m.
	10	Wed.	1.67	7 a.m., 10 a.m., 11 a.m., 12 N.
	12	Wed.	1.47	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N.

*Stable periods are between 5 p.m. and 5 a.m.

Table D-14: Expansion Factors and Recommended Starting Times for Station 7

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
7	6	Mon.	2.57	8 a.m., 9 a.m., 10 a.m., 11 a.m.
	8	Mon.	1.85	8 a.m., 9 a.m., 10 a.m., 11 a.m.
	10	Mon.	-*	-*
	12	Mon.	-*	-*
	6	Tue.	2.60	7 a.m., 10 a.m., 11 a.m.
	8	Tue.	1.97	7 a.m., 8 a.m., 9 a.m.
	10	Tue.	1.64	7 a.m.
	6	Wed.	2.55	8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N., 1 p.m., 2 p.m., 3 p.m.
	8	Wed.	1.91	8 a.m., 9 a.m., 10 a.m., 11 a.m., 12 N. 1 p.m.
	10	Wed.	1.53	8 a.m., 9 a.m., 10 a.m., 11 a.m.
	12	Wed.	1.37	7 a.m., 8 a.m., 9 a.m., 10 a.m., 11 a.m.

*Stable periods are between 5 p.m. and 5 a.m.

Table D-15: Expansion Factors and Recommended Starting Times for Station 8

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
8	6	Mon.	3.14	3 p.m., 4 p.m.
	8	Mon.	2.80	3 p.m., 4 p.m.
	10	Mon.	2.20	2 p.m.
	6	Tue.	2.97	6 a.m.
	8	Tue.	-*	-*
	10	Tue.	-*	-*
	12	Tue.	-*	-*
	6	Wed.	-*	-*
	8	Wed.	-*	-*
	10	Wed.	-*	-*
	12	Wed.	-*	-*

*Stable periods are between 5 p.m. and 5 a.m.

Table D-16: Expansion Factors and Recommended Starting Times for Station 9

Station	Count Duration (Hrs.)	Day of Week	Expansion Factor	Recommended Starting Times
9	6	Mon.	2.51	7 a.m.
	8	Mon.	1.95	6 a.m.
	10	Mon.	-*	-*
	12	Mon.	-*	-*
	6	Tue.	2.56	7 a.m.
	8	Tue.	1.99	6 a.m.
	10	Tue.	-*	-*
	12	Tue.	-*	-*
	6	Wed.	2.62	1 p.m.
	8	Wed.	2.14	1 p.m.
	10	Wed.	-*	-*
	12	Wed.	-*	-*

*Stable periods are between 5 p.m. and 5 a.m.

