HSIS CA

HIGHWAY SAFETY INFORMATION SYSTEM

GUIDEBOOK FOR THE **CALIFORNIA** STATE DATA FILES

SAS FILE FORMATS

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INTRODUCTION

(NOTE: Changes from the previous edition of the Guidebook are shown in bold and italic.)

The California database incorporated into the HSIS system is derived from the California TASAS (Traffic Accident Surveillance and Analysis System). The system, maintained by the Traffic Operations Office (TO) of CALTRANS, is a mainframe-based system based on COBOL programming. The TO Office provides the data to HSIS in the form of two different data files. These contain:

Accident data (including accident, vehicle, and occupant data)

Roadway inventory data (including intersection and interchange ramp data, and Average Daily Traffic counts)

Raw file data is provided to the Highway Safety Research Center (HSRC) where they are retained as backup information. When obtained from California, the documentation (variable listings, definitions, etc.) for these raw files and for the SAS files that are developed from them is available from HSIS staff.

Beginning in 2004, the HSIS system was converted from SYBASE relational database to ORACLE relational database for internal use.   This ORACLE database stores the data received from California and other States, and the data files for a given State are linked and manipulated using SAS code. However, this conversion from the original SAS-based system to the ORACLE relational system is somewhat transparent to the end-user of the data since the output files produced by ORACLE for modeling and analysis will be SAS formatted. As in the past, we have continued to produce SAS format libraries for each of the variables in each of the files. Because it is envisioned that the majority of analyses will utilize these SAS files and formats, this Guidebook will concern these SAS files - their formats, completeness, and quality.

As noted above, the California SAS <u>accident data</u> are divided into three separate subfiles, the first containing the basic accident information on a case-by-case basis, the second containing information on up to nine vehicles in each accident (including driver information), and the third containing information on up to 70 occupants in each crash. *(If more than nine vehicles are in a*

crash, the additional vehicles are captured in separate accident records that are exactly like the initial record, but 1 second later.) The HSIS accident and vehicle data are extracted directly from the TASAS by the TO staff. The occupant data, including data on the driver, are not included in TASAS, but are in the California Highway Patrol's SWITRS (Statewide Integrated Traffic Records System) file. This latter file is acquired from California by the US DOT National Highway Traffic Safety Administration (NHTSA) each year, and HSRC staff obtains copies of this file from NHTSA and merges it with the TASAS data.

Unlike the accident file, which is referenced to a point on the roadway, each record in the Roadlog File contains information on a homogeneous section of roadway (i.e., a stretch of road that is consistent in terms of certain characteristics, with a new section being defined each time any of the characteristics changes). Each record contains current characteristics of the roadway system and includes such variables as traveled way width, number of lanes, paved and total shoulder width, median type, and other variables. Traffic information in the form of Average Annual Daily Traffic (AADT) and Daily Vehicle Miles of travel is included for each section. As will be noted below, unlike most other HSIS State inventories, this file also contains information on terrain, design speed, and special features such as auxiliary lanes. There is no horizontal or vertical alignment information in the files.

Although intersections were included as part of the basic TASAS roadway inventory record, a separate Intersection File has been created in the HSIS system. Each record in the file contains information on both the mainline route and the crossing route. The information includes such items as intersection type, traffic control type, lighting, channelization, and AADT for both the mainline and cross street.

In similar fashion, an Interchange Ramp File has been developed that contains information on approximately ***16,500*** individual ramps. Although there is no way to tie these ramps to one of the approximately 3,000 associated interchanges in the State, the file does contain information on ramp type (e.g., diamond, slip, direct left-turn connector, etc.), AADT, and whether the crossing road is a State route or not.

DETAILS OF MAJOR FILES

The Accident Files

The State agency responsible for statewide accident data collection is the California Highway Patrol (CHP). The CHP is responsible for investigating crashes on all freeways (urban and rural) and on other State routes and county roads outside municipal areas. It is also responsible for the collection and computerization of crash data from all investigating agencies in the State. The CHP investigates approximately two-thirds of all accidents occurring on State routes. The remainder is reported by municipal police. The general accident reporting threshold used by the CHP is currently $500 or personal injury. This threshold is believed to be fairly consistently used by all CHP personnel in terms of filing crash reports. Conversations with the CHP indicated that when minor (non-towaway) crashes are reported, they are reported on a "short form." In approximately 50 percent of these minor cases, the officer will not provide information on uninjured passengers.

However, neither the report form used nor the reporting threshold followed is consistent across the many local municipalities in the State. Unlike the other HSIS States, accident data are <u>not</u> collected statewide by all police departments on a standard form. While some municipalities use the standard CHP form, some have developed their own form. ***However, since 1995, both Los Angeles and San Diego have converted to the standard CHP form. Indeed, all major cities are now using this standard form, and CHP is continuing to "recruit" other cities to use the form.*** Even for cities that use non-CHP forms, their data are "converted" to CHP format by accident coders to the extent possible. They are ultimately key-punched into the CHP's data system, known as SWITRS (Statewide Integrated Traffic Records System).

In addition to differing forms, it also appears that different municipalities follow different reporting thresholds, with some reporting only towaway crashes, many reporting crashes with damage of greater than $1,000, and some not reporting property-damage-only (PDO) crashes at all. Some information on the level of PDO reporting can be gleaned from CHP's "*Annual Report of Fatal and Injury Motor Vehicle Traffic Accidents*." This publication, available at the FHWA HSIS office, provides a city-by-city breakdown of fatal, injury, and PDO crashes reported. In general, if reported to a moderately low threshold, 55 to 70 percent of the total crashes should be no-injury (PDO)

crashes. Cities that don't show such a ratio are more than likely not fully reporting these non-injury crashes.

Thus, in general, while injury and fatal data are felt to be accurate for both the CHP and most municipalities, PDO crashes (and thus total crashes) are most accurate for the Highway Patrol. Crashes investigated by the Patrol can be identified by using the variable CHP_IND. In terms of rate development, this means that rates developed for freeways (urban and rural) and for other rural roads (outside municipalities) where accidents are reported by the CHP would be accurate. Total accident rates developed for urban areas should be considered somewhat suspect, or the analyst must determine which cities should be included in the rate on the basis of reporting ratios or other information.

It is estimated that there are more than 500,000 accidents in the entire State each year. Approximately *190,000* of these are investigated by the CHP on State routes (where TASAS inventory information is available). As noted above, all forms (regardless of form type) are sent to the CHP for processing. The CHP then separates the forms into those occurring on State routes (including the urban areas using their own forms) and those on non-State routes, and sends the State route hard copies to the TO Office for location coding. Of the 500,000 total accidents that occur each year, approximately *190,000* occur on the State system and are location-coded by TO.

The location coding is done by coding staff using maps, straight line diagrams, reference marker location logs, and other aids. In addition to the standard coding done by other States, all accidents that occur on interchange ramps are located to the specific interchange ramp on which they occur. (See specifics under later discussion of "Interchange Ramps.")

The mile-posting of all accidents is based on the investigating officer's location-related information and on his/her narrative and sketch. Each officer is instructed to provide a distance to a reference point measured in 0.01 miles in rural areas or feet in urban areas. Unlike other States, the officer attempts to give distances to reference markers in both directions from the point of the crash. All routes on the State system (Interstate, U.S., and State numbered highways) have both regularly spaced reference markers as well as markers on many different objects along the roadway (e.g., bridges, culverts, boundary signs).

In summary, given the reference markers, locations procedures, and coding procedures used, it is believed that the location coding for the *190,000* State-route accidents per year is probably as accurate as would be found in any State in the United States, with more than 90 percent of the urban and rural accidents being located to within 0.01 miles. TO staff estimate that there are problems in location provided by the officers in less than 2 percent of the accidents that the staff codes. These are sent back to the police officers for correction.

In addition to the location coding, the TO staff also code additional variables related to fixed objects struck (up to four in sequence), location of collision by lane, and movement and direction of travel prior to collision. These codes are then returned to the CHP along with the location codes and hard copies.

All codes are then keypunched by the CHP and entered into SWITRS. Once keypunched and entered, the complete computer file is sent back to the TO Office for its use. The complete annual file is "closed out" around April of the following year.

The TASAS system retains up to 10 years of accident data. The HSIS system currently contains accident data for *1991-2005.*

The Accident Subfile contains more than 40 variables and approximately *190,000* crash records per year. It contains basic variables describing the overall crash (i.e., time and location, weather, lighting, collision severity, accident type, etc.). The file does not include a "first harmful event" variable or a "most harmful event." It also does not contain speed limit or vehicle damage or point of contact. More specific variables related to contributing factors, object struck, and vehicle movements are included in the Vehicle Subfile.

Although the Accident Subfile does not contain a "sequence of events" variable, the Vehicle Subfile does contain a type of sequence for fixed-object impacts. Here, the CHP coders enter up to four fixed-objects (and their locations) in the order they are struck. One of the fixed-object codes is "rollover," which will allow meaningful analysis of roadside hardware and fixed-object impacts.

The Vehicle Subfile contains more than 30 variables and approximately *380,000* vehicle records per year. It contains information on up to nine vehicles in the crash. *(If more than nine*

vehicles are in a crash, the additional vehicles are captured in separate accident records that are exactly like the initial record, but 1 second later.) In addition to the fixed-object sequence, the file contains specific information on vehicle type, an indication of "direction of travel," contributing factors, vehicle maneuvers and pedestrian locations prior to the crash, and the number of injured and killed occupants. As noted above, specific driver information related to injury, restraint use, sex, and physical condition/drug use are extracted from a separate CHP file and attached to this file. (It is noted that approximately 2 percent of the vehicles in the HSIS vehicle file cannot be matched with the supplemental information. This occurs because the TO staff manually enters some city reports and some late CHP reports that are not included in the SWITRS file.) The truck information on the file contains some detail on the basic configuration - whether van or tanker and how many trailers are being pulled. *The National Governor's Association (NGA) truck-crash elements are not on the report form or the file, but are now collected by the CHP (not cities) on a supplementary form. These data are submitted to the U.S. DOT's Federal Motor Carriers Safety Administration for its use. (While these data are not part of HSIS, it might be possible to link them with the standard accident report form, and thus to roadway inventory and traffic information, by matching time/date/location items of the supplemental forms.)*

The HSIS Occupant Subfile contains information on up to 70 occupants per crash. As noted above, it is not part of TASAS, but is extracted from the CHP file. It contains information on occupant type, sex, age, seating position, injury class, safety equipment use, and ejection for approximately ***230,000*** occupants per year. Of these, approximately ***170,000*** are injured and uninjured passengers. However, as noted above, information on uninjured passengers is not captured in approximately 50 percent of the minor (non-towaway) crashes. If one passenger is injured, data are captured on all other passengers whether injured or not. Thus, the file is biased to some extent toward more serious (injury-producing) crashes. The remaining 60,000 records concern injured (but not uninjured) drivers. Information on uninjured (and injured) drivers is found in the Vehicle Subfile.

To assess the accuracy of accident variables, we questioned the California DOT TO staff concerning their feelings of variables that were incompletely coded or might be inaccurate, and we examined a series of single-variable tables for key variables in each of the subfiles. The TO staff indicated that virtually all variables on the Accident and Vehicle Subfiles seem to be coded correctly,

especially by the CHP. (They do not use the occupant data in the CHP files, and thus have no knowledge of its accuracy.) They do feel that the information concerning whether an accident occurred in a construction zone (which is part of a "road condition" variable) is less than accurate. (On the basis of a recent HSIS staff analysis of work zone accident data in other HSIS and non-HSIS States, this problem is common across almost all States.)

In addition to information received from the TO staff, single-variable tabulations were run to examine the questions of reporting completeness and data accuracy for these accident subfiles. Here, study of percentage of "unknown," "not applicable," and "not stated" values for more than 50 key variables indicates that, in general, the data in the Accident and Vehicle Subfiles are coded to a high degree of completeness. With very few exceptions, these data also appear to be quite consistent across years, and similar variables appear to have similar values. The exceptions are noted under pertinent variables in the later format section.

As noted above, the major exception to this is in terms of completeness and accuracy of the Occupant Subfile data. First, the file contains data that are biased to some extent toward the more severe accidents, since some significant proportion of the uninjured occupants in non-towaway, PDO crashes do not get entered into the file. Second, there are some differences in the type/seating of occupants between the two variables related to *OCC_TYP* (Occupant Type) and SEATPOS (Seating Position). This is due to the fact that the Occupant Type variable combines all uninjured occupants into one code, and that while report forms used by California cities all contain some type of information on drivers, all do not contain a variable on seating position. It is again noted that the most complete information on drivers can be found in the Vehicle Subfile. Other data issues are noted with the specific variable in the later format section.

Except for these Occupant Subfile problems, on the basis of both the interviews and the data comparisons conducted, the majority of the data appear quite accurate.

The Roadway Inventory Files

The California roadway inventory system, taken directly from TASAS, contains current characteristics of the State road system. It is divided into three files within the HSIS system. The first is a basic roadway characteristics file (i.e., the "Roadlog") containing information on the

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roadway mainline cross section. The second is an Intersection File, which contains information on the characteristics of approximately *25,000* intersections and their approach roadways. The third is an Interchange Ramp File, describing the basic characteristics of more than *16,500* separate ramps of interchanges.

All three inventory files were developed from inventory information originally collected through a series of field surveys and from construction drawings. Updates to the file are now done on a routine basis by the TO inventory staff based on new construction drawings. The only updates that would be missed by the TO staff are new intersections built at the district level when new development (e.g., a shopping center) occurs. These are sometimes reported by the district office and sometimes not. Often, during accident plotting procedures, these come to the attention of the TO staff, who then request information from the district office. In general however, the Operations staff feel that the inventory information is quite accurate.

The Roadlog File

As shown in Table 1 below, the basic Roadlog File contains information on approximately *15,500* miles of mainline (non-ramp) roadway. This includes all functional classes of roads within the State system - Interstate, U.S., and State routes. This file contains information on approximately 2,450 miles of Interstate, 11,000 miles of other primary highway, and 1,700 miles of secondary/county/township roads. California has a higher proportion of freeway mileage than do the other HSIS States, particularly urban freeway. Currently, there are *11* roadway inventory files in the HSIS system, *1993-2002 and 2005*. Because a new record is generated each time any of the items in the file changes, the sections that are generated are fairly short, resulting in a large number of individual records. The *approximately 15,500* miles of basic inventory information is divided into approximately 50,000 records, resulting in an average section length of 0.3 miles.

The file contains information on route descriptors (including functional class) and general terrain, and cross-section information related to traveled way width, number of lanes, paved and total shoulder width, median type, and other variables. Unlike most State inventories, it also contains information on design speed, special features such as auxiliary lanes, and detailed information on median barriers. The original TASAS file does not contain specific information on the type of

shoulder (e.g., earth, sod, gravel, paved). However, California staff note that two variables related to total shoulder width and treated shoulder width can be used to infer whether part or all of a shoulder is paved.

Table 1. HSIS roadway mileage by roadway category (*2005* data).

Roadway Category	Mileage
Urban freeways	*2040.40*
Urban freeways < 4 Lanes	*39.29*
Urban multilane divided non-freeways	*308.99*
Urban multilane undivided non-freeways	*594.99*
Urban 2 lane highways	*75.69*
Rural freeways	*1864.39*
Rural freeways < 4 Ins	*95.33*
Rural multilane divided non-freeways	*8418.52*
Rural multilane undivided non-freeways	*781.91*
Rural 2 lane highways	*277.40*
Other	*975.41*
Total	*15472.32*

The original TASAS file contains groups of variables for "right roadbed" and "left roadbed." Since the definition of each type of roadbed can change depending on whether or not the roadway is divided, the data have been converted to more standard HSIS definitions. After conversion (and as in other HSIS States), "Road 1" is either the full roadway for undivided sections, or the right-hand roadway in the direction of inventory for divided sections. "Road 2" only exists for divided roadways, and is the left-hand roadway in the direction of inventory. There are a few variables that were left in the original "roadbed" format (e.g., right and left roadbed "special features"). These are noted in the format section of this Guidebook.

Traffic information in the form of Average Daily Traffic is included for each section, along with Daily Vehicle Miles of travel. ***Truck percentages are not included in the basic inventory file. However, for 1996 and later, TO staff responsible for traffic counts have published truck counts and percentages on the web. HSIS staff have extracted these data and added them to the Roadlog File for each roadway section where possible. A detailed description of the basis for these traffic variables is included below in "Traffic Information in the Roadway Inventory Files."***

Finally, unlike most States, the California Roadlog File contains some information concerning changes that occurred to the roadway elements. With some programming, this should allow "before/after" analysis for specific roadway changes. Unlike the Washington State HSIS file, this is not a "date of last change" for each variable. Instead, using a "history indicator" flag and an "effective date" variable, one can determine whether a change has occurred since the preceding year within a group of variables. These flag and date variables exist for groups of variables related to the access control, AADT, median, right roadbed, and left roadbed. To determine the specific variable that changed, and the change in that variable, one must compare the current group of variables with the same group in the preceding year's file. (As noted in the format section under these flag and date variables, this is somewhat difficult to do since the roadbed designations for most variables except for these "history" variables have now been converted to the more conventional "Road 1/Road 2" definitions.) It is also noted that both the history indicator and the effective-date variable must be used in identifying changes. The history indicator variable will remain "on" after the first change, and thus will not indicate whether a subsequent change has occurred. However, the effective date will indicate when the current roadway characteristics became "open to traffic."

To assess the accuracy of roadway inventory variables in this Roadlog File and the related files concerning intersections and ramps, we again questioned the California DOT TO staff and examined a series of single-variable tables for key variables in each of the files. The TO staff feel that the overall quality of the variables in all three files is very high. As noted above, the information in the files is updated in an ongoing effort based on construction plans and maintenance effort reports.

In addition to information received from the TO staff, single-variable tabulations were run to examine the questions of reporting completeness and data accuracy. Here, study of percentage of "unknown," "not applicable," and "not stated" values for more than 40 key variables in the Roadlog File indicate that, in general, the data are coded to a high degree of completeness. For most variables, there was no missing data. The data also appear to be quite consistent across years, and similar variables appear to have similar values.

In general, from the interviews and the data comparisons conducted, the data appear quite accurate. In the limited number of cases where possible inaccuracies were found or where more detailed definitions might be critical in future analyses, they are noted in the later formats section under the specific variables.

Two new variables, RODWYCLS and MVMT, have been created by HSIS staff in the roadway segment file of each of the HSIS States. For California, both are included in the ROADLOG File, and RODWYCLS is also included in the Accident File. The RODWYCLS (Roadway Class) variable is based on the combination of rural/urban, access control, number of lanes, and median type variables. This variable classifies each roadway segment into one of 10 roadway types described in the later "Format" section. The MVMT variable (Million Vehicle Miles of Travel) is calculated for each segment in the roadway file by multiplying the segment length, AADT and 365 days in a year, and dividing by one million. Both these variables were created in response to inquires from data users, whose most frequent questions have concerned either crash frequencies or rates (per MVMT) for one or more of these roadway classes. Frequency distributions of selected crash variables by RODWYCLS for the latest year of the data are also included in Volume II of each State's Guidebook.

The Intersection File

As noted earlier, intersection-related information for approximately *25,000* intersections has been extracted from the TASAS roadway inventory file and placed in a separate HSIS Intersection File. This file contains more detail on intersections than do most State inventory files, describing both the mainline route and the intersecting route. *Unlike intersection files from other States, which contain "conventional" intersections where two major roads cross each other, California*

intersection data includes both these conventional intersections plus other non-standard "intersections" such as junctions at campgrounds, parks, forest service roads, etc. A new variable called JUNCTYPE is currently being created based on the intersection description and the traffic control device variables to more clearly define the different intersection types in the file. (See "Intersection Format" section.) JUNCTYPE equal to >1' would restrict the data to the more conventional intersections.

In the development of this file, the original TASAS roadway record was used to generate an intersection record each time a State route crosses either a State or non-State route. Thus, during the development process, two (duplicate) records would be generated each time two State routes crossed. (Only one record would be generated when a State route crossed a non-State route since the non-State route would not be inventoried in the roadway file.) A given State route would appear as "mainline" in one of these records, and as "intersecting street" in the second record. To reduce computer storage requirements, the original TASAS file only carries the full set of intersection variables on the record with the lower route number. For example, for an intersection of US 100 with California State Route 2, the data would be retained on the record in which CA 2 was the mainline. The higher number route record would only contain reference data pointing to the other record. For ease of use in the HSIS file, these higher-numbered route records have been deleted from the file. The intersecting route can still be matched with other files since the location (milepost) information is retained on the intersection record, along with the mainline location information.

For each intersection record, specific inventory variables for the mainline include variables related to intersection type, whether the mainline is divided or undivided, traffic control type (with information on whether the signals are semi-actuated or fixed time), intersection lighting, presence of signal mastarm, the presence of left-turn channelization, the presence of right-turn channelization, the type of traffic flow (e.g., two way versus one way with left turns permitted or not permitted), the number of through lanes, and the mainline AADT. It is noted that the channelization and traffic flow information is in the record only once for the mainline (and once for the intersecting street), meaning that the incoming and outgoing legs of each roadway are assumed identical with respect to these variables. In addition to the general information and the information on the mainline legs, cross-

street variables include information on the traffic signal mastarms, left and right turn channelization, type of traffic flow, AADT and the number of through lanes.

Finally, as with inventory variables on the Roadlog File, there are a series of "history" and "effective date" variables that will help the analyst determine whether a change has occurred to the intersection in the past year. There are separate history variables for the entire intersection, traffic control, and lighting, and separate history variables for mainline and cross street AADT, and for the groups of variables describing the mainline and cross street (including channelization, mastarm, and traffic flow type). Again, as discussed above, both variables must be used in determining when a change has occurred.

In terms of data accuracy and completeness, examination of tables for the 20 key variables in the file indicate very little missing data (i.e., less than 4 percent for any variable, and no missing data for most variables). The values for all variables appear logical, and no problems were indicated by California TO staff.

The Interchange Ramp File

As with the intersection data, information on approximately **16,500** ramps has been extracted from the TASAS roadway inventory file and placed in a separate HSIS Interchange Ramp File. It is noted there is no "unifying number" that would allow one to group ramps that would be in the same interchange. Thus, an analysis can be done on a ramp basis rather than interchange basis. It is estimated that these **16,500** ramps represent approximately 3,000 interchanges statewide.

Specific variables on the file include the general type of ramp (on or off), the basic ramp design (e.g., diamond, direct, slip, loop, etc.), the AADT on the ramp, whether a median is present on the roadway where the ramp begins, and whether the crossroad on which the ramp terminates is a State or non-State ("area 4") route. Again, a separate pair of history variables is present for both the general descriptive information and for the AADT information.

For reference purposes, only one milepost is provided for each ramp (i.e., not "begin" and "end" mileposts as provided for non-ramp highway segments). This ramp milepost is the same as the mainline milepost at the "nose" of the ramp - the point where the ramp joins the mainline

highway. Thus, for exit-ramps, it is the upstream end of the ramp (where the ramp leaves the freeway), and for entrance-ramps, it is the point where the ramp joins the freeway. Coding of crashes to ramps will be discussed in the later sections concerning "File Linkage."

In terms of completeness and accuracy, examination of tables for the five key variables in the file indicates missing data in less than 1 percent of the records. Values appear logical, and no problems were indicated by California TO staff.

Traffic Information in the Roadway Inventory Files

AADT data. As indicated in the preceding three sections, all three inventory files contain AADT information. In addition, the Roadlog File contains information on Daily Vehicle Miles, which is computed as the product of the section length and section AADT estimate. *As described at the end of this section, truck count data have been added to the files beginning with the 1996 data.*

In California, the 12 district offices have the responsibility of collecting traffic data and developing the AADT estimates for each road section within their district. TO, in the CALTRANS central office, oversees the operation and attempts to maintain consistency in the methods and data across all districts as much as possible. If requested, TO personnel will assist a district in calculating the AADT estimates. The Division also maintains all count data on an on-line computer file for the districts' use.

There are approximately *2,400* permanent count stations on mainline highways operated by CALTRANS in California. Of these, approximately *600* are permanent, continuous counting control stations that operate continuously each day in a given year. Every major State-administered route is counted each year. The 600 permanent continuous count stations form a network that covers all major routes. The remaining control stations are permanent, quarterly counting control stations, i.e., in-pavement loops to which a counter/recorder device is attached for 7 to 14 days during each quarter. CALTRANS also collects count data at approximately *600* of these quarterly counting control stations once every 3 years. In a given year, there are approximately *1,200* permanent quarterly counting stations where count data are not collected. California has determined that the AADT estimates that are derived from the simple average of the four (unadjusted) quarterly counts

do indeed account for seasonal fluctuations without further adjustment based on nearby permanent counters. Consequently, there are no additional adjustments or corrections applied to the AADTs estimated from the quarterly counts.

In addition to the permanent control stations, approximately *1,700* coverage counts are collected annually. The intent is to collect coverage counts on a 3-year cycle (for a total of approximately *5,000* coverage counts), although conditions may force longer intervals in certain districts at times. A coverage count is basically a 24-hour to 1-week count.

Coverage counts are expanded to AADT estimates using factors derived from the combined continuous counts and quarterly count data. For road sections that are not counted in a given year, it is the responsibility of the districts to develop these AADT estimates. In some cases, the districts reply on overall traffic growth trends within the district. However, in most cases, the AADT assigned to the section is developed by studying the traffic growth in counts falling on each side of the section.

It is also noted that 24-hour to 1-week coverage counts are collected on approximately 3,200 on- and off-ramps per year. These ramp counts are manipulated through ramp balancing to reflect continuity of flow on mainline freeways.

Finally, "13-bin" vehicle classification data are collected at approximately *150* permanent stations and *70* weigh-in-motion stations across the State. Additional classification counts are collected on an as-requested basis, typically at locations where traffic count data are being collected. Since this is district-based, there is no reliable estimate on how many additional classification counts are collected across all 12 districts per year. The *70* weigh-in-motion stations also provide speed data.

<u>Truck count data.</u> As noted above, CALTRANS TO staff responsible for traffic counts have published truck counts and percentages on the web. HSIS staff have extracted these data and added them to the Roadlog File for each roadway section where possible. A detailed description of the data can be found at the CALTRANS web site at
<u>http://www.dot.ca.gov/hq/traffops/saferesr/trafdata/index.htm.</u>

Truck counting is done throughout the State in a program of continuous truck count sampling. As noted above, these "13-bin" sample counts are conducted at 150 permanent stations and 70 weigh-in-motion stations. The sampling includes partial day, 24-hour, 7-day, and continuous vehicle classification counts. The partial day and 24-hour counts are usually made on high-volume, urban highways. The 7-day counts are made on low-volume, rural highways. The counts are usually taken only once in, and approximately one-sixth of the locations are counted annually. As indicated above, 70 locations were continuously monitored using weigh-in-motion equipment. The resulting counts are adjusted to an estimate of annual average daily truck traffic by compensating for seasonal influence, weekly variation, and other variables that may be present. It is noted that at many of the count locations, which are often intersections of major routes, two counts would be made - one on the upstream and one on the downstream side of the intersection (in the direction of roadway inventory).

For each count location, the data include a "Verification/Estimation Year" when there is either an actual count, or some other information that provides what TO staff consider to be an accurate estimate of truck counts. In years between these actual counts or "estimates," the truck data at a given station are adjusted based on changes in total AADT - i.e., the truck counts are changed proportional to changes in AADT for that location.

Because there are only limited locations where truck count data are actually collected, in order to provide truck information for each of the large number of highway segments in the HSIS California Roadlog File, these point counts had to be extrapolated to other roadway segments. Based on conversation with TO staff, the most logical manner of extrapolation was to "carry-forward" a set of truck counts on a route (from lower to higher mileposts) across all Roadlog sections until a section containing a new count station is reached. That new count is then carried forward to the Roadlog section on that route containing the next count station, etc. As noted above, since both a "before-intersection" and an "after-intersection" truck count is often made, the bias in this extrapolation is that the "after-intersection" counts will be applied to more Roadlog sections than the "before-intersection" counts. The latter may only be applied to one section, since the count may then be changed by the "after-intersection" count at the same location. While we know this is a bias, the TO staff indicated that they did not know of a more unbiased method for

the extrapolation. In some limited cases, there are multiple counts within the same Roadlog section. These counts are averaged for that section, but the final (downstream) count is the one "carried forward."

As expected, this limited number of count locations did not cover all routes or all sections on every route (e.g., sections prior to the initial count on a route contain no truck information). However, using the "carry forward" extrapolation method, truck data have now been attached to approximately 90 percent of the Roadlog mileage.

As is seen in the later "Format" section of this Guidebook, truck count variables attached to the Roadlog segments include total truck counts, counts for trucks with two axles (and dual rear tires), three axles, four axles, and trucks with five or more axles. In addition, a "flag" variable has been attached that defines the Roadlog sections where actual counts/verified estimates are made. For the researcher who wishes to work with the original web-based data, HSIS staff are retaining a separate file that can link each of the "flagged sections" with the original web-based information concerning the base-year in which a count (or verified estimate) was made, and whether the data in that year was a count or a verified estimate. Contact the HSIS staff for more details of this file and file linkage procedures.

In summary, as in other States, the truck count data in California are relatively limited, and significant extrapolation is necessary to provide estimates of data for a large sample of Roadlog sections. Truck volumes on "non-count" years are allowed to vary with changes in total AADT, which may or may not be a good assumption (but no other assumption appears more rational). However, unlike other States, the data provided are more than just a total "truck percentage" - they represent estimates of counts for various axle combinations.

Issues Related to Developing and Merging Files

As noted above, the accident data are subdivided into three subfiles - accident, vehicle, and occupant. The Accident and Vehicle Subfiles can be linked together using the accident report number (i.e., CASENO). When linking the occupant subfile, the additional linking variable related to vehicle number (i.e., VEHNO) must match so that the occupants are associated with the vehicle in which they were traveling. To link vehicles with accidents, first sort both subfiles by CASENO. To

link the Occupant file with the other two subfiles, first sort both the Vehicle subfile and Occupant subfile by case number and vehicle number. Next sort the Accident subfile by case number. Alternatively, the separate subfiles can be linked by specifying an SQL JOIN operation with the constraining condition that case number and vehicle number from each table are equal. SQL processing does not require the data to be pre-sorted and the output will not be in any particular sort order unless ORDER BY is specified.

The Accident Subfile can be linked to the Roadlog File using the CNTY_RTE and MILEPOST variables in the crash record, and the CNTYRTE, BEGMP, and ENDMP variables in the Roadlog File. Similarly, the Accident Subfiles can be linked to Intersection and Interchange Ramp Files using the two variables related to county/route (i.e., CNTY_RTE in the Accident Subfiles or CNTYRTE in the Interchange Ramp files) and MILEPOST. *If the researcher is only interested in "mainline" crashes (i.e., non-ramp/non-intersection crashes), then INT_RMP variable should be screened for "Mainline Crashes" before matching with the roadway segment.*

To prepare the Accident Subfile for linking with the Roadlog File using a SAS data step process, the analyst must sort both the Accident and the Roadway File into location order by CNTY_RTE and MILEPOST on the Accident file and by CNTYRTE and BEGMP on the Roadlog File. Similar sorts would be done with other files to be merged. For the alternative SQL join, the analyst must specify an exact match on CNTYRTE and a range match where MILEPOST occurs between BEGMP and ENDMP. (Programs to accomplish this merging and division are available from HSIS staff at FHWA.)

The ramp accidents (INT_RMP = '1', '2', '3', '4') can be linked to the ramp file by CNTY_RTE and MILEPOST of the accidents and CNTYRTE and MILEPOST of the ramps. Each of the ramp accidents will have the same milepost as the ramp. (As described above, this milepost actually represents the nose of the ramp, but all accidents occurring on the ramp will be given that same milepost.) If an accident occurs in the speed change lane prior to the gore area, it is coded to the mainline rather than the ramp. If after the gore and prior to the ramp terminal, it is coded to the ramp. If the ramp terminal is an intersection (as in a diamond interchange), and the accident occurs in the crossroad/ramp intersection or is near enough to be judged as being affected by the ramp terminal

(usually 46m [150 ft]), there are two different ways of locating the crash depending on the type of crossroad.   If the crossroad is a State route, then the crash is coded to the State route. If, on the other hand, the crossroad is non-State route, the accident is coded to the ramp, but is designated in the accident file under INT_RMP ("Intersection/Ramp accident location") to be a "ramp area, intersecting street" location. This is referred to as "area 4" by California staff. As noted above, there is also a code on the Interchange Ramp File defining whether an "area 4" exists for a given ramp (i.e., whether the crossroad is a non-State route.) For non-State routes, "area 4" would also include any crashes occurring between the two ramp terminals (i.e., on or near the overpass).

Finally, where appropriate and possible, a format that defines categories within a given variable has been developed for HSIS SAS variables. These categories are shown in the pages below. If you are a SAS user and wish to receive a formatting program that includes these SAS formats (with linkage to the pertinent variable name), please request these from the HSIS staff who provide the data file to you.

CALIFORNIA CONTACTS

State Liaison **-- Brad Boehm (916-654-7271)** -- Mr. Boehm is our main contact in the California DOT when questions arise concerning the California Data files in general. He is the Manager of the Accident Surveillance and Coding Branch of the CALDOT Division of Traffic Operations. He should be the first contact on all questions related to all accident and roadway inventory files.

Traffic Counts **-- Joe Avis (916-654-3072)** -- Mr. Avis is the traffic count specialist within the Division of Traffic Operations. He is responsible for headquarters coordination and storage of the traffic counts collected by the district offices, and forwards the AADT to Ms. Benton for inclusion in TASAS.

California Highway Patrol Accident Data **-- Roberta Tanger (916-375-2850)** -- Ms. Tanger is the Governmental Program Analyst with the California State Highway Patrol. She works with the SWITRS data which is the basis for the HSIS driver information in the Vehicle Subfile and the Occupant Subfile. She can answer questions related to these data and to the overall nature of data collection by the State Highway Patrol and city agencies. (However, accident-related questions should be posed to Ms. Benton first, as our main point of contact.)

COMPOSITE LIST OF VARIABLES

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
AADT	AADT	Road	NUM	79
ACC_DATE	DATE OF ACCIDENT -YMD	Accident	CHA(8)	37
ACC_DTE	ACCESS CONTROL DATE	Road	CHA(8)	79
ACC_HIST	ACCESS CONTROL HISTORY	Road	CHA(1)	79
ACCESS	ACCESS CONTROL	Road	CHA(1)	79
ACCTYPE	TYPE-OF-COLLISION	Accident	CHA(1)	37
ACCYR	COLLISION ACCYR	Accident	CHA(4)	37
ACCYR	COLLISION ACCYR	Occupant	CHA(4)	72
ACCYR	COLLISION ACCYR	Vehicle	CHA(4)	56
ADT_DTE	ADT DATE	Road	CHA(8)	79
ADT_DVM	DAILY VEHICLE MILES(DVM)	Road	NUM	80
ADT_HST	ADT HISTORY	Road	CHA(1)	80
ADT_MSG	ALPHA MESSAGE	Road	CHA(4)	80
ADT_STUS	ADT STATUS PROFILE	Road	CHA(1)	80
AGE	OCCUPANT AGE	Occupant	NUM	72
ALCH_FLG	ALCOHOL INVOLVED	Accident	CHA(1)	37
AREA4	RAMP AREA 4 INDICATOR	Ramp	CHA(1)	109
BEGMP	POSTMILE-BEGMP	Road	NUM	80
BELT1	BELT USAGE	Vehicle	CHA(1)	56
BIKE_FLG	BICYCLE INVOLVED	Accident	CHA(1)	37
CASENO	UNIQUE ACCIDENT CASEO	Accident	CHA(21)	37
CASENO	UNIQUE ACCIDENT CASEO	Occupant	CHA(21)	72
CASENO	UNIQUE ACCIDENT CASEO	Vehicle	CHA(21)	56
CAUSE	CONTRIBUTION FACTOR	Vehicle	CHA(1)	56
CAUSE1	PRIMARY COLL FACTOR	Accident	CHA(1)	38
CAUSHPAL	COLL FACTOR ALPHA (CHP)	Accident	CHA(1)	38
CAUSHPCD	COLL FACTOR CODING (CHP)	Accident	CHA(5)	38
CAUSHPCT	COLL FACTOR CATEGORY (CHP)	Accident	CHA(2)	38
CAUSHPLG	COLL FACTOR LEGAL CODE(CHP)	Accident	CHA(1)	39
CAUSHPSB	COLL FACTOR CODE SUBSECTION (CHP)	Accident	CHA(1)	39
CELPHONE	CELL PHONE	Vehicle	CHA(1)	57
CITY	CITY	Road	CHA(2)	80
CITY_CDE	CITY CODE	Intersection	CHA(4)	97
CITY_CDE	CITY CODE	Ramp	CHA(4)	109
CNTY_RTE	COUNTY ROUTE	Accident	CHA(10)	39
CNTYRTE	INTERSECTION COUNTY ROUTE	Intersection	CHA(9)	97
CNTYRTE	RAMP COUNTY ROUTE	Ramp	CHA(10)	109
CNTYRTE	ROAD COUNTY ROUTE	Road	CHA(10)	80
CONTRIB1	FIRST ASSOCIATED FACTOR	Vehicle	CHA(1)	57
CONTRIB2	SECOND ASSOCIATED FACTOR	Vehicle	CHA(1)	57
COUNTY	COUNTY	Accident	CHA(2)	39
COUNTY	COUNTY	Intersection	CHA(2)	97
COUNTY	COUNTY	Ramp	CHA(2)	109
COUNTY	COUNTY	Road	CHA(2)	80
CURB1	CURB AND LANDSCAPE	Road	CHA(1)	81
DEFECT	VEHICLE DEFECT	Vehicle	CHA(1)	58
DES_NBR	ROAD DESC NUMBER	Road	CHA(1)	81
DESG_SPD	DESIGN SPEED	Road	CHA(1)	81

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COMPOSITE LIST OF VARIABLES (CONT'D)

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
DIR_CODE	DIRECTION	Ramp	CHA(1)	109
DIR_TRVL	DIRECTION OF TRAVEL	Vehicle	CHA(1)	58
DISTANCE	DISTANCE	Accident	CHA(5)	40
DISTRICT	DISTRICT	Accident	CHA(2)	41
DISTRICT	DISTRICT	Intersection	CHA(2)	97
DISTRICT	DISTRICT	Ramp	CHA(2)	110
DISTRICT	DISTRICT	Road	CHA(2)	81
DIVIDED	DIVIDED HIGHWAY	Road	NUM	82
DRV_AGE	DRIVER AGE	Vehicle	NUM	58
DRV_INJ	DRIVER EXTENT OF INJURY	Vehicle	CHA(1)	58
DRV_RACE	DRIVER RACE	Vehicle	CHA(1)	59
DRV_SEX	DRIVER SEX	Vehicle	CHA(1)	59
DRVREST1	DRIVER SAFETY EQUIPMENT	Vehicle	CHA(1)	59
DRVREST2	DRIVER SAFETY EQUIPMENT	Vehicle	CHA(1)	59
EJECT	EJECTED FROM VEHICLE	Occupant	CHA(1)	72
ENDMP	POSTMILE + SEG_LNG	Road	NUM	82
FEAT_LF	LEFT RDBD SPECIAL FEATURE	Road	CHA(1)	82
FEAT_RG	RIGHT RDBD SPECIAL FEATURE	Road	CHA(1)	82
FED_AID	FEDERAL AID (IN LIEU)	Road	CHA(1)	82
FED_PREF	FEDERAL AID RTE PREFIX	Road	CHA(1)	83
FED_RTE	FEDERAL AID RTE	Road	CHA(3)	83
FILETYP	FILE TYPE	Accident	CHA(1)	41
FILETYP	FILE TYPE	Road	CHA(1)	83
FIRE	VEH FUEL LEAKS AND FIRES	Vehicle	CHA(1)	59
FUNC_CLS	FUNCTIONAL CLASS	Road	CHA(1)	83
HAZ_CODE	HAZARDOUS MATERIAL	Vehicle	CHA(1)	60
HAZMAT	HAZARDOUS MATERIAL	Vehicle	CHA(1)	60
HIST_ADD	HISTORY ELEMENTS RELATIVE ADDR	Road	NUM	83
HIT_RUN	HIT AND RUN	Accident	CHA(1)	41
HOUR	TIME OF ACCIDENT	Accident	CHA(4)	41
HWY_GRP	HIGHWAY GROUP	Accident	CHA(1)	42
HWY_GRP	HIGHWAY GROUP	Intersection	CHA(1)	97
HWY_GRP	HIGHWAY GROUP	Ramp	CHA(1)	110
HWY_GRP	HIGHWAY GROUP	Road	CHA(1)	84
INJ	DRV/OCC INJURY	Occupant	CHA(1)	73
INS_OTS	INSIDE OUTSIDE CITY	Road	CHA(1)	84
INSUR	INSURANCE	Vehicle	CHA(1)	60
INT_ADDR	HISTORY ELEMENTS RELATIVE ADDR	Intersection	NUM	98
INT_DESC	INTERSECTION DESCRIPTION	Intersection	CHA(23)	98
INT_DTE	INTERSECTION EFFECTIVE DATE	Intersection	CHA(6)	98
INT_HST	INTERSECTION TYPE HISTORY	Intersection	CHA(1)	98
INT_PRF	INTERSECTING RTE PREFIX	Intersection	CHA(1)	98
INT_RMP	INTS/RAMP ACC LOCATION	Accident	CHA(1)	42
INT_RSUF	INTERSECTING RTE SUFFIX	Intersection	CHA(1)	98
INT_RTE	INTERSECTING RTE NBR	Intersection	CHA(3)	99
INT_SEQ	INTERSECTING RTE ORDER SEQ NBR	Intersection	NUM	82
INTER	INTERSECTION CRASH	Accident	CHA(1)	43
INTY_RTE	CROSS STREET COUNTY ROUTE	Intersection	CHA(9)	99

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COMPOSITE LIST OF VARIABLES (CONT'D)

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
JUNCTYPE	JUNCTION TYPE	Intersection	CHA(1)	99
JUR_TYPE	JURISDICTION TYPE	Accident	CHA(1)	43
LANEWID	AVERAGE LANE WIDTH	Road	NUM	84
LGHT_DTE	INTERSECTION LIGHT TYPE DATE	Intersection	CHA(6)	99
LGHT_HST	INTERSECTION LIGHT TYPE HISTORY	Intersection	CHA(1)	99
LGHT_TYP	INTERSECTION LIGHT TYPE	Intersection	CHA(1)	99
LIGHT	LIGHT CONDITION	Accident	CHA(1)	43
LOC_TYP	LOCATION TYPE	Accident	CHA(1)	43
LOC_TYP1	FIRST COLL LOCATION	Vehicle	CHA(1)	60
LOC_TYP2	SECOND COLL LOCATION	Vehicle	CHA(1)	60
LOC_TYP3	THIRD COLL LOCATION	Vehicle	CHA(1)	60
LOC_TYP4	FOURTH COLL LOCATION	Vehicle	CHA(1)	60
LOG_ERR	LOG ERROR INDICATOR	Intersection	CHA(1)	100
LSHL_WD2	LEFT SHOULDER WIDTH RD2	Road	NUM	84
LSHLDWID	LEFT SHOULDER WIDTH RD1	Road	NUM	84
LTRD_DTE	LEFT ROADBED DATE	Road	CHA(8)	85
LTRD_HST	LEFT ROADBED HISTORY	Road	CHA(1)	85
MAKE	VEHICLE MAKE	Vehicle	CHA(2)	61
MED_DTE	RAMP MEDIAN DATE	Intersection	CHA(6)	100
MED_DTE	RAMP MEDIAN DATE	Ramp	CHA(8)	110
MED_DTE	RAMP MEDIAN DATE	Road	CHA(8)	85
MED_HIST	MEDIAN HISTORY	Intersection	CHA(1)	100
MED_HIST	MEDIAN HISTORY	Road	CHA(1)	85
MED_HST	RAMP MEDIAN HISTORY	Ramp	CHA(1)	110
MED_IND	RAMP MEDIAN INDICATOR	Intersection	CHA(1)	100
MED_IND	RAMP MEDIAN INDICATOR	Ramp	CHA(1)	111
MED_TYPE	MEDIAN TYPE	Road	CHA(1)	85
MED_VAR	MEDIAN VARIANCE	Road	CHA(1)	86
MEDBARTY	MEDIAN BARRIER TYPE	Road	CHA(1)	86
MEDWID	MEDIAN WIDTH	Road	NUM	86
MILEPOST	RAMP MILEPOST	Accident	NUM	43
MILEPOST	RAMP MILEPOST	Intersection	NUM	100
MILEPOST	RAMP MILEPOST	Ramp	NUM	111
MISCACT1	MOVEMENT PRECEDING COLL	Vehicle	CHA(1)	61
ML_AADT	MAINLINE AADT	Intersection	NUM	100
ML_ADTDT	MAINLINE ADT DATE	Intersection	CHA(6)	101
ML_ADTHS	MAINLINE ADT HISTORY	Intersection	CHA(1)	101
ML_DATE	MAINLINE HISTORY DATE	Intersection	CHA(6)	101
ML_HIST	MAINLINE HISTORY	Intersection	CHA(1)	101
ML_LANES	MAINLINE NUMBER OF LANES	Intersection	CHA(1)	101
ML_LEFT	MAINLINE LEFT TURN CHANNELIZATION	Intersection	CHA(1)	101
ML_LNGT	MAINLINE SECTION LENGTH	Intersection	CHA(3)	102
ML_MAST	MAINLINE SIGNAL MASTARM CHANNELIZATION	Intersection	CHA(1)	102
ML_RIGHT	MAINLINE RIGHT TURN CHANNELIZATION	Intersection	CHA(1)	102
ML_TRFLO	MAINLINE TRAFFIC FLOW	Intersection	CHA(1)	102
MTCY_FLG	MOTORCYCLE INVOLVED	Accident	CHA(1)	43
MVMT	MILLION VEHICLE MILES TRAVELED	Road	NUM	87

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COMPOSITE LIST OF VARIABLES (CONT'D)

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
NA_MILE	NON-ADD MILEAGE	Road	CHA(1)	87
NAT_LND	NATIONAL LANDS	Road	CHA(1)	87
NO_LANE1	NUMBER OF LANES RD1	Road	NUM	87
NO_LANE2	NUMBER OF LANES RD2	Road	NUM	87
NO_LANES	TOTAL NUMBER OF LANES	Road	NUM	87
NUM_INJ	TOTAL NUMBER INJURED	Vehicle	NUM	62
NUM_KILL	TOTAL NUMBER KILLED	Vehicle	CHA(2)	62
NUM_OCCS	OCCUPANTS	Accident	NUM	44
NUMVEHS	TOT-NBR-VEHICLES	Accident	CHA(2)	44
OBJECT1	FIRST OBJECT STRUCK	Vehicle	CHA(2)	62
OBJECT2	SECOND OBJECT STRUCK	Vehicle	CHA(2)	62
OBJECT3	THIRD OBJECT STRUCK	Vehicle	CHA(2)	62
OBJECT4	FOURTH OBJECT STRUCK	Vehicle	CHA(2)	62
OCC_TYP	OCCUPANT TYPE	Occupant	CHA(1)	73
OCCNUM	OCCUPANT NUMBER	Occupant	NUM	73
ON_OFFRP	ON/OFF RAMP INDICATOR	Ramp	CHA(1)	111
PART_TYP	PARTY TYPE	Vehicle	CHA(1)	63
PAV_WDL	LEFT PAVED SHLD WDTH RD1	Road	NUM	88
PAV_WDL2	LEFT PAVED SHLD WIDTH RD2	Road	NUM	88
PAV_WDR2	RIGHT PAVED SHLD WIDTH RD2	Road	NUM	88
PAV_WIDR	RIGHT PAVED SHLD WDTH RD1	Road	NUM	88
PED_ACTN	PEDESTRIAN ACTION	Accident	CHA(1)	44
PED_FLG	PEDESTRIAN INVOLVED	Accident	CHA(1)	44
PHYSCOND	DRIVER PHYSICAL CONDITION	Vehicle	CHA(1)	63
POP_GRP	POPULATION GROUP = (CITY/RURAL GROUP)	Accident	CHA(1)	44
PSMILPRF	POSTMILE PREFIX	Accident	CHA(1)	45
PSMILPRF	POSTMILE PREFIX	Intersection	CHA(1)	102
PSMILPRF	POSTMILE PREFIX	Ramp	CHA(1)	111
PSMILPRF	POSTMILE PREFIX	Road	CHA(1)	88
PSMILSUF	POSTMILE SUFFIX	Accident	CHA(1)	46
PSMILSUF	POSTMILE SUFFIX	Intersection	CHA(1)	103
PSMILSUF	POSTMILE SUFFIX	Road	CHA(1)	89
RAMP_TYP	RAMP TYPE	Ramp	CHA(1)	112
RD_DATE	ROAD DATE	Road	CHA(8)	89
RD_DEF1	ROADWAY CONDITION	Accident	CHA(1)	46
RD_DEF2	ROAD CONDITION 2	Accident	CHA(1)	46
RD_DEF3	ROAD CONDITION 3	Accident	CHA(1)	46
RD_DESC	ROAD DESCRIPTION	Road	CHA(25)	89
RDSURF	ROAD-SURFACE	Accident	CHA(1)	46
RECTYPE	RECORD TYPE	Intersection	CHA(1)	103
RECTYPE	RECORD TYPE	Ramp	CHA(1)	112
RECTYPE	RECORD TYPE	Road	CHA(1)	89
REST1	SAFETY EQUIPMENT	Occupant	CHA(1)	73
REST2	SAFETY EQUIPMENT	Occupant	CHA(1)	73
RGRD_DTE	RIGHT ROADBED DATE	Road	CHA(8)	89
RGRD_HSR	RIGHT ROADBED HISTORY	Road	CHA(1)	90
RMADTDTE	RAMP ADT DATE	Ramp	CHA(8)	112
RMADTHST	RAMP ADT HISTORY	Ramp	CHA(1)	113

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COMPOSITE LIST OF VARIABLES (CONT'D)

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
RMP_ADT	RAMP AADT	Ramp	NUM	113
RMP_DTE	RAMP TYPE DATE	Ramp	CHA(8)	113
RMP_HST	RAMP HISTORY	Ramp	CHA(1)	113
RMP_SEQ	RAMP SEQUENCE NUMBER	Ramp	NUM	113
RMP_TYPE	RAMP TYPE	Ramp	CHA(1)	113
RO_SEQ	ROUTE ORDER SEQUENCE	Intersection	NUM	103
RO_SEQ	ROUTE ORDER SEQUENCE	Road	NUM	90
RODWYCLS	ROADWAY CLASSIFICATION	Accident	CHA(2)	46
RODWYCLS	ROADWAY CLASSIFICATION	Road	CHA(2)	90
RPT_LEV	ACCIDENT REPORT LEVEL	Accident	CHA(1)	47
RSHL_WD2	RIGHT SHOULDER WIDTH RD2	Road	NUM	90
RSHLDWID	RIGHT SHOULDER WIDTH RD1	Road	NUM	90
RTE_NBR	RDWAY ROUTE NUMBER	Accident	CHA(3)	47
RTE_NBR	RDWAY ROUTE NUMBER	Intersection	CHA(3)	104
RTE_NBR	RDWAY ROUTE NUMBER	Ramp	CHA(3)	114
RTE_NBR	RDWAY ROUTE NUMBER	Road	CHA(3)	90
RTE_SUF	RDWAY ROUTE SUFFIX	Accident	CHA(1)	47
RTE_SUF	RDWAY ROUTE SUFFIX	Intersection	CHA(1)	104
RTE_SUF	RDWAY ROUTE SUFFIX	Ramp	CHA(1)	114
RTE_SUF	RDWAY ROUTE SUFFIX	Road	CHA(1)	90
RTE_TYPE	HIGHWAY TYPE INDICATOR	Vehicle	CHA(1)	64
RU_IO	RURAL/URBAN INSIDE OUTSIDE CITY	Road	CHA(1)	91
RURURB	RURAL URBAN	Road	CHA(1)	91
SCHLBUS	SCHOOL BUS	Vehicle	CHA(1)	64
SCN_FRWY	SCENIC FREEWAY	Road	CHA(1)	92
SDE_HWY	SIDE-OF-HIGHWAY	Accident	CHA(1)	47
SEATPOS	SEATING POSTION	Occupant	CHA(1)	74
SEG_LNG	SECTION LENGTH	Road	NUM	92
SEVERITY	COLLISION SEVERITY	Accident	CHA(1)	47
SEX	OCCUPANT SEX	Occupant	CHA(1)	75
SOBRIETY	SOBRIETY	Vehicle	CHA(1)	64
SP_COND	SPECIAL CONDITION	Accident	CHA(1)	48
SURF_TY2	SURFACE TYPE RD2	Road	CHA(1)	92
SURF_TYP	SURFACE TYPE RD1	Road	CHA(1)	92
SURF_WD2	TRAVELED-WAY WIDTH RD2	Road	NUM	92
SURF_WID	TRAVELED-WAY WIDTH RD1	Road	NUM	92
TERRAIN	TERRAIN	Road	CHA(1)	93
TOLL	TOLL AND FOREST RDS	Road	CHA(1)	93
TOT_BIKEINJ	TOTAL BICYCLISTS INJURED	Accident	NUM	48
TOT_BIKEKIL	TOTAL BICYCLISTS KILLED	Accident	NUM	48
TOT_INJ	OCCUPANTS INJURED	Accident	NUM	48
TOT_KILL	OCCUPANTS KILLED	Accident	NUM	48
TOT_MTCYLINJ	TOTAL MOTORCYCLISTS INJURED	Accident	NUM	48
TOT_MTCYLKIL	TOTAL MOTORCYCLISTS KILLED	Accident	NUM	49
TOT_PEDINJ	TOTAL PEDESTRIANS INJURED	Accident	NUM	49
TOT_PEDKILL	TOTAL PEDESTRIANS KILLED	Accident	NUM	49
TOWAWAY	INJURY, FATAL, OR TOWAWAY?	Accident	CHA(1)	49
TRAIL_CODE	TRAILER CODE	Vehicle	CHA(1)	64

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COMPOSITE LIST OF VARIABLES (CONT'D)

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
TRF_CNTL	TRAFFIC CONTROL TYPE	Intersection	CHA(1)	104
TRF_CNTL	INTERSECTION TRAFFIC CONTROL TYPE	Ramp	CHA(1)	114
TRF_OPER	TRAFFIC CONTROL OPERATING	Accident	CHA(1)	49
TRFCTLDT	TRAFFIC CONTROL TYPE DATE	Intersection	CHA(6)	104
TRFCTLHS	TRAFFIC CONTROL TYPE HISTORY	Intersection	CHA(1)	104
TRK_CODE	TRUCK CODE	Vehicle	CHA(1)	64
TRK_FLG	TRUCK INVOLVED	Accident	CHA(1)	49
TRK2AX	2-AXLE TRUCK AADT	Road	NUM	93
TRK3AX	3-AXLE TRUCK AADT	Road	NUM	93
TRK4AX	4-AXLE TRUCK AADT	Road	NUM	93
TRK5AX	5+-AXLE TRUCK AADT	Road	NUM	93
TRKCNTFL	TRUCK COUNT FLAG	Road	CHA(1)	94
TRKTOT	TOTAL TRUCK AADT	Road	NUM	94
TYPEDESC	INTERSECTION TYPE	Intersection	CHA(1)	105
VEH_AT_FAULT	VEHICLE AT FAULT	Accident	CHA(2)	49
VEH_AT_FAULT	VEHICLE AT FAULT	Vehicle	CHA(1)	65
VEH_INVL	MOTOR VEHICLES INVOLVED WITH	Accident	CHA(2)	50
VEHNO	VEHICLE NUMBER	Occupant	NUM	75
VEHNO	VEHICLE NUMBER	Vehicle	NUM	65
VEHTYPE	VEHICLE TYPE	Vehicle	CHA(1)	65
VEHYR	VEHICLE MODEL YEAR	Vehicle	CHA(4)	66
VIOL	VIOLATION CATEGORY	Vehicle	CHA(2)	66
VTOWED	VEHICLE TOWED	Vehicle	CHA(2)	67
VTOWING	VEHICLE TOWING	Vehicle	CHA(2)	67
VTYPE_AT_FAULT_CHP	CHP VEHICLE TYPE AT FAULT	Accident	CHA(2)	50
VTYPE_AT_FAULT_CHP	CHP VEHICLE TYPE AT FAULT	Accident	CHA(2)	50
WEATHER	WEATHER	Accident	CHA(1)	52
WEATHER1	WEATHER	Accident	CHA(1)	52
WEATHER2	WEATHER	Accident	CHA(1)	52
WEEKDAY	DAY-OF-WEEK	Accident	CHA(1)	53
XSTAADT	X-STREET AADT	Intersection	NUM	105
XSTADTDT	X-STREET ADT DATE	Intersection	CHA(6)	105
XSTADTHS	X-STREET ADT HISTORY	Intersection	CHA(1)	105
XSTLANES	X-STREET NUMBER OF LANES	Intersection	CHA(1)	105
XSTLNGT	X-STREET SECTION LENGTH	Intersection	CHA(3)	106
XSTRTDTE	X-STREET DATE	Intersection	CHA(6)	106
XSTRTHST	X-STREET HISTORY	Intersection	CHA(1)	106
XSTRTLFT	X-STREET LEFT TURN CHANNELIZATION	Intersection	CHA(1)	106
XSTRTMST	X-STREET SIGNAL	Intersection	CHA(1)	106
XSTRTRGH	X-STREET RIGHT TURN	Intersection	CHA(1)	107
XSTSTRT	X-STREET STATE ROUTE INDICATOR	Intersection	NUM	107
XSTTRFLO	X-STREET TRAFFIC FLOW	Intersection	CHA(1)	107

LIST OF VARIABLES FOR CALIFORNIA ACCIDENT SUBFILE

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
ACC_DATE	DATE OF ACCIDENT -YMD	Accident	CHA(8)	37
ACCTYPE	TYPE-OF-COLLISION	Accident	CHA(1)	37
ACCYR	COLLISION ACCYR	Accident	CHA(4)	37
ALCH_FLG	ALCOHOL INVOLVED	Accident	CHA(1)	37
BIKE_FLG	BICYCLE INVOLVED	Accident	CHA(1)	37
CASENO	UNIQUE ACCIDENT CASEO	Accident	CHA(21)	37
CAUSE1	PRIMARY COLL FACTOR	Accident	CHA(1)	38
CAUSHPAL	COLL FACTOR ALPHA (CHP)	Accident	CHA(1)	38
CAUSHPCD	COLL FACTOR CODING (CHP)	Accident	CHA(5)	38
CAUSHPCT	COLL FACTOR CATEGORY (CHP)	Accident	CHA(2)	38
CAUSHPLG	COLL FACTOR LEGAL CODE(CHP)	Accident	CHA(1)	39
CAUSHPSB	COLL FACTOR CODE SUBSECTION (CHP)	Accident	CHA(1)	39
CNTY_RTE	COUNTY ROUTE	Accident	CHA(10)	39
COUNTY	COUNTY	Accident	CHA(2)	39
DISTANCE	DISTANCE	Accident	CHA(5)	40
DISTRICT	DISTRICT	Accident	CHA(2)	41
FILETYP	FILE TYPE	Accident	CHA(1)	41
HIT_RUN	HIT AND RUN	Accident	CHA(1)	41
HOUR	TIME OF ACCIDENT	Accident	CHA(4)	41
HWY_GRP	HIGHWAY GROUP	Accident	CHA(1)	42
INT_RMP	INTS/RAMP ACC LOCATION	Accident	CHA(1)	42
INTER	INTERSECTION CRASH	Accident	CHA(1)	43
JUR_TYPE	JURISDICTION TYPE	Accident	CHA(1)	43
LIGHT	LIGHT CONDITION	Accident	CHA(1)	43
LOC_TYP	LOCATION TYPE	Accident	CHA(1)	43
MILEPOST	RAMP MILEPOST	Accident	NUM	43
MTCY_FLG	MOTORCYCLE INVOLVED	Accident	CHA(1)	43
NUM_OCCS	OCCUPANTS	Accident	NUM	44
NUMVEHS	TOT-NBR-VEHICLES	Accident	CHA(2)	44
PED_ACTN	PEDESTRIAN ACTION	Accident	CHA(1)	44
PED_FLG	PEDESTRIAN INVOLVED	Accident	CHA(1)	44
POP_GRP	POPULATION GROUP = (CITY/RURAL GROUP)	Accident	CHA(1)	44
PSMILPRF	POSTMILE PREFIX	Accident	CHA(1)	45
PSMILSUF	POSTMILE SUFFIX	Accident	CHA(1)	46
RD_DEF1	ROADWAY CONDITION	Accident	CHA(1)	46
RD_DEF2	ROAD CONDITION 2	Accident	CHA(1)	46
RD_DEF3	ROAD CONDITION 3	Accident	CHA(1)	46
RDSURF	ROAD-SURFACE	Accident	CHA(1)	46
RODWYCLS	ROADWAY CLASSIFICATION	Accident	CHA(2)	46
RPT_LEV	ACCIDENT REPORT LEVEL	Accident	CHA(1)	47
RTE_NBR	RDWAY ROUTE NUMBER	Accident	CHA(3)	47
RTE_SUF	RDWAY ROUTE SUFFIX	Accident	CHA(1)	47
SDE_HWY	SIDE-OF-HIGHWAY	Accident	CHA(1)	47
SEVERITY	COLLISION SEVERITY	Accident	CHA(1)	47
SP_COND	SPECIAL CONDITION	Accident	CHA(1)	48
TOT_BIKEINJ	TOTAL BICYCLISTS INJURED	Accident	NUM	48
TOT_BIKEKIL	TOTAL BICYCLISTS KILLED	Accident	NUM	48

(CONT'D)

LIST OF VARIABLES FOR CALIFORNIA ACCIDENT SUBFILE (CONT'D)

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
TOT_INJ	OCCUPANTS INJURED	Accident	NUM	48
TOT_KILL	OCCUPANTS KILLED	Accident	NUM	48
TOT_MTCYLINJ	TOTAL MOTORCYCLISTS INJURED	Accident	NUM	48
TOT_MTCYLKIL	TOTAL MOTORCYCLISTS KILLED	Accident	NUM	49
TOT_PEDINJ	TOTAL PEDESTRIANS INJURED	Accident	NUM	49
TOT_PEDKILL	TOTAL PEDESTRIANS KILLED	Accident	NUM	49
TOWAWAY	INJURY, FATAL, OR TOWAWAY?	Accident	CHA(1)	49
TRF_OPER	TRAFFIC CONTROL OPERATING	Accident	CHA(1)	49
TRK_FLG	TRUCK INVOLVED	Accident	CHA(1)	49
VEH_AT_FAULT	VEHICLE AT FAULT	Accident	CHA(2)	49
VEH_INVL	MOTOR VEHICLES INVOLVED WITH	Accident	CHA(2)	50
VTYPE_AT_ FAULT_CHP	CHP VEHICLE TYPE AT FAULT	Accident	CHA(2)	50
VTYPE_AT_ FAULT_DOT	VEHICLE TYPE AT FAULT	Accident	CHA(1)	52
WEATHER	WEATHER	Accident	CHA(1)	52
WEATHER1	WEATHER	Accident	CHA(1)	52
WEATHER2	WEATHER	Accident	CHA(1)	52
WEEKDAY	DAY-OF-WEEK	Accident	CHA(1)	53

NOTE: SAS variable names and explanatory names are shown above each listing. (See Discussion for information on SAS formats.)

ACC_DATE　　　　**DATE OF ACCIDENT**

　　　　　　　　　　NON-LABELED VARIABLE

　　　　　　　　　　NOTE: Year/month/date of accident (YYYYMMDD).

ACCTYPE　　　　　**TYPE-OF-COLLISION**

　　　　　　　　　　'A' = 'HEAD-ON'
　　　　　　　　　　'B' = 'SIDESWIPE'
　　　　　　　　　　'C' = 'REAR END'
　　　　　　　　　　'D' = 'BROADSIDE'
　　　　　　　　　　'E' = 'HIT OBJECT'
　　　　　　　　　　'F' = 'OVERTURNED'
　　　　　　　　　　'G' = 'AUTO-PEDESTRIAN'
　　　　　　　　　　'H' = 'OTHER'
　　　　　　　　　　'<' = 'NOT STATED'
　　　　　　　　　　OTHER = 'ERROR/OTHER CODES'

ACCYR　　　　　　**YEAR OF ACCIDENT**

　　　　　　　　　　NON-LABELED VARIABLE

　　　　　　　　　　NOTE: Year of accident (YYYY).

ALCH_FLG　　　　 **ALCOHOL INVOLVED**

　　　　　　　　　　'Y' = 'YES'

　　　　　　　　　　NOTE: Variable added in 2001.

BIKE_FLG　　　　 **BICYCLE INVOLVED**

　　　　　　　　　　'Y' = 'YES'

　　　　　　　　　　NOTE: Variable added in 2003.

CASENO　　　　　 **UNIQUE ACCIDENT CASENO**

　　　　　　　　　　NON-LABELED VARIABLE

　　　　　　　　　　NOTE: Accident Case Number. The first 4 digits show the accident year.

CAUSE1   **PRIMARY COLL FACTOR (DOT)**

        '1' = 'UNDER INFLUENCE OF ALCOHOL'
        '2' = 'FOLLOWING TOO CLOSELY'
        '3' = 'FAILURE TO YIELD'
        '4' = 'IMPROPER TURN'
        '5' = 'SPEEDING'
        '6' = 'OTHER VIOLATIONS (HAZARDOUS)'
        'B' = 'OTHER IMPROPER DRIVING'
        'C' = 'OTHER THAN DRIVING'
        'D' = 'UNKNOWN'
        'E' = 'FELL ASLEEP'
        '<' = 'NOT STATED'
        '-' = 'INVALID CODE'
        OTHER = 'ERRORS/OTHER CODES'

NOTE: This variable concerning primary collision factor is based
on coding provided by the California DOT TO Office. While
sufficient for many analyses, these larger categories are
developed by combining more detailed codes (e.g., "running red
light" code is a subset of "Other Violations (hazardous)."
More detailed coding for specific primary collision factors as
coded by the California Highway Patrol can be found in
combinations of the following variables: CAUSHPAL, CAUSHPLG,
CAUSHPCD, CAUSHPSB, and CAUSHPCT. See formats below.

CAUSHPAL   **COLL FACTOR ALPHA (CHP)**

        'A' = '(VEHICLE) CODE VIOLATION'
        'B' = 'OTHER IMPROPER DRIVING'
        'C' = 'OTHER THAN DRIVING'
        'D' = 'UNKNOWN'
        OTHER = 'ERROR/OTHER CODES'

CAUSHPCD   **COLL FACTOR CODING (CHP)**

        NON-LABELED VARIABLE

NOTE: This is a five-digit code related to violations/causes as
defined in sections in the California legal codes. The extensive
format for this variable can be found on the California State
Highway Patrol webpage at http://www.leginfo.ca.gov/calaw.html and
then search on VEHICLE CODE.

CAUSHPCT   **COLL FACTOR CATEGORY (CHP)**

        '01' = 'DRIVING OR BICYCLING UNDER INFLUENCE OF ALCOHOL OR DRUG'
        '02' = 'IMPEDING TRAFFIC'
        '03' = 'UNSAFE SPEED'
        '04' = 'FOLLOWING TOO CLOSELY'
        '05' = 'WRONG SIDE OF ROAD'
        '06' = 'IMPROPER PASSING'
        '07' = 'UNSAFE LANE CHANGE'

(CONT'D)

```
'08' = 'IMPROPER TURNING'
'09' = 'AUTOMOBILE RIGHT-OF-WAY (NOT 11)'
'10' = 'PEDESTRIAN RIGHT-OF-WAY'
'11' = 'PEDESTRIAN VIOLATION'
'12' = 'TRAFFIC SIGNALS AND SIGNS'
'13' = 'HAZARDOUS PARKING'
'14' = 'LIGHTS'
'15' = 'BRAKES'
'16' = 'OTHER EQUIPMENT'
'17' = 'OTHER HAZARDOUS VIOLATION (NOT 22)'
'18' = 'OTHER THAN DRIVER (OR PEDESTRIAN)'
'21' = 'UNSAFE STARTING OR BACKING'
'22' = 'OTHER IMPROPER DRIVING'
'23' = 'PEDESTRIAN OR OTHER UNDER INFLUENCE OF ALCOHOL OR DRUG'
'24' = 'FELL ASLEEP'
'00' = 'UNKNOWN'
```

CAUSHPLG   **COLL FACTOR LEGAL CODE (CHP)**

```
'B' = 'BUSINESS AND PROFESSIONS'
'C' = 'VEHICLE'
'H' = 'CITY HEALTH AND SAFETY'
'I' = 'CITY ORDINANCE'
'O' = 'COUNTY ORDINANCE'
'P' = 'PENAL'
'S' = 'STREETS AND HIGHWAYS'
'W' = 'WELFARE AND INSTITUTIONS'
OTHER = 'ERROR/OTHER CODES'
```

CAUSHPSB   **COLL FACTOR CODE SUBSECTION (CHP)**

NON-LABELED VARIABLE

NOTE: Subsection of the California legal code. See CAUSHPCD.

CNTY_RTE   **COUNTY ROUTE**

NON-LABELED VARIABLE

NOTE: Linkage variable, consisting of
DISTRICT+RTE_NBR+RTE_SUF+COUNTY+PSMILPRF+HWY_GRP.

COUNTY   **COUNTY**

```
'01' = 'ALAMEDA'
'02' = 'ALPINE'
'03' = 'AMADOR'
'04' = 'BUTTE'
'05' = 'CALAVERAS'
'06' = 'COLUSA'
'07' = 'CONTRA COSTA'
'08' = 'DEL NORTE'
```

(CONT'D)

```
'09' = 'EL DORADO'
'10' = 'FRESNO'
'11' = 'GLENN'
'12' = 'HUMBOLDT'
'13' = 'IMPERIAL'
'14' = 'INYO'
'15' = 'KERN'
'16' = 'KINGS'
'17' = 'LAKE'
'18' = 'LASSEN'
'19' = 'LOS ANGELES'
'20' = 'MADERA'
'21' = 'MARIN'
'22' = 'MARIPOSA'
'23' = 'MENDOCINO'
'24' = 'MERCED'
'25' = 'MODOC'
'26' = 'MONO'
'27' = 'MONTEREY'
'28' = 'NAPA'
'29' = 'NEVADA'
'30' = 'ORANGE'
'31' = 'PLACER'
'32' = 'PLUMAS'
'33' = 'RIVERSIDE'
'34' = 'SACRAMENTO'
'35' = 'SAN BENITO'
'36' = 'SAN BERNARDINO'
'37' = 'SAN DIEGO'
'38' = 'SAN FRANCISCO'
'39' = 'SAN JOAQUIN'
'40' = 'SAN LUIS OBISPO'
'41' = 'SAN MATEO'
'42' = 'SANTA BARBARA'
'43' = 'SANTA CLARA'
'44' = 'SANTA CRUZ'
'45' = 'SHASTA'
'46' = 'SIERRA'
'47' = 'SISKIYHOU'
'48' = 'SOLANO'
'49' = 'SONOMA'
'50' = 'STANISLAUS'
'51' = 'SUTTER'
'52' = 'TEHAMA'
'53' = 'TRINITY'
'54' = 'TULARE'
'55' = 'TUOLUME'
'56' = 'VENTURA'
'57' = 'YOLO'
'58' = 'YUBA'
```

DISTANCE   **DISTANCE**

NON-LABELED VARIABLE

NOTE: Five-digit distance in feet from the center of the reference intersection to the point of collision.

DISTRICT   **DISTRICT**

```
'01' = 'DISTRICT ONE'
'02' = 'DISTRICT TWO'
'03' = 'DISTRICT THREE'
'04' = 'DISTRICT FOUR'
'05' = 'DISTRICT FIVE'
'06' = 'DISTRICT SIX'
'07' = 'DISTRICT SEVEN'
'08' = 'DISTRICT EIGHT'
'09' = 'DISTRICT NINE'
'10' = 'DISTRICT TEN'
'11' = 'DISTRICT ELEVEN'
'12' = 'DISTRICT TWELVE'
'- ' = 'INVALID DATA'
'+ ' = 'NO DATA'
```

FILETYP   **FILE TYPE**

```
'H' = 'HIGHWAY RECORD'
'I' = 'INTERSECTION'
'R' = 'RAMP'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

HIT_RUN   **HIT AND RUN**

```
'F' = 'HIT AND RUN FELONY'
'M' = 'HIT AND RUN MISDEMEANOR'
'N' = 'NOT HIT AND RUN'
OTHER = 'ERROR/OTHER CODES'
```

HOUR   **TIME OF ACCIDENT**

```
'0000'-'0059' = '12 AM - 1259 AM'
'0100'-'0159' = ' 1 AM -  159 AM'
'0200'-'0259' = ' 2 AM -  259 AM'
'0300'-'0359' = ' 3 AM -  359 AM'
'0400'-'0459' = ' 4 AM -  459 AM'
'0500'-'0559' = ' 5 AM -  559 AM'
'0600'-'0659' = ' 6 AM -  659 AM'
'0700'-'0759' = ' 7 AM -  759 AM'
'0800'-'0859' = ' 8 AM -  859 AM'
'0900'-'0959' = ' 9 AM -  959 AM'
'1000'-'1059' = '10 AM - 1059 AM'
'1100'-'1159' = '11 AM - 1159 AM'
'1200'-'1259' = '12NOON - 1259 PM'
'1300'-'1359' = ' 1 PM -  159 PM'
'1400'-'1459' = ' 2 PM -  259 PM'
'1500'-'1559' = ' 3 PM -  359 PM'
'1600'-'1659' = ' 4 PM -  459 PM'
'1700'-'1759' = ' 5 PM -  559 PM'
```

(CONT'D)

```
'1800'-'1859' = ' 6 PM -  659 PM'
'1900'-'1959' = ' 7 PM -  759 PM'
'2000'-'2059' = ' 8 PM -  859 PM'
'2100'-'2159' = ' 9 PM -  959 PM'
'2200'-'2259' = '10 PM - 1059 PM'
'2300'-'2359' = '11 PM - 1159 PM'
'2500'        = 'UNKNOWN'
'2600'        = 'NOT STATED'
```

HWY_GRP   **HIGHWAY GROUP**

```
'R' = 'RIGHT INDEPENDENT ALIGNMENT'
'L' = 'LEFT INDEPENDENT ALIGNMENT'
'D' = 'DIVIDED HIGHWAY'
'U' = 'UNIDIVIDED HIGHWY'
'X' = 'UNCONSTRUCTED'
'Z' = 'OTHER'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: In the HSIS version of the Roadlog File, codes 'D', 'U', and 'X' do not appear. They are combined by CA DOT into 'Z'. In other data files provided by California to other users, these codes may occur. To link with crash data, they must be recoded to 'Z'.

INT_RMP   **INTS/RAMP ACC LOCATION**

```
'1' = 'RAMP INTERSECTION (EXIT), LAST 50 FT'
'2' = 'MID-RAMP'
'3' = 'RAMP ENTRY, FIRST 50 FT'
'4' = 'RAMP AREA/INTERSECTION STREET, WITHIN 100 FT'
'5' = 'IN INTERSECTION'
'6' = 'OUTSIDE INTERSECTION (NON-STATE ROUTE), WITHIN 250 FT'
'<' = 'NOT STATED OR UNDETERMINED'
'-' = 'DOES NOT APPLY'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: Code "4" refers to locations on non-State intersecting routes (which are not mileposted) between 150 ft "outside" the ramp-related intersection to 150 ft outside the opposing ramp-related intersection. Similarly, code "6" is for locations on non-State routes within + 150 ft of the intersection. Thus, in both cases, the crashes are mileposted to the ramp or State route. In contrast, similar locations on intersecting State routes are mileposted to the intersecting State route. This variable will allow for identification of such "area 4" crashes if desirable in the analysis. See AREA4 in the Ramp File.

INTER   **INTERSECTION CRASH**

```
'Y' = 'INTERSECTION'
'N' = 'NOT INTERSECTION'
' ' = 'NOT STATED'
```

NOTE: Variable added in 2003.

JUR_TYPE   **JURISDICTION TYPE**

```
'1' = 'CHP JURISDICTION'
'2' = 'OTHER'
OTHER = 'UNFORMATTED'
```

NOTES: Variable added in 1995 and discontinued in 2001.

LIGHT   **LIGHT CONDITION**

```
'A' = 'DAYLIGHT'
'B' = 'DUSK - DAWN'
'C' = 'DARK - STREET LIGHTS'
'D' = 'DARK - NO STREET LIGHTS'
'E' = 'DARK - STREET LIGHTS NOT FUNCTIONING'
'F' = 'DARK - NOT STATED'
'<' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```


LOC_TYP   **LOCATION TYPE**

```
'H' = 'HIGHWAY'
'I' = 'INTERSECTION'
'R' = 'RAMP OR COLLECTOR'
'-', ' ' = 'NOT STATE HIGHWAY'
```

NOTE: Variable added in 2003.

MILEPOST   **MILEPOST (BASED ON POSTMILE/1000)**

NON-LABELED VARIABLE

NOTE: Milepost of crash in miles (XXX.XXX).

MTCY_FLG   **MOTORCYCLE INVOLVED**

```
'Y' = 'YES'
```

NOTE: Variable added in 2001.

NUM_OCCS   **TOTAL NUMBER OF OCCUPANTS**

```
0 = '0'
1 = '1'
2 = '2'
3 = '3'
4 = '4'
5 = '5'
6-99  = '> 5'
OTHER = 'ERROR/OTHER CODES'
```

NUMVEHS   **TOT-NBR-VEHICLES**

```
' 0' = '0'
' 1' = '1'
' 2' = '2'
' 3' = '3'
' 4' = '4'
' 5' = '5'
' 6' = '6'
' 7' = '7'
' 8' = '8'
' 9' = '9'
'10'-'15' = '10 - 15'
OTHER = 'ERROR/OTHER CODES'
```

PED_ACTN   **PEDESTRIAN ACTION**

```
'-' = 'NOT STATED'
'A' = 'NO PEDESTRIAN INVOLVED'
'B' = 'CROSSING IN CROSSWALK AT INTERSECTION'
'C' = 'CROSSING IN CROSSWALK NOT AT INTERSECTION'
'D' = 'CROSSING NOT IN CROSSWALK'
'E' = 'IN ROAD, INCLUDING SHOULDER'
'F' = 'NOT IN ROAD'
'G' = 'APPROACHING/LEAVING SCHOOL BUS'
```

NOTE: Variable added in 2003.

PED_FLG   **PEDESTRIAN INVOLVED**

```
'Y' = 'YES'
```

NOTE: Variable added in 2001.

POP_GRP   **POPULATION (CITY/RURAL GROUP)**

```
'1' = 'INCORPORATED (LESS THAN 2500)'
'2' = 'INCORPORATED (2500 TO 10000)'
'3' = 'INCORPORATED (10000 TO 25000)'
'4' = 'INCORPORATED (25000 TO 50000)'
'5' = 'INCORPORATED (50000 TO 100000)'
```

(CONT'D)

```
                   '6' = 'INCORPORATED (100000 TO 250000)'
                   '7' = 'INCORPORATED (GREATER THAN 250000)'
                   '9' = 'INCORPORATED (GREATER THAN 250000)'
                   '0' = 'UNINCORPORATED (RURAL)'
                   '<' = 'NOT STATED'
                   OTHER = 'ERROR/OTHER CODES'


PSMILPRF        POSTMILE PREFIX

                   ' ' = 'NO PREFIX'
                   'A' = 'REPOSTED'
                   'B' = 'BUS LANE'
                   'C' = 'COMMERCIAL'
                   'D' = 'DUPLICATE (MEANDERING)'
                   'F' = 'REPOSTED - COMMERCIAL (C)'
                   'G' = 'REPOSTED - DUPLICATE (D)'
                   'H' = 'REALIGNED - DUPLICATE (D)'
                   'J' = 'REPOSTED, REALIGNED - DUPLICATE'
                   'K' = 'REPOSTED - OVERLAP (L)'
                   'L' = 'OVERLAPPING POSTMILES'
                   'M' = 'REALIGNED REALIGNMENT (R)'
                   'N' = 'REPOSTED, REALIGHNED REALIGNMENT (M)'
                   'P' = 'REPOSTED REALIGNMENT (R)'
                   'Q' = 'REPOSTED - SPUR (S)'
                   'R' = 'REALIGNMENT'
                   'S' = 'SPUR'
                   'T' = 'TEMPORARY CONNECTION'
                   'U' = 'REPOSTED - TEMPORARY CONNECTION (T)'
                   '-' = 'INVALID DATA'
                   '+' = 'NO DATA'
                   OTHER = 'ERROR/OTHER CODES'
```

NOTE: Roadways can be realigned in the middle of a year (see 'R' above). Thus, there may appear to be overlapping records in the same milepost range in a given year, except for this variable. Accidents are correctly mileposted to the correct record by California.
RD_DATE can be used to determine when the new alignment was opened. However, if one is trying to match prior year's crashes to such a section, the older crash records (not having the 'R') will not be computer matched to the new alignment (with the 'R') even though the roads are virtually the same piece of pavement. One can see how the Roadlog sections actually fall on the ground in a given year by sorting by RO_SEQ (Route Order Sequence). However, in multi-year before/after studies, the analyst may have to manually match the pertinent sections across years to conduct his/her analysis. Contact HSIS staff for assistance.

PSMILSUF   **POSTMILE SUFIX**

```
' ' = 'NO SUFFIX'
'E' = 'EQUATION'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

RDSURF   **ROAD SURFACE**

```
'A' = 'DRY'
'B' = 'WET'
'C' = 'SNOWY, ICY'
'D' = 'SLIPPERY/MUDDY'
'<' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```

RD_DEF1   **ROADWAY CONDITION 1**
RD_DEF2   **ROADWAY CONDITION 2**
RD_DEF3   **ROADWAY CONDITION 3**

```
'A' = 'HOLES, DEEP RUTS'
'B' = 'LOOSE MATERIAL ON ROAD'
'C' = 'OBSTRUCTION ON ROADWAY'
'D' = 'CONSTRUCTION - REPAIR ZONE'
'E' = 'REDUCED ROAD WIDTH'
'F' = 'FLOODED'
'G' = 'OTHER'
'H' = 'NO UNUSUAL CONDITIONS'
'<' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: Variable RD_DEF3 discontinued in 2002.

RODWYCLS   **ROADWAY CLASSIFICATION**

```
'01' = 'URBAN FREEWAYS'
'02' = 'URBAN FREEWAYS < 4 LANES'
'03' = 'URBAN TWO LANE ROADS'
'04' = 'URBAN MULTILANE DIVIDED NON-FREEWAYS'
'05' = 'URB MUL UNDV NON-FREE'URBAN MULTILANE UNDIVIDED NON-
                                          FREEWAYS'
'06' = 'RURAL FREEWAYS'
'07' = 'RURAL FREEWAYS < 4 LANES'
'08' = 'RURAL TWO LANE ROADS'
'09' = 'RURAL MULTILANE DIVIDED NON-FREEWAYS'
'10' = 'RURAL MULTILANE UNDIVIDED NON-FREEWAYS'
'99' = 'OTHERS'
```

NOTE: Created variable added to HSIS accident and roadway
inventory files in all States in 1999. See Discussion.

RPT_LEV   **ACCIDENT REPORT LEVEL**

```
'1' = 'BELOW REPORTING LEVEL'
'2' = 'ABOVE REPORTING LEVEL'
'<' = 'NOT STATED OR UNDETERMINED'
'-' = 'DOES NOT APPLY'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: This variable is erroneous. All records on the file are considered reportable.

RTE_NBR   **RDWAY ROUTE NUMBER**

NON-LABELED VARIABLE

NOTE: Mainline route number.

RTE_SUF   **ROUTE SUFFIX**

```
'P' = 'ALIGNMENT PRIOR'
'S' = 'SUPPLEMENTAL ALIGNMENT, PARTIAL OPENED FOR USE BEFORE
                              ALIGNMENT IS COMPLETE'
'U' = 'UNRELINQUISHED, SUPERSEDED BY REALIGNMENT, BUT NOT YET
                              ACCEPTED FOR NON-STATE-HIGHWAY
                              MAINTENANCE'
'Z' = 'BUDGETED OR UNDER CONSTRUCTION'
' ' = 'NO SUFFIX'
OTHER = 'ERROR/OTHER CODES'
```


SDE_HWY   **SIDE-OF-HIGHWAY**

```
'N' = 'NORTHBOUND'
'S' = 'SOUTHBOUND'
'E' = 'EASTBOUND'
'W' = 'WESTBOUND'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: For divided highways, roadway on which collision occurred based on nominal direction of route. For single vehicle crash, it is the same as nominal direction of travel, overruled by impact with second vehicle after crossing median.

SEVERITY   **COLLISION SEVERITY**

```
'1' = 'FATAL'
'2' = 'SEVERE INJURY'
'3' = 'OTHER VISIBLE INJURY'
'4' = 'COMPLAINT OF PAIN'
'0' = 'PDO - PROPERTY DAMAGE ONLY'
OTHER = 'ERROR/OTHER CODES'
```

SP_COND   **SPECIAL CONDITION**

       '1' = 'SCHOOLBUS ON PUBLIC ROADWAY'
       '2' = 'STATE UNIVERSITY (ALSO SFIA)'
       '3' = 'SCHOOLBUS NOT ON PUBLIC ROADWAY'
       '4' = 'OFFROAD (UNIMPROVED)'
       '5' = 'VISTA POINT/REST AREA/SCALES/INSPECTION FACILITY'
       '6' = 'OTHER PUBLIC ACCESS (IMPROVED)'
       '0' = 'NOT ABOVE'
       '-' = 'NOT STATED'

       NOTE: Variable added in 2003.

TOT_BIKEINJ   **TOTAL BICYCLISTS INJURED**

       NON-LABELED VARIABLE

       NOTE: Variable added in 2003.

TOT_BIKEKIL   **TOTAL BICYCLISTS KILLED**

       NON-LABELED VARIABLE

       NOTE: Variable added in 2003.

TOT_INJ   **OCCUPANTS INJURED**

       0 = '0'
       1 = '1'
       2 = '2'
       3 = '3'
       4 = '4'
       5 = '5'
       6-99 = '> 5'

TOT_KILL   **OCCUPANTS KILLED**

       0 = '0'
       1 = '1'
       2 = '2'
       3 = '3'
       4 = '4'
       5 = '5'
       6-99 = '> 5'

TOT_MTCYLINJ   **TOTAL MOTORCYCLISTS INJURED**

       NON-LABELED VARIABLE

       NOTE: Variable added in 2003.

TOT_MTCYLKIL   **TOTAL MOTORCYCLISTS KILLED**

NON-LABELED VARIABLE

NOTE: Variable added in 2003.

TOT_PEDINJ   **TOTAL PEDESTRIANS INJURED**

NON-LABELED VARIABLE

NOTE: Variable added in 2003.

TOT_PEDKILL   **TOTAL PEDESTRIANS KILLED**

NON-LABELED VARIABLE

NOTE: Variable added in 2003.

TOWAWAY   **INJURY, FATAL, OR TOW-AWAY**

```
'Y' = 'YES'
'N' = 'NO'
OTHER = 'ERROR/OTHER CODES'
```


TRF_OPER   **TRAFFIC CONTROL OPERATING**

```
'A' = 'CONTROLS FUNCTIONING'
'B' = 'CONTROLS NOT FUNCTIONING'
'C' = 'CONTROLS OBSCURED'
'D' = 'NO CONTROLS PRESENT'
'<' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```


TRK_FLG   **TRUCK INVOLVED**

```
'Y' = 'YES'
```

NOTE: Variable added in 2001.

VEH_AT_FAULT   **VEHICLE AT FAULT**

```
'Y' = 'YES'
'N' = 'NO'
```

NOTE: This variable contains different data from the one that appears with the Vehicle File.

VEH_INVL   **MOTOR VEHICLES INVOLVED WITH**

```
'A' = 'NON-COLLISION (E.G., OVERTURNED WITHOUT COLLISION OR
                            OCCUPANT JUMPED OUT)'
'B' = 'PEDESTRIAN'
'C' = 'OTHER MOTOR VEHICLE'
'D' = 'MOTOR VEHICLE ON OTHER ROADWAY'
'E' = 'PARKED MOTOR VEHICLE'
'F' = 'TRAIN'
'G' = 'BICYCLE'
'H' = 'ANIMAL (NOT 10)'
'I' = 'FIXED-OBJECT (TREE, UTILITY POLE, LIGHT STANDARD,
                       GUARDRAIL, BOULDER OR
                       CONSTRUCTION MACHINERY IN
                       CONSTRUCTION AREA NOT IN
                       MOTION)'
'J' = 'OTHER OBJECT (ANIMAL-DRAWN CONVEYANCE, RIDDEN ANIMAL,
                       STREET CAR, FALLEN TREE OR
                       STONE, CONSTRUCTION MACHINERY IN
                       MOTION IN CONSTRUCTION AREA, OR
                       OBJECT DROPPED FROM MOTOR
                       VEHICLE BUT NOT STILL IN MOTION
                       (IF STILL IN MOTION, TYPE
                       COLLISION = 03))'
'-' = 'OTHER (OBSOLETE, COMBINED WITH NOT STATED)'
OTHER = 'ERROR/OTHER CODES'
```

VTYPE_AT_FAULT_CHP   **CHP VEHICLE TYPE AT FAULT**

```
'01' = 'PASSENGER CAR, STATION WAGON, OR JEEP'
'02' = 'MOTORCYCLE'
'03' = 'MOTOR-DRIVEN CYCLE (< 15 HP)'
'04' = 'BICYCLE'
'05' = 'MOTORIZED BICYCLE'
'06' = 'ALL-TERRAIN VEHICLE (ATV)'
'07' = 'SPORT UTILITY VEHICLE'
'08' = 'MINIVAN'
'09' = 'PARATRANSIT BUS'
'10' = 'TOUR BUS'
'11' = 'OTHER COMMERCIAL BUS'
'12' = 'NON-COMMERCIAL BUS'
'13' = 'SCHOOLBUS WITHOUT PUPIL PASSENGERS'
'14' = 'SCHOOLBUS PUBLIC I'
'15' = 'SCHOOLBUS PUBLIC II'
'16' = 'SCHOOLBUS PRIVATE I'
'17' = 'SCHOOLBUS PRIVATE II'
'18' = 'SCHOOLBUS CONTRACTUAL I'
'19' = 'SCHOOLBUS CONTRACTUAL II'
'20' = 'PUBLIC TRANSIT AUTHORITY'
'21' = 'TWO-AXLE TANK TRUCK'
'22' = 'PICKUP OR PANEL TRUCK'
'23' = 'PICKUP TRUCK WITH CAMPER'
'24' = 'THREE-AXLE TANK TRUCK'
'25' = 'TRUCK TRACTOR'
'26' = 'TWO-AXLE TRUCK'
```

(CONT'D)

```
'27' = 'THREE-AXLE TRUCK'
'41' = 'AMBULANCE'
'42' = 'DUNE BUGGY'
'43' = 'FIRE TRUCK (NOT RESCUE)'
'44' = 'FORKLIFT'
'45' = 'HIGHWAY CONSTRUCTION EQUIPMENT (ONLY WHILE NOT IN
                          CONSTRUCTION AREA)'
'46' = 'IMPLEMENT OF HUSBANDRY'
'47' = 'MOTOR HOME (40 FT OR LESS)'
'48' = 'CHP, POLICE, OR SHERIFF CAR (EMERGENCY SERVICE OR NOT)'
'49' = 'CHP, POLICE, OR SHERIFF MOTORCYCLE (EMERGENCY SERVICE OR
                          NOT)'
'50' = 'MOBILE EQUIPMENT51 - FARM LABOR VEHICLE (CERTIFIED)'
'55' = 'TWO-AXLE TOW TRUCK'
'56' = 'THREE-AXLE TOW TRUCK'
'57' = 'FARM LABOR VEHICLE (NON-CERTIFIED)'
'58' = 'FARM LABOR TRANSPORTER'
'59' = 'MOTORHOME (OVER 40 FT)'
'60' = 'PEDESTRIAN (INCLUDES MOTORIZED WHEELCHAIR)'
'61' = 'SCHOOL PUPIL ACTIVITY BUS I (PRIOR TO 2002)'
'62' = 'SCHOOL PUPIL ACTIVITY BUS II (PRIOR TO 2002'
'63' = '"YOUTH" BUS'
'64' = 'SCHOOL PUPIL ACTIVITY BUS I (EFF. 2002)'
'65' = 'SCHOOL PUPIL ACTIVITY BUS II (EFF. 2002)'
'71' = 'PASSENGER CAR - HAZARDOUS MATERIALS ONLY'
'72' = 'PICKUPS AND PANELS - HAZARDOUS MATERIALS ONLY'
'73' = 'PICKUPS AND CAMPERS - HAZARDOUS MATERIALS ONLY'
'75' = 'TRUCK TRACTOR - HAZARDOUS MATERIALS ONLY'
'76' = 'TWO-AXLE TRUCK - HAZARDOUS MATERIALS ONLY'
'77' = 'THREE OR MORE AXLE TRUCK - HAZARDOUS MATERIALS ONLY'
'78' = 'TWO-AXLE TANK TRUCK - HAZARDOUS MATERIALS ONLY'
'79' = 'THREE-AXLE TANK TRUCK - HAZARDOUS MATERIALS ONLY'
'81' = 'PASSENGER CAR - HAZARDOUS WASTE OR WASTE/MATERIAL COMBO'
'82' = 'PICKUPS AND PANELS - HAZARDOUS WASTE OR WASTE/MATERIAL
                          COMBO'
'83' = 'PICKUPS AND CAMPERS - HAZARDOUS WASTE OR WASTE/MATERIAL
                          COMBO'
'85' = 'TRUCK TRACTOR - HAZARDOUS WASTE OR WASTE/MATERIAL COMBO'
'86' = 'TWO-AXLE TRUCK - HAZARDOUS WASTE OR WASTE/MATERIAL COMBO'
'87' = 'THREE OR MORE AXLE TRUCK - HAZARDOUS WASTE OR
                          WASTE/MATERIAL COMBO'
'88' = 'TWO-AXLE TANK TRUCK - HAZARDOUS WASTE OR WASTE/MATERIAL
                          COMBO'
'89' = 'THREE-AXLE TANK TRUCK - HAZARDOUS WASTE OR WASTE/MATERIAL
                          COMBO'
'94' = 'MOTORIZED TRANSPORTATION DEVICE'
'95' = 'MISCELLANEOUS NON-MOTORIZED VEHICLE (RIDDEN ANIMAL,
                          ANIMAL-DRAWN CONVEYANCE, TRAIN,
                          OR BUILDING) WITH VICTIM'
'96' = 'MISCELLANEOUS MOTORIZED VEHICLE (GOLF CART)'
'97' = 'LOW SPEED VEHICLE'
'99' '-' = 'NOT STATED OR UNKNOWN (HIT AND RUN)'
```

NOTE: Variable added in 2001.

VTYPE_AT_FAULT_DOT   **VEHICLE TYPE AT FAULT**

```
'A' = 'PASS CAR/STAT WG'
'B' = 'PASS CAR W/TRLER'
'C' = 'MOTORCYCLE'
'D' = 'PKUP/PANEL TRUCK'
'E' = 'PKUP/PNL TRK W/TR'
'F' = 'TRK/TRUCK TRACTOR'
'G' = 'TRK TRAC W/1 TRLR'
'2' = 'TRK TRAC W/2 TRLR'
'3' = 'TRK TRAC W/3 TRLR'
'4' = 'SINGLE UNIT TNKR'
'5' = 'TRK/TRLR W/1 TNK'
'6' = 'TRK/TRLR W/2 TNK'
'H' = 'SCHOOL BUS'
'I' = 'OTHER BUS'
'J' = 'EMERGENCY VEH'
'K' = 'HWY CONST EQUIP'
'L' = 'BICYCLE'
'M' = 'OTH MTR VEHICLE'
'N' = 'OTH N/MTR VEH'
'O' = 'SPILLED LOADS'
'P' = 'DISENGAGED TOW'
'Q' = 'UNINVOLVED VEH'
'R' = 'MOPED'
'S' = 'RUNAWAY VEH'
'T' = 'TRAIN'
'U' = 'PEDESTRIAN'
'V' = 'DISMOUNTED PED'
'W' = 'ANIMAL - LIVESTK'
'X' = 'ANIMAL - DEER'
'Z' = 'ANIMAL - OTHER'
'<' = 'NOT STATED '
'-' = 'DOES NOT APPLY'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: Variable added in 2001.

WEATHER   **WEATHER**
WEATHER1   **WEATHER**
WEATHER2   **WEATHER**

```
'A' = 'CLEAR'
'B' = 'CLOUDY'
'C' = 'RAINING'
'D' = 'SNOWING'
'E' = 'FOG'
'F' = 'OTHER'
'G' = 'WIND'
'<' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: The variable WEATHER was replaced in 2003 by WEATHER1 and WEATHER2.

```
WEEKDAY          DAY-OF-WEEK

                 '1'  =  'SUNDAY'
                 '2'  =  'MONDAY'
                 '3'  =  'TUESDAY'
                 '4'  =  'WEDNESDAY'
                 '5'  =  'THURSDAY'
                 '6'  =  'FRIDAY'
                 '7'  =  'SATURDAY'
                 OTHER ='ERROR/OTHER CODES'
```

LIST OF VARIABLES FOR CALIFORNIA VEHICLE SUBFILE

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
ACCYR	COLLISION ACCYR	Vehicle	CHA(4)	56
BELT1	BELT USAGE	Vehicle	CHA(1)	56
CASENO	UNIQUE ACCIDENT CASEO	Vehicle	CHA(21)	56
CAUSE	CONTRIBUTION FACTOR	Vehicle	CHA(1)	56
CELPHONE	CELL PHONE	Vehicle	CHA(1)	57
CONTRIB1	FIRST ASSOCIATED FACTOR	Vehicle	CHA(1)	57
CONTRIB2	SECOND ASSOCIATED FACTOR	Vehicle	CHA(1)	57
DEFECT	VEHICLE DEFECT	Vehicle	CHA(1)	58
DIR_TRVL	DIRECTION OF TRAVEL	Vehicle	CHA(1)	58
DRV_AGE	DRIVER AGE	Vehicle	NUM	58
DRV_INJ	DRIVER EXTENT OF INJURY	Vehicle	CHA(1)	58
DRV_RACE	DRIVER RACE	Vehicle	CHA(1)	59
DRV_SEX	DRIVER SEX	Vehicle	CHA(1)	59
DRVREST1	DRIVER SAFETY EQUIPMENT	Vehicle	CHA(1)	59
DRVREST2	DRIVER SAFETY EQUIPMENT	Vehicle	CHA(1)	59
FIRE	VEH FUEL LEAKS AND FIRES	Vehicle	CHA(1)	59
HAZ_CODE	HAZARDOUS MATERIAL	Vehicle	CHA(1)	60
HAZMAT	HAZARDOUS MATERIAL	Vehicle	CHA(1)	60
INSUR	INSURANCE	Vehicle	CHA(1)	60
LOC_TYP1	FIRST COLL LOCATION	Vehicle	CHA(1)	60
LOC_TYP2	SECOND COLL LOCATION	Vehicle	CHA(1)	60
LOC_TYP3	THIRD COLL LOCATION	Vehicle	CHA(1)	60
LOC_TYP4	FOURTH COLL LOCATION	Vehicle	CHA(1)	60
MAKE	VEHICLE MAKE	Vehicle	CHA(2)	61
MISCACT1	MOVEMENT PRECEDING COLL	Vehicle	CHA(1)	61
NUM_INJ	TOTAL NUMBER INJURED	Vehicle	NUM	62
NUM_KILL	TOTAL NUMBER KILLED	Vehicle	CHA(2)	62
OBJECT1	FIRST OBJECT STRUCK	Vehicle	CHA(2)	62
OBJECT2	SECOND OBJECT STRUCK	Vehicle	CHA(2)	62
OBJECT3	THIRD OBJECT STRUCK	Vehicle	CHA(2)	62
OBJECT4	FOURTH OBJECT STRUCK	Vehicle	CHA(2)	62
PART_TYP	PARTY TYPE	Vehicle	CHA(1)	63
PHYSCOND	DRIVER PHYSICAL CONDITION	Vehicle	CHA(1)	63
RTE_TYPE	HIGHWAY TYPE INDICATOR	Vehicle	CHA(1)	64
SCHLBUS	SCHOOL BUS	Vehicle	CHA(1)	64
SOBRIETY	SOBRIETY	Vehicle	CHA(1)	64
TRAIL_CODE	TRAILER CODE	Vehicle	CHA(1)	64
TRK_CODE	TRUCK CODE	Vehicle	CHA(1)	64
VEH_AT_FAULT	VEHICLE AT FAULT	Vehicle	CHA(1)	65
VEHNO	VEHICLE NUMBER	Vehicle	NUM	65
VEHTYPE	VEHICLE TYPE	Vehicle	CHA(1)	65
VEHYR	VEHICLE MODEL YEAR	Vehicle	CHA(4)	66
VIOL	VIOLATION CATEGORY	Vehicle	CHA(2)	66
VTOWED	VEHICLE TOWED	Vehicle	CHA(2)	67
VTOWING	VEHICLE TOWING	Vehicle	CHA(2)	67

NOTE: SAS variable names and explanatory names are shown above each listing. (See Discussion for information on SAS formats.)

ACCYR   **YEAR OF ACCIDENT**

NON-LABELED VARIABLE

NOTE: Year of accident (YYYY).

BELT1   **BELT USAGE**

'A' = 'NONE IN VEHICLE'
'B' = 'UNKNOWN'
'C' = 'LAP BELT USED'
'D' = 'LAP BELT NOT USED'
'E' = 'SHOULDER HARNESS USED'
'F' = 'SHOULDER HARNESS NOT USED'
'G' = 'LAP/SHOULDER HARNESS USED'
'H' = 'LAP/SHOULDER HARNESS NOT USED'
'J' = 'PASSIVE RESTRAINT USED'
'K' = 'PASSIVE RESTRAINT NOT USED'
'L' = 'AIR BAG DEPLOYED'
'M' = 'AIR BAG NOT DEPLOYED'
'N' = 'OTHER'
'P' = 'NOT REQUIRED'
'Q' = 'CHILD RESTRAINT IN VEHICLE USED'
'R' = 'CHILD RESTRAINT IN VEHICLE NOT USED'
'S' = 'CHILD RESTRAINT IN VEHICLE, USE UNKNOWN'
'T' = 'CHILD RESTRAINT IN VEHICLE, IMPROPER USE'
'U' = 'NO CHILD RESTRAINT IN VEHICLE'
'V' = 'DRIVER, MOTORCYCLE HELMET NOT USED'
'W' = 'DRIVER, MOTORCYCLE HELMET USED'
'X' = 'PASSENGER, MOTORCYCLE HELMET NOT USED'
'Y' = 'PASSENGER, MOTORCYCLE HELMET USED'
'-',' ' = 'NOT STATED'

NOTE: Data available only for the year 2001.

CASENO   **UNIQUE ACCIDENT CASENO**

NON-LABELED VARIABLE

NOTE: Accident Case Number. The first 4 digits show the accident year.

CAUSE   **CONTRIBUTION FACTOR**

'A' = 'CELL PHONE HANDHELD (7/1/03)'

(CONT'D)

```
'B' = 'CELL PHONE HANDS FREE (7/1/03)'
'C' = 'ELECTRONIC EQUIP.(1/1/01)'
'D' = 'RADIO/CD (1/1/01)'
'E' = 'SMOKING (1/1/01)'
'F' = 'EATING (1/1/01)'
'G' = 'CHILDREN (1/1/01)'
'H' = 'ANIMAL (1/1/01)'
'I' = 'PERSONAL HYGIENE (1/1/01)'
'J' = 'READING (1/1/01)'
'K' = 'OTHER (1/1/01)'
'P' = 'CELL PHONE (1/1/01, VALUE PRIOR TO 7/03 FORM REVISION)'
'-' = 'NOT STATED'
```

NOTE: Variable added in 2002.

CELPHONE   **CELL PHONE**

```
'B' = 'CELL PHONE IN USE (4/1/01)'
'C' = 'CELL PHONE NOT IN USE (4/1/01)'
'D' = 'NO CELL PHONE/UNKNOWN (4/1/01)'
'-' = 'NOT STATED (4/1/01)'
'1' = 'CELL PHONE HANDHELD IN USE (7/1/03)'
'2' = 'CELL PHONE HANDS FREE IN USE (7/1/03)'
'3' = 'CELL PHONE NOT IN USE (7/1/03)'
```

NOTE: Variable added in 2002.

CONTRIB1   **FIRST ASSOCIATED FACTOR**
CONTRIB2   **SECOND ASSOCIATED FACTOR**

```
'1' = 'UNDER INFLUENCE OF ALCOHOL'
'2' = 'FOLLOWING TOO CLOSELY'
'3' = 'FAILURE TO YIELD'
'4' = 'IMPROPER TURN'
'5' = 'SPEEDING'
'6' = 'OTHER VIOLATIONS (HAZARDOUS)'
'7' = 'VISION OBSCURED'
'A' = 'VEHICLE CODE VIOLATION'
'B' = 'OTHER IMPROPER DRIVING'
'C' = 'OTHER THAN DRIVING'
'D' = 'UNKNOWN'
'E' = 'VISION OBSCUREMENT'
'F' = 'INATTENTION'
'G' = 'STOP AND GO TRAFFIC'
'H' = 'ENTER/LEAVE RAMP'
'I' = 'PREVIOUS COLLISION'
'J' = 'UNFAMILIAR WITH ROAD'
'K' = 'DEFECT VEHICLE EQUIPMENT'
'L' = 'UNINVOLVED VEHICLE'
'M' = 'OTHER'
'N' = 'NONE APPARENT'
'O','S' = 'RUNAWAY VEHICLE'
'P' = 'WIND'
'R' = 'RAMP ACCIDENT'
```

(CONT'D)

```
                 '<','Z' = 'NOT STATED'
                 '-'     = 'DOES NOT APPLY'
                 OTHER = 'ERROR/OTHER CODES'


DEFECT           VEHICLE DEFECT

                 'C' = 'TIRE DEFECT/FAIL'
                 '<' = 'NOT STATED'
                 '-' = 'DOES NOT APPLY'
                 OTHER = 'ERROR/OTHER CODES'


                 NOTE: Variable added in 2002.


DIR_TRVL         DIRECTION OF TRAVEL

                 'N' = 'NORTH, NORTHEAST, OR NORTHWEST BOUND'
                 'S' = 'SOUTH, SOUTHEAST, OR SOUTHWEST BOUND'
                 'E' = 'EASTBOUND'
                 'W' = 'WESTBOUND'
                 '<' = 'NOT STATED'
                 '-' = 'DOES NOT APPLY'
                 OTHER = 'ERROR/OTHER CODES'


DRV_AGE          DRIVER AGE

                 00    = 'NOT STATED'
                 01    ='INFANT - 1 YR'
                 02-04 ='02-04 YRS'
                 05-10 ='05-10 YRS'
                 11-14 ='11-14 YRS'
                 15    ='  15 YRS'
                 16    ='  16 YRS'
                 17    ='  17 YRS'
                 18    ='  18 YRS'
                 19    ='  19 YRS'
                 20    ='  20 YRS'
                 21-25 ='21-25 YRS'
                 26-30 ='26-30 YRS'
                 31-35 ='31-35 YRS'
                 36-45 ='36-45 YRS'
                 46-55 ='46-55 YRS'
                 56-65 ='56-65 YRS'
                 66-89 ='66-89 YRS'
                 90-99 ='90+ YRS'


DRV_INJ          DRIVER EXTENT OF INJURY

                 '1' = 'KILLED'
                 '2' = 'SEVERE INJURY'
                 '3' = 'OTH VISIBLE INJURY'
                 '4' = 'COMPLAINT-PAIN'
                 '0' = 'NO INJURY'
                 OTHER = 'ERROR/OTHER CODES'
```

DRV_RACE   **DRIVER RACE**

```
' ' = 'NOT STATED'
'A' = 'ASIAN'
'B' = 'BLACK'
'W' = 'WHITE'
'H' = 'HISPANIC'
'O' = 'OTHER'
```

NOTE: Variable added in 2002.

DRV_SEX   **DRIVER SEX**

```
'M' = 'MALE'
'F' = 'FEMALE'
'-' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```


DRVREST1   **DRIVER SAFETY EQUIPMENT**
DRVREST2   **DRIVER SAFETY EQUIPMENT**

```
'A' = 'NONE IN VEHICLE'
'B' = 'UNKNOWN'
'C' = 'LAP BELT USED'
'D' = 'LAP BELT NOT USED'
'E' = 'SHOULDER HARNESS USED'
'F' = 'SHOULDER HARNESS NOT USED'
'G' = 'LAP/SHOULDER HARNESS USED'
'H' = 'LAP/SHOULDER HARNESS NOT USED'
'J' = 'PASSIVE RESTRAINT USED'
'K' = 'PASSIVE RESTRAINT NOT USED'
'L' = 'AIR BAG DEPLOYED'
'M' = 'AIR BAG NOT DEPLOYED'
'N' = 'OTHER'
'P' = 'NOT REQUIRED'
'Q' = 'CHILD RESTRAINT IN VEHICLE USED'
'R' = 'CHILD RESTRAINT IN VEHICLE NOT USED'
'S' = 'CHILD RESTRAINT IN VEHICLE, USE UNKNOWN'
'T' = 'CHILD RESTRAINT IN VEHICLE, IMPROPER USE'
'U' = 'NO CHILD RESTRAINT IN VEHICLE'
'V' = 'DRIVER, MOTORCYCLE HELMET NOT USED'
'W' = 'DRIVER, MOTORCYCLE HELMET USED'
'X' = 'PASSENGER, MOTORCYCLE HELMET NOT USED'
'Y' = 'PASSENGER, MOTORCYCLE HELMET USED'
'-',' ' =  'NOT STATED'
```

NOTE: Variable added in 2002.

FIRE   **VEH FUEL LEAKS AND FIRES**

```
'B' = 'FIRE INVOLVED'
'<' = 'NOT STATED'
'-' = 'DOES NOT APPLY'
```

(CONT'D)

```
              OTHER = 'ERROR/OTHER CODES'

              NOTE: Variable added in 2002.


HAZ_CODE      HAZARDOUS MATERIAL

              'A' = 'HAZARDOUS MATERIALS'
              '-' = 'NOT STATED'

              NOTE: Variable added in 2002.


HAZMAT        HAZARDOUS MATERIAL

              'A' = 'HAZARDOUS MATERIAL'
              '<' = 'NOT STATED'
              '-' = 'DOES NOT APPLY'
              OTHER = 'ERROR/OTHER CODES'


INSUR         INSURANCE

              'N' = 'NO PROOF OF INSURANCE OBTAINED'
              'Y' = 'YES, PROOF OF INSURANCE OBTAINED'
              'O' = 'NOT APPLICABLE (USED FOR PARKED CARS, BICYCLISTS,
                                    PEDESTRIANS, AND PARTY TYPE
                                    OTHERS)'
              'E' = 'USED IF THE OFFICER IS CALLED AWAY FROM THE SCENE OF THE
                                    COLLISION PRIOR TO OBTAINING THE
                                    INSURANCE INFORMATION'
              ' ' = 'NOT STATED'

              NOTE: Variable added in 2001.


LOC_TYP1      FIRST COLLISION LOCATION
LOC_TYP2      SECOND COLLISION LOCATION
LOC_TYP3      THIRD COLLISION LOCATION
LOC_TYP4      FOURTH COLLISION LOCATION

              'A' = 'BEYOND MEDIAN OR BARRIER STRIPE - DRIVER'S LEFT'
              'B' = 'BEYOND SHOULDER - DRIVER'S LEFT'
              'C' = 'LEFT SHOULDER AREA'
              'D' = 'LEFT LANE'
              'E' = 'INTERIOR LANES'
              'F' = 'RIGHT LANE'
              'G' = 'RIGHT SHOULDER AREA'
              'H' = 'BEYOND SHOULDER - DRIVER'S RIGHT'
              'I' = 'GORE AREA'
              'J' = 'OTHER'
              '<' = 'NOT STATED'
              '-' = 'DOES NOT APPLY'
              OTHER = 'ERROR/OTHER CODES'
```

MAKE   **VEHICLE MAKE**

```
'01' = 'AMERICAN MOTORS'
'02' = 'BUICK'
'03' = 'CADILLAC'
'04' = 'CHEVROLET'
'05' = 'CHRYSLER'
'06' = 'DODGE'
'08' = 'FORD'
'09' = 'GMC'
'10' = 'IMPERIAL'
'11' = 'LINCOLN'
'12' = 'MERCURY'
'14' = 'OLDSMOBILE'
'16' = 'PLYMOUTH'
'17' = 'PONTIAC'
'18' = 'STUDEBAKER'
'30' = 'OTHER DOMESTIC'
'51' = 'DATSUN'
'52' = 'FIAT'
'53' = 'MERCEDES-BENZ'
'54' = 'MG'
'55' = 'OPEL'
'56' = 'RENAULT'
'57' = 'TRIUMPH'
'58' = 'TOYOTA'
'59' = 'VOLKSWAGON'
'60' = 'VOLVO'
'61' = 'HONDA'
'62' = 'MAZDA'
'63' = 'AUDI'
'64' = 'BMW'
'65' = 'PORSCHE'
'66' = 'SUBARU'
'70' = 'OTHER FOREIGN'
'98' = 'PED, BIKE, OTHER'
'99' = 'TRK N/PICKUP'
OTHER = 'ERROR/OTHER CODES'
```

MISCACT1   **MOVEMENT PRECEDING COLLISION**

```
'A' = 'STOPPED'
'B' = 'PROCEEDING STRAIGHT'
'C' = 'RAN OFF ROAD'
'D' = 'MAKING RIGHT TURN'
'E' = 'MAKING LEFT TURN'
'F' = 'MAKING U TURN'
'G' = 'BACKING'
'H' = 'SLOWING, STOPPING'
'I' = 'PASSING OTHER VEHICLE'
'J' = 'CHANGING LANES'
'K' = 'PARKING MANEUVER'
'L' = 'ENTERING TRAFFIC FROM SHOULDER, MEDIAN, PARKING STRIP OR
                              PRIVATE DRIVE'
'M' = 'OTHER UNSAFE TURNING'
'N' = 'CROSSED INTO OPPOSING LANE'
'O' = 'PARKED'
```

```
'P' = 'MERGING'
'Q' = 'TRAVELING WRONG WAY'
'R' = 'OTHER'
'<' = 'NOT STATED'

PEDESTRIANS
'1' = 'NO PEDESTRIAN INVOLVED'
'2' = 'CROSSING IN CROSSWALK AT INTERSECTION'
'3' = 'CROSSING IN CROSSWALK NOT AT INTERSECTION'
'4' = 'CROSSING - NOT IN CROSSWALK'
'5' = 'IN ROADWAY - INCLUDE SHOULDER'
'6' = 'NOT IN ROADWAY'
'7' = 'APPROACHING/LEAVING SCHOOL BUS'
'-' = 'DOES NOT APPLY'
OTHER = 'ERROR/OTHER CODES'
```

NUM_INJ   **TOTAL NUMBER INJURED**

```
0 = '0'
1 = '1'
2 = '2'
3 = '3'
4 = '4'
5 = '5'
6-99 = '> 5'
OTHER = 'ERROR/OTHER CODES'
```

NUM_KILL   **TOTAL NUMBER KILLED**

```
0 = '0'
1 = '1'
2 = '2'
3 = '3'
4 = '4'
5 = '5'
6-99 = '> 5'
OTHER = 'ERROR/OTHER CODES'
```

OBJECT1   **FIRST OBJECT STRUCK**
OBJECT2   **SECOND OBJECT STRUCK**
OBJECT3   **THIRD OBJECT STRUCK**
OBJECT4   **FOURTH OBJECT STRUCK**

```
'01' = 'SIDE OF BRIDGE RAILING'
'02' = 'END OF BRIDGE RAILING'
'03' = 'PIER, COLUMN OR ABUTMENT OF BRIDGE'
'04' = 'BOTTOM OF BRIDGE STRUCTURE'
'05' = 'BRIDGE END POST IN GORE'
'06' = 'END OF GUARDRAIL (NEW CODE - 1992)'
'07' = 'BRIDGE APPROACH GUARDRAIL (NEW - 1992)'
'10' = 'LIGHT OR SIGNAL POLE'
'11' = 'UTILITY POLE'
'12' = 'POLE - TYPE NOT STATED'
'13' = 'TRAFFIC SIGN OR SIGN POST'
'14' = 'OTHER SIGNS (NOT TRAFFIC)'
```

```
          '15' = 'GUARDRAIL'
          '16' = 'BARRIER'
          '17' = 'WALL (CONCRETE OR WOOD - NOT MEDIAN BARRIER)'
          '18' = 'DIKE OR CURB (INCLUDING CURB OF MEDIAN & A.C. BERM)'
          '19' = 'TRAFFIC ISLAND (NOT CURBED MEDIAN SEPARATION)'
          '20' = 'RAISED BARS'
          '21' = 'CONCRETE OBJECT (HDWL, D.I., ETC.)'
          '22' = 'GUIDEPOST, CULVERT OR MILE POST MARKER'
          '23' = 'CUT SLOPE OR EMBANKMENT, STRUCK FROM BELOW'
          '24' = 'OVER EMBANKMENT'
          '25' = 'IN WATER (RIVER, LAKE, CANAL)'
          '26' = 'DRAINAGE DITCH (WITH OR WITHOUT WATER)'
          '27' = 'FENCE'
          '28' = 'TREES'
          '29' = 'PLANTS (MISCELLANEOUS)'
          '30' = 'SOUND WALLS'
          '40' = 'ROCKS, FALLEN TREES, SNOWBANK IN ROADWAY, TREE OVERHEAD,
                                  FALLING TREES OR OTHER NATURAL
                                  MATERIAL ON ROAD'
          '41' = 'TEMPORARY BARRICADES, CONES OR SIGNS'
          '42' = 'OTHER OBJECT ON ROAD'
          '43' = 'OTHER OBJECT OFF ROAD'
          '44' = 'OVERTURNED'
          '45' = 'CRASH CUSHION-SAND'
          '46' = 'CRASH CUSHION-OTHER'
          '51' = 'CALL BOX'
          '98' = 'UNKNOWN OBJECT INVOLVED'
          '99' = 'NO OBJECT INVOLVED'
          'V1'-'V9' = 'VEHICLE 1 TO 9'
          '<<' = 'NOT STATED'
          '--' = 'DOES NOT APPLY'
          OTHER = 'ERROR/OTHER CODES'
```

NOTE: Category 51 added in 1996. In 1996, "Crash Cushion" was
separated into two codes (45) "Crash Cushion-Sand" and (46) "Crash
Cushion-Other".

PART_TYP   **PARTY TYPE**

```
          '1' = 'DRIVER
          '2' = 'PASSENGER (INCLUDES NON-OPERATOR ON BICYCLE OR ANY VICTIM
                                  ON/IN PARKED VEHICLE, OR
                                  MULTIPLE VICTIMS ON/IN NON-
                                  MOTORIZED VEHICLE)'
          '3' = 'PEDESTRIAN'
          '4' = 'BICYCLIST'
          '5' = 'OTHER (SINGLE VICTIM ON/IN NON-MOTOR VEHICLE, E.G., RIDDEN
                                  ANIMAL, HORSE-DRAWN CARRIAGE,
                                  TRAIN, OR BUILDING)'
          OTHER = 'ERROR/OTHER CODES'
```


PHYSCOND   **DRIVER PHYSICAL CONDITION**

```
          'E' = 'UNDER DRUG INFLUENCE'
```
(CONT'D)

```
'F' = 'OTHER PHYSICAL IMPAIRMENT'
'H' = 'NOT APPLICABLE'
'I' = 'SLEEPY OR FATIGUED'
'-' = 'NOT STATED'
```

RTE_TYPE **HIGHWAY TYPE INDICATOR**

```
'1' = 'ON STATE ROUTE'
'2' = 'NOT ON STATE ROUTE'
'3' = 'INTERSECTING STATE ROUTE'
'-' = 'DOES NOT APPLY'
'<' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: This variable is not reliable for at least part of 1991-94. There were programming errors in the data coding/storage efforts.

SCHLBUS **SCHOOL BUS**

```
'E' = 'SCHOOL BUS RELATED (1/1/02)'
'-' = 'NOT STATED (1/1/02)'
```

NOTE: Variable added in 2002.

SOBRIETY **DRIVER SOBRIETY TEST**

```
'A' = 'HAD NOT BEEN DRINKING'
'B' = 'HAD BEEN DRINKING, UNDER INFLUENCE'
'C' = 'HAD BEEN DRINKING, NOT UNDER INFLUENCE'
'D' = 'HAD BEEN DRINKING, IMPAIRMENT UNKNOWN'
'E' = 'UNDER DRUG INFLUENCE'
'F' = 'OTHER PHYSICAL IMPAIRMENT'
'G' = 'IMPAIRMENT UNKNOWN'
'H' = 'NOT APPLICABLE'
'I' = 'FATIGUE'
'-','<' = 'NOT STATED/DOES NOT APPLY'
OTHER = 'ERROR/OTHER CODES'
```

TRAIL_CODE **TRAILER CODE**

```
'G' = '32 FT TRAILER COMBO (1/1/03)'
'-' = 'NOT STATED'
```

NOTE: Variable added in 2003.

TRK_CODE **TRUCK CODE**

```
'F' = '75 FT MOTORTRUCK COMBO (1/1/03)'
'-' = 'NOT STATED'
```

VEH_AT_FAULT   **VEHICLE AT FAULT**

```
'Y' = 'YES'
'N' = 'NO'
```

NOTE: This variable contains different data from the one that appears with the Accident File. This variable was added in 2001.

VEHNO   **VEHICLE NUMBER**

```
1 = 'VEHICLE ONE'
2 = 'VEHICLE TWO'
3 = 'VEHICLE THREE'
4 = 'VEHICLE FOUR'
5 = 'VEHICLE FIVE'
6 = 'VEHICLE SIX'
7 = 'VEHICLE SEVEN'
8 = 'VEHICLE EIGHT'
9 = 'VEHICLE NINE'
0 = 'NOT STATED'
```

VEHTYPE   **VEHICLE TYPE**

```
'A' = 'PASSENGER CAR (INCLUDES STATION WAGON)'
'B' = 'PASSENGER CAR WITH TRAILER'
'C' = 'MOTORCYCLE'
'D' = 'PICKUP OR PANEL TRUCK'
'E' = 'PICKUP OR PANEL TRUCK WITH TRAILER'
'F' = 'TRUCK OR TRUCK TRACTOR'
'G' = 'TRUCK OR TRUCK TRACTOR WITH 1 TRAILER'
'2' = 'TRUCK OR TRUCK TRACTOR WITH 2 TRAILERS'
'3' = 'TRUCK OR TRUCK TRACTOR WITH 3 TRAILERS'
'4' = 'SINGLE UNIT TANKER'
'5' = 'TRUCK/TRAILER AND 1 TANK TRAILER'
'6' = 'TRUCK/TRAILER AND 2 TANK TRAILERS'
'H' = 'SCHOOL BUS'
'I' = 'OTHER BUS'
'J' = 'EMERGENCY VEHICLE'
'K' = 'HIGHWAY CONSTRUCTION EQUIPMENT'
'L' = 'BICYCLE'
'M' = 'OTHER MOTOR VEHICLE'
'N' = 'OTHER NON-MOTOR VEHICLE'
'O' = 'SPILLED LOADS'
'P' = 'DISENGAGED TOW'
'Q' = 'UNINVOLVED VEHICLE'
'R' = 'MOPED'
'S' = 'RUNAWAY VEHICLE'
'T' = 'TRAIN'
'U' = 'PEDESTRIAN'
'V' = 'DISMOUNTED PEDESTRIAN'
'W' = 'ANIMAL - LIVESTOCK'
'X' = 'ANIMAL - DEER'
'Z' = 'ANIMAL - OTHER'
'<' = 'NOT STATED'
```

(CONT'D)

```
            '-' = 'DOES NOT APPLY'
            OTHER = 'ERROR/OTHER CODES'


VEHYR          VEHICLE MODEL YEAR

            '1901'-'1979' = '1901 - 1979'
            '1980'-'1989' = '1980 - 1989'
            '1990'-'1999' = '1990 - 1999'
            '2000'-'2099' = '>= 2000'
            'bike' = 'PED,BIKE/NS'
            OTHER = 'ERROR/OTHER CODES'


            NOTE: There will be some invalid codes which appear valid (e.g., a
            "1999" vehicle in a 1997 crash – when "1999" should only be valid
            for 1998 and later crash years).


VIOL           VIOLATION CATEGORY

            '01' = 'UNDER INFLUENCE IN PUBLIC'
            '02' = 'COUNTY ORDINANCE'
            '03' = 'CITY ORDINANCE'
            '05' = 'BUSINESS/PROFESSIONS CODE'
            '06' = 'FELONY (NOT 15)'
            '08' = 'CONTROLLED SUBSTANCES'
            '09' = 'HEALTH/SAFETY CODE NOT OTHERWISE CLASSIFIED'
            '10' = 'PENAL CODE NOT OTHERWISE CLASSIFIED'
            '11' = 'STREETS/HIGHWAYS CODE'
            '13' = 'WELFARE/INSTITUTIONS CODE'
            '15' = 'MANSLAUGHTER'
            '16' = 'OTHER CODE (OBSOLETE)'
            '19' = 'HIT AND RUN'
            '20' = 'DRIVING (OR BICYCLING) UNDER INFLUENCE OF ALCOHOL AND/OR
                                        DRUG'
            '21' = 'IMPROPER LANE'
            '22' = 'IMPEDING TRAFFIC'
            '23' = 'FAILURE TO HEED STOP SIGNAL'
            '24' = 'FAILURE TO HEED STOP SIGN'
            '25' = 'UNSAFE SPEED'
            '26' = 'RECKLESS DRIVING'
            '27' = 'WRONG SIDE OF ROAD'
            '28' = 'UNSAFE LANE CHANGE'
            '29' = 'IMPROPER PASSING'
            '30' = 'FOLLOWING TOO CLOSELY'
            '31' = 'IMPROPER TURNING'
            '33' = 'AUTOMOBILE RIGHT-OF-WAY'
            '34' = 'PEDESTRIAN RIGHT-OF-WAY'
            '35' = 'PEDESTRIAN VIOLATION'
            '37' = 'DRIVING UNDER INFLUENCE OF DRUG'
            '38' = 'HAZARDOUS PARKING'
            '39' = 'LIGHTS'
            '40' = 'BRAKES'
            '43' = 'OTHER EQUIPMENT'
            '44' = 'OTHER HAZARDOUS MOVEMENT'
            '46' = 'IMPROPER REGISTRATION'

(CONT'D)
```

```
'47' = 'OTHER NON-MOVING VIOLATION'
'48' = 'EXCESSIVE SMOKE'
'49' = 'EXCESSIVE NOISE'
'50' = 'OVERWEIGHT'
'51' = 'OVERSIZE'
'52' = 'OVER MAXIMUM SPEED'
'53' = 'UNSAFE STARTING OR BACKING'
'60' = 'OFF-HIGHWAY VEHICLE VIOLATION'
'61' = 'CHILD RESTRAINT VIOLATION'
'62' = 'SEAT BELT VIOLATION (NON-USE)'
'63' = 'SEAT BELT EQUIPMENT VIOLATION'
'00' = 'NOT STATED'
```

VTOWED   **VEHICLE TOWED**

```
'28' = 'SEMI-TANK TRAILER'
'29' = 'PULL-TANK TRAILER'
'30' = 'TWO-TANK TRAILER'
'31' = 'SEMI-TRAILER'
'32' = 'PULL TRAILER (INCLUDES DOLLY)'
'33' = 'TWO TRAILERS (OR 31 + 32)'
'34' = 'BOAT TRAILER'
'35' = 'UTILITY TRAILER'
'36' = 'TRAILER COACH'
'37' = 'EXTRALEGAL PERMIT LOAD'
'38' = 'POLE, PIPE, OR LOGGING DOLLY'
'39' = 'THREE TRAILERS (OR 31 + 33)'
'40' = 'FEDERALLY LEGAL SEMI-TRAILER'
'52' = 'FEDERALLY LEGAL DOUBLE CARGO COMBO (OVER 75 FT)'
'53' = 'FIFTH WHEEL TRAILER'
'54' = 'CONTAINER CHASSIS'
```

NOTE: Variable added in 2001.

VTOWING   **VEHICLE TOWING**

```
'01' = 'PASSENGER CAR, STATION WAGON, OR JEEP'
'02' = 'MOTORCYCLE'
'03' = 'MOTOR-DRIVEN CYCLE (< 15 HP)'
'04' = 'BICYCLE'
'05' = 'MOTORIZED BICYCLE'
'06' = 'ALL-TERRAIN VEHICLE (ATV)'
'07' = 'SPORT UTILITY VEHICLE'
'08' = 'MINIVAN'
'09' = 'PARATRANSIT BUS'
'10' = 'TOUR BUS'
'11' = 'OTHER COMMERCIAL BUS'
'12' = 'NON-COMMERCIAL BUS'
'13' = 'SCHOOLBUS WITHOUT PUPIL PASSENGERS'
'14' = 'SCHOOLBUS PUBLIC I'
'15' = 'SCHOOLBUS PUBLIC II'
'16' = 'SCHOOLBUS PRIVATE I'
'17' = 'SCHOOLBUS PRIVATE II'
'18' = 'SCHOOLBUS CONTRACTUAL I'
```

(CONT'D)

```
'19' = 'SCHOOLBUS CONTRACTUAL II'
'20' = 'PUBLIC TRANSIT AUTHORITY'
'21' = 'TWO-AXLE TANK TRUCK'
'22' = 'PICKUP OR PANEL TRUCK'
'23' = 'PICKUP TRUCK WITH CAMPER'
'24' = 'THREE-AXLE TANK TRUCK'
'25' = 'TRUCK TRACTOR'
'26' = 'TWO-AXLE TRUCK'
'27' = 'THREE-AXLE TRUCK'
'41' = 'AMBULANCE'
'42' = 'DUNE BUGGY'
'43' = 'FIRE TRUCK (NOT RESCUE)'
'44' = 'FORKLIFT'
'45' = 'HIGHWAY CONSTRUCTION EQUIPMENT (ONLY WHILE NOT IN
                                 CONSTRUCTION AREA)'
'46' = 'IMPLEMENT OF HUSBANDRY'
'47' = 'MOTOR HOME (40 FT OR LESS)'
'48' = 'CHP, POLICE, OR SHERIFF CAR (EMERGENCY SERVICE OR NOT)'
'49' = 'CHP, POLICE, OR SHERIFF MOTORCYCLE (EMERGENCY SERVICE OR
                                 NOT)'
'50' = 'MOBILE EQUIPMENT51 - FARM LABOR VEHICLE (CERTIFIED)'
'55' = 'TWO-AXLE TOW TRUCK'
'56' = 'THREE-AXLE TOW TRUCK'
'57' = 'FARM LABOR VEHICLE (NON-CERTIFIED)'
'58' = 'FARM LABOR TRANSPORTER'
'59' = 'MOTORHOME (OVER 40 FT)'
'60' = 'PEDESTRIAN (INCLUDES MOTORIZED WHEELCHAIR)'
'61' = 'SCHOOL PUPIL ACTIVITY BUS I (PRIOR TO 2002)'
'62' = 'SCHOOL PUPIL ACTIVITY BUS II (PRIOR TO 2002'
'63' = '"YOUTH" BUS'
'64' = 'SCHOOL PUPIL ACTIVITY BUS I (EFF. 2002)'
'65' = 'SCHOOL PUPIL ACTIVITY BUS II (EFF. 2002)'
'71' = 'PASSENGER CAR - HAZARDOUS MATERIALS ONLY'
'72' = 'PICKUPS AND PANELS - HAZARDOUS MATERIALS ONLY'
'73' = 'PICKUPS AND CAMPERS - HAZARDOUS MATERIALS ONLY'
'75' = 'TRUCK TRACTOR - HAZARDOUS MATERIALS ONLY'
'76' = 'TWO-AXLE TRUCK - HAZARDOUS MATERIALS ONLY'
'77' = 'THREE OR MORE AXLE TRUCK - HAZARDOUS MATERIALS ONLY'
'78' = 'TWO-AXLE TANK TRUCK - HAZARDOUS MATERIALS ONLY'
'79' = 'THREE-AXLE TANK TRUCK - HAZARDOUS MATERIALS ONLY'
'81' = 'PASSENGER CAR - HAZARDOUS WASTE OR WASTE/MATERIAL COMBO'
'82' = 'PICKUPS AND PANELS - HAZARDOUS WASTE OR WASTE/MATERIAL
                                 COMBO'
'83' = 'PICKUPS AND CAMPERS - HAZARDOUS WASTE OR WASTE/MATERIAL
                                 COMBO'
'85' = 'TRUCK TRACTOR - HAZARDOUS WASTE OR WASTE/MATERIAL COMBO'
'86' = 'TWO-AXLE TRUCK - HAZARDOUS WASTE OR WASTE/MATERIAL COMBO'
'87' = 'THREE OR MORE AXLE TRUCK - HAZARDOUS WASTE OR
                                 WASTE/MATERIAL COMBO'
'88' = 'TWO-AXLE TANK TRUCK - HAZARDOUS WASTE OR WASTE/MATERIAL
                                 COMBO'
'89' = 'THREE-AXLE TANK TRUCK - HAZARDOUS WASTE OR WASTE/MATERIAL
                                 COMBO'
'94' = 'MOTORIZED TRANSPORTATION DEVICE'
'95' = 'MISCELLANEOUS NON-MOTORIZED VEHICLE (RIDDEN ANIMAL,
                                 ANIMAL-DRAWN CONVEYANCE, TRAIN,
                                 OR BUILDING) WITH VICTIM'
```

(CONT'D)

```
'96' = 'MISCELLANEOUS MOTORIZED VEHICLE (GOLF CART)'
'97' = 'LOW SPEED VEHICLE'
'99','-' = 'NOT STATED OR UNKNOWN (HIT AND RUN)'
```

NOTE: Variable added in 2001.

LIST OF VARIABLES FOR CALIFORNIA OCCUPANT SUBFILE

SAS VARIABLE NAME	DESCRIPTION	VARIABLE FILE	SAS FORMAT TYPE	PAGE NO.
ACCYR	COLLISION ACCYR	Occupant	CHA(4)	72
AGE	OCCUPANT AGE	Occupant	NUM	72
CASENO	UNIQUE ACCIDENT CASEO	Occupant	CHA(21)	72
EJECT	EJECTED FROM VEHICLE	Occupant	CHA(1)	72
INJ	DRV/OCC INJURY	Occupant	CHA(1)	73
OCC_TYP	OCCUPANT TYPE	Occupant	CHA(1)	73
OCCNUM	OCCUPANT NUMBER	Occupant	NUM	73
REST1	SAFETY EQUIPMENT	Occupant	CHA(1)	73
REST2	SAFETY EQUIPMENT	Occupant	CHA(1)	73
SEATPOS	SEATING POSTION	Occupant	CHA(1)	74
SEX	OCCUPANT SEX	Occupant	CHA(1)	75
VEHNO	VEHICLE NUMBER	Occupant	NUM	75

NOTE: This file contains information on all passengers plus injured (but not uninjured) drivers.

NOTE: SAS variable names and explanatory names are shown above each listing.
(See Discussion for information on SAS formats.)

NOTE: This file contains information on all passengers plus injured drivers.

ACCYR   **YEAR OF ACCIDENT OR COLLISION**

NON-LABELED VARIABLE

NOTE: Year of crash (YYYY). Variable discontinued in 2001.

AGE   **OCCUPANT AGE**

```
00    = 'NOT STATED'
01    ='INFANT - 1 YR'
02-04 ='02-04 YRS'
05-10 ='05-10 YRS'
11-14 ='11-14 YRS'
15    ='   15 YRS'
16    ='   16 YRS'
17    ='   17 YRS'
18    ='   18 YRS'
19    ='   19 YRS'
20    ='   20 YRS'
21-25 ='21-25 YRS'
26-30 ='26-30 YRS'
31-35 ='31-35 YRS'
36-45 ='36-45 YRS'
46-55 ='46-55 YRS'
56-65 ='56-65 YRS'
66-89 ='66-89 YRS'
90-99 ='90+ YRS'
```


CASENO   **UNIQUE ACCIDENT CASENO**

NON-LABELED VARIABLE

NOTE: Accident Case Number. The first 4 digits show the accident
year.

EJECT   **EJECTED FROM VEHICLE**

```
'0' = 'NOT EJECTED'
'1' = 'FULLY EJECTED'
'2' = 'PARTIALLY EJECTED'
'3' = 'UNKNOWN'
```

(CONT'D)

```
                    OTHER = 'ERROR/OTHER CODES'

                    NOTE: Approximately 10% of the cases are "unknown."  This is not
                    unusual given the nature of this variable and the fact that it may
                    not appear on all police forms in California.


INJ                 DRV/OCC INJURY

                    '1' = 'KILLED (DIED NO LATER THAN 30 DAYS AFTER COLLISION)'
                    '2' = 'SEVERE INJURY'
                    '3' = 'OTHER VISIBLE INJURY'
                    '4' = 'COMPLAINT OF PAIN'
                    '0' = 'NON-INJURY (PDO) CRASH'


OCCNUM              OCCUPANT NUMBER

                    0 = '0'
                    1 = '1'
                    2 = '2'
                    3 = '3'
                    4 = '4'
                    5 = '5'
                    6-99 = '> 5'
                    OTHER = 'ERROR/OTHER CODES'

                    NOTE: Variable discontinued in 2000.


OCC_TYP             OCCUPANT TYPE

                    '  1' = 'DRIVER'
                    '  2' = 'PASSENGER (INCLUDES NON-OPERATOR ON BICYCLE OR ANY VICTIM
                                        ON/IN PARKED VEHICLE, OR
                                        MULTIPLE VICTIMS ON/IN NON-
                                        MOTORIZED VEHICLE)'
                    '  3' = 'PEDESTRIAN'
                    '  4' = 'BICYCLIST'
                    '  5' = 'OTHER (SINGLE VICTIM ON/IN NON-MOTOR VEHICLE, E.G.,
                                        RIDDEN ANIMAL, HORSE-DRAWN
                                        CARRIAGE, TRAIN, OR BUILDING)'
                    '  6' = 'NON-INJ PARTY'
                    OTHER = 'ERROR/OTHER CODES'

                    NOTE:  Note that codes 1-5 are for injured occupants only.  Code 6
                    includes all uninjured (non-driver) occupants and users.


REST1               OCCUPANT RESTRAINT
REST2               OCCUPANT RESTRAINT

                    'A' = 'NONE IN VEHICLE'
                    'B' = 'UNKNOWN'
                    'C' = 'LAP BELT USED'
                    'D' = 'LAP BELT NOT USED'

(CONT'D)
```

```
'E' = 'SHOULDER HARNESS USED'
'F' = 'LAP/SHOULDER HARNESS NOT USED'
'G' = 'LAP/SHOULDER HARNESS USED'
'H' = 'LAP/SHOULDER HARNESS NOT USED'
'J' = 'PASSIVE RESTRAINT USED'
'K' = 'PASSIVE RESTRAINT NOT USED'
'L' = 'AIR BAG DEPLOYED'
'M' = 'AIR BAG NOT DEPLOYED'
'N' = 'OTHER'
'P' = 'NOT REQUIRED'

CHILD RESTRAINT
'Q' = 'IN VEHICLE USED'
'R' = 'IN VEHICLE NOT USED'
'S' = 'IN VEHICLE USE UNKNOWN'
'T' = 'IN VEHICLE IMPROPER USED'
'U' = 'NONE IN VEHICLE'

M/C HELMET-DRIVER
'V' = 'DRIVER - NO MOTORCYCLE HELMET'
'W' = 'DRIVER - MOTORCYCLE HELMET IN USE'

M/C HELMET-PASSENGER
'X' = 'MC PASSENGER - NO MOTORCYCLE HELMET'
'Y' = 'MC PASSENGER - MOTORCYCLE HELMET IN'
'-',' ' = 'NOT STATED'
```

NOTE: Restraint information for drivers is for injured drivers only. As with all States, the data for restraint use is somewhat questionable given that it is not observed by the officer. REST2 is a new variable that was added in 2001.

SEATPOS   **SEATING POSITION**

```
'1' = 'DRIVER'
'2'-'6' = 'PASSENGERS'
'7'   = 'STAT WAGON REAR'
'8'   = 'REAR OCC TRR/VAN'
'9'   = 'POSITION UNKNOWN'
'0'   = 'OTHER OCCUPANTS'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: The data in this variable is somewhat different from similar data in the OCC_TYP (Occupant Type) variable. This is due to the fact that the Occupant Type variable combines all uninjured occupants into one code, and that while report forms used by California cities all contain some type of information on drivers and the number of occupants, all do not contain a variable related to seating position.

SEX   **OCCUPANT SEX**

```
'M' = 'MALE'
'F' = 'FEMALE'
'-' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```

VEHNO   **VEHICLE NUMBER**

```
1 = 'VEHICLE ONE'
2 = 'VEHICLE TWO'
3 = 'VEHICLE THREE'
4 = 'VEHICLE FOUR'
5 = 'VEHICLE FIVE'
6 = 'VEHICLE SIX'
7 = 'VEHICLE SEVEN'
8 = 'VEHICLE EIGHT'
9 = 'VEHICLE NINE'
0 = 'NOT STATED'
```

LIST OF VARIABLES FOR CALIFORNIA ROADLOG FILE

SAS VARIABLE NAME	DESCRIPTION	VARIABLE FILE	SAS FORMAT TYPE	PAGE NO.
AADT	AADT	Road	NUM	79
ACC_DTE	ACCESS CONTROL DATE	Road	CHA(8)	79
ACC_HIST	ACCESS CONTROL HISTORY	Road	CHA(1)	79
ACCESS	ACCESS CONTROL	Road	CHA(1)	79
ADT_DTE	ADT DATE	Road	CHA(8)	79
ADT_DVM	DAILY VEHICLE MILES(DVM)	Road	NUM	80
ADT_HST	ADT HISTORY	Road	CHA(1)	80
ADT_MSG	ALPHA MESSAGE	Road	CHA(4)	80
ADT_STUS	ADT STATUS PROFILE	Road	CHA(1)	80
BEGMP	POSTMILE-BEGMP	Road	NUM	80
CITY	CITY	Road	CHA(2)	80
CNTYRTE	ROAD COUNTY ROUTE	Road	CHA(10)	80
COUNTY	COUNTY	Road	CHA(2)	80
CURB1	CURB AND LANDSCAPE	Road	CHA(1)	81
DES_NBR	ROAD DESC NUMBER	Road	CHA(1)	81
DESG_SPD	DESIGN SPEED	Road	CHA(1)	81
DISTRICT	DISTRICT	Road	CHA(2)	81
DIVIDED	DIVIDED HIGHWAY	Road	NUM	82
ENDMP	POSTMILE + SEG_LNG	Road	NUM	82
FEAT_LF	LEFT RDBD SPECIAL FEATURE	Road	CHA(1)	82
FEAT_RG	RIGHT RDBD SPECIAL FEATURE	Road	CHA(1)	82
FED_AID	FEDERAL AID (IN LIEU)	Road	CHA(1)	82
FED_PREF	FEDERAL AID RTE PREFIX	Road	CHA(1)	83
FED_RTE	FEDERAL AID RTE	Road	CHA(3)	83
FILETYP	FILE TYPE	Road	CHA(1)	83
FUNC_CLS	FUNCTIONAL CLASS	Road	CHA(1)	83
HIST_ADD	HISTORY ELEMENTS RELATIVE ADDR	Road	NUM	83
HWY_GRP	HIGHWAY GROUP	Road	CHA(1)	84
INS_OTS	INSIDE OUTSIDE CITY	Road	CHA(1)	84
LANEWID	AVERAGE LANE WIDTH	Road	NUM	84
LSHL_WD2	LEFT SHOULDER WIDTH RD2	Road	NUM	84
LSHLDWID	LEFT SHOULDER WIDTH RD1	Road	NUM	84
LTRD_DTE	LEFT ROADBED DATE	Road	CHA(8)	85
LTRD_HST	LEFT ROADBED HISTORY	Road	CHA(1)	85
MED_DTE	RAMP MEDIAN DATE	Road	CHA(8)	85
MED_HIST	MEDIAN HISTORY	Road	CHA(1)	85
MED_TYPE	MEDIAN TYPE	Road	CHA(1)	85
MED_VAR	MEDIAN VARIANCE	Road	CHA(1)	86
MEDBARTY	MEDIAN BARRIER TYPE	Road	CHA(1)	86
MEDWID	MEDIAN WIDTH	Road	NUM	86
MVMT	MILLION VEHICLE MILES TRAVELED	Road	NUM	87
NA_MILE	NON-ADD MILEAGE	Road	CHA(1)	87
NAT_LND	NATIONAL LANDS	Road	CHA(1)	87
NO_LANE1	NUMBER OF LANES RD1	Road	NUM	87
NO_LANE2	NUMBER OF LANES RD2	Road	NUM	87
NO_LANES	TOTAL NUMBER OF LANES	Road	NUM	87

(CONT'D)

LIST OF VARIABLES FOR CALIFORNIA ROADLOG FILE (CONT'D)

SAS VARIABLE NAME	DESCRIPTION	VARIABLE FILE	SAS FORMAT TYPE	PAGE NO.
PAV_WDL	LEFT PAVED SHLD WDTH RD1	Road	NUM	88
PAV_WDL2	LEFT PAVED SHLD WIDTH RD2	Road	NUM	88
PAV_WDR2	RIGHT PAVED SHLD WIDTH RD2	Road	NUM	88
PAV_WIDR	RIGHT PAVED SHLD WDTH RD1	Road	NUM	88
PSMILPRF	POSTMILE PREFIX	Road	CHA(1)	88
PSMILSUF	POSTMILE SUFFIX	Road	CHA(1)	89
RD_DATE	ROAD DATE	Road	CHA(8)	89
RD_DESC	ROAD DESCRIPTION	Road	CHA(25)	89
RECTYPE	RECORD TYPE	Road	CHA(1)	89
RGRD_DTE	RIGHT ROADBED DATE	Road	CHA(8)	89
RGRD_HSR	RIGHT ROADBED HISTORY	Road	CHA(1)	90
RO_SEQ	ROUTE ORDER SEQUENCE	Road	NUM	90
RODWYCLS	ROADWAY CLASSIFICATION	Road	CHA(2)	90
RSHL_WD2	RIGHT SHOULDER WIDTH RD2	Road	NUM	90
RSHLDWID	RIGHT SHOULDER WIDTH RD1	Road	NUM	90
RTE_NBR	RDWAY ROUTE NUMBER	Road	CHA(3)	90
RTE_SUF	RDWAY ROUTE SUFFIX	Road	CHA(1)	90
RU_IO	RURAL/URBAN INSIDE OUTSIDE CITY	Road	CHA(1)	91
RURURB	RURAL URBAN	Road	CHA(1)	91
SCN_FRWY	SCENIC FREEWAY	Road	CHA(1)	92
SEG_LNG	SECTION LENGTH	Road	NUM	92
SURF_TY2	SURFACE TYPE RD2	Road	CHA(1)	92
SURF_TYP	SURFACE TYPE RD1	Road	CHA(1)	92
SURF_WD2	TRAVELED-WAY WIDTH RD2	Road	NUM	92
SURF_WID	TRAVELED-WAY WIDTH RD1	Road	NUM	92
TERRAIN	TERRAIN	Road	CHA(1)	93
TOLL	TOLL AND FOREST RDS	Road	CHA(1)	93
TRK2AX	2-AXLE TRUCK AADT	Road	NUM	93
TRK3AX	3-AXLE TRUCK AADT	Road	NUM	93
TRK4AX	4-AXLE TRUCK AADT	Road	NUM	93
TRK5AX	5+-AXLE TRUCK AADT	Road	NUM	93
TRKCNTFL	TRUCK COUNT FLAG	Road	CHA(1)	94
TRKTOT	TOTAL TRUCK AADT	Road	NUM	94

NOTE: SAS variable names and explanatory names are shown above each listing. (See Discussion for information on SAS formats.)

AADT   **AADT**

```
0              = '0'
1-100          = '1-100'
101-500        = '101-500'
501-1000       = '501-1,000'
1001-2000      = '1,001-2,000'
2001-5000      = '2,001-5,000'
5001-10000     = '5,001-10,000'
10001-15000    = '10,001-15,000'
15001-20000    = '15,001-20,000'
20001-40000    = '20,001-40,000'
40001-999999   = '>= 40,001'
.              = 'NO DATA'
```


ACC_DTE   **ACCESS CONTROL DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to access control (YYYYMMDD). See Discussion.

ACC_HIST   **ACCESS CONTROL HISTORY**

NON-LABELED VARIABLE

NOTE: A "flag" indicating a change in some variable related to access-control. See Discussion.

ACCESS   **ACCESS CONTROL**

```
'C' = 'CONVENTIONAL - NO ACCESS CONTROL'
'E' = 'EXPRESSWAY - PARTIAL ACCESS CONTROL'
'F' = 'FREEWAY - FULL ACCESS CONTROL'
'S' = 'ONE-WAY CITY STREET - NO ACCESS CONTROL'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```


ADT_DTE   **ADT DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to ADT (YYYYMMDD). See Discussion. Variable discontinued in 2003.

ADT_DVM   **DAILY VEHICLE MILES(DVM)**

NON-LABELED VARIABLE

NOTE: Daily vehicle miles. Variable discontinued in 2003.

ADT_HST   **ADT HISTORY**

NON-LABELED VARIABLE

NOTE: A "flag" indicating a change in some variable related to ADT. See Discussion. Variable discontinued in 2003.

ADT_MSG   **ALPHA MESSAGE**

NON-LABELED VARIABLE

NOTE: all miles are blank. Variable discontinued in 2003.

ADT_STUS   **ADT STATUS PROFILE**

```
'P' = 'ADT PROVIDED'
'S' = 'ADT CALCULATED'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```


BEGMP   **POSTMILE-BEGMP**

NON-LABELED VARIABLE

NOTE: Beginning milepoint in miles (XXX.XXX)

CITY   **CITY**

NON-LABELED VARIABLE

CNTYRTE   **HGWY COUNTY ROUTE**

NON-LABELED VARIABLE

NOTE: Linkage variable, consisting of DISTRICT+RTE_NBR+RTE_SUF+COUNTY+PSMILPRF+HWY_GRP

COUNTY   **COUNTY**

NOTE: See listings under accident section of the guidebook.

CURB1   **CURB AND LANDSCAPE**

```
'1' = 'CURB MEDIAN      '
'2' = 'CURB MED W/TREES'
'3' = 'CURB MED W/SHRUB'
'4' = 'RAISED TRAFF BAR'
'5' = 'MEDIAN W/TREES'
'6' = 'MEDIAN W/SHRUBS
'7' = 'N/CURBS/SHRUBS'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

DES_NBR   **ROAD DESC NUMBER**

NON-LABELED VARIABLE

NOTE: zero = no added description records (1-9) = added
description records. Variable discontinued in 2003.

DESG_SPD   **DESIGN SPEED**

```
25 = '< 30 MPH'
30 = '30 MPH'
35 = '35 MPH'
40 = '40 MPH'
45 = '45 MPH'
50 = '50 MPH'
55 = '55 MPH'
60 = '60 MPH'
65 = '65 MPH'
70 = '> 70 MPH'
```

DISTRICT   **DISTRICT**

```
'01' = 'DISTRICT ONE'
'02' = 'DISTRICT TWO'
'03' = 'DISTRICT THREE'
'04' = 'DISTRICT FOUR'
'05' = 'DISTRICT FIVE'
'06' = 'DISTRICT SIX'
'07' = 'DISTRICT SEVEN'
'08' = 'DISTRICT EIGHT'
'09' = 'DISTRICT NINE'
'10' = 'DISTRICT TEN'
'11' = 'DISTRICT ELEVEN'
'12' = 'DISTRICT TWELVE'
'- ' = 'INVALID DATA'
'+ ' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

DIVIDED   **DIVIDED HIGHWAY**

                    1 = 'DIVIDED'
                    0 = 'NOT DIVIDED'
                    OTHER = 'ERROR/OTHER CODES'

                    NOTE: Based on MED_TYPE.

ENDMP   **POSTMILE + SEG_LNG**

                    NON-LABELED VARIABLE

                    NOTE: Ending milepost in miles, based on BEGMP plus SEG_LNG
(XXX.XXX).

FEAT_LF   **LEFT RDBD SPECIAL FEATURE**
FEAT_RG   **RIGHT RDBD SPECIAL FEATURE**

                    'A' = 'ONE LANE ROAD WITH TURNOUTS FOR PASSING'
                    'B' = 'LANE TRANSITIONS'
                    'C' = 'PASSING OR TRUCK CLIMBING LANE'
                    'D' = 'BUS LANE'
                    'E' = 'AUXILIARY LANE (INCLUDED IN NO.LANES FIELD)'
                    'F' = 'AUXILIARY LANES (INCLUDED IN NO. LANES FIELD)'
                    'G' = 'TUNNEL'
                    'H' = 'TOLL PLAZA AND APPROACHES'
                    'J' = '"BUG" OR BORDER PATROL STATION'
                    'K' = 'BOTTOM DECK OF TWO-DECK STRUCTURE'
                    'L' = 'TOP DECK OF TWO-DECK STRUCTURE'
                    'M' = 'CONSTRUCTION ZONE OPEN TO TRAFFIC'
                    'N' = 'MEDIAN LANE IS HOV LANE'
                    'P' = 'MEDIAN LANES ARE HOV LANES'
                    'Q' = 'REVERSIBLE PEAK-HOUR LANE(S)'
                    'Z' = 'NO SPECIAL FEATURE'
                    '-' = 'INVALID DATA'
                    '+' = 'NO DATA'
                    OTHER = 'ERROR/OTHER CODES'

                    NOTE: Unlike most of the other surface and width descriptor
variables, these variables are keyed to the "roadbed" rather than
the roadway. For undivided roadways, the "right" variable
concerns the right "half" of the total roadway. The "left"
variable concerns the left "half." For undivided roads with
auxiliary lanes, the lanes will be referenced to the right "half."
For divided roadways, the "right" variable concerns roadway 1, the
right-hand roadway in the direction of inventory (usually north or
east). The "left" variable concerns roadway 2.

FED_AID   **FEDERAL AID (IN LIEU)**

                    '0' = 'NONE'
                    '2' = 'IN LIEU INTERST'
                    '3' = 'IN LIEU PRIMARY'

(CONT'D)

```
                  '-' = 'INVALID DATA'
                  '+' = 'NO DATA'
                  OTHER = 'ERROR/OTHER CODES'


FED_PREF          FEDERAL AID RTE PREFIX

                  '$' = 'NO FEDERAL AID'
                  'I' = 'INTERSTATE'
                  'P' = 'PRIMARY'
                  '5' = 'FAS OR FAU - FINAL ALIGNMENT'
                  '6' = 'FAS/FAU - NOT FINAL ALIGNMENT'
                  '-' = 'INVALID DATA'
                  '+' = 'NO DATA'
                  OTHER = 'ERROR/OTHER CODES'


FED_RTE           FEDERAL AID RTE

                  '000' = 'NOT FED AID'
                  '-  ' = 'INVALID DATA'
                  '+  ' = 'NO DATA';


FILETYP           FILE TYPE

                  'H' = 'HIGHWAY RECORD'
                  'I' = 'INTERSECTION'
                  'R' = 'RAMP'
                  '-' = 'INVALID DATA'
                  '+' = 'NO DATA'
```

NOTE: Variable discontinued in 2003.

FUNC_CLS **FUNCTIONAL CLASS COMPONENT**

```
                  '1' = 'RURAL PRINCIPAL ARTERIAL WITH EXTENSION INTO URBAN AREA
                                          PRINCIPAL ARTERIAL'
                  '2' = 'RURAL PRINCIPAL ARTERIAL WITH EXTENSION INTO URBAN AREA
                                          MINOR ARTERIAL'
                  '3' = 'PRINCIPAL ARTERIAL LYING ENTIRELY IN URBAN OR RURAL AREA'
                  '4' = 'MINOR ARTERIAL'
                  '5' = 'MAJOR COLLECTOR'
                  '6' = 'MINOR COLLECTOR'
                  '7' = 'LOCAL'
                  '0' = 'NONE'
                  OTHER = 'ERROR/OTHER CODES'
```


HIST_ADD **HISTORY ELEMENTS RELATIVE ADDR**

NON-LABELED VARIABLE – This provides the address in a separate
"History Elements" file where the past configuration of this
roadway section can be found. HSIS does not have this History
Elements file, but California does.

HWY_GRP   **HIGHWAY GROUP**

                     'R' = 'RIGHT INDEPENDENT ALIGNMENT'
                     'L' = 'LEFT INDEPENDENT ALIGNMENT'
                     'D' = 'DIVIDED HIGHWAY'
                     'U' = 'UNIDIVIDED HIGHWY'
                     'X' = 'UNCONSTRUCTED'
                     'Z' = 'OTHER'
                     '-' = 'INVALID DATA'
                     '+' = 'NO DATA'
                     OTHER = 'ERROR/OTHER CODES'

                     NOTE: In the HSIS version of the Roadlog File, codes 'D', 'U', and
                     'X' do not appear. They are combined by CA DOT into 'Z'. In other
                     data files provided by California to other users, these codes may
                     occur. To link with crash data, they must be recoded to 'Z'.

INS_OTS   **INSIDE OUTSIDE CITY**

                     'I' = 'INSIDE'
                     'O' = 'OUTSIDE'
                     '-' = 'INVALID DATA'
                     '+' = 'NO DATA'
                     OTHER = 'ERROR/OTHER CODES'

                     NOTES: See RU_IO for additional urban/rural codes. Variable
                     discontinued in 2003.

LANEWID   **AVERAGE LANE WIDTH**

                     0 = 'ZERO'
                     1-7 = '1-7 FT'
                     8 = '8 FT'
                     9 = '9 FT'
                     10 = '10 FT'
                     11 = '11 FT'
                     12 = '12 FT'
                     13 = '13 FT'
                     14 = '14 FT'
                     15-999 = '15-999 FT'
                     . = 'NOT STATED'
                     OTHER = 'ERROR/OTHER CODES'

                     NOTE: Average lane width. Calculated by dividing total traveled
                     way width by total number of lanes.

LSHL_WD2   **LEFT SHOULDER WIDTH RD2**
LSHLDWID   **LEFT SHOULDER WIDTH RD1**

                     0 = 'ZERO'
                     1-3 = '1-3 FT'
                     4-6 = '4-6 FT'
                     7-9 = '7-9 FT'

(CONT'D)

84

```
10-13 = '10-13 FT'
14-99 = '14-99 FT'
.    = 'NOT STATED'
```

LTRD_DTE   **LEFT ROADBED DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to Road 2 (left roadbed) (YYYYMMDD). See Discussion. Variable discontinued in 2003.

LTRD_HST   **LEFT ROADBED HISTORY**

NON-LABELED VARIABLE

NOTE: A "flag" indicating a change in some variable related to Road 2 (left roadbed). See Discussion.

MED_DTE   **MEDIAN DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to the median (YYYYMMDD). See Discussion.

MED_HIST   **MEDIAN HISTORY**

NON-LABELED VARIABLE

NOTE: A "flag" indicating a change in some variable related to the median. See Discussion.

MED_TYPE   **MEDIAN TYPE**

```
'A' = 'UNDIVIDED, NOT SEPARATED OR STRIPED'
'B' = 'UNDIVIDED, STRIPED'
'C' = 'UNDIVIDED, REVERSIBLE PEAK HOUR LANE(S)'
'E' = 'DIVIDED, REVERSIBLE PEAK HOUR LANE(S)'
'F' = 'DIVIDED, TWO-WAY LEFT TURN LANE'
'G' = 'DIVIDED, CONTINUOUS LEFT-TURN LANE'
'H' = 'DIVIDED, PAVED MEDIAN'
'J' = 'DIVIDED, UNPAVED MEDIAN'
'K' = 'DIVIDED, SEPARATE GRADES'
'L' = 'DIVIDED, SEPARATE GRADES WITH RETAINING WALL'
'M' = 'DIVIDED, SAWTOOTH (UNPAVED)'
'N' = 'DIVIDED, SAWTOOTH (PAVED)'
'P' = 'DIVIDED, DITCH'
'Q' = 'DIVIDED, SEPARATE STRUCTURE'
'R' = 'DIVIDED, RAILROAD OR RAPID TRANSIT'
'S' = 'DIVIDED, BUS LANES'
```

(CONT'D)

```
'T' = 'DIVIDED, PAVED AREA, OCCASIONAL TRAFFIC LANE'
'U' = 'DIVIDED, RAILROAD AND BUS LANE'
'V' = 'DIVIDED, CONTAINS REVERSIBLE PEAK-HOUR LANE(S)'
'Z' = 'DIVIDED, OTHER'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
```

MED_VAR   **MEDIAN VARIANCE**

```
'V' = 'VARIABLE MEDIAN WIDTH'
'P' = 'OVER 100' MEDIAN WITH NO VARIANCE'
'Z' = 'MEDIAN CONSTANT WIDTH - NO VARIANCE'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

MEDBARTY   **MEDIAN BARRIER TYPE**

```
'A' = 'CABLE BARRIER'
'B' = 'CABLE BARRIER WITH GLARE SCREEN'
'C' = 'METAL BEAM BARR'
'D' = 'METAL BEAM BARRIER WITH GLARE SCREEN'
'E' = 'CONCRETE BARRIER'
'F' = 'CONCRETE BARRIER WITH GLARE SCREEN'
'G' = 'BRIDGE BARRIER RAILING'
'H' = 'CHAIN LINK FENCE'
'J' = 'GUARDRAIL IN MEDIAN, BOTH ROADWAYS'
'K' = 'GUARDRAIL IN MEDIAN, LEFT ROADWAY'
'L' = 'GUARDRAIL IN MEDIAN, RIGHT ROADWAY'
'M' = 'TWO-WAY, ONE-LANE ROAD AS MEDIAN'
'N' = 'THRIE BEAM BARR'
'P' = 'THRIE BEAM BARRIER WITH GLARE SCREEN'
'Q' = 'CONCRETE BARRIER, BOTH WAYS INSIDE BOTH SHOULDERS'
'R' = 'CONCRETE BARRIER ON INSIDE SHOULDER OF ROAD 2 (LEFT
                         ROADWAY)'
'S' = 'CONCRETE BARRIER ON INSIDE SHOULDER OF ROAD 1 (RIGHT
                         ROADWAY)'
'X' = 'EXTERNAL BARRIERS ON CONCRETE BARRIER'
'Y' = 'OTHER -NO LISTED'
'Z' = 'NO BARRIER'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
```

MEDWID   **MEDIAN WIDTH**

```
. = 'UNKNOWN'
0 = 'ZERO'
1-10 = '1-10 FT'
11-20 = '11-20 FT'
21-30 = '21-30 FT'
31-40 = '31-40 FT'
41-60 = '41-60 FT'
61-90 = '61-90 FT'
```

(CONT'D)

```
            91-99 = '91-99 FT'
```

NOTE: Median width is measured from the edge of the traveled-way
to the opposite edge of traveled-way. Thus, it includes inside
shoulder widths. 00 to 04 feet medians are normally considered
"undivided." 04 to 99 feet are divided.

MVMT   **MILLION VEHICLE MILES TRAVELED**

NON-LABELED VARIABLE

NOTE: The Million Vehicle Miles Traveled on road segment. Created
variable added in 1999 for all HSIS roadway-inventory files. See
Discussion.

NA_MILE   **NON-ADD MILEAGE**

```
'A' = 'NORMAL'
'N' = 'NON-ADD'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```


NAT_LND   **NATIONAL LANDS**

```
'0' = 'NONE'
'1' = 'NATNL MONUMENTS'
'2' = 'NATNL REC AREAS'
'3' = 'NATNL FOREST'
'4' = 'NATNL MILT RESV'
'5' = 'NATNL INDN RESV'
'6' = 'BUREU OF NAT LND'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
```


NO_LANE1   **NUMBER OF LANES RD1**
NO_LANE2   **NUMBER OF LANES RD2**
NO_LANES   **TOTAL NUMBER OF LANES**

```
1   = 'ONE LANE'
2   = 'TWO LANES'
3   = 'THREE LANES'
4-6 = '4 TO 6 LANES'
7-8 = '7 TO 8 LANES'
9-99= '> 8 LANES'
. = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'
```

(CONT'D)

NOTE: Number of lanes includes through lanes plus HOV and other auxiliary lanes greater than 0.2 miles in length. See FEAT_LF and FEAT_RG for codes identifying special lanes/features. These special lanes only occur in less than four percent of the mileage, and are almost exclusively on sections with six or more total lanes.

PAV_WDL   **LEFT PAVED SHLD WDTH RD1**
PAV_WDL2   **LEFT PAVED SHLD WIDTH RD2**
PAV_WDR2   **RIGHT PAVED SHLD WIDTH RD2**
PAV_WIDR   **RIGHT PAVED SHLD WDTH RD1**

```
0 = 'ZERO'
1-3 = '1-3 FT'
4-6 = '4-6 FT'
7-9 = '7-9 FT'
10-13 = '10-13 FT'
14-99 = '14-99 FT'
. = 'NOT STATED'
```


PSMILPRF   **POSTMILE PREFIX**

```
' ' = 'NO PREFIX'
'A' = 'REPOSTED'
'B' = 'BUS LANE'
'C' = 'COMMERCIAL'
'D' = 'DUPLICATE (MEANDERING)'
'F' = 'REPOSTED - COMMERCIAL (C)'
'G' = 'REPOSTED - DUPLICATE (D)'
'H' = 'REALIGNED - DUPLICATE (D)'
'J' = 'REPOSTED, REALIGNED - DUPLICATE'
'K' = 'REPOSTED - OVERLAP (L)'
'L' = 'OVERLAPPING POSTMILES'
'M' = 'REALIGNED REALIGNMENT (R)'
'N' = 'REPOSTED, REALIGHNED REALIGNMENT (M)'
'P' = 'REPOSTED REALIGNMENT (R)'
'Q' = 'REPOSTED - SPUR (S)'
'R' = 'REALIGNMENT'
'S' = 'SPUR'
'T' = 'TEMPORARY CONNECTION'
'U' = 'REPOSTED - TEMPORARY CONNECTION (T)'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

(CONT'D)

NOTE: Roadways can be realigned in the middle of a year (see 'R' above). Thus, there may appear to be overlapping records in the same milepost range in a given year, except for this variable. Accidents are correctly mileposted to the correct record by California. RD_DATE can be used to determine when the new alignment was opened. However, if one is trying to match prior year's crashes to such a section, the older crash records (not having the 'R') will not be computer matched to the new alignment (with the 'R') even though the roads are virtually the same piece of pavement.

One can see how the Roadlog sections actually fall on the ground in a given year by sorting by RO_SEQ (Route Order Sequence). However, in multi-year before/after studies, the analyst may have to manually match the pertinent sections across years to conduct his/her analysis. Contact HSIS staff for assistance.

PSMILSUF   **POSTMILE SUFFIX**

```
' ' = 'NO SUFFIX'
'E' = 'EQUATION'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```


RD_DATE   **ROAD DATE**

NON-LABELED VARIABLE

NOTE: Date when a realigned roadway section was opened to traffic (YYYYMMDD). See further discussion under PSMILPRF. Variable discontinued in 2003.

RD_DESC   **ROAD DESCRIPTION**

NON-LABELED VARIABLE

NOTE: 25 character verbal description of route name.

RECTYPE   **RECORD TYPE**

NON-LABELED VARIABLE

NOTE: Variable is used to identify file type. Variable discontinued in 2003.

RGRD_DTE   **RIGHT ROADBED DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to Road 1 (right roadbed) (YYYYMMDD). See Discussion.

RGRD_HSR   **RIGHT ROADBED HISTORY**

                 NON-LABELED VARIABLE

                 NOTE: A "flag" indicating a change in some variable related to
Road 1 (right roadbed). See Discussion.

RO_SEQ   **ROUTE ORDER SEQUENCE**

                 NON-LABELED VARIABLE

                 NOTE: This variable can help one decide the order in which
homogeneous sections laid out. Routes can be sorted by this
variable to get adjacent segments in order.

RODWYCLS   **ROADWAY CLASSIFICATION**

                 '01' = 'URBAN FREEWAYS'
                 '02' = 'URBAN FREEWAYS < 4 LANES'
                 '03' = 'URBAN TWO LANE ROADS'
                 '04' = 'URBAN MULTILANE DIVIDED NON-FREEWAYS'
                 '05' = 'URBAN MULTILANE UNDIVIDED NON-FREEWYS'
                 '06' = 'RURAL FREEWAYS'
                 '07' = 'RURAL FREEWAYS < 4 LANES'
                 '08' = 'RURAL TWO LANE ROADS'
                  '09' = 'RURAL MULTILANE DIVIDED NON-FREEWAYS'
                 '10' = 'RURAL MULTILANE UNDIVIDED NON-FREEWAYS'
                 '99' = 'OTHERS'

                 NOTE: Created variable added to HSIS accident and roadway
inventory files in all States in 1999. See Discussion.

RSHL_WD2   **RIGHT SHOULDER WIDTH RD2**
RSHLDWID   **RIGHT SHOULDER WIDTH RD1**

                 0 = 'ZERO'
                 1-3 = '1-3 FT'
                 4-6 = '4-6 FT'
                 7-9 = '7-9 FT'
                 10-13 = '10-13 FT'
                 14-99 = '14+ FT'
                 . = 'NOT STATED

RTE_NBR   **RDWAY ROUTE NUMBER**

                 NON-LABELED VARIABLE

                 NOTE: Mainline route number.

RTE_SUF   **ROUTE SUFFIX**

                 'P' = 'ALIGNMENT PRIOR'

(CONT'D)

```
                    'S' = 'SUPPLEMENTAL ALIGNMENT, PARTIAL OPENED FOR USE BEFORE
                                    ALIGNMENT IS COMPLETE'
                    'U' = 'UNRELINQUISHED, SUPERSEDED BY REALIGNMENT, BUT NOT YET
                                    ACCEPTED FOR NON-STATE-HIGHWAY
                                    MAINTENANCE'
                    'Z' = 'BUDGETED OR UNDER CONSTRUCTION'
                    ' ' = 'NO SUFFIX'
                    OTHER = 'ERROR/OTHER CODES'
```

RU_IO   **RURAL/URBAN - INSIDE OUTSIDE CITY**

```
                    'A' = 'RURAL, TOTALLY IN ONE CITY'
                    'B' = 'RURAL, 2 IN AND 2 OUTSIDE CITY'
                    'C' = 'RURAL, 2 IN ONE CITY, 2 IN ANOTHER'
                    'D' = 'RURAL, INSIDE CITY,1/2 IN ONE COUNTY, 2 IN ANOTHER COUNTY'
                    'E' = 'RURAL, INSIDE CITY, INDEPENDENT ALIGNMENT IN OTHER COUNTY'
                    'F' = 'RURAL, OUTSIDE CITY, 2 IN ONE COUNTY, 2 IN ANOTHER COUNTY'
                    'G' = 'RURAL, TOTALLY OUTSIDE CITY'
                    'H' = 'RURAL, OUTSIDE CITY, INDEPENDENT ALIGNMENT IN OTHER COUNTY'
                    'J' = 'URBAN, TOTALLY IN ONE CITY'
                    'K' = 'URBAN, INSIDE CITY, 2 IN AND 2 OUTSIDE CITY'
                    'L' = 'URBAN, INSIDE CITY, 2 IN ONE CITY, 2 IN ANOTHER CITY'
                    'M' = 'URBAN, INSIDE CITY, 2 IN ONE COUNTY, 2 IN ANOTHER COUNTY'
                    'N' = 'URBAN, INSIDE CITY, INDEPENDENT ALIGNMENT IN OTHER COUNTY'
                    'P' = 'URBAN, OUTSIDE CITY, 2 IN ONE COUNTY, 2 IN ANOTHER COUNTY'
                    'Q' = 'URBAN, TOTALLY OUTSIDE CITY'
                    'R' = 'URBAN, OUTSIDE CITY, INDEPENDENT ALIGNMENT IN OTHER COUNTY'
                    'S' = 'URBANIZED, TOTALLY IN ONE CITY'
                    'T' = 'URBANIZED, INSIDE CITY, 2 IN AND 2 OUTSIDE CITY'
                    'U' = 'URBANIZED, INSIDE CITY, 2 IN ONE CITY, 2 IN ANOTHER CITY'
                    'V' = 'URBANIZED, INSIDE CITY, 2 IN ONE COUNTY, 2 IN ANOTHER
                                    COUNTY'
                    'W' = 'URBANIZED, INSIDE CITY, INDEPENDENT ALIGNMENT IN OTHER
                                    COUNTY'
                    'X' = 'URBANIZED, OUTSIDE CITY, 2 IN ONE COUNTY, 2 IN ANOTHER
                                    COUNTY'
                    'Y' = 'URBANIZED, TOTALLY OUTSIDE CITY'
                    'Z' = 'URBANIZED, OUTSIDE CITY, INDEPENDENT ALIGNMENT IN OTHER
                                    COUNTY'
                    '-' = 'INVALID DATA'
                    '+' = 'NO DATA'
```

RURURB   **RURAL URBAN**

```
                    'R' = 'RURAL'
                    'U' = 'URBAN'
                    '-' = 'INVALID DATA'
                    '+' = 'NO DATA'
```

NOTE: See RU_IO for additional rural-urban codes. Note that
"URBAN" in this variable also contains "Urbanized" in RU_IO.

SCN_FRWY   **SCENIC FREEWAY**

```
'0' = 'NON-FREEWAY, NON-SCENIC, NON-EXPRESSWAY'
'1' = 'SCENIC (NON-FREEWAY, NON-EXPRESSWAY)'
'2' = 'FREEWAY & EXPWY SYSTEM (NON-SCENIC)'
'3' = 'FREEWAY & EXPWY SYSTEM (SCENIC)'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
```

SEG_LNG   **SECTION LENGTH**

NON-LABELED VARIABLE

NOTE: length of section in miles (XXX.XXX).

SURF_TY2   **SURFACE TYPE RD2**
SURF_TYP   **SURFACE TYPE RD1**

```
'B' = 'PCC, BRIDGE DECK'
'C' = 'PCC, CONCRETE'
'H' = 'AC, BASE & SURFACE 7" THICK'
'M' = 'AC, BASE & SURFACE < 7" THICK'
'O' = 'AC, OILED EARTH-GRAVEL'
'P' = 'AC, BRIDGE DECK (2" OR GREATER)'
'E' = 'UNPAVED- EARTH'
'F' = 'UNP- UNDETERMD'
'G' = 'UNPAVED, BRIDGE DECK (ALL NOT CODES - OR P)'
'-' = 'INVALID DATA'
' ','+' = 'NO DATA'
```


SURF_WD2   **TRAVELED WAY WIDTH RD2**
SURF_WID   **TRAVELED WAY WIDTH RD1**

```
0 = 'ZERO'
1-9 = '<10 FT'
10 = '10 FT'
11 = '11 FT'
12 = '12 FT'
13-14 = '13-14 FT'
15-16 = '15-16 FT'
17-999 = '> THAN 16 FT'
. = 'NOT STATED'
```

NOTE: Traveled-way width includes widths of through lanes plus
auxiliary lanes greater than 0.2 miles in length. On some bridges,
the shoulder widths may be erroneously included in this
measurement.
California staff is correcting these errors as they find them.
Sections which are bridges can be identified using SURF_TYP.

TERRAIN   **TERRAIN**

```
'M' = 'MOUNTAINOUS'
'R' = 'ROLLING'
'F' = 'FLAT'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
```

TOLL   **TOLL AND FOREST RDS**

```
'0' = 'NONE'
'1' = 'TOLL RDS & BRDG'
'2' = 'FOREST HIGHWAYS'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
```

TRK2AX   **2-AXLE TRUCK AADT**

NON-LABELED VARIABLE

NOTE: AADT count for 2-axle trucks. This is one of seven variables extracted from the CA DOT web site beginning with the 1995 Roadlog File (see TRK3AX, TRK4AX, TRK5AX, TRKTOT, and TRKCNTFL). For each of these variables, truck count data are converted into AADT=s at certain points along the roadway.
Since the count points on the truck AADT file shown on the web page are only at a limited set of locations (when comparled to the huge number of sections/records in the Roadlog File), a computer program was developed which averages counts if in the same roadlog section, attaches individual counts or averages to sections where they occur, and then "carries forward" the single count or the last (downstream)count from that section to all subsequent sections on a given route until a new count is reached. See section on "Truck Count Data" in Discussion for more details.

TRK3AX   **3-AXLE TRUCK AADT**

NON-LABELED VARIABLE

NOTE: AADT COUNT FOR 3-AXLE TRUCKS. See note under TRK2AX.

TRK4AX   **4-AXLE TRUCK AADT**

NON-LABELED VARIABLE

NOTE: AADT COUNT FOR 4-AXLE TRUCKS. See note under TRK2AX.

TRK5AX   **5+-AXLE TRUCK AADT**

NON-LABELED VARIABLE

NOTE: AADT COUNT FOR TRUCKS WITH FIVE OR MORE AXLES. See note under TRK2AX.

TRKCNTFL   **TRUCK COUNT FLAG**

NON-LABELED VARIABLE

NOTE: This indicates whether actual truck counts were made in this roadway section. Here, "1" indicates a count or verified estimate at that location, and a "0" indicates no count ("carry forward" data). A blank indicates both no count, and that it was not legitimate to carry-forward the data. See Discussion and "NOTE" under TRK2AX.

TRKTOT   **TOTAL TRUCK AADT**

NON-LABELED VARIABLE

NOTE: AADT COUNT FOR TOTAL TRUCKS, the sum of TRK2AX, TRK3AX, TRK4AX, and TRK5AX. See Note under TRK2AX.

LIST OF VARIABLES FOR CALIFORNIA INTERSECTION FILE

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
CITY_CDE	CITY CODE	Intersection	CHA(4)	97
CNTYRTE	INTERSECTION COUNTY ROUTE	Intersection	CHA(9)	97
COUNTY	COUNTY	Intersection	CHA(2)	97
DISTRICT	DISTRICT	Intersection	CHA(2)	97
HWY_GRP	HIGHWAY GROUP	Intersection	CHA(1)	97
INT_ADDR	HISTORY ELEMENTS RELATIVE ADDR	Intersection	NUM	98
INT_DESC	INTERSECTION DESCRIPTION	Intersection	CHA(23)	98
INT_DTE	INTERSECTION EFFECTIVE DATE	Intersection	CHA(6)	98
INT_HST	INTERSECTION TYPE HISTORY	Intersection	CHA(1)	98
INT_PRF	INTERSECTING RTE PREFIX	Intersection	CHA(1)	98
INT_RSUF	INTERSECTING RTE SUFFIX	Intersection	CHA(1)	98
INT_RTE	INTERSECTING RTE NBR	Intersection	CHA(3)	99
INT_SEQ	INTERSECTING RTE ORDER SEQ NBR	Intersection	NUM	82
INTY_RTE	CROSS STREET COUNTY ROUTE	Intersection	CHA(9)	99
JUNCTYPE	JUNCTION TYPE	Intersection	CHA(1)	99
LGHT_DTE	INTERSECTION LIGHT TYPE DATE	Intersection	CHA(6)	99
LGHT_HST	INTERSECTION LIGHT TYPE HISTORY	Intersection	CHA(1)	99
LGHT_TYP	INTERSECTION LIGHT TYPE	Intersection	CHA(1)	99
LOG_ERR	LOG ERROR INDICATOR	Intersection	CHA(1)	100
MED_DTE	RAMP MEDIAN DATE	Intersection	CHA(6)	100
MED_HIST	MEDIAN HISTORY	Intersection	CHA(1)	100
MED_IND	RAMP MEDIAN INDICATOR	Intersection	CHA(1)	100
MILEPOST	RAMP MILEPOST	Intersection	NUM	100
ML_AADT	MAINLINE AADT	Intersection	NUM	100
ML_ADTDT	MAINLINE ADT DATE	Intersection	CHA(6)	101
ML_ADTHS	MAINLINE ADT HISTORY	Intersection	CHA(1)	101
ML_DATE	MAINLINE HISTORY DATE	Intersection	CHA(6)	101
ML_HIST	MAINLINE HISTORY	Intersection	CHA(1)	101
ML_LANES	MAINLINE NUMBER OF LANES	Intersection	CHA(1)	101
ML_LEFT	MAINLINE LEFT TURN CHANNELIZATION	Intersection	CHA(1)	101
ML_LNGT	MAINLINE SECTION LENGTH	Intersection	CHA(3)	102
ML_MAST	MAINLINE SIGNAL MASTARM CHANNELIZATION	Intersection	CHA(1)	102
ML_RIGHT	MAINLINE RIGHT TURN CHANNELIZATION	Intersection	CHA(1)	102
ML_TRFLO	MAINLINE TRAFFIC FLOW	Intersection	CHA(1)	102
PSMILPRF	POSTMILE PREFIX	Intersection	CHA(1)	102
PSMILSUF	POSTMILE SUFFIX	Intersection	CHA(1)	103
RECTYPE	RECORD TYPE	Intersection	CHA(1)	103
RO_SEQ	ROUTE ORDER SEQUENCE	Intersection	NUM	103
RTE_NBR	RDWAY ROUTE NUMBER	Intersection	CHA(3)	104
RTE_SUF	RDWAY ROUTE SUFFIX	Intersection	CHA(1)	104
TRF_CNTL	TRAFFIC CONTROL TYPE	Intersection	CHA(1)	104
TRFCTLDT	TRAFFIC CONTROL TYPE DATE	Intersection	CHA(6)	104
TRFCTLHS	TRAFFIC CONTROL TYPE HISTORY	Intersection	CHA(1)	104
TYPEDESC	INTERSECTION TYPE	Intersection	CHA(1)	105

(CONT'D)

LIST OF VARIABLES FOR CALIFORNIA INTERSECTION FILE (CONT'D)

SAS VARIABLE NAME	DESCRIPTION	SAS VARIABLE FILE	FORMAT TYPE	PAGE NO.
XSTAADT	X-STREET AADT	Intersection	NUM	105
XSTADTDT	X-STREET ADT DATE	Intersection	CHA(6)	105
XSTADTHS	X-STREET ADT HISTORY	Intersection	CHA(1)	105
XSTLANES	X-STREET NUMBER OF LANES	Intersection	CHA(1)	105
XSTLNGT	X-STREET SECTION LENGTH	Intersection	CHA(3)	106
XSTRTDTE	X-STREET DATE	Intersection	CHA(6)	106
XSTRTHST	X-STREET HISTORY	Intersection	CHA(1)	106
XSTRTLFT	X-STREET LEFT TURN CHANNELIZATION	Intersection	CHA(1)	106
XSTRTMST	X-STREET SIGNAL	Intersection	CHA(1)	106
XSTRTRGH	X-STREET RIGHT TURN	Intersection	CHA(1)	107
XSTSTRT	X-STREET STATE ROUTE INDICATOR	Intersection	NUM	107
XSTTRFLO	X-STREET TRAFFIC FLOW	Intersection	CHA(1)	107

SAS FORMAT DEFINITIONS FOR VARIABLES FROM THE
CALIFORNIA INTERSECTION FILE

NOTE: SAS variable names and explanatory names are shown above each listing.
(See Discussion for information on SAS formats.)

CNTYRTE   **COUNTY ROUTE**

                NON-LABELED VARIABLE

                NOTE: Linkage variable, consisting of
                DISTRICT+RTE_NBR+RTE_SUF+COUNTY+PSMILPRF+HWY_GRP.

CITY_CDE   **CITY CODE**

                NON-LABELED VARIABLE

                NOTE: Variable added in 2003.

COUNTY   **COUNTY**

                NOTE: See listings under accident section of the guidebook.

DISTRICT   **DISTRICT**

                '01' = 'DISTRICT ONE'
                '02' = 'DISTRICT TWO'
                '03' = 'DISTRICT THREE'
                '04' = 'DISTRICT FOUR'
                '05' = 'DISTRICT FIVE'
                '06' = 'DISTRICT SIX'
                '07' = 'DISTRICT SEVEN'
                '08' = 'DISTRICT EIGHT'
                '09' = 'DISTRICT NINE'
                '10' = 'DISTRICT TEN'
                '11' = 'DISTRICT ELEVEN'
                '12' = 'DISTRICT TWELVE'
                '- ' = 'INVALID DATA'
                '+ ' = 'NO DATA'
                OTHER = 'ERROR/OTHER CODES'

HWY_GRP   **HIGHWAY GROUP**

                'R' = 'RIGHT INDEPENDENT ALIGNMENT'
                'L' = 'LEFT INDEPENDENT ALIGNMENT'
                'D' = 'DIVIDED HIGHWAY'
                'U' = 'UNIDIVIDED HIGHWY'
                'X' = 'UNCONSTRUCTED'
                'Z' = 'OTHER'
                '-' = 'INVALID DATA'

(CONT'D)

```
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: In the HSIS version of the Roadlog File, codes 'D', 'U', and 'X' do not appear. They are combined by CA DOT into 'Z'. In other data files provided by California to other users, these codes may occur. To link with crash data, they must be recoded to 'Z'.

INT_ADDR   **HISTORY ELEMENTS RELATIVE ADDR**

NON-LABELED VARIABLE

NOTE: This provides the address in a separate "History Elements" file where the past configuration of this intersection can be found. HSIS does not have this History Elements file, but California does. Variable discontinued in 2003.

INT_DESC   **INTERSECTION DESCRIPTION**

NON-LABELED VARIABLE

NOTE: Character description of intersection location.

INT_DTE   **INTERSECTION EFFECTIVE DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to intersection type (YYYYMMDD). See Discussion.

INT_HST   **INTERSECTION TYPE HISTORY**

NON-LABELED VARIABLE

NOTE: A "flag" indicating a change in some variable related to intersection type. See Discussion. Variable discontinued in 2003.

INT_PRF   **INTERSECTING RTE PREFIX**

NON-LABELED VARIABLE

INT_RSUF   **INTERSECTING RTE SUFFIX**

```
'P' = 'ALIGNMENT PRIOR TO CONVERSION'
'S' = 'SUPPLEMENTAL MILEAGE'
'U' = 'UNRELINQUISHED'
'Z' = 'BUDGETED OR UNDER CONSTRUCTION'
' ' = 'NO SUFFIX'
```

INT_RTE   **INTERSECTING RTE NBR**

    NON-LABELED VARIABLE

INT_SEQ   **INTERSECTING RTE ORDER SEQ NBR**

    NON-LABELED VARIABLE

    NOTE: See RO_SEQ

INTY_RTE   **CROSS STREET COUNTY ROUTE**

    NON-LABELED VARIABLE

    NOTE: Linkage variable, consisting of
    DISTRICT+INT_RTE+INT_RSUF+COUNTY+INT_PRF+HWY_GRP.
    Only present when Cross Street is a State Route (See variable
    XSTSTRT).

JUNCTYPE   **JUNCTION TYPE**

    '1' = 'INTERSECTIONS'
    '2' = 'RAMPS'
    '3' = 'DIRT/GRAVEL/ACCESS ROADS'
    '4' = 'CAMP/CAMPGROUNDS/PARKS'
    '5' = 'FOREST/FOREST SERVICE, USFS OADS'
    '6' = 'NAMED ROADS'
    '7' = 'PUBLIC/PRIVATE HIGH VOLUME ROADS'
    '8' = 'PUBLIC/PRIVATE LOW VOLUME ROADS'

LGHT_DTE   **INTERSECTION LIGHT TYPE DATE**

    NON-LABELED VARIABLE

    NOTE: Date of last change in some variable related to intersection
    lighting (YYYYMMDD). See Discussion.

LGHT_HST   **INTERSECTION LIGHT TYPE HISTORY**

    NON-LABELED VARIABLE

    NOTE: A "flag" indicating a change in some variable related to
    intersection lighting. See Discussion. Variable discontinued in
    2003.

LGHT_TYP   **INTERSECTION LIGHT TYPE**

    'N' = 'NO LIGHTING'
    'Y' = 'LIGHTED'
    '-' = 'INVALID DATA'
    '+' = 'NO DATA'
    OTHER = 'ERROR/OTHER CODES'

LOG_ERR   **LOG ERROR INDICATOR**

NON-LABELED VARIABLE

NOTE: All level is blank from 1993-1997. Variable discontinued in 2003.

MED_DTE   **MEDIAN DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to the median (YYYYMMDD). See Discussion. Variable discontinued in 2003.

MED_HIST   **MEDIAN HISTORY**

NON-LABELED VARIABLE

NOTE: A "flag" indicating a change in some variable related to the median. See Discussion. Variable discontinued in 2003.

MED_IND   **MEDIAN INDICATOR**

```
'U' = 'UNDIVIDED'
'D' = 'DIVIDED'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: Variable discontinued in 2003.

MILEPOST   **INTERSECTION MILEPOST**

NON-LABELED VARIABLE

NOTE: Milepost of intersection in miles (XXX.XXX).

ML_AADT   **MAINLINE AADT**

```
0             = '0'
1-100         = '1-100'
101-500       = '101-500'
501-1000      = '501-1,000'
1001-2000     = '1,001-2,000'
2001-5000     = '2,001-5,000'
5001-10000    = '5,001-10,000'
10001-15000   = '10,001-15,000'
15001-20000   = '15,001-20,000'
20001-40000   = '20,001-40,000'
40001-999999  = '  >= 40,001'
.             = 'NO DATA'
```

ML_ADTDT   **MAINLINE ADT DATE**

        NON-LABELED VARIABLE

        NOTE: Date of last change in some variable related to mainline ADT (YYYYMMDD). See Discussion. Variable discontinued in 2003.

ML_ADTHS   **MAINLINE ADT HISTORY**

        NON-LABELED VARIABLE

        NOTE: A "flag" indicating a change in some variable related to mainline ADT. See Discussion. Variable discontinued in 2003.

ML_DATE   **MAINLINE HISTORY DATE**

        NON-LABELED VARIABLE

        NOTE: Date of last change in some variable related to the mainline (YYYYMMDD). See Discussion.

ML_HIST   **MAINLINE HISTORY**

        NON-LABELED VARIABLE

        NOTE: A "flag" indicating a change in some variable related to the mainline. See Discussion. Variable discontinued in 2003.

ML_LANES   **MAINLINE NUMBER OF LANES**

        '0' = 'ZERO'
        '1' = 'ONE LANE'
        '2' = 'TWO LANES'
        '3' = 'THREE LANES'
        '4'-'6' = '4 TO 6 LANES'
        '7'-'9' = '7 TO 9 LANES'
        '-' = 'INVALID DATA'
        '+' = 'NO DATA'
        OTHER = 'ERROR/OTHER CODES'

        NOTE: This is the number of "thru" lanes on the mainline approaches. It includes all lanes with thru movements (including thru and left turn, or thru and right turn), but does not contain exclusive turn lanes.

ML_LEFT   **MAINLINE LEFT TURN CHANNELIZATION**

        'C' = 'CURBED MEDIAN LEFT TURN CHANNELIZATION'
        'N' = 'NO LEFT TURN CHANNELIZATION'
        'P' = 'PAINTED LEFT TURN CHANNELIZATION'
        'R' = 'RAISED BARS LEFT TURN CHANNELIZATION'

(CONT'D)

```
              '-' = 'INVALID DATA'
              '+' = 'NO DATA'
              OTHER = 'ERROR/OTHER CODES'


ML_LNGT      MAINLINE SECTION LENGTH

              NON-LABELED VARIABLE

              NOTE: 000-999 (feet) from centerline of intersection in each
              direction.


ML_MAST      MAINLINE SIGNAL MASTARM CHANNELIZATION

              'N' = 'NO MASTARM'
              'Y' = 'YES, MASTARM'
              '-' = 'INVALID DATA'
              '+' = 'NO DATA'
              OTHER = 'ERROR/OTHER CODES'


ML_RIGHT     MAINLINE RIGHT TRUN CHANNELIZATION

              'N' = 'NO RIGHT TURN CHANNELIZATION'
              'Y' = 'CHANNELIZATION PROVIDED FOR RIGHT TURNS'
              '-' = 'INVALID DATA'
              '+' = 'NO DATA'
              OTHER = 'ERROR/OTHER CODES'


ML_TRFLO     MAINLINE TRAFFIC FLOW

              'N' = '2-WAY TRAFFIC, NO LEFT TURNS PERMITTED'
              'P' = '2-WAY TRAFFIC, LEFT TURN PERMITTED'
              'R' = '2-WAY TRAFFIC, LEFT TURN RESTRICTED DURING PEAK HOURS'
              'W' = 'ONE-WAY TRAFFIC'
              'Z' = 'OTHER'
              '-' = 'INVALID DATA'
              '+' = 'NO DATA'
              OTHER = 'ERROR/OTHER CODES'


PSMILPRF     POSTMILE PREFIX

              ' ' = 'NO PREFIX'
              'A' = 'REPOSTED'
              'B' = 'BUS LANE'
              'C' = 'COMMERCIAL'
              'D' = 'DUPLICATE (MEANDERING)'
              'F' = 'REPOSTED - COMMERCIAL (C)'
              'G' = 'REPOSTED - DUPLICATE (D)'
              'H' = 'REALIGNED - DUPLICATE (D)'
              'J' = 'REPOSTED, REALIGNED - DUPLICATE'
              'K' = 'REPOSTED - OVERLAP (L)'
              'L' = 'OVERLAPPING POSTMILES'
```

(CONT'D)

```
'M' = 'REALIGNED REALIGNMENT (R)'
'N' = 'REPOSTED, REALIGHNED REALIGNMENT (M)'
'P' = 'REPOSTED REALIGNMENT (R)'
'Q' = 'REPOSTED - SPUR (S)'
'R' = 'REALIGNMENT'
'S' = 'SPUR'
'T' = 'TEMPORARY CONNECTION'
'U' = 'REPOSTED - TEMPORARY CONNECTION (T)'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: Roadways can be realigned in the middle of a year (see 'R' above). Thus, there may appear to be overlapping records in the same milepost range in a given year, except for this variable. Accidents are correctly mileposted to the correct record by California.
RD_DATE can be used to determine when the new alignment was opened. However, if one is trying to match prior year's crashes to such a section, the older crash records (not having the 'R') will not be computer matched to the new alignment (with the 'R') even though the roads are virtually the same piece of pavement. One can see how the Roadlog sections actually fall on the ground in a given year by sorting by RO_SEQ (Route Order Sequence). However, in multi-year before/after studies, the analyst may have to manually match the pertinent sections across years to conduct his/her analysis. Contact HSIS staff for assistance.

PSMILSUF   **POSTMILE SUFFIX**

```
' ' = 'NO SUFFIX'
'E' = 'EQUATION'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
```

NOTE: Variable discontinued in 2003.

RECTYPE   **RECORD TYPE**

NON-LABELED VARIABLE

NOTE: This variable is used to identify file type. Variable discontinued in 2003.

RO_SEQ   **ROUTE ORDER SEQUENCE**

NON-LABELED VARIABLE

NOTE: See RO_SEQ in Roadlog File.

RTE_NBR   **RDWAY ROUTE NUMBER**

                  NON-LABELED VARIABLE

                  NOTE: Mainline route number.

RTE_SUF   **RDWAY ROUTE SUFFIX**

                  'P' = 'ALIGNMENT PRIOR'
                  'S' = 'SUPPLEMENTAL ALIGNMENT, PARTIAL OPENED FOR USE BEFORE
                                        ALIGNMENT IS COMPLETE'
                  'U' = 'UNRELINQUISHED, SUPERSEDED BY REALIGNMENT, BUT NOT YET
                                        ACCEPTED FOR NON-STATE-HIGHWAY
                                        MAINTENANCE'
                  'Z' = 'BUDGETED OR UNDER CONSTRUCTION'
                  ' ' = 'NO SUFFIX'
                  OTHER = 'ERROR/OTHER CODES'

TRFCTLDT   **TRAFFIC CONTROL TYPE DATE**

                  NON-LABELED VARIABLE

                  NOTE: Date of last change in some variable related to traffic
control type (YYYYMMDD). See Discussion. Variable discontinued in
2003.

TRFCTLHS   **TRAFFIC CONTROL TYPE HISTORY**

                  NON-LABELED VARIABLE

                  NOTE: A "flag" indicating a change in some variable related to the
traffic control type. See Discussion. Variable discontinued in
2003.

TRF_CNTL   **TRAFFIC CONTROL TYPE**

                  'A' = 'NO CONTROL'
                  'B' = 'STOP SIGNS ON CROSS STREET ONLY'
                  'C' = 'STOP SIGNS ON MAINLINE ONLY'
                  'D' = 'FOUR-WAY STOP SIGNS'
                  'E' = 'FOUR-WAY FLASHER (RED ON CROSS STREET)'
                  'F' = 'FOUR-WAY FLASHER (RED ON MAINLINE)'
                  'G' = 'FOUR-WAY FLASHER (RED ON ALL)'
                  'H' = 'YIELD SIGNS ON CROSS STREET ONLY'
                  'I' = 'YIELD SIGNS ON MAINLINE ONLY'
                  'J' = 'SIGNALS PRETIMED (2 PHASE)'
                  'K' = 'SIGNALS PRETIMED (MULTI-PHASE)'
                  'L' = 'SIGNALS SEMI-TRAFFIC ACTUATED, 2 PHASE'
                  'M' = 'SIGNALS SEMI-TRAFFIC ACTUATED, MULTI-PHASE'
                  'N' = 'SIGNALS FULL TRAFFIC ACTUATED, 2 PHASE'
                  'P' = 'SIGNALS FULL TRAFFIC ACTUATED, MULTI-PHASE'
                  'Z' = 'OTHER'

(CONT'D)

```
                    '-' = 'INVALID DATA'
                    '+' = 'NO DATA'


TYPEDESC          INTERSECTION TYPE

                    'F' = '4 - LEGGED'
                    'M' = '> 4 LEGS'
                    'S' = 'OFFSET'
                    'T' = 'TEE'
                    'Y' = 'WYE'
                    'Z' = 'OTHER'
                    '-' = 'INVALID DATA'
                    '+' = 'NO DATA'
                    OTHER = 'ERROR/OTHER CODES'


XSTAADT           X-STREET AADT

                    0          = '0'
                    1-100     = '1-100'
                    101-500    = '101-500'
                    501-1000   = '501-1,000'
                    1001-2000   = '1,001-2,000'
                    2001-5000   = '2,001-5,000'
                    5001-10000  = '5,001-10,000'
                    10001-15000  = '10,001-15,000'
                    15001-20000  = '15,001-20,000'
                    20001-40000  = '20,001-40,000'
                    40001-999999 = '>= 40,001'
                    . = 'NO DATA'


XSTADTDT          X-STREET ADT DATE

                    NON-LABELED VARIABLE
```

NOTE: Date of last change in some variable related to cross-street ADT (YYYYMMDD). See Discussion. Variable discontinued in 2003.

```
XSTADTHS          X-STREET ADT HISTORY

                    NON-LABELED VARIABLE
```

NOTE: A "flag" indicating a change in some variable related to the cross-street ADT. See Discussion. Variable discontinued in 2003.

```
XSTLANES          X-STREET NUMBER OF LANES

                    '0' = 'ZERO'
                    '1'     = 'ONE LANE'
                    '2'     = 'TWO LANES'
                    '3'     = 'THREE LANES'
                    '4'-'6' = '4 TO 6 LANES'
```

(CONT'D)

```
'7'-'9' = '7 TO 9 LANES'
'-'     = 'INVALID DATA'
'+'     = 'NO DATA'
```

NOTE: This is the number of "thru" lanes on the cross street approaches. It includes all lanes with thru movements (including thru and left turn, or thru and right turn), but does not contain exclusive turn lanes.

XSTLNGT   **X-STREET SECTION LENGTH**

NON-LABELED VARIABLE

NOTE: section length of cross-street segment.

XSTRTDTE   **X-STREET DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to the cross-street (YYYYMMDD). See Discussion.

XSTRTHST   **X-STREET HISTORY**

NON-LABELED VARIABLE

NOTE: A "flag" indicating a change in some variable related to the cross-street. See Discussion.

NOTE: Variable discontinued in 2003.

XSTRTLFT   **X-STREET LEFT TURN CHANNELIZATION**

```
'C' = 'CURBED MEDIAN LEFT TURN CHANNELIZATION'
'N' = 'NO LEFT TURN CHANNELIZATION'
'P' = 'PAINTED LEFT TURN CHANNELIZATION'
'R' = 'RAISED BARS LEFT TURN CHANNELIZATION'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER   = 'ERROR/OTHER CODES'
```


XSTRTMST   **X-STREET SIGNAL MASTARM**

```
'N' = 'NO MASTARM'
'Y' = 'YES, MASTARM'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

XSTRTRGH   **X-STREET RIGHT TURN CHANNELIZATION**

                     'N' = 'NO RIGHT TURN CHANNELIZATION'
                     'Y' = 'CHANNELIZATION PROVIDED FOR RIGHT TURNS'
                     '-' = 'INVALID DATA'
                     '+' = 'NO DATA'
                     OTHER = 'ERROR/OTHER CODES'

XSTSTRT   **X-STREET STATE ROUTE INDICATOR**

                     1 = 'STATE ROUTE'
                     0 = 'NOT STATE RTE'

XSTTRFLO   **X-STREET TRAFFIC FLOW**

                     'N' = '2-WAY TRAFFIC, NO LEFT TURNS PERMITTED'
                     'P' = '2-WAY TRAFFIC, LEFT TURN PERMITTED'
                     'R' = '2-WAY TRAFFIC, LEFT TURN RESTRICTED DURING PEAK HOURS'
                     'W' = 'ONE-WAY TRAFFIC'
                     'Z' = 'OTHER'
                     '-' = 'INVALID DATA'
                     '+' = 'NO DATA'
                     OTHER = 'ERROR/OTHER CODES'

LIST OF VARIABLES FOR CALIFORNIA INTERCHANGE RAMP FILE

SAS VARIABLE NAME	VARIABLE DESCRIPTION	SAS FILE	FORMAT TYPE	PAGE NO.
AREA4	RAMP AREA 4 INDICATOR	Ramp	CHA(1)	109
CITY_CDE	CITY CODE	Ramp	CHA(4)	109
CNTYRTE	RAMP COUNTY ROUTE	Ramp	CHA(10)	109
COUNTY	COUNTY	Ramp	CHA(2)	109
DIR_CODE	DIRECTION	Ramp	CHA(1)	109
DISTRICT	DISTRICT	Ramp	CHA(2)	110
HWY_GRP	HIGHWAY GROUP	Ramp	CHA(1)	110
MED_DTE	RAMP MEDIAN DATE	Ramp	CHA(8)	110
MED_HST	RAMP MEDIAN HISTORY	Ramp	CHA(1)	110
MED_IND	RAMP MEDIAN INDICATOR	Ramp	CHA(1)	111
MILEPOST	RAMP MILEPOST	Ramp	NUM	111
ON_OFFRP	ON/OFF RAMP INDICATOR	Ramp	CHA(1)	111
PSMILPRF	POSTMILE PREFIX	Ramp	CHA(1)	111
RAMP_TYP	RAMP TYPE	Ramp	CHA(1)	112
RECTYPE	RECORD TYPE	Ramp	CHA(1)	112
RMADTDTE	RAMP ADT DATE	Ramp	CHA(8)	112
RMADTHST	RAMP ADT HISTORY	Ramp	CHA(1)	113
RMP_ADT	RAMP AADT	Ramp	NUM	113
RMP_DTE	RAMP TYPE DATE	Ramp	CHA(8)	113
RMP_HST	RAMP HISTORY	Ramp	CHA(1)	113
RMP_SEQ	RAMP SEQUENCE NUMBER	Ramp	NUM	113
RMP_TYPE	RAMP TYPE	Ramp	CHA(1)	113
RTE_NBR	RDWAY ROUTE NUMBER	Ramp	CHA(3)	114
RTE_SUF	RDWAY ROUTE SUFFIX	Ramp	CHA(1)	114
TRF_CNTL	INTERSECTION TRAFFIC CONTROL TYPE	Ramp	CHA(1)	114

NOTE: SAS variable names and explanatory names are shown above each listing. (See Discussion for information on SAS formats.)

AREA4   **RAMP AREA 4 INDICATOR**

'Y' = 'YES'
'N' = 'NO'
' ' = 'NOT STATED'
OTHER = 'ERROR/OTHER CODES'

NOTE: This variable indicates whether the ramp in question is associated with an "area 4" for accident location purposes. This will occur when the intersecting (non-mainline) route is a (non-mileposted) county route. In these cases, all crashes which occur on the intersecting route between 150 ft "outside" the ramp-related intersection to the center of the bridge structure will be mileposted to this ramp. In contrast, when a ramp intersects a (mileposted) State route, the same crashes will be mileposted to the crossing route. This variable will allow for identification of such "area 4" locations if desirable in the analysis. See INT_RMP in the Accident File.

CITY_CDE   **CITY CODE**

NON-LABELED VARIABLE

NOTE: Variable added in 2003.

CNTYRTE   **COUNTY ROUTE**

NON-LABELED VARIABLE

NOTE: Linkage variable, consisting of DISTRICT+RTE_NBR+RTE_SUF+COUNTY+PSMILPRF+HWY_GRP.

COUNTY   **COUNTY**

NOTE: See listings under accident section of the guidebook. Variable added in 2003.

DIR_CODE   **DIRECTION**

'N' = 'North'
'S' = 'South'
'E' = 'East'
'W' = 'West'

NOTE: Variable added 2003.

DISTRICT   **DISTRICT**

```
'01' =  'DISTRICT ONE'
'02' =  'DISTRICT TWO'
'03' =  'DISTRICT THREE'
'04' =  'DISTRICT FOUR'
'05' =  'DISTRICT FIVE'
'06' =  'DISTRICT SIX'
'07' =  'DISTRICT SEVEN'
'08' =  'DISTRICT EIGHT'
'09' =  'DISTRICT NINE'
'10' =  'DISTRICT TEN'
'11' =  'DISTRICT ELEVEN'
'12' =  'DISTRICT TWELVE'
'- ' =  'INVALID DATA'
'+ ' =  'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: Variable added in 2003.

HWY_GRP   **HIGHWAY GROUP**

```
'R' = 'RIGHT INDEPENDENT ALIGNMENT'
'L' = 'LEFT INDEPENDENT ALIGNMENT'
'D' = 'DIVIDED HIGHWAY'
'U' = 'UNIDIVIDED HIGHWY'
'X' = 'UNCONSTRUCTED'
'Z' = 'OTHER'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: In the HSIS version of the Roadlog File, codes 'D', 'U', and 'X' do not appear. They are combined by CA DOT into 'Z'. In other data files provided by California to other users, these codes may occur. To link with crash data, they must be recoded to 'Z'.

MED_DTE   **RAMP MEDIAN DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to the median associated with the ramp (YYYYMMDD). See Discussion. Variable discontinued in 2003.

MED_HST   **RAMP MEDIAN HISTORY**

NON-LABELED VARIABLE

NOTE: A "flag" indicating a change in some variable related to the median associated with the ramp. See Discussion. Variable discontinued in 2003.

MED_IND   **MEDIAN INDICATOR**

                'U' = 'UNDIVIDED'
                'D' = 'DIVIDED'
                '-' = 'INVALID DATA'
                '+' = 'NO DATA'
                OTHER = 'ERROR/OTHER CODES'

                NOTE: Variable discontinued in 2003.

MILEPOST   **RAMP MILEPOST**

                NON-LABELED VARIABLE

                NOTE: Milepost of "nose" of ramp in miles (XXX.XXX). See Discussion.

ON_OFFRP   **ON/OFF RAMP INDICATOR**

                'O' = 'ON RAMP'
                'F' = 'OFF RAMP'
                'Z' = 'OTHER'
                '-' = 'INVALID DATA'
                '+' = 'NO DATA
                OTHER = 'ERROR/OTHER CODES'

PSMILPRF   **POSTMILE PREFIX**

                ' ' = 'NO PREFIX'
                'A' = 'REPOSTED'
                'B' = 'BUS LANE'
                'C' = 'COMMERCIAL'
                'D' = 'DUPLICATE (MEANDERING)'
                'F' = 'REPOSTED - COMMERCIAL (C)'
                'G' = 'REPOSTED - DUPLICATE (D)'
                'H' = 'REALIGNED - DUPLICATE (D)'
                'J' = 'REPOSTED, REALIGNED - DUPLICATE'
                'K' = 'REPOSTED - OVERLAP (L)'
                'L' = 'OVERLAPPING POSTMILES'
                'M' = 'REALIGNED REALIGNMENT (R)'
                'N' = 'REPOSTED, REALIGHNED REALIGNMENT (M)'
                'P' = 'REPOSTED REALIGNMENT (R)'
                'Q' = 'REPOSTED - SPUR (S)'
                'R' = 'REALIGNMENT'
                'S' = 'SPUR'
                'T' = 'TEMPORARY CONNECTION'
                'U' = 'REPOSTED - TEMPORARY CONNECTION (T)'
                '-' = 'INVALID DATA'
                '+' = 'NO DATA'
                OTHER = 'ERROR/OTHER CODES'

(CONT'D)

NOTE: Roadways can be realigned in the middle of a year (see 'R' above). Thus, there may appear to be overlapping records in the same milepost range in a given year, except for this variable. Accidents are correctly mileposted to the correct record by California. RD_DATE can be used to determine when the new alignment was opened.
However, if one is trying to match prior year's crashes to such a section, the older crash records (not having the 'R') will not be computer matched to the new alignment (with the 'R') even though the roads are virtually the same piece of pavement. One can see how the Roadlog sections actually fall on the ground in a given year by sorting by RO_SEQ (Route Order Sequence).
However, in multi-year before/after studies, the analyst may have to manually match the pertinent sections across years to conduct his/her analysis. Contact HSIS staff for assistance. This variable is new and was added in 2003.

RAMP_TYP   **RAMP TYPE**

'A' = 'FRONTAGE ROAD'
'B' = 'COLLECTOR ROAD'
'C' = 'DIR/SEMI LFT RMP'
'D' = 'DIAMOND INTERCHG'
'E' = 'SLIP RAMP'
'F' = 'DIR/SEMI RGT RMP'
'G' = 'LOOP W/LFT TRN'
'H' = 'BUTTONHOOK RAMP'
'J' = 'SCISSORS RAMP'
'K' = 'SPLIT RAMP'
'L' = 'LOOP W/O LFF TRN'
'M' = 'TWO-WAY RAMP'
'P' = 'DUMMY PAIRED RMP'
'R' = 'REST AREA/VISTA'
'V' = 'DUMMY-VOLUME ONL'
'Z' = 'OTHER'
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'

NOTE: Variable added in 2003.

RECTYPE   **RECORD TYPE**

NON-LABELED VARIABLE

NOTE: Variable used to identify file type. Variable discontinued in 2003.

RMADTDTE   **RAMP ADT DATE**

NON-LABELED VARIABLE

NOTE: Date of last change in some variable related to ramp ADT (YYYYMMDD). See Discussion. Variable discontinued in 2003.

RMADTHST   **RAMP ADT HISTORY**

        NON-LABELED VARIABLE

        NOTE: A "flag" indicating a change in some variable related to the ramp ADT. See Discussion. Variable discontinued in 2003.

RMP_ADT   **RAMP AADT**

```
0          = '0'
1-100      = '1-100'
101-500    = '101-500'
501-1000   = '501-1,000'
1001-2000  = '1,001-2,000'
2001-5000  = '2,001-5,000'
5001-10000 = '5,001-10,000'
10001-15000  = '10,001-15,000'
15001-20000  = '15,001-20,000'
20001-40000  = '20,001-40,000'
40001-999999 = ' >= 40,001'
. = 'NO DATA'
```


RMP_DTE   **RAMP TYPE DATE**

        NON-LABELED VARIABLE

        NOTE: Date of last change in some variable related to ramp type (YYYYMMDD). See Discussion. Variable discontinued in 2003.

RMP_HST   **RAMP HISTORY**

        NON-LABELED VARIABLE

        NOTE: A "flag" indicating a change in some variable related to the ramp. See Discussion. Variable discontinued in 2003.

RMP_SEQ   **RAMP SEQUENCE NUMBER**

        NON-LABELED VARIABLE

        NOTE: See RO_SEQ in Roadlog File.

RMP_TYPE   **RAMP TYPE**

```
'A' = 'FRONTAGE ROAD'
'B' = 'COLLECTOR ROAD'
'C' = 'DIRECT OR SEMI-DIRECT CONNECTOR (LEFT)'
'D' = 'DIAMOND TYPE RAMP'
'E' = 'SLIP RAMP'
'F' = 'DIRECT OR SEMI-DIRECT CONNECTOR (RIGHT)'
'G' = 'LOOP WITH LEFT TURN'
```

(CONT'D)

```
                   'H' = 'BOTTONHOOK RAMP'
                   'J' = 'SCISSORS RAMP'
                   'K' = 'SPLIT RAMP'
                   'L' = 'LOOP WITHOUT LEFT TURN'
                   'M' = 'TWO-WAY RAMP SEGMENT'
                   'P' = 'DUMMY-PAIRED'
                   'R' = 'REST AREA, VISTA POINT, TRUCK SCALE'
                   'V' = 'DUMMY-VOLUMES ONLY'
                   'Z' = 'OTHER'
                   '-' = 'INVALID DATA'
                   '+' = 'NO DATA'
                   OTHER = 'ERROR/OTHER CODES'
```

NOTE: Variable discontinued in 2003.

RTE_NBR   **RDWAY ROUTE NUMBER**

NON-LABELED VARIABLE

NOTE: Mainline route number.

RTE_SUF   **RDWAY ROUTE SUFFIX**

```
                   'P' = 'ALIGNMENT PRIOR'
                   'S' = 'SUPPLEMENTAL ALIGNMENT, PARTIAL OPENED FOR USE BEFORE
                                         ALIGNMENT IS COMPLETE'
                   'U' = 'UNRELINQUISHED, SUPERSEDED BY REALIGNMENT, BUT NOT YET
                                         ACCEPTED FOR NON-STATE-HIGHWAY
                                         MAINTENANCE'
                   'Z' = 'BUDGETED OR UNDER CONSTRUCTION'
                   ' ' = 'NO SUFFIX'
                   OTHER = 'ERROR/OTHER CODES'
```

NOTE: Variable added in 2003.

TRF_CNTL   **RAMP TYPE DATE**

```
                   'A' = 'NO CONTROL'
                   'B' = 'STP SGN X/STRET'
                   'C' = 'STP SGN MAINLNE'
                   'D' = '4 WAY STOP SGNS'
                   'E' = '4 WAY FLSH RED-X'
                   'F' = '4 WAY FLSH RED-M'
                   'G' = '4 WAY FLSH RED-A'
                   'H' = 'YIELD SGN X-STRT'
                   'I' = 'YIELD SGN MNLINE'
                   'J' = 'SGNL PRETIME -2P'
                   'K' = 'SGNL PRETIME -MP'
                   'L' = 'SGNL SEMI-ACT 2P'
                   'M' = 'SGNL SEMI-ACT MP'
                   'N' = 'SGNL FULL-ACT 2P'
                   'P' = 'SGNL FULL-ACT MP'
                   'Z' = 'OTHER'
```

(CONT'D)

```
'-' = 'INVALID DATA'
'+' = 'NO DATA'
OTHER = 'ERROR/OTHER CODES'
```

NOTE: Variable added in 2003.